

University of Washington ARCF

Early Design Guidance
June 25, 2014

ZGF Architects LLP / Flad Architects
MVVA Landscape



Animal Research and Care Facility

Project Description

Animal Care at the University of Washington

The primary purpose of the Animal Research and Care Facility (ARCF) is to consolidate, centralize, and increase holding and procedure space on the University of Washington campus. The Department of Comparative Medicine (DCM) and Non-Human Primate (NHP) Center will be housed in the ARCF. This modernized and consolidated facility will allow the University to provide a productive and healthy working environment for staff, researchers and animals.

Functional and Service Requirements

The ARCF will require below grade connections to existing adjacent facilities including Foegen, K-Wing and the adjacent Service Docks. Key connections include the incorporation of a secure, below grade access to the ARCF from UWMC facilities.

Site Selection

South Campus and the Portage Bay Vista

The Animal Research and Care Facility is planned to be constructed below grade, beneath the Portage Bay Vista. The selected location bounds the ARCF on four sides by existing infrastructure: Foegen Research Facility to the west, Hitchcock Building to the east, Foegen/K-wing Service dock to the south and Pacific Street to the north.

Access for Existing Facilities and Services

One goal of the ARCF is to improve below grade access between existing buildings by creating a secure pathway from Foegen to the UWMC facilities to the east. The ARCF program will require an expansion of the existing loading dock, alterations to existing civil infrastructure and connections to the UW utility tunnel. The construction team will develop a clear and well communicated plan to help adjacent buildings manage service access during construction.

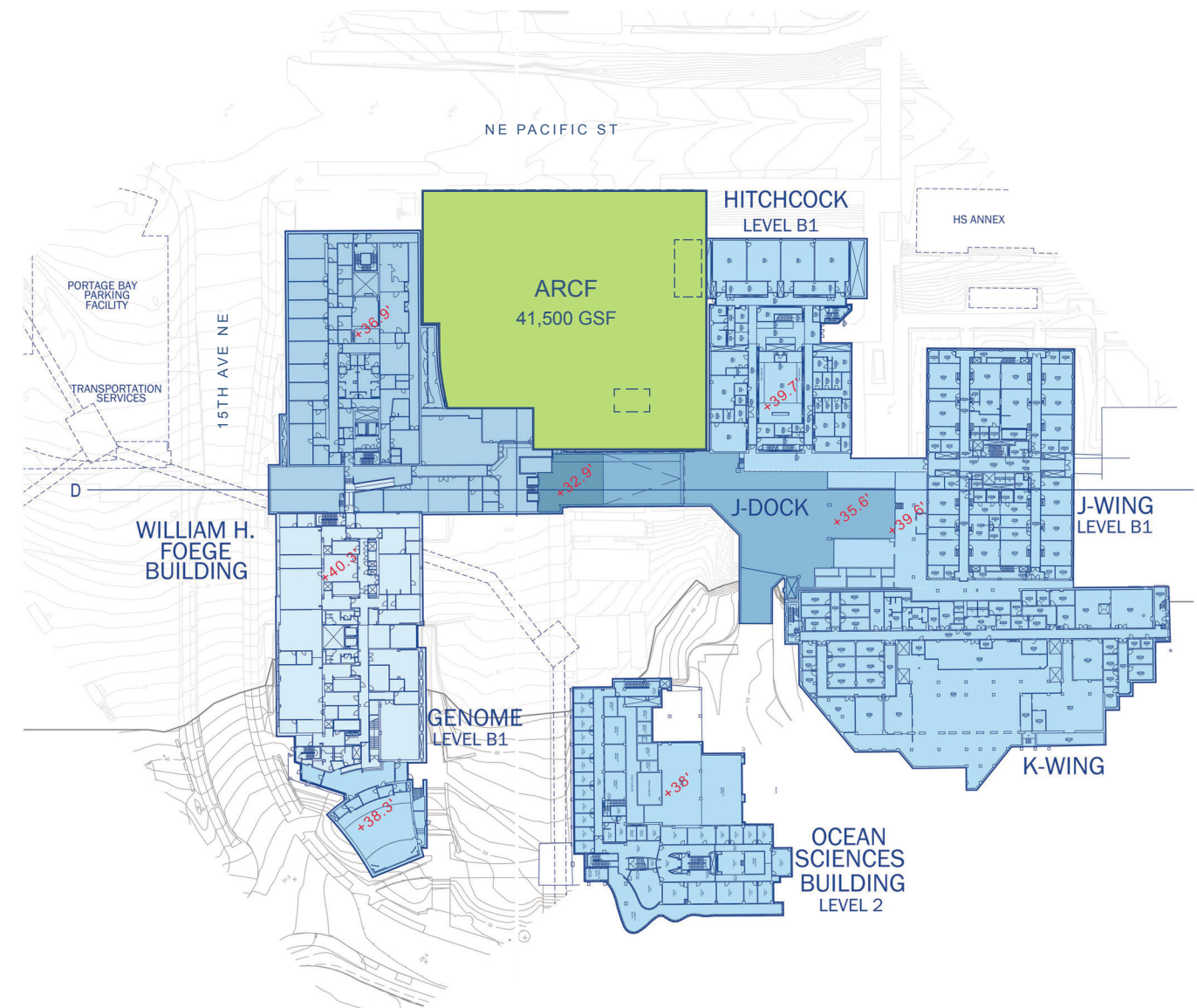
Masterplan

Masterplan Tenets and Compliance

Located beneath the Portage Bay Vista, the proposed ARCF will comply with the University of Washington Seattle Campus Masterplan, dated January 2003. No changes are proposed to the Campus Master Plan as a result of this project. This plan is consistent with the City of Seattle land use and Growth Management Act regulations.

Proposed Scheme

The buildable site area for the project consists of two 42,000 SF levels, below grade, with a structurally independent mechanical tower and an entry pavilion. The underground levels connect to program area in Foegen Hall, an expanded service dock, and the Health Sciences complex to the east. The entry pavilion will provide access via stairs to the sub-grade corridor and indirect entrance to the ARCF. Elevator access will occur via existing elevators in adjacent Foegen. The proposed scheme optimizes existing infrastructure which allows the new facility to capture the equivalent of 7,000 SF of existing space in Foegen Hall, for a total of 91,000 SF.



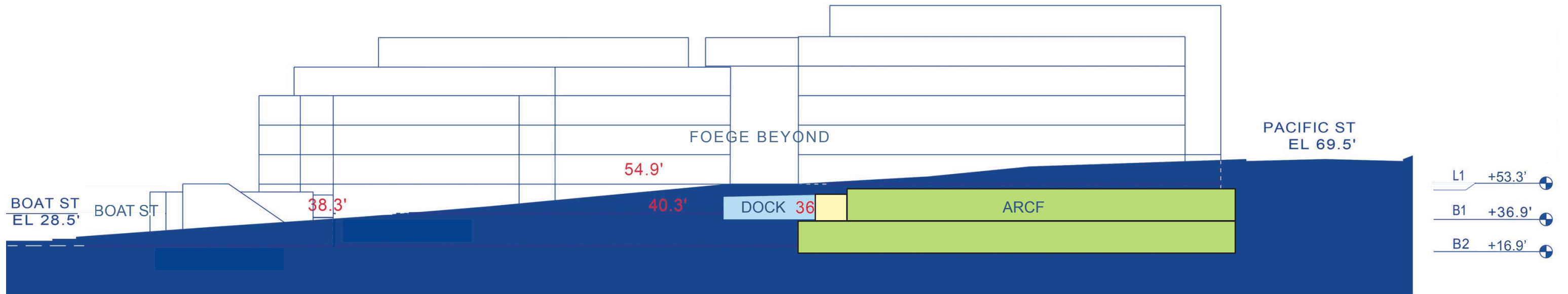
Basement Lower Level (B-02)



Basement Upper Level (B-01)



ARCF Diagrammatic Floor Plans



ARCF Diagrammatic Section

ARCF and the Portage Bay Vista

Connections within and Beyond Health Sciences

The construction of the ARCF Landscape presents an opportunity to create an iconic new campus space for the south and south west campus areas, which are currently underserved with respect to outdoor programming and social spaces. As the population of the Health Sciences campus increases with the construction of new buildings, the ARCF Landscape can become an amenity that will be enjoyed by individuals and groups as well a space that facilitates connections between the core of the UW Campus and the various academic and recreational activities south of Pacific Street.

The ARCF Landscape is also an important public asset. A primary component of the ARCF Landscape will be the Portage Bay Vista, a protected volume of open space created through a zoning agreement between the University of Washington and the City of Seattle that provides a major visual and circulation access between the campus and Portage Bay.

Building as the Landscape

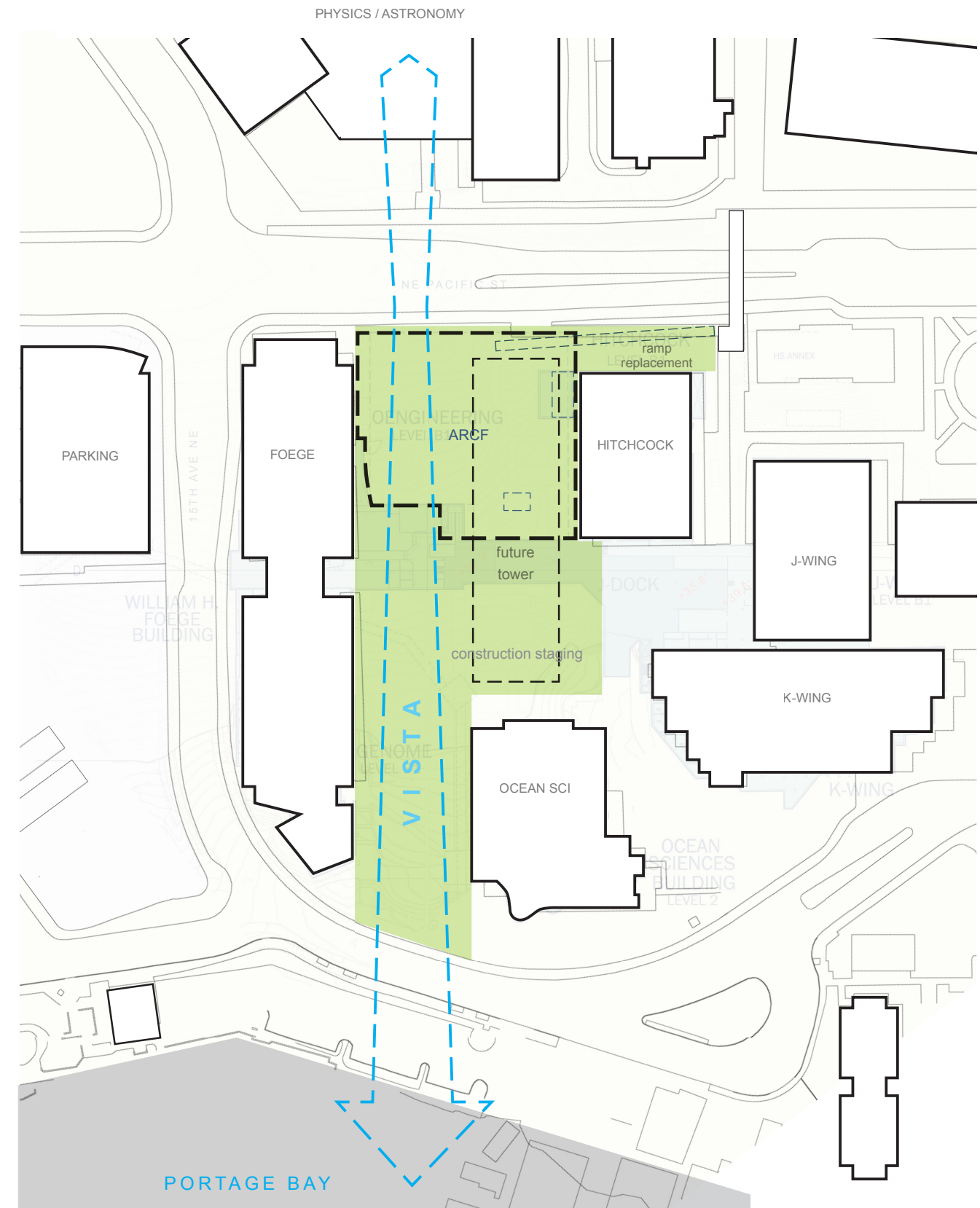
The new ARCF Landscape will be the public face of the project, and part of the outward image of the University of Washington, due to its high visibility from lower Capitol Hill, Portage Bay, Boat Street, Pacific Street, and the Burke Gilman Trail. The ARCF Facility will be a largely subterranean building, necessitating substantial disturbance to the existing site during construction but otherwise requiring minimal above ground structures within the Portage Bay Vista. A mechanical exhaust and ventilation tower associated with the ARCF facility, and a single-story entry pavilion will be located to the east and outside of the zoned Portage Bay Vista envelope.

Experiencing the ARC Landscape

The new ARCF Landscape is a south-facing slope that looks out to the Portage Bay waterfront. In addition to preserving a clear view up and down the Portage Bay Vista, there is an opportunity to create occupiable spaces with a comfortable microclimate within the vista that will invite individual and group use throughout the year. Lawns, benches, flowering plants and broad paved areas, will be provided to encourage daily social use of the landscape. Smaller departmental gatherings, including happy hours, Opening Day celebrations, or graduation ceremonies, may also use this space.

Future Hitchcock West Tower

The east portion of the landscape outside the defined Vista will likely be developed into a multistory research building in the future. The landscape design will acknowledge this temporary nature, and the replacement of this portion of the landscape with building is anticipated in the design and programming of the “permanent” landscape within the Vista.



University of Washington Masterplan

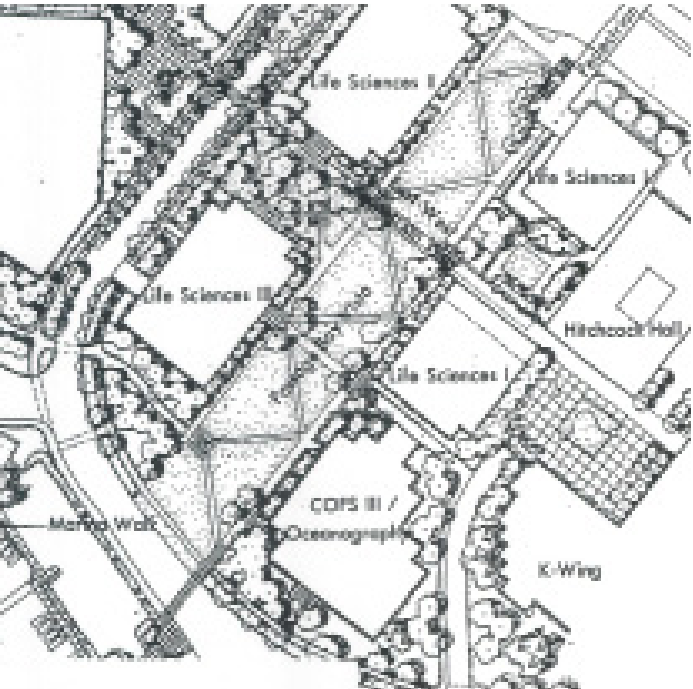
Developing for Now and the Future

The proposed ARCF will support the University of Washington Seattle Campus Masterplan, Approved and Compiled Plan 2003. No changes are proposed to the Campus Master Plan as a result of this project. This plan is consistent with the City of Seattle Land Use and Growth Management Act regulations.

A portion of the ARCF is located beneath the Portage Bay Vista. The project will pay particular attention to the management and maintenance of the views currently afforded by the Portage Bay Vista. The design team has worked closely with the University of Washington Campus Architect and Landscape Architect to identify key tenants of this view corridor in conjunction with the Southwest Campus Framework Plan. Priorities include:

- Maintaining an axial water view of Portage Bay from NE Pacific St.
- Provide Universal Access route through Vista
- Provide identifiable east-west corridor from Life Sciences to the UWMC

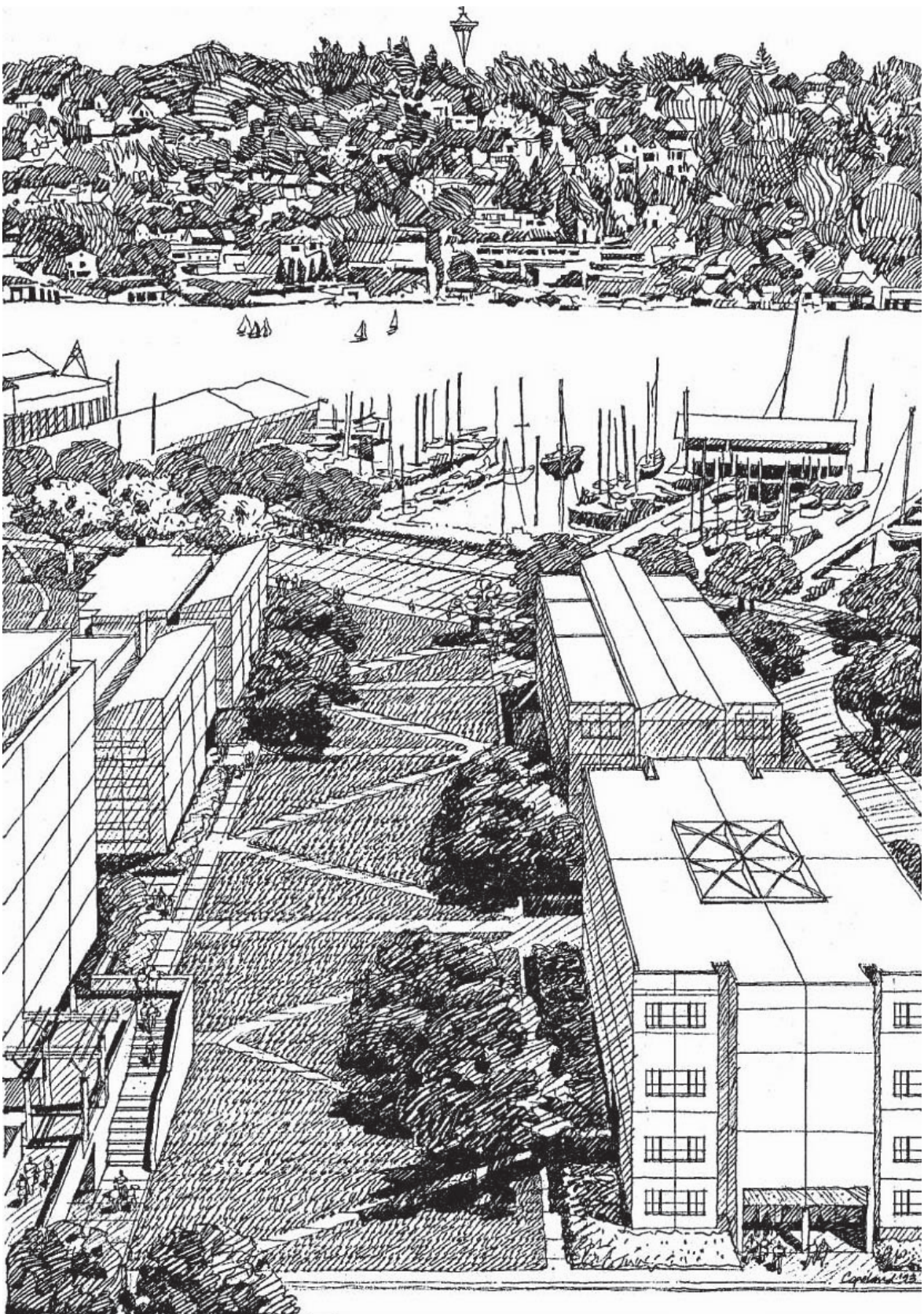
Although the research space of the ARCF will be entirely below grade, some of the building systems will require structures or equipment at or above grade. These include ventilation intake and exhaust stacks and air cooled chilling equipment. These elements will be designed and located with the Vista requirements in mind.



Excerpt from 2003 Campus Master Plan, University of Washington

Portage Bay Vista

The Portage Bay Vista will connect the Main Campus to the SW Campus and to Portage Bay. As a 'common' between buildings it would connect the Life Sciences in an academic community. The Vista originates at, and is aligned with, the Physics-Astronomy plaza. A pedestrian bridge is expected to connect the two spaces across NE Pacific. The Vista is intended to be simple and strong, with its lawn sloping down from NE Pacific to NE Boat. A dominant path will skirt the eastern edge (on axis with the pedestrian bridge), crossing NE Boat Street and connecting to the Marina Walk on the shoreline. Other paths will link building entrances and provide accessibility through the length of the vista. Tree groupings should be sited informally along the vista in contrast to the structured continuity provided by the buildings sited on the perimeter. The bases of the buildings may include stepped planting beds as transition between landscape and buildings, and in reconciliation of the grade slope.



View of Portage Bay Vista from Physics-Astronomy, 2003 Campus Master Plan, University of Washington

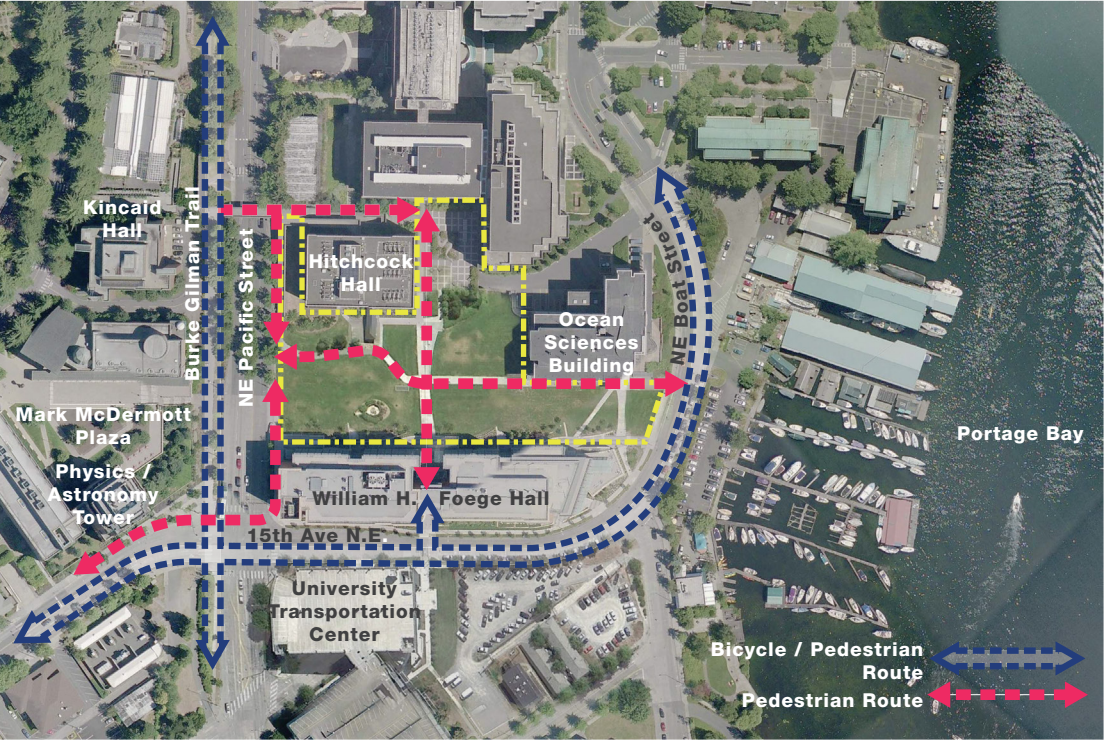
Circulation

The current site of the ARCF landscape is a major point of entry for faculty, staff, and students parking in the University Transportation Center garage, passing under the Foege Hall breezeway, and entering the Health Sciences Campus. This route is fully accessible by wheelchair when crossing Pacific from the parking area, but approaches from the north and south along Pacific street are currently only considered “usable” within the University of Washington Campus Mobility Map, indicating that they are not fully compliant with federal accessibility guidelines.

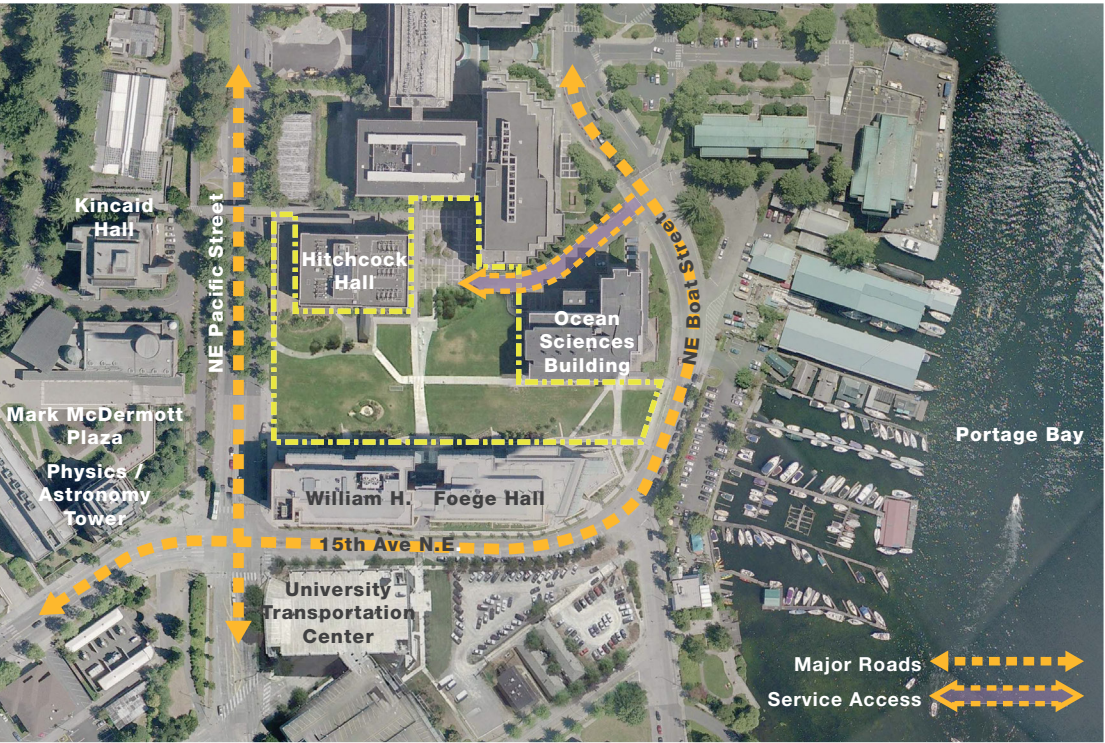
From the north, the site can be accessed on foot or by bicycle either by crossing Pacific Street at grade, or by using the elevated bridge that springs from the Burke Gilman Trail and lands at the upper level entrance into Hitchcock Hall. The ARCF project will be replacing the 8% pedestrian ramp down to street level with an accessible 5% ramp, improving the accessibility from campus core. North of Pacific Street, this bridge connects directly to an ADA accessible ramp that leads up to Stevens Drive and the main campus.

The current path running from the top to the bottom of the ARCF landscape is too steep to be considered an accessible pathway. The proposed landscape design will provide a fully accessible pathway or ramp without obstructing clear views from the top to the bottom of the vista, and vice versa.

Existing bicycle parking will be replaced, and new parking created per UW specification, consolidated in a location beneath the new pedestrian ramp along Pacific St. This supplements existing parking in the precinct at the Foege entrance, K-wing, and Ocean Science.



Bicycle and Pedestrian Circulation



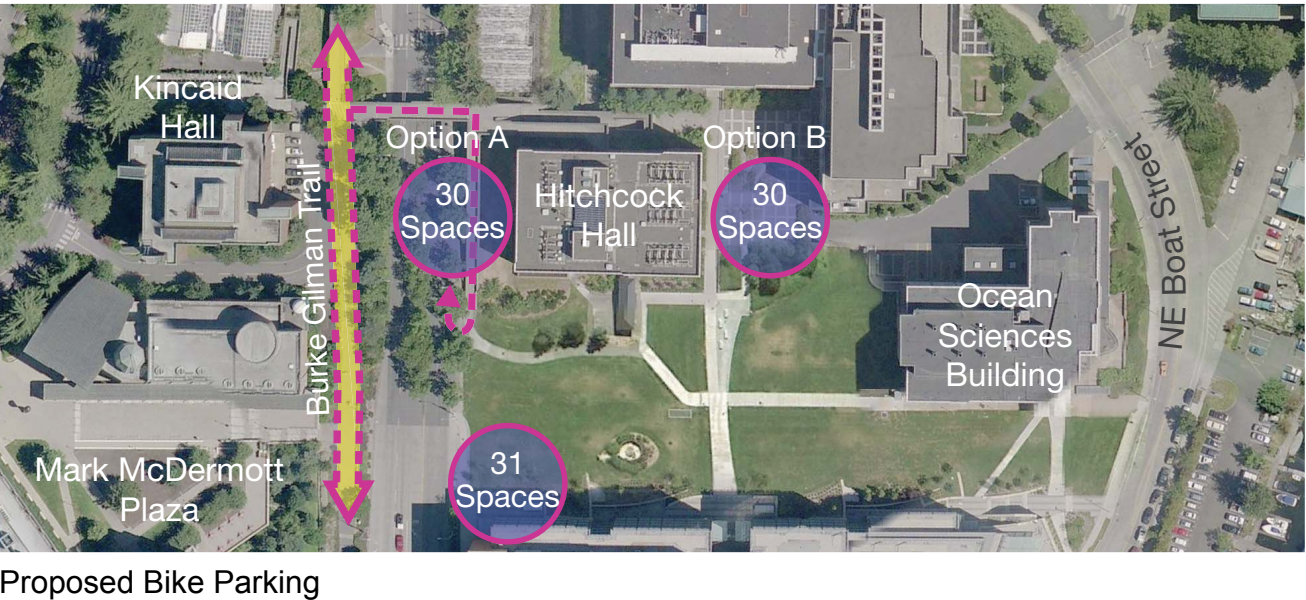
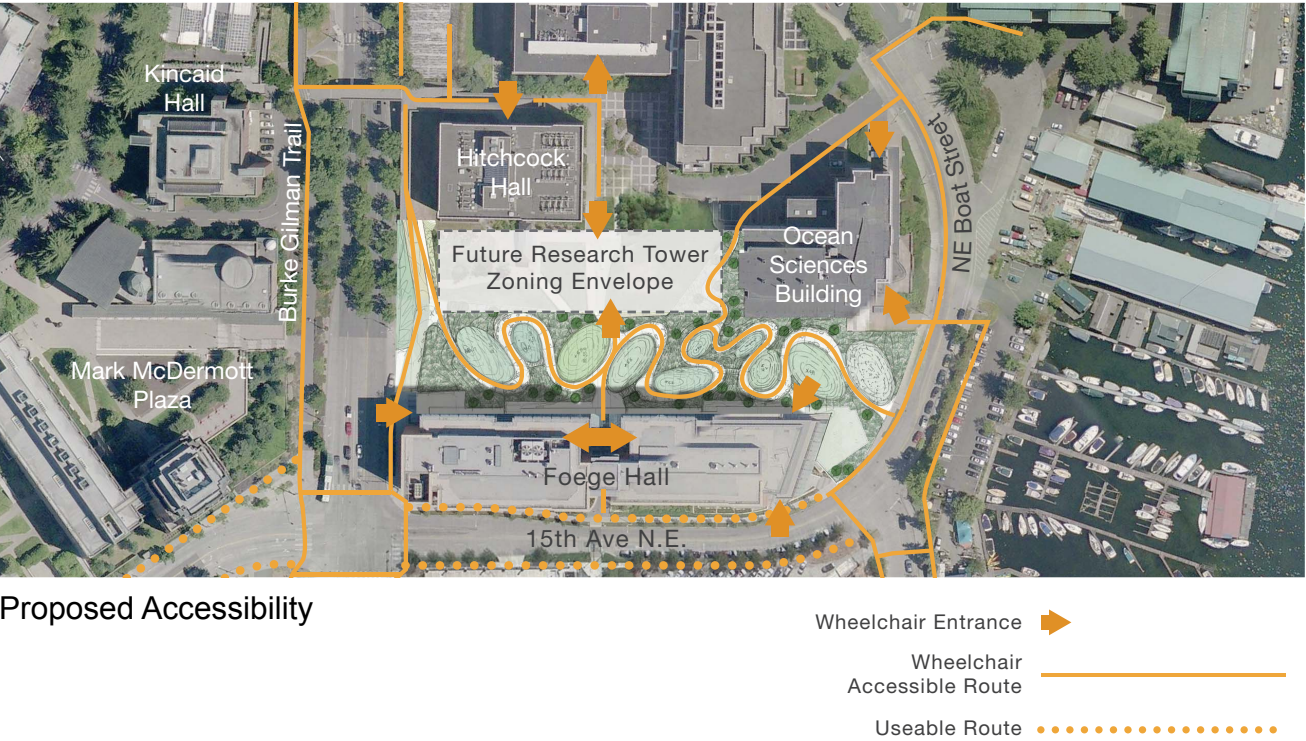
Vehicular Circulation

Bicycle Parking

The covered bicycle storage area west of Hitchcock Hall, which includes four racks and accommodates 24 bikes, will be displaced during construction. This bike parking capacity will be replaced on site post construction. In keeping with University of Washington Transportation Services Standards, bike parking capacity will be increased in order to accommodate 10 percent of the building population (this building has no classroom spaces). In this case, the full occupation of the ARCF will be 42 people, requiring an additional 5 spaces. The proposed location for bike parking will be below the new ramp from the Burke Gilman Trail footbridge across Pacific, which will be replaced to be fully accessible. This will have the benefit of providing a convenient location to park the majority of bicycles at the north entry point of the ARCF Landscape before they pass through the landscape. In siting the bike parking, care was taken to minimize the impact on the experience of the Portage Bay Vista. Given its special designation, this landscape is an important asset to the community as a place of relaxation and gathering. Bike parking and bike riding will be arranged to minimize impacts to the core function of the landscape or obstruct views. As a general safety measure for all users of the landscape, bicyclists who are going to destinations beyond the ARCF should be routed to 15th Ave NE. The 31 bike parking spaces at Foege Hall will remain during and after construction.

Accessibility

The vista project will take the opportunity of replacing non-compliant, but “usable” routes with fully ADA compliant routes. The current ramp connecting the Burke Gilman Trail and Pacific Street footbridge to the top of the vista will be replaced to be ADA accessible. An expressively winding path running the whole length of the vista will be configured to be less than 5% slope, avoiding the need for landings and hand-rails, and leaving the vista as an uncluttered landscape experience.



Landscape Design Concept

Landscape Design Considerations

The landscape design of the vista will be driven by the desire to have a fully accessible path of 5% slope or less running the length of the landscape, which will require a winding or zig-zag route. Using this as a starting point, seating areas can be threaded along the length of the path, or clustered in nodes, to encourage people to stop and use the landscape either individually or in small groups. The central portion of the vista should be visually open and unobstructed by high plantings. We are proposing using a diversity of shrubs with various flower colors to create a tapestry of vegetation below the line of sight, but tall enough to define comfortable gathering spaces. Replacing the existing lawn with shrubs will discourage the high numbers of geese, which are currently a pest on the vista. We recommend a veil of tall, narrow trees on either side of the vista, which will soften the architectural edges of the space, while minimizing spread into the central visual corridor. Beds of flowering plants will be introduced in a limited way to add color and seasonal interest to the landscape, while further encouraging people to stop, sit and take a few minutes out of their busy schedule.

Durability and Maintenance

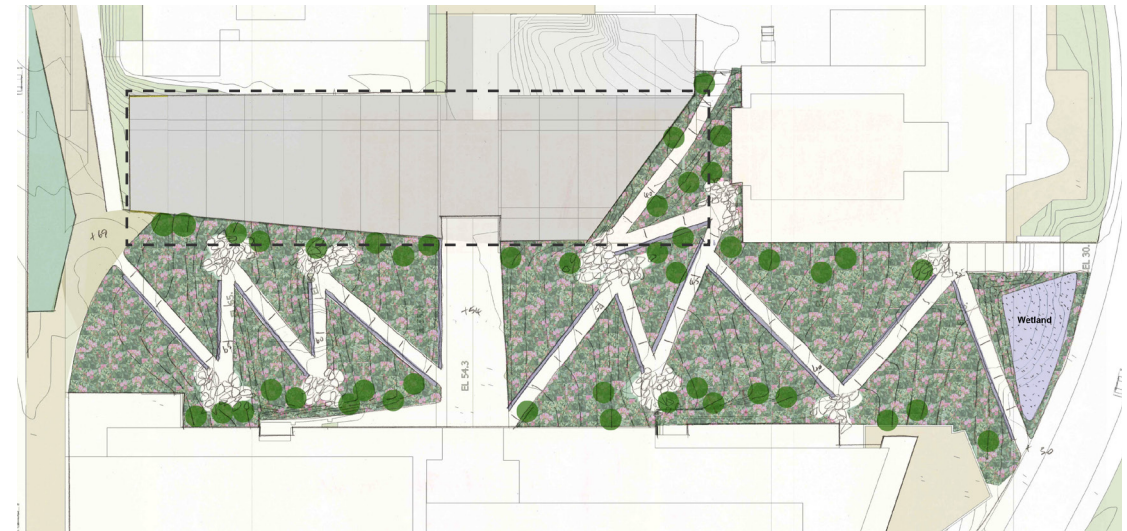
Plant selection should focus on species that are adapted to Pacific Northwest soils and climate, meaning that they will not require extensive specialized care to succeed. Furthermore, maintenance needs can be contained by sharply reducing lawn area within the site, reducing mowing and other lawn-care activities. A rain garden at the lower end of the vista will increase the variety of landscape types here, while improving the environmental performance of the space.

The pathways will be made of a durable material, but given a special finish which will identify this space as a place apart from the city sidewalks. Seating will be accommodated either through unobtrusive low walls or natural seating elements associated with the planted areas.

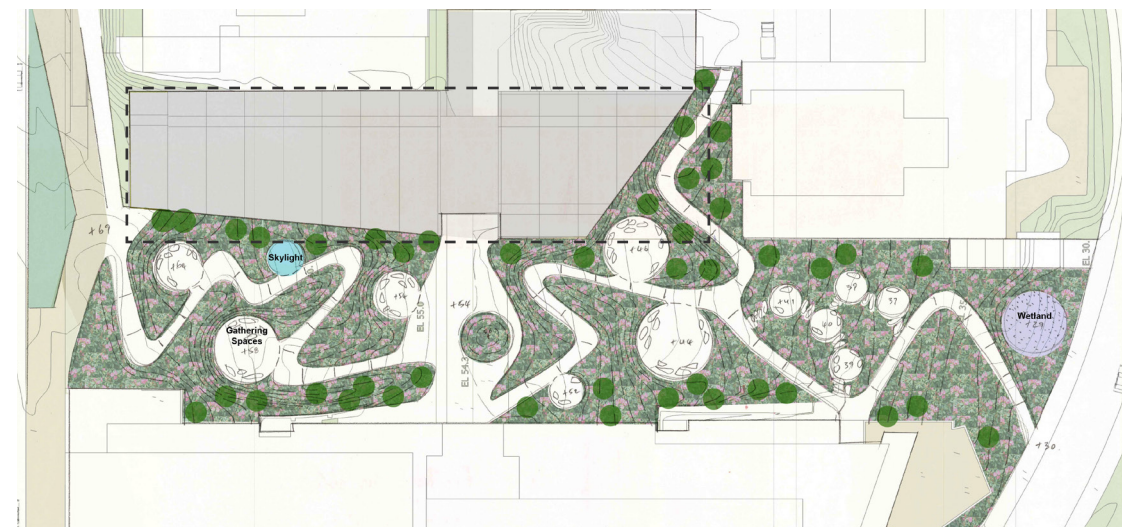
User Safety

Given the brevity of daylight hours during the winter months, and the additional darkness added by the frequency of overcast days during the winter, it is important that the ARC landscape preserve user safety through a variety of means. The combined effect of pathways, topography, and planting will be coordinated to facilitate sightlines throughout the space, and from above. Lighting strategies include pole fixtures per UW standard, and bollard / footlighting along the accessible pathway.

The pathways will be made of a durable material, but given a special finish which will identify this space as a place apart from the city sidewalks. Seating will be accommodated through unobtrusive low walls and natural seating elements associated with the planted areas.



Option A



Option B



Option C (Preferred)

----- Future Research Tower Zoning Envelope

Art

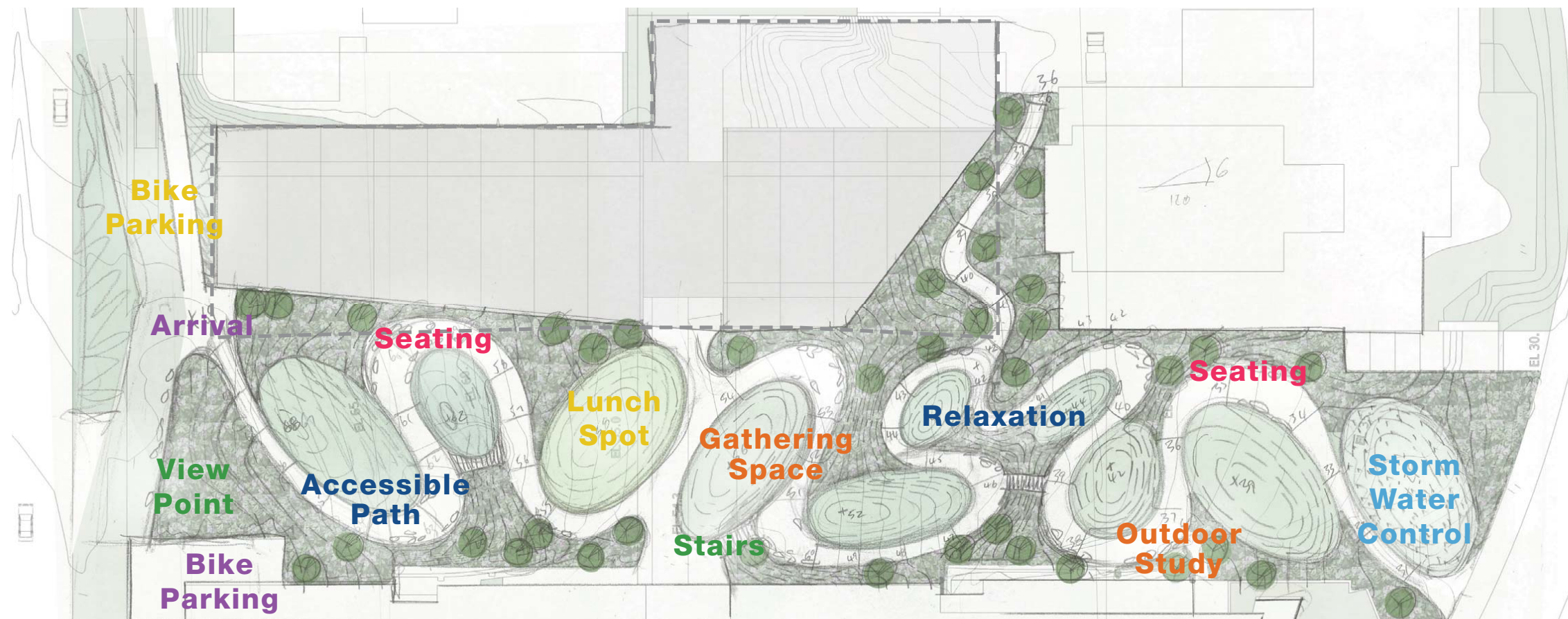
Stronghold, the State-owned public art sculpture by artist Brian Tolle is currently located within the bounds of the proposed site excavation, requiring it be decommissioned. The Campus will follow the *Resiting* protocol outlined in the ArtsWA *Art Care* manual to ensure that the site is available for excavation and that the art work is appropriately addressed.

Program

The site of the future ARCF Landscape is a gentle south-facing slope with excellent exposure to the sun, and so has the potential to create a comfortable microclimate. In addition to preserving a clear view up and down the Portage Bay Vista, there is an opportunity to create occupiable spaces sheltered within the vista that will invite both individual and group use throughout the year. Lawns, benches, flowering plants and broad paved areas, should be provided to encourage daily social use of the landscape. Smaller departmental gatherings, including happy hours, Opening Day celebrations, or graduation ceremonies, might also use this space.



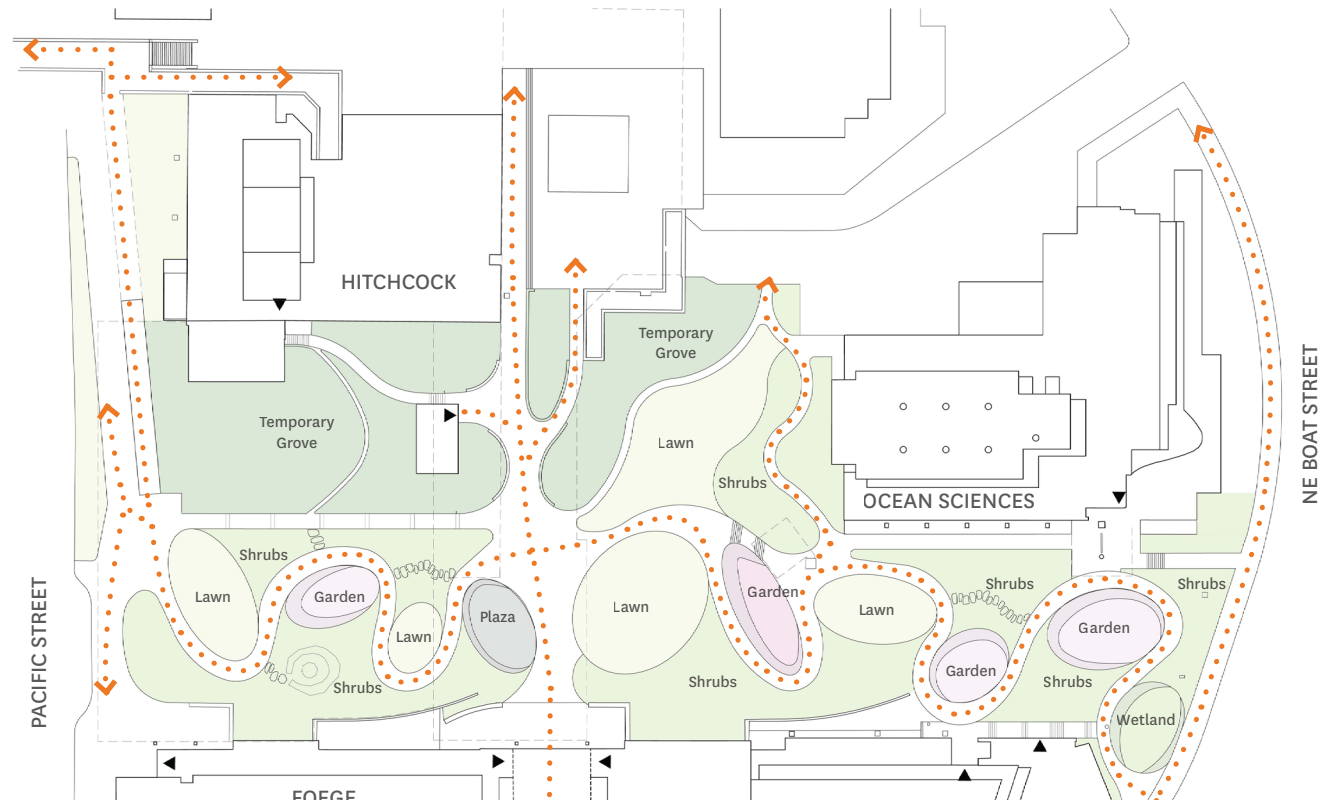
Stronghold by Brian Tolle, Current Location



LANDSCAPE PLAN



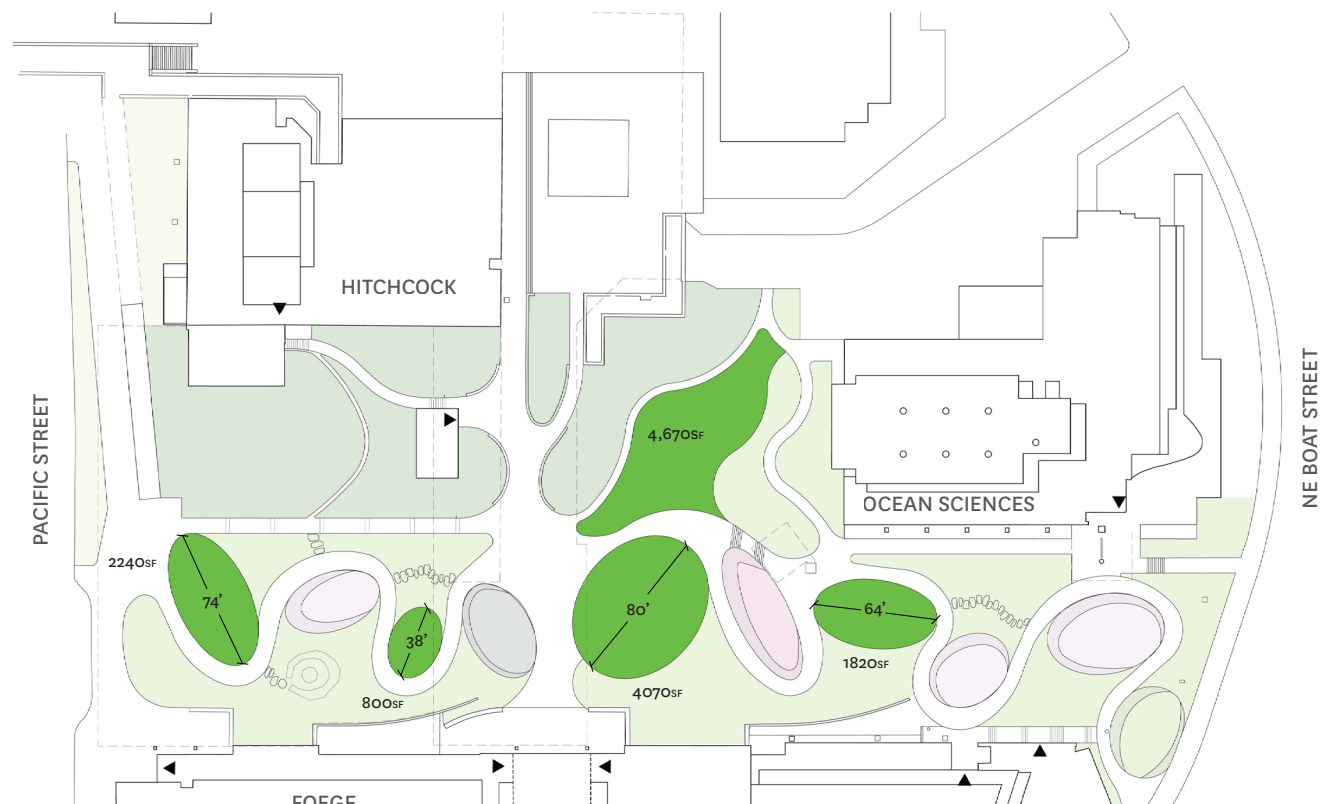
ACCESSIBLE PEDESTRIAN NETWORK



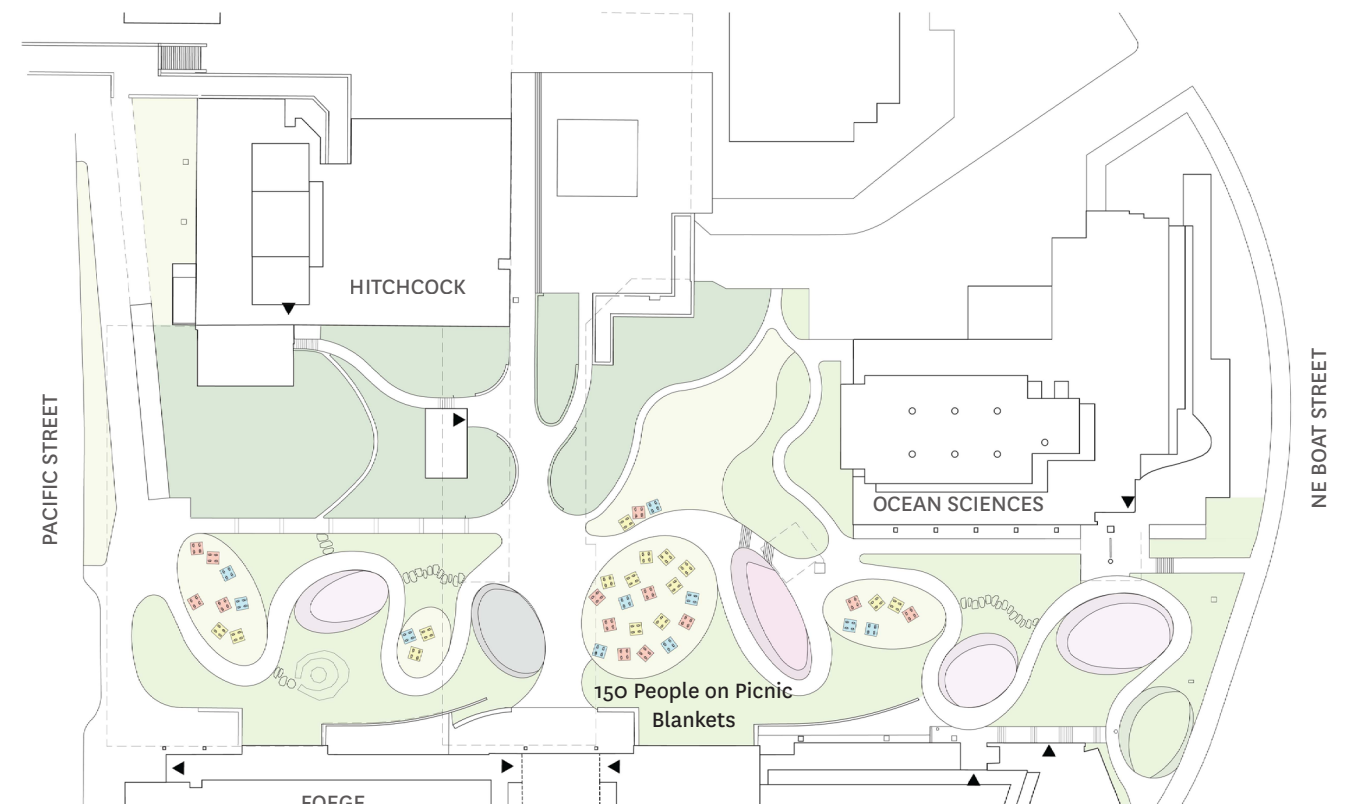
SEATING AREAS

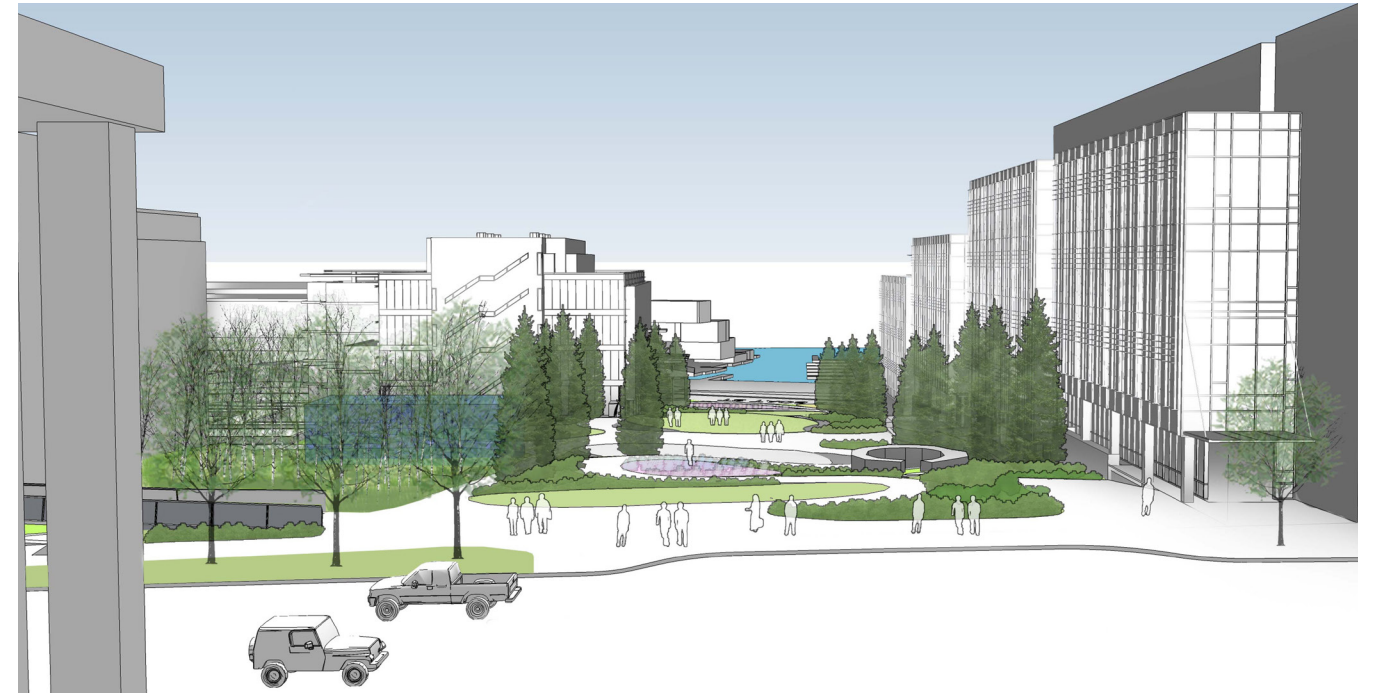
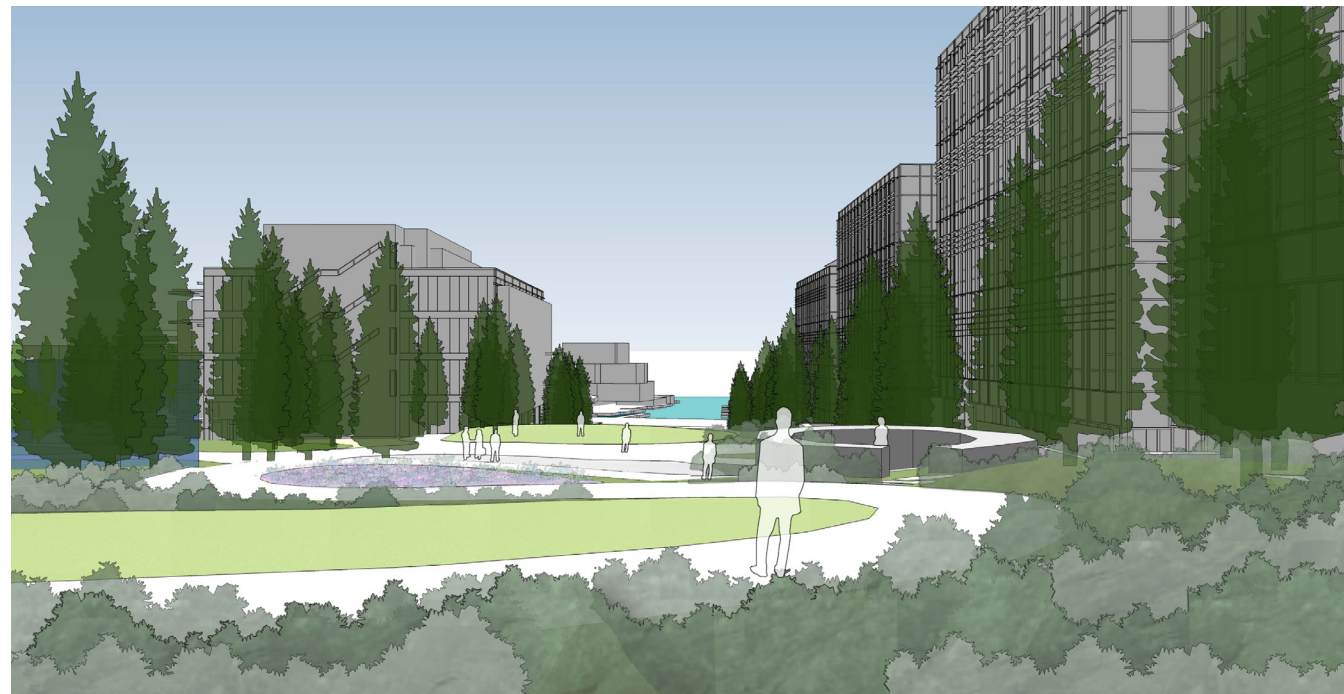


LAWN AREAS

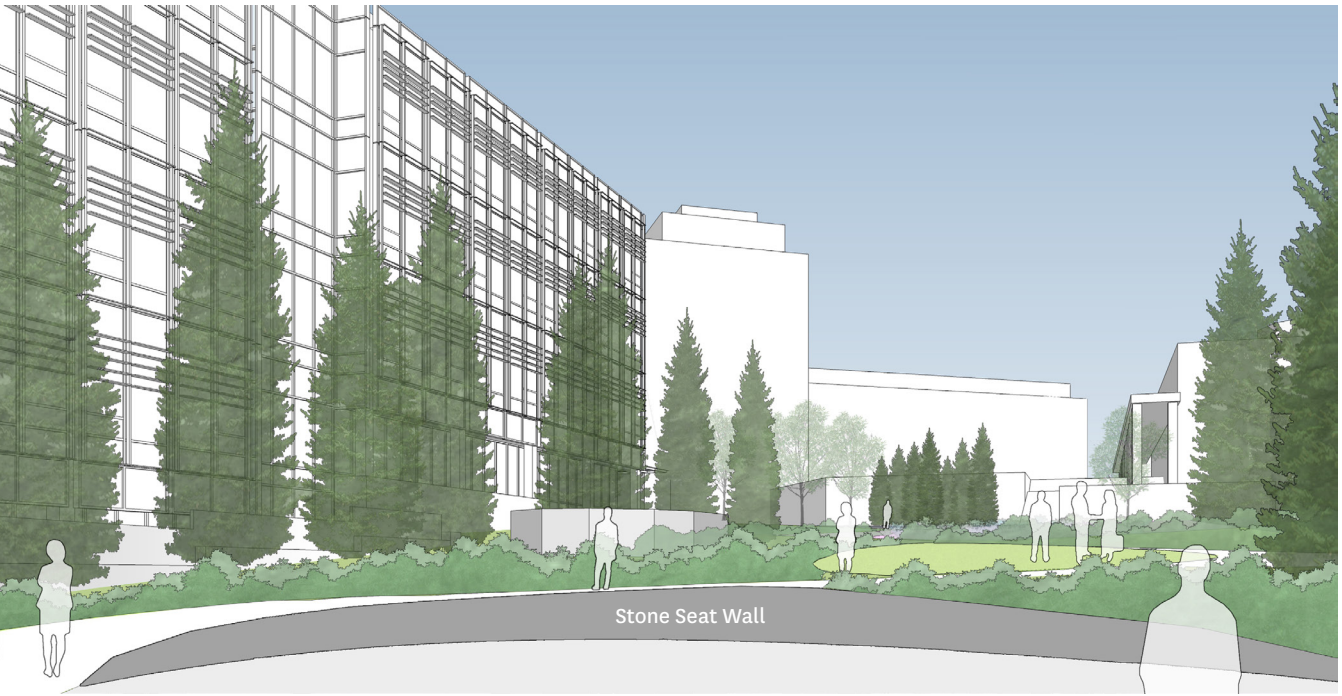
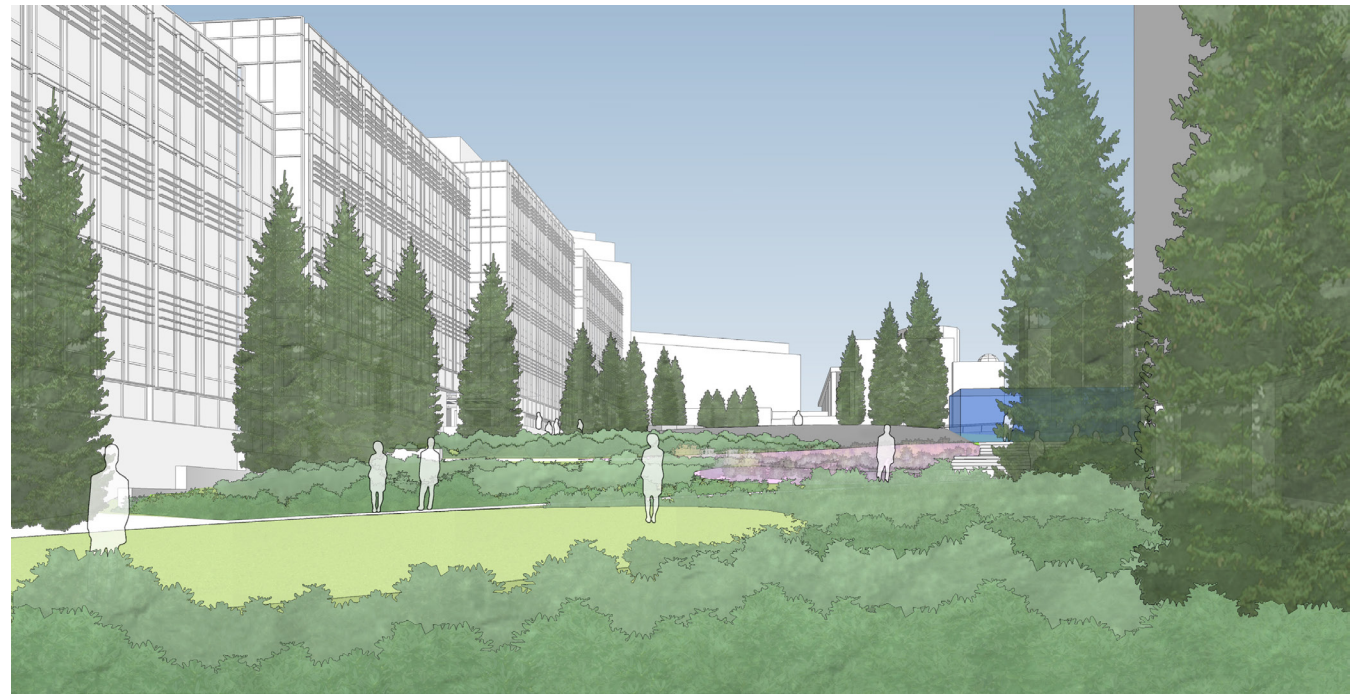


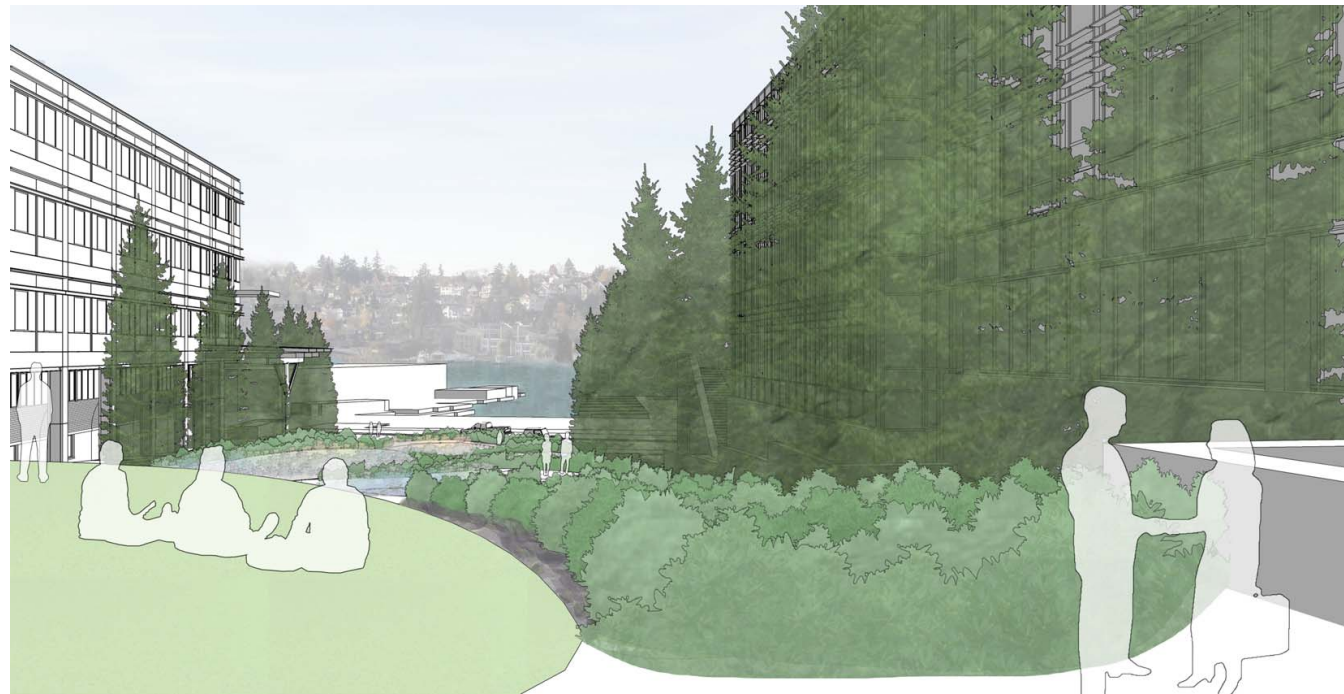
EVENTS + GATHERINGS: PICNIC











MATERIALS

PAVING

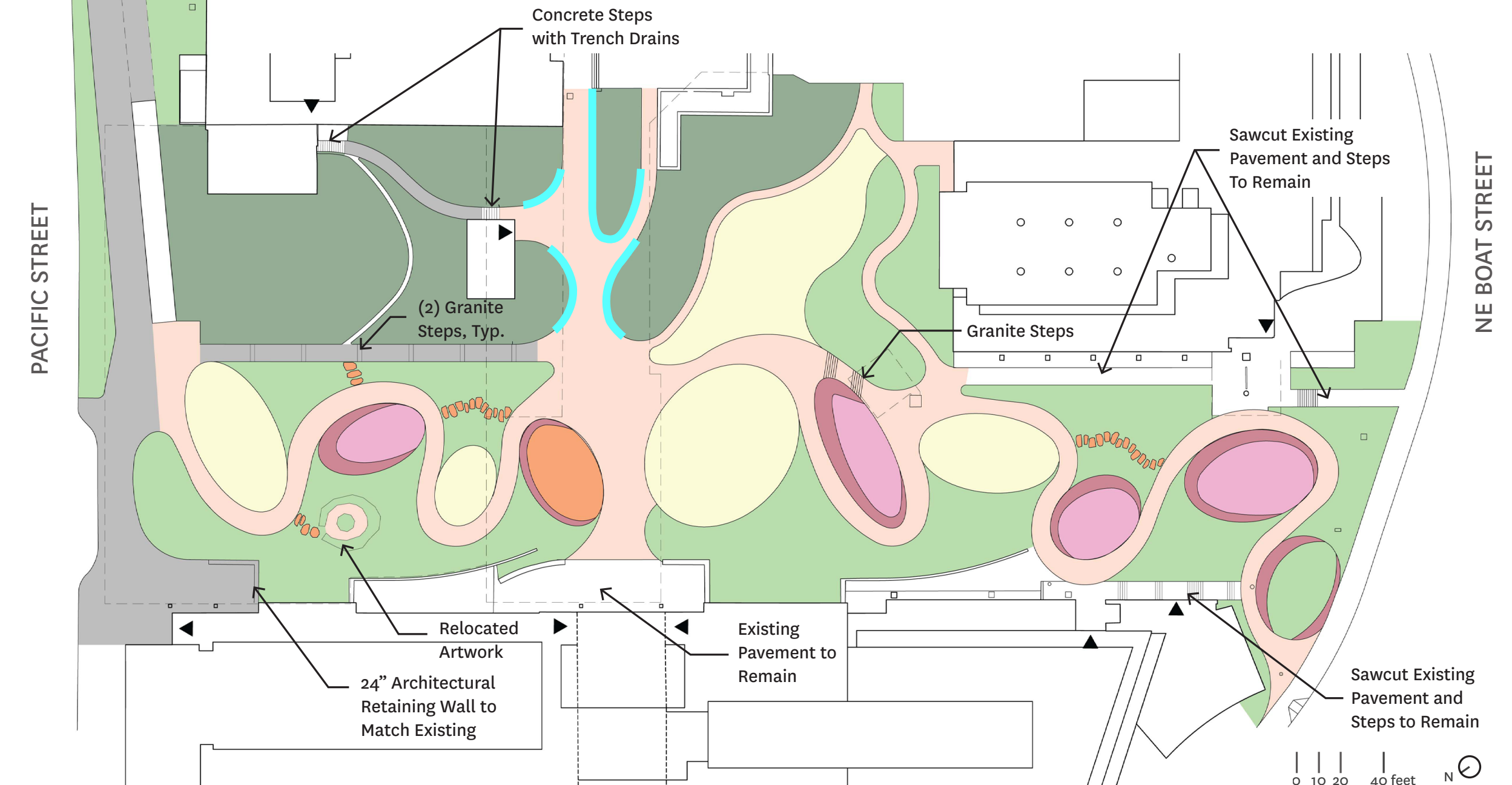
- Exposed Aggregate Pavement
- Broom Finish Concrete
- Granite Slabs 3' x 4'
- Rocky Slope
- 16" Granite Seating Edge

PLANTING

- Lawn Sod
- Evergreen Shrubs
- Garden
- Grove
- 55 14"-16" Coniferous Trees

SITE IMPROVEMENT

- 24 Benches, Assume \$4,000 Each
- 15 Pole Lights, 20' Tall
- 40 Bollard Lights
- xx Misc. Storm Water Infrastructures (AD, CB, ETC)



MATERIAL PRECEDENT IMAGES





Red Twig Dog Wood



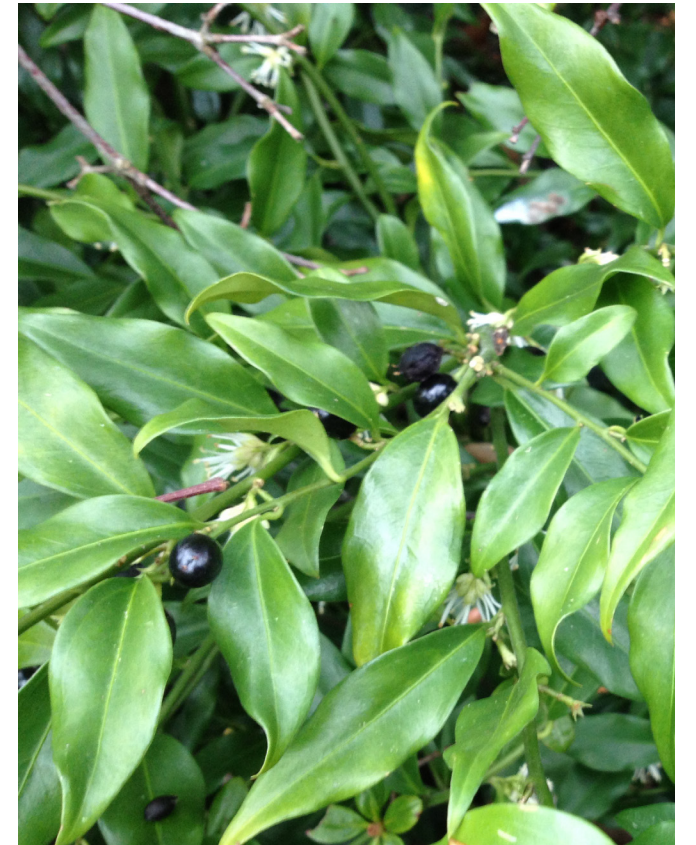
Witchazel



Box Huckle berry



Enkianthus



TO: Tim Williams, ZGF Architects

JOB SITE: UW Campus, Dept. of Bioengineering & Health Sciences

REGARDING: Tree Inventory & Assessment

FROM: Sean Dugan, ASCA Registered Consulting Arborist #457, ISA Board
Certified Master Arborist PN-5459B, ISA Qualified Tree Risk Assessor

DATE: June 20, 2014

I was asked to visit the job site and perform a basic visual assessment of trees within the area as described by your request. I was asked to document tree identification numbers, size, condition, and to mark approximate tree locations on the provided [Site Plan](#), found below. Detailed information specific to each tree assessed can be found in the attached [Table of Trees](#).

One hundred and forty eight (148) trees were assessed; two (2) of the trees, 1992 and 2088, meet the City definition of an Exceptional tree per Seattle Director's Rule 16-2008. Seventy two (72) of the trees do not meet the City definition of a significant tree (six inches DSH or greater), but were included because they have been tagged and are accounted for within the University's tree database.

Six (6) trees have been identified with letters (A through F), due to no tag being visible and the University's tree database not clearly showing the trees and their corresponding numbers. Several other trees did not have visible tags, but the database was used to confirm their numbers; all trees that did not have a visible tag are noted in the attached Table of Trees.

There were several areas where I observed non-significant trees that did not appear to be tagged, so they were not included in the inventory. However, I noted that the University tree database showed numbers for such trees in some areas. An example of this is south of "Wing J", where multi-stemmed hazelnuts were observed, no tags appeared to be present, but the database shows numbered trees in that area that we did not collect information on.

That being said, I am confident that no significant trees, per Seattle Municipal Code, were left out of the inventory for the subject area.

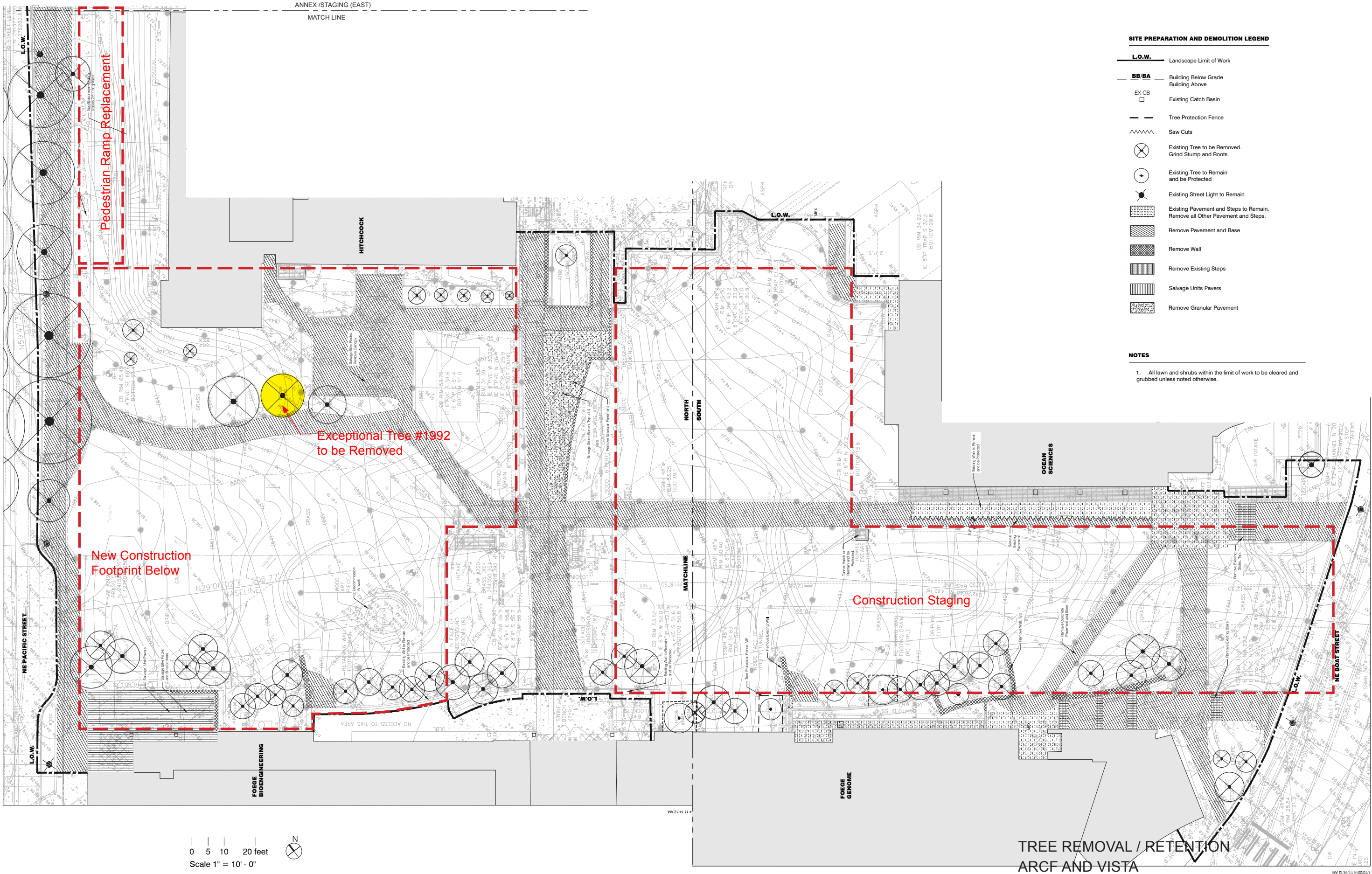
The Exceptional tree number 1992 is a Shore pine (*Pinus contorta* var. *contorta*) tree, in good health and structural condition. The tree measured 12.4 inches DSH, which surpasses the 12 inch DSH Exceptional threshold set for the species.

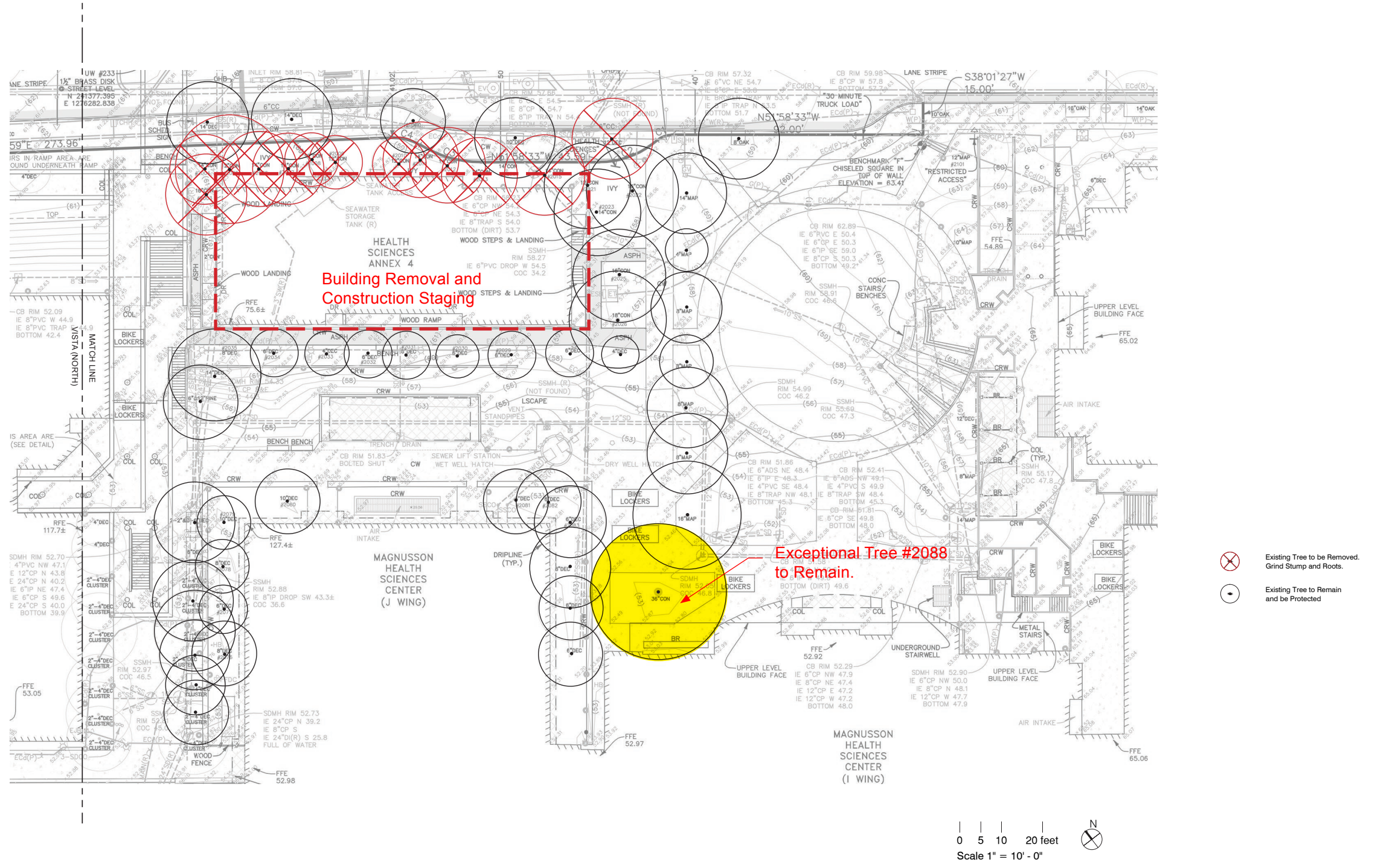
The Exceptional tree number 2088 is a Blue Atlas cedar (*Cedrus atlantica* 'Glaucua') tree, in fair health and structural condition. The tree measured 31.2 inches DSH, which surpasses the 30 inch DSH Exceptional threshold set for the species.

The DSH for the Exceptional trees is highlighted green, and all non-significant tree DSHs are highlighted yellow in the attached Table of Trees.

Site Plan

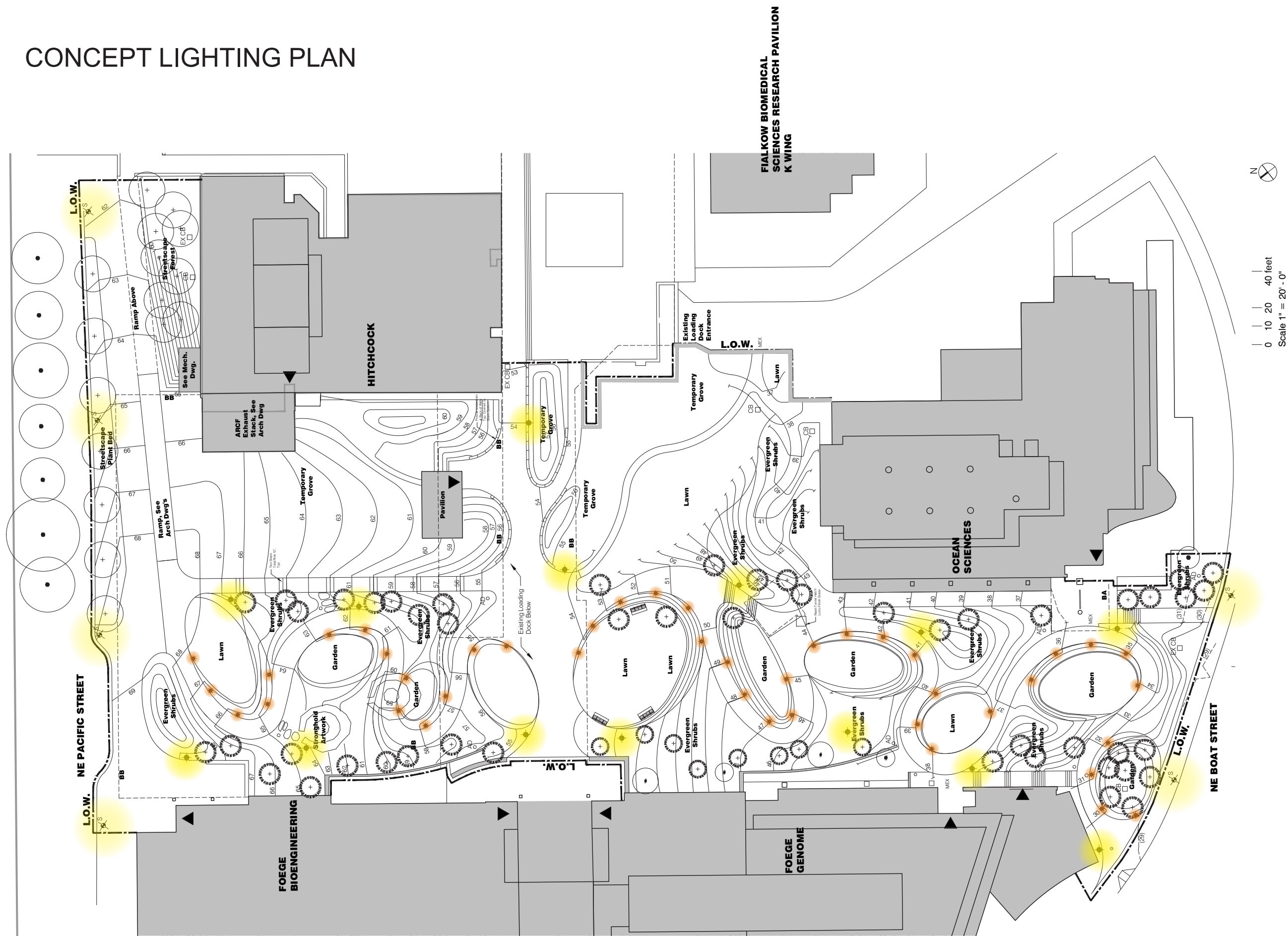






TREE REMOVAL / RETENTION ANNEX / STAGING (EAST PORTION OF SITE)

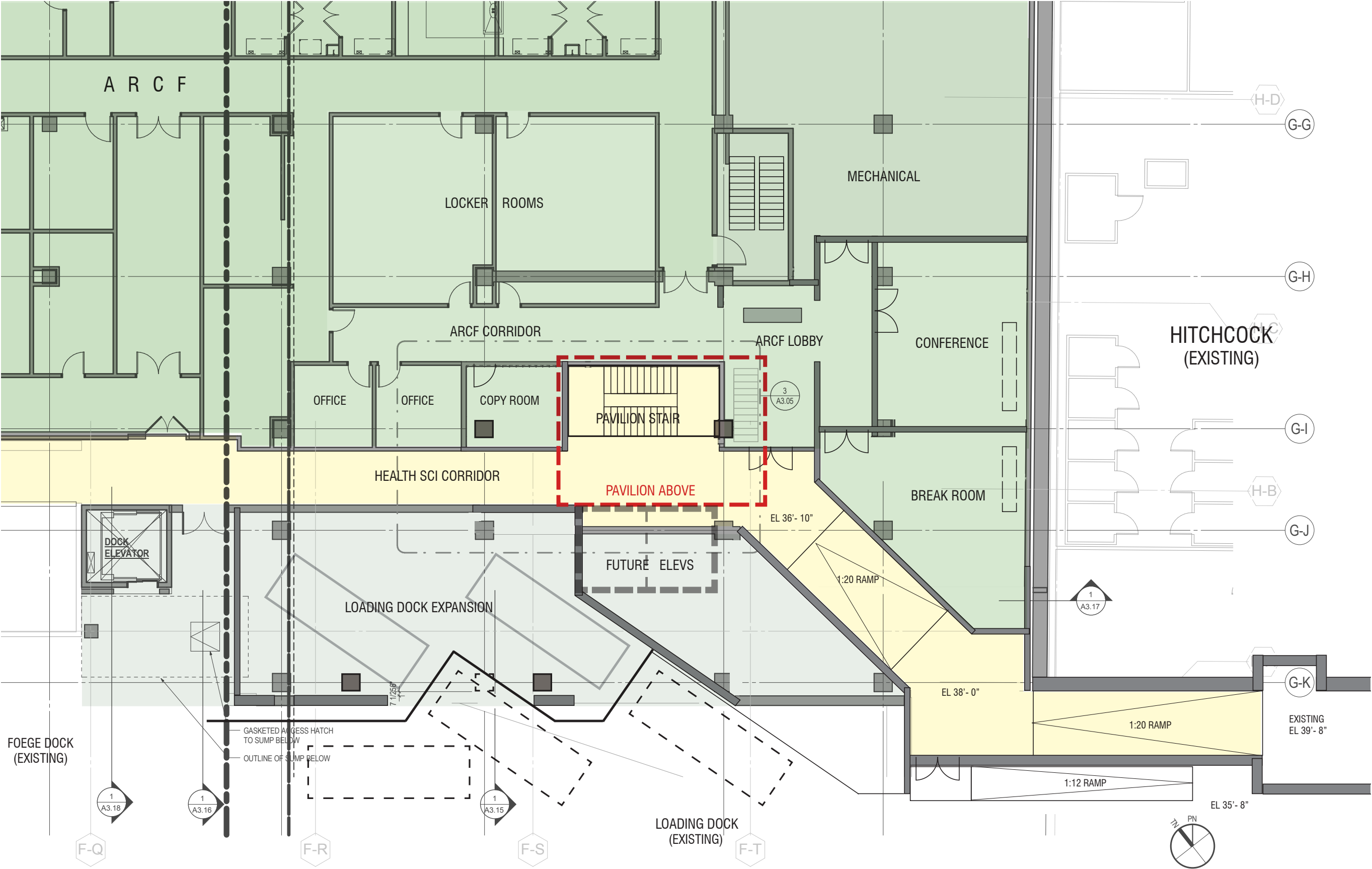
CONCEPT LIGHTING PLAN



ARCHITECTURAL ELEMENTS IN LANDSCAPE



SUBGRADE CORRIDOR AND STAIR CONNECTION



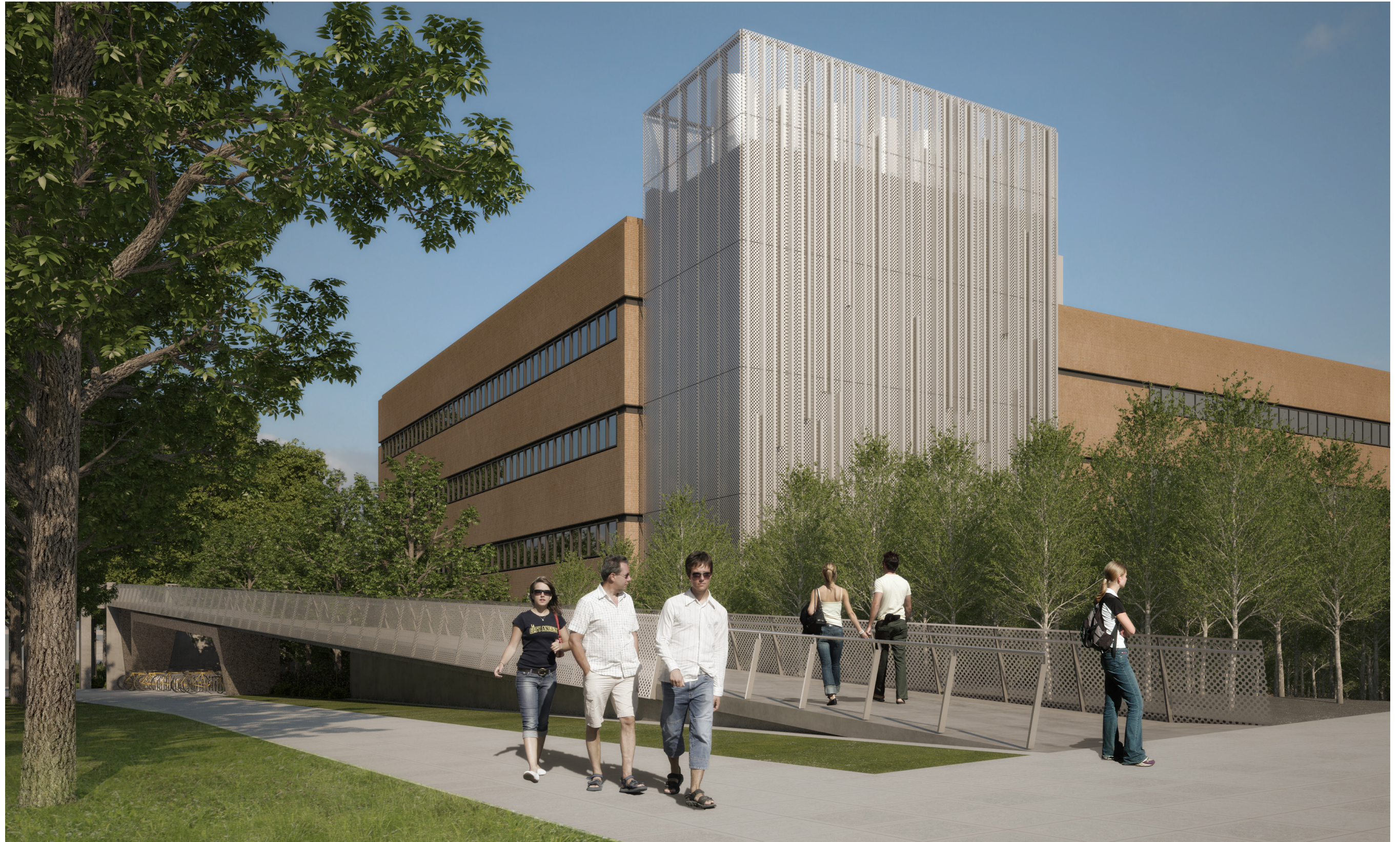
SECTION THROUGH ENTRY PAVILION



ENTRY PAVILION FROM SOUTHWEST



EXHAUST TOWER AND PEDESTRIAN BRIDGE FROM NE PACIFIC STREET



EXHAUST TOWER AND PEDESTRIAN BRIDGE FROM NE PACIFIC STREET



EXHAUST TOWER AND PEDESTRIAN BRIDGE FROM NE PACIFIC STREET

