

# CAMPUS IN MOTION : UW's CAMPUS LANDSCAPE FRAMEWORK

OFFICE OF THE UNIVERSITY ARCHITECT  
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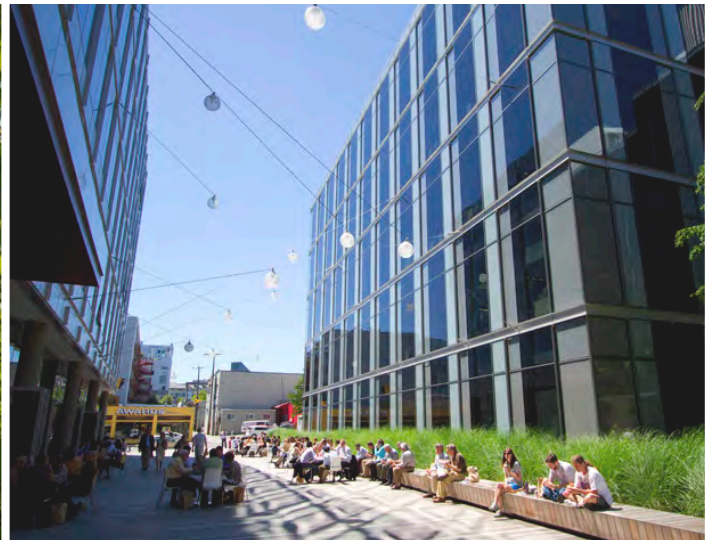
June 2015



*“From an acreage generous in scale and wonderfully endowed by nature with water and mountain vistas, and by city views that followed, it has been nurtured into the splendor of a built environment unmatched in the league of university campuses.”*

*“Ours is the responsibility that in the next one hundred years and those to follow, its campus and towers will still stand, its battlements still shine in the dawning light, and glow again in sunset rays.”*

Norman Johnston  
The Fountain and the Mountain



### Letter of support from OUA

The Campus Landscape Framework (CLF) is ...

KK to provide information



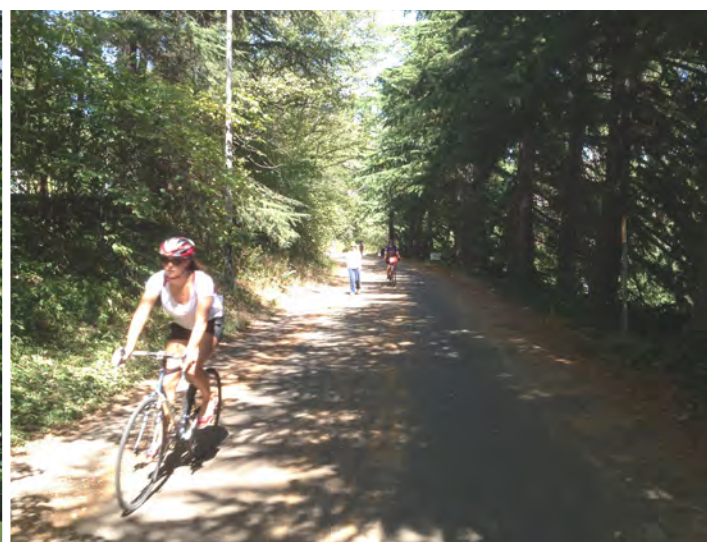
**unique**



**regional**



**iconic**



**supportive**



**multi-dimensional**

**Endorsements notes/quotes from President, Provost, UWAC, ULAC, ASUW, GPSS, DRB, GIAC, FCUFS, CUCAC, Board of Deans**

The Campus Landscape Framework (CLF) is ...

**KK to provide information**



KK to update  
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## CAMPUS LANDSCAPE FRAMEWORK AREA = 650 ACRES



### THE CAMPUS LANDSCAPE IS CENTRAL TO THE MISSION

The landscape of the University of Washington's Seattle campus supports and strengthens the University's mission of preservation, advancement, and dissemination of knowledge. Through its rich variety of experiences, the campus landscape embodies the continuity of the past, present, and future of the UW, and is a major contributor to the academic, social, and civic life of the University.

The UW landscape is an undeniable source of pride based on the uniqueness and drama of its physical beauty, and the quiet power of the landscape in the daily life of the UW community embeds aesthetic and social experiences that will last a lifetime in the memories of those lucky enough to experience it.

### THE CAMPUS LANDSCAPE IS ESSENTIAL TO THE IDENTITY

Who can imagine what life would be like on the UW campus without the Rainier Vista, Red Square, the Fine Arts Quad, the Sylvan Grove, Memorial Way, the Grieg Garden, the Montlake Cut, or the Union Bay Natural Area? While it rarely gets the same degree of attention or resources as the architectural structures of the University, the campus landscape is equally a contributor to the quality of daily life on campus and the image of the University at home and from afar. A goal of the Campus Landscape Framework (CLF) is to initiate parity in planning for and investing in the campus landscape.

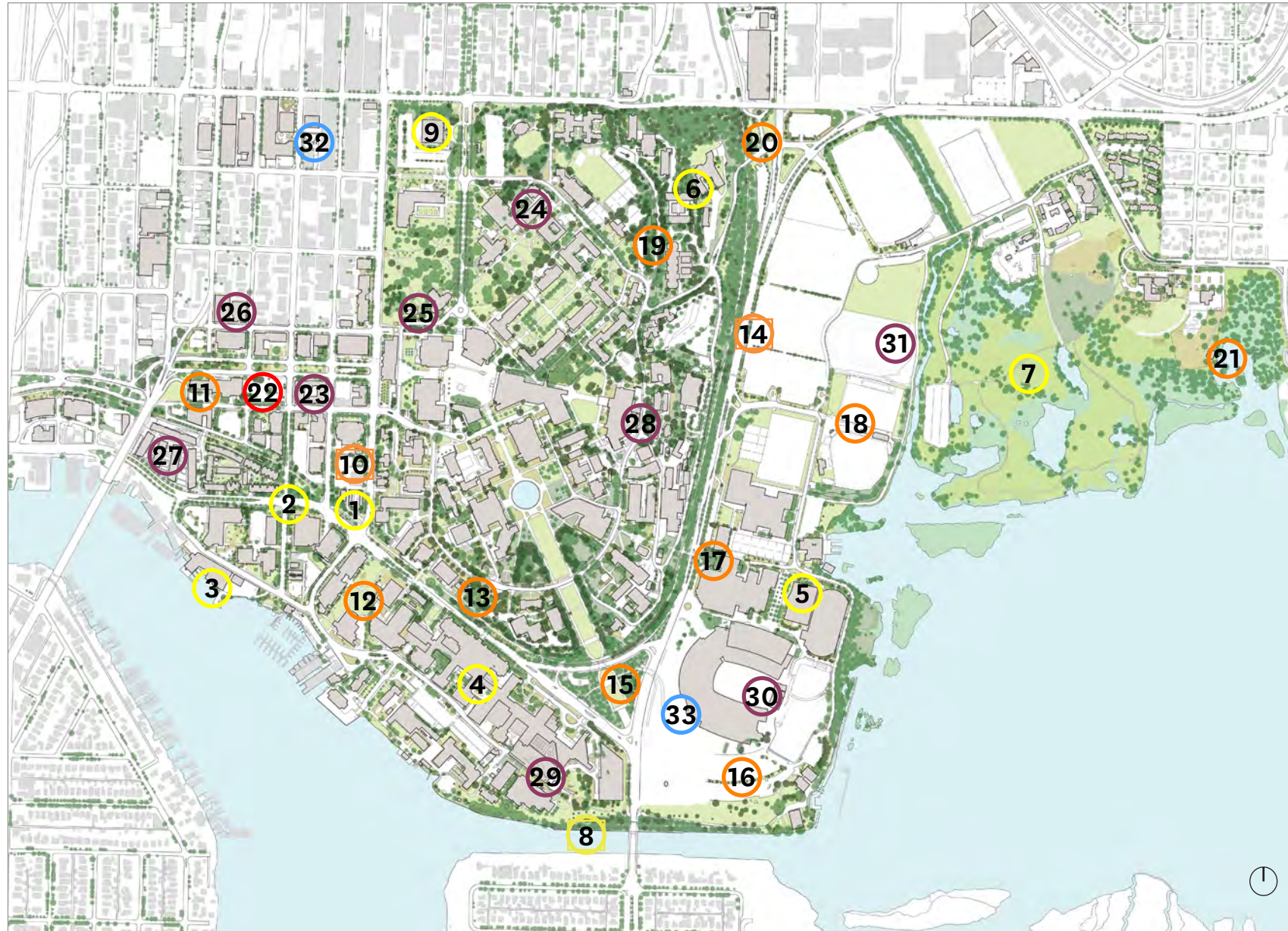
This beautiful setting is a work of art and science, and an historic artifact of national significance; it represents a magnificent investment of cultural values, dollars and expert labor. The campus landscape is an important part of the "Husky promise"; our charge is to be excellent stewards of this important place, conserving the legacy and encouraging growth so that it may continue to serve future generations of students, faculty, staff and visitors.

### THE CAMPUS LANDSCAPE IS A LIVING/LEARNING MEDIUM

Originally carved out of the great western forest, this landscape is still experienced as a series of cleared and wooded spaces, vastly varied in scale and detail, where the hand of man is in constant dialogue with natural form. The composition of paths and buildings, open spaces and planting, views and refuges creates a dense mosaic of places, from the highly intimate to the sublimely expansive, and exists as a virtual essay on the relationship between culture and the natural world.

The campus landscape is a living medium, growing and changing over time, but its materials and underlying meaning provide a continuity to the UW identity that is powerfully felt. The campus landscape is also the most accessible place for putting the values and lessons of the classroom into action: it is a working landscape where people learn, teach, observe, farm, garden, and conduct research, as well as a social landscape for meeting, gathering, play, and relaxation.

## A LANDSCAPE IN MOTION - CURRENT CAMPUS PROJECTS (2014)



### EMBRACING CHANGE WHILE PROTECTING CONTINUITY

While the campus landscape grows and changes over time, with no state of perfection, the use function of the landscape also changes with the evolving priorities of the university. As demonstrated by a map of current design, planning, and construction projects, the campus continues to evolve, with a broad array of internal and external changes going on at any given moment.

While each of these projects must meet certain architectural and programmatic criteria specific to their sponsors, they must also be reviewed for their potential to benefit or harm the broader functioning of the campus landscape and the continuity in values it represents.

In general, the capacity for a landscape to gracefully absorb change diminishes as the density of architecture increases. This puts greater responsibility on the community to carefully consider the larger landscape impacts of each individual project.

While the impact the following major projects have on their surrounding landscape is clear, smaller maintenance and repair projects can be just as damaging and require a similar level of scrutiny to assess their full impact.

### P PROJECTS IN PLANNING

1. West Campus Utility Plant
2. West Campus Development Framework
3. Portage Bay Park
4. South Campus Study Phase 2
5. Walla Walla Road NE - South End Study
6. North Campus Housing
7. Union Bay Natural Area Mitigation
8. Montlake Cut Connection

### D PROJECTS IN DESIGN

9. New Burke Museum
10. UW Police Station
11. Terry Hall and Maple Hall
12. Animal Research and Care Facility
13. Life Sciences Building
14. Burke-Gilman Trail Corridor Design
15. Rainier Vista
16. Parking Lot E12
17. Hec Ed Bridge and Computer Science
18. UW Track, Soccer and Baseball Master Plan
19. Intellectual House
20. Pend Oreille Entrance Study
21. UW Botanic Gardens Master Plan

### C PROJECTS UNDER CONSTRUCTION

22. Lander Hall

### R RECENTLY COMPLETED PROJECTS

23. Alder Hall
24. Paccar Hall and Dempsey Hall
25. Cunningham Hall
26. Cedar Apartments
27. Mercer Court
28. HUB
29. UWMC Addition
30. Husky Stadium
31. Husky Outdoor Track

### T ONGOING SOUND TRANSIT PROJECTS

32. U District Station
33. University of Washington Station



## THE CAMPUS LANDSCAPE TODAY



“I WOULD HAVE GONE TO COLLEGE, HAD I SEEN THAT PLACE, THAT’S BEAUTIFUL!”

Ellen DeGeneres

### UNQUESTIONABLE BEAUTY

There is no question the UW has an exquisite landscape that helps draw talented people. Multiple national publications have listed the UW as one of the most beautiful campuses in the U.S. A representative from the Ellen DeGeneres Show recently gushed that the campus was “so beautiful...it’s ridiculous,” to which the host of the show responded: “I would have gone to college, had I seen that place, that’s beautiful!”

Beyond first impressions, the MyPlaces campus survey, conducted in fall of 2013 and described in greater detail in a subsequent chapter, confirms the campus community is just as smitten with the UW after years of familiarity, perhaps even more so.

### UNDERSTANDING THE VALUE OF THE CAMPUS LANDSCAPE

One might reasonably wonder why it is necessary to devote limited resources to an asset that already satisfies so well. The answer to that question is multifold, starting with the fact that the value of the campus landscape is not well understood in relation to other institutional priorities, such as transportation and development.

The beauty and importance of the central campus is widely recognized, but this has not uniformly been the case for the periphery of core campus, or for the East, West, and South Campus neighborhoods. Given the central campus landscape is close to capacity and the University is under pressure to continue expansion, the future will certainly involve efforts to rebalance development between all campus neighborhoods, with the greatest opportunity for positive change to be found in the parts of campus that are either underutilized or poorly connected.

### OPERATIONS & MAINTAINING EXCELLENCE

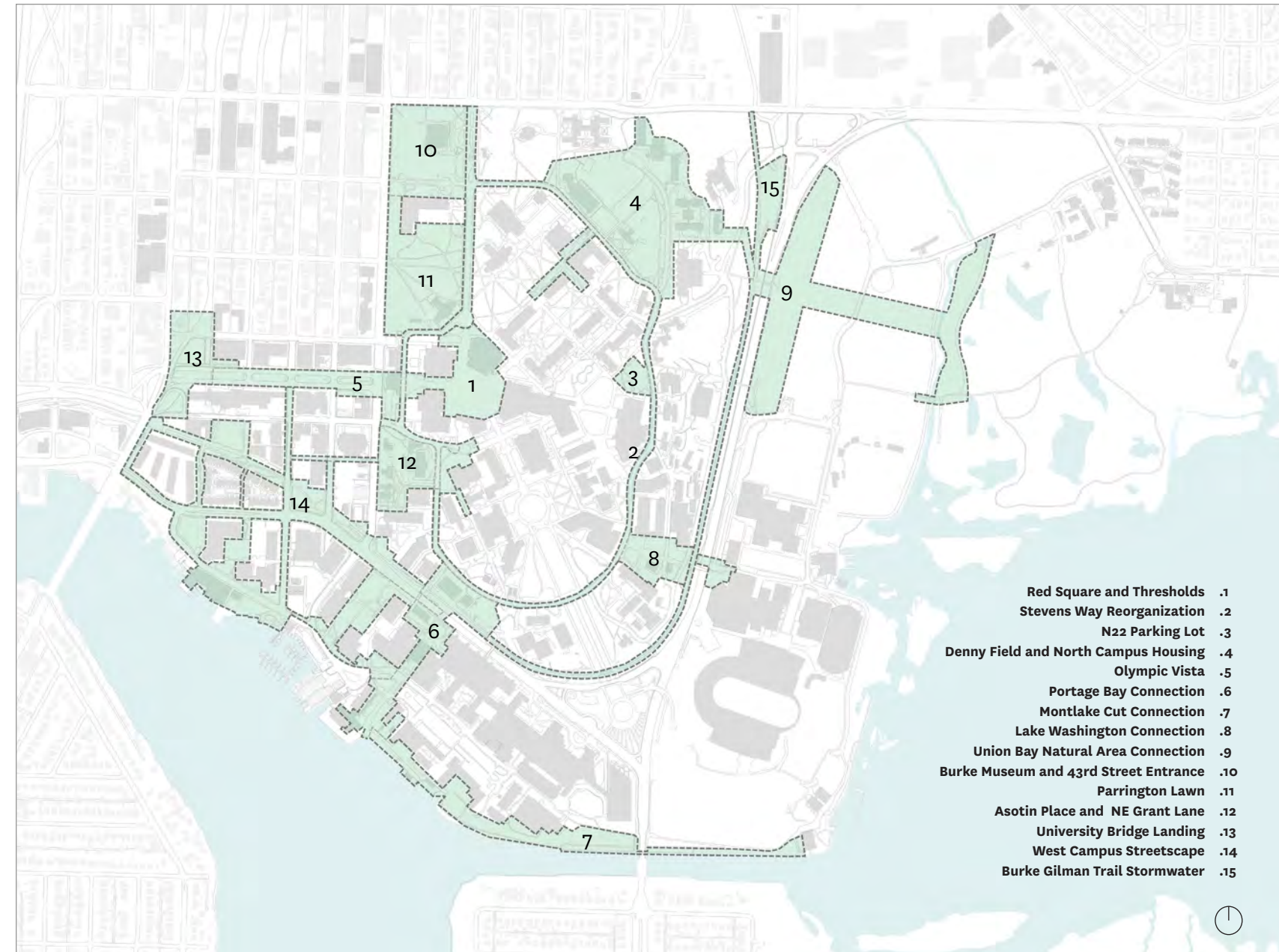
Landscape depreciation and decline are also serious concerns. In times of minimal resources, the care and upkeep of the campus is sometimes deferred for several years. This happened most recently in 2008, with a significant reduction in core grounds staff positions and the elimination of seasonal hiring practices that have yet to be brought back up to acceptable levels.

The effects of deferred maintenance, such as the increase of invasive species and failure of desirable plants, might not be easy to identify at first, but with time can result in long-lasting damage to the landscape. This is increasingly important with the establishment and maintenance of new landscapes, which often require three years of heightened maintenance to eradicate weed seeds present in import materials and ensure the plants thrive, becoming well rooted in their new environment, thereby affording them better access to nutrients and water.

### MANAGING UNPRECEDENTED CHANGE

Although the UW campus has always been large, it has never been as complex a system to manage and maintain as it is today, given the pressures and demands from many. The future evolution of the campus landscape needs to be guided by practices, policies, and protocols for ongoing stewardship that are strategic and resourceful. This will ensure the campus can continue to fulfill its necessary role and enhance its visual, functional, pedagogical, and biological character during periods of intense architectural, infrastructural, or programmatic change.

## CASE STUDIES: TESTING A RANGE OF STRATEGIES THROUGH DESIGN



### RECOGNIZING SYSTEMIC STRENGTHS

The UW campus has tremendous strengths, so much so that many landscape areas, particularly the iconic campus spaces of the central campus, don't need any substantial intervention. In general there are no campus-wide systemic problems with the landscape beyond those associated with insufficient maintenance resources, so the CLF began to focus on individual trouble spots or areas of opportunity within the campus and think about how they might work better within broader systems.

Not surprisingly, given the campus' evolution from the center outward, the biggest opportunities had to do with a diminution of landscape quality toward the edges of campus, and poor connectivity between Central Campus and the other neighborhoods.

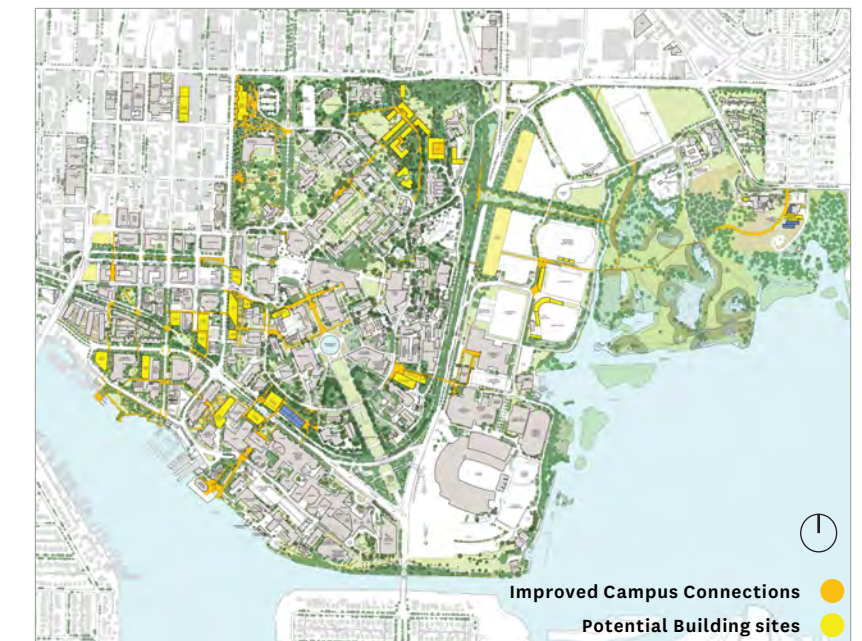
### IDENTIFYING PLACES OF WEAKNESS

One powerful tool for developing and testing recommended framework practices was to identify places representing particular types of weakness, whether in function, identity, or connectivity, and use conceptual designs to demonstrate just one way to correct these challenges. These case studies provide a means of better understanding how the UW might plan for future conditions, or ameliorate existing problems.

Each area was examined with respect to the effect it had on its immediate context, and also with respect to the broader impact that it, and conditions like it, have on the character, identity, and function of campus-wide systems. The case study technique tests a range of strategies, and suggests approaches to improving the campus landscape that can be deployed throughout the campus. The individual studies establish landscape principles for each space, and tests their feasibility, without limiting the range of possible future solutions.

### AN APPROACH THAT ADDRESSES BOTH SYSTEMS AND PLACES

The iterative, dual lens methodology used in the CLF, where individual case studies are understood in the context of campus-wide systems, most notably with respect to landscape experience, and the systems are in turn strengthened by site-specific interventions, can also guide the way the UW approaches campus planning, design, and construction projects in the future. Every project the UW undertakes should be understood as part of wider campus systems, and all systems should be understood with respect to their many diverse parts. Moving back and forth between envisioning the general and the particular is the surest means of preserving the integrity of the campus overall and the rich diversity of its individual elements.



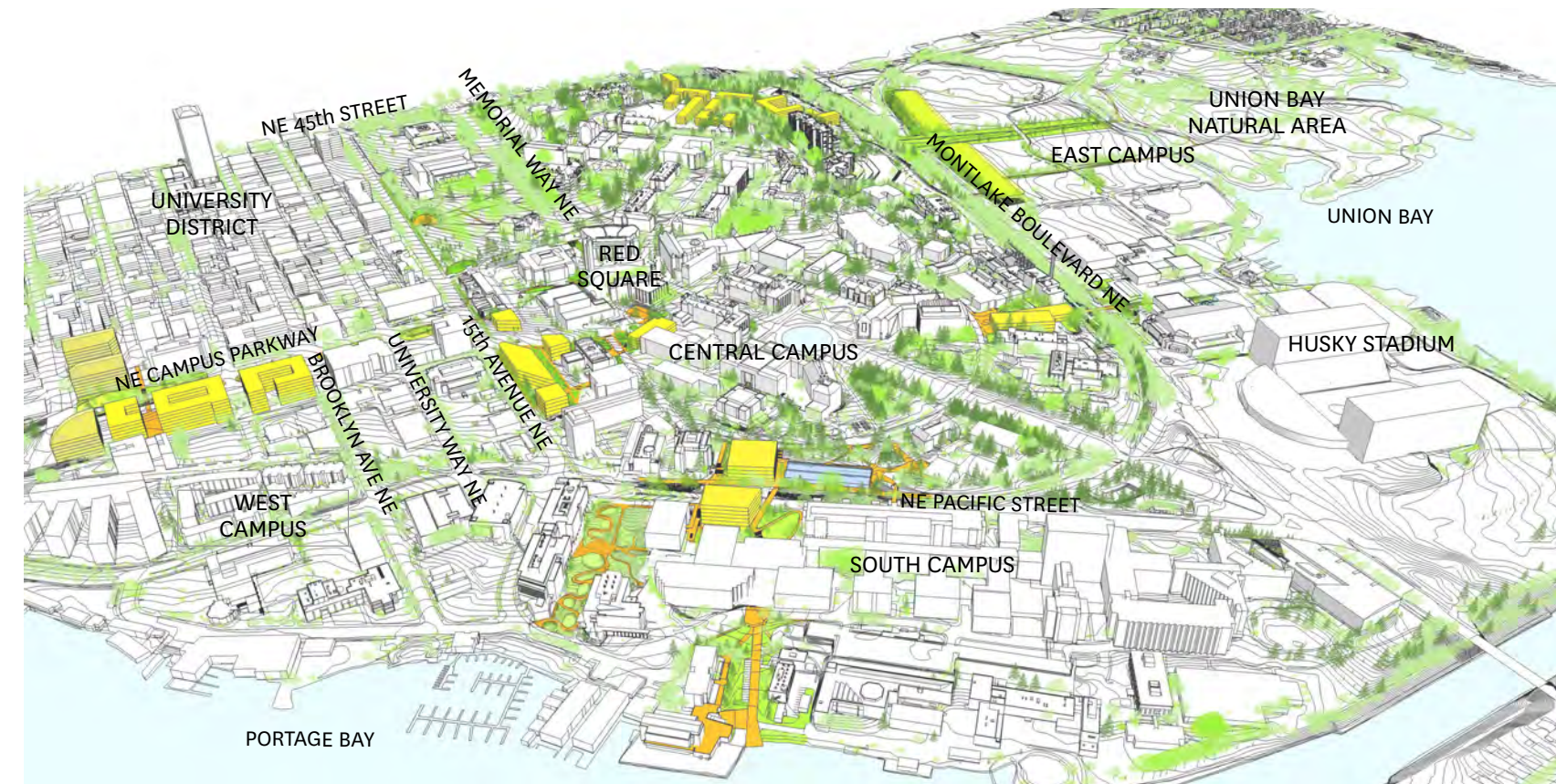
### A PRACTICE TOOL KIT

The Campus Landscape Framework is a resource for everyone with an interest in the campus landscape. The graphic information is organized by existing conditions and as case study recommendations, so that the improvements and strategies suggested by the CLF can be easily understood.

Given the fact the university has never had a landscape plan for the campus, it was necessary to first build a preliminary toolkit of information about the campus itself. With this understanding as a basis, the CLF could describe and communicate the value of the campus landscape in all its diversity.

### IN PRINT AND ON LINE: REFERENCE, RESOURCE, GUIDE

The entire UW community will have access to the CLF and will be able to use it as a reference and a resource to support different types of landscape stewardship, including research, planning, and design. Print copies will be made available to all departments and consultants dealing directly with landscape issues, whereas the online version will be available to the UW community, visitors, and anybody else who is interested in learning more about the UW and its landscape ethos.



### THE CAMPUS SETTING

Describing and analyzing the setting of the campus is an important first step in establishing why and how the campus landscape has been central to the identity and mission of the UW throughout its history and will continue to be so in the years ahead. As an introduction, an analysis of the campus is provided with respect to underlying structures, evolution over time, the emergence of separate neighborhoods, and the reading of the campus as a mosaic of landscape types.

### THE EXPERIENTIAL QUALITY OF THE CAMPUS

In any weather, a stroll through the UW campus can create a memorable experience of the power of landscape to refresh, intrigue, soothe and inspire. Understanding the specifics of how campus users currently navigate the various systems of the campus and seek out ways to expand the sense of welcome, orientation, and discovery throughout the campus is imperative to absorb and accommodate new modes of travel. This analysis draws on information gathered in the MyPlaces landscape survey, the Wayfinding Strategy, and multiple stakeholder meetings with university groups during the development of the CLF.

### STEWARDSHIP OF THE CAMPUS LANDSCAPE

The stewardship of the campus landscape is a responsibility that is shared among many groups and individuals within the campus community and the CLF can help make every member of the UW community an active and knowledgeable steward of the campus landscape. The sections on stewardship cover the various ways in which the UW might look to change strategic aspects of the campus, using active stewardship to bolster the institutional ethos and set the stage for a more resilient and robust future. Strategic landscape planning will need to be matched with innovative landscape policies, and priorities to achieve the goals of the CLF.

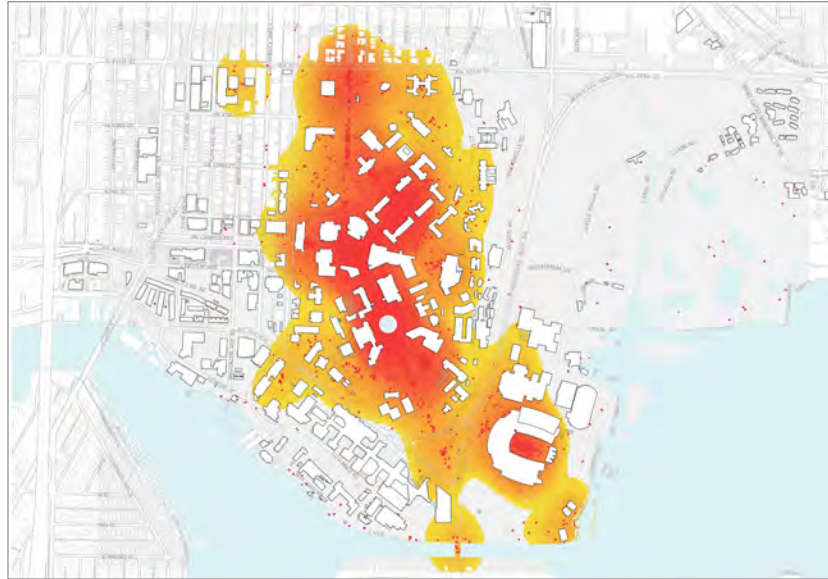


Landscape Mosaic

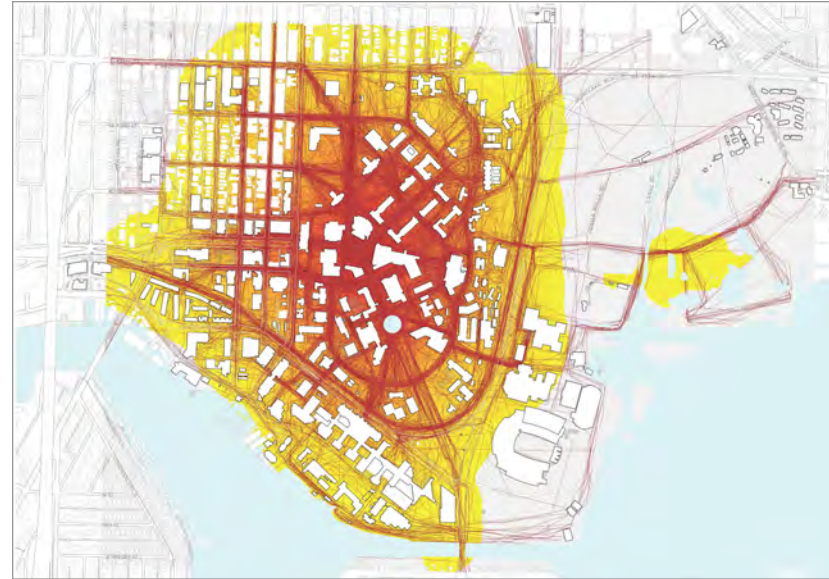


Existing Circulation - Radial Axes

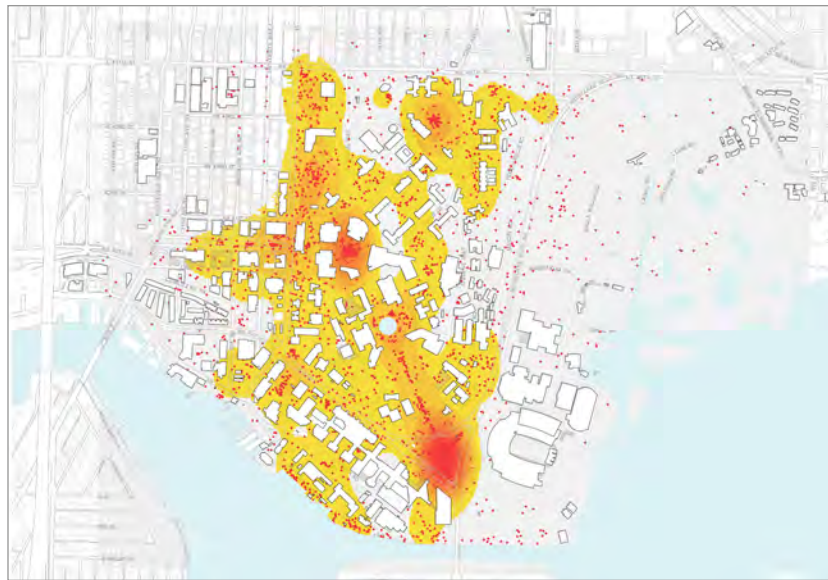
UW MY PLACES SURVEY : FALL 2013



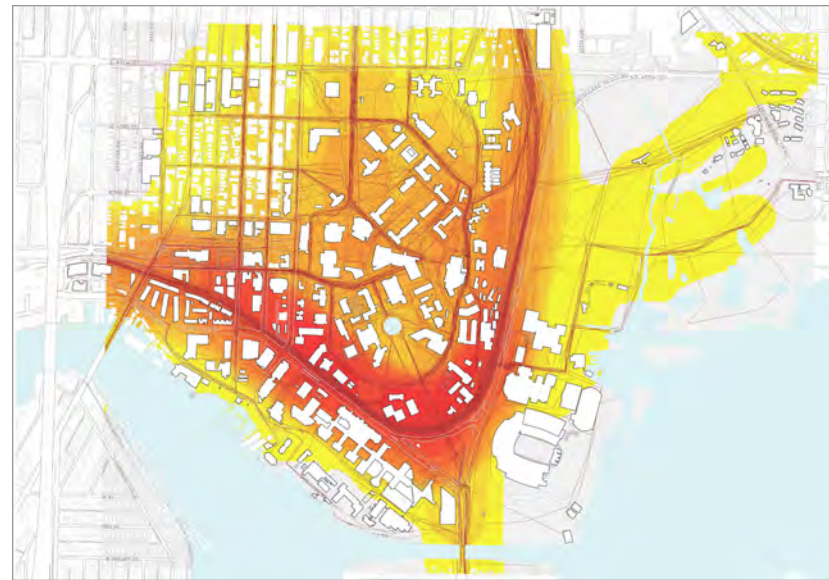
Iconic Landscapes



Pedestrian Circulation



Landscape with Potential for Improvement



Bike Circulation

**UNDERSTANDING HOW OTHERS PERCEIVE THE CAMPUS**

Starting in spring 2013, the Office of The University Architect (OUA) undertook linked initiatives aimed at better understanding how the campus was being used. In addition to the CLF, this included a Campus Landscape Survey, which identified many ways the UW community values its landscape, and a Campus Wayfinding and Signage Study, which examined the way information systems, and the landscape environment itself, create a sense of welcome and orientation on campus. The CLF incorporates the work of these studies, using their findings as a window into the broader importance of the campus landscape as an indivisible part of the UW's function and identity.

**UNIVERSITY OF WASHINGTON MYPLACES SURVEY 2013**

The Campus Landscape Survey offered a wealth of current information about how people use, enjoy, and think about the UW landscape. Survey participants were provided with tools to map their routes through campus, identify favorite places as well as missed opportunities, and make expanded comments. In total, 1,943 participants including students, faculty and staff, placed more than 37,150 icons and wrote 7,980 comments about the campus landscape.

Looked at comprehensively, the survey reinforced and revealed the University's figured landscapes at the heart of the central campus are considered to be iconic, are well-loved, and widely used. There was an appreciation for the diversity and range of spaces on campus in terms of program, capacity, materiality, and degree of wildness or cultivation. Navigation overall was felt to be increasingly difficult as one moved away from the center of campus. Participant responses consistently reinforced a number of areas for improvement, including specific places as well as general policies, such as care and upkeep, smoking, and management of bike traffic. The waterfront to the south and east was regarded as the most significant underutilized opportunity on campus. The intersection of Campus Parkway and 15th Avenue NE was identified as a key area in need of attention from navigation and safety perspectives, while Health Sciences was consistently regarded as disconnected and in need of improvement.

**KEEPING IN TOUCH WITH THE COMMUNITY**

Building on the success of the 2013 survey, OUA plans to conduct a similar survey every five years going forward, as a means of identifying general perceptions about the campus landscape from thousands of individual experiences.

**CAMPUS WAYFINDING STRATEGY**

The Campus Wayfinding Strategy was developed as an adjunct to the CLF, providing the opportunity for landscape planning and information to work together to improve the overall legibility of UW. The document considers what locals and visitors require to improve their experience, both enabling efficient journeys and encouraging exploration.

The strategy includes defining a staged sense of arrival towards the center, creating a walkable set of "stepping stones" to help people comprehend a human scale, and consistent references that can be applied across all modes. These fundamentals guide a typology of information elements that orient, direct, inform and confirm journeys.

Wayfinding elements are intended to be used sparingly but to contain rich information in the form of campus maps. This conservative approach requires extra emphasis on the planned location of information. To inform this, the strategy provides a detailed movement plan which explains where information should be placed to support arrival, decisions and destination-seeking intuitively.

**The 2013 MyPlaces Survey Final Report and Wayfinding documents can be found on the Office of the University Architect website.**



## LANDSCAPE DEVELOPMENT BY ERA



### A CAMPUS IN MOTION

The UW's history of landscape excellence reveals itself in numerous ways: large spaces that create a sense of generosity within an increasingly dense campus, small spaces with a richness of detail, old gnarled trees, magnificent mature shrubs, and clear connections between major elements, particularly within the core campus. Taken together, the living history and culture of the campus landscape forges powerful continuity across generations of UW faculty, staff, and students.

The UW, both as an institution and as a campus, will never attain a state of final perfection because landscapes are always evolving and engagement with the world necessitates constant growth and change. The campus landscape is an eloquent and rich reflection of that complex reality.

### PRESERVING THE UW LEGACY

The UW continues to write its own history, but in so doing it needs to respect the cultural and natural landscape context that is its living legacy. Giving voice to the campus landscape history through stewardship is not an end in itself, but a means of perpetuating a sense of shared reverence for a place that has offered a powerful connection and engagement for many generations.

History is a means of connecting students, faculty, and staff, each of whom spend their days in the landscape, with the past, present and future of UW, allowing their work and their lives to become part of the larger story of the institution. In essence, we are creating the history for the generations that follow.

### THE CLEARING AND THE FOREST

The UW's campus was originally carved out of the forest, and the richly planted nature of today's campus retains the powerful contrast between the clearing and the forest, creating inspiring spaces that are unique in the larger urban context. As evoked in the school motto, *Lux Sit*, or "Let There Be Light," the UW aspires to provide the clarity of understanding,

or light, within the complex forest of culture, nature, and society. Strengthening this intrinsic association between physical campus and the institutional values of the university is a central concern of the CLF.

As a public institution, the campus belongs to the wider community as well, so the way it can represent a special hybrid of urban culture with regional nature, or humans and landscape, is especially valuable as a model for socially and environmentally sustainable living. The strength of the spatial language of the clearing and the forest can be reinforced at the scale of the campus and how it sits in the urban context, as well as at the scale of individual campus spaces, where richly planted thresholds and interstitial landscapes complement and strengthen the major open spaces.

### EXPRESSING THE UW MISSION THROUGH ITS LANDSCAPE

If the core mission of the UW is the "preservation, advancement, and dissemination of knowledge," the landscape should offer an outstanding example of this vision in application. Landscape experience and the study of our natural environment are a form of knowledge embodied in the campus landscape. Preserving, advancing, and disseminating the importance of the landscape is a means of valuing the past while also positively shaping the future. Providing spaces that nurture and support the inquisitive mind are essential, in the form of spontaneous interactions or planned research and teaching opportunities.

Campus landscapes change over time both intentionally and indirectly, which requires a form of preservation that helps identify opportunities for continuity within dynamism. Even in its most wooded moments, the UW is a constructed landscape: the development of the landscape we know today has required the complementary actions of clearing spaces and rebuilding landscape complexity over the course of many years. The landscape has developed in different ways in different periods of its history, and the CLF identifies those periods or eras and describes how they have built upon each other to produce the heterogeneous and vibrant landscape mosaic we see today.

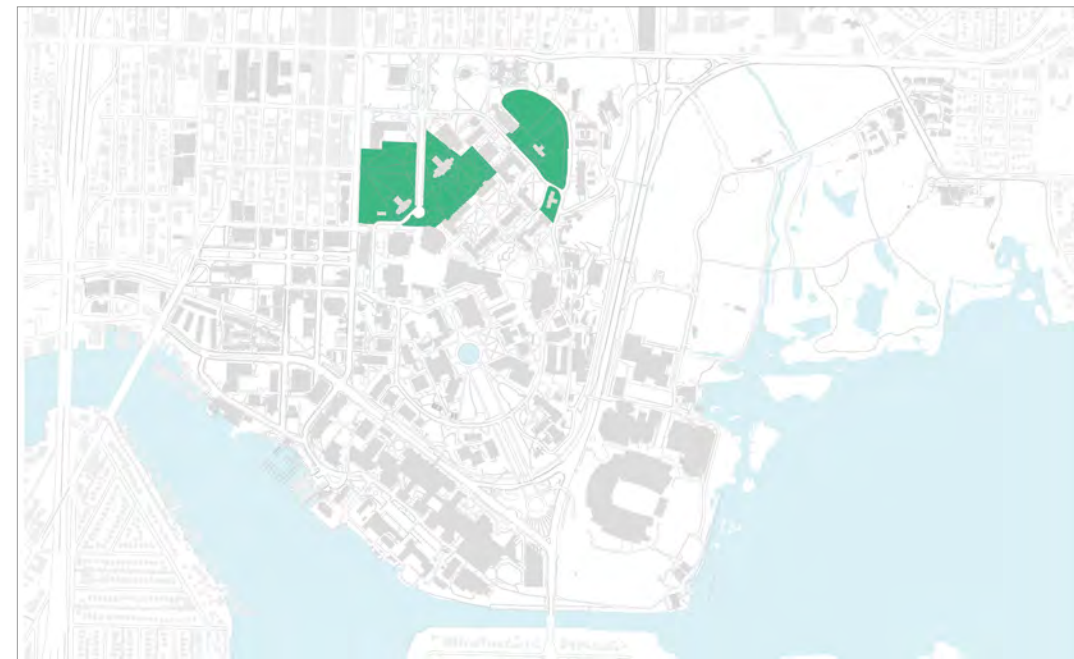
## 1891-1906 ESTABLISHING A CENTER

### LAND BANK

In the early 1890s, hoping to find room to grow beyond the confines of its 10-acre downtown Seattle site, the UW Board of Regents purchased a wooded 580-acre site approximately four miles further north. The “Interlaken Site,” as it was known, was adjacent to the then sparsely developed “Brooklyn” neighborhood to the west.

### CREATING SPACE

In order to make room for the future University, extensive clearing of the site was undertaken. According to the minutes from the Board of Regents in 1894, approximately 80 acres of the highest part of the tract was to be cleared “with a view to retain the natural beauty of the spot. Great care is being used to preserve the most desirable trees and shrubbery, because we realize that here we have an opportunity for establishing one of the most important scientific arboretums and botanical gardens in the U.S.”



1891-1906  
Landscapes overlaid on current Campus Plan:  
Parrington Lawn, Denny Yard, and Denny Field

UW ENROLLMENT: 273 STUDENTS

The first buildings of the University were widely spaced from each other and were surrounded by the native forest.

### LAYING A NEW FOUNDATION

Administration (later called Denny Hall), the first building to be built on the new campus, was set back from the campus boundary on 15th Ave NE, and was oriented toward the lake view, rather than the urban grid. Lewis and Clark Halls, the new dormitories, were similarly arranged to take advantage of views to Lake Washington. A landscape plan of 1898, referred to as the Oval Plan, created a framework for this loose grouping of buildings, and provided guidance for future construction, for instance the placement of the new Science Hall (later called Parrington Hall).



DENNY YARD



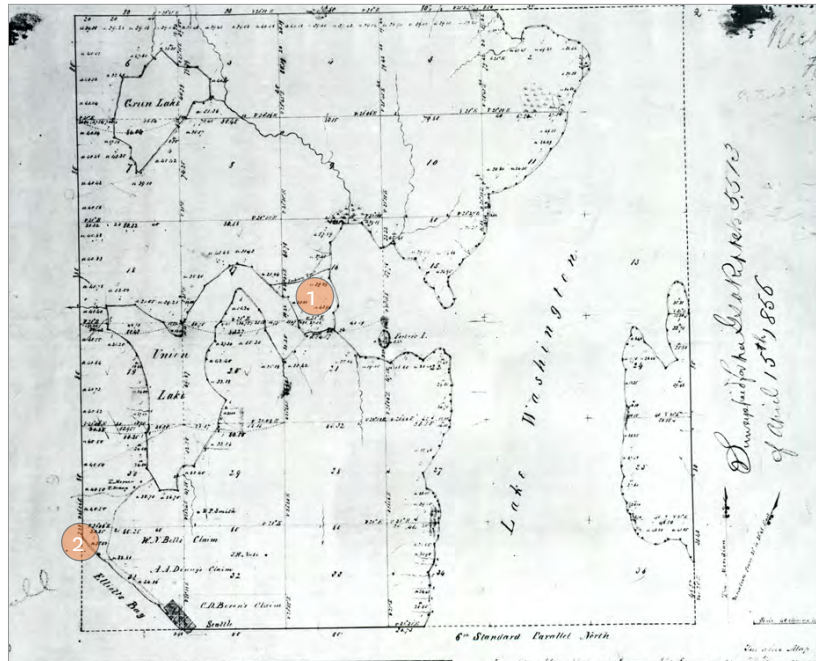
DENNY FIELD



PARRINGTON LAWN



CLARK HALL



TOWNSHIP SURVEY, 1856

**1 MONTLAKE ISTHMUS**

One of the few human-made features marked on this survey, the future “Interlaken Site” is identified as “Indian Trail” connecting Lake Union to Lake Washington. This isthmus would later be cut through to create the Montlake Canal.

**2 CITY AND UNIVERSITY GROW UP TOGETHER**

Seattle was founded in 1853, and the University of Washington was founded in this vicinity in 1861.



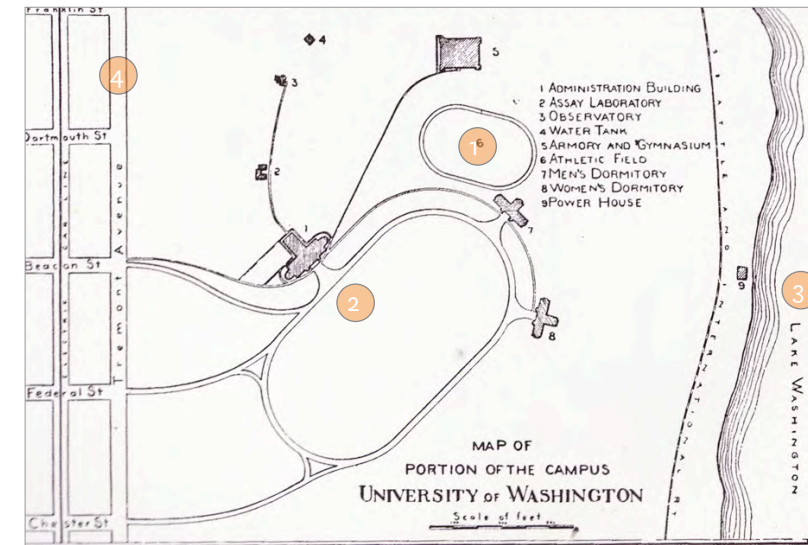
CLASS DAY, 1904

**CREATING A CLEARING**

Initial clearing of the campus landscape opened up territorial views, but the early University did not have the resources to maintain all disturbed areas. As can be seen in this photo, the slope of the site made the process of stump removal more difficult.

**A COMMUNITY EFFORT**

The work parties held annually on Class Day were only a fraction of the labor necessary to develop the campus. Nevertheless, the tradition set the tone for a sense of community participation in the landscape.



FULLER PLAN, OR OVAL PLAN, 1898

**1 DENNY FIELD**

This athletic field, later called Denny Field, was probably one of the most highly finished landscapes on the campus at the time it was built.

**2 CAPTURING A LANDSCAPE CENTER**

The Oval Plan was a landscape framework creating a focus around which the campus could develop.

**3 A CLOSE SHORELINE**

The shore of Lake Washington was in the vicinity of today’s Montlake Boulevard, the adjacent rail line created a strong barrier on the campus edge.

**4 AN URBAN EDGE**

15th Avenue establishes an urban edge close to the campus center.



LEWIS AND CLARK HALLS, 1902

**MATURE TREES FOR A YOUNG CAMPUS**

Remnant forest areas helped blend developed parts of campus into the surrounding woodland context.

**CREATING A LANDSCAPE FOR COLLEGE USES**

The Oval works with the existing topography of the site to create impressive views and establish a sense of landscape connection between the widely spaced buildings.

**A VERY BASIC FRAMEWORK**

In keeping with the University’s lack of resources, the material expression of the landscape is functional - the experiential aspects of the landscape, and the sense of campus, depend on topography, planting, architecture and natural setting.



This plan represents a high level of aspiration for the growth of the new campus, though there was no money to build new buildings or new landscapes. The 1904 plan consolidates many of the most fundamental relationships established during the University's first decade of growth, including the strong delineation of a woodland frame around a cultivated center. It is also indicative of things to come, including the establishment of multiple landscape centers within the larger whole.

**1 EMBELLISHING THE OVAL**

The Olmsted Plan renames the Oval as the Arts Quadrangle, now strongly figured by its architectural and planted edges. Tree-lined pathways, organized geometrically, anticipate heavy use of the space as a major center the new campus, as does the removal of the existing pre-development vegetation.

**2 EXPANDING SERVICE AND CIRCULATION**

The plan includes roadways that create efficient access without passing through any of the major campus landscape spaces. In an emerging system of "The Clearing and the Forest," the developed areas play off the steep wooded slopes on the either side of the road.

**3 FACING THE CITY**

The 15th Avenue boundary is very architecturalized, with a continuous row of buildings, each much larger than any campus building built to date, replacing the existing wooded and lawn edge.

**4 MULTIPLE CENTERS**

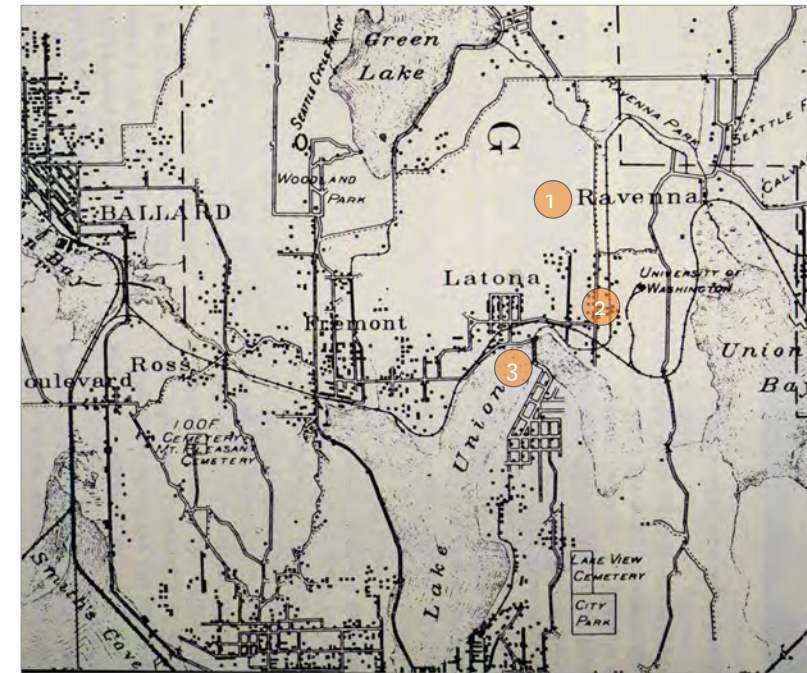
Although the space of the proposed sciences Quadrangle is much smaller than the Oval, the buildings that surround it are much bigger, suggesting a dramatically different type of landscape experience despite the fact that the general figuring of the space and walkways is very similar.

**5 MULTIPLE ENTRANCES**

Roadway access to campus passes over the rail corridor to create a continuous connection to the south.



CAMPUS PLAN, BY THE OLMSTED BROTHERS, 1904



1894 ROADS MAP OF NORTH SEATTLE

**1 FOREST BORDERS**

Almost no urban development north of the University.

**2 CATALYST FOR DEVELOPMENT**

Concentration of urban development along streetcar line.

**3 URBAN CONNECTIONS**

Latona Bridge, connecting North and South.



1903 SITE PHOTO BY OLMSTED BROTHERS

**PRESERVING THE FOREST IDENTITY**

Campus background characterized by tall evergreens.

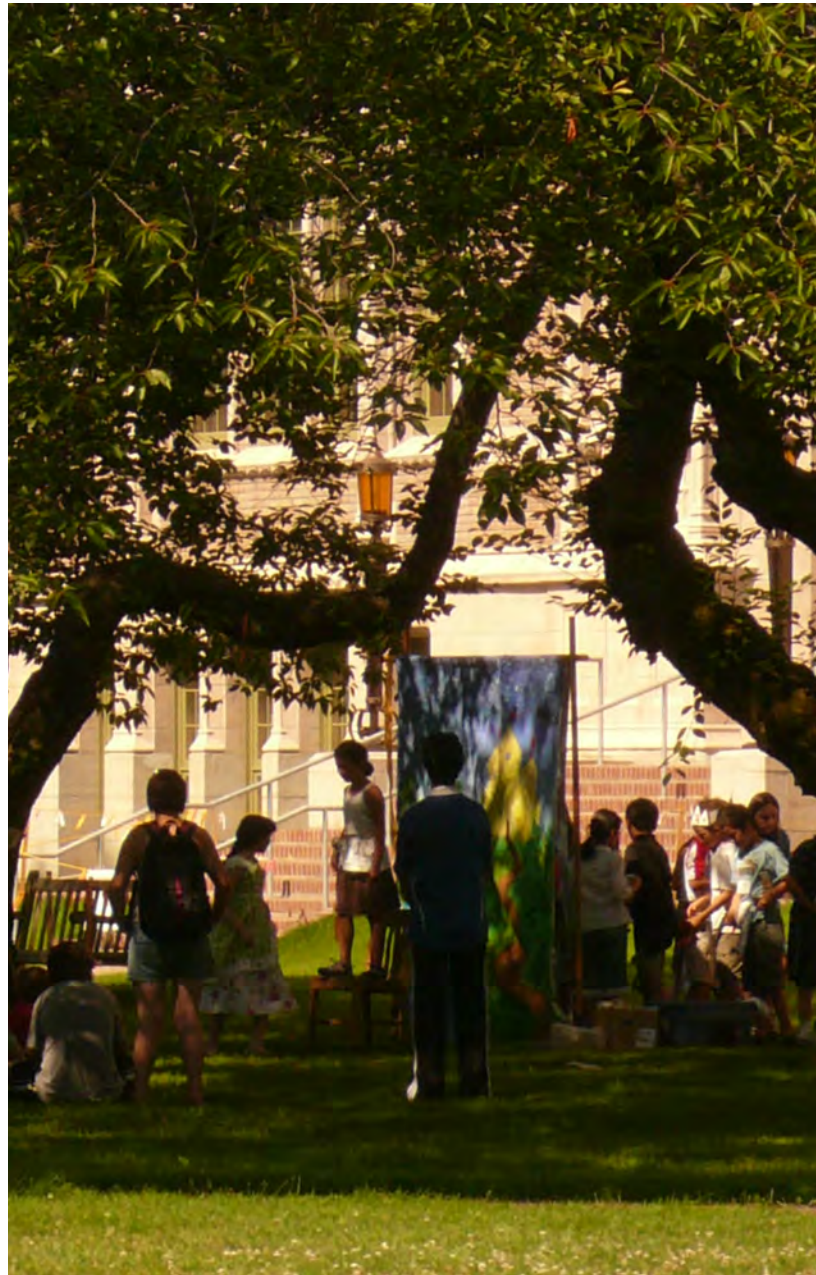
**ESTABLISHING A CAMPUS IDENTITY**

Open lawn edge to campus, but not highly figured or maintained.

**PARALLEL URBAN GROWTH**

Like the University, the Brooklyn neighborhood (now the U District) is growing rapidly.





### A RESOURCE FOR LEARNING

The campus outdoor environments are anecdotally referenced as learning spaces, both formally and informally, by many faculty and students. In an online survey specifically targeted to departments that often use the campus for teaching and research, discoveries regarding what elements of the landscape are used, how often, and what improvements could make it a more valuable exercise were unveiled.

More than fifty courses utilize the campus landscape as part of the curriculum and engage in active learning in the field, on average, on a bi-weekly basis. Below are a list of departments that offer courses that rely on the campus landscape.

#### College of Arts & Sciences

- Department of Biology
- Department of Psychology

#### College of the Environment

- School of Environmental and Forest Sciences
- Program on the Environment
- Urban Horticulture

#### College of Built Environments

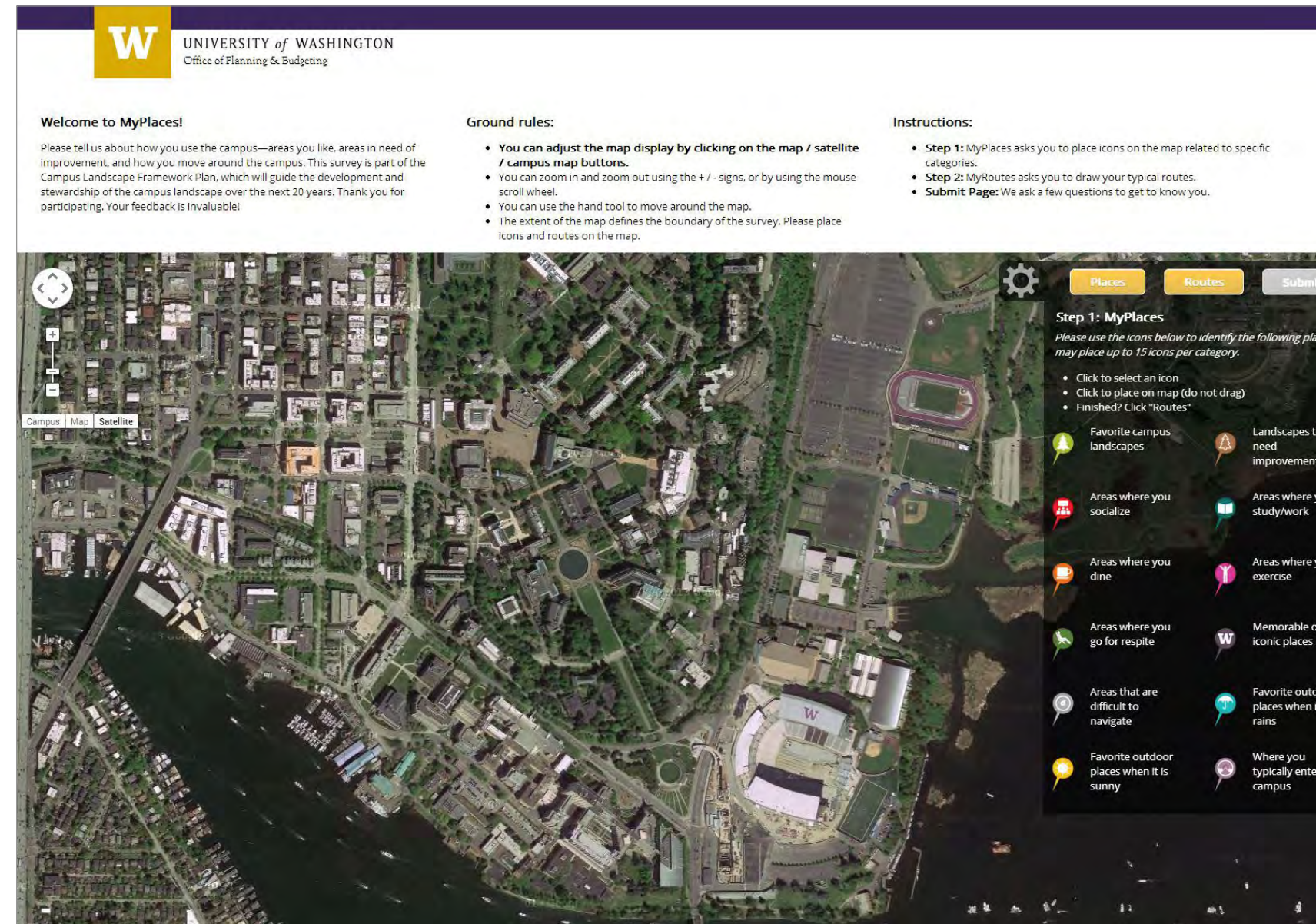
- Department of Architecture
- Department of Landscape Architecture

Many elements of the campus landscape are valued as teaching and learning experiences including the variety of open spaces, native and ornamental vegetation, the soils, the waterfront, and the wetlands. These elements are used to study plant identification, measure hydrologic movement, experiment, assess human behavior, create art installations, inspiration for creative writing, design studies, spatial organization, organismal biology, soil analyses, ecological comparisons, interactions between wildlife and habitat, and practicing management activities.

### OPPORTUNITIES TO INCREASE CURRICULAR VALUE

When asked what could be improved to support the use of campus as an educational resource, there was a variety of recommendations and as with any survey, a variety of opinions, some of which contradict others. Rather than summarize, below are direct statements from respondents, in no particular order.

1. More native plants
2. there has been a steady erosion in the range of woody plant spp. the former variety of trees and shrubs is being replaced by unimaginative monocultures. green belts are steadily declining and ivy is rampant in areas such as Island Lane. trees along R Vista are in decline, replacements of Cedrus deodars for native spp. are disappointing. we used to be able to find 100 plant spp. in the Quad, this has been reduced as a result of plant removal when buildings are restored. UBNA is a shining exception to the general decline of plant variety & health. Parrington lawn, Denny Yard need young trees. we need to stop absolutely stop using lawns as locations for construction shacks and material storage--we have lost many trees in lawns to this practice. thinking of planted areas as modified ecosystems would be desirable. avoid the practice of using landscape budgets to backstop new building cost overruns, etc. etc.
3. I think the campus does a great job of being a resource. perhaps more opportunities for students to install temporary works? more garden space for students to build, and curate?
4. keep the trees and open spaces
5. I have found that campus grounds is very accommodating when I ask for plants that I want to teach. I appreciate what they do.
6. More and/or designated space in which to experiment with and/or install temporary installations that are landscape and art related.
7. it serves my purposes pretty well as is
8. Wish there were more outdoor classroom type spaces to take students outside (for example for seminars) with dry seating and noise buffering.
9. Continue supporting programs like CSF and Green Seed for continued involvement of students, faculty and staff in shaping the landscape they live/work/study in.
10. Actually, it is just fine as is. I don't need much for this.
11. More resources toward restoration
12. My classes are all about human interaction with the landscape, so in most classes we talk about physical spaces and we visit sites multiple times. In some classes this includes going to specific sites on campus like the Quad and Grieg Garden.
13. additional plantings that are representative of regional landscapes
14. Stop cutting down trees!
15. Retain large masses of vegetation, carefully create new open space, improve and celebrate access to the water, improve pedestrian access around NE Pacific Street.
16. Permanent ID tags with group and family, as well as species and common name.
17. Less sod, more gardens, more natural areas
18. Better graphic maps of campus spaces available on line
19. Be sure that the global representation of tree species is preserved and ideally, increased where Pacific Northwest climate tolerance is possible.
20. more natural planting and not such " manicured" spaces.
21. Include more native vegetation in landscaping the main campus.
22. I haven't taught for a good many years. My last use of landscape was supervising a grad student updating the Brockman Tree Tour. It would be nice if someone developed an app for it. Prior to that I helped put campus trees on an early (DOS based) urban forest inventory & management program I'd developed, and I did give students an exercise to extract some summary information. I don't think anyone is doing anything similar at this time.
23. I realize that our campus is not an arboretum or a Native plants garden, but I do wish that the vegetation stayed more consistent -- there is a lot of planting and pulling, planting and pulling. Some permanent residents with ecological signage would give more significance to the plants, particularly if the vegetation was native.
24. Additional support for management of Union Bay Natural Area



**SURVEY BACKGROUND**

In the Fall of 2013, the Office of The University Architect launched an interactive online tool in support of the Campus Landscape Framework (CLF) effort. The tool was designed to better understand impressions, user experiences, and use patterns on the University of Washington campus in Seattle. Individuals were asked to identify and comment on a variety of categories, including:

- Favorite landscapes
- Landscapes in need of improvement
- Social spaces
- Study spaces
- Dining areas
- Exercise areas
- Areas of respite
- Iconic places
- Areas that are difficult to navigate
- Favorite areas when it's rainy
- Favorite areas when it's sunny
- Campus gateways
- Walking routes
- Bicycle routes
- Transit routes
- Driving routes
- Skateboard / scooter routes
- Wheelchair routes

The survey was published widely, encouraging faculty, staff, students, alumni, and the neighborhood community to participate. The survey was open for two weeks, and closed on November 5, 2013. In total, the survey yielded high levels of participation as follows:

- 1,943 participants
- Placed more than 37,150 icons
- Wrote 7,980 comments

**KEY THEMES**

**HISTORIC IMAGE**

The University's historic organization and elements form the foundational image of campus. Responses to favorite landscapes, iconic spaces, spaces you visit when it's sunny, and areas of respite nearly mirror one another, and reinforce the importance and appreciation of the campus' more formal elements—the liberal arts quad, Drumheller Fountain, Red Square, Memorial Way, and Rainier Vista.

**DIVERSITY OF SPACES**

Participant responses reveal an appreciation for the diversity and range of spaces on campus—from loud to quiet spaces, open and exposed to intimate spaces, indoor to outdoor environments, large scale to small scale, and on versus off-campus.

**MIXED USE**

The physical environment supports a comprehensive campus experience in a truly mixed-use manner. Individual spaces accommodate multiple uses, from studying, to socializing, to recreation, to relaxing, to dining.

**CAMPUS EXTENT**

Participant responses reveal that campus use extends well beyond the campus core. Significant activity was identified to the east in the Union Bay Natural Area, and to the west throughout the University District, reinforcing the breadth of the University's presence.

**ACTIVE CORE**

Survey responses highlight a concentration of activity and amenities around the campus core. Social spaces, study spaces, dining areas, iconic spaces, and spaces of respite are generally located north of Drumheller Fountain, revealing a lack of amenities to the south.

**OPPORTUNITY AREAS**

Participant responses consistently reinforced a number of opportunity areas. The waterfront to the south and east was regarded as the most significant underutilized opportunity on campus. The intersection of Campus Parkway and 15th Avenue NE was identified as a key area in need of attention from navigation and safety perspectives, while Health Sciences was consistently regarded as disconnected and in need of improvement.

## OVERVIEW

### PARTICIPANT PROFILE

A variety of demographic questions were included in the survey to understand user profiles:

“Please identify your current relationship to UW”

- Students :: 870 :: 45% of participants / 2% of total students
- Staff :: 787 :: 41% of participants / 4% of total staff
- Faculty :: 234 :: 12% of participants / 8% of total faculty
- Alumni :: 39 :: 2% of participants
- Neighbors & Visitors :: 13 :: <1% of participants

“Where do you live?”

- More than 2 miles from campus :: 1,203 :: 62% of participants
- 2 miles or less from campus :: 521 :: 27% of participants
- Live on campus :: 201 :: 10% of participants
- Did not respond :: 18 :: 1% of participants

“If you are a student, what year are you in school?”

- Graduate student :: 35 :: 39% of student participants
- First year student :: 144 :: 17% of student participants
- Second year student :: 140 :: 16% of student participants
- Third year student :: 123 :: 14% of student participants
- Fourth year student or greater :: 121 :: 14% of student participants
- Did not respond :: 7 :: 1% of student participants

“How do you typically get to campus?”

- Transit :: 798 :: 41% of participants
- Walk :: 461 :: 24% of participants
- Drive :: 288 :: 15% of participants
- Bike :: 244 :: 13% of participants
- Carpool :: 102 :: 5% of participants
- Did not respond :: 22 :: 1% of participants
- Other :: 22 :: 1% of participants
- Skateboard or scooter :: 4 :: <1% of participants
- Wheelchair :: 2 :: <1% of participants

“How long have you had a relationship with the UW?”

- 10+ years :: 677 :: 35% of participants
- 1 - 5 years :: 655 :: 34% of participants
- 0 - 1 year :: 308 :: 16% of participants
- 5 - 10 years :: 294 :: 15% of participants
- Did not respond :: 9 :: <1% of participants

“In a typical day, how much time do you spend outside, including walking from place to place?”

- Less than 1 hour :: 1,173 :: 60% of participants
- 1 to 3 hours :: 577 :: 30% of participants
- More than 3 hours :: 167 :: 9% of participants
- Did not respond :: 26 :: 1% of participants

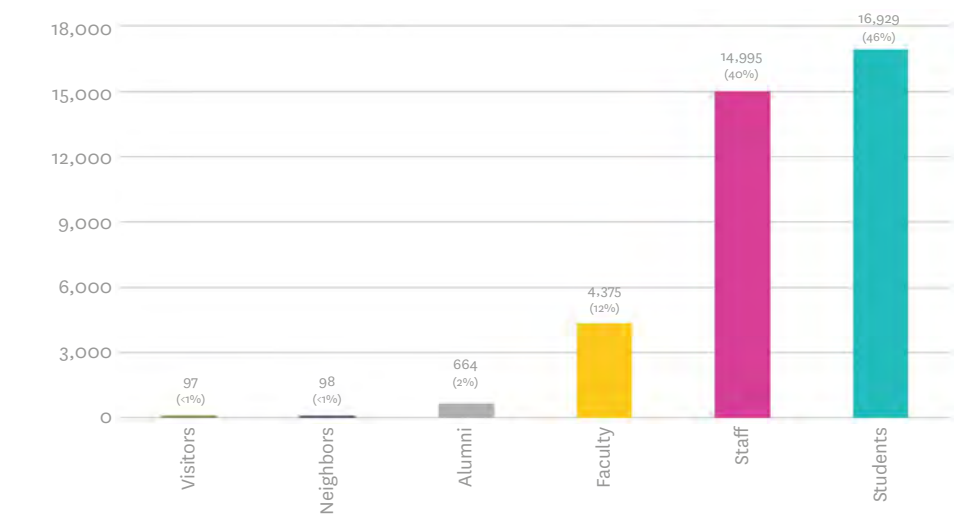
“How frequently do you come to campus?”

- 3 to 5 days per week :: 1,036 :: 53% of participants
- More than 3 days per week :: 700 :: 36% of participants
- Less than 3 days per week :: 112 :: 6% of participants
- Occasionally :: 75 :: 4% of participants
- Did not respond :: 20 :: 1% of participants

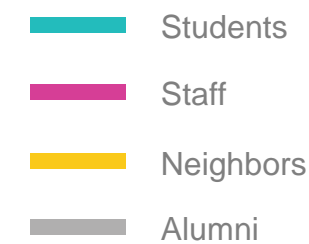
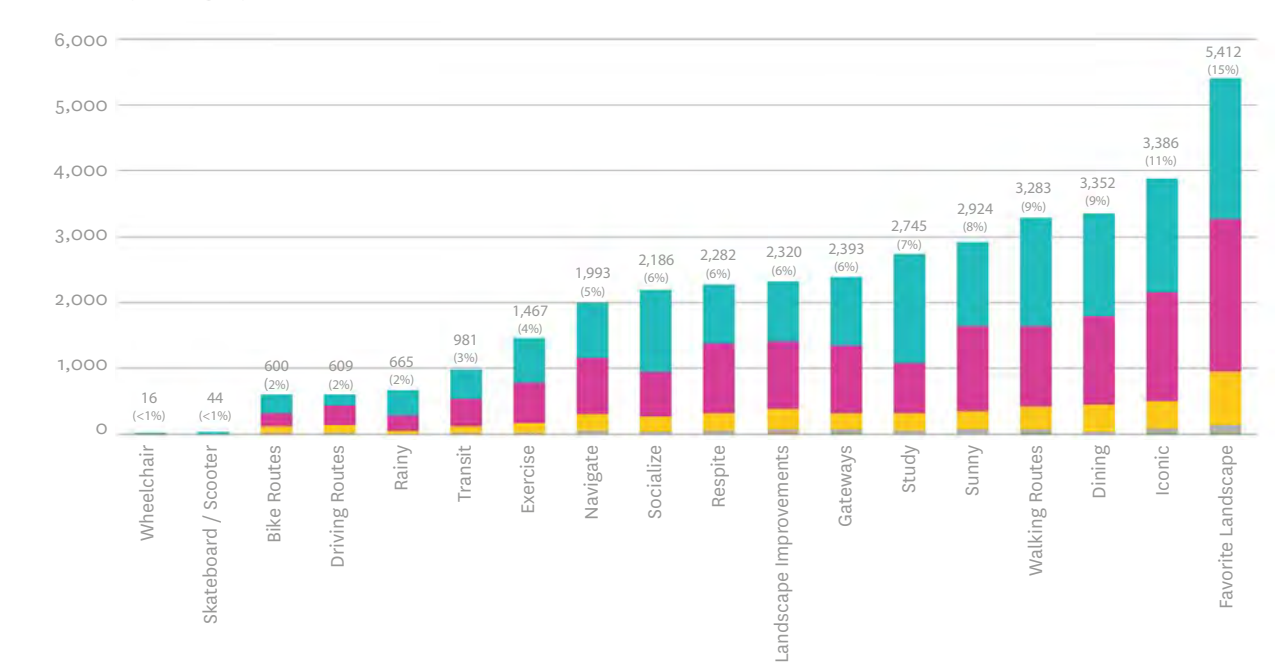
### ICONS PLACED

In total, individuals placed more than 37,150 icons and routes on the map. The following tables identify the total number of icons and routes placed by population, and by category. Students account for 46 percent of all responses, followed by staff at 40 percent. Favorite Landscapes received the most icons, with more than 5,400 icons, or 15 percent, followed by Iconic Places, which received nearly 3,390 icons, or 11 percent.

Icons by Population



Icons by Category



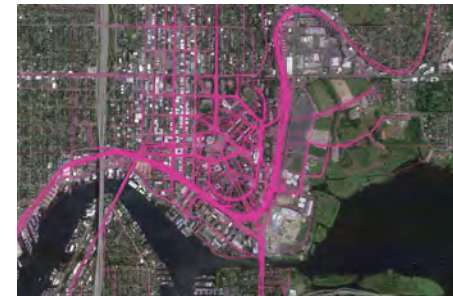
ALL ICONS



PATTERNS BY CATEGORY



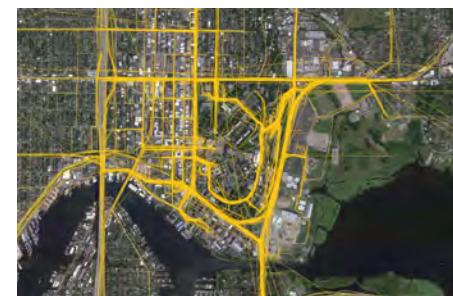
 WALK



 BIKE



 TRANSIT




 DRIVE

 LANDSCAPE

 IMPROVEMENT

 SOCIALIZE

 STUDY / WORK

 DINE

 EXERCISE

 RESPITE

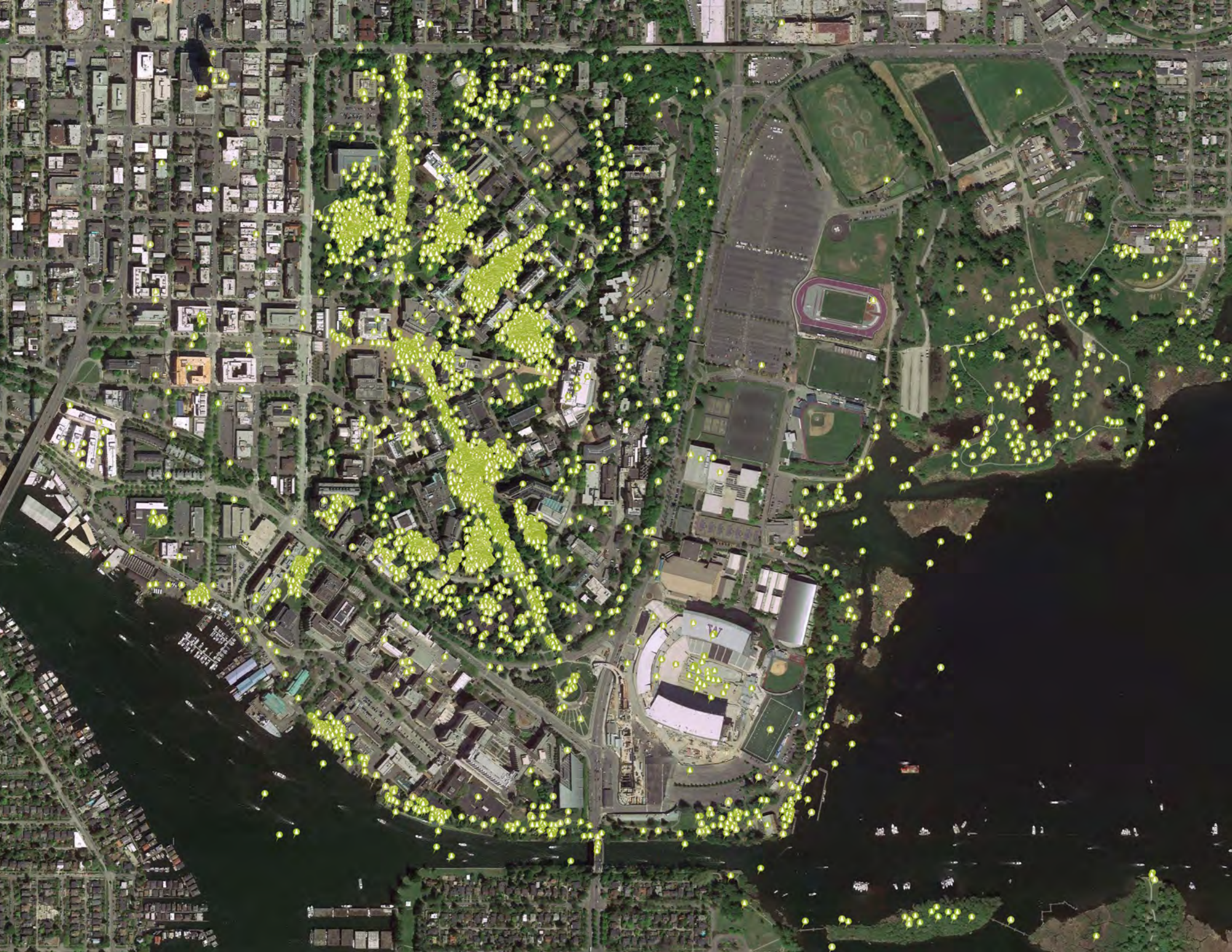
 ICONIC

 NAVIGATE

 RAINY

 SUNNY

 GATEWAY



## LANDSCAPE

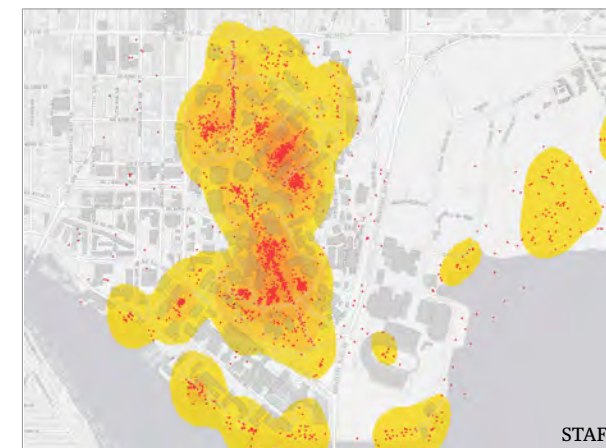
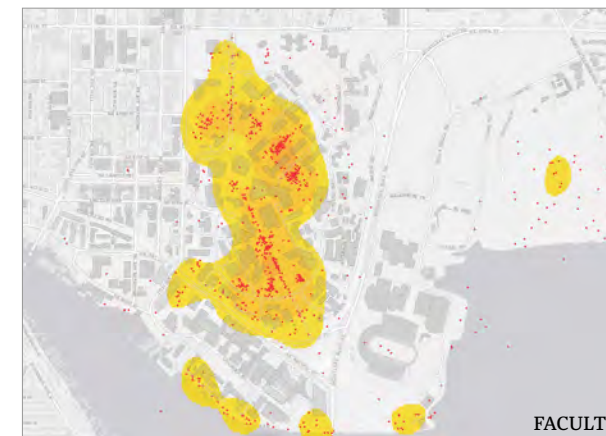
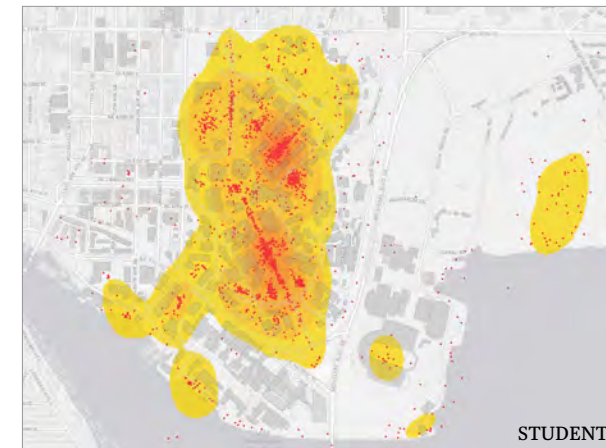
5,412 icons

1,575 comments

### “IDENTIFY YOUR FAVORITE LANDSCAPE”

People appreciate the varied landscapes at UW, from small open spaces proximate to buildings, to broader, more formal open spaces, to the uniquely Pacific Northwest woodland aesthetic. Individuals consistently commented on their appreciation of views; access to benches and the waterfront; the recreational and educational use of the landscape; and connection with nature, habitat, and wildlife. Individuals value both large open spaces—the Quad, Red Square, Parrington Lawn—for socializing, access to sun, and to see and be seen, along with smaller, more intimate spaces—Greig Garden, Sylvan Theater, and the Medicinal Herb Garden—for quiet, respite, and to escape everyday chaos. Participants appreciated the campus’ hidden gems, or secret landscapes, and would like to see more similar landscapes. People were also perceptive of sounds—the sound of the fountain, the waves along Portage Bay—or the lack thereof, and appreciated the quiet moments on campus. Many individuals remarked on the way landscapes evoked connections to history and personal memories.

Favorite areas were clustered around significant open spaces, including Drumheller Fountain, Greig Garden, the Liberal Arts Quad, Denny Yard, and Parrington Lawn; and along strong formal axes, including Memorial Way and Rainier Vista. The waterfront and Union Bay Natural Area also surfaced as favorite landscapes. In general, the areas selected reflect patterns from all participant groups, including students, faculty, and staff. Faculty and staff, however, placed greater emphasis on the southern waterfront than students.





## FAVORITE LANDSCAPE : COMMENTS

### RED SQUARE

“The HEART of Upper Campus... This is a significant crossroad hidden within the bricks of Red Square.”

“Beautiful view of the sunset behind the statue, the mountain behind the fountain, Suzzallo.”

“It’s a fantastic public space, particularly with the outdoor café at Suzzallo.”

“Red Square equals hub of activity.”

“I love the chaos of Red Square.”

“Love the activities and expansiveness of Red Square.”

“PRETTY AT NIGHT.”

### DENNY YARD

“The classic setting.”

“A very collegiate atmosphere.”

“The big trees here are some of my favorite on campus.”

“Not as much a landscape as a soundscape. Bring back the songs in the morning!!!”

“Nice small open area, although it lacks benches to sit.”

“Denny Lawn, especially the view looking up towards Denny Hall.”

“Beautiful mature trees in Denny Yard and fragrant jasmine in summer.”

“It’s a fun, relaxing, and usually less crowded area to hang out. Additionally, it’s on a slight hill, so it’s usually less wet than the quad.”

### MEMORIAL WAY

“It’s picturesque and well maintained and a beautiful entrance to campus.”

“Memorial Way reminds us of UW history.”

“The tree-lined lane is so collegiate.”

“Creates a grand and inspiring atmosphere.”

“I just wish it didn’t end at the circle which seems unceremonial and that the sidewalks were not asphalt.”



### PARRINGTON LAWN

“Such a nice way to enter the campus, the walk through the trees helps transition from the business of the city to the life of the mind.”

“The transition from city to calm green gives a clear symbol to visitors that they have entered campus, and provides a respite for students.”

“It is difficult to overstate the importance of broad open space. There are very few spaces left in the city with this sort of vista—and it makes UW feel like a ‘real’ campus.”

“Love the open lawn, especially in the early summer, and the sculptures”

“Open but not empty.”

“I love the ratio of trees to open space.”

### LIBERAL ARTS QUAD

“Great view spot, best on a sunny spring day when the lawns are full of students enjoying the day.”

“The cherry trees are spectacular all year, but especially in spring and fall.”

“Heart of campus.”

“It is also a place where people cross through often, so I get to see a lot of friends.”

“This part of campus is so collegiate!”

“I really enjoy the old trees and architecture.”

“Neatly symmetrical with nice trees.”

“This is one of the only places with open grass on campus.”

“More benches would be lovely!!!”

“CHERRY TREES IN SPRING, CROQUET, BUSY STUDENTS WALKING, QUIRKY GARGOYLES AND STATELY BUILDINGS.”

### GREIG GARDEN

“Like a secret, woodland garden within campus.”

“So central, yet quiet.”

“It’s a good place to escape the crowds.”

“Wonderfully isolated place on campus to pass through or pause in for reflection - and right in the middle of everything.”

“More secret gardens!”

“Beautiful and refreshing mini wood to walk through between classes for a quick pick me up!”

“CALM, QUIET, SECLUDED.”



### RAINIER VISTA

“A connection and view to something ‘bigger’.”

“The view and open feel on Rainier Vista is wonderful.”

“I always stop to look towards Mt. Rainier on my way through.”

“Great for sitting/studying or teaching during good weather.”

“In addition to helping to clearly frame the vista, it serves as a functional area for casual activity and planned events.”

“During the spring when the Cherry blossoms are blooming, this area is so pretty.”

### DRUMHELLER FOUNTAIN

“The vista, the water, the nice stone benches, the roses.”

“The fountain area is a really nice landscape area to sit and lay by it. The little grass areas are nice to relax on or even play a game of catch with the football.”

“Must stop and smell the roses around the fountain.”

“I pass here every day and love the sound of water!”

“The fountain is a beautiful landmark.”

### SYLVAN THEATER

“Hidden sanctuary.”

“I got married there 30 years ago and still love it.”

“It’s just beautiful and serene.”

“Inspirational and historical - a sense of the historic campus.”

“Great place to relax or have an event.”

### MEDICINAL HERB GARDEN

“I loved checking in on the nesting herons here.”

“This walk in the woods is secluded yet functional.”

“I wish there were way more places like this around campus.”

“A hideaway.”

“These gardens along the road here create an important depth to the landscape.”

“It is so quiet and peaceful, even with the buses going by just over the hedge.”

“I forget I’m in a city when I’m here.”

“Combination of the forest, cranes, and undisturbed soil make this an excellent teaching location.”

“It is very quiet and restful. A piece of the past with all the tall trees!”

“This forested area offers an idyllic retreat, a chance to take a deep breath.”







## FAVORITE LANDSCAPE : COMMENTS

### WEST CAMPUS

“The elm [at Elm Hall]! Thanks for saving it.”

“New plaza, overlooks, and UW farm areas associated with the new Mercer Hall area are fantastically interesting places and make great visual connections within and beyond the new complex.”

“UW farm at the new Mercer Court apts. It is a productive use of open space.”



BEFORE



AFTER

### NORTH CAMPUS

“Love being ‘lost’ in this dense woodland forest reserve, uniquely PNW.”

“Love this path with all the trees overhead and feels like being on a trail.”

“I love having this many trees by my dorm.”

“Another secluded place on campus. I like the combination of the landscape and the building.”

“The winding lanes... are important for peaceful walks to de-stress from the work environment.”

“Great place to hang out in the summer. More maintenance.” [Denny Field]

“[Kincaid Ravine] could be an amazing forest with some restoration.”

“Perfect grove for thinking.”

### SOUTH CAMPUS

“It’s nice that there are spaces like this between buildings. It makes the campus space feel larger and provides an outdoor getaway.” [East of Foegel]

“This is one of the few open green spaces where people can enjoy the sunlight. This would be a terrific place to leave as green space.” [East of Foegel]

“Nice vista of the water.” [East of Foegel]

“Great destination for a lunchtime walk.” [Sakuma Park]



### EASTERN SHORELINE

“I like to sit on the docks and look out into the surrounding swamplands.”

“Nice view of lake could be better with addition of benches and removal of some trees.”

“The entire shoreline managed by UW is a great resource both ecologically and visually.”

### WASHINGTON PARK ARBORETUM

“This is a dramatically undervalued resource for UW.”

“An underappreciated gem.”

“Great teaching and walking place.”

“Love renting a canoe and paddling through here.”



### UNION BAY NATURAL AREA

“Great place for teaching, walking, having a sense that you are not in Seattle.”

“Appreciate having a link to nature and an outdoor classroom.”

“The trails here are a great place to escape the crowds.”

“Great views, great open space, lots of biodiversity, and a jogger’s haven!”

“Great birding here.”

“Addition of sidewalk and benches along access road with view of lake would be nice.”

“CUH gardens are a draw in all seasons.”

“I got married here, so it’s very meaningful and beautiful.”



### WATERFRONT

“I love sitting on the grass and watching the water.”

“This could be redeveloped into something special. Way underutilized right now.”

“Perfect place for folks located south of Pacific Avenue to take walking breaks and appreciate the beauty of the water.”

“Great views over open water, natural setting.”

“Regatta Viewing”

### BURKE-GILMAN TRAIL

“I like looking through the ‘tunnel of trees’ on the Burke.”

“Like walking the Burke Gilman at lunch for exercise.”

“I like the nature hike feel of some of the walking paths.”





## Expand the Sense of Welcome, Discovery and Orientation Throughout the Campus Landscape

Observations about the underlying structure and essential value of the campus setting inspired initial strategies for making improvements to the workings of the whole, as well as the experience and function of individual parts.

### Observations

The campus is a diverse mosaic of landscape types

The landscape needs to function in its individual parts, but also as a whole

The Central Campus neighborhood is iconic and historic, but under intense development pressures

The Central Campus neighborhood is underperforming in several critical areas, including accessibility and connectivity

The East, South, and West Campus Neighborhoods each have substantial challenges and unrealized opportunities

The campus is a dynamic environment that responds to the evolving needs of the institution

### Strategies

➔ Preserve and celebrate the rich diversity of the landscape as the campus evolves and develops

➔ Proposed changes need to be evaluated for their effect on the immediate mosaic pieces and on the functioning of campus-wide systems

➔ Great care should be taken to protect landscape integrity when developing the last few sites available in Central Campus

➔ Harness ongoing evolution as a means to preserve and strengthen the mosaic of Central Campus and its connections

➔ Strengthening the landscape mosaic in the three peripheral neighborhoods, and improving connectivity throughout, will reduce the pressure on Central Campus

➔ Change can be a positive force, but the timelessness and beauty of historic spaces needs to be protected as the campus evolves

## RADIAL AXES AND VISTAS : THE BACKBONE OF PEDESTRIAN EXPERIENCE AND ORIENTATION



From the very earliest days of the university, with its founding on a hilltop with panoramic views of the surrounding landscape, the structure of the UW campus has been one of radiating systems from a strong center. This underlying structure is still very much in evidence today, and serves as an excellent orientation device in a highly complex place. Even newcomers to the campus quickly learn that if you can find your way back to one of the major axes then you can generally situate yourself on the central campus. This simple rule weakens the further you are from the center of campus, so one of the key goals of the CLF is to extend the structuring framework further from the central campus and into the peripheral neighborhoods.

### A STRONG CENTER

There are many points of arrival on the UW campus, but as a first time visitor, and to really get the feel of the place, there is no better place to start than Red Square. From this large central plaza, major axial landscape connections provide a very direct connection to most major areas within the Central Campus, so a general orientation to the core campus as a whole can be most easily developed. The relatively recent development of Red Square as part of the Central Parking Garage project means that both the contemporary and historic aspects of the UW campus are strongly represented in this central space. It has an open, democratic and powerful character and can clearly be read as the center, but remains an uncomfortable place to spend extended periods of time, and so can discourage gathering, which should be an important part of its function.

### RADIATING AXES

It is one of the strong identity-giving features of the UW that each of its major axes is distinctive in multiple ways. The most figured of these spaces, capable of being appreciated from a single vantage point is the Liberal Arts Quad. By comparison, Memorial Way is entirely defined by its major planted element -- the double row of London Plane Trees. Rainier Vista has a strong architectural definition in its upper half, with a forested edge providing the framing element in its lower half. Campus Parkway/Olympic Vista is dominated by its active four lanes of roadway and it feels relatively unfigured, despite a strongly defined architectural edge and some mature trees in its center. Among these, Campus Parkway likely needs the most help in order to achieve its full potential as a major campus connection, but each of the axes has challenges that are addressed through CLF initiatives.

### RAINIER VISTA

Rainier Vista was first established during the AYPE as a powerful axial view connecting the University to Mt. Rainier, and as a physical connection from the hilltop to the south east. As the temporary buildings were torn down and new university buildings helped to figure the space, Rainier Vista has continued to accrue meaning and use as the campus has densified. For most of its history, the majority of activity along the Vista was centered in the northern part. With the opening of a light rail station at Husky Stadium in 2016, however, Rainier Vista is poised to become a major point of arrival onto campus. The University has prepared for this change in use through a new pedestrian bridge over Montlake, a new landscape design for the Montlake Triangle, and the grade separation of car and bike traffic along Pacific Place from the major pedestrian circulation.



### OLYMPIC VISTA/CAMPUS PARKWAY

The idea of a major urban/university boulevard forging a strong connection into the heart of the central campus has its origins in 1923, with a design by the UW's campus planners Bebb & Gould. In its current form, the Olympic Vista provides a clear view to the Olympic mountains from the raised elevation of the main campus. This direct visual connection is supported by indirect physical routes between the parkway and pedestrian entry onto campus. As West Campus continues to grow in density and use, Campus Parkway will need to provide a stronger connection to the Central Campus, particularly Red Square. The city-owned, University-maintained, median might also be reconfigured to allow it to serve more effectively as an open space that is used by the larger U-District community.



### MEMORIAL WAY

Memorial Way was the first major entrance onto the campus that seems to have been designed for arrival by car and as its double allee of London Plane trees has grown to lofty heights, it has become the signature entry onto the campus. Originally, the connection to what was then known as Central Plaza was direct, although Memorial Way was always more ceremonial and not a crucial part of the dual loop circulation organization of the campus. With the construction of the Central Parking Garage and Kane Hall in 1971 however, the southern end of Memorial Way terminated at the back service zone of Kane Hall, thus making it feel like a stand-alone moment rather than a build up to the center. Conversely, the northern half became more important, and an intrinsic part of the Stevens Way network, with the closing of the 21st Ave NE exit.



### THE QUAD

The Quad provides a rare moment of relative flatness and material consistency in a campus landscape with many varied slope conditions and multiple eras of architectural development. The taut lawn and hierarchy of brick pathways, in addition to the uniform scale of the architecture that surrounds the space, reinforce the strong central axis and the cross axes of the space. There is an imbalance in the two ends of the axis, with the Red Square end marking a major point of arrival, whereas the northern end keeps going and then dissolves into Stevens Way without a noticeable terminus, or a strong connection to the areas beyond.



## TOPOGRAPHY ANALYSIS



## A FRAMEWORK FOR GROWTH

The more structured spaces of the University of Washington's campus were initially built in the northwest corner of the campus, near the highest point of the UW property. This was an excellent way for the new campus to take advantage of its spectacular new site while also remaining connected to the emerging urban life to the north and the west. As the campus grew, and the city grew, academic program and campus spaces have moved progressively down the slope, in some cases encountering and creating conflicts related to steep slopes and dramatic grade separations.

## PROSPECT

Dramatic topography and prospect are two key underlying characteristics of the UW Campus experience. With a hilltop at the northern edge of the campus, the grade falls away in a great fan to the west, south and east,

creating a great range of views to the city in the foreground, water in the middle ground and the mountains in the background. The commanding position of the campus, both connected to and apart from its context is central to the character of the university. The rise from waterfront to hilltop also provides a diverse range of microclimates that contribute to the rich landscape variety on the campus.

## DRAINAGE

The topography also contributes to landscape performance. The core campus is fortunate, for instance, to have few flooding, seep or stability issues that jeopardize the beauty or safety of the landscape. Given its size, location, and the control that it has over its own watersheds, the UW has the additional opportunity to coordinate topography with stormwater capture and treatment strategies as the water is conveyed to the bottom of the slope and to the water bodies beyond.



## CAMPUS NEIGHBORHOODS



### CHARACTER

There are four major UW neighborhoods with very distinct characters and clear boundaries. The neighborhoods are the result of topography first and foremost, but are also informed by architectural and landscape choices that reflect attitudes during different eras of campus growth. While most iconic landscape spaces are concentrated in the Central Campus, all four neighborhoods have outstanding moments and potential for even greater landscape value. The greatest value of the neighborhoods lies in their diverse characters, which give the UW campus a tremendous range of experience. This diversity should be understood and fostered.

### FUNCTION

The strong reading of the campus neighborhoods, combined with the topography, supports both orientation and wayfinding on campus. The neighborhoods also serve different programmatic needs and have different capacities to absorb development and change. An understanding of each neighborhood's function can be used to guide major planning efforts and maximise the efficient use of the campus, while retaining the quality of the landscape.

### STRATEGY

The distinctive character of each neighborhood and the clear between them lead to an experiential and functional disconnectedness in places, particularly in relation to steep slopes and major roadways. While the individual nature of each neighborhood should be expressed, they need to feel and function as more of a collective and balanced whole than at present, so that currently underutilized parts of campus can be developed to take the pressure off over-programmed areas.



West Campus - NE Campus Parkway



Central Campus - Drumheller Fountain



South Campus - Portage Bay Vista



East Campus - Union Bay Natural Area

## CENTRAL CAMPUS : THE ICONIC CORE



### central campus landscape/ development proportions:

- Total Area: 210 acres
- 45% Planted Area: 95 acres
- 37% Paved Area: 75 acres
- 18% Building Footprint Area: 40 acres

### CHARACTER

The 210 acre Central Campus is quintessentially UW in feel, with many clearly figured landscape spaces, as well as a complementary network of smaller, more intricate, courtyards and gardens. Similarly, the architecture is a heterogeneous but complementary collection of buildings containing a diverse mixture of academic, research, administrative, residential, recreational, and social uses. The Central Campus is the most outward-looking of all neighborhoods as well, including the highest points and best views on the campus.

### FUNCTION

The Central Campus is the undisputed center of campus, with Red Square at its heart. This is the point of origin for many entering UW for the first time, and for those returning to enjoy an iconic UW moment. This is also the neighborhood with the highest percentage of social use, highest overall population and the most diverse mix of graduate, undergraduate, faculty, and staff. In general the landscape of the Central Campus is under pressure from levels of use and desire for further development.

### STRATEGY

Although the Central Campus is very close to development capacity, there are many opportunities to better integrate and connect its component parts. For instance, the Central Campus should be the easiest place to get to from the other neighborhoods, and the easiest place to navigate within. Greater connectivity between the center and adjacent neighborhoods is a major focus of several CLF case studies. The pronounced topography of the Central Campus presents a challenge for universal access and connectivity in the landscape; a concerted effort should be made to improve this condition, particularly in relation to Red Square and other key locations.



Rainier Vista



Quad



Burke-Gilman Trail



Parrington Lawn



**CAMPUS GREEN AND LAWN**

**CHARACTER**

Campus greens are clearly figured landscapes, and amongst the most well known parts of the campus. They are often bounded by architecture or by woodland plantings, as in the case of Rainier Vista, and have either open lawns, or lawn beneath a shading canopy, providing space for studying, casual sports, and informal gatherings. This type of open space is highly valued in an urban setting, so campus greens frequently take on the role of parks in a underserved neighborhood like the UDistrict. The primary spatial relationship of a campus green is between the ground level and the canopy level so these spaces do not usually have beds or shrubs, except at building edges.

Examples include: The Quad; Denny Yard; Parrington Lawn; Portage Bay Fista, Fish Sciences, HUB Lawn

In some locations, this landscape type paired with the campus topography creates magnificent vistas. Examples include: Rainier Vista; Portage Bay Vista; Olympic Vista

**FUNCTION**

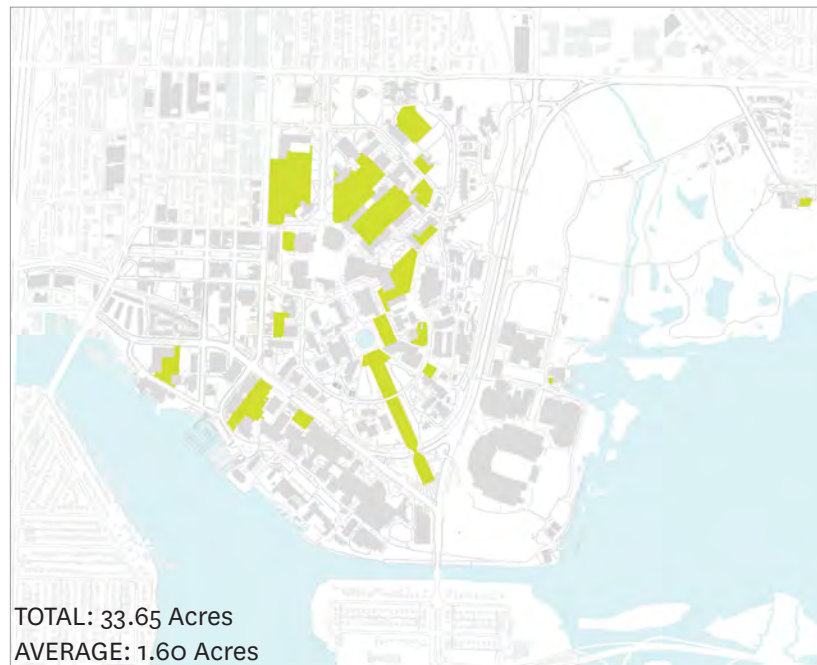
Open greens are a very important type of multifunctional landscape and engender a feeling of community through their openness and bounded figuration, and the UW is fortunate to have so many fine examples in central campus. Lawns are used for studying, casual sports and informal gatherings. They serve also to communicate the timeless qualities of the UW campus.

**STRATEGY**

The campus greens of Central Campus should be preserved and protected, with improvements needed to their accessibility and, in some cases, relationships to adjacent spaces. They should have a greater presence in South Campus and West Campus, where there is high development density but not much open green space.



The Quad



**INFORMAL GREEN**

**CHARACTER**

Informal Greens are open, unfigured lawn areas, usually found at the campus periphery, and feel less planned and welcoming, even though they share many spatial characteristics with Campus Greens. The examples that currently exist on the UW campus include remnant areas of the former UW golf course that now provide important access to the water's edge. As contributors to the campus landscape, these spaces are vulnerable to change because they are unresolved with respect to program and use.

Examples include:

East of Montlake Bridge to Waterfront Activities Center  
West of Montlake Bridge to University Hospital

**FUNCTION**

As the campus grows in density and as the bulk of new buildings increases through height and footprint, the landscape needs to be considered with increasing care. Informal greens represent a relatively low utilization of a landscape, which is not a problem when there is abundant land, but becomes increasingly less suitable as all campus neighborhoods become increasingly dense.

**STRATEGY**

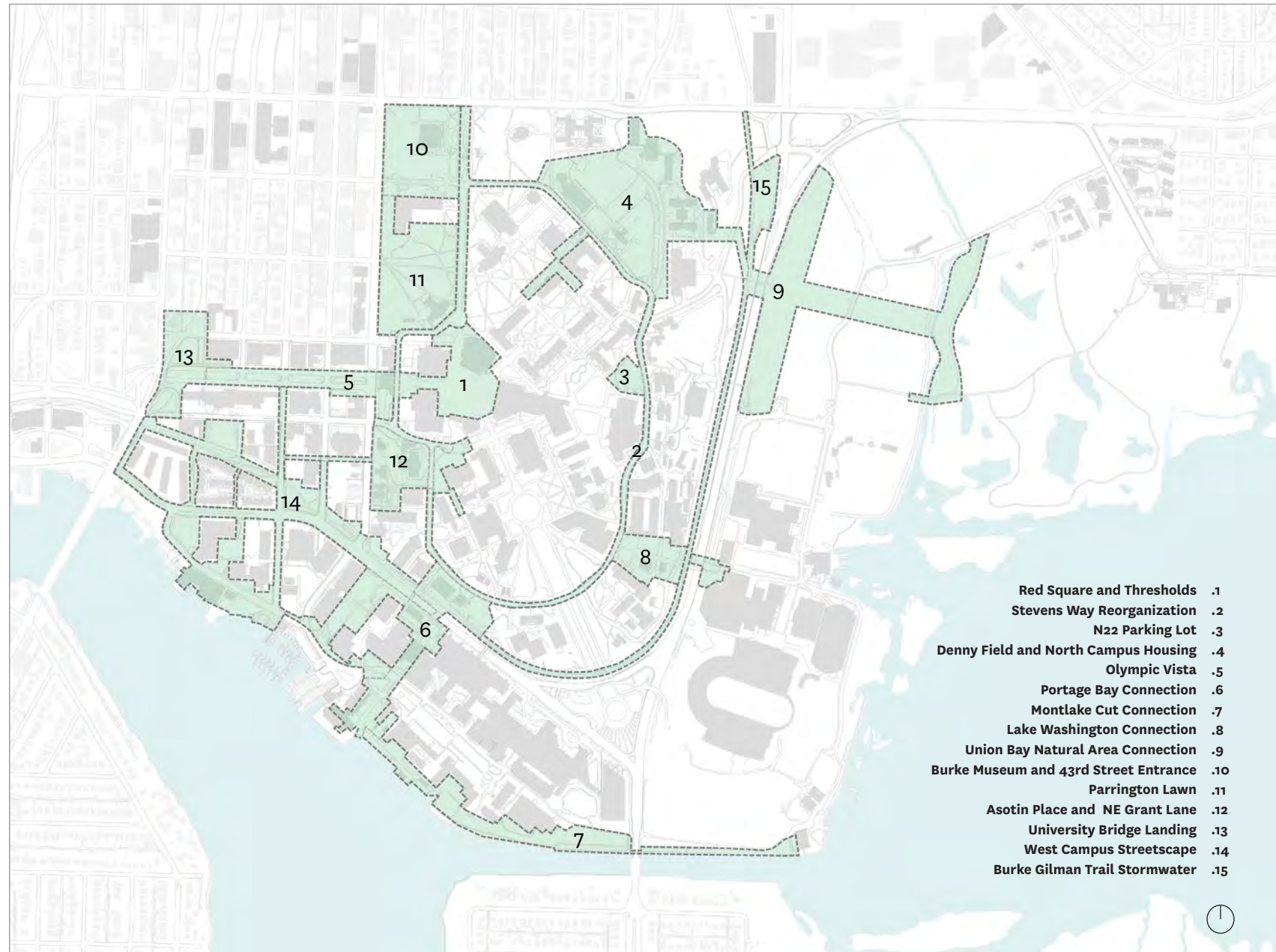
Informal greens do not demand immediate action, but the opportunity to improve their performance as landscapes should inform the way planning decisions are made. The green along the Montlake Cut, in particular, is of a size and at a location where it could easily become a much more popular recreational asset for the University if the access problems could be solved. Smaller greens in other parts of campus could be improved to accommodate program and to feel less like interstitial spaces.



Montlake Cut



## CASE STUDIES: TESTING CAMPUS SETTING STRATEGIES AT A PROJECT SCALE



Based on the core principle that all proposed changes need to be evaluated both for their effect on individual mosaic pieces and on the functioning of campus-wide systems' all of the case studies contribute in some way to a comprehensive strategy for improving the richness and diversity of the campus setting. This larger effort can also be broken down into a subset of more specific strategies which relate to several different case studies.

There are opportunities for the UW to harness the ongoing evolution of campus as a means to preserve and strengthen the mosaic of all the campus neighborhoods. Looked at together, the case studies reveal broader strategies for improving the campus. These include: reinforce the historic core, improve core to edge connectivity, transform 15th Ave NE from an edge to a connector, and green the West Campus circulation network.



#### REINFORCING THE HISTORIC CAMPUS CORE

Great care should be taken to protect landscape integrity when developing the last few sites available in Central Campus. Case study improvements to the historic campus core will strengthen the landscape context for the University's most cherished spaces, allowing them to continue to speak to the timelessness of the university while also contributing to its future. At the same time, as discussed earlier in this chapter, rethinking unsung spaces such as interstitial spaces and service spaces, or experimenting with the plant palette, can also be strategies that contribute to the character of the campus core.

Case studies that support this strategy include:

1. Red Square and Thresholds
2. Stevens Way Reorganization
3. N22 Parking Lot
4. Denny Field and North Campus Housing

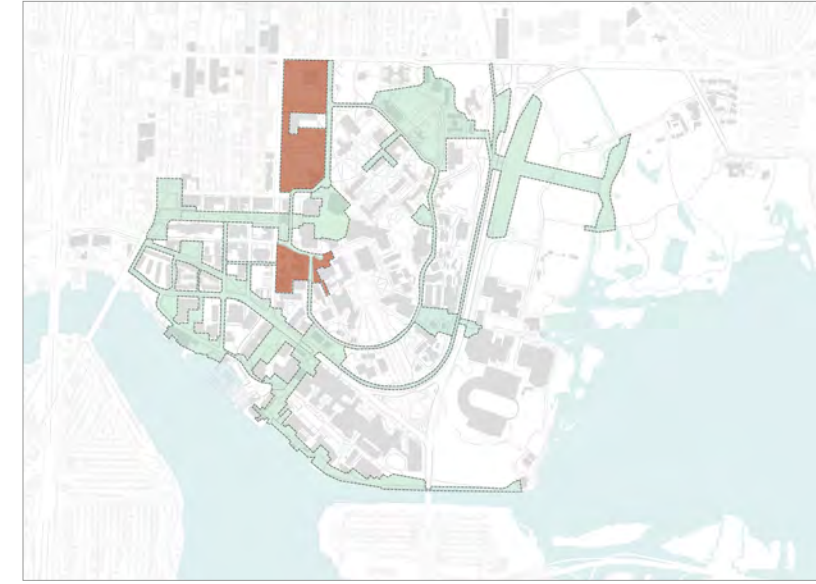


#### IMPROVING CAMPUS CORE TO EDGE CONNECTIVITY

Improved connectivity is a key part of strengthening the landscape mosaic in the three peripheral neighborhoods, so they can better approach the caliber of Central Campus. Many members of the campus community go across neighborhood boundaries on a daily basis. The campus can better support this core campus activity by improving the character of core to edge connectivity in strategic locations. This can include enlarging or improving the actual crossings, as well as modifying the routes that lead to these vital connections. This effort to improve connectivity, despite obvious challenges related to grade change and traffic arterials will open up a two-way conduit between neighborhood uses, improving connectivity throughout, and expanding the sense of landscape excellence to the very edges of campus.

Case studies that support this strategy include:

5. Olympic Vista
6. Portage Bay Connections
7. Montlake Cut Connection
8. Lake Washington Connection
9. Union Bay Natural Area Connection



#### TRANSFORMING 15TH AVENUE FROM AN EDGE TO A CONNECTOR

Within the realm of campus connections, the 15th Ave NE boundary between Central and West Campus is unique in that there is a relatively manageable grade difference and important program on both sides. The experience of UW as an urban campus will be improved by strategically eroding the concrete wall along 15th Ave NE, diversifying the edge experience along 15th, and opening up the possibility of multiple welcoming connections.

Case studies that support this strategy include:

10. Burke Museum and 43rd Street Entrance
11. Parrington Lawn
12. Asotin Place and NE Grant Lane



#### WEST CAMPUS GREEN NETWORK

Although West Campus will be more urban in nature than the other campus neighborhoods, it should present a robust landscape setting that reflects the unique role of campus land in a city and the overall identity of the UW. This could include provisions for new green spaces within West Campus as well as comprehensive improvements to street design as new parts of the neighborhood are developed.

Case studies that support this strategy include:

13. University Bridge Landing
14. West Campus Streetscape



## SETTING THE CONTEXT FOR AN ECOLOGICAL FRAMEWORK

The landscape ecology of the University of Washington campus can be described as an urban ecosystem comprised of a heterogeneous mosaic of spatial elements: vegetation patches of various sizes, vegetated corridors, and the surrounding urbanized and regional matrix in which they are embedded. Each piece of the mosaic interacts with and impacts ecological processes in specific ways, resulting in a suite of modified ecological services, the processes by which the environment naturally produces resources such as clean water, flood protection, carbon sequestration, and pollination of native and agricultural plants.

As human-dominated systems, urban ecosystems differ from natural ecosystems in a number of ways. While a natural ecosystem performs fundamental life-support services, upon which human civilization depends, an urban ecosystem differs in the following ways:

- It is composed of small habitat patches isolated from each other by a matrix of built environment. This isolation makes migration and dispersal difficult and risky for less mobile organisms. The extent and connectivity of green spaces is an important factor impacting the occurrence of species in urban landscapes.
- Many of its habitats are kept at an early successional stage by regular disturbance such as mowing of turf lawns or active use of waterfront edges.
- Introduction, and in many instances, successful invasions by non-native species of plants. Some of these species have become invasive and now dominate certain areas of campus, ultimately reducing the biodiversity and habitat quality.
- Warmer microclimates due to the urban heat island effect of excessive amounts of pavement and manmade materials radiating heat and other human activities.
- Natural hydrologic flow above and below ground is altered through the introduction of impervious cover, which leads to increased runoff and piped/channelized storm water systems, topographic changes, and underground structures.
- Altered soils which suffer from compaction, erosion, contamination.

## AN EVOLVING ECOLOGY

Over the last century, the land that comprises the UW campus has been dramatically altered and highly manipulated; forest habitat was cleared, topography was altered, streams were buried in pipes, the lake level was lowered, many species of non-native plants and animals were intentionally or unintentionally introduced, and most, if not all, of the living layers of the soil profile were removed. Humans are now the predominant species, largely determining the form and function of the landscape, and in the process creating new ecosystems directly or indirectly.

When evaluating such urbanized landscapes in terms of ecological health, relevant factors include vegetative structure, functionality, biodiversity, habitat value, adaptability to changing environmental conditions, and the extent to which the system is capable of self-regulation to maintain the desired condition. Recommendations for ecological enhancement consider the importance of incorporating native plants of the greater Seattle region, but also recognizes a healthy urban ecosystem can include non-native ornamental species without limiting its ability to provide valuable ecosystem services.

## URBAN FORESTS

Less than 200 years ago, the Seattle area was dominated by coniferous forests of Douglas fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and western red cedar (*Thuja plicata*). A Seattle Public Lands Habitat Survey, conducted in 1999-2000 by Seattle Urban Nature (SUN) assessed citywide vegetation on 8,000 acres of public land and open space, and revealed only 11% of the city's public forests, nearly 293 acres, are dominated by conifers, indicating a significant decline in the historically dominant forest type for the region. Within these forests, 97 plant species were identified; 65 native, 30 non-native, 2 identified only to genus. The most common canopy tree is Douglas fir, with smaller amounts of western hemlock, and western red cedar. Surprisingly, the survey identified 70% of 2,737 total acres of forest are now dominated by deciduous species. This drastic altering of the forest ecosystem has many ramifications for forest health and the ecosystem services they provide, such as:

- Intercepting and slowing precipitation and storm water in urban areas. Most of the precipitation in the Pacific Northwest occurs during the winter months when conifer forests are actively growing but deciduous trees are dormant. Evergreen trees therefore intercept more rain than deciduous trees.
- Regulating and improving air quality in urban areas by producing oxygen, taking up carbon dioxide from the atmosphere, and removing pollutants and particulates from the air year-round.
- Improving water quality in urban areas by filtering pollutants from water and preventing sediments from entering streams and degrading salmon habitat.
- Preventing erosion on steep slopes by anchoring the soil with deep roots.
- Reducing global warming by storing carbon in woody tissues for the lifetime of a tree (conifers can live for more than 1,000 years whereas deciduous trees live about 100 years).
- Providing visual and noise buffering.

## URBAN BIODIVERSITY

A report on the biodiversity of the Puget Sound by the Center for Biological Diversity (2001) concluded that of the 7,013 species in Puget Sound, 957 (14%) are imperiled, including 519 plants, 296 animals, 129 fungi and 13 marine algae. The imperiled animals include 119 invertebrates, 80 birds, 44 mammals, 38 fish, 11 amphibians and 4 reptiles. Seventeen species are listed as threatened or endangered under the Endangered Species Act and another 13 are candidates for listing.

Local and landscape scale attributes are important for biodiversity and abundance of species. Habitat fragmentation in urban ecosystems can be extreme, leaving fragments of natural vegetation that are too small or isolated to support some species. Urban woodlands are important for bird diversity; the larger the woodland, the more species supported. Tree species selection is also important. For instance, conifers provide nesting and winter cover for various bird species, fruit trees attract fruit-eating birds and other bird species rely on shrub thickets for nesting and foraging.

## WEATHER AND CLIMATE

As a result of its location on the eastern shore of the Puget Sound, in a lowland area between the Cascade Mountains to the east and the Olympic Mountains to the west, Seattle has a mild, moderately moist climate. Winters are relatively warm with average temperatures in January of 40.8° F, and summers are relatively cool with average temperatures in August of 66.1° F. Average annual rainfall is 36.6 inches, falling mostly between October and March.

### GLOBAL WARMING

Seattle and the larger Pacific Northwest can anticipate significant climate change related to global warming, as well as associated ecological and sociocultural impacts. According to the Washington Climate Change Impacts Assessment prepared by The Climate Impacts Group at the University of Washington in June 2009, climate change could affect regional ecology relative to temperature increase, intensity of precipitation, reduction of snow pack, and air quality.

### TEMPERATURE

Records indicate that Pacific Northwest temperatures have increased 1.5°F since 1920. Climate models from the Intergovernmental Panel on Climate Change project increases in annual temperature on average of 2.0°F by the 2020s, 3.2°F by the 2040s, and 5.3°F by the 2080s. Regional models indicate that climate warming rates will be greater in the 21st century than those observed in the 20th century.

### PRECIPITATION AND HYDROLOGY

Regional climate model simulations generally predict increases in extreme high precipitation of the next half century, particularly around Puget Sound. April 1 snowpack is projected to decrease by 28% across the state by the 2020s, 40% by the 2040s, and 59% by the 2080s compared with 1916-2006 historical average.

Peak river flow will shift from late spring (driven by snow melt) to winter (driven by precipitation). In the major river systems of Puget Sound and lower elevation basins in the interior Columbia Basin, flood risk will likely increase, which in turn increases the risk of streambed scouring of salmon spawning habitat. Design standards developed to accommodate mid 20th century rainfall records and existing drainage infrastructure built in accordance with these standards may need to be modified.

The amount of water stored in reservoirs will be lower from late spring through early fall, affecting water supply for campus or municipal use and other operating objectives such as hydropower production.

### AIR QUALITY

Global warming will likely lead to significantly more heat- and air pollution-related health impacts.

### IMPACTS OF GLOBAL WARMING

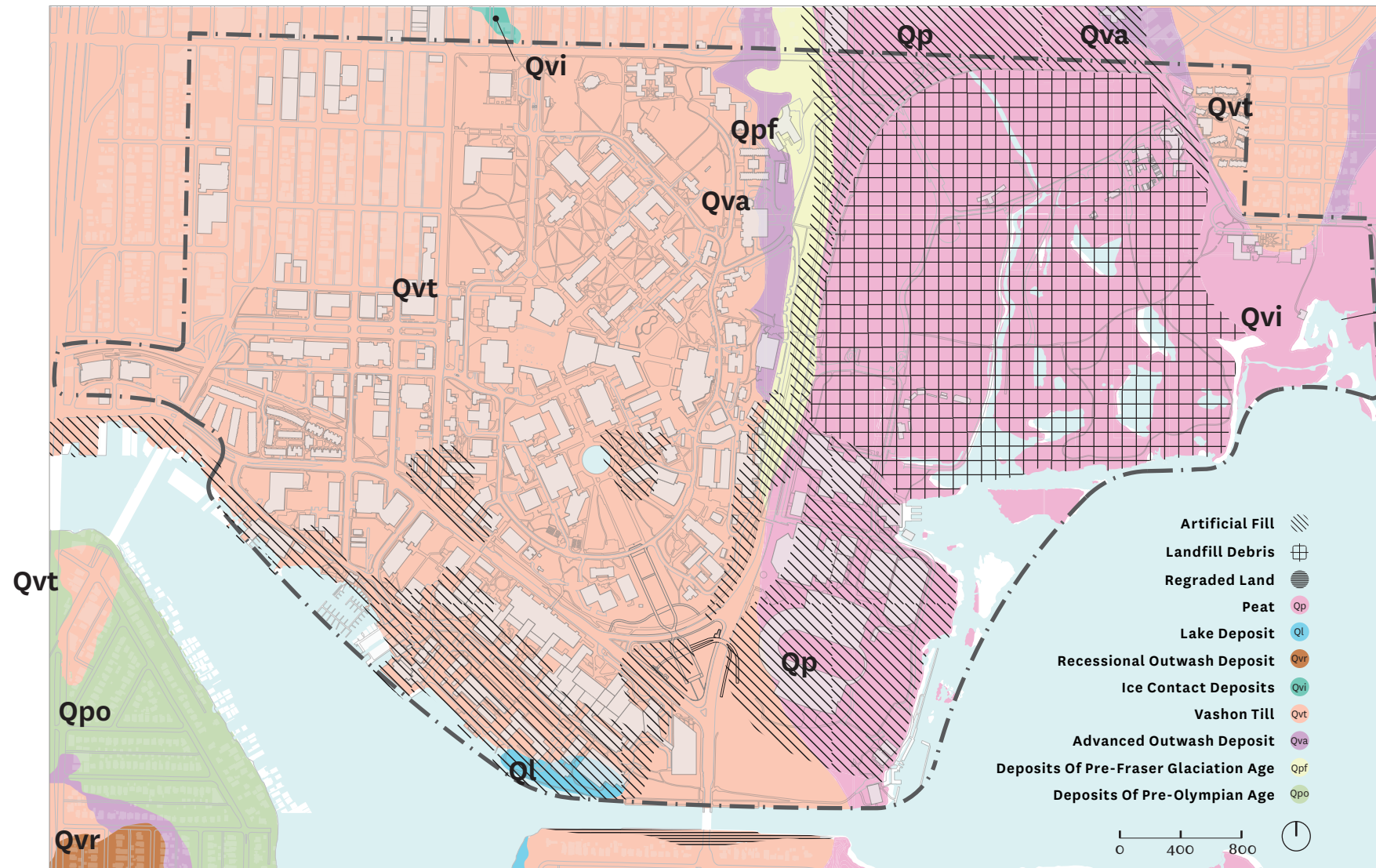
Combined impacts on tree growth, regeneration, and greater susceptibility to insects and disease will fundamentally change the nature of forests, particularly in ecosystems where water deficits are greatest.

Rising stream temperatures will likely reduce the quality and extent of freshwater salmon habitat. The greatest increases in thermal stress would occur in the Interior Columbia River Basin and the Lake Washington Ship Canal.

In a report by the Washington Department of Fish and Wildlife and the National Wildlife Federation, (Summary of Climate Change Effects on Major Habitat Types in Washington State, July 2011), the following impacts are predicted:

- Douglas fir: About 32% of the area currently classified as appropriate climate for Douglas fir would be outside the identified envelope; decline in climatically suitable habitat for Douglas fir is most widespread at lower elevations, particularly in the south Puget Sound/southern Olympics.
- Pine Forests: Climate is likely to be a significant stressor in pine forests in the Columbia Basin and eastern Cascades as early as the 2040s. About 85% of the current habitat for pine will be outside the climatically suitable range for one or more pine species.
- On the scale of individual plants, temperature may influence rates of leaf photosynthesis and respiration, frost tolerance of tree needles, flowering, bud dormancy, and the ripening of fruits and cones. On a larger scale, mean and annual variation in annual temperature and precipitation may jointly determine general patterns of distribution and growth.
- Changes in ecosystem productivity and phenology
- Increased frequency and magnitude of wildfires
- Increased susceptibility to insects and disease

## CAMPUS SOILS AND SURFICIAL GEOLOGY



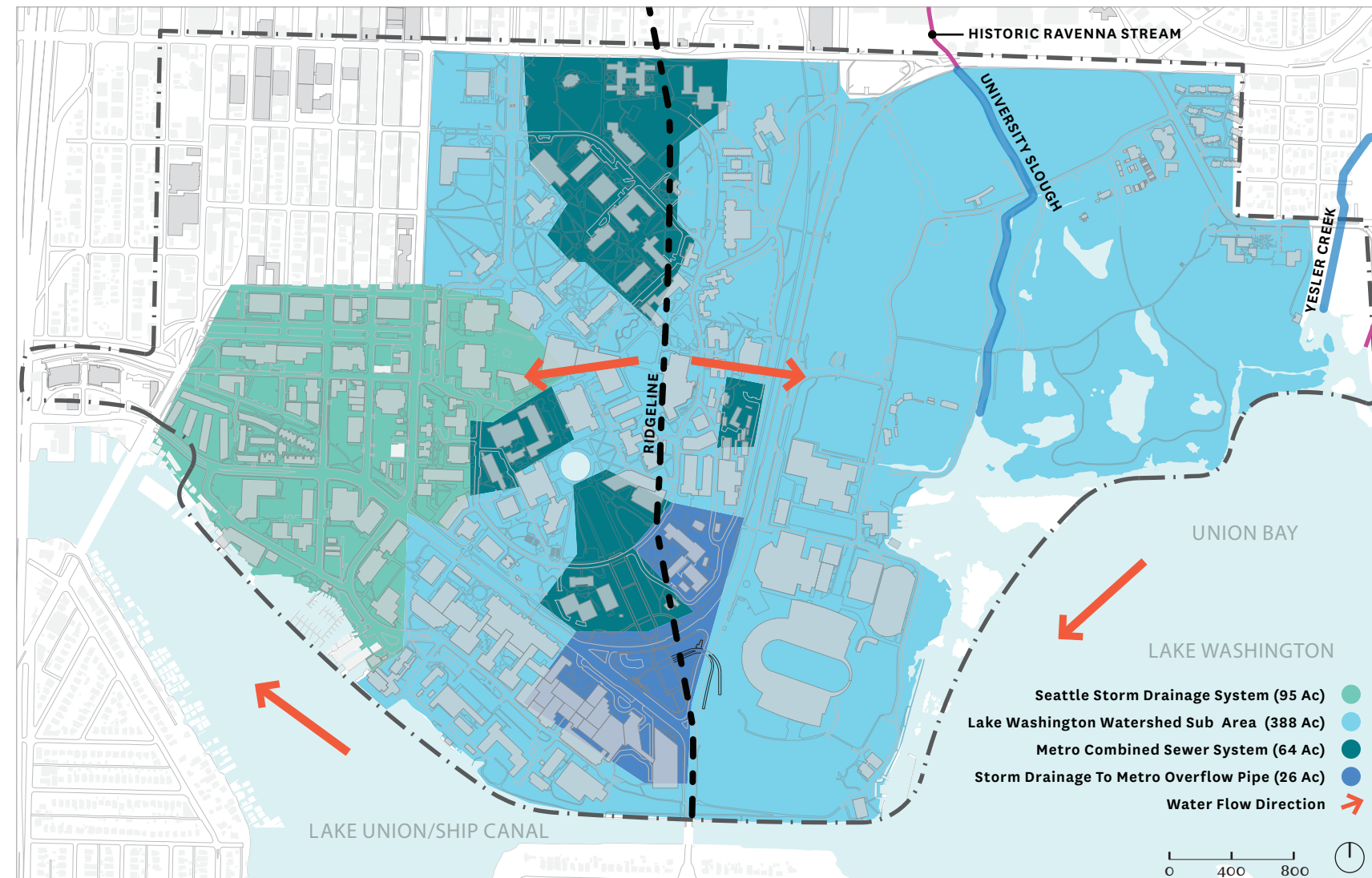
### GEOLOGY & SOILS

According to the USGS Geologic Map of Seattle, the UW campus west of Montlake Blvd. is underlain predominantly by younger Pleistocene (12,000 – 18,000 YA) deposits, mainly subglacial till consisting of silt, sand, and subrounded gravel, with some small areas of ice-contact deposits and glacial outwash. East of Montlake Blvd, the geology is mainly Holocene (12,000 YA) peat – predominantly organic matter consisting of plant material and woody debris. Peat accumulations are greatest in the floors of recessional-outwash channels and where the lowering of Lake Washington 100 years ago exposed extensive lake floor deposits. This organic material is commonly interbedded with silt and clay. A small area north of 45th St consists of alluvium – sand, silt, and cobbles deposited by streams and running water.

In several areas, numerous examples of loose stones, rocks, and gravel comprising various mineral compositions were observed, which is consistent with the USGS map. Such surficial geology often promotes relatively rapid drainage of stormwater. Consistent with this scenario, observations of campus areas during the prolonged rain events reveal very few areas of accumulated surface water.

However, it is not clear from this level of geological analysis whether the rocky soil composition on campus is naturally occurring or the result of human activity. Urban soils are notoriously highly disturbed as a consequence of activities such as earthwork (excavation, grading), demolition and construction. Naturally occurring soil profiles are often mixed or inverted, and native materials could have been supplemented or replaced entirely by imported fill.

## CAMPUS HYDROLOGY



### HYDROLOGY

Visible or invisible, water in various forms is a defining feature of the UW campus. Viewed from some distance, UW is literally perched along and atop Lake Washington. Various wetlands interweave between campus upland and open waters of the lake. Thirty plus inches of rain per year drain over sloping streets and hardscape of the campus or infiltrate into planted areas and natural areas. Pools and fountains dot the campus. Municipal water is consumed for various purposes. Each of these water facets may be viewed as a subsystem of an overall hydrologic system. To varying degrees, each hydrologic system interacts with some or all of the others. With progressive hydrologic strategic planning, all of these subsystems can be made to interact beneficially at a functional level much higher than that which currently exists.

### OPEN WATER

Several areas of shoreline along Lake Washington and Union Bay contain valuable emergent marsh habitat. In contrast, the highly channelized ship canal and Portage Bay contain little to no natural shoreline, and the ship canal is constantly subject to wake action produced by numerous passing vessels.

Posted signs warning against human consumption of fish caught in Lake Washington speak of chemical inputs impacting the ecological health of lake waters. According to Union Bay Natural Area and Shoreline Management Guidelines (2010), a pipe connection between Ravenna Creek and North University Slough was established in 2006, thereby providing for a flowing stream system. This stream emerges on the south side of NE 45th Street. The northern reaches of the daylighted portion of the stream contain minimal streamside buffer and generally poor riparian habitat. Ecological conditions improve after the stream passes the golf driving range. Even with compromised ecological conditions, the relatively protected waters of University Slough, as well as Central Pond in Union Bay Natural Area (UBNA), provide valuable habitat for various mammals, birds, reptiles, amphibians, fish, and macro

invertebrates. From a natural history perspective, the University Slough is significant for serving as the continuation of largely groundwater fed Ravenna Creek, which—prior to the lowering of Lake Washington—served as an important tributary and major provider of sediment to Union Bay. Outside of Union Bay Natural Area, the UW campus is essentially devoid of natural or naturalistic bodies of water.

### WETLANDS

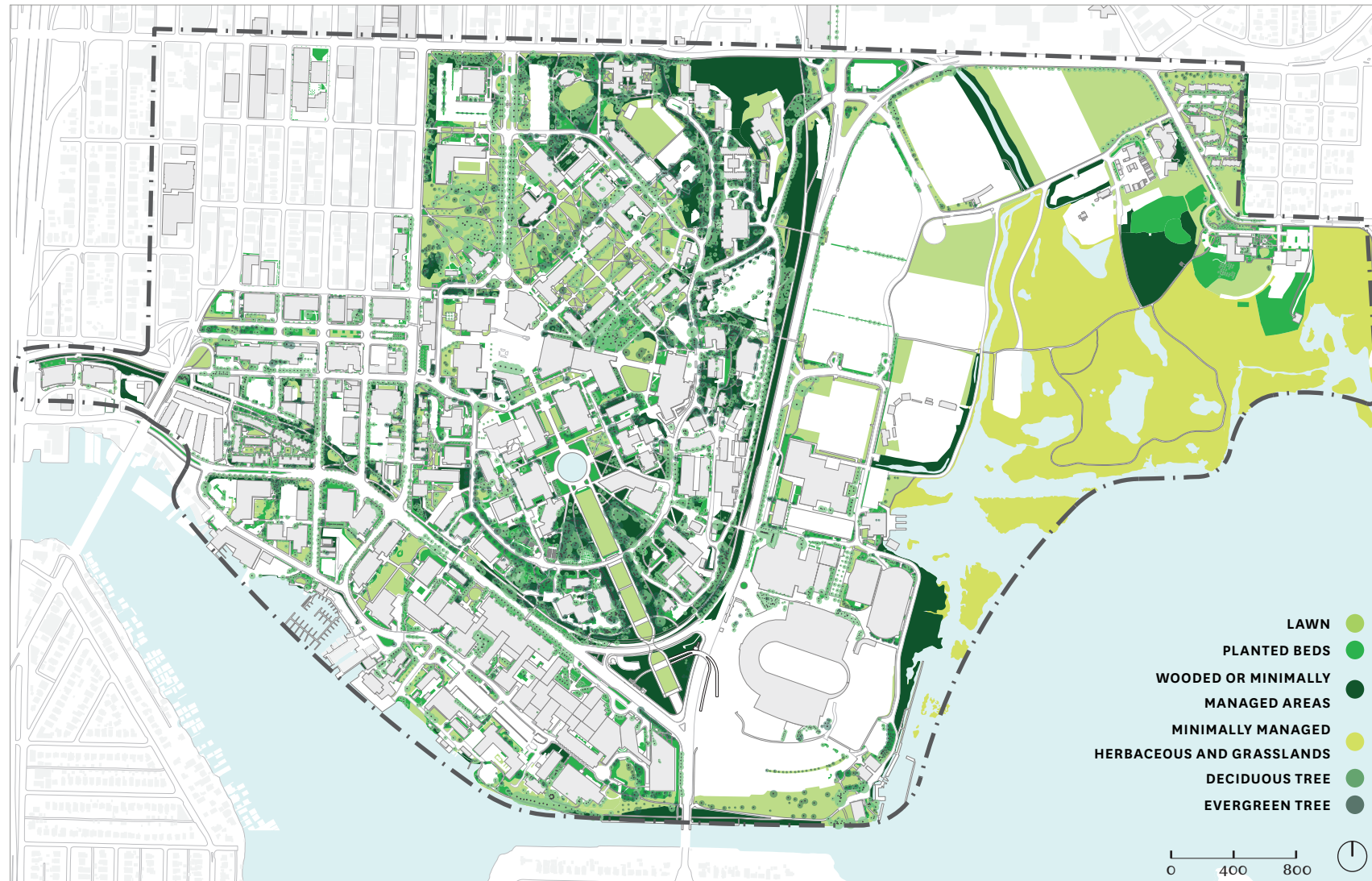
The only detectable wetland habitats on campus are found in UBNA. These habitats exhibit varied vegetative structure, making for valuable diversity of vegetative cover. Most of the wetlands in the interior of UBNA are seasonal, their hydrology fluctuating in accordance with Seattle's typical precipitation patterns. Perennial wetlands generally occur at the mainland edges, offering valuable cover for waterfowl. The remote reaches of the Yester Swamp appear particularly inviting to a range of wildlife.



THE UNIVERSITY SLOUGH



## CAMPUS VEGETATIVE COVER



### LAND COVER TYPES

Built elements such as buildings and pavement comprise the largest land cover type on campus: buildings, 112 acres; city roads, 39 acres; university internal roads, 132 acres; university paths and walks, 82 acres, and parking, 59 acres. This impervious land cover type functions as the matrix in which vegetative patches and corridors are situated and function. Turf sports fields and courts comprise 4.38 acres of campus land cover and are a mix of impervious and pervious surfaces.

### LAWN

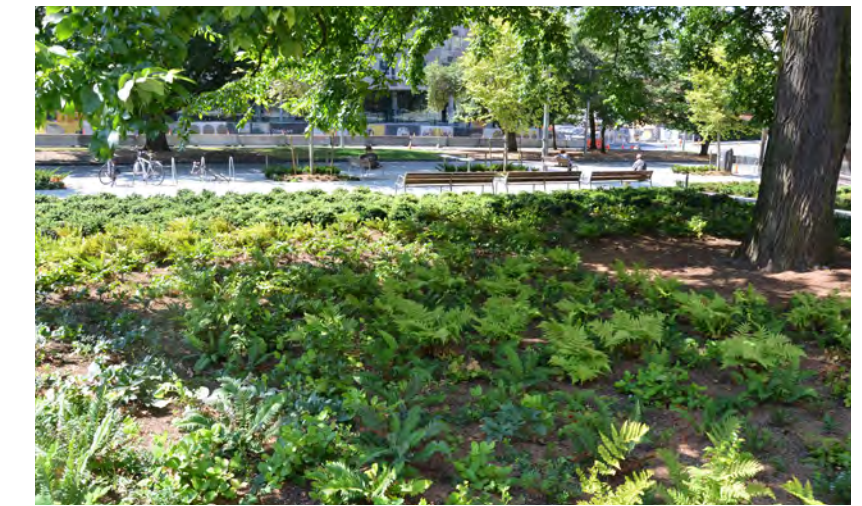
There are 75.5 acres of lawn areas consisting of common turf grass species. Since most turf species are native to areas in Europe that are generally wet year-round, these lawns go dormant and turn brown during dry seasons unless they are regularly irrigated. During rainy months in Seattle, UW's lawns generally appear green and lush. Most are managed by frequent mowing, with mowing height across the campus generally uniform. In addition to many open spaces covered by expanses of turf grass, many sidewalks and walking paths are bordered by closely cropped lawn.



NON-IRRIGATED LAWN

### PLANT BEDS

Planted beds constitute 44.3 acres of the campus land cover. These areas vary widely in terms of aesthetic appeal, plant community health, extent of soil cover, density of planting, and species used. In many instances, planted beds appear to be performing successfully as intended. In such spaces, the plants thrive, visual impact is strong, stormwater is managed effectively, and weeds are minimal. In many other instances, however, plants are struggling, bare soil is prevalent, weeds are abundant, and aesthetic appeal is compromised. Usually in such spaces, the installed plants are not appropriate for the environmental conditions of the site. Some commonly observed issues include plants poorly suited to existing light conditions, plants overly stressed by the heat island effect from buildings or paved areas, and wetland plants struggling in rain gardens and stormwater collection areas where drainage is relatively rapid because these systems are actually designed to mimic upland forests not wetlands.



FERNS AS UNDERSTORY PLANTING

## KEY CAMPUS CORRIDORS



### CAMPUS CORRIDORS

In landscape ecology, corridors are elements that may connect different vegetative patches in the surrounding matrix or they may exist as isolated strips. Small strategically located patches can also function as corridors (stepping stones). Corridors can provide habitat for wildlife (typically edge and generalist species predominate); act as a conduit for movement (e.g., animals, water, sediments, nutrients, invasive species); and act as a filter or barrier to movement (e.g., roadways where animals are killed) (Forman, 1995). Attributes such as interior width, gaps and connectivity, and context (adjacent landscape character) influence how well a corridor contributes to overall ecological landscape health (Forman, 1995; Cook, 2002). Corridors may be beneficial to some species (e.g., reducing habitat fragmentation) and harmful to others (e.g., filter/barrier effect), especially in an urban landscape.



RELATIVELY UNMAINTAINED TRAIL

### SHIP CANAL EDGE UPLAND

Much of the land adjacent to and above the constructed bays of the Lake Washington Ship Canal is composed of mixed vegetation that appears minimally managed. On either side of the support structure of the Montlake Bridge, vegetation is generally dense and includes various trees, shrubs, vines, forbs, and grasses. This area is traversed by several poorly defined footpaths. Steep slopes characterize much of the terrain.

While much of this waterside edge displays signs of typical edge effects, such as vine overgrowth and abundance of opportunistic species, the vegetation also provides valuable habitat and protective cover for wildlife. A variety of vegetative structure and density of plant growth immediately adjacent to a land-open water interface is especially beneficial to many species of birds.



LAKE WASHINGTON SHIP CANAL

## KEY CAMPUS PATCHES



### GENERAL CAMPUS BIODIVERSITY

The apparent overall level of biodiversity on the UW campus, excluding Union Bay Natural Area and lake-front wetlands, is typical of similar urban campus landscapes.

Campus plant communities include a relatively diverse array of tree species, which appears to have resulted from the combination of intentional specimen plantings throughout the campus and a fairly good representation of typical native forest trees in several wooded areas. Diversity of shrubs and herbaceous species is relatively low. Wildlife is comprised of common urban species. Mammals sighted include Eastern gray squirrel (*Sciurus carolinensis*) and Norway rat (*Rattus norvegicus*). Birds frequently encountered included American crow (*Corvus brachyrhynchos*), Canada goose (*Branta canadensis*), gulls (species not identified), mallard (*Anas platyrhynchos*), black-capped chickadee (*Poecile atricapillus*), and American robin (*Turdus migratorius*). Thirty nine bird species were recorded by area birders for the campus on eBird during April 2014, including several migratory songbirds (e.g., Orange-crowned warbler, *Vermivora celata*; ruby-crowned kinglet, *Regulus calendula*). No presence of reptile or amphibian activity within the campus core was observed. No inventory was made of invertebrate species. There is a possible correlation between low diversity of understory shrubs and groundcover and low diversity of vertebrate species.

A landscape ecology view shows that the UW campus mosaic is composed with few exceptions (Union Bay Natural Area and wetland edges near the athletic facilities, Kincaid Ravine) of spatial elements designed almost exclusively for human use. The matrix consists primarily of buildings and infrastructure. Patches (lawns, plant beds, etc.) are designed primarily for aesthetics and recreation, although these areas still retain various levels of ecological function depending on such factors as the type and amount of human usage, campus location and size of planted area, and proximity to less human-dominated

landscapes. Corridors (streets, paths) are generally vehicular/pedestrian thoroughfares with limited wildlife value that do not provide true ecological linkages. Campus-wide ecological enhancement and restoration, therefore, depend on strategies to improve the habitat and ecosystem services quality of vegetative patches and corridors, as well as the functional connectivity between them.

**ECOLOGICAL VALUE**

The ecological value of the campus is varied as noted by vegetation type and management practices. In addition, the following factors can affect ecological value of landscapes (adapted from Forman, 1995; Cook, 2002):

*Type of Landscape*

- Remnant : original character following changes in surrounding matrix
- Regenerated : previously disturbed/changed and has since naturally re-established vegetation
- Introduced : previously disturbed/changed and vegetation is of human origin

*Patch Size*

- Large : better, large benefits
- Small : small, supplemental benefits
- 

*Corridor Size*

- Internal area/width : more distance from edges is better
- Length/continuity/gaps/connectivity

*Context*

- Adjacent conditions compatible, adequate buffers
- degree of isolation : proximity to other patches or corridors

*Habitat Quality*

- Structural diversity : layers/stratification typical of native community
- native species diversity
- limited/lack of fragmentation
- limited/lack of invasive species
- Connectivity

*Ecological Stressors*

- Altered hydrology/impervious surfaces
- Invasive species
- Soil compaction
- Habitat fragmentation
- Obstacles to movement, collision hazards

**SAMPLE ECOLOGICAL VALUE RANKINGS**

	LOCATION	TYPE	PATCH/CORR. SIZE	CONTEXT	HABITAT QUALITY	ECO STRESSORS	AVERAGE RANKING
CULTIVATED LANDSCAPES	Parrington Lawn	Introduced	2.0	1.5	1.0	1.0	1.4
	Sylvan Grove	Introduced	2.0	1.5	1.5	1.5	11.6
	Island Grove	Introduced	2.0	1.	2.0	2.5	2.0
	North Physics Lab Roof	Introduced	1.5	52.0	1.5	1.5	1.6
	Drumheller Rose Garden	Introduced	1.0	2.0	1.0	1.0	1.3
	Golf Driving Range	Introduced	2.0	2.5	1.0	1.0	1.6
	Whitman Court Woodland	Introduced	1.5	2.0	2.0	1.5	1.8
MIN MANAGED LANDSCAPES	UBNA	Regenerated	3.0	2.0	3.0	2.0	2.5
	Kincaid Ravine	Remnant	2.0	2.0	2.0	1.0	1.8
	45th Street Wooded Edge	Introduced	2.0	3.0	1.5	1.0	1.9
	Ship Canal Edge	Regenerated	2.0	1.5	1.5	1.5	1.6
	Wetland Edge	Remnant	2.0	3.0	2.0	1.5	2.1
CAMPUS CORRIDORS	15th Ave NE	Introduced	1.0	2.0	1.0	1.0	1.3
	NE 45th Street	Introduced	2.0	3.0	1.5	1.0	1.9
	NE Campus Parkway	Introduced	2.0	1.0	1.0	1.0	1.3
	Burke Gilman Trail	Regenerated	2.0	3.0	1.5	1.5	2.0
	NE Stevens Way	Introduced	1.0	2.0	1.0	1.0	1.3
	Memorial Way	Introduced	1.0	2.0	1.0	1.0	1.3
	Rainier Vista	Introduced	2.0	2.0	1.0	1.5	1.6
	Pacific St / Montlake Blvd	Introduced	1.0	1.0	1.0	1.0	1.0
	Smaller Pedestrian Paths	Introduced	1.0	1.5	1.0	1.5	1.3
	Open Water - Terrestrial Edge	Regenerated	2.0	1.5	1.5	1.5	1.6
University Slough	Regenerated	2.0	3.0	3.0	1.5	2.1	
Ecological Ranking		3 = Good	2 = Moderate	1 = Poor			

## ECOLOGICAL ENHANCEMENT AND RESTORATION OPPORTUNITIES

Moving forward, campus ecosystem improvements can be designed with strong appeal to the primary users along a spectrum of formal garden to apparent naturalness or wildness. While continuing to prioritize human use, this would help rebalance the relationship with nature on a bustling urban campus like UW.

Specific areas where there's significant room for ecological improvement, in the form of ecological horticulture principles, include alternatives for:

- lawns
- planted beds
- tree canopy (urban forest)
- naturally occurring/minimally managed landscapes
- ecological corridors

## APPLYING ECOLOGICAL HORTICULTURE

The ongoing stewardship of the UW campus should be based in an understanding of ecological context including climate; soils; hydrology; diverse flora and fauna and their native communities; and other site, local, and regionally specific factors. Applied to landscape design and management, the practice of ecological horticulture will maximize the ecological health of planted environments on the campus and enable UW to achieve the vision articulated in the University of Washington Climate Action Plan:

*We strive to envision the whole campus landscape as an ecological sustainable urban system that satisfies University functions while promoting healthy aquatic and terrestrial ecosystems. Landscape should be viewed as more than an aesthetic amenity. Understanding the campus ecology and the vulnerability of certain ecosystems relative to new construction will help UW design, build, restore, maintain, and manage the built environment more knowledgeably and preserve and enhance our ecosystem services.*

## GUIDING ECOLOGICAL HORTICULTURAL PRINCIPLES

The following high level guiding principles for ecological horticultural relative to landscape design and maintenance practices should be applied to all projects and provide an opportunity to re-examine and evaluate current practices.

1. LET SITE CONDITIONS GUIDE SPECIES SELECTION
2. ENHANCE PLANT COMMUNITY STRUCTURE
3. PROMOTE DIVERSITY, RESILLENCE, AND REGENERATION
4. UNDERSTAND AND ENHANCE MICROCLIMATES
5. APPLY STRATEGIC MAINTENANCE
6. MANAGE STORMWATER ECOLOGICALLY

## 1. LET SITE CONDITIONS GUIDE SPECIES SELECTION



BURKE GILMAN TRAIL - PACIFIC STREET LANDSCAPE

### FUNCTION AND CHARACTER

Plants that are suited to their location have the greatest potential to thrive and grow with the least amount of maintenance. Plant selection can help contribute to optimizing campus experience while also conserving resources.

### STRATEGY

Determine site conditions and properties prior to plant selection, e.g., soil characteristics, hydrology, light exposure, proximity to reflective building surfaces and pavement (urban heat island impacts) Select plant species that are well-suited to specific conditions. Place high priority on selecting native plants from the Seattle area (see lists at the end of this chapter).

## 2. ENHANCE PLANT COMMUNITY STRUCTURE



DIFFERENT LAYERS WITHIN PLANTING

### FUNCTION AND CHARACTER

Single specimens have less experiential and ecological value as compared layered plant communities. Complex community structure provides habitat, food for wildlife, carbon sequestration, improved localized air quality, efficient stormwater management, and enhanced weed suppression.

### STRATEGY

For new construction, or simply to add value to an existing landscape, plant in layers to mimic the vertical stratification in naturally occurring ecosystems, e.g., tree canopy, understory, shrub and tree seedling, groundcover.

### ALTERNATIVE LAWN STRATEGIES

Similar to many university campuses, the UW campus has abundant expanses of lawns planted in common exotic turf grass species. Keeping grass lawns green throughout the year requires irrigation when water resources are the most strained. There are simple, effective alternatives to lawn that would contribute to greater biodiversity, improved hydrologic functioning, and lower maintenance. These include replacing turf with plant species and/or communities that are suited to the environmental conditions present on the specific site, as well as the governing regional climatic patterns. Such plant communities include native warm season grasslands, wildflower meadows, savannas, shrubland, or forest (see sample lists at the end of the chapter). The UW campus contains various turf-covered areas that receive full sun that would benefit ecologically if converted to a more complex plant community.

Balancing the desire for greater biodiversity of lawn areas with aesthetic considerations and student recreational (passive and active) needs requires thoughtful consideration. The following potential lawn conversions are merely suggestions for areas that could provide the greatest ecological functions if implemented and would not markedly change the overall use of the UW campus landscape, but they could add to the overall experience and portray the University's commitment toward a more sustainable landscape ecology.

### VARIED TURF HEIGHTS

A simple intervention that could be considered for large grassy areas, such as those within Parrington Lawn and Rainier Vista Way, would entail varying height levels of turf and allowing unused sections of lawn to grow higher. A visual precedent for such a landscape practice can be observed within the large meadow spanning the entrance area at Bloedel Reserve, on Bainbridge Island. In this meadow, a permeable walkway is flanked by short, frequently mowed turf, which gives way to taller, infrequently mowed grass. When turfgrass is mowed infrequently, stormwater management is improved and biodiversity is improved, as random forbs are able to grow amidst the grass.



PARRINGTON LAWN

### PARRINGTON LAWN

Parrington Lawn is vast and well connected in several directions. There is room to accommodate both traditional turf landscape and managed meadow landscape while maintaining the various uses and overall character of the lawn. If meadow placement were to include frontage along 15th Ave. NE, visual interest from the street would be enhanced, as meadow grasses and forbs would provide flowing motion and varied color near the ground plane.

### RAINIER VISTA

At present, Rainier Vista contains several large lawn sections. Once current construction is completed, there will be even more more turf sections framed between paths. Conversion of some of these turf sections to grassland or meadow would significantly improve the ecological value of this entire area. Varied land types in proximity offer valuable choices for habitat and food for wildlife. Rainier Vista is adjacent to multiple wooded areas: Sylvan Grove Theater and Island Grove and the landscape near Anderson and Bloedel. Locating open meadow habitat close to these wooded areas would encourage greater wildlife diversity in this area. Also tall grasses and forbs would improve natural stormwater management of this downward sloping area.

### SYLVAN GROVE THEATER

The open lawn of Sylvan Grove Theater slopes downward to a low point close to the columns. A storm drain sits at the base of the section. If feasible from a programming perspective, disabling the storm drain and installing a mix of mesic and wet meadow species would enhance both the ecology and systems functionality of the spot. If a wet meadow creation at Sylvan Theatre coincided with meadow creation within the Rainier Vista, the biodiversity of the entire area would noticeably improve.

### NE CAMPUS PARKWAY

The median of NE Campus Parkway is currently planted with turf grass interspersed with street trees. Converting this median to savannah habitat, by adding meadow grasses and forbs, along with selected shrubs, would improve the ecological viability of this corridor. In addition properly selected species installed within strategically graded storm water catchment areas/rain gardens would greatly promote beneficial stormwater management of runoff flowing down 11th Ave. 12th Ave., Brooklyn Avenue and University Avenue.

### WALLA WALLA LANE

Much of the area surrounding Walla Walla Lane, on both sides of the Montlake Bridge, is composed of mowed turf. This lightly used open space could easily be transformed into meadow, savannah, or forest habitat, each of which would promote increased biodiversity and improve stormwater management.

### NORTH PHYSICS LABORATORY

An expanse of vegetation composed largely of non-native cool season grasses and weedy forbs sits atop the roof of the physics laboratory building cyclotron. Converting this area to native warm season grasses and forbs would prove ecologically valuable.

### GOLF DRIVING RANGE

The expanse of turf that comprises the Golf Driving Range is vast, and the potential exists to provide ecological uplift while still maintaining

the athletic function of the range. One possibility would be to reduce the size of the range and convert the portion along the forested edge of the University Slough to short grass meadow. This scenario assumes that most golf balls would be easily retrievable in the mowed turf portion of the range. Placement of a meadow near the University Slough corridor would be a boon to wildlife.

### NE STEVENS LANE

The turf median set within NE Stevens Lane could be converted to a few species of warm season grasses to improve ecology and hydrology.

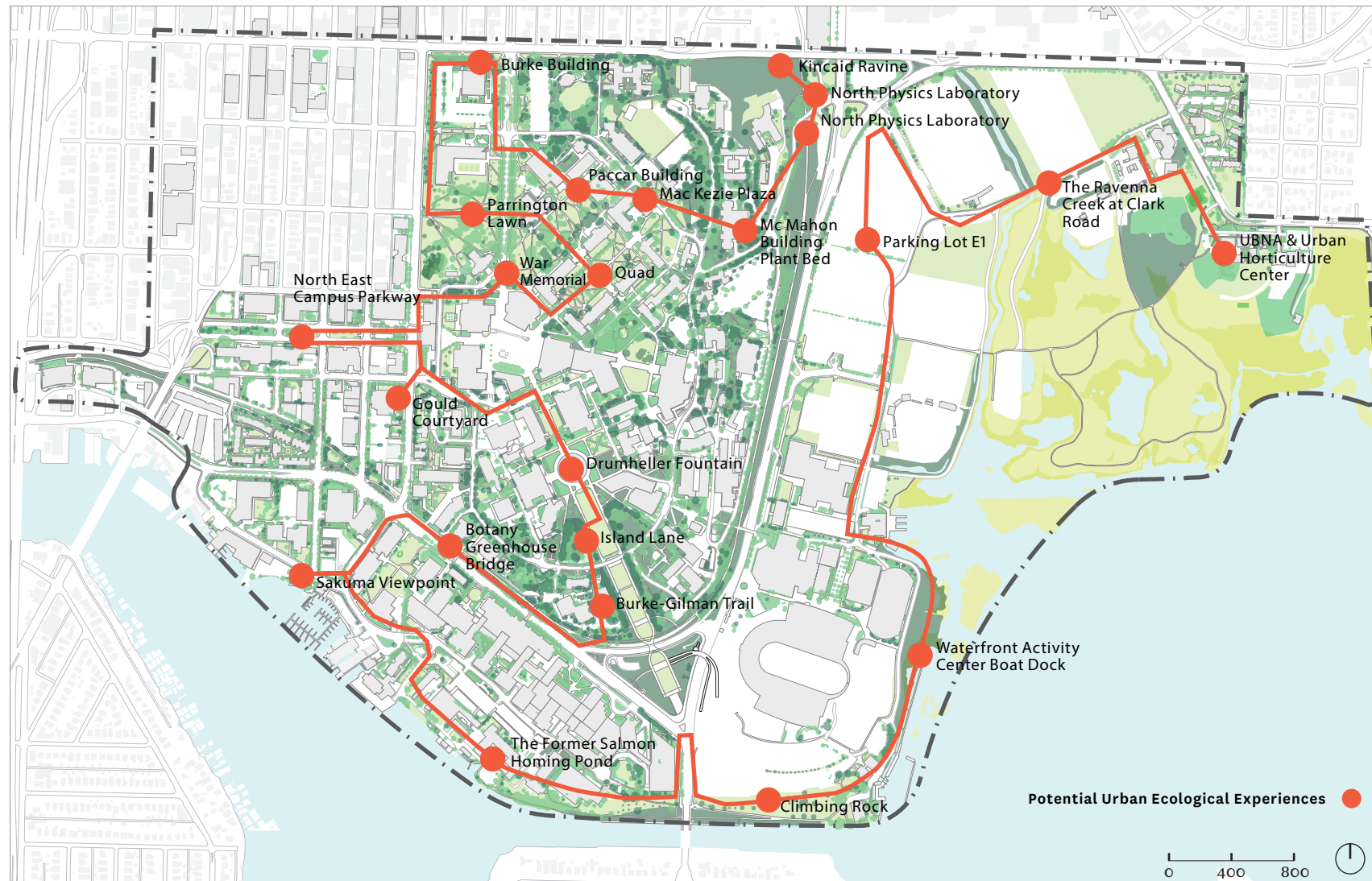
### TURF EDGES ALONG SIDEWALKS

Along several campus walkways, mowed strips of turf of varying widths separate wooded areas from the sidewalks. Examples include sections of 45th St., 15th Ave., and Rainier Vista Way. In such areas, converting these to meadow landscapes or adding low shrubs and ground cover herbaceous species would add habitat and improve stormwater capture, significantly reducing maintenance requirements.



TURF AREA ALONG CAMPUS WALK/DRIVE

## POTENTIAL URBAN ECOLOGICAL AWARENESS MAP



### URBAN ECOLOGICAL AWARENESS

The opportunities for experiential learning about urban ecology run throughout the campus, and the grounds themselves should be considered an integral part of the classroom experience. With appropriate programming, many intriguing aspects of urban ecology can be made apparent or discoverable to UW students, as well as visitors to the University.

Increased awareness and understanding of the dynamic interactions between the natural and the built environments is of high value not only to students of the sciences, but to students of the arts and humanities as well. Greater comprehension of systems leads to greater appreciation and enjoyment of the natural and built wonders of the land itself. Accordingly, a program that takes advantage of the numerous opportunities that presently reside throughout the campus landscape would directly support the mission described in the University of Washington Climate Action Plan (page 51): “Leveraging the stewardship of campus ecology to create synergies between the built environment and academic research and teaching will optimize the conditions for education and learning over time. The hands-on learning and understanding that would be gained, if fully integrated into our academic programs, can be expanded to regional and global scales.” Initiating a program similar to the Brockman Campus Tree Tour might prove valuable. Locations and discussion points for a potential urban ecological awareness program are shown on the Ecological Awareness map and following highlights.



**9. THE QUAD**  
**POTENTIAL DISCUSSION: MICROECOSYSTEMS, EPIPHYTE ADAPTATIONS**



**10. WAR MEMORIAL**  
**POTENTIAL DISCUSSION: CLUES TO GEOLOGIC HISTORY, BIOLOGY OF ULTRAMAFIC ROCKS AND SOILS**



**13. DRUMHELLER FOUNTAIN**  
**POTENTIAL DISCUSSION: URBAN AQUATIC ECOSYSTEMS, AESTHETICS AND ECOLOGY, URBAN WILDLIFE HABITAT**



**14. ISLAND LANE HERON ROOKERY**  
**POTENTIAL DISCUSSION: URBAN WILDLIFE HABITAT**



**11. NORTH EAST CAMPUS PARKWAY**  
**POTENTIAL DISCUSSION: LANDSCAPE SPATIAL CONFIGURATION AND ECOLOGICAL FUNCTION, URBAN HYDROLOGY**



**12. GOULD COURTYARD**  
**POTENTIAL DISCUSSION: PLANT GROWTH ON STRUCTURES, ECOLOGICAL VALUE OF PLANTING ON WALLS**



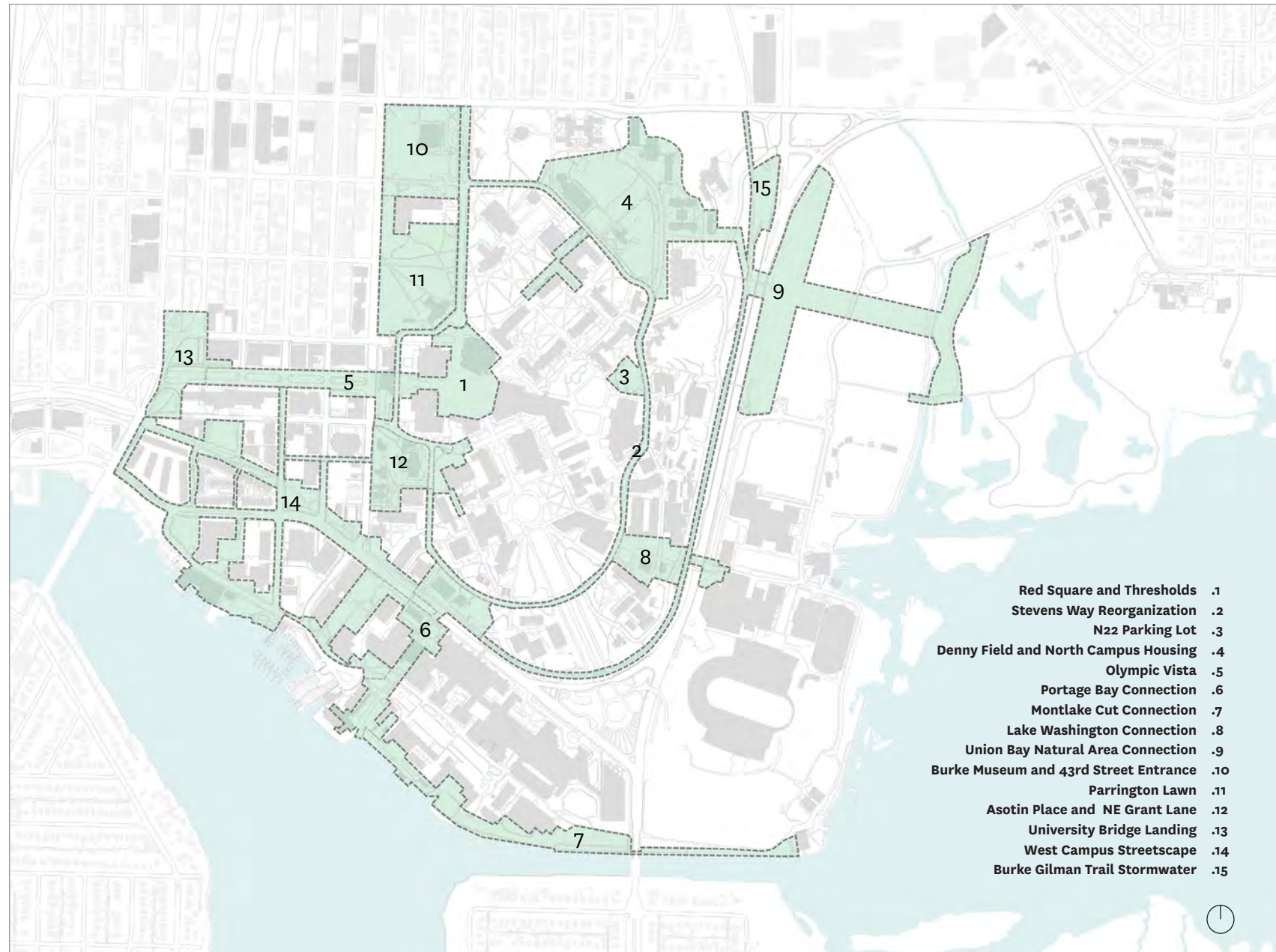
**15. BURKE-GILLMAN TRAIL**  
**POTENTIAL DISCUSSION: ECOLOGICAL CORRIDORS, URBAN HYDROLOGY AND STORMWATER MANAGEMENT**



**16. BOTANY GREENHOUSE BRIDGE**  
**POTENTIAL DISCUSSION: OVERPASS MICROCLIMATE, URBAN LIMESTONE "OUTCROP," ACID RAIN AND URBAN STALACTITES**



## CASE STUDIES: TESTING ECOLOGICAL STRATEGIES AT A PROJECT SCALE



The UW functions primarily as a human use environment. At the same time, it is a major waterfront green space within a major metropolitan area, presenting unique opportunities for permeability, ecological connections, and large-scale green infrastructure. The areas with the greatest capacity for improvement are those where human uses overlap with natural ecology, presenting opportunities to better weave the campus into a healthy regional ecosystem, or integrate basic university functions with ecological health.



**REINFORCING THE HISTORIC CAMPUS CORE**

The Campus Core retains major patches of valuable green space, particularly along the northern border, as Kincaid Ravine connects to the Archery range landscape and then beyond to the Burke Museum Frontage. As identified in the CLF, the Historic Core is one of the most maintained areas of campus, which means there are greater opportunities to fine-tune resource management and plant palette in ways that support improved overall sustainability.

In addition to general recommendations related to planting and maintenance strategies, case studies that support this strategy include:

- 4. Denny Field and North Campus Housing
- 10 Burke Museum and 43rd Street Entrance
- 11. Parrington Lawn
- 15. Burke Gilman Trail Stormwater

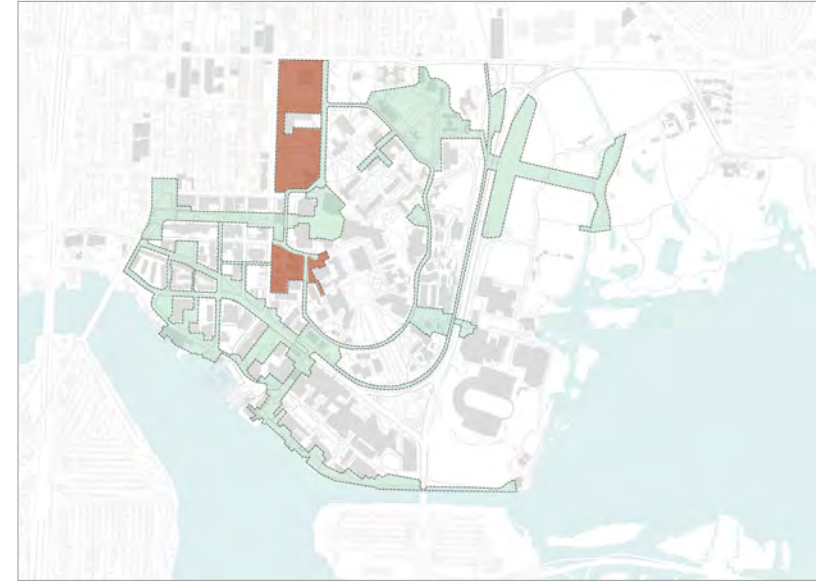


**IMPROVING CAMPUS CORE TO EDGE CONNECTIVITY**

The UW's four neighborhoods are structurally separate, a fact that obstructs larger ecological connections. In addition to improving human experience, strategic new landscape connections can provide a two-way conduit between ecological systems, thus allowing much broader and more valuable connections.

Case Studies that support this strategy include:

- 6. Portage Bay Connection
- 9. Union Bay Natural Area Connection
- 15. Burke Gilman Trail Stormwater



**TRANSFORMING 15TH AVENUE FROM AN EDGE TO A CONNECTOR**

The 15th Avenue NE edge is primarily green space for much of its length, but it offers only marginal ecological value. Modifications to the plant palette and maintenance regime could dramatically improve the ecological value of this important edge.

Case studies that support this strategy include:

- 10. Burke Museum and 43rd Street Entrance
- 11. Parrington Lawn



**WEST CAMPUS & GREEN NETWORK**

West Campus currently has very little green space, so there is tremendous room for ecological improvement in terms of introducing new permeable areas, habitat value, and connections to the waterfront. The West Campus Framework Plan will develop ideas about the appropriate locations for destination green spaces in more detail, thus reinforcing this approach.

Case studies that support this strategy include:

- 14. West Campus Streetscape





**THE CAMPUS EXPERIENCED IN MOTION**

Although the signature moments on the UW campus are truly iconic, and can be captured through the lens of a camera or by a moment’s quiet contemplation, the campus landscape is most commonly experienced in motion; a walk between classes; arriving or leaving for the day’s work; an informal game with friends. Most members of the university community are not tied to a single location on campus throughout any given day, so the exquisite setting must therefore be supported by an engaging, welcoming, and comfortable experience of travelling between parts. This is not merely a question of wayfinding and orientation, although this is a key component, but it goes to the heart of the role of the campus landscape as a place for mental refreshment between tasks, a place for social interaction, and a place of inspiration.

The management of convenient navigability is not simple, and should support the pleasure of moving through the campus – a visit to the UW can start in the car, on a bus, on a bike, or on foot, and each person can have multiple origins and destinations throughout the day, but vigilance is required to ensure the landscape does not become overwhelmed with wayfinding information. Connections are used for different purposes –some users might be in a hurry to get where they are going, and seek a direct path, whereas other might be looking to engage the campus and the community by immersing themselves in an outdoor environment, or a social space. All of these aspects of moving through the campus should be supported. The network of paths and visual relationships on the UW campus should be considered as a complete system, and a landscape in its own right, with functional and aesthetic characteristics complementing each other. It should be user-friendly and inspiring in the broadest possible sense, creating an environment that adds value to the different types of trips that different users make at different times in the day or in different seasons of the year.

**Observations**

The campus is organized around radiating axes that emanate from a strong center and weaken as they reach outward

Accessibility networks are available but are often not direct

Different people use pathways for different modal purposes, at different times

The individuals who know the campus best are those who live, work, and study here

The campus is a vast and complex environment that needs to provide clarity for visitors as well as interest for daily users

**Strategies**

➔ Integrate experience of center and periphery by strengthening connections throughout the campus

➔ Obstacles to access should be overcome wherever possible, but particularly within the most publically accessed areas such as the central iconic spaces of the campus

➔ Embrace the diversity of the pedestrian network to ensure that purposeful movement is accommodated alongside experiential richness

➔ Solicit ongoing feedback about what is or is not working on the campus and value the needs of different user groups

➔ Supplement structure of landmarks, sight lines, and axes with unobtrusive wayfinding and orientation information

## CAMPUS SURVEY : CIRCULATION MODES AND IDENTITY



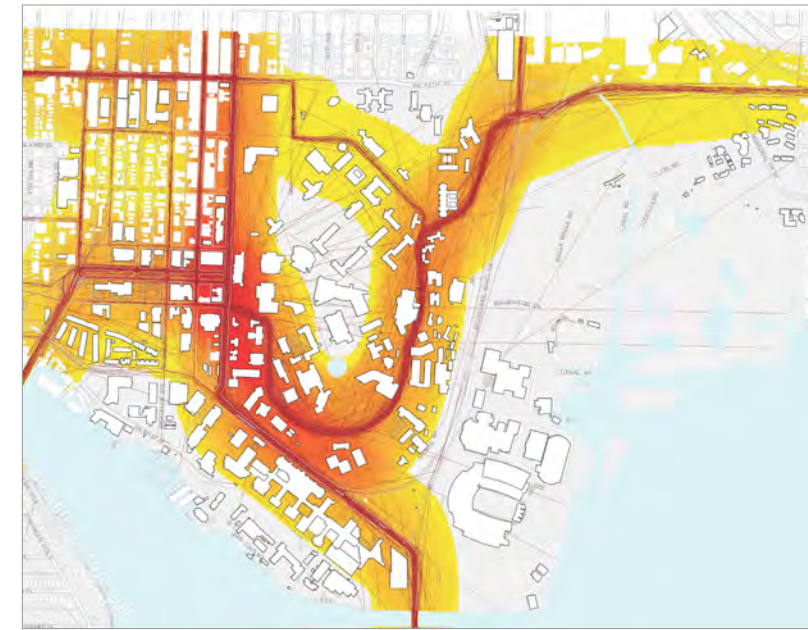
### PEDESTRIANS

This series of “heat maps”, generated with data input by the UW community for the 2013 online campus survey, represents in red the greatest intensity of use and white the absence of use. The pedestrian network shows the concentration of activity in the Central Campus particularly within the Stevens Way loop. Connections to the East and South Campus are particularly poor, and the role of 15th Avenue as the connector between the urban grid of West Campus and the historic pedestrian-oriented patterns of the Central Campus can be clearly read.



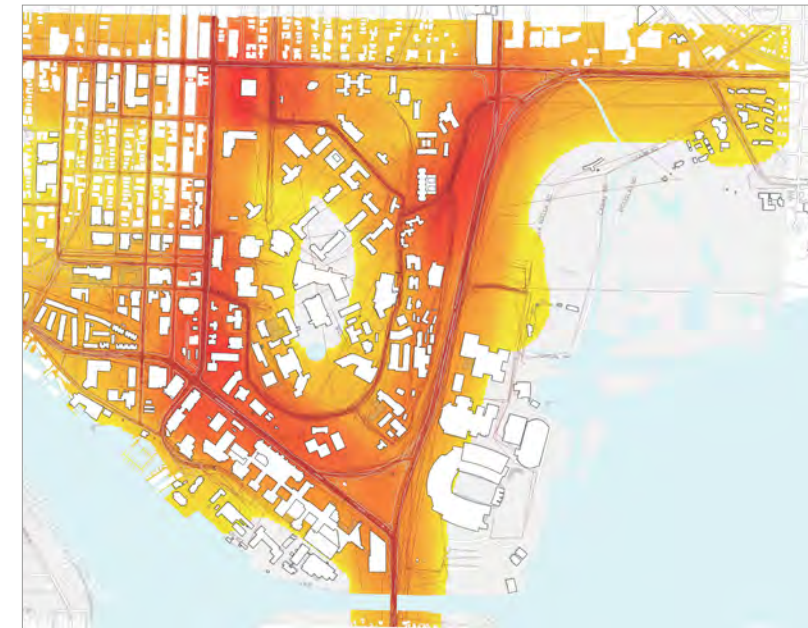
### BICYCLES

The importance of the Burke Gilman Trail as the major bicycle route to and from campus reads very clearly. The consistent shallow grade of the trail, as an historic rail corridor, contributes to its popularity in a city that is otherwise defined by steep slopes. Its complete separation from automobile traffic, except at crossing points, makes it an especially safe and inviting biking environment. Within the core campus, roadways are also major bike routes, in this case most likely as a result of the separation from the slower pace of pedestrians. The inner loop, travelling along Grants Lane and across the lower end of the Quad, however, is equally important to bicycles and pedestrians.



### TRANSIT

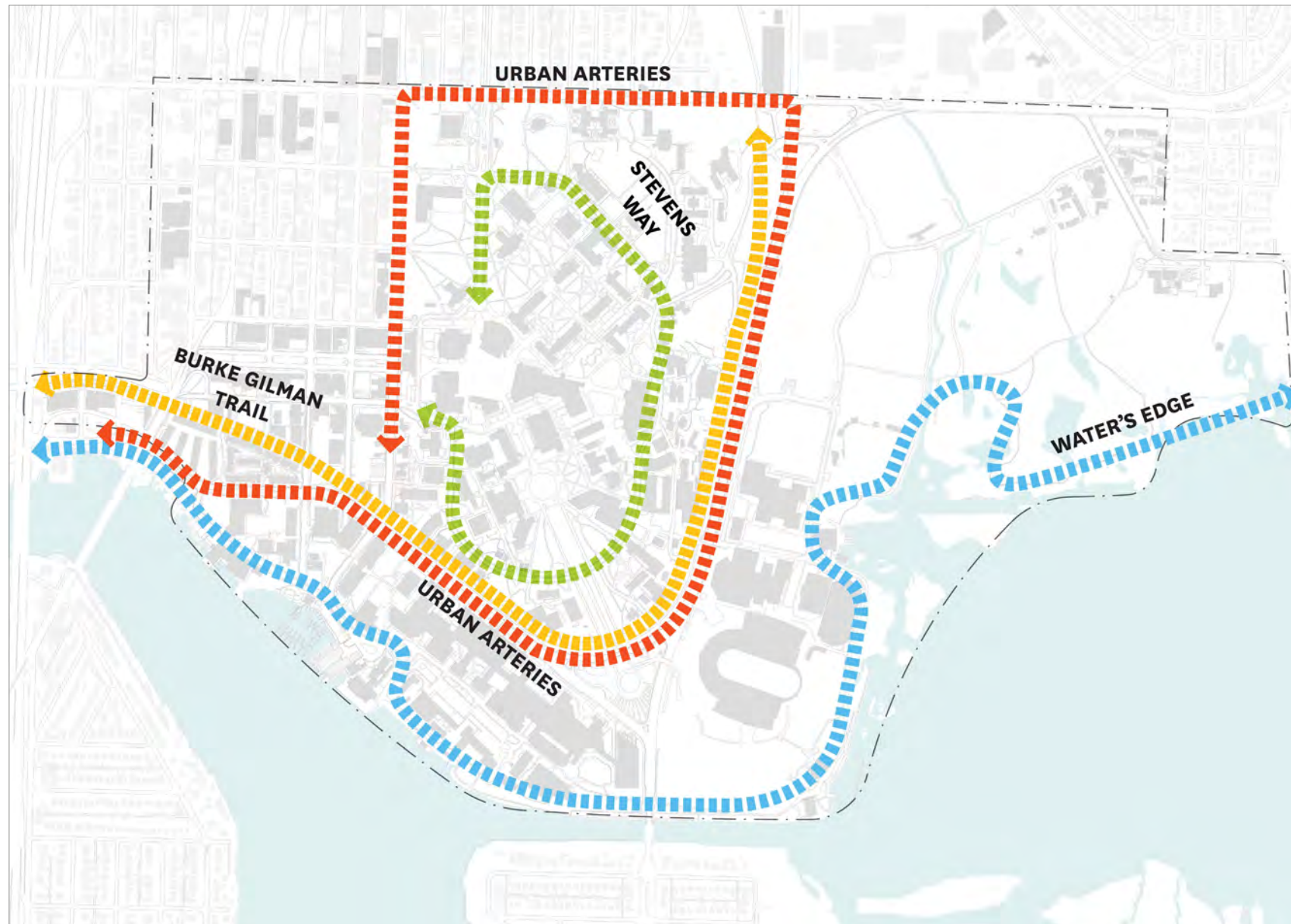
The UW is well served by bus routes that pass by major university entrances, as well as routes that pass through campus, particularly Stevens Way, whose narrow travel lanes can be dominated by buses at certain times of day. The UPass program, which gives UW students the opportunity to buy a deeply discounted unlimited ride bus pass, has been a highly successful means of encouraging bus ridership. A transformative new transit opportunity will arrive in 2016, with the completion of the light rail station at Husky Stadium, and then again in 2021, with the completion of the Brooklyn Avenue station in the UDistrict. Both of these new transit services will radically alter the current transit map, creating a much stronger emphasis in the Northwest and southeast corners of the campus



### CARS

Vehicular access into the central core of campus was historically quite permissive, but has become increasingly restrictive over time. Points of entry onto the core campus are limited to three: Memorial Way, 41st Street, and Pend'Oreille Drive. East Campus can be accessed by car along its length, and South Campus can be accessed at either end, though there is a strong wayfinding directive and parking strategy that concentrates entry and exit at the western end of this neighborhood, resulting in traffic bottlenecks during peak volumes. West Campus, with its underlying city grid and pedestrian sidewalks, is very porous for cars

MAJOR CAMPUS EDGES : A SERIES OF CONCENTRIC SYSTEMS SERVING MULTIPLE MODES



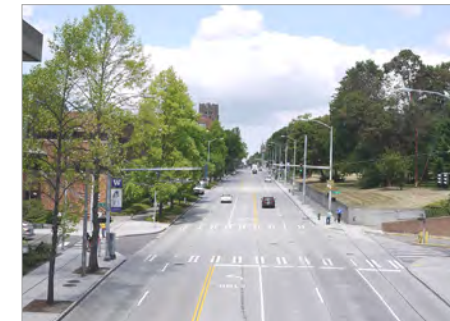
**STEVENS WAY**

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**BURKE-GILMAN TRAIL**

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**URBAN ARTERIES**

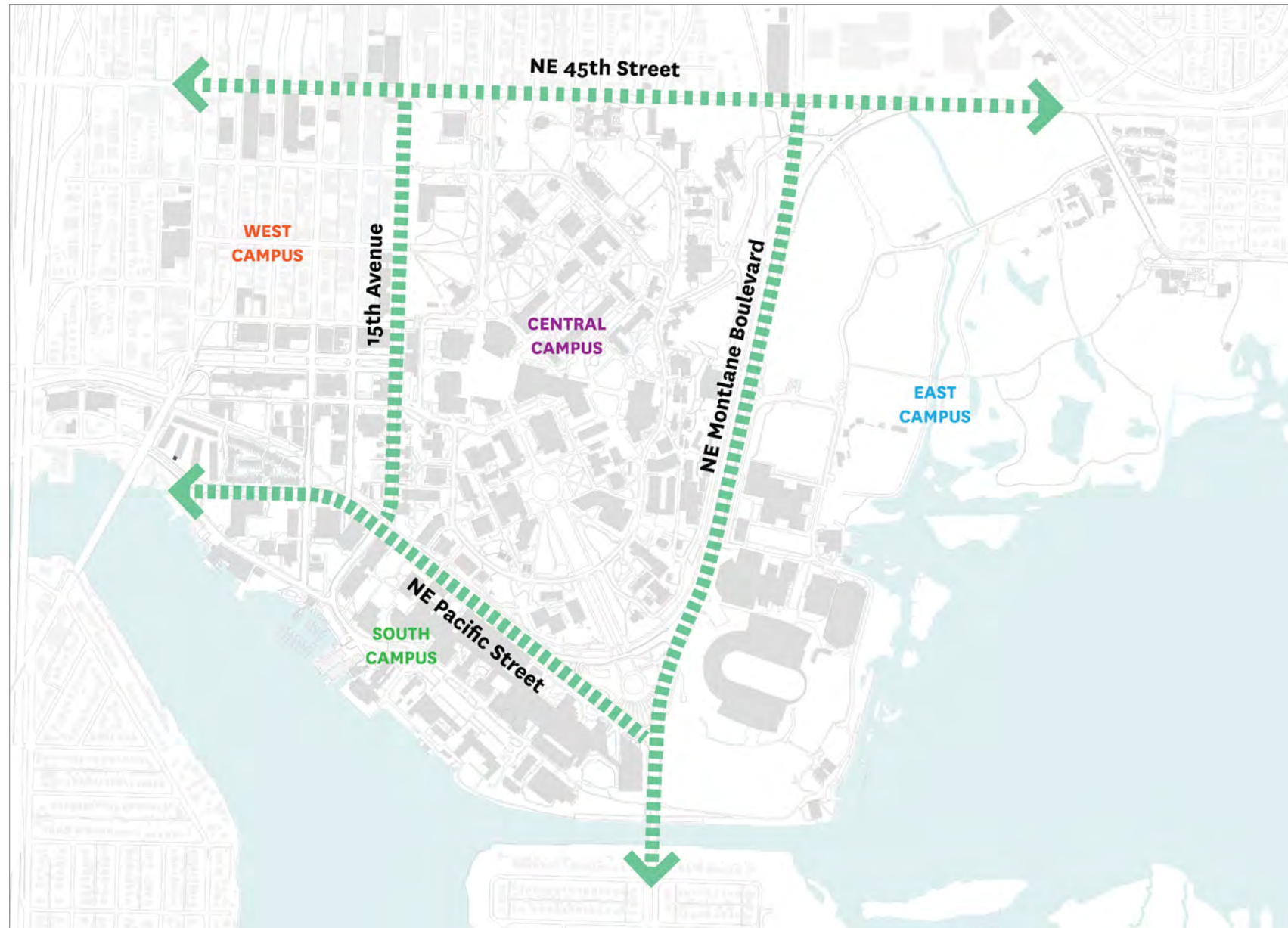
Four major urban arteries, each with its own identity and core characteristics, combine to create a frame around the UW. 15th Ave NE has one entry onto campus and frequent traffic signals, which make it possible to cross, but it is not necessarily pedestrian friendly due to the high speeds and heavy bus traffic. Montlake is a heavily used route with no access points along the eastern edge of the core campus, save for the Pend’Oriele entrance, and limited access to East Campus. Pacific has no points of entry directly onto South Campus or Core Campus, aside from a drop off at the hospital. NE 45th has one major entry at 17th Street. Like 15th Ave NE, there are many traffic signals which make it relatively easy to cross, despite the heavy volumes of fast traffic.



**WATER’S EDGE**

The water’s edge is currently underutilized, but it has tremendous potential to offer more to the university experience, particularly as the final concentric ring around the UW Center. There is a significant connection issue along the Montlake Cut, with an accessible route impossible to achieve along the constructed Montlake Cut. Minor disruptions are unavoidable due to existing architecture, but slight modifications could be made to wayfinding and landscape elements that will allow the waterfront to become a memorable outer ring

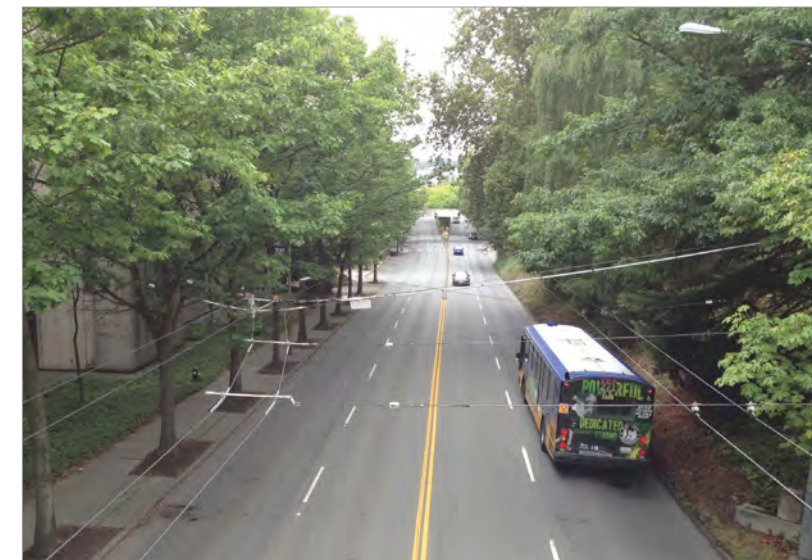
CENTRAL CAMPUS EDGES : URBAN ARTERIES BRING ACTIVITY, BUT CREATE BARRIERS



15th Avenue



NE 45th Street

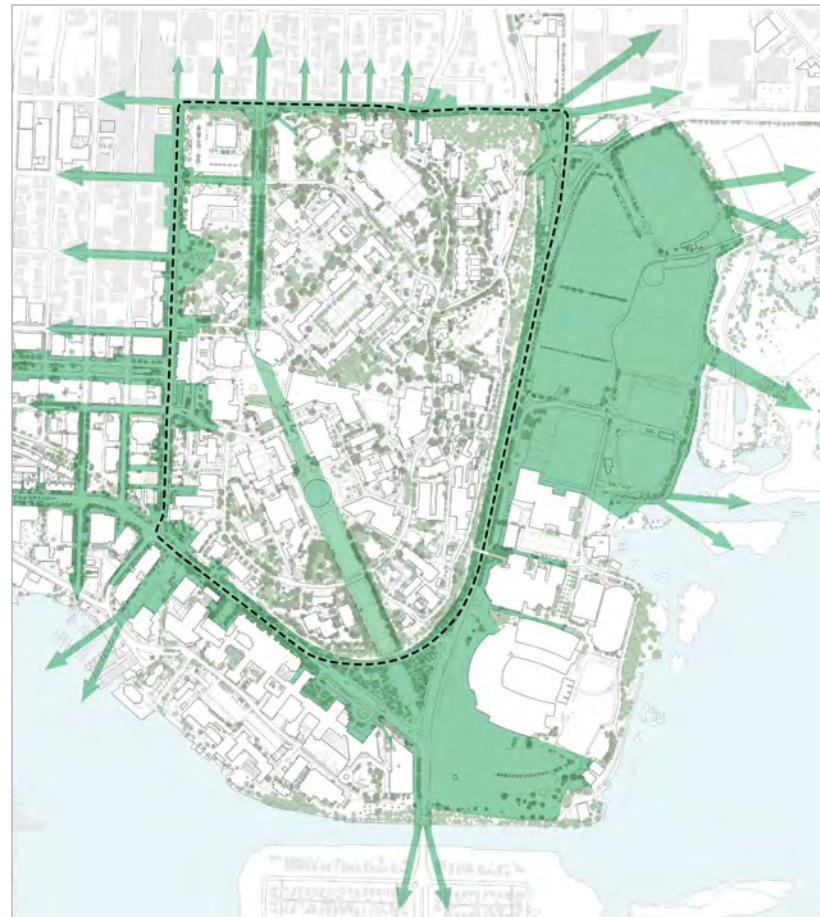


NE Pacific Street



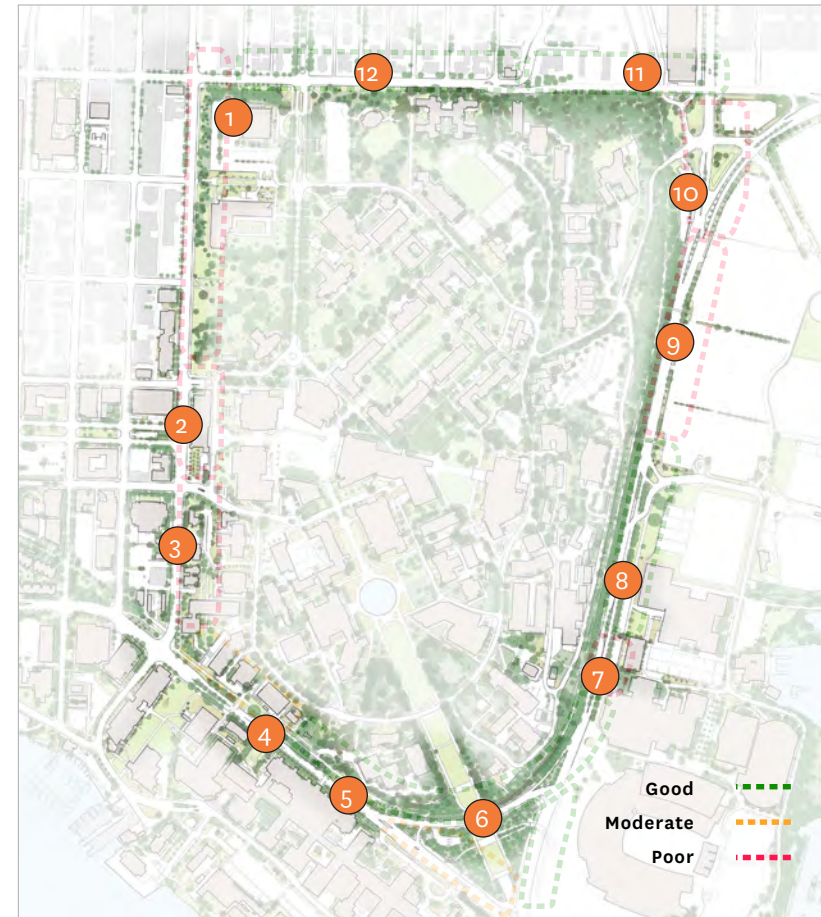
NE Montlake Boulevard

## URBAN ARTERIES VISUAL ENVELOPE : NURTURING A SENSE OF WELCOME TO THE CAMPUS



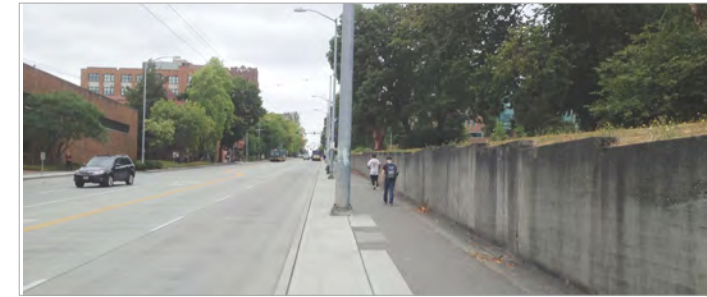
### VISUAL ENVELOPE

The Urban Arteries provide an important experience of the UW campus from the outside. Views from vehicles can penetrate deep into campus, giving passers-by a connection to the university. The visual envelope map, showing the parts of campus visible from the Urban Arteries, illustrates the perception of the campus as largely separated from the surrounding context, but with individual views giving a flavor of the campus within.



### QUALITY MAPPING

The experience of navigating the arterial ring around the campus forms an important part of the identity of the UW, particularly as it relates to the welcome offered to visitors at key campus gateways. The quality of experience in the Urban Arteries is very varied, with improvements particularly needed along the whole of 15th Avenue and the northern stretch of Montlake Boulevard. Both deep views and close views can be valuable or of low value, depending on what aspects of the campus landscape they conceal or reveal.



### 1 BURKE MUSEUM AND PARRINGTON LAWN/15TH AVE NE

The experience of navigating the arterial ring around the campus forms an important part of the identity of the UW, particularly as it relates to the welcome offered to visitors at key campus gateways. The quality of experience in the Urban Arteries is very varied, with improvements particularly needed along the whole of 15th Avenue and the northern stretch of Montlake Boulevard. Both deep views and close views can be valuable or of low value, depending on what aspects of the campus landscape they conceal or reveal.



### 2 HENRY ART GALLERY/15TH AVE NE

Although this location is essential to both the identity and the function of the UW, it presents an unwelcoming face to the campus community and to the outside world. The combination of structured entries (parking garage, spiral ramp, bridge, elevator) is difficult to navigate and does not add up to a welcoming sense of arrival, which is particularly problematic given that this is the most direct point of access from West Campus to Red Square, the undisputed center of campus. This poor connection is becoming more of a problem as the West Campus continues to develop.



### 3 ASOTIN PLACE/15TH AVE NE

Although Central Campus has undergone major changes in its many decades of use, there are still areas where there is obvious potential for positive change. The southern stretch of 15th Avenue is hard to penetrate, due to the towering concrete wall and loading dock entry, and underwhelming, due to a row of residential-scale structures. Connections into Central Campus become worse toward the south, stranding pedestrians along the street rather than inviting them into the campus. The lack of accessible routes is a particular problem with the anticipated development of West Campus in this area.

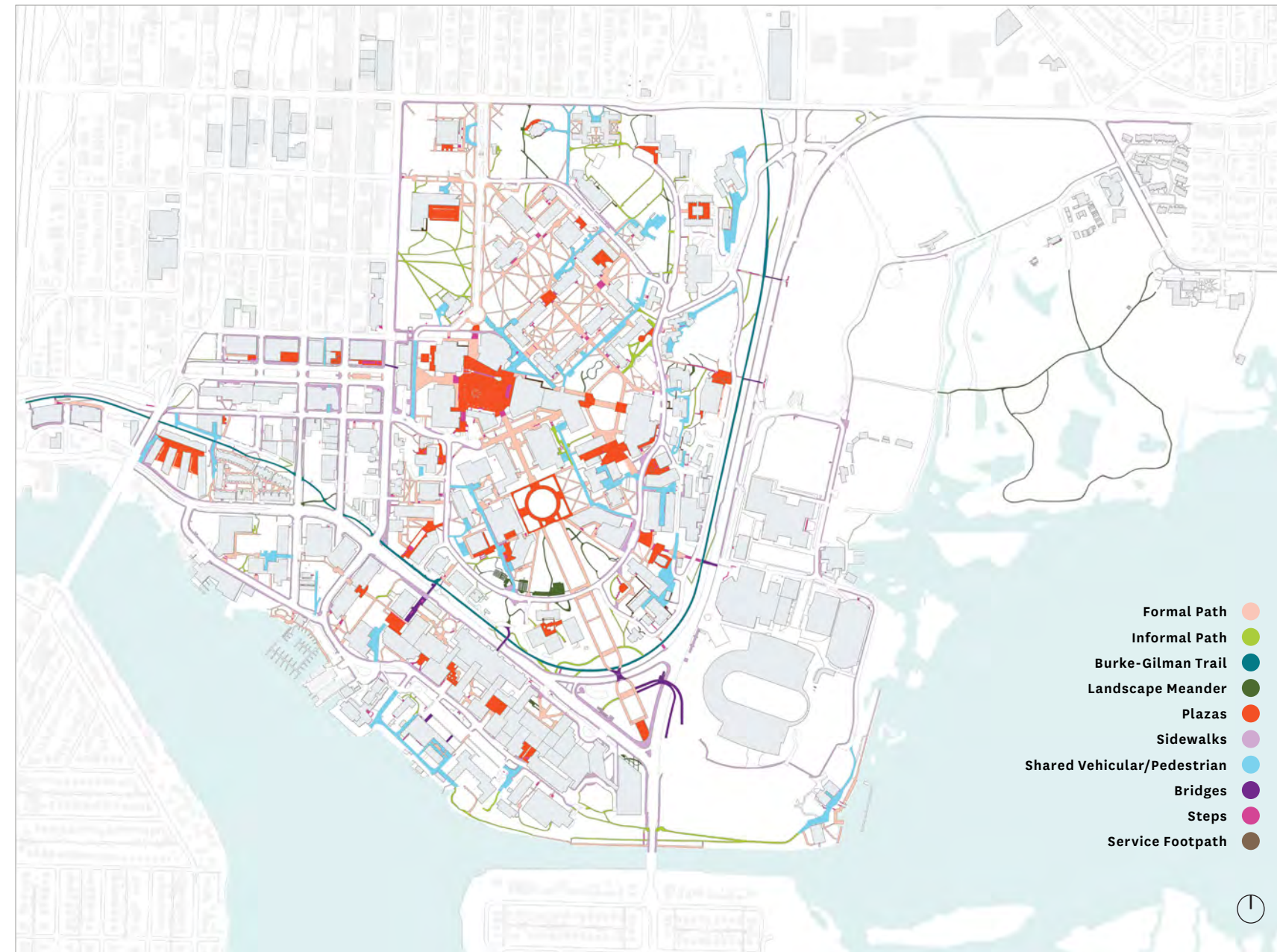


### 4 HEALTH SCIENCES CENTER AND PORTAGE BAY VISTA

A rare view to Portage Bay is available from Pacific Street, as well as a view into the open lawn area in front of Health Sciences. Along the north, the lack of a street level sidewalk makes the green edge of the Burke Gilman trail feel very close. The planted median adds to the greenness of the corridor, but not necessarily a strong University identity along this stretch.



## PEDESTRIAN CIRCULATION - DIVERSITY IN TYPE AND EXPERIENCE



### PATHWAY TYPES

Just as there are diverse places within the UW landscape, there are diverse ways to navigate the campus. In the full range of variables that defines the difference between formal paths and services footpaths, there are many different factors that influence the appropriate type, size, layout, and materials for different campus connections. In some instances, such as the Arts Quad, and Red Square, the paving materials form strong associations with the surrounding architecture, and a particular historic moment. In other locations, such as Memorial Way, or the Burke Gilman Trail the spatial enclosure of adjacent planting determines the character of a pathway while the material of the paving seems of secondary importance.

### FUNCTION

Given the multi-directional nature of circulation on campus, all pathways at the University of Washington get some pedestrian traffic, even in cases where the primary use for the space is envisioned to be service, or for a different mode of travel. For instance, pedestrians make use of the Burke Gilman Trail as well as the service access routes along Skagit Lane. In some cases, this may be due to the fact that a given route is the shortest distance between two points. In other cases it might be a question of preferring the most experientially satisfying route between two points.

### STRATEGY

The diverse functions and experiences of the campus network of pedestrian circulation require a flexible approach that does not try to homogenize the experience or material treatment. Identifying and describing the different components of the pedestrian network will allow future design teams to locate their work within the larger whole. Similar to the way campus architecture may involve many different materials but should still aim to preserve a sense of belonging to the whole, the different moments within the pedestrian circulation network can be designed to effectively meet a particular need, within the context of the campus landscape as a whole.

## FORMAL PATH

### CHARACTER

Formal paths on the UW campus come in a variety of different material types and at a variety of scales, including the curbless brick walkways of the Arts Quad, the asphalt sidewalks of Memorial Way, and the gravel surfaces of the lower Rainier Vista. Formal Paths are found predominantly in Central Campus and are part of a traditional collegiate landscape design language. Many of the most iconic UW landscapes include formal pathways, but so do many less celebrated moments on campus.

### FUNCTION

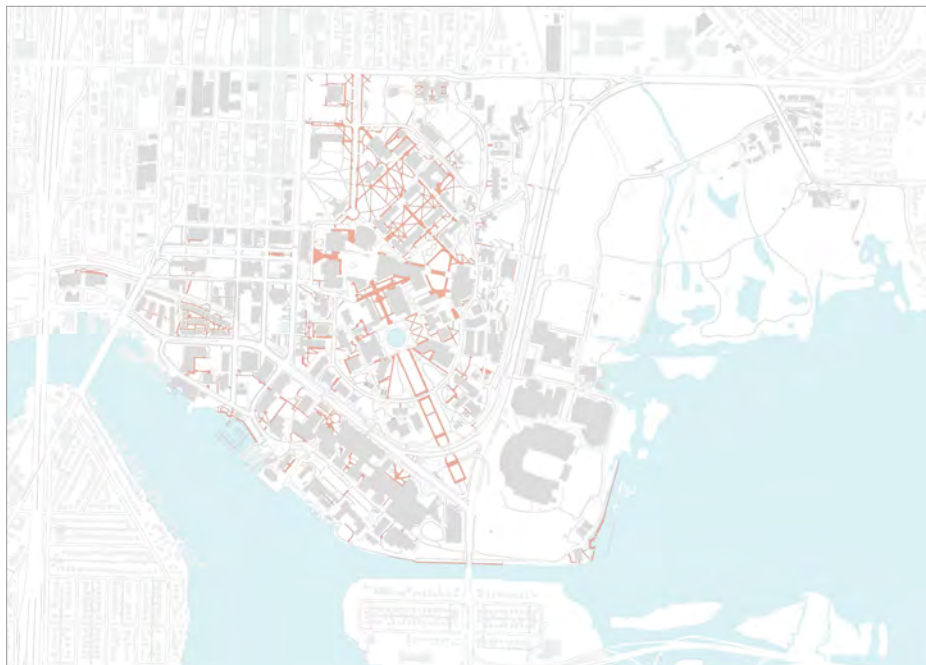
A formal path is destination-oriented, whether connecting two spaces, or connecting two buildings across a space. In locations with well-understood pathway hierarchies, a formal path is usually the shortest distance between two points, providing the opportunity for purposeful movement through the landscape.

### STRATEGY

Formal paths help people get to where they want to go, so they are an important orienting tool for the campus landscape where clear desire lines can be identified. Even within this formula, however, the desire for purposeful movement does not supercede the responsibility for providing an accessible route, which might need to be more circuitous to accommodate grades. In ambiguous situations, moreover, cues should be taken from context, including landscape scale and materials, to determine the degree to which formalizing a connection is necessary or desirable.



The Quad



## INFORMAL PATH

### CHARACTER

Although Formal Paths can come in many different widths, Informal Paths are generally on the narrow end of the range and usually do not have special finishes or expensive materials. Informal Paths extend the pleasure of being outside, and can be seen as a form of landscape program in their own right. Informal paths can be found, especially in Central Campus and the waterfront, and are generally associated with more natural landscape types or more relaxed forms of figured landscapes, like Parrington Lawn.

### FUNCTION

Informal Paths are integrated into environments to a greater degree than Formal Paths, either following irregular topography, or adjusting to accommodate trees or other landscape features. Although Informal Paths may be used for circulation, they are not a direct route between two points, and they sometimes use curved alignments to give outward views to the landscape, rather than creating clear sight lines to a single destination.

### STRATEGY

Informal pathways are a highly valued complement to the formal pathways of the campus, and opportunities should be sought for introducing more moments of informality with respect to materials, widths, and landscape setting, as the campus expands and evolves.



Callam Lane



## SLOPE ANALYSIS



### 1 KINCAID RAVINE AND STEEP SLOPES IN NORTH CAMPUS

The steepness of the Kincaid Ravine has likely prevented this area from being developed, allowing it to remain one of the last woodland areas on the campus.

### 2 EAST SLOPE BETWEEN CENTRAL AND EAST CAMPUS

For the first seven decades of the University's growth on its present site, the Eastern slope was avoided. When new buildings were finally built into the slope, they tended to be very large and tall, taking advantage of the steep slope to have a Stevens Way entry, as well as a downslope garage entry, such as the McMahon, Haggett, and McCarty garages, as well as Padelford Hall's terraced parking structure.

### 3 15th AVE SLOPES AND RETAINING WALLS

As 15th Avenue heads south towards the waterfront, the difference between campus level and sidewalk level becomes progressively greater. A concrete retaining wall becomes the outward face of the campus for much of its length, with relatively welcoming access points at NE 45th Street, the Law School, and Parrington Lawn, and almost no landscape entries south of there. In many places, the wall towers over adjacent sidewalks.

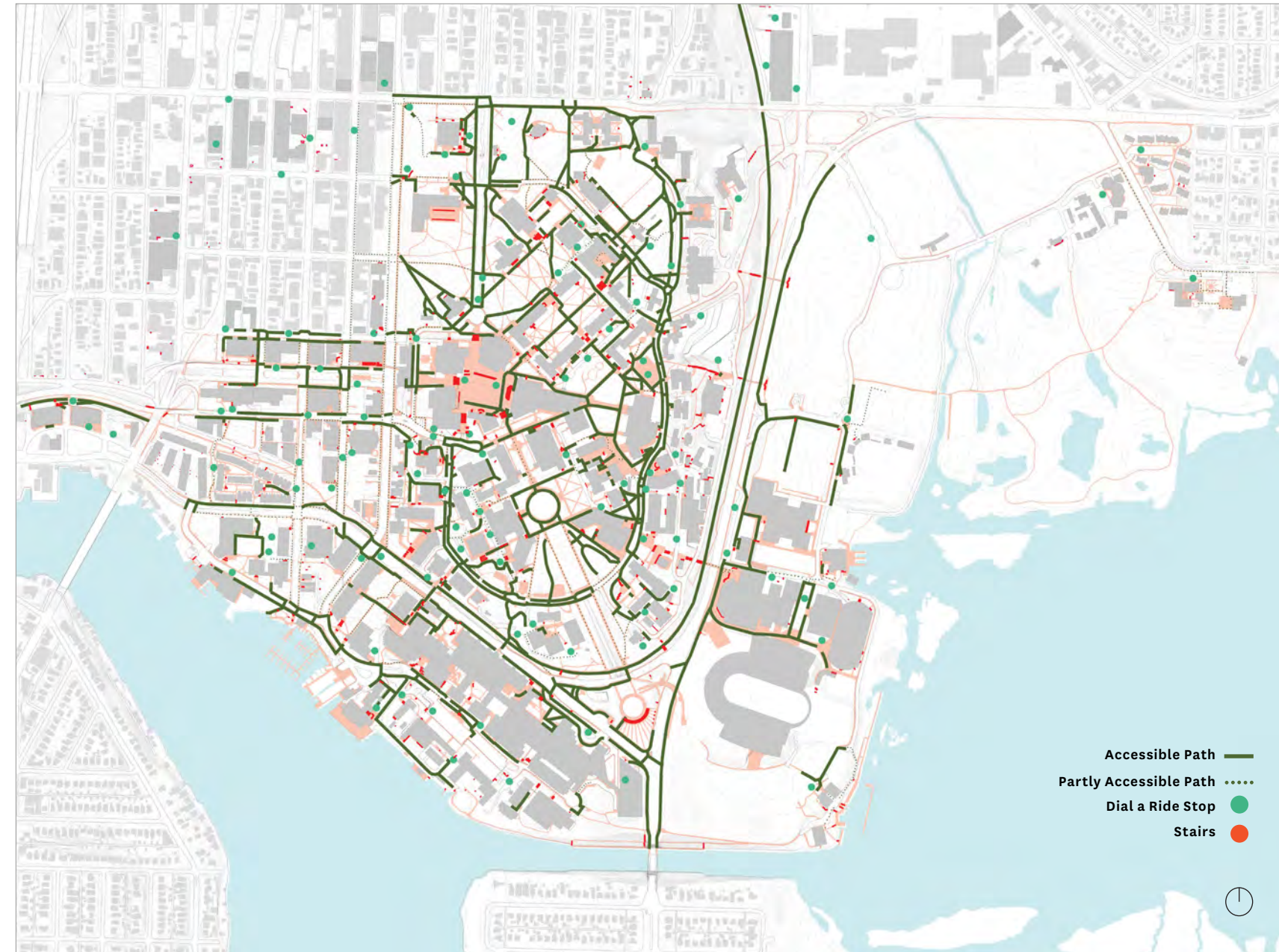
### 4 A SERIES OF INACCESSIBLE CONNECTIONS

The major vehicular entry from West Campus is an uninviting pedestrian entry set within a relative desert of pedestrian points of entry along southern 15th Ave NE. Starting with the entrance to the parking garage, and continuing down to the Physics and Astronomy courtyard, there are no accessible entries onto campus that do not include elevator access.

### 5 SLOPES ALONG NE PACIFIC AND BURKE GILMAN TRAIL

The elevational drop from the Burke Gilman to NE Pacific is so abrupt that there is not room for a street level sidewalk for much of the roadway. From NE Pacific to the waterfront, the slope is more gradual, but still substantial, felt in landscape spaces such as the Portage Bay vista and San Juan Lane.

## ACCESSIBILITY AND MOBILITY



### STEEP PATHWAYS

The campus has many pathways that are steep enough to be inaccessible to individuals in manual wheelchairs or with other types of mobility challenges. In many circumstances, modest landscape changes could make the difference between an inaccessible and an accessible connection.



### HIDDEN ACCESSIBLE CONNECTIONS

In some places access exists, but it feels out of the way, and not part of the positive and direct landscape experience. These connections often represent a minimal accommodation of accessibility requirements such as ramps with handrails and switch-back alignments.



### STAIRS AT CRITICAL CAMPUS CONNECTION POINTS

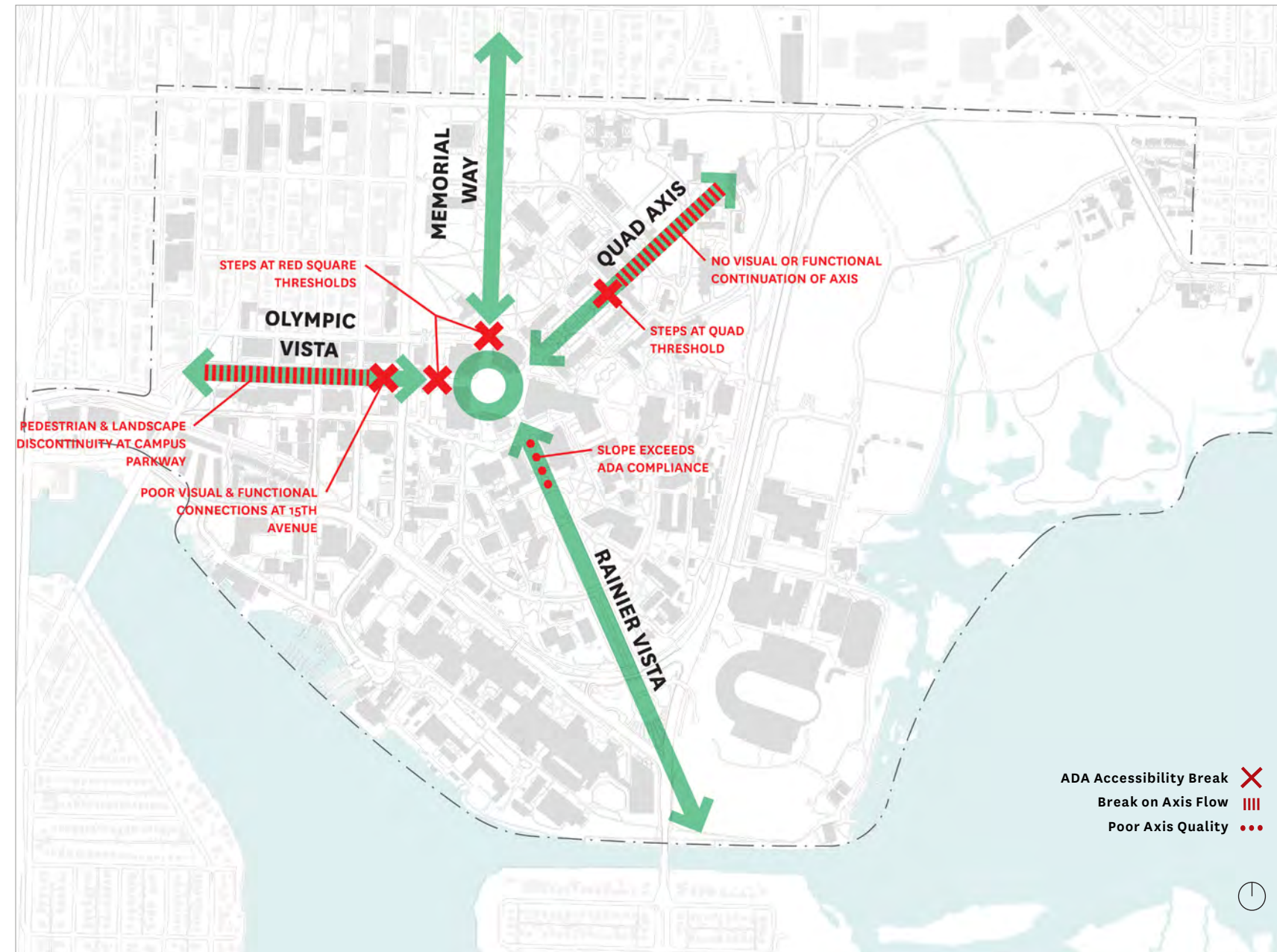
Stairs are a frequent solution to the steep slopes that exist in many places on the campus. Although this may be unavoidable in some circumstances, stepped connections between critical campus locations should be replaced with, or supplemented by, accessible connections wherever possible.



### POOR PEDESTRIAN ENVIRONMENT

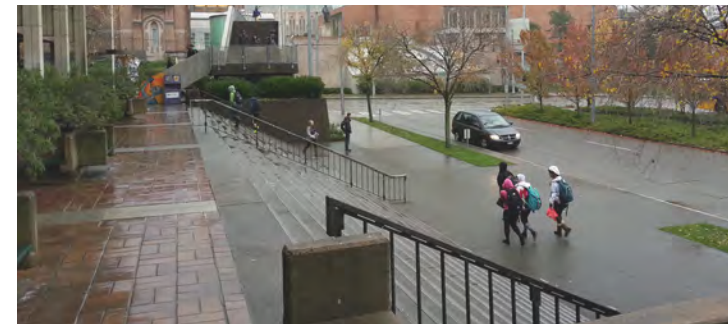
Outside of the core campus, the accommodation of faster speeds or higher volumes of car traffic has created environments that are unpleasant for pedestrians.

## RADIAL AXES AND VISTAS : A CLEAR STRUCTURE WITH COMPROMISED CONNECTIONS



### STEEP PATHWAYS

The steep slopes that characterize the UW campus create many challenging connections for people with compromised mobility. In some cases, this includes pathways that are too steep to navigate safely and comfortably. In some cases, for instance the entry off 15th street in front of the Henry Gallery, architectural density matched with slope extremity preclude a simple accessibility solution for the time being, so elevators have been installed to bridge the gap. Not every pathway can accommodate accessible slopes, but every attempt should be made, such as on the Rainier Vista, where there is sufficient landscape depth to address the issue through a subtle regrading.



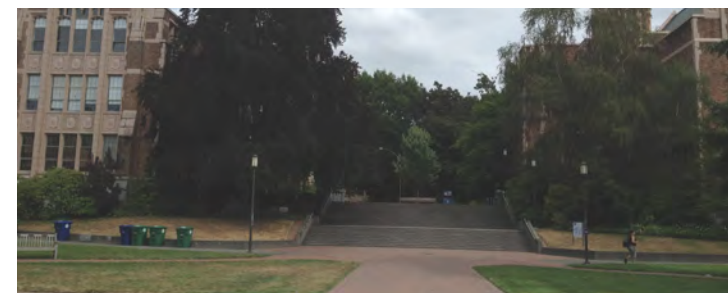
### STEPS TO BUILDING ENTRANCES

Prior to the passage of the Americans With Disabilities act of 1990, stairs were an expedient and code-compliant means of bridging elevational drops within a relatively small footprint. Since the majority of campus buildings were built before the ADA became federal law, there are many buildings whose primary entrances are up a flight of steps. While many of these conditions have been retrofitted for wheelchair access, there are still many entrances to major buildings that are not accessible.



### STEPS AT KEY CAMPUS CONNECTIONS

Accessibility is something that also needs to be addressed in major landscape connections, not just conditions immediately adjacent to buildings. For instance, Odegaard Library has an accessible connection to Red Square, but Red Square itself is accessed by steps at many key points, including the connection to Memorial Way to the north.



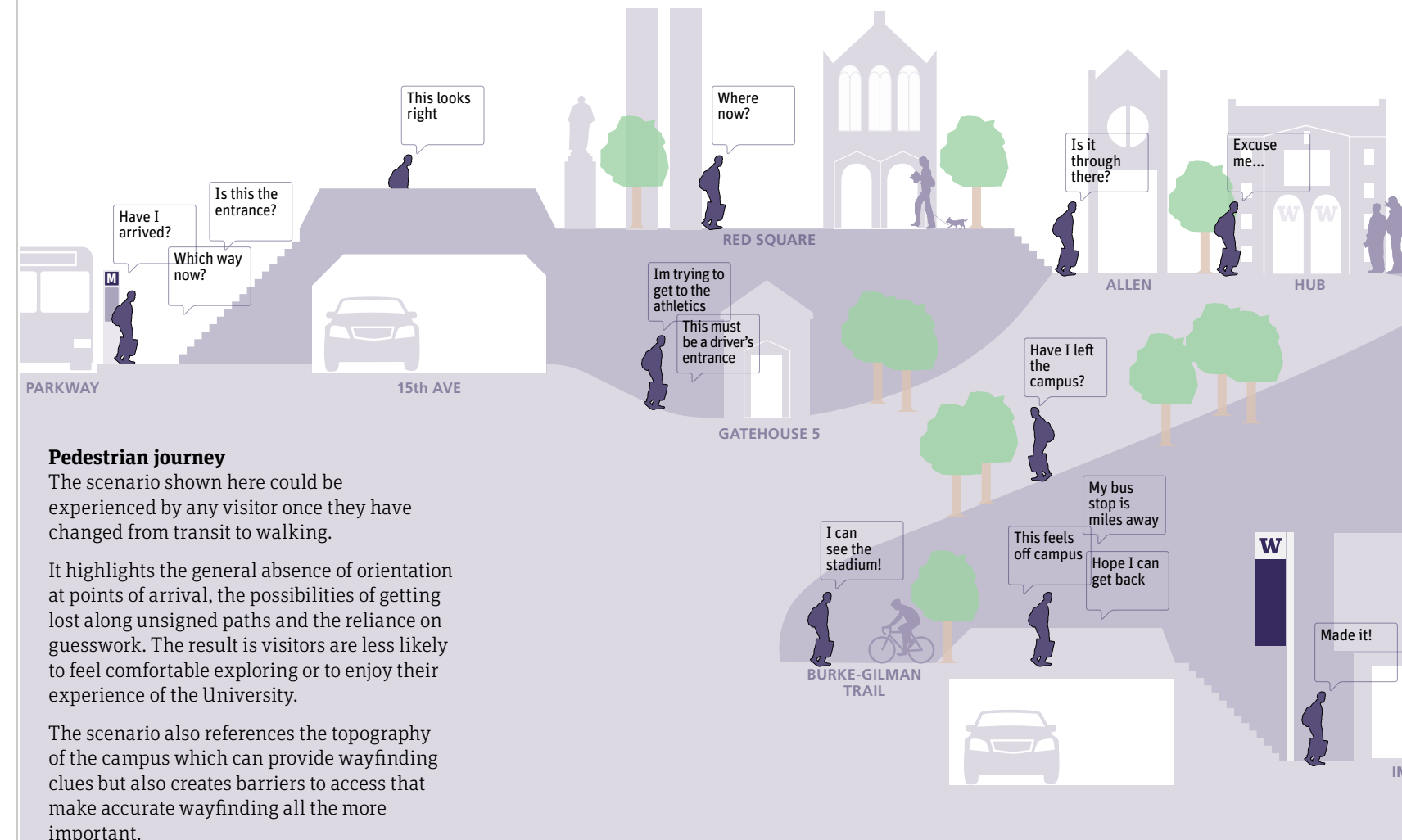
### INCOMPLETE AXIS CONTINUITY

Conditions that preclude a mobility challenged person's ability to travel major campus pedestrian routes can dramatically affect their ability to navigate campus. With every project it undertakes, the UW should be seeking ways to implement an appropriate hierarchy of accessible circulation on campus, starting with the major axes first. In some cases, for instance the stairs at the end of the quad, alternatives to a stair route should be designed as major landscape connections.

## CAMPUS WAYFINDING AND SIGNAGE STRATEGY

### 2.1 Site review

The issues faced at the University can be explained illustratively using typical scenarios.



#### Pedestrian journey

The scenario shown here could be experienced by any visitor once they have changed from transit to walking.

It highlights the general absence of orientation at points of arrival, the possibilities of getting lost along unsigned paths and the reliance on guesswork. The result is visitors are less likely to feel comfortable exploring or to enjoy their experience of the University.

The scenario also references the topography of the campus which can provide wayfinding clues but also creates barriers to access that make accurate wayfinding all the more important.

### A COMPLEMENT TO THE CAMPUS LANDSCAPE FRAMEWORK

The UW has recently completed a Campus Wayfinding and Signage Strategy to complement the CLF, and to ensure that all campus user's experience is supported with appropriate and well-located navigation information, whether they are first-time or long-time users, as pedestrians, bicyclists, transit riders and drivers, who may be students, faculty, staff, visitors, neighbors and/or making deliveries.

The goal of the Strategy is to:

- Support campus user experience
- Be Relevant to all types of visitors
- Be Respectfully designed and located
- Link all transportation modes
- Enable coordinated implementation

The study explored the potential for the wayfinding strategy to contribute to the objectives of University in the following areas:

- **Transportation:** The planned shift from driving and transit to active transportation suggests wayfinding has an important role as a means to inform, encourage and enable different travel choices.
- **Campus identity:** The emergence of the One University platform to unify external communication provides an opportunity to ensure wayfinding helps confirm location and the University's diverse range of visitors.
- **The Campus Landscape Framework:** The wayfinding strategy will support the tools that will provide ongoing planning, design and stewardship of the setting of the campus site and its buildings.

The objectives and principles for wayfinding at the University of Washington place considerable reliance on consistency and continuity to assist with user navigation and to help unify the identity of the Seattle campus. The recognition and reliable placement of information is part of the consistency users expect and so important to the success of the

system. However there are many other objectives to consider including the conservation of heritage and sensitive visual settings. The Campus Landscape Framework provides an over arching direction for landscape stewardship that the wayfinding project must respect as well as assist.

The sign placement strategy can be described as having two levels of development; information need and environmental context. The information needs are evaluated by preparing hierarchies of destinations and routes. These hierarchies provide a simplification of reality for the efficient and reliable placement of information.

The destination hierarchy attempts to define areas or 'containers' as well as specific buildings to enable addressing methods to be used in directions. The route hierarchy aims to represent both existing desire lines and potential priority routes that will be important to movement in the area. This process produces logical intersections where decisions will be made that could be informed by wayfinding signage.

UW Wayfinding Principles:

1. Name the places
2. Use landmarks
3. Create reliable routes
4. Establish orientation points
5. Make stepping stones
6. Use progressive disclosure
7. Describe visually
8. Support sightlines
9. Create a welcome

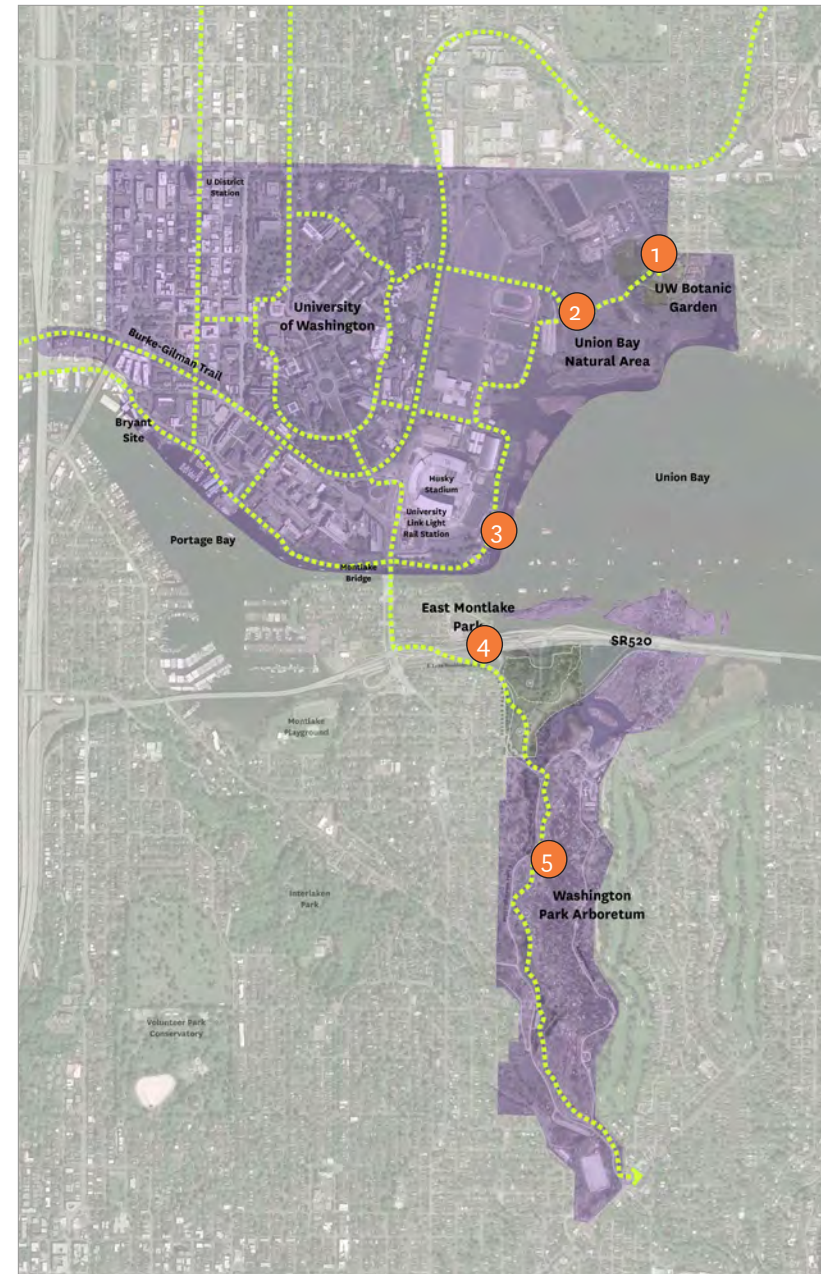
The Campus Wayfinding and Signage Strategy can be found on the Office of the University Architect website.

## UW BOTANIC GARDENS - A WIDER CONNECTED NETWORK

### MAJOR CONNECTIONS

The University of Washington Botanic Gardens unite two related landscapes that are separated by the Montlake Cut and Union Bay. To the north is the Center for Urban Horticulture, which includes the 74 acre Union Bay Natural Area (UBNA), as well as administrative offices, classrooms, and research facilities. To the south is the Washington Park Arboretum, a 230-acre landscape that showcases a vast plant collection.

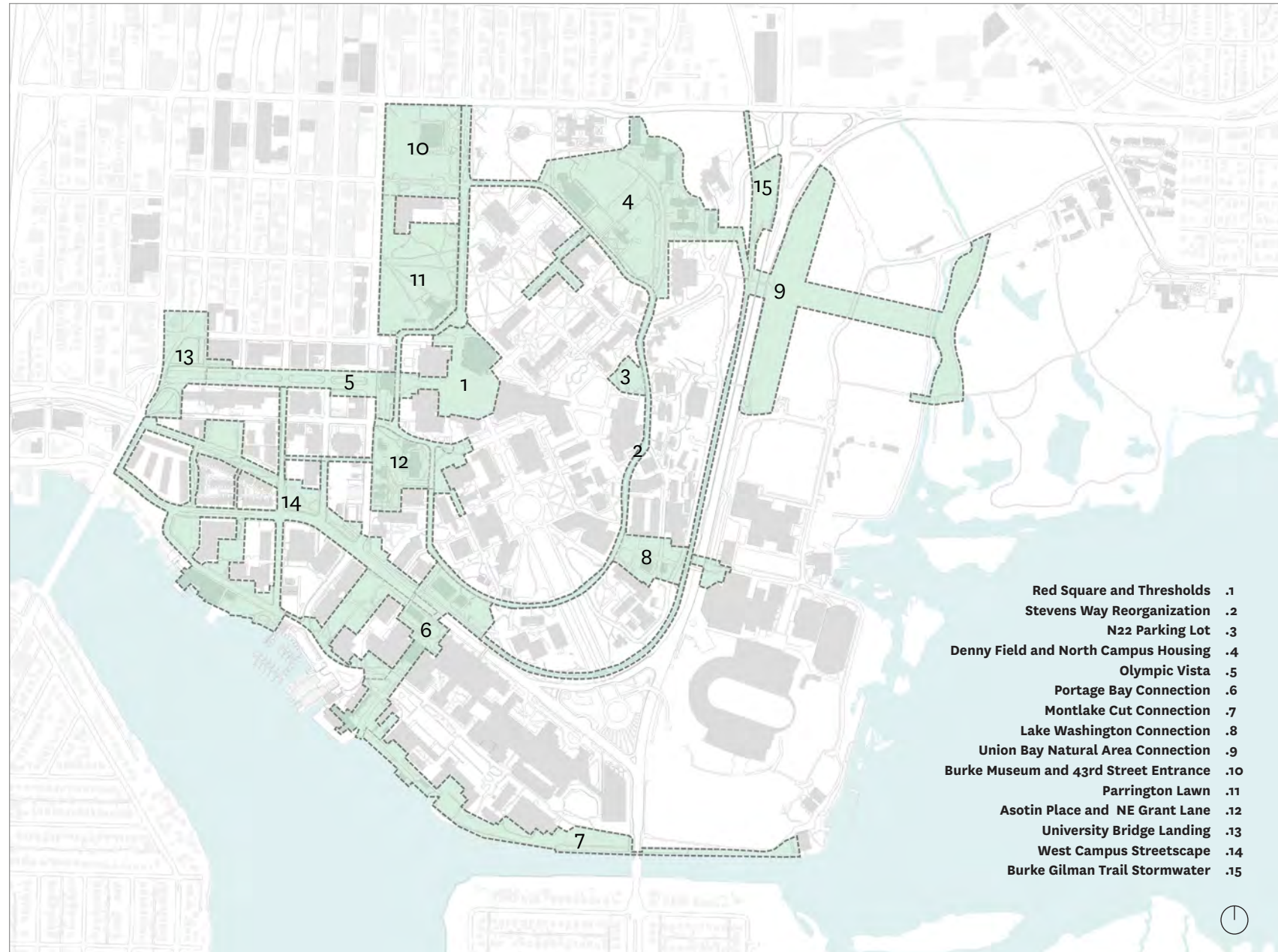
The Arboretum and UBNA are not connected directly by land, but, with the UW campus, comprise a system of related landscapes around Portage Bay and Union Bay that complement each other powerfully.



- 1 **IMPROVE CONNECTION TO CENTER FOR URBAN HORTICULTURE**  
The Center for Urban Horticulture contains both academic and research facilities and is an opportunity for students to gain hands-on experience working with a landscape that is in the process of being regenerated after two severe disturbances. Although the distance from other campus program will always be substantial, more direct connections would make the CUH easier to find and better integrated with the rest of campus.
- 2 **IMPROVE CONNECTIONS TO THE UNION BAY NATURAL AREA**  
A larger portion of the Union Bay Natural Area is poised to become wetland as part of the required mitigation for work that is currently underway on the 520 Bridge. As this work is done, pathways through the UBNA need to be preserved so that connections to campus remain and are improved.
- 3 **MAKE A CONTINUOUS CONNECTION ALONG WATERFRONT**  
The UW waterfront contains many different conditions and it will always be episodic in character. Within this context of difference, greater efforts could be made to fill in the gap between major destinations along the waterfront, and to make a continuous recreational connection between Portage Bay and Union Bay Waterfronts.

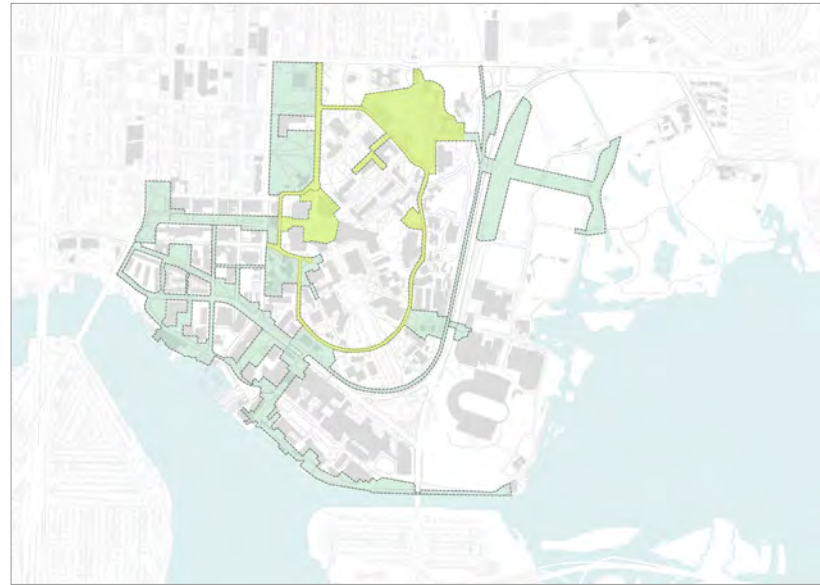
- 4 **IMPROVED CONNECTIONS ACROSS THE SR 520 LID**  
When the 520 bridge was initially built in 1963, connections through the Montlake Neighborhood particularly in the direction of the University, were severely frayed. One initiative related to the widening of the bridge is a new lid that will bridge over the freeway, creating a landscape connection between the north and south sides of the highway, and ultimately between the UW Campus and the Arboretum.
- 5 **IMPROVE CONNECTIONS TO ARBORETUM**  
Related to the disturbance caused by the original construction of the 520 bridge, pedestrian and bicycle entries into the Arboretum are currently set amidst on ramps and off ramps for the highway. As plans continue to evolve for the new bridge, a high priority should be placed on improved connections for non-motorized traffic.

## CASE STUDIES: TESTING MOBILITY STRATEGIES AT A PROJECT SCALE



Campus mobility occurs within a vast and complex network of intertwining uses. The strong central organization of campus works well for pedestrians but is not supported by universal accessibility. Furthermore, bike use on campus is permitted everywhere, but not specifically accommodated anywhere. Attempts to improve conditions for one group will always need to take into account the impacts on others. Taken together, the CLF embraces the diversity of the existing mobility network to ensure that purposeful movement is accommodated alongside experiential richness. This can be best accommodated through improved connectivity between neighborhoods along with strategic improvements within each.





#### REINFORCING THE HISTORIC CAMPUS CORE

The center of campus is very strong, both as a physical point of connection and as a identity-giving moment. Relatively small-scale stand-alone projects to improve accessibility, particularly into Red Square, will go a long way in ensuring that the entire UW community has comparable access. Logical, conflict-free, bicycle circulation through campus, by contrast, will likely require a significant modification of the way that cars enter, leave, and traverse the campus.

Case studies that support this strategy include:

1. Red Square and Thresholds
2. Stevens Way Reorganization
3. N22 Parking Lot

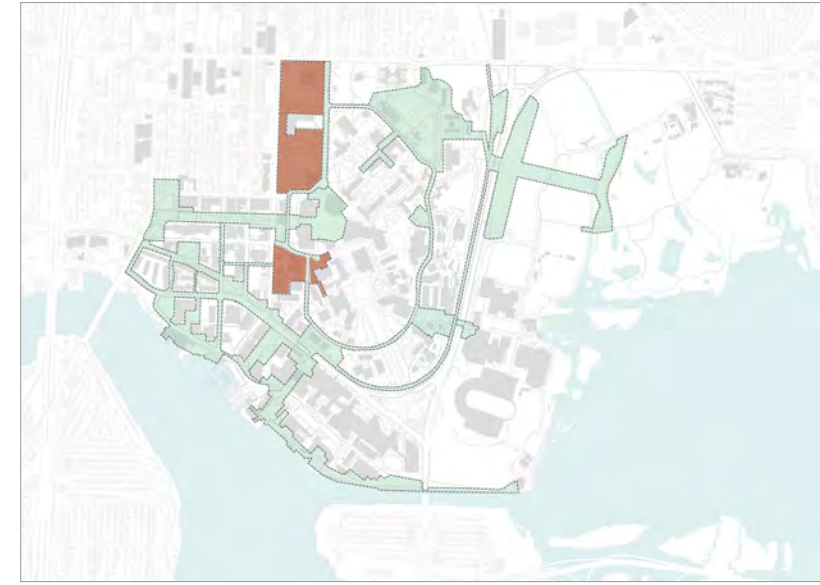


#### IMPROVING CAMPUS CORE TO EDGE CONNECTIVITY

Movement between neighborhoods is currently a weak component of the UW's structure, largely due to a combination of topographic structure and heavily trafficked roadways. The goal is to not only provide the means of connection, but to also link new and existing bridges to larger mobility networks so that there is a seamlessness to the way that core to edge connections, as well as connections between the peripheral neighborhoods, are discovered and used.

Case studies that support this strategy include:

5. Olympic Vista
6. Portage Bay Connection
7. Montlake Cut Connection
8. Lake Washington Connection
9. Union Bay Natural Area Connection
12. Asotin Place and NE Grant Lane

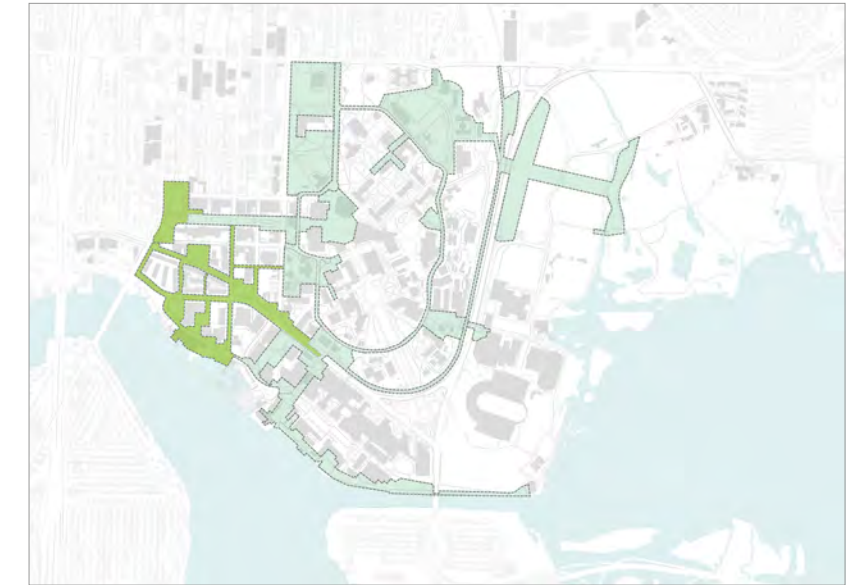


#### TRANSFORMING 15TH AVENUE FROM AN EDGE TO A CONNECTOR

15th Ave NE has always been an important edge to the campus, both as a link to regional transportation and as a route to the restaurants and shops in the U District. Connections into campus along this edge are already too few and too small, and will become only more so as the pressure to connect becomes greater, with the development of West Campus and the opening of the new light rail station on Brooklyn Avenue. In general, a strategy of the CLF is to make this edge more porous and open to use.

Case studies that support this strategy include:

5. Olympic Vista
10. Burke Museum and 43rd Street Entrance
11. Parrington Lawn
12. Asotin Place and NE Grants Lane



#### WEST CAMPUS & GREEN NETWORK

West Campus has a much more urban structure than the rest of campus and this, in and of itself, makes mobility and wayfinding relatively straightforward. At the same time, the sense of pleasure in moving through a campus neighborhood should still be cultivated as part of the new development.

Case studies that support this strategy include:

14. West Campus Streetscape



## Strengthen the Institutional Ethos and Fortify the Campus Landscape for the Enjoyment of Future Generations

### A COMMUNITY OF STEWARDS

Although the task of tending the campus grounds is in the hands of a relatively few dedicated individuals, the responsibility of stewarding the UW landscape is shared by the entire UW community. Landscape stewardship comes in many forms, from careful maintenance to the design and construction of new places, the preservation of views and open space, the creation of new connections, and the oversight of the ecological health of campus systems. An early tradition of the UW was “Campus Day”, a work party where students volunteered their time to making improvements to the campus. Although this particular tradition ceased in the 1930’s it is important that the community continue to share a landscape ethos that guides the protection and development of the campus landscape.

### EMBRACING POSITIVE CHANGE

The campus landscape will continue to transform and develop along with the University. As change comes about, the stewards of the campus landscape need to guard against changes that threaten iconic moments or important landscape systems on campus, but there should also be a willingness to embrace the potential for positive landscape change. For all of its clear strengths, the existing UW landscape has places that are substandard either in their character or function. These shortcomings are not systemic, nor campus-wide, but are in specific locations and are often related to places that have been overlooked but play an important role in the campus mosaic. Often places lack connectivity or accessibility, which can easily translate into a perceived lack of welcome. Other places serve a certain function to the detriment of other campus functions and could be altered to be more multifaceted in the way they work. Although it would be impossible, and probably inadvisable, to address all of these conditions at once, greater efforts need to be made in the direction of catalyzing positive landscape changes, and fixing the places on campus that are not working to their potential.

### Observations

The problems that need to be fixed in the Central Campus tend to be episodic rather than systemic



Focus on how localized changes to the campus mosaic can create widespread and multifaceted benefits

The challenges that face the East, and West neighborhoods tend to be underutilization



Look for opportunities to form meaningful programmatic, experiential, and physical bridges between Central Campus and the East and West neighborhoods

South Campus has landscape range and unique landscape spaces along the waterfront, but the architectural structure feels impenetrable, discouraging exploration beyond Pacific



Create landscapes where wayfinding is intuitive that help facilitate a greater sense of openness and a welcoming environment for moving through South Campus

The UW has a phenomenal range of ecosystems on campus, many notable for their generous size, all of which are under stress



Ecological principles need to guide all decision-making regarding land use, construction, and maintenance, so that the campus ecology can thrive and inform the experience and ethos of future generations

The UW’s various ecologically rich areas are not well connected to each other



Wherever possible, major ecological zones on campus should be bridged to increase their ecosystem services

## CASE STUDIES : TESTING A RANGE OF STRATEGIES THROUGH DESIGN



### THE CASE STUDY APPROACH

The UW campus is remarkable in its complexity and richness, and also in the fact that it has a very robust structure that has developed over more than 100 years, with very few systemic campus-wide flaws. The over-arching goal, for example, to better connect the major campus neighborhoods and to ease the pressures on Central Campus by further developing the peripheral neighborhoods, can only be effectively addressed at the scale of the landscape mosaic by operating on specific sites. Looking more closely at questions of orientation, navigation, accessibility, and identity the same appears to be true; changes to individual mosaic pieces are the key to unlocking campus potential. The CLF adopts a Case Study approach for testing how the campus landscape can be improved in character and function through transformations of specific pieces of the mosaic. The Case Study sites were chosen for a variety of reasons, some because they are places that are under immediate pressure, or represent immediate opportunities because they are under consideration for development, some because they represent examples of problematic conditions found in multiple locations across campus, and some because they represent strategic moves that could have profound effects on the way the campus develops over time.

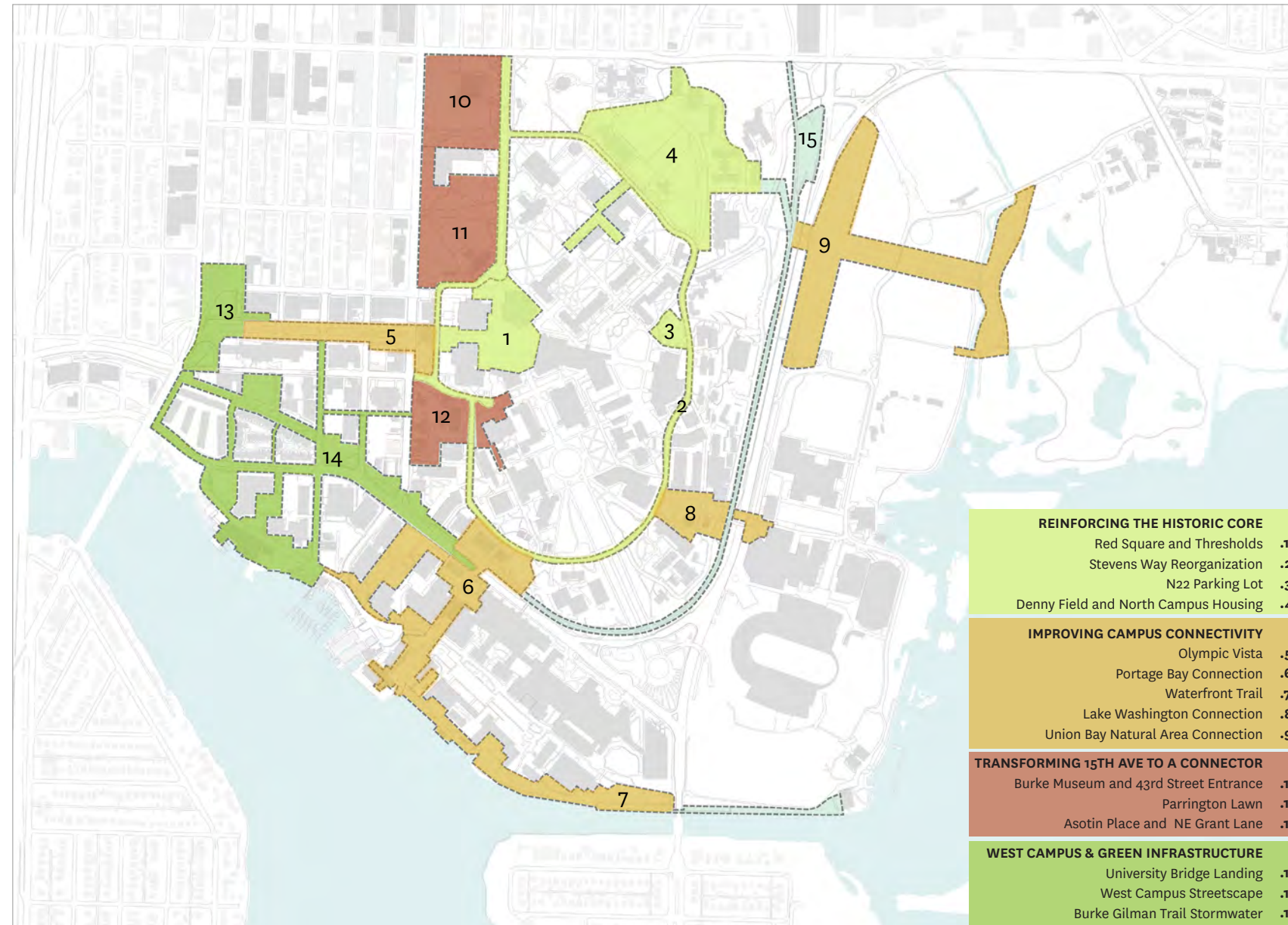
### PROOF OF CONCEPT

The Case Studies serve a “proof-of-concept” role. They establish the issues that need to be resolved in a particular part of campus and demonstrate that these issues can be solved in way that yields particular benefits to the campus landscape, both at the immediate site, and to wider landscape systems. As general problems were considered, for instance a lack of connection along the eastern slope of the campus, a case study would be undertaken to see what possible solutions might exist in which potential locations. Establishing that it was physically possible to achieve certain goals such as accessible slopes or continuous connections is a proof-of-concept that supports a general idea, without limiting a wider range of possible outcomes. In many cases, for example in solutions to accessibility issues, bicycle parking, or stormwater strategies, the case studies serve to give examples of approaches that could be adopted in multiple locations across campus.

### AN AID TO DECISION MAKING

The Case Studies suggest locations on campus that are deserving of particular attention, and approaches to landscape improvements that are tangible, but open to multiple design solutions. In this way the CLF creates an action-oriented tool that will be useful to decision makers when considering capital projects and planning initiatives. The CLF, by establishing both an understanding of campus-wide systems and a site-specific approach to individual mosaic pieces, has a dual lens useful to decision making. No one part of the campus landscape should be considered as separate from its role in campus-wide systems, and no system should be considered without an understanding of how it will impact individual places on campus. This parts-to-whole and whole-to-parts methodology is a useful means of guiding future landscape decision-making, both as a required step for future design consultants, and also as a general philosophy that guides landscape stewardship.

## CASE STUDIES : GENERAL ORGANIZING STRUCTURE



### CASE STUDIES

The campus contains vastly different academic, urban, natural, and recreational areas within its borders, its diversity is its strength. In the course of a single day, a student might study in a courtyard at Hansee Hall, meet a friend in the large Arts Quad, stop to admire a view down the long Rainier Vista, go to an event in the Sylvan Grove, and take a canoe out from the Waterfront Activities Center. The complementary range of daily life experience these spaces provide can be replicated in very few other environments that a person will encounter in their lives.

The Case Studies showcase the diversity of the campus and demonstrate the full spectrum of approaches that need to be taken to preserve and enhance that diversity. From the conception of the North Campus Housing as an extension of the historic campus core, to 15th Avenue as a connector rather than a divider, to the planting of individual thresholds, the Case Studies create a framework vision for the campus that is simultaneously ambitious and achievable in small increments.

### POTENTIAL FOR ENHANCED CONNECTIONS

Possible enhanced connections are highlighted across campus to illustrate the importance of strengthening the pedestrian network. Of particular note are connections between neighborhoods, but also the creation of accessible routes within the Central Campus. Some connections are long term visions, and extensive in nature, for example the system of pathways between the North Campus Housing and the Union Bay Natural Area as a way of opening up the East Campus for development, and some are immediate priorities, modest in scale, for example the accessible thresholds at Red Square.

### POTENTIAL UW DEVELOPMENT SITES

The Central Campus has a finely tuned interaction between open space and built structures, and is close to development capacity. The character of Central Campus could easily be thrown out of balance by new building program, but the CLF identifies sites where development is planned, and shows how that development can be used to improve the campus landscape. By comparison, other neighborhoods, such as West Campus and East Campus, would benefit from an increase in academic program, or other types of new architectural development.

### POTENTIAL DEVELOPMENT SITES BY OTHERS

At the west end of the Olympic Vista there are three potential development sites, whose development by others will improve the urban environment and sense of arrival at the university.

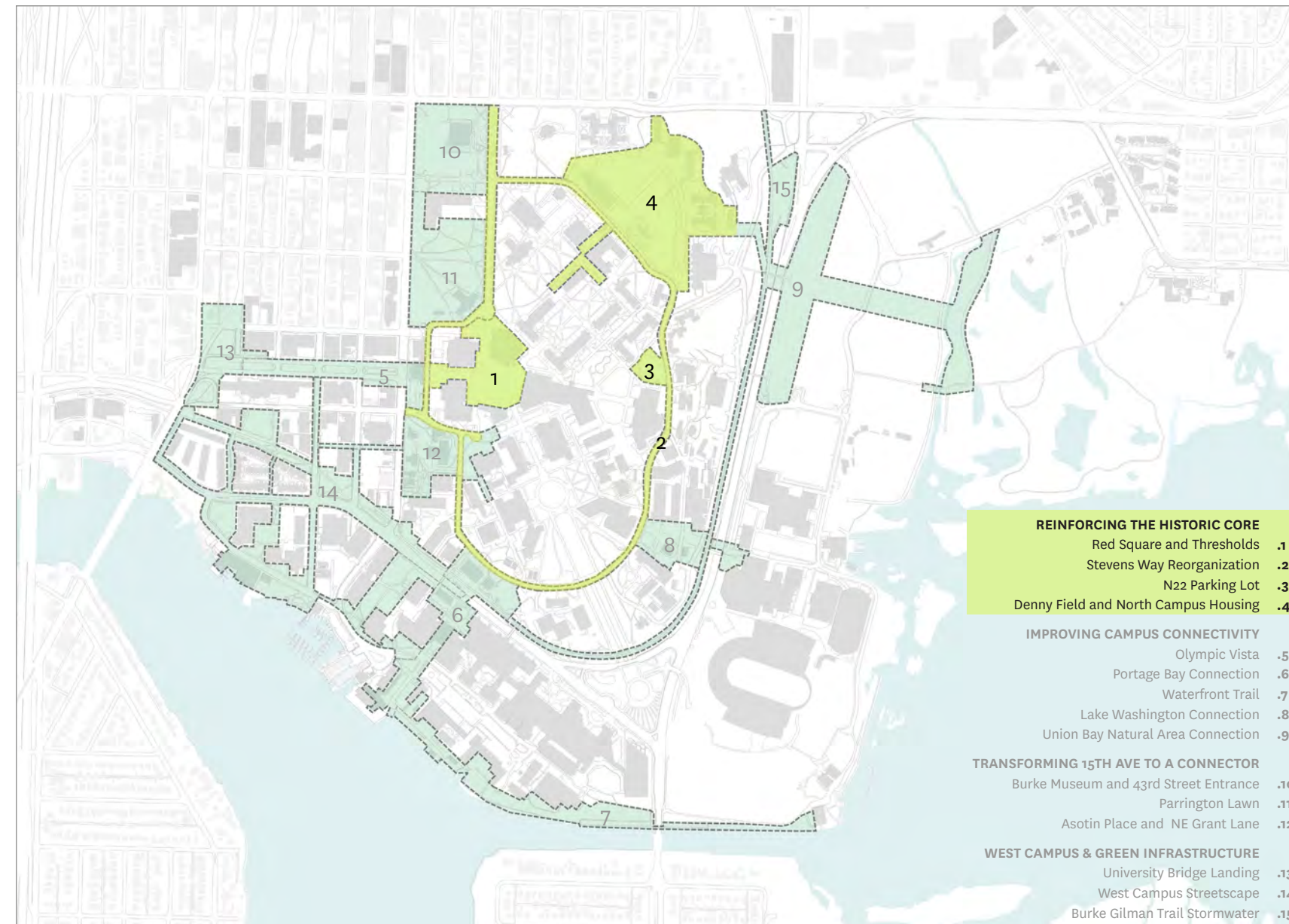
### A RANGE OF SCALES, A RANGE OF APPROACHES

The case studies have been organized in a way that highlights the range of issues relative to the aesthetic and functional role of the campus landscape. These are intended to be illustrative of the many opportunities to be found for improving the campus experience, but are by no means a complete inventory of the only areas requiring attention. They are also not intended to be conceived of as a set of priorities for improvement projects. Rather, the priorities should be evaluated based on current projects, available funding sources, and immediate need.

The organizing structure for presenting the case studies closely follows the analysis of the campus environment and aligns with the strategies associated with operating on the campus mosaic and systems. In general, the greatest needs and design explorations were focused on the following issues:

- Reinforce the Historic Core
- Improve Campus Connections
- Transform 15th Ave from an Edge to a Connector
- Define the West Campus Landscape Character

## REINFORCING THE HISTORIC CORE



### REINFORCING THE HISTORIC CORE

The landscape spaces most closely identified with the history of the UW, including the Quad, Denny Yard, the HUB Yard, and Rainier Vista, are all strong contributors to the current campus experience. Direct improvements are not necessary to these iconic landscapes, but indirect improvements can help reinforce their function and the contributions they make to the experience of the campus. The top priorities for this area include providing better services for cyclists, improving accessibility for the mobility impaired, and creating landscape connections that support residential life on campus.

### RED SQUARE AND THRESHOLDS

The construction of the multilevel Central Parking Garage, with the Red Square Plaza above it, was hugely successful in reducing the need for surface parking in the core campus, but also created complex accessibility challenges due to the inflexible grade datum set by the top of the garage structure. Furthermore, the relative lack of planting or shaded seating in Red Square makes the space feel less than welcoming for studying or social use. The scale of the square and its centrality to campus life is sufficient to warrant accessibility and environmental improvements in a few key locations.

### DENNY FIELD AND NORTH CAMPUS HOUSING

Denny Field is the oldest recreational landscape on campus, and it continues to be popular, but it is currently in a poor physical condition, with compacted soils and a threadbare lawn. Furthermore, Denny Field feels disconnected, almost hidden from its surroundings, with many edges that are obscured by extensive chainlink fencing around its tennis courts. As the North Campus Housing is reconsidered, Denny Field should play a more prominent role in supporting the daily lives of on-campus housing by providing a welcoming space for relaxation and socializing, and continue to play its role as a location for intramural sports. Stronger and more visible accessible connections between Denny Yard and the major campus axes also need to be developed.

### STEVENS WAY REORGANIZATION

As the sole remaining loop road through a largely pedestrianized campus, Stevens Way is an access route, service route, pedestrian route, and campus drive all rolled into one. The narrowness of the roadway in certain areas, combined with steep grades in parts, currently make it an unappealing route for bicyclists so long as there is two-way vehicular traffic along its length. A reconsideration of bus routes, the introduction of a bicycle track, and ample high quality bicycle parking, have the potential to make Stevens Way more pedestrian friendly, and the engine for increased bicycle commuting onto the campus, while still fulfilling all of the important roles it already performs for the campus.

### HUB PARKING LOT

The N22 Parking lot is a major entry point onto campus from the Padelford Parking Garage. While retaining the capacity of the parking lot, which is a vital location for disabled parking on campus, the space could be rearranged to provide a major bike parking facility, and a safe and vegetated pedestrian route rather than the current crosswalk through the lot.

## IMPROVING CAMPUS CONNECTIVITY



### IMPROVING CAMPUS CONNECTIVITY

As demonstrated by feedback from the My Places survey, navigation challenges exist throughout campus, with some areas of particular concern. In general, connections between Central Campus and the other neighborhoods need to be improved. Connections across NE Pacific between South and Central Campus are thought to be highly difficult to navigate in a very concentrated area. Connection challenges between the Central Campus and neighborhoods to the East and West areas are spread across a wider area.

#### OLYMPIC VISTA CONNECTION

Olympic Vista provides some visual connection between the Central and West Campus neighborhoods, but all types of pedestrian connections, including pedestrian, accessible, bicycle, and automobile, are difficult to navigate.

#### PORTAGE BAY CONNECTION

The Portage Bay waterfront is a major untapped resource. Although more inviting for recreational use than the majority of the Union Bay Natural Area, Portage Bay is relatively under utilized. A stronger connection from Central Campus and West Campus would help to open this area up to more people.

#### WATERFRONT TRAIL

The University's engagement and attitude toward the waterfront has evolved and changed over the many years since the University located on this site. The rich and diverse setting that exists today is a testament to demands for waterfront access, maritime transport, recreation, leveraging acres of flat land, and reclamation of brownfield sites that spans the spectrum of naturalized to structured edge conditions. Although points of access are provided, experiencing the 2.75 miles of waterfront continuously is challenging.

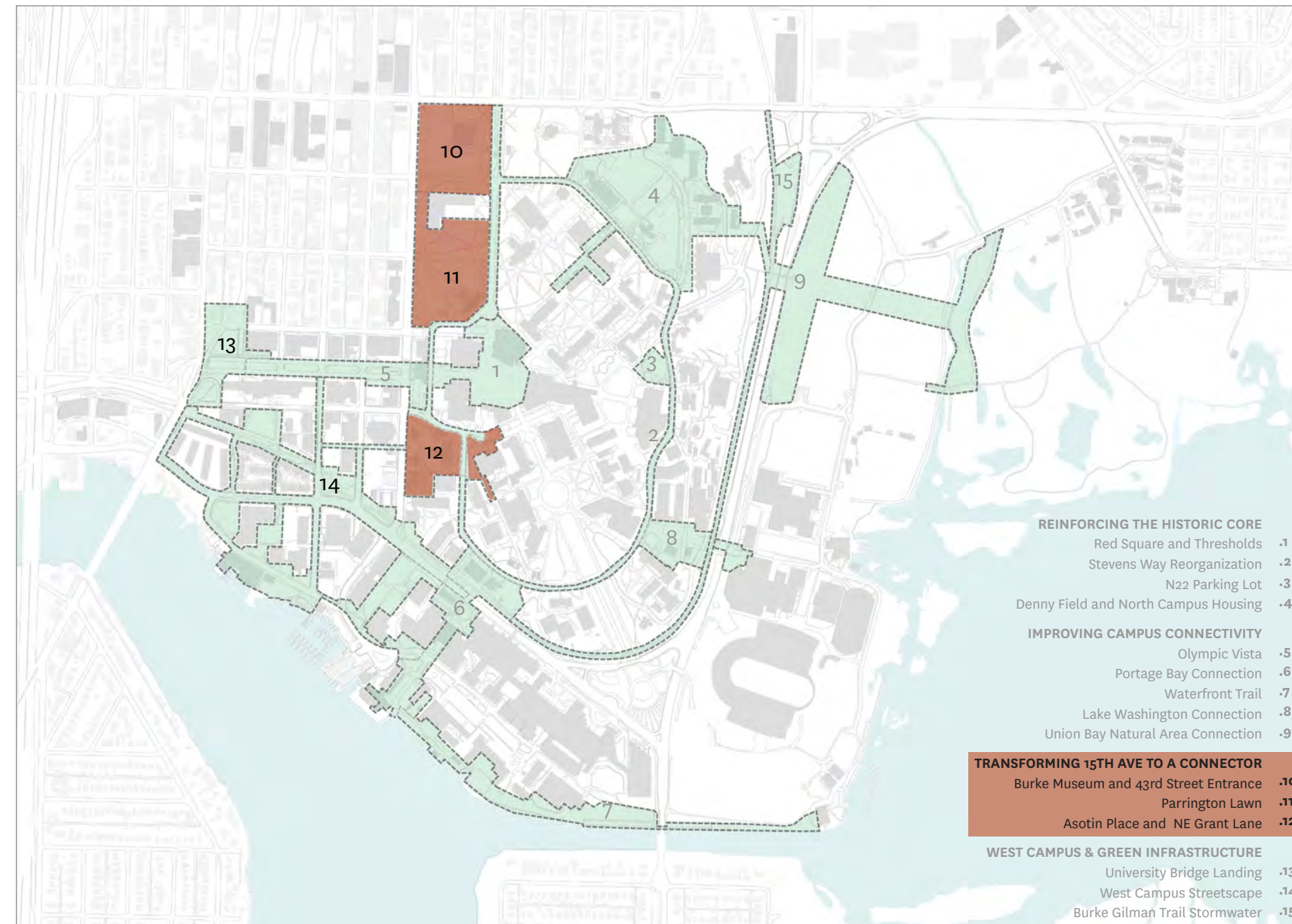
#### LAKE WASHINGTON CONNECTION

There is not currently a direct, well-marked route, from Stevens Way to East Campus, despite the heavy flow of students from north campus travelling in the direction of the IMA and the other athletic facilities in this neighborhood.

#### EAST CAMPUS /UNION BAY NATURAL AREA CONNECTION

Union Bay Natural area is currently accessed by means of a circuitous path system down the east slope, crossing the Burke Gilman trail, across a bridge, terminating with a flight of steps into a vast parking lot. From there, pedestrians weave across the parking lot to discover the one or two pathways into the natural area trails. The development and recreational potential of East Campus can be unlocked with an accessible connection here.

## TRANSFORMING 15TH AVENUE FROM AN EDGE TO A CONNECTOR



### TRANSFORMING 15TH AVENUE FROM AN EDGE TO A CONNECTOR

As demonstrated by feedback from the My Places survey, navigation challenges exist throughout campus, with some areas of particular concern. In general, connections between Central Campus and the other neighborhoods need to be improved. Connections across NE Pacific between South and Central Campus are thought to be highly difficult to navigate in a very concentrated area. Connection challenges between the Central Campus and neighborhoods to the East and West areas are spread across a wider area.

#### BURKE MUSEUM & 43RD STREET ENTRANCE

Currently the UW has a very subdued presence at the 45th Street corner: a veil of woodland faces 15th Ave NE, partially obscuring a wall that lifts the campus landscape from the sidewalk, providing level ground for a parking lot between NE 45th and NE 43rd.

The 43rd Street pedestrian entrance onto campus leads to the key intersection between Memorial Way and Stevens Way. The importance of this entrance will be transformed by the light rail transit station currently under construction.

#### PARRINGTON LAWN

After the wooded edge along the Law School, Parrington opens up into a canopied lawn. Except for where the lawn slopes down toward 42nd, most of this landscape is elevated above street level and so the street side experience is dominated by a concrete wall.

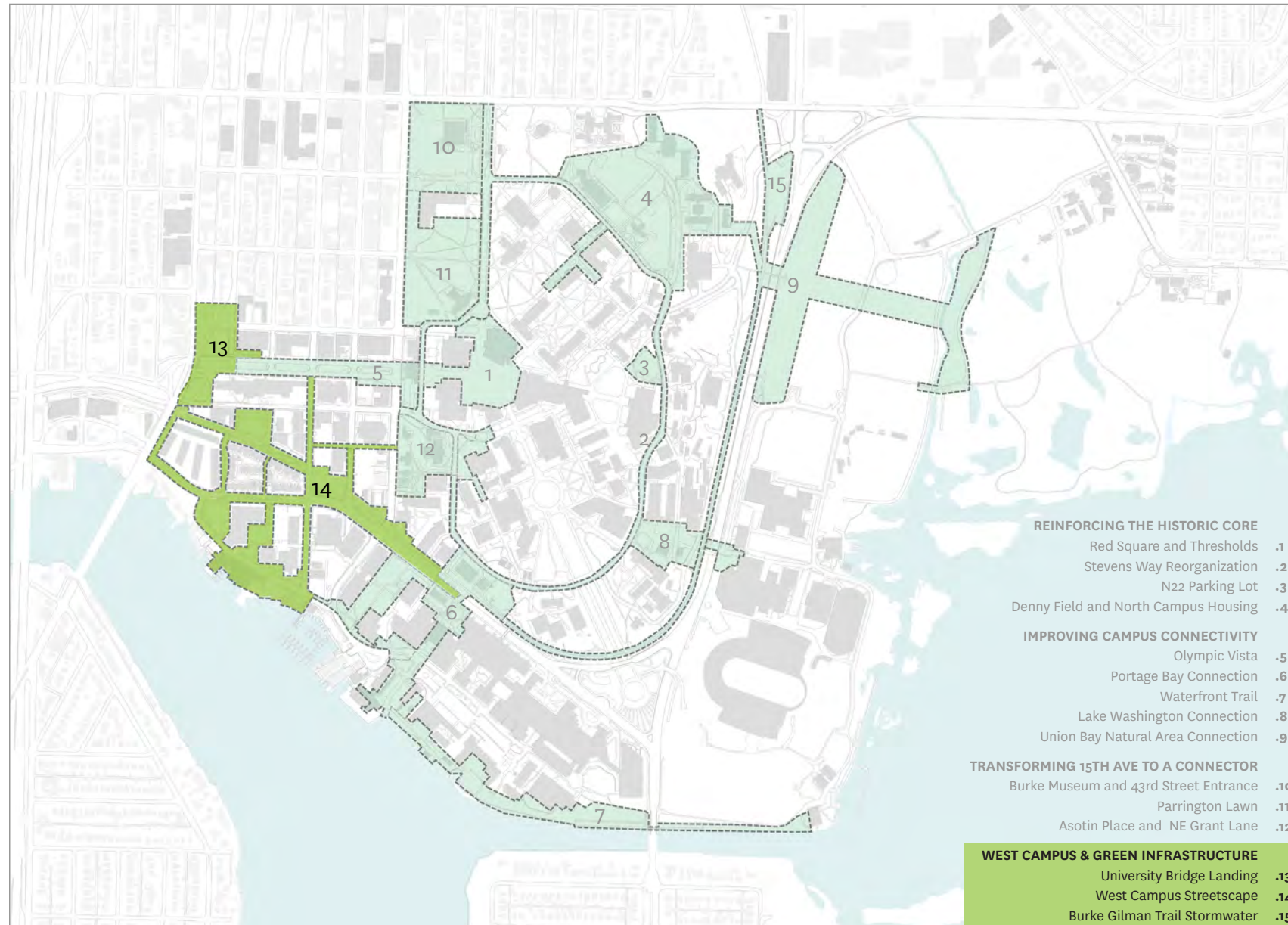
#### ASOTIN PLACE & NE GRANT LANE

Along this stretch of 15th Avenue, only service docks and steep staircases connect campus level with sidewalk level below.

The 41st Street entrance was built primarily as a vehicular entrance, as such, the approach to the western gate of campus is steep, discouraging bikes and some pedestrians. The large parking garage entrance and service roads further detract from the sense of arrival onto campus.



## WEST CAMPUS GREEN NETWORK



### WEST CAMPUS & GREEN INFRASTRUCTURE

The landscape

#### UNIVERSITY BRIDGE

The current terminus of Campus Parkway offers an unfriendly pedestrian experience at both at the level of the University Bridge and at the level of the East-west roadway as it passes under the bridge. Multiple comments in the campus survey speak to pedestrians feeling unsafe in this area. A reorganization and normalization of this intersection, adjusting grades to bring bridge traffic and campus traffic together, would help to overcome a sense of a barrier to the west of Campus Park way. Additional improvements, including a rethinking of the number of lanes of traffic on Campus Parkway itself could help to overcome this area's current state of dereliction. These pedestrian and vehicular realm improvements could also be achieved in such a way to create a new building site for the university.

#### WEST CAMPUS STREETScape

Recognizing the West Campus Framework Study was already underway to help define a new character for this currently underutilized campus precinct. The CLF team worked with the West Campus planning team to explore the various opportunities to create new development opportunities for the UW that extend into the urban fabric. The larger goal would be to have UW's urban precinct mix the best of city and campus, with reconfigured sidewalks and new landscape program to improve the pedestrian environment. In some places this would include reestablishing an urban grid, in other areas pedestrian realm improvements might include new crosswalks across Olympic Vista, and an accessible pathway in the Olympic Vista Median, and improved

pedestrian and accessibility connections to Central Campus, by means of an additional skybridge, from Campus Parkway to George Washington Lane.

#### BURKE GILMAN TRAIL STORMWATER

Wet bioswales connected along the shoulder of the Burke Gilman Trail could provide for conveyance, limited flow control and water quality treatment of stormwater flows collected from elsewhere on campus. The facility that ultimately receives this flow would be sized for water quality using the Department of Ecology and City of Seattle standards, hopefully through a strategy of banking stormwater mitigation for future projects that would trigger stormwater management requirements. In addition to conveyance along the Burke Gilman trail, areas that might serve well for bioretenion include parking lot N25 off Pend Oreille Place, landscape strips in parking lot E1, and in the vicinity of San Juan Road.



## Strengthen the Institutional Ethos and Fortify the Campus Landscape for the Enjoyment of Future Generations

### PLANNING POLICIES TO SUPPORT A ROBUST STEWARDSHIP ETHOS

The university should consider broadening the number of ways it initiates landscape projects. For instance, rather than being a part of other capital projects, consideration should be given to stand-alone renewal projects and new landscapes considered on their own merits. Moreover, when landscape projects are triggered by architectural or infrastructural projects, they should be undertaken with an understanding of their impact on the continuous landscape systems of the campus. Similarly, specialized program that has a high impact on the landscape, for instance ecological restorations, transportation coordination, or sports facilities, should be designed to be an integrated part of the wider systems that it influences.

### AID FOR CAPITAL PLANNING

Currently, most landscape projects at the UW are funded as part of architectural projects and there is no clear mechanism for raising landscape-specific funds. This frequently puts the needs of a shared campus asset in tension with the needs of individual departments or user groups. Peer institutions were consulted as part of the CLF, to see what other funding strategies might be available (see full results in appendix). Strategic landscape plans, similar to the CLF, were frequently cited as opportunities for funding integrated landscape improvements over the course of several years.

## Observations

The landscape is used by the entire campus community and is not the domain of just one school.



Funding that is specific to landscape improvements should be made available, either to fund stand-alone repairs or improvements or to create the capacity to add landscape scope to capital projects in ways that benefit the campus as a whole.

Even though they usually represent a small portion of the overall budget, and they are part of a larger amenity that serves the entire university, landscape designs are sometimes value-engineered to help building projects stay on budget.



Fix landscape budget after schematic design approval and then treat the two budgets as separate as projects move forward.

New landscapes at the UW should always be of a quality that is consistent with the rest of the campus.



When setting preliminary budgets, be realistic about the needs of landscape improvements, assuming plantings materials and other design elements that are consistent with the desired landscape quality of the UW campus.



## Strengthen the Institutional Ethos and Fortify the Campus Landscape for the Enjoyment of Future Generations

### IDENTIFYING LANDSCAPE PRIORITIES

Strategic use of resources will be key to achieving the greatest landscape benefits over the long term. This means that landscape priorities will frequently be impacted by their ability to be combined with other developments on the campus, rather than simply their stand-alone merits. As case studies and priorities projects are established in this document, a degree of flexibility should be preserved to continue to fine-tune landscape initiatives to be integrated with other changes underway. At the same time, however, there are landscape conditions that are of a sufficiently poor quality that their resolution should not be postponed for any great length of time.

### Observations

Most building and infrastructure projects require the repair or change of landscape systems, but often the aspirations for this work is very narrowly defined.

The high value the community places on the UW landscape as a shared asset of university life is not reflected in a funding structure that is focused on the needs of individual schools.

The iconic landscapes on the UW campus all started as strongly figured spaces that were developed as landscapes in their own right. They did not come about through the accretion of smaller landscapes associated with buildings.

The landscape is a major contributor to the quality of life at the UW. The identity of the UW is inextricably tied to its landscape quality, influencing the institutions ability to attract and retain students and faculty.

### Strategies

A multifaceted understanding of the role that even small landscapes play in larger campus-wide systems and goals should guide every project.

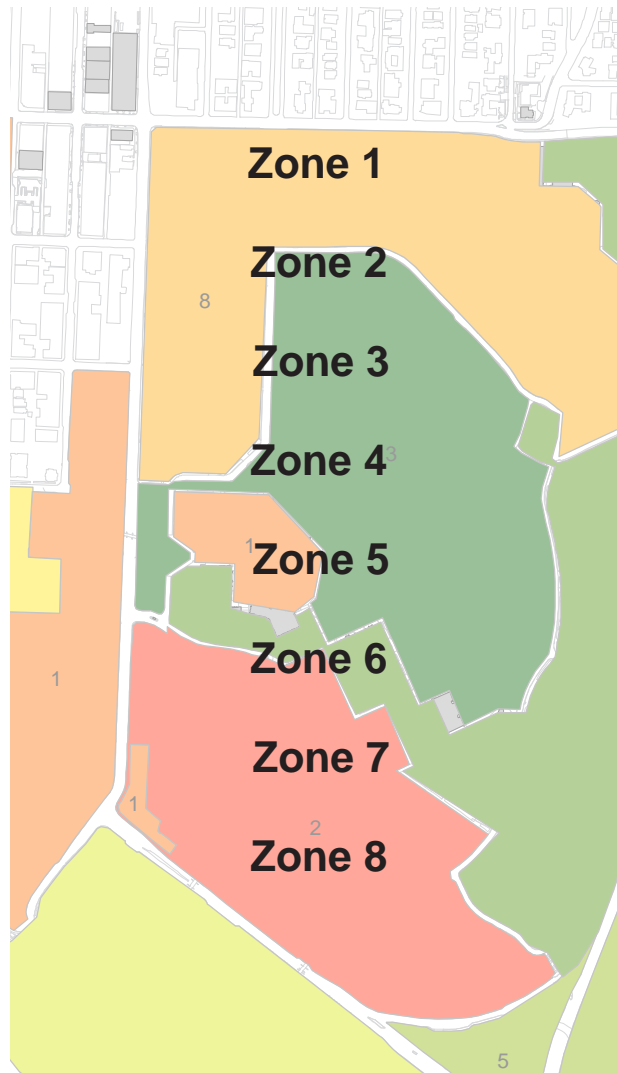
A cohesive approach to landscape planning and the funding of important landscape projects will protect the integrity of the landscape experience at the UW.

When considering district or neighborhood planning, look for opportunities to create strong landscape centers that can anchor a variety of architectural program.

Do not rely on piggyback projects as the primary means of funding major landscape improvements. Initiate a capital fund for landscape projects that are vital to the future expansion and excellence of the campus.



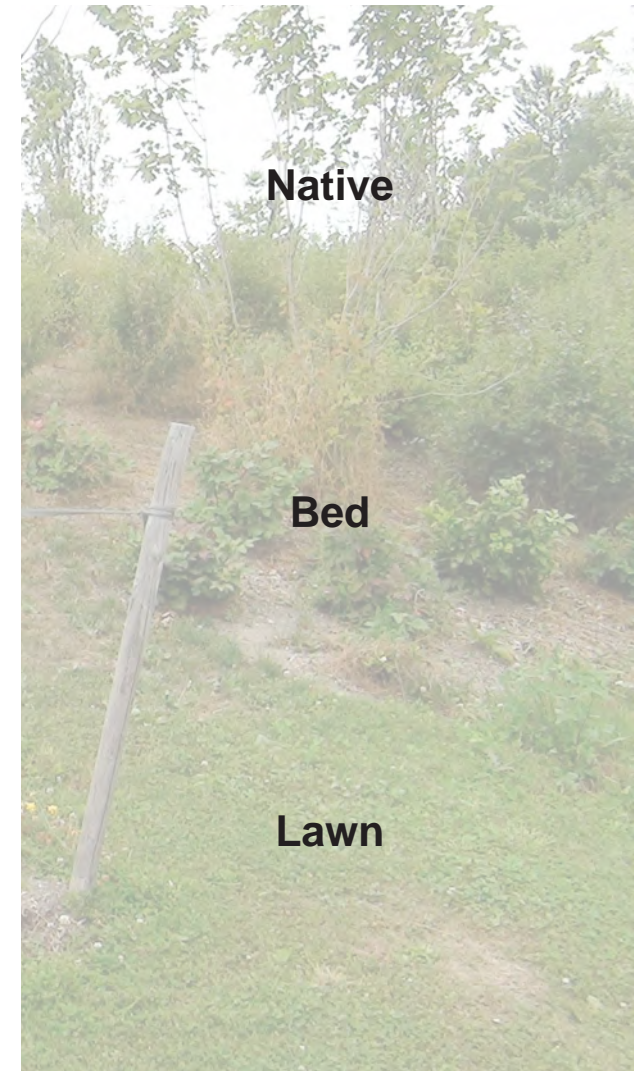
# Basis of Analysis



*Maintenance Zones*

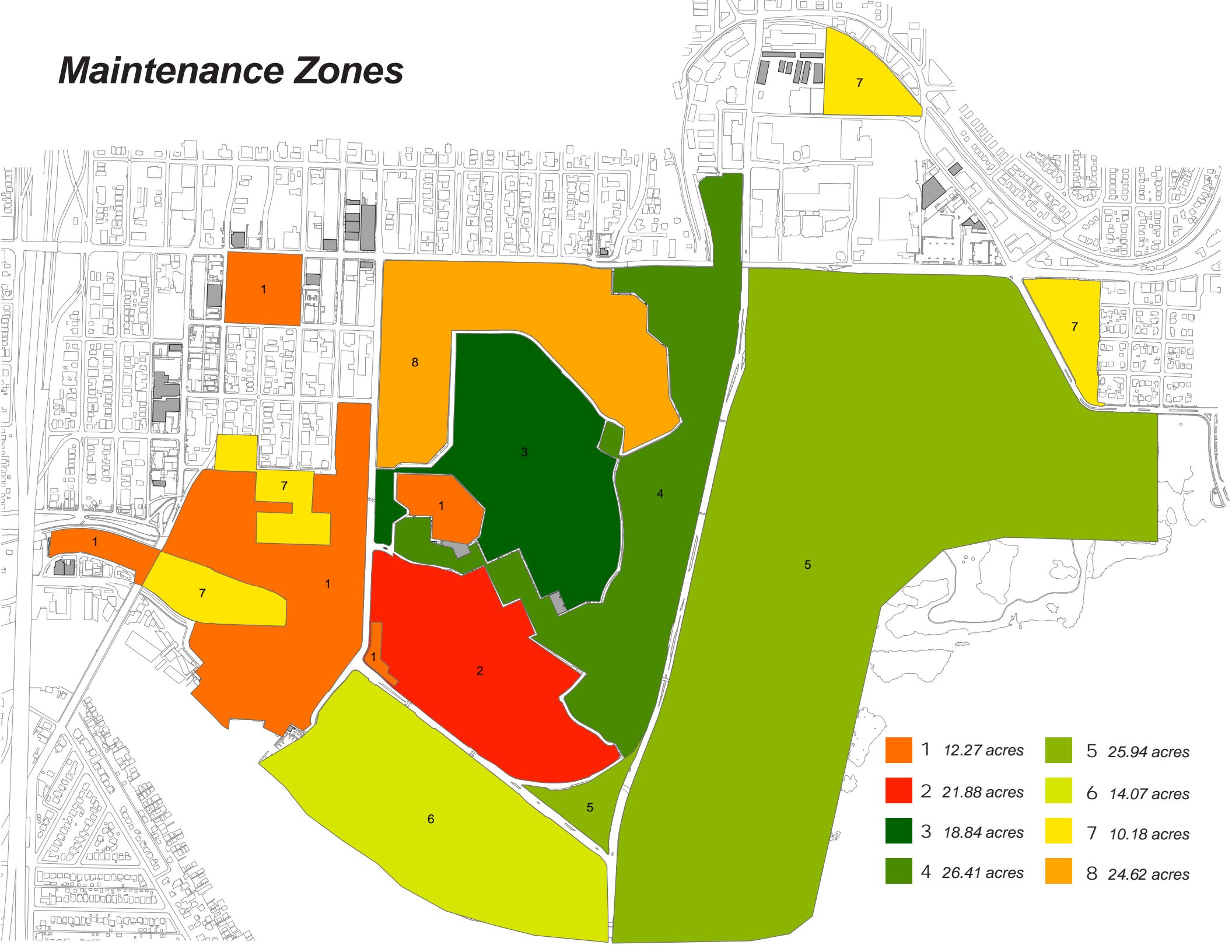


*Maintenance Levels*



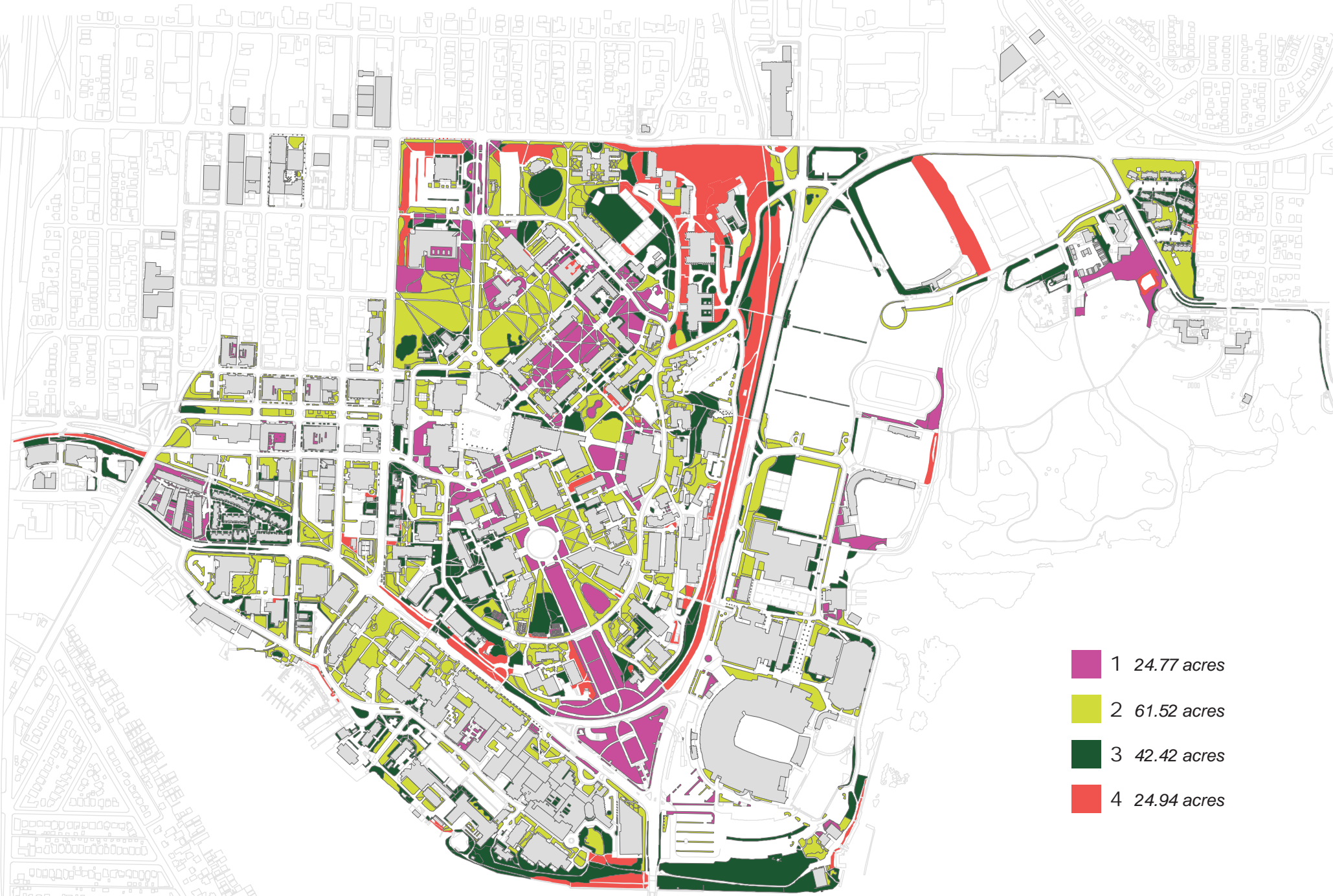
*Landscape Type*

# Maintenance Zones

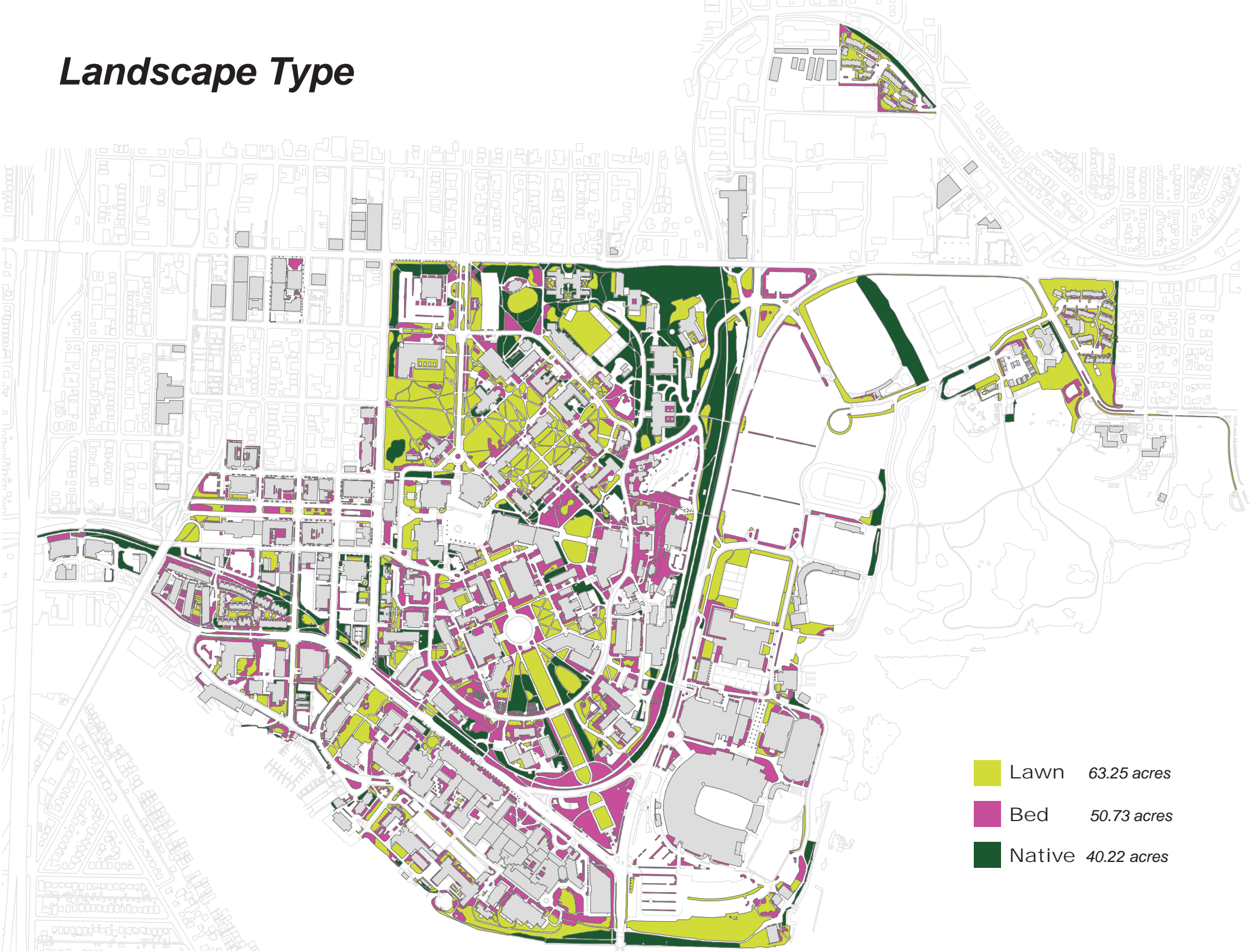


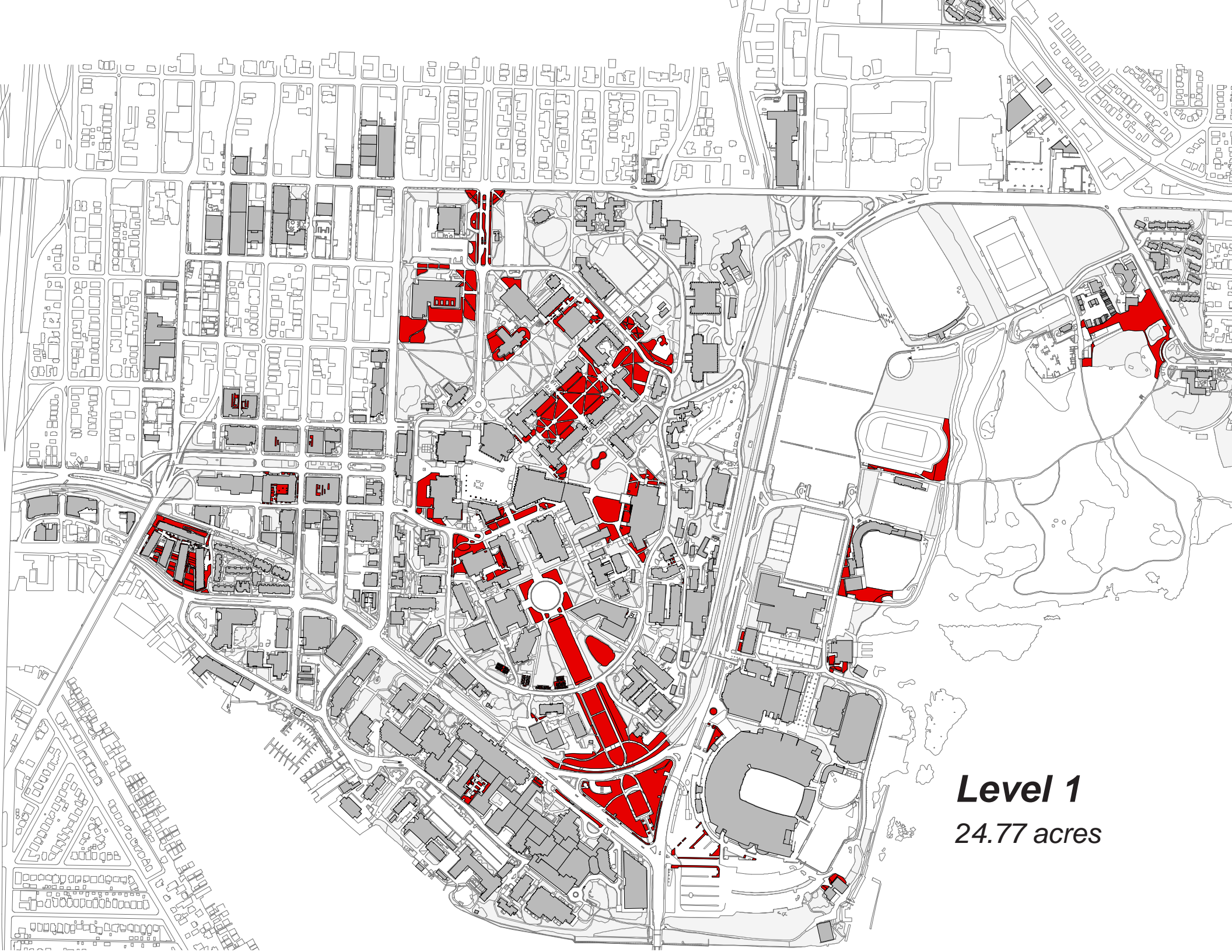


# Maintenance Levels

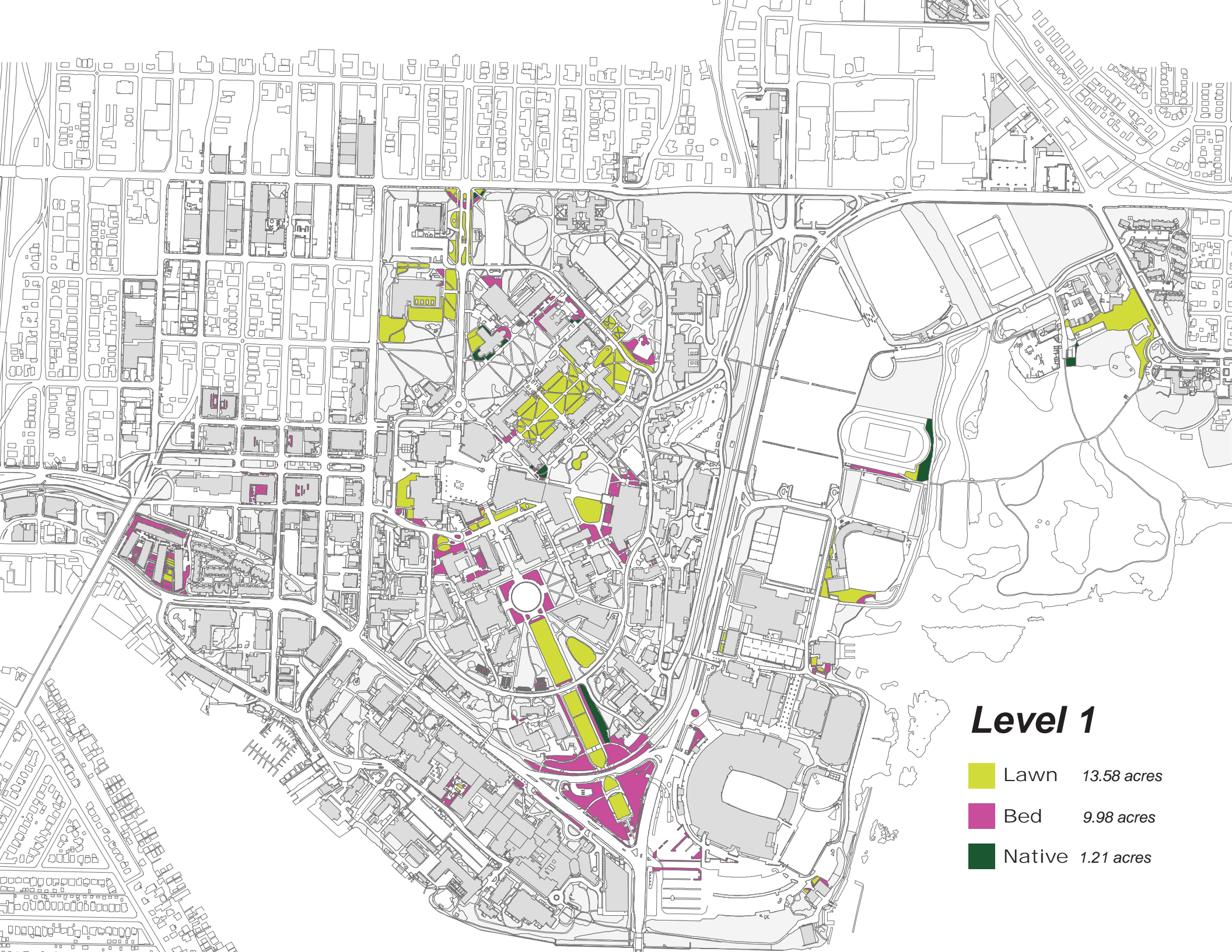


# Landscape Type






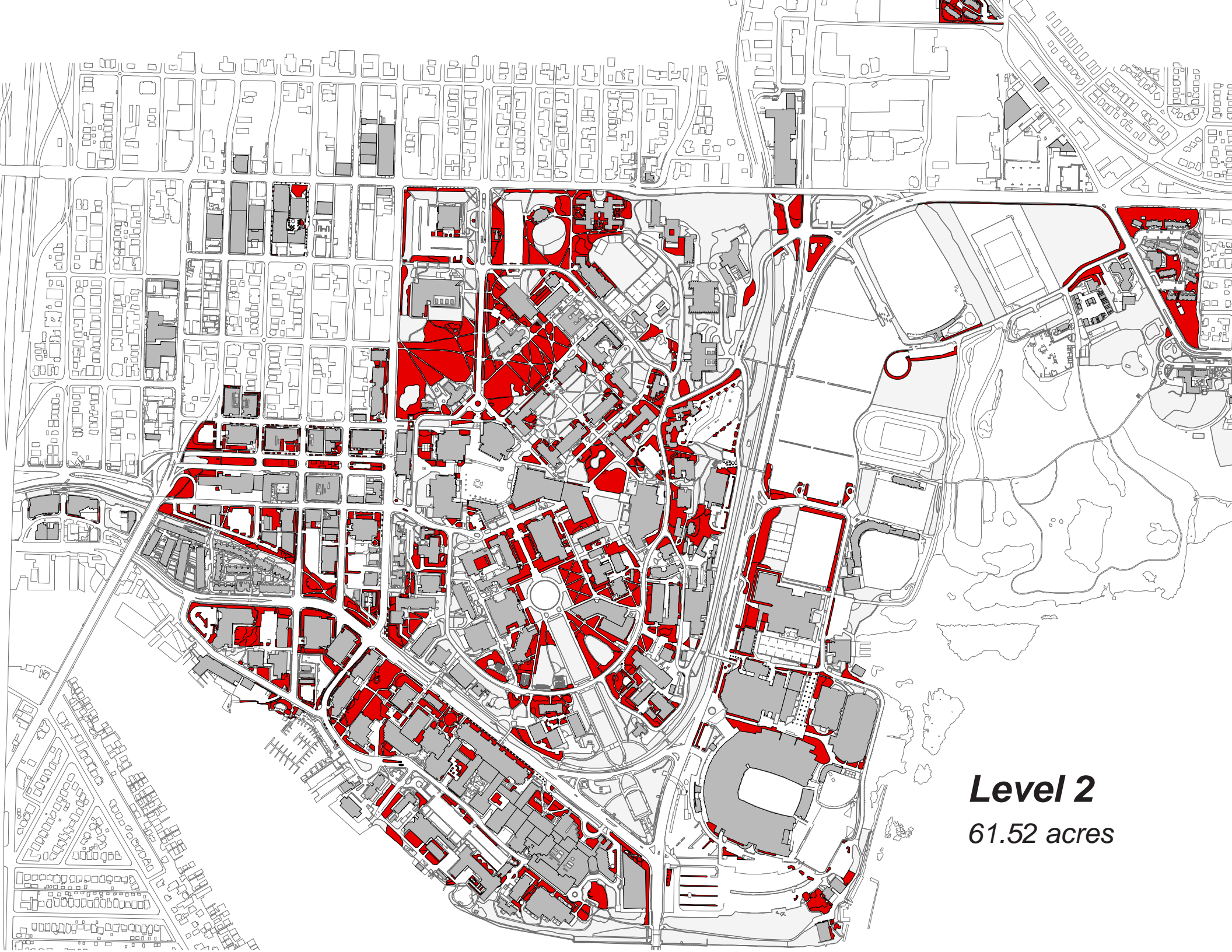


**Level 1**  
24.77 acres

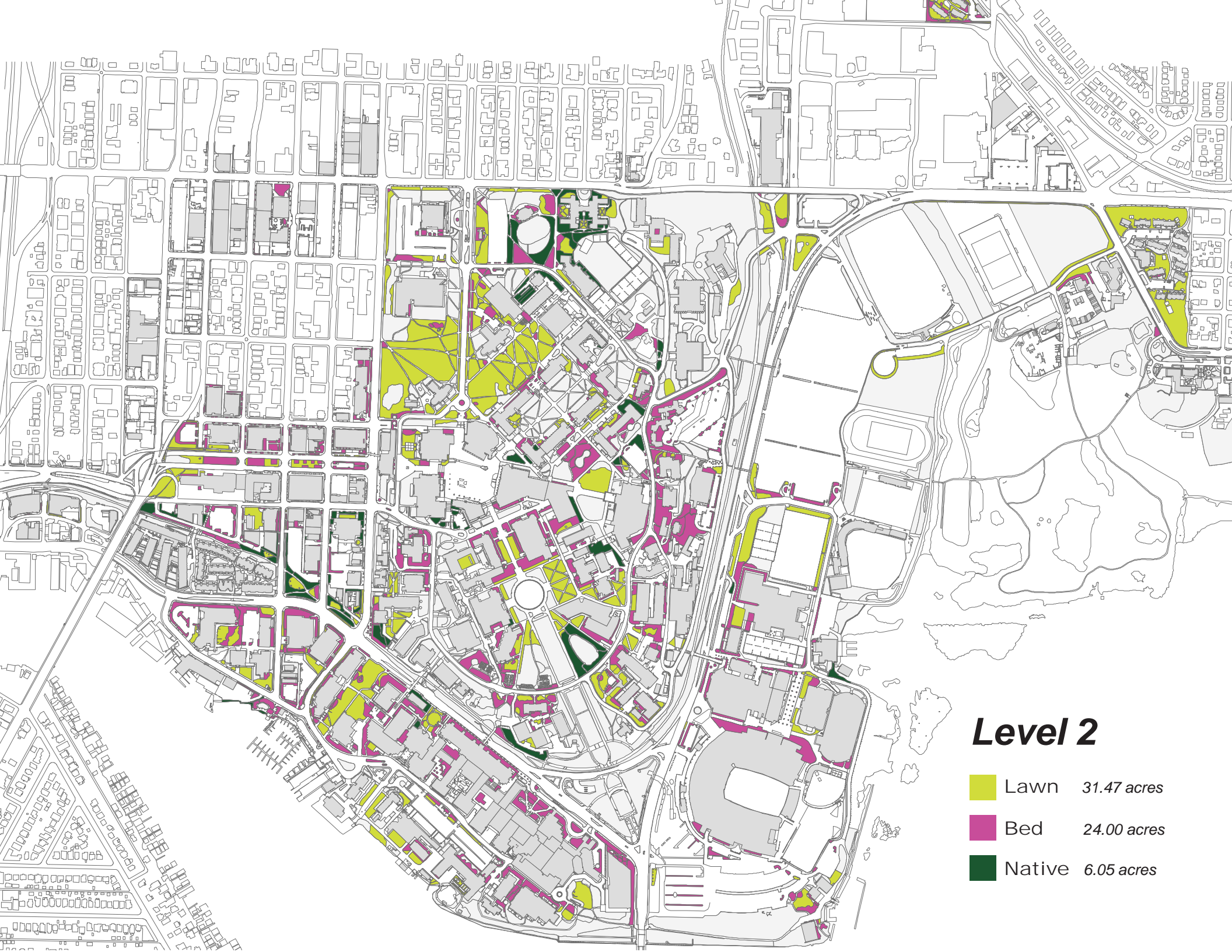


## **Level 1**




-  Lawn 13.58 acres
-  Bed 9.98 acres
-  Native 1.21 acres

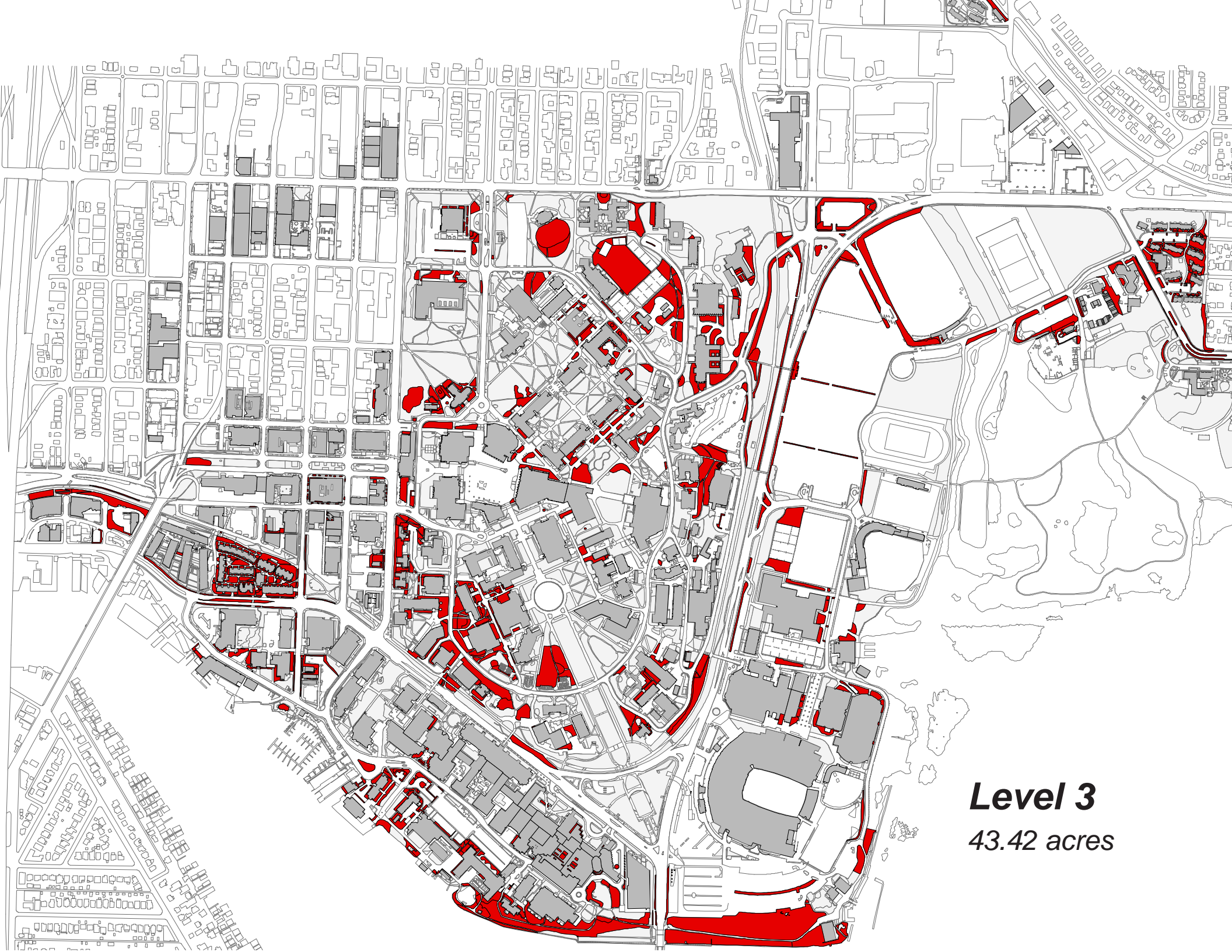


**Level 2**  
61.52 acres

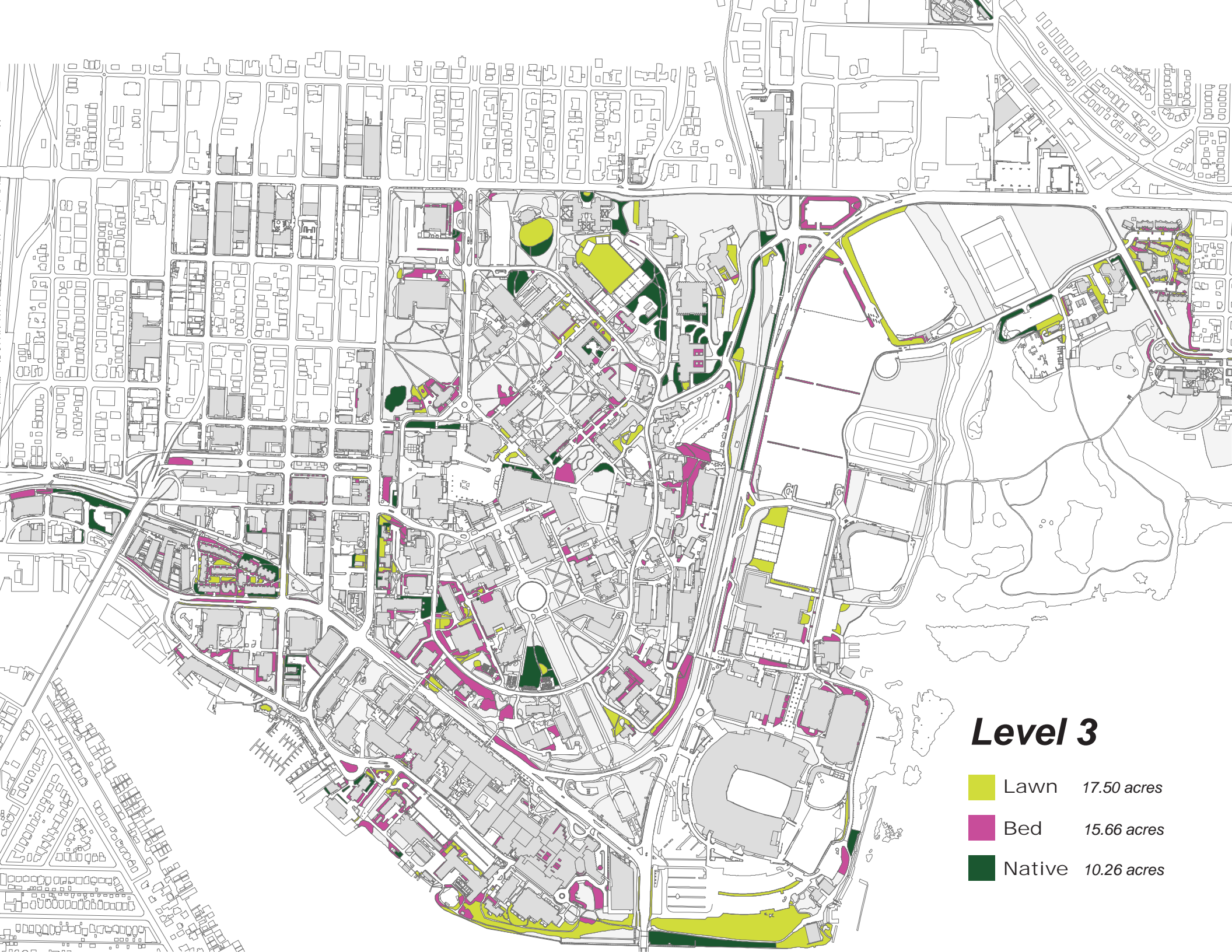


## Level 2




	Lawn	31.47 acres
	Bed	24.00 acres
	Native	6.05 acres



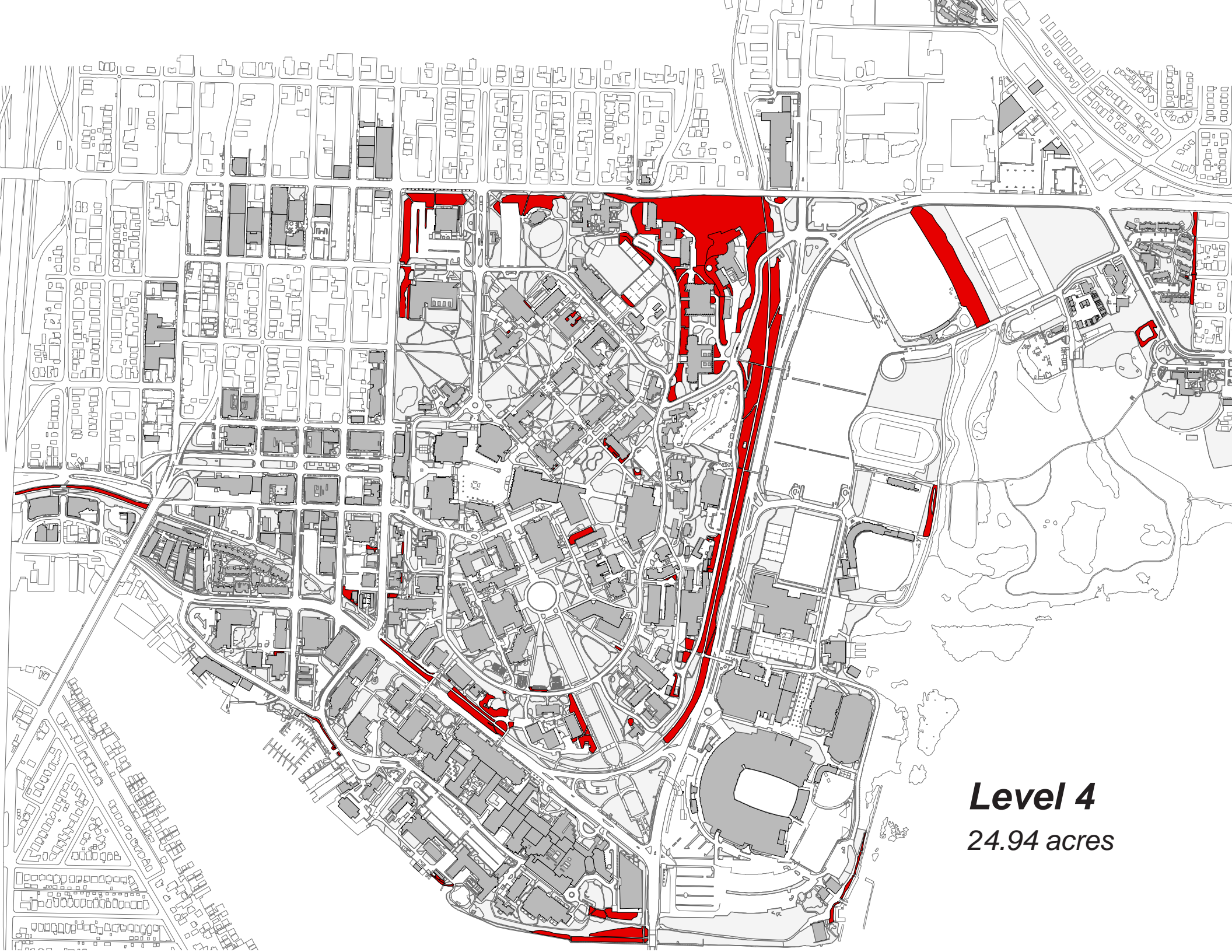
**Level 3**  
43.42 acres



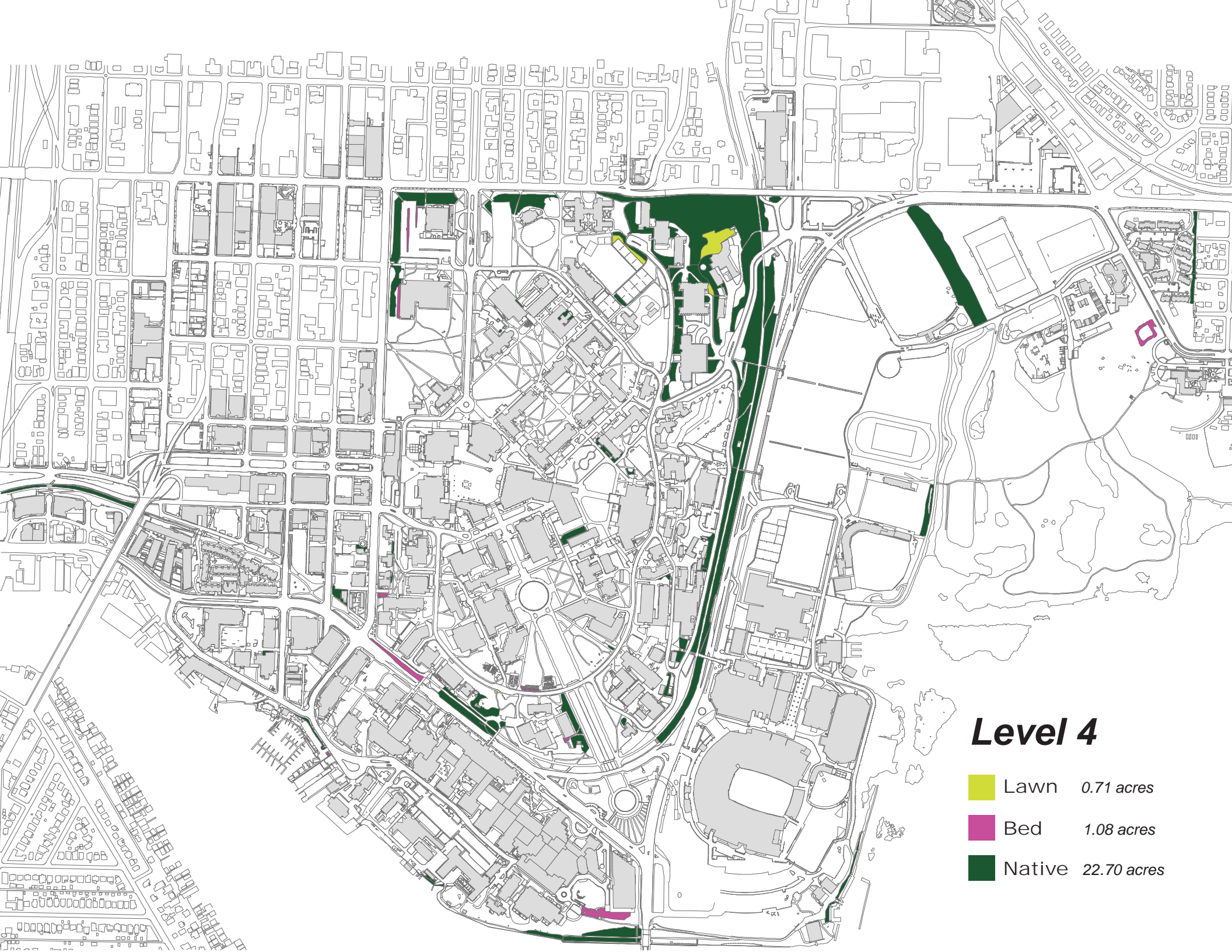
### **Level 3**

-  Lawn 17.50 acres
-  Bed 15.66 acres
-  Native 10.26 acres








**Level 4**  
24.94 acres



## Level 4

-  Lawn 0.71 acres
-  Bed 1.08 acres
-  Native 22.70 acres

# Landscape Analysis by Task

## Existing Conditions : Annual hours per acre

	Fertilization	Hardscapes	Irigation	Leaf Removal	Litter Pickup	Mowing	Planting	Pruning	Spraying	Tree Maintenance or Removal	Weed Control	Other Grounds	Total Hours
<i>Total</i>	7.57			62.35	30.96	141.00	13.10	134.90	6.05	35.84	247.64	86.40	<b>765.80</b>
<i>% of APPA</i>	320.64%			28.07%	3.79%	87.29%	43.49%	154.85%	27.76%	61.71%	56.85%	396.69%	<b>41.23%</b>

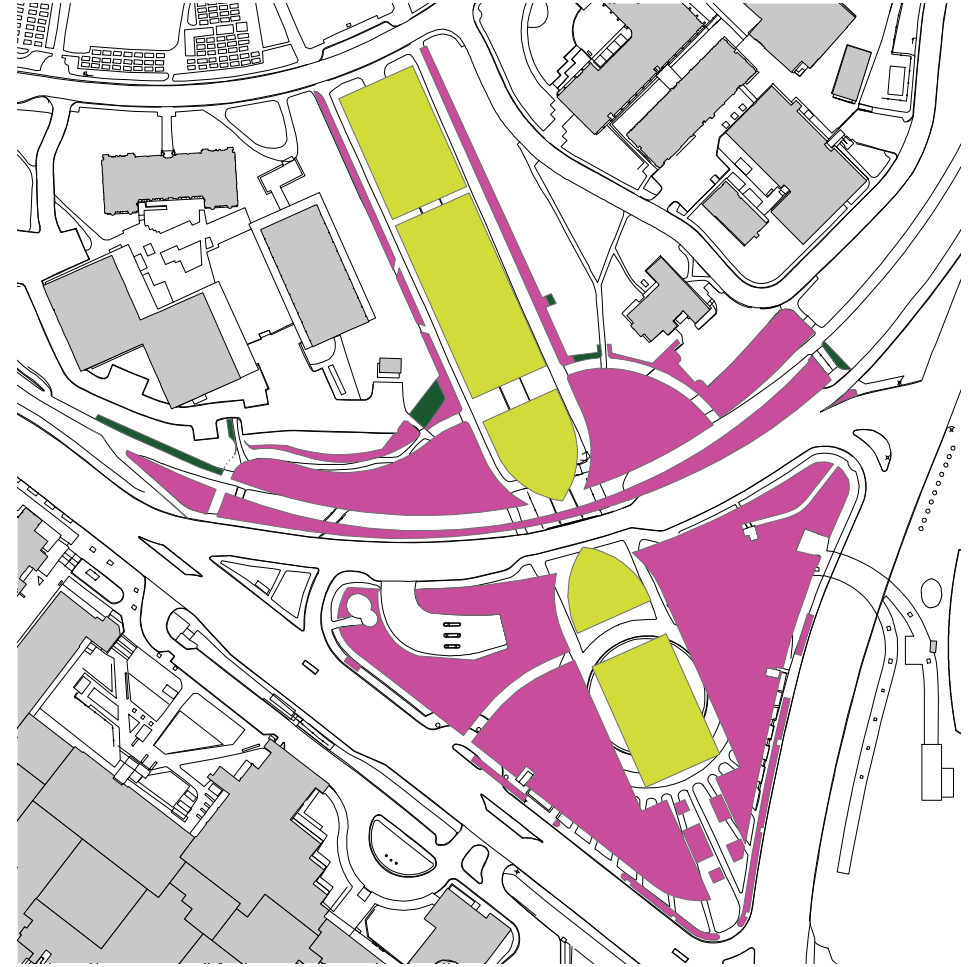
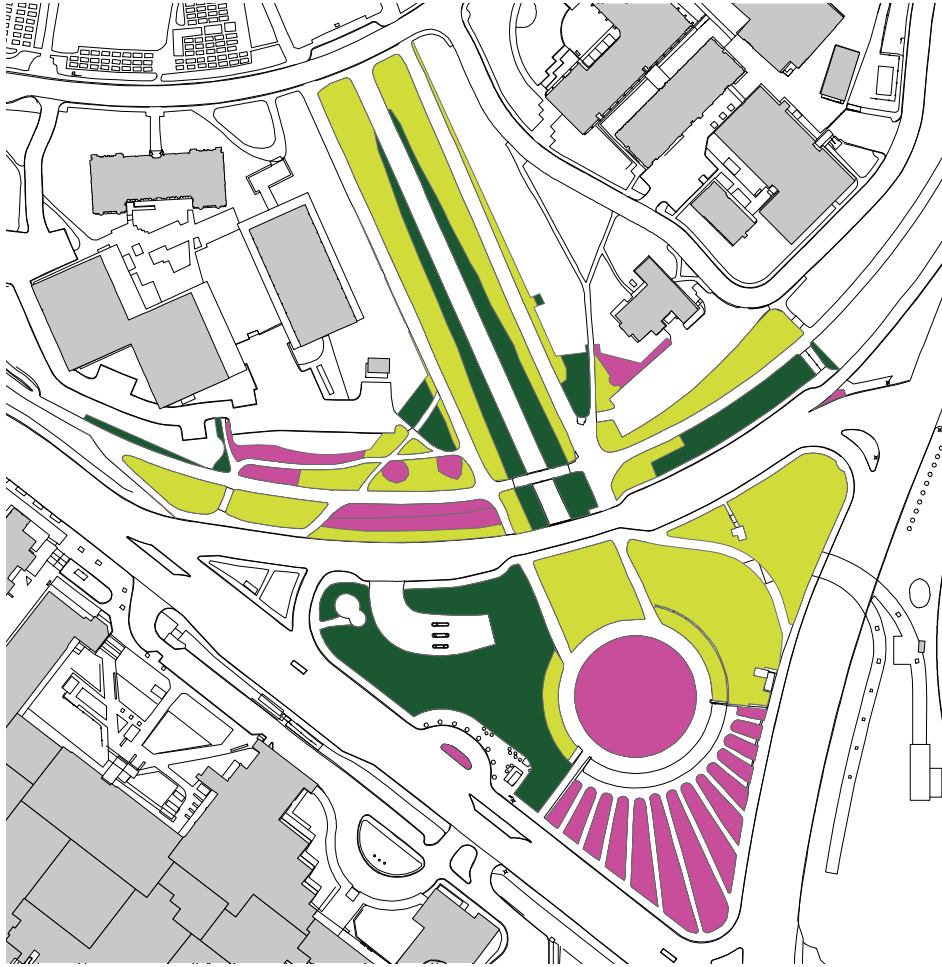
## APPA Standards : Annual hours per acre

	Fertilization	Hardscapes	Irigation	Leaf Removal	Litter Pickup	Mowing	Planting	Pruning	Spraying	Tree Maintenance or Removal	Weed Control	Other Grounds	Total Hours
<i>Lawn</i>	2.36			4.36	326.70	161.54				29.04			523.99
<i>Bed</i>				217.80	326.70		30.13	87.12	21.78	29.04	435.60	21.78	1,169.95
<i>Native</i>					163.35								163.35
<i>Total</i>	<b>2.36</b>	<b>0.00</b>	<b>0.00</b>	<b>222.16</b>	<b>816.75</b>	<b>161.54</b>	<b>30.13</b>	<b>87.12</b>	<b>21.78</b>	<b>58.08</b>	<b>435.60</b>	<b>21.78</b>	<b>1,857.29</b>

# Landscape Maintenance Comparison

<i>Area weighted scale based on frequency of maintenance tasks</i>		<i>Current Conditions FTE Requirements</i>		<i>APPA Standard FTE Requirements</i>	<i>% Difference</i>
<i>Level 1</i>	<b>1.00</b>	<i>Zone 1</i>	<b>2.31</b>	<b>3.93</b>	<b>58.81%</b>
<i>Level 2</i>	<b>0.75</b>	<i>Zone 2</i>	<b>4.56</b>	<b>8.47</b>	<b>53.86%</b>
<i>Level 3</i>	<b>0.50</b>	<i>Zone 3</i>	<b>4.03</b>	<b>6.00</b>	<b>67.28%</b>
<i>Level 4</i>	<b>0.25</b>	<i>Zone 4</i>	<b>3.44</b>	<b>5.11</b>	<b>67.23%</b>
		<i>Zone 5</i>	<b>4.42</b>	<b>6.61</b>	<b>66.79%</b>
		<i>Zone 6</i>	<b>2.42</b>	<b>4.61</b>	<b>52.54%</b>
		<i>Zone 7</i>	<b>1.92</b>	<b>3.24</b>	<b>59.36%</b>
		<i>Zone 8</i>	<b>4.25</b>	<b>5.00</b>	<b>84.99%</b>
		<b>Total : 27.35</b>		<b>Total : 42.96</b>	<b>63.66%</b>

# Rainier Vista Analysis

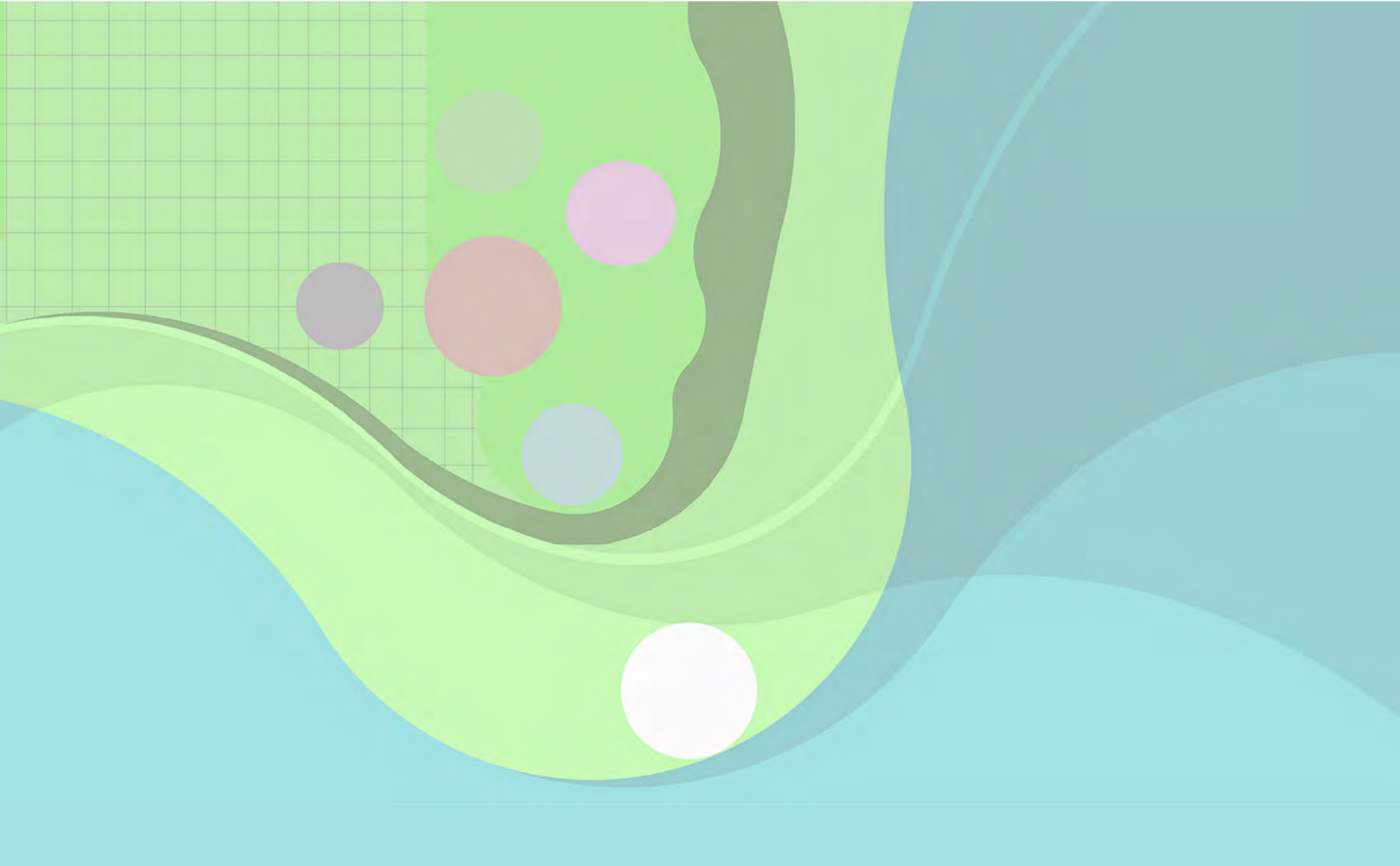


Total Area	Maintenance Level			Grand Total
Landscape Type	2	3	4	
Bed	41,954.02	10,126.24		52,080.27
Lawn	88,459.32	20,981.26	2,184.61	111,625.19
Native	33,658.34		29,548.29	63,206.63
<b>Grand Total</b>	<b>164,071.68</b>	<b>31,107.50</b>	<b>31,732.90</b>	<b>226,912.09</b>

Sum of area	Maintenance Level				Grand Total
Landscape Type	1	2	3	4	
Bed	166,753.50		5.22		166,758.72
Lawn	67,454.68				67,454.68
Native	366.26	1,465.57		1,470.44	3,302.27
<b>Grand Total</b>	<b>234,574.44</b>	<b>1,465.57</b>	<b>5.22</b>	<b>1,470.44</b>	<b>237,515.67</b>

Total Hours	Maintenance Level			Grand Total
Landscape Type	2	3	4	
Existing Structure	1,258.15	159.03	81.11	1,498.29 (0.93 FTE)
APPA Model	1,737.84	262.18	34.27	2,034.30 (1.27 FTE)

Total Hours	Maintenance Level				Total Hours
Landscape Type	1	2	3	4	
Existing Structure	2,398.38	11.24	0.03	3.76	2,413.41 (1.5 FTE)
APPA Model	5,291.52	4.12	0.07	1.38	5,297.09 (3.29 FTE)



# CAMPUS IN MOTION : UW's CAMPUS LANDSCAPE FRAMEWORK

OFFICE OF THE UNIVERSITY ARCHITECT  
MICHAEL VAN VALKENBURGH ASSOCIATES

June 2015