UNIVERSITY OF WASHINGTON

NORTH CAMPUS HOUSING

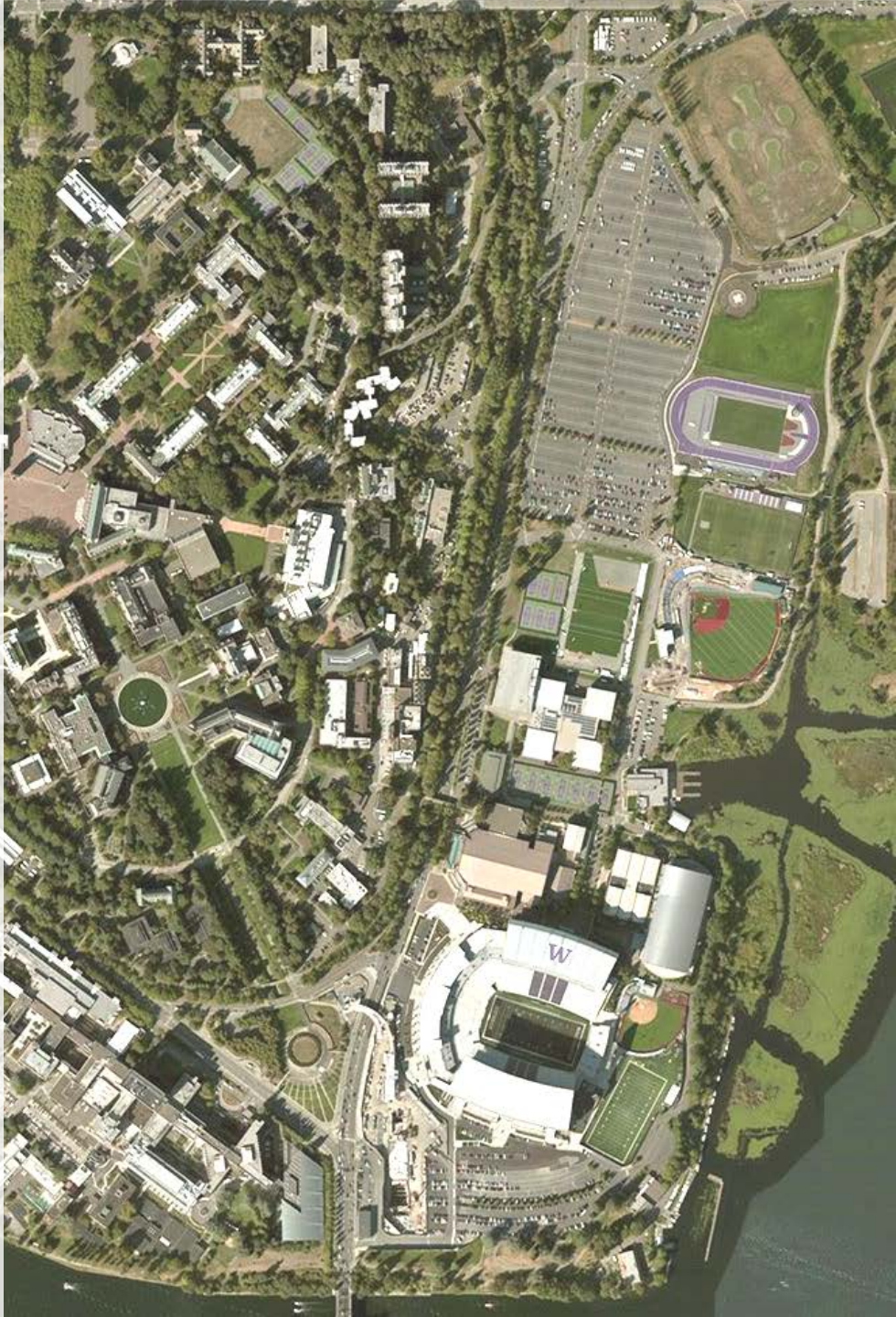
UW Architectural Commission
University Landscape Advisory Committee

07 DECEMBER 2015

AGENDA

1. PROJECT OVERVIEW AND COMMENTS FROM LAST MEETING
2. SUSTAINABILITY
3. DEVELOPMENT OF DESIGN
4. PHASE IVA WALKTHROUGH

KIERANTIMBERLAKE



PROJECT OVERVIEW AND COMMENTS FROM LAST MEETING

KIERAN TIMBERLAKE

2014 | 2015 | 2016 | 2017

MASTER PLAN | PREDESIGN | SD | DD | CD | CONSTRUCTION

4/14/14

6/23/14

6/29/15

9/28/15

PROJECT TIMELINE

PROJECT GOALS

RESIDENTIAL COMMUNITY

- World Class Living/Learning Community
- Support 3,200 Students
- Integrate Common Space, Regional and Recreational Programs with Landscape
- Integrate Residential Community with Campus and Neighborhood

CHARACTER

- Enhance Woodland Landscape of Kincaid Ravine and Whitman Court
- Integrate Woodland Landscape with Historic and Contemporary Landscape Influences

HISTORY

- Embrace and Enhance Historic Structures and Landscapes Including Hansee Hutchinson, Lewis, and Denny Field

CONNECTIVITY

- Strengthen Campus and Neighborhood Connections
- Enhance Quality and Safety of Pedestrian and Cycling Experiences Across and Along Stevens Way
- Improve Pedestrian and Cycling Connections from Campus Across 45th Street

SCALE AND PERCEPTION

- Landscape Types Should Range from Intimate to Expansive
- Architectural Scale to Reveal and Connect to Woodland Canopy Beyond

SUSTAINABILITY

- Be Good Stewards of Resources
- Strive to Achieve LEED Gold and 2030 Energy Challenge
- Maximize Penetration of Desirable Sun and Wind
- Retain and Manage Stormwater On-Site

ARCHITECTURE + LANDSCAPE PRINCIPLES

FRAMING

- Axes: Campus – City – Region
- Sky
- Historic Structures

GROUNDING

Public Space Programming – Outside to Inside; Inside to Outside; Landscape program to ground level building program

THREADING AND WEAVING

Connecting Buildings to each other, to the campus, and beyond

SIGNING

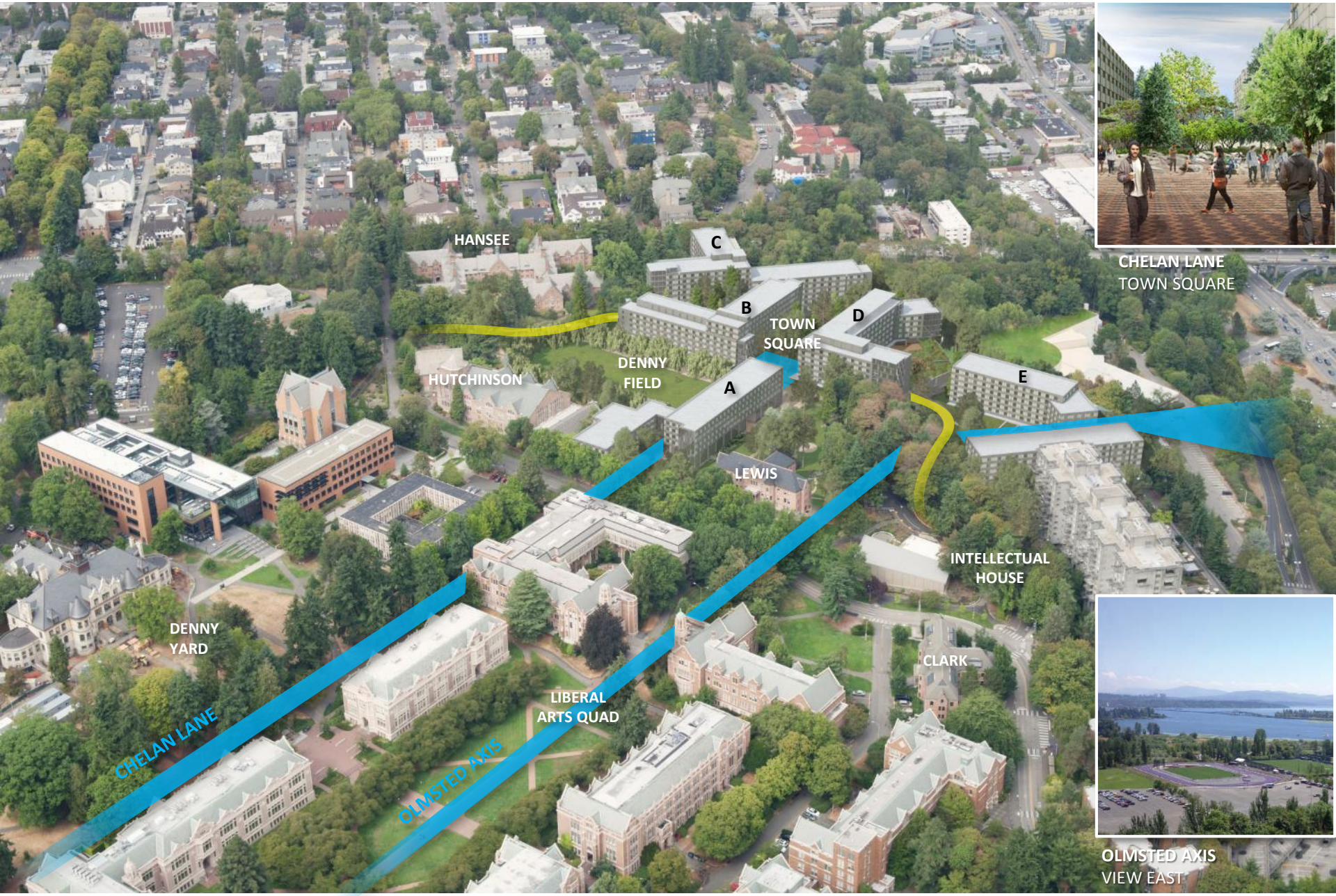
Unique signatures of landscape ground planes evolving into building bases

REPEATING

Housing Elevations – Lateral facades; The Field

ILLUMINATING

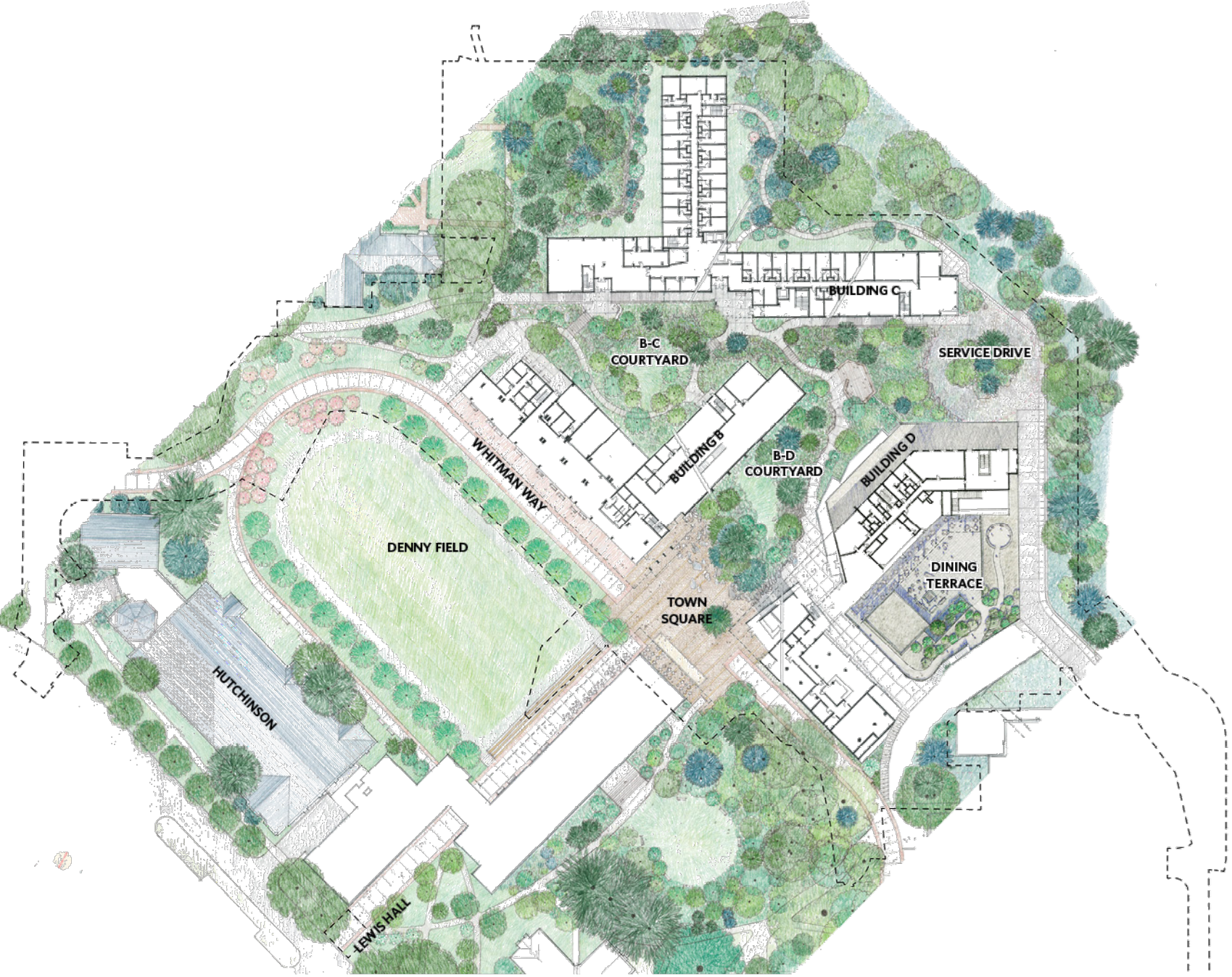
Housing Elevations – Transverse facades; Floor Lounges - Lanterns

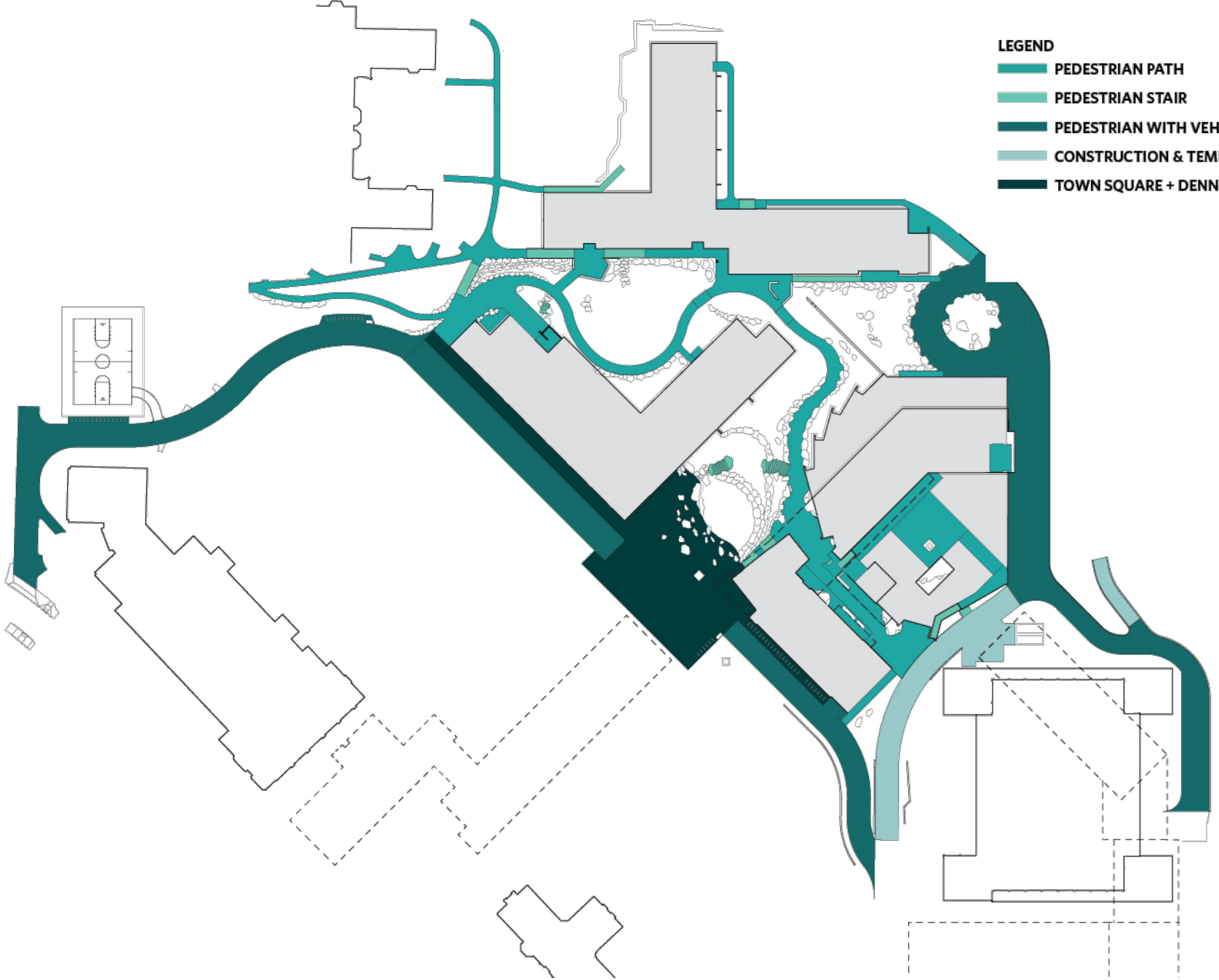


CHELAN LANE
TOWN SQUARE

OLMSTED AXIS
VIEW EAST

9.29.2015 UWAC PROPOSED NORTH CAMPUS AERIAL





9.29.2015 UWAC SITE CIRCULATION

UNIVERSITY OF WASHINGTON NORTH CAMPUS HOUSING

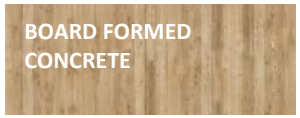
CONCRETE
RETAINING/SITE/
TYPICAL WALL

BRICK
DESIGNATES
BUILDING ENTRIES

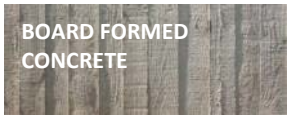
WOOD DOOR
RESIDENTIAL ENTRY
DOOR

WOOD PANELLING
USED TO HIGHLIGHT
BUILDING ENTRY

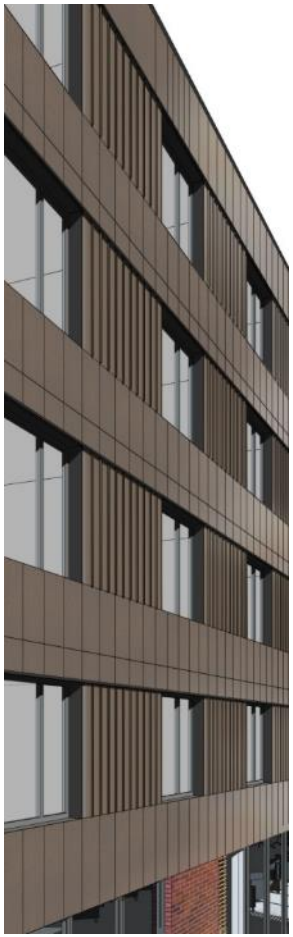
BRICK WITH BOARD FORMED CONC. BASE

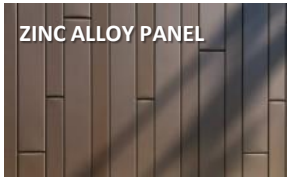


TERRACOTTA PANELS WITH BOARD FORMED CONC. BASE

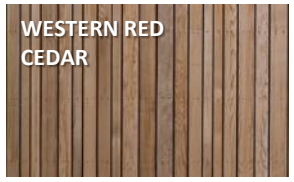


METAL PANELS WITH BRICK BASE

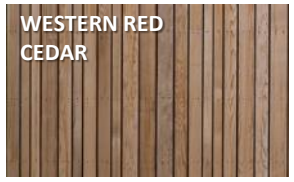




WESTERN RED CEDAR WITH BRICK BASE



WESTERN RED CEDAR WITH METAL FINS, BRICK BASE



9.29.2015 UWAC MATERIAL PATTERN STUDIES

9.29.2015 UWAC FAÇADE PATTERNING STUDIES

9.29.2015 UWAC LANTERN STUDIES

ARCHITECTURAL COMMISSION REVIEW COMMENTS
9/29/2015

- Announce the lounges and entries.
- Conclusion of formal axis from Arts Quad is positive.
- Simplify landscape in smaller courtyards.
- Study building bases – too many materials.
- Consider using both horizontal and vertical façade patterns.
- Site lighting will be critical to ensure safe and attractive conditions.
- A common element, subtly incorporated into all the facades, would help create a stimulating and interesting environment. Such an element might be used to establish commonality across a courtyard.

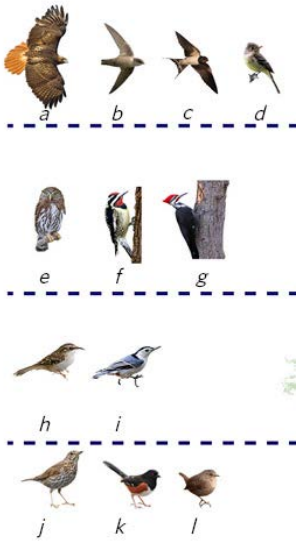
LANDSCAPE ARCHITECTURE COMMISSION REVIEW COMMENTS
9/24/2015

- Ensure path network is safe, accessible and supports bike use.
- Describe overall sustainability agenda.
- Provide detail on proposed site materials.
- Address concerns with building massing to ensure buildings maintain proportions with open spaces and frame viewsheds.
- Maximize opportunities to promote biodiversity and reduce environmental burdens.
- Provide a less tailored landscape, as parts feel too garden-like.

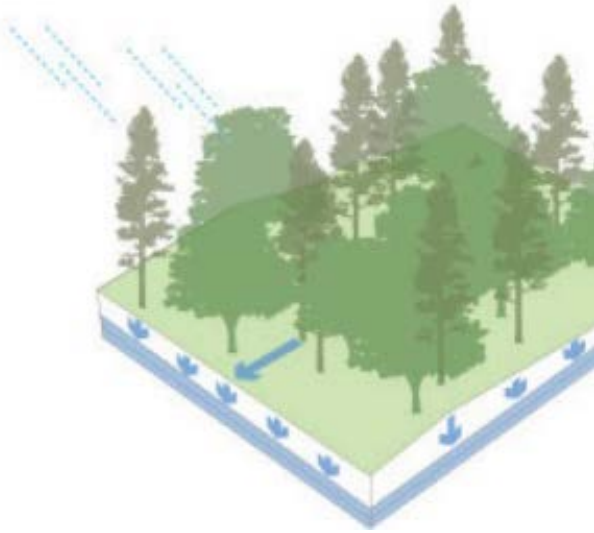
SUSTAINABILITY

KieranTimberlake

Building and landscape integrated
Into surrounding system.



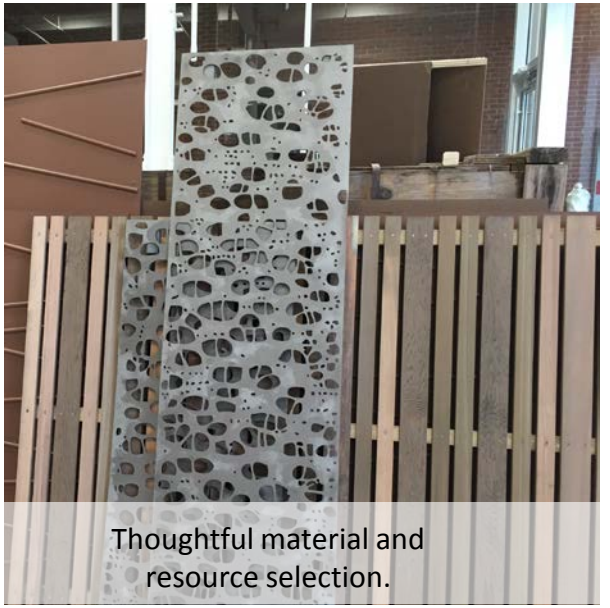
Memorable woodland landscape
spaces that enhance regional biodiversity.



Stormwater management with
climate change over time.

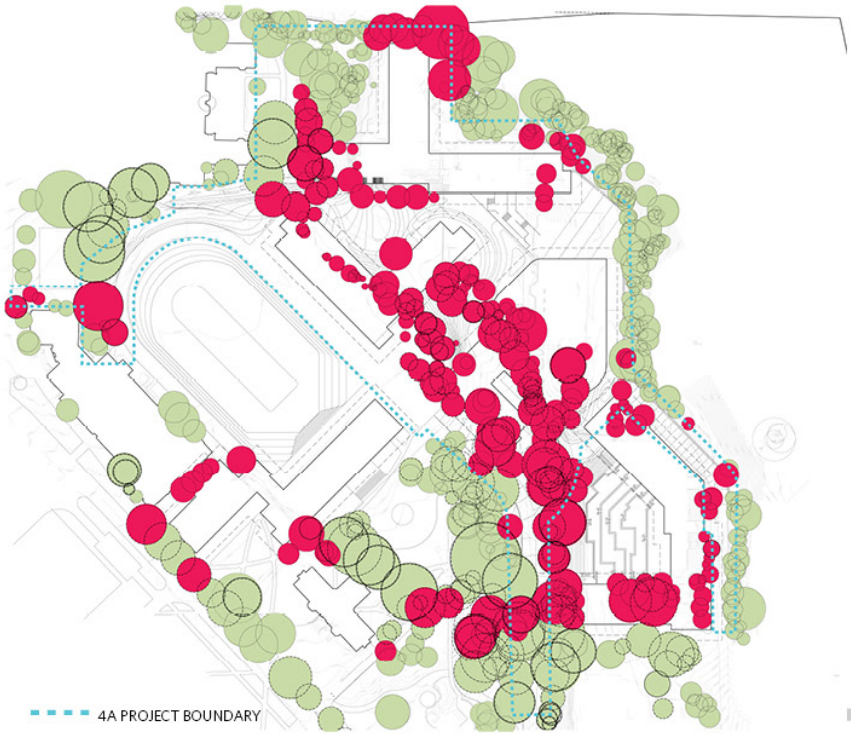
Strengthen human relations to nature.

Minimize building energy use



Thoughtful material and
resource selection.

SUSTAINABILITY BUILDINGS AND LANDSCAPE INTEGRATED INTO SURROUNDING ECOSYSTEM

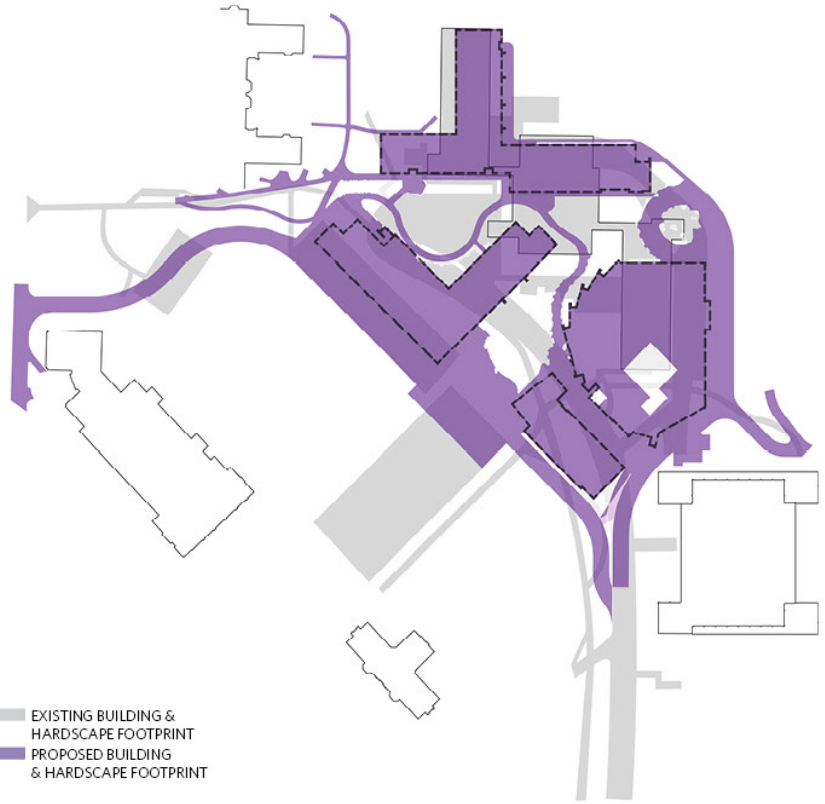


4A PROJECT BOUNDARY

TREES TO BE REMOVED -265

TREES TO REMAIN -206

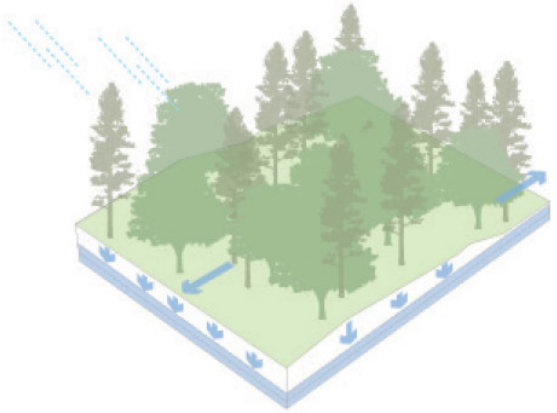
TOTAL EXISTING TREES WITHING 4A + 4B PROJECT EXTENTS - 471

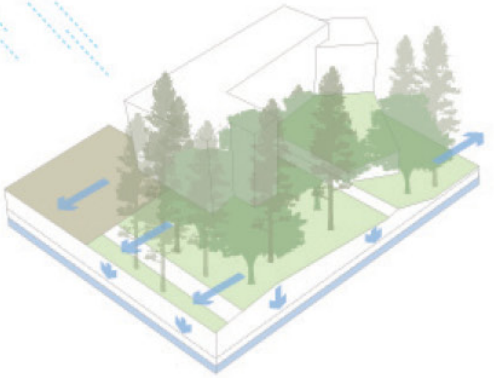


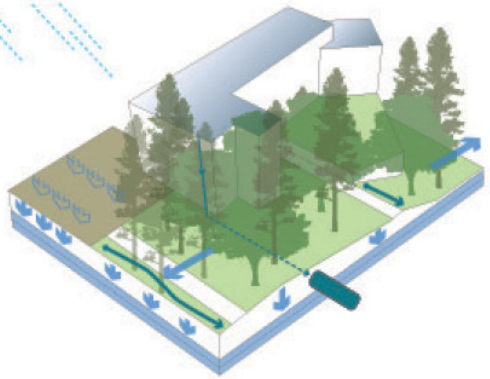
EXISTING BUILDING & HARDSCAPE FOOTPRINT

PROPOSED BUILDING & HARDSCAPE FOOTPRINT

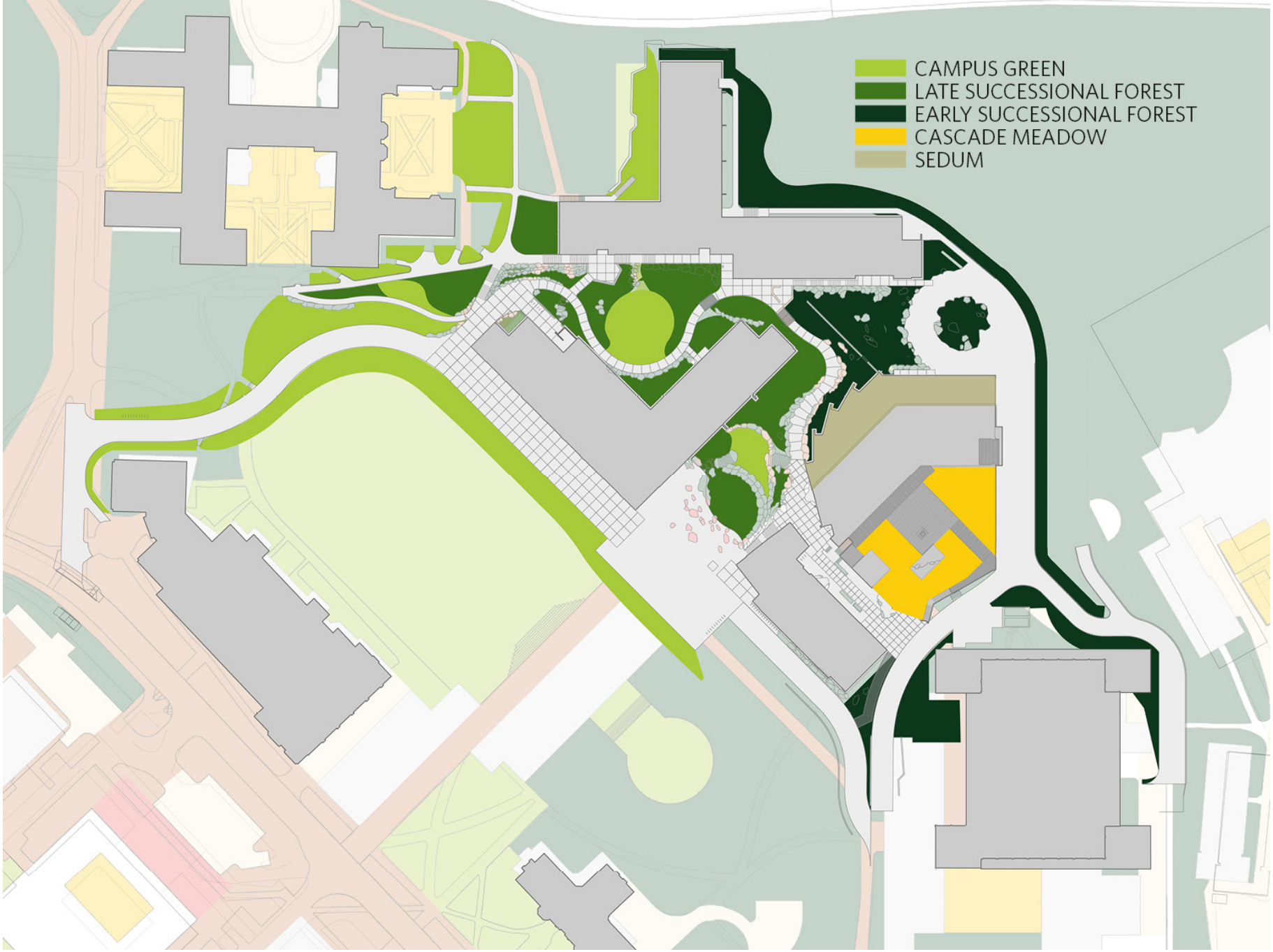
SUSTAINABILITY FOREST PRESERVATION & BIODIVERSITY







SUSTAINABILITY FOREST PRESERVATION & BIODIVERSITY



SUSTAINABILITY FOREST PRESERVATION & BIODIVERSITY

SUSTAINABILITY FOREST PRESERVATION & BIODIVERSITY

Stump growth: for article on forest regeneration 1970.

TREES

- Acer circinatum (Vine Maple)
- Alnus rubra (Red Alder)
- Pseudotsuga menziesii (Douglas Fir)
- Tsuga heterophylla (Western Hemlock)

SHRUBS

- Cornus stolonifera (Red Osier Dogwood)
- Mahonia aquifolium (Oregon Grape)

GROUNDCOVER

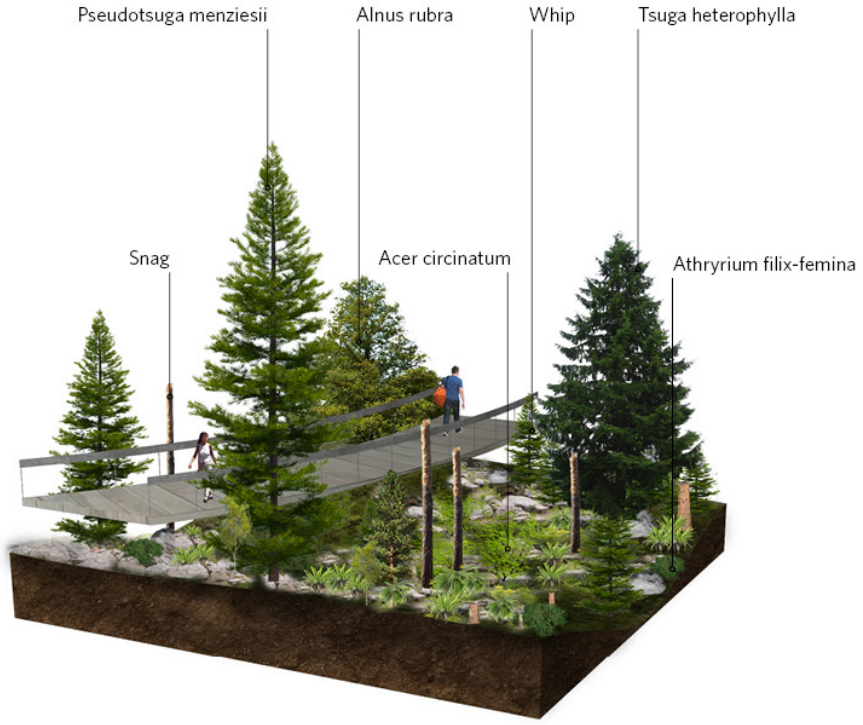
- Athyrium filix-femina (Lady Fern)
- Polystichum munitum (Western Swordfern)
- Dicentra formosa (Pacific Bleeding Heart)
- Maianthemum dilatatum (False Lilly of the Valley)
- Maianthemum racemosum (False Spikenard)
- Tellima grandiflora (Fringecups)

WHIPS

- Acer circinatum (Vine Maple)
- Alnus rubra (Red Alder)
- Pseudotsuga menziesii (Douglas Fir)
- Tsuga heterophylla (Western Hemlock)

SNAGS

COPPICING



EARLY SUCCESSIONAL FOREST TYPOLOGY

TREES

- Acer circinatum (Vine Maple)
- Acer macrophyllum (Bigleaf Maple)
- Aesculus hippocastanum (Horse-chestnut)
- Arbutus menziesii (Pacific Madrone)
- Chamaecyparis nootatensis (Alaskan Cypress)
- Populus trichocarpa (Black Cottonwood)
- Populus tremuloides (Quaking Aspen)
- Pseudotsuga menziesii (Douglas Fir)
- Thuja plicata (Western Red Cedar)
- Sequoia sempervirens (Coast Redwood)

SHRUBS

- Cornus stolonifera (Red Osier Dogwood)
- Holodiscus discolor (Ocean Spray)
- Philadelphus lewisii (Mock Orange)
- Rhododendron macrophyllum (Pacific Rododendron)
- Ribes sanguineum (Flowering Current)
- Symphoricarpos albus (Common Snowberry)
- Viburnum Edule (Squashberry)

GROUNDCOVER

FERN MIX 1

- Athyrium filix-femina (Lady Fern)
- Oxalis oregana (Redwood Sorrel)
- Polystichum munitum (Swordfern)

FERN MIX 2

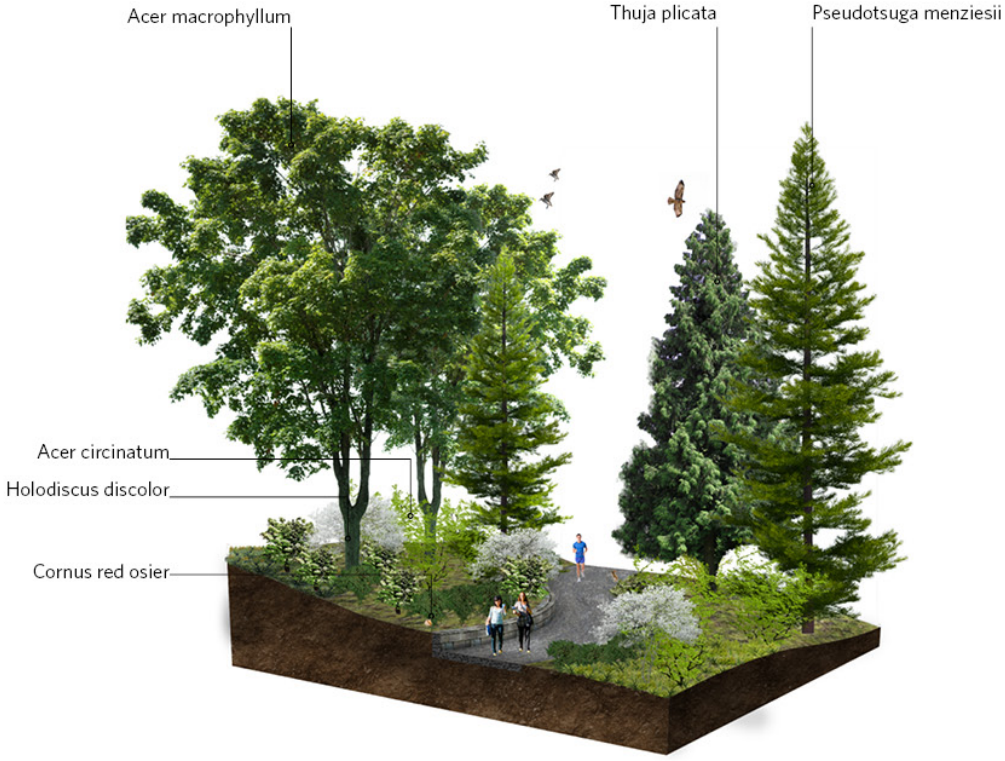
- Blechnum spicant (Deer Fern)
- Gymnocarpium dryopteris (Western Oakfern)
- Oxalis oregana (Redwood Sorrel)

BIORETENTION MIX

- Carex obnupta (Slough Sedge)
- Carex stipata (Awl Fruit Sedge)
- Carex pachystachya (Chamisso sedge)
- Juncus ensifolius (Swordleaf Rush)
- Schoenoplectus tabernaemontani (Softstem Bulrush)
- Scirpus microcarpus (Small-Fruited Bulrush)

WOODLAND MIX

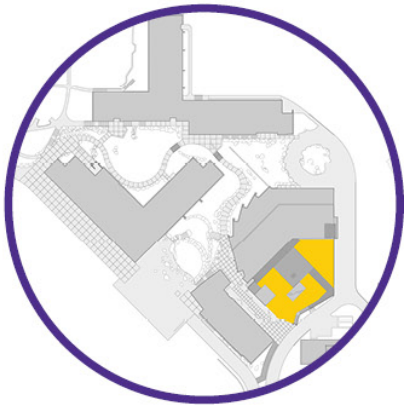
- Dicentra formosa (Pacific Bleeding Heart)
- Maianthemum dilatatum (False Lilly of the Valley)
- Maianthemum racemosum (False Solomon's Seal)
- Tellima grandiflora (Fringecups)



LATE SUCCESSIONAL FOREST TYPOLOGY

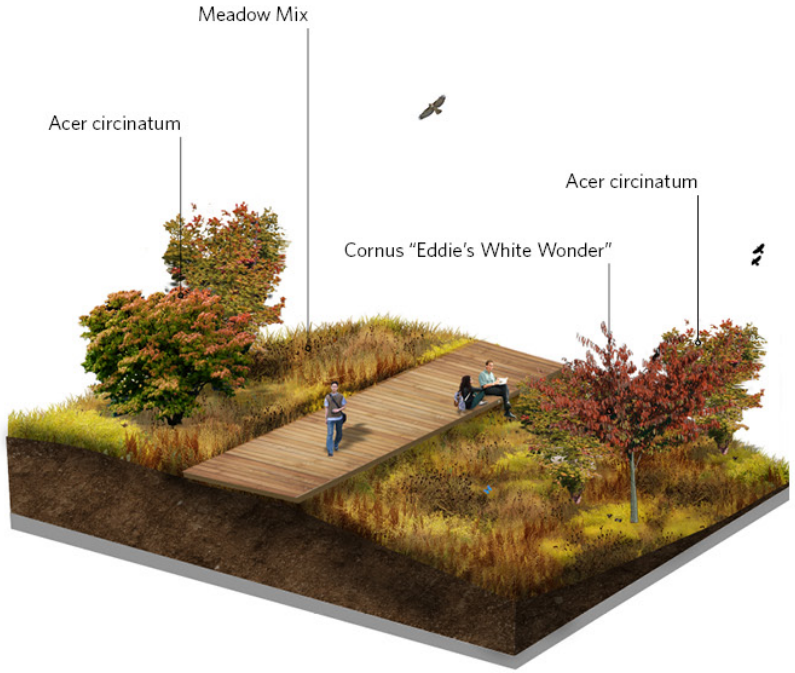
TREES

- Acer circinatum (Vine Maple)
- Cornus nuttallii x florida (Cornus "Eddie's White Wonder")

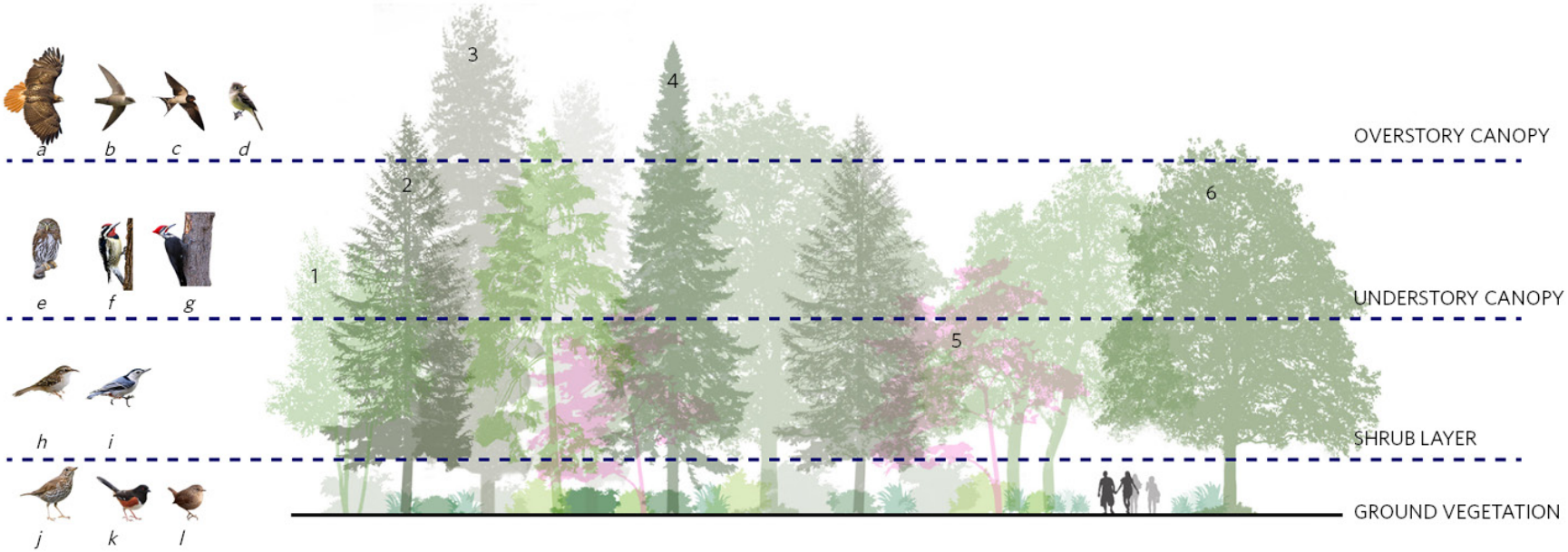


GROUNDCOVER

- Achillea millefolium (Yarrow)
- Delphinium menziesii (Menzies' larkspur)
- Eriophyllum lanatum (Oregon Sunshine)
- Penstemon serrulatus (Cascades Penstemo)
- Symphyotrichum subspicatum (Douglas Aster)



CASCADE MEADOW TYPOLOGY



BIRD SPECIES

- a. Red-Tailed Hawk
- b. Swift
- c. Swallow
- d. Fly-Catcher
- e. Pygmy Owl
- f. Sapsucker
- g. Pileated Woodpecker
- h. Brown Creeper
- i. Nuthatch
- j. Thrush
- k. Towhee
- l. Winter Wren

TREE SPECIES

1. *Betula papyrifera*	Paper Birch
2. *Tsuga heterophylla*	Western Hemlock
3. *Pinus monticola*	Western White Pine
4. *Pseudotsuga menziesii*	Douglas Fir
5. *Cornus nuttallii*	Pacific Dogwood
6. *Acer macrophyllum*	Big Leaf Maple

TREES

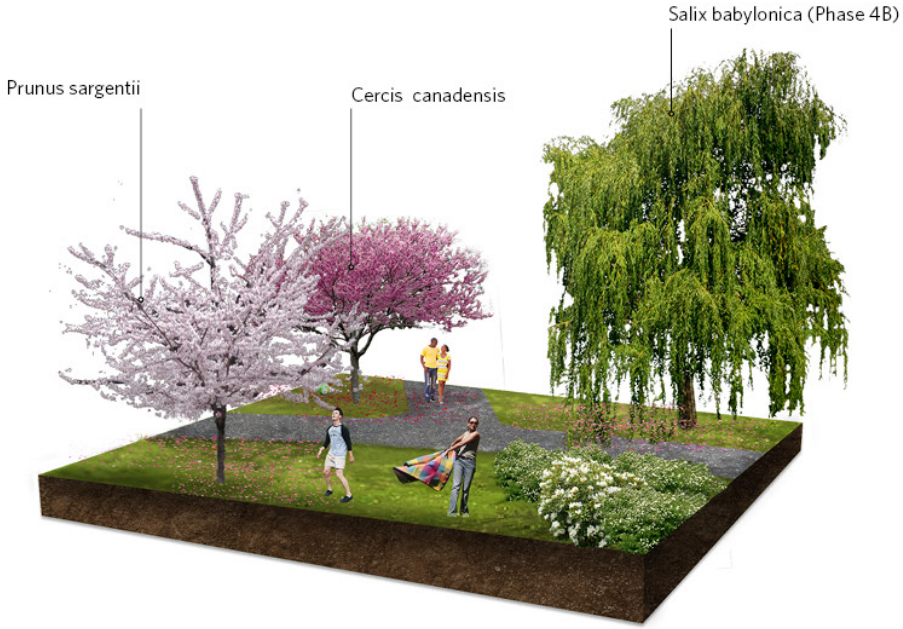
- Cercis canadensis (Eastern Redbud)
- Halesia carolina (Carolina Silverbell)
- Populus tremuloides (Quaking Aspen)
- Prunus sargentii (Sargent's Cherry)
- Prunus subhirtella (Higan Cherry)
- Ulmus parvifolia (Chinese Elm)
- Salix babylonica (Weeping Willow)

SHRUBS

- Holodiscus discolor (Ocean Spray)
- Philadelphus lewisii (Mock Orange)
- Rhododendron macrophyllum (Pacific Rododendron)

GROUNDCOVER

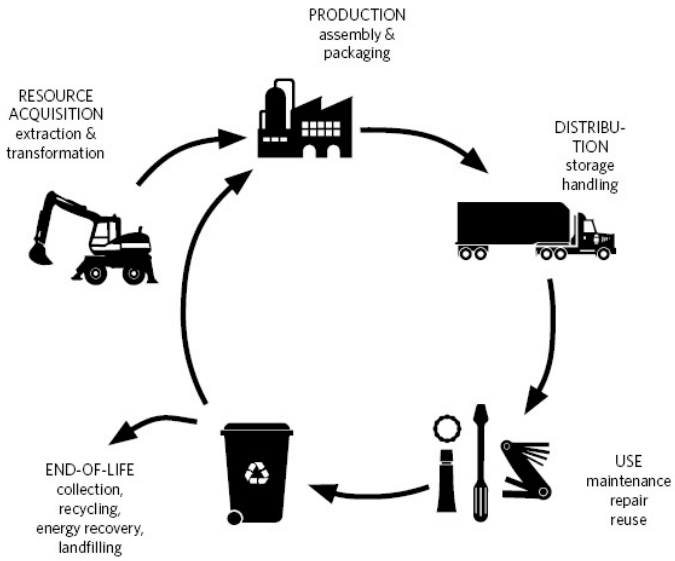
- Lawn (Ryegrass/Fescue/Bluegrass blend)



CAMPUS GREEN TYPOLOGY

	WARM MIX ASPHALT (20% RAP)	CONCRETE	BRICK
MATERIAL	• stone aggregate • recycled aggregate • bitumen	• virgin stone aggregate • Portland cement	• clay
EMBODIED ENERGY (MJ/metric ton)	7,112	790	3,000
EMBODIED CARBON (KG CO2/metric ton)	177	116	232
DISTRIBUTION	local (<50 mi)	local (<50 mi)	global (> 500 mi)
USE AND MAINTENANCE	repair 5 y replace top layer 15-20 y	repair 5 y replacement 30-40 y	repair 5 y replacement 100+ y
RECOVERY/REUSE	reprocessing	reprocessing	recovery
TOXICITY	Oils and emulsions known carcinogens	Cement kilns offgas heavy metals	none
Additional Considerations	• Figures assume at least 20% recycled asphalt • Reduce fossil fuel use at plant • Decreased emissions at plant • Decreased worker exposure to emissions during placement • Reduces first costs • Utilizes additive mix • WDOT & SDOT approved	• Figures would improve with recycled concrete	• Greater transport distance and kiln-firing increase footprint
TOTAL SQ. FEET	48,223 SF	26,825 SF	11,278 SF
PERCENTAGE OF HARDSCAPE	48%	26%	11%

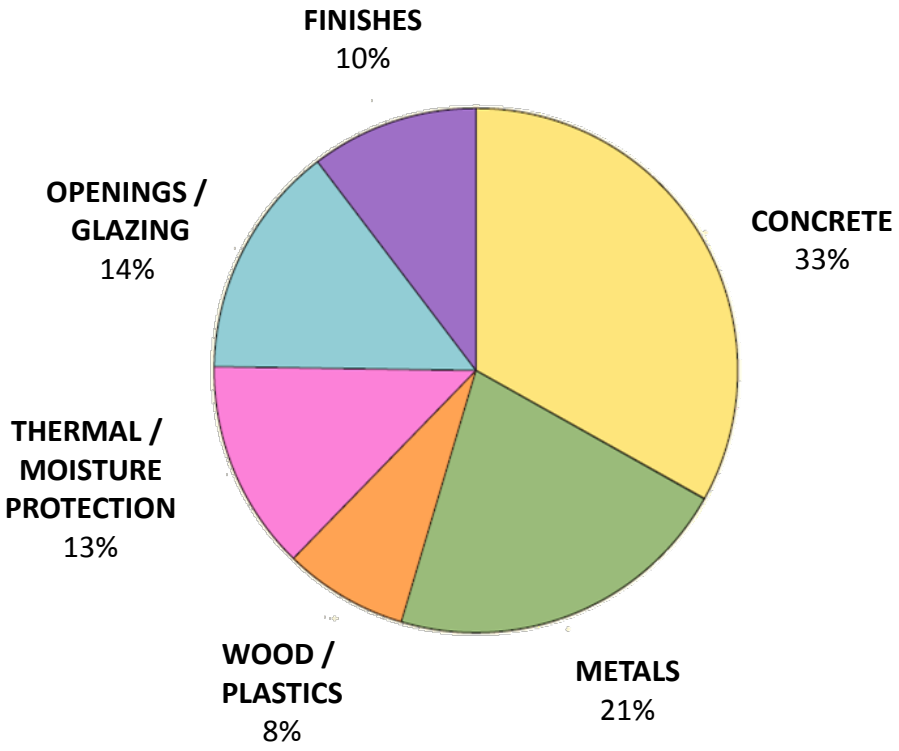
SOURCES:
- ***Materials for Sustainable Sites*** by Meg Calkins (2009)
- ***The Sustainable Sites Handbook*** by Meg Calkins (2011)



15% Boulders, Concrete Planks, Deck Tile, River Rock Edging, Stepping Stone, Stone Fines

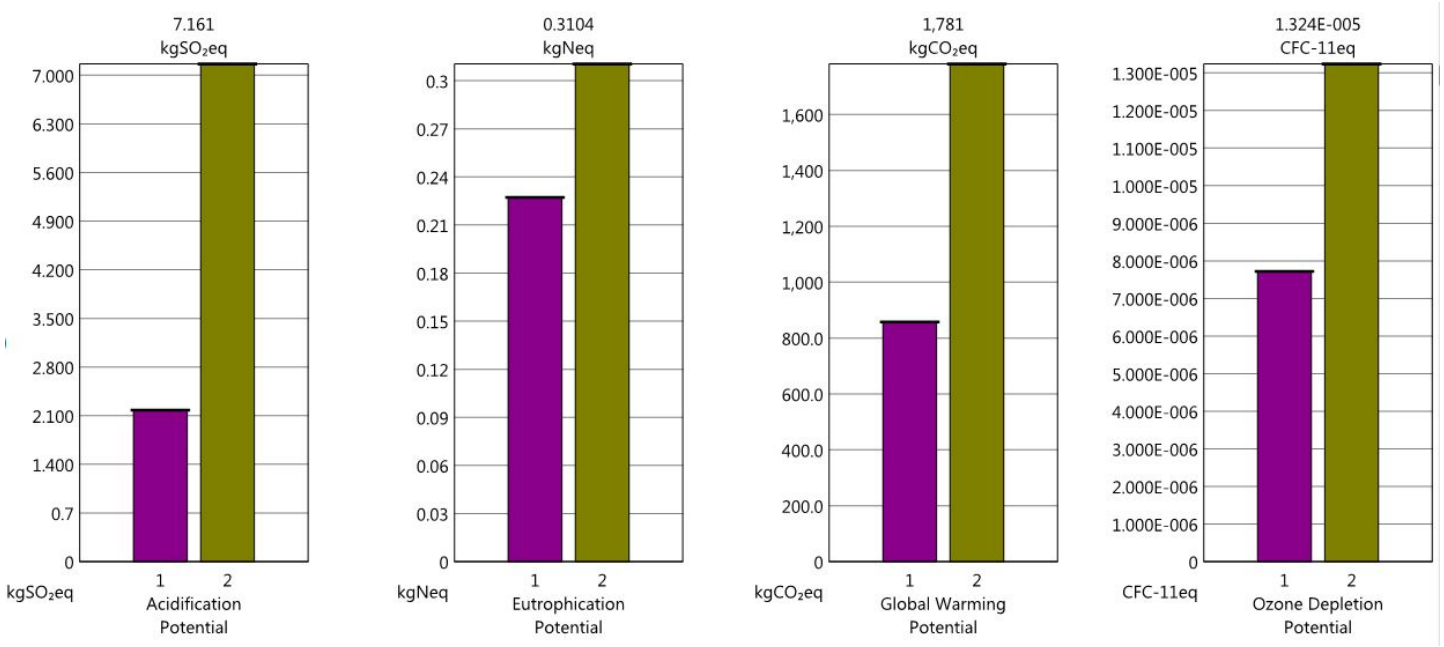
SUSTAINABILITY MATERIAL LIFECYCLE EVALUATION

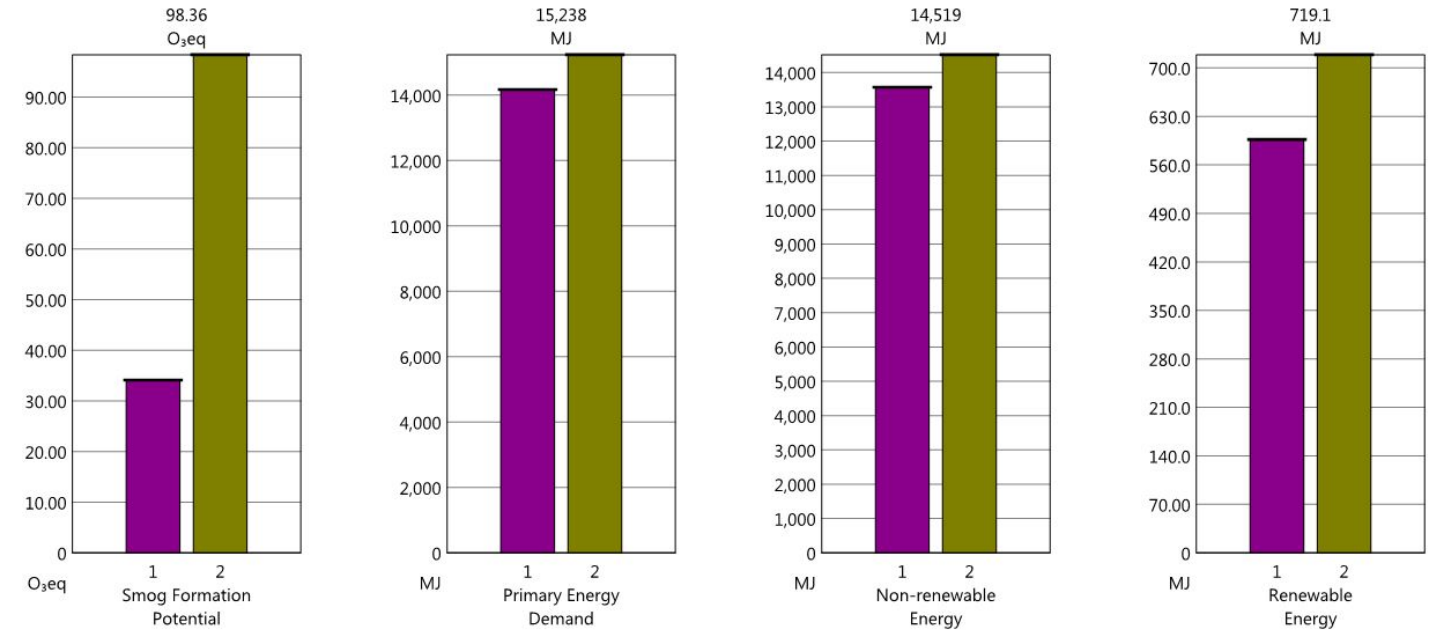
GLOBAL WARMING POTENTIAL



- Concrete contributes the most to Global Warming Potential
- Concrete impacts could be reduced through optimization of concrete mix or through reduction of use of concrete, such as by increasing the amount of brick used
- Wood currently contributes under 10% of total impacts even though it provides the majority of the structure and is in use on the façade
- Increasing the ratio of wood to metal used in the façade would reduce environmental impacts

- Carbon sequestration related to use of wood-framed construction and façade cladding.
- Embodied energy in wood is vastly less than in concrete and masonry.
- Increase in student density decreases number of students commuting. (Only 4% of on-campus students have cars.)
- There is no cooling within residential spaces.
- Heating in residential spaces is through electric resistance base board units. Electric supply in Seattle is provided from 100% renewable sources, mostly hydro.
- Thermally efficient windows are used throughout the residential areas.



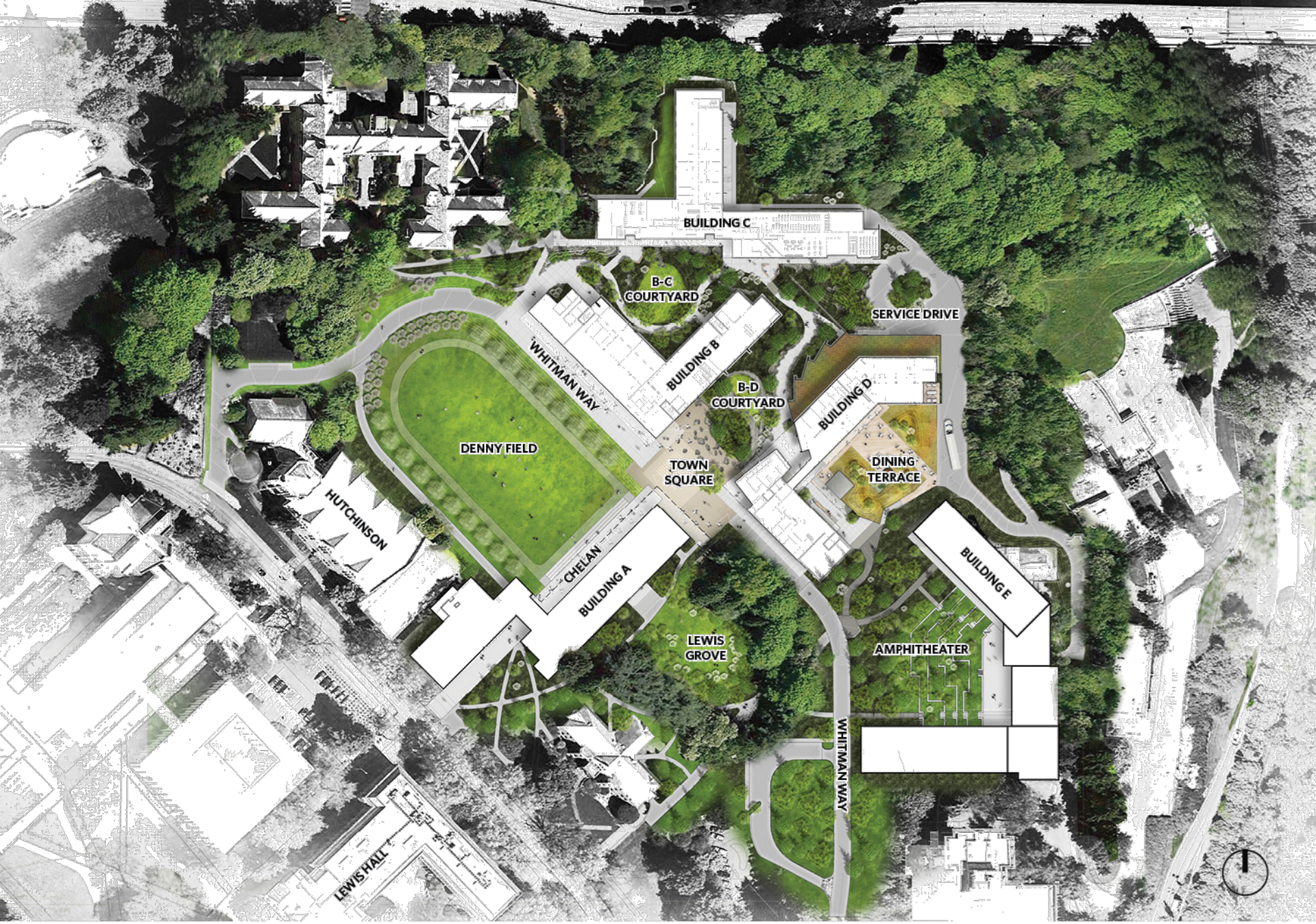


SUSTAINABILITY MATERIAL LIFECYCLE EVALUATION – FOR BUILDING BASES

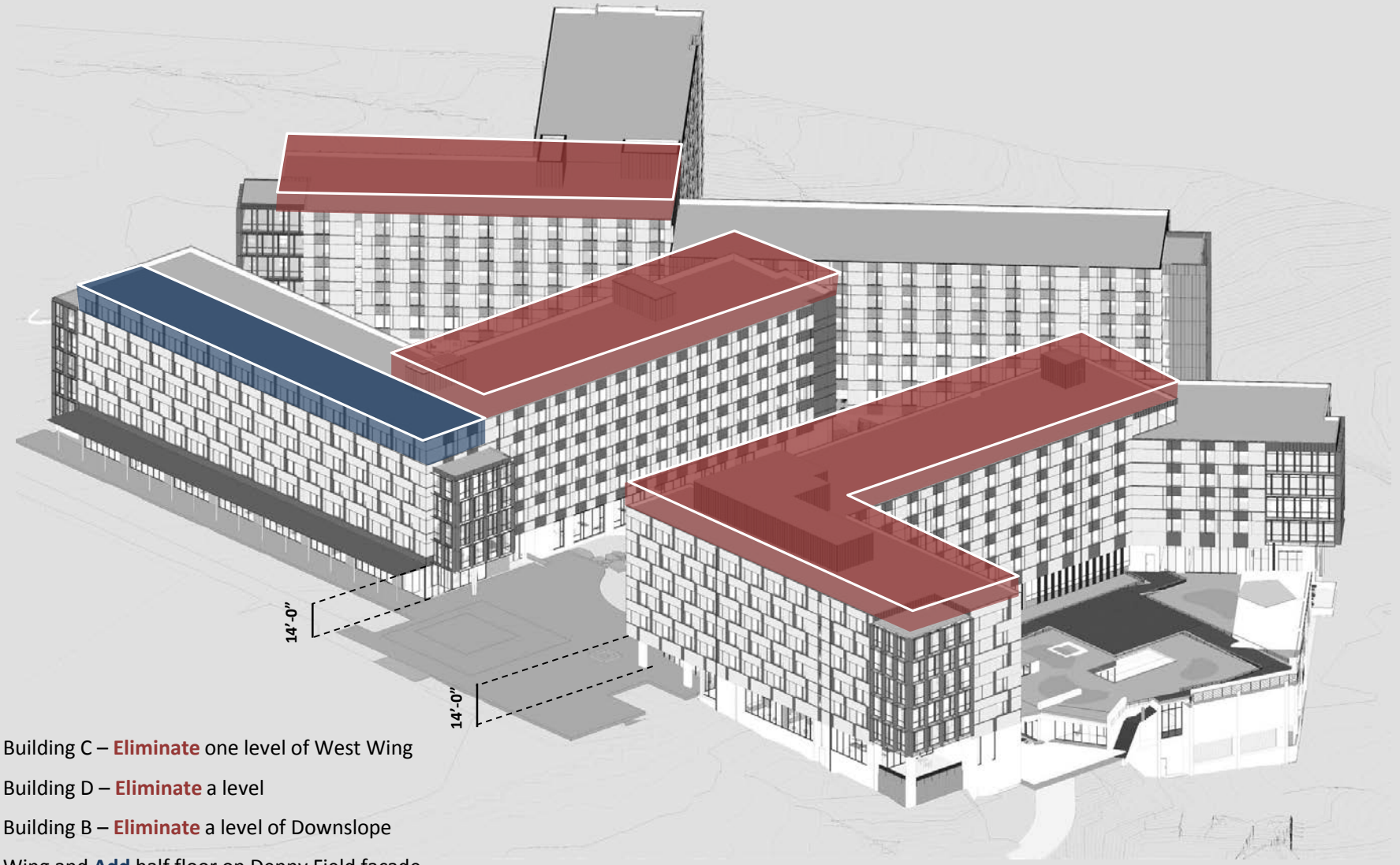
DESIGN DEVELOPMENT

KieranTimberlake

DESIGN DEVELOPMENT OVERALL SITE PLAN – PHASE IVA

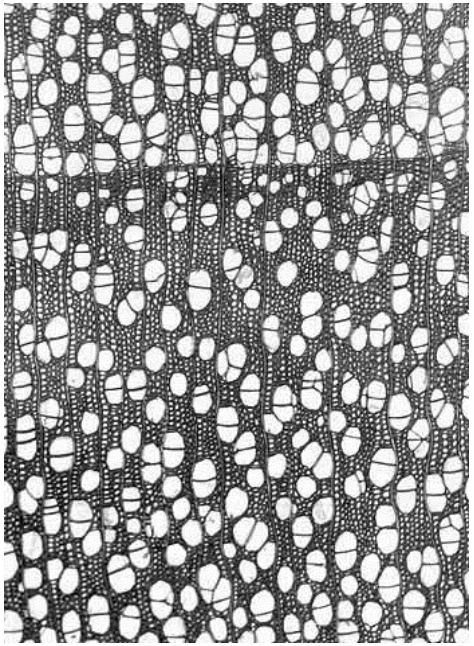


DESIGN DEVELOPMENT OVERALL SITE PLAN – COMPLETED PHASE IV



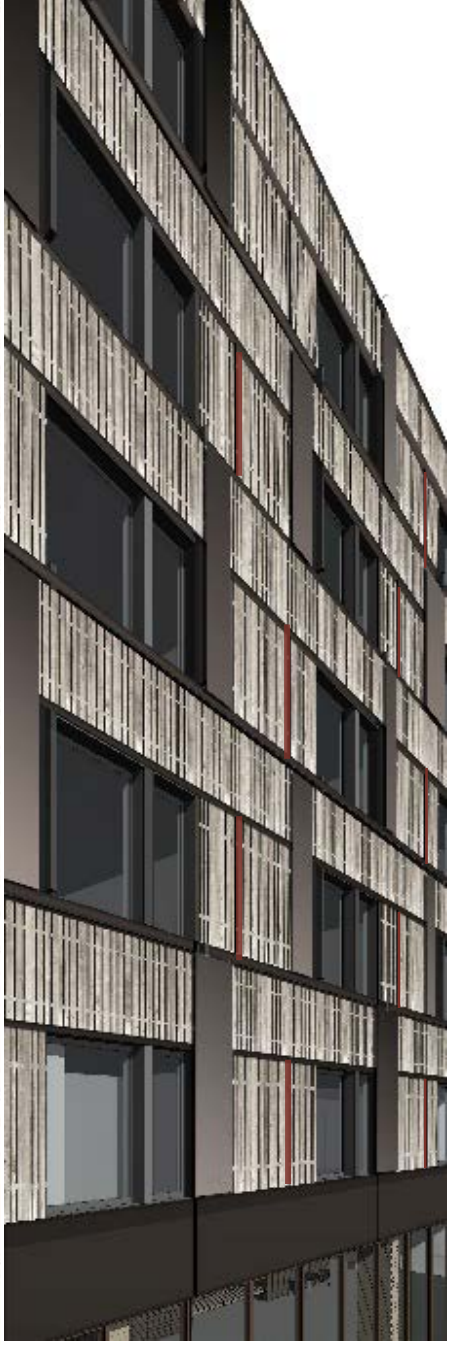
- Building C – **Eliminate** one level of West Wing
- Building D – **Eliminate** a level
- Building B – **Eliminate** a level of Downslope Wing and **Add** half floor on Denny Field façade
- Increase F-T-F heights in all buildings

DESIGN DEVELOPMENT PERSPECTIVE VIEW



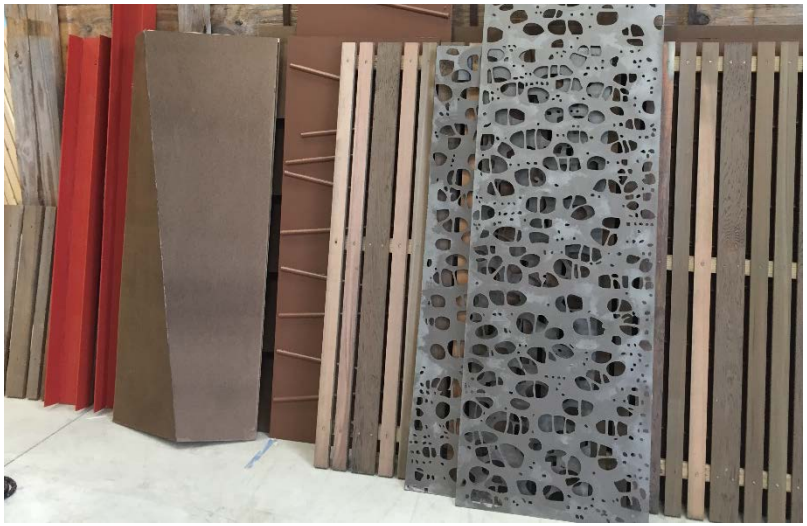
DESIGN DEVELOPMENT FIELD FAÇADE PATTERNING CONCEPT

DESIGN DEVELOPMENT FIELD FAÇADE PATTERNING - FRIEZE



DESIGN DEVELOPMENT FIELD FAÇADE PATTERNING - VERTICAL

DESIGN DEVELOPMENT FIELD FAÇADE PATTERNING – MOCKUP PANEL



MOCKUP PANEL DETAILS

UNIVERSITY OF WASHINGTON NORTH CAMPUS HOUSING

DESIGN DEVELOPMENT LANTERNS

BUILDING B
TOWN SQUARE

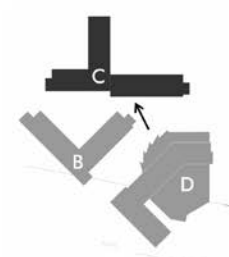
BUILDING B
DENNY FIELD

BUILDING C
MID-SLOPE PATH

BUILDING D
WHITMAN WAY

BUILDING D
BUILDING E

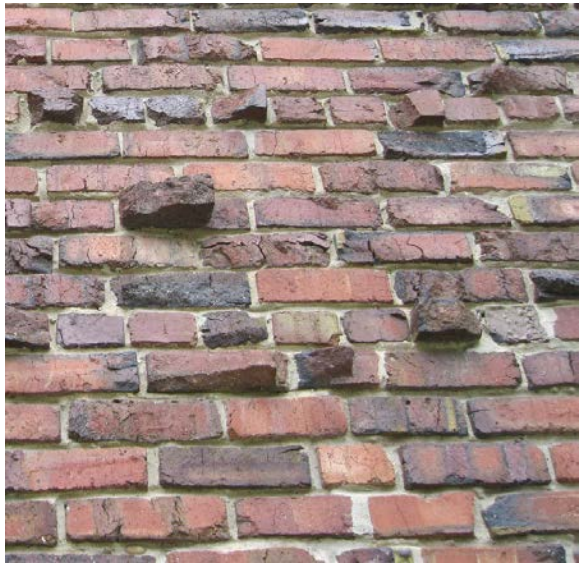
DESIGN DEVELOPMENT LANTERNS – DAY + NIGHT VIEW

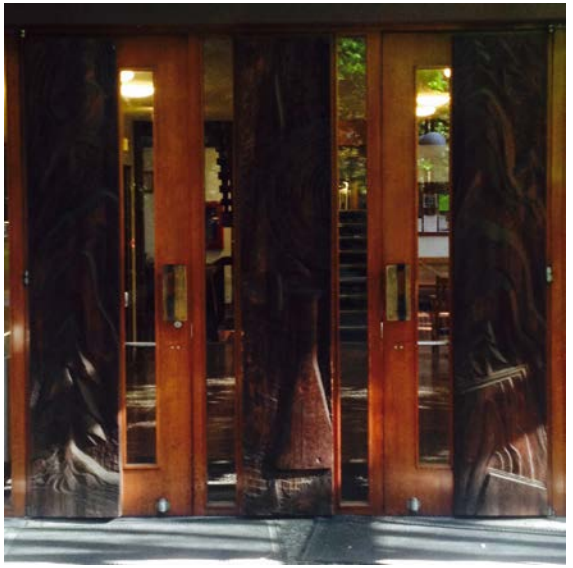


BASE DESIGN – GUIDING PRINCIPLES

- Terraced brick plinths
- Exposed Concrete Structure
- Board Formed Concrete at entries
- Storefront glazing + Punched openings in bases



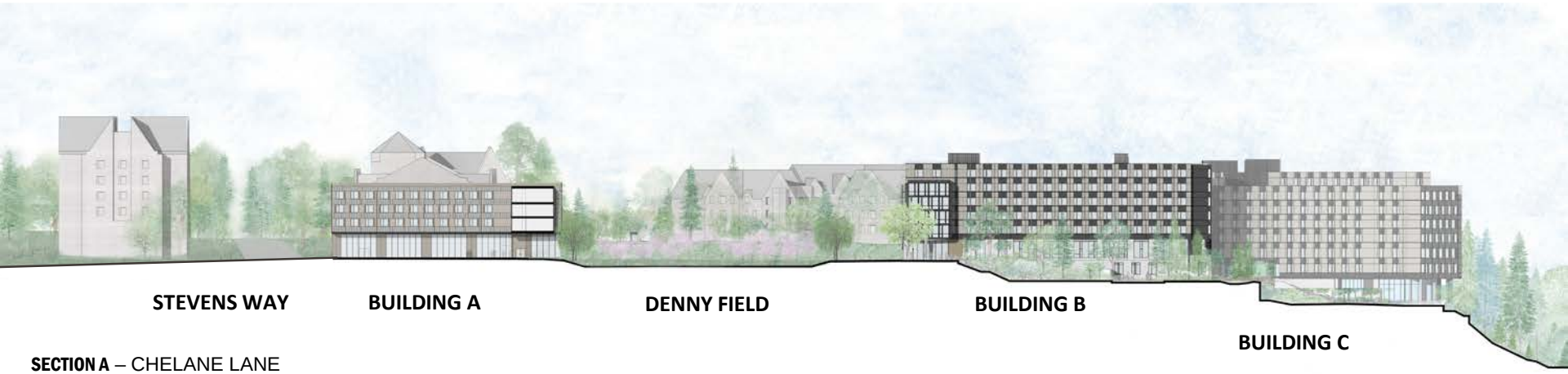





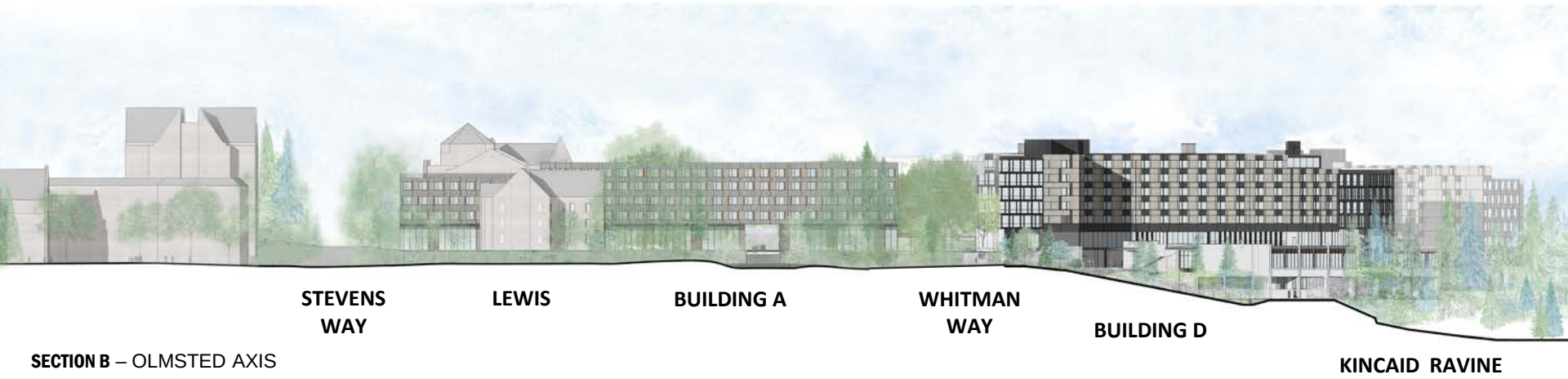
DESIGN DEVELOPMENT BUILDING BASE DESIGN – MATERIALS MATRIX

DESIGN DEVELOPMENT BUILDING BASE DESIGN

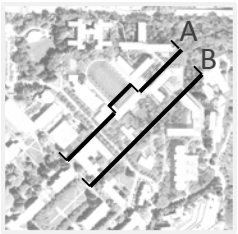
DESIGN DEVELOPMENT BUILDING BASE DESIGN



SECTION A – CHELANE LANE

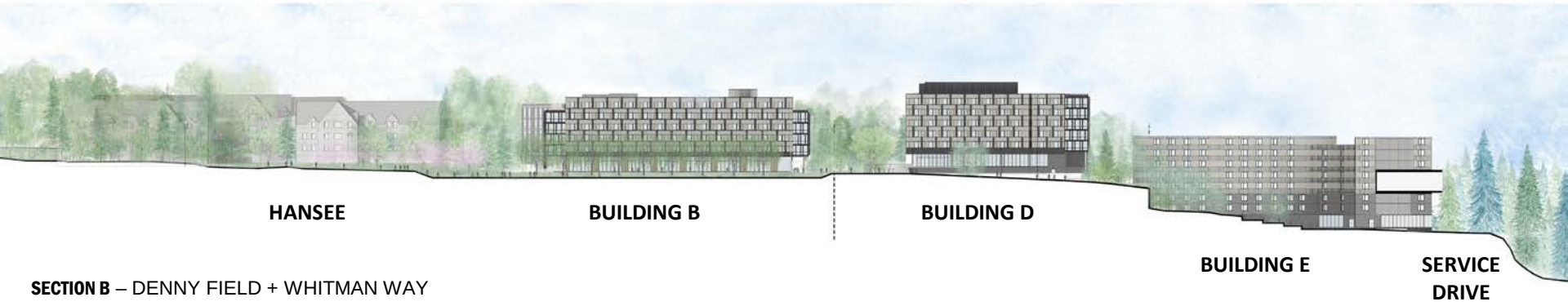


SECTION B – OLMSTED AXIS

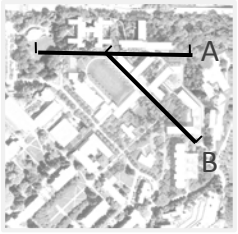


DESIGN DEVELOPMENT SITE SECTIONS

SECTION A – BC COURTYARD



SECTION B – DENNY FIELD + WHITMAN WAY

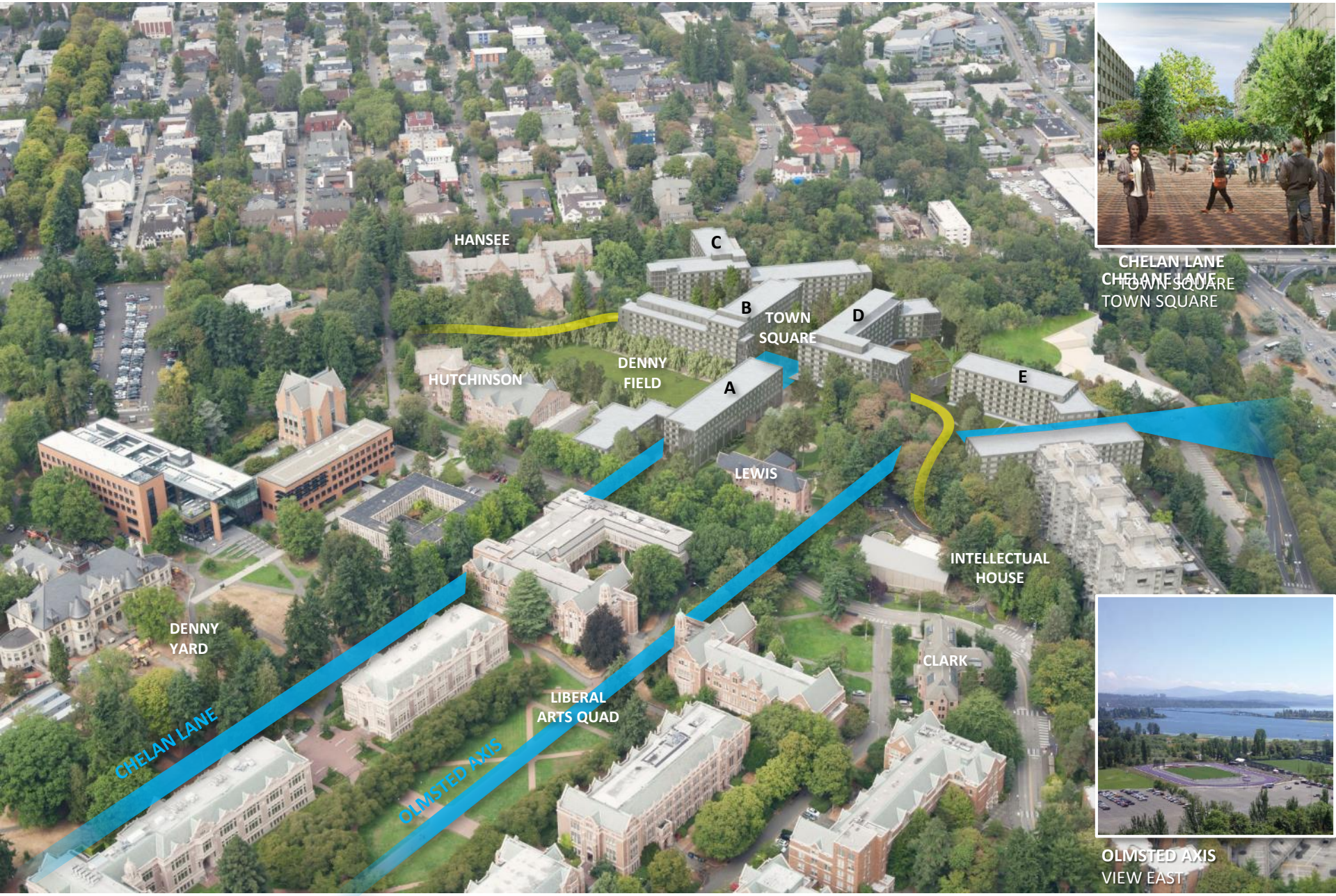


DESIGN DEVELOPMENT SITE SECTIONS

PHASE IVA WALKTHROUGH

KIERAN TIMBERLAKE

PHASE IVA WALKTHROUGH AREAS OF FOCUS



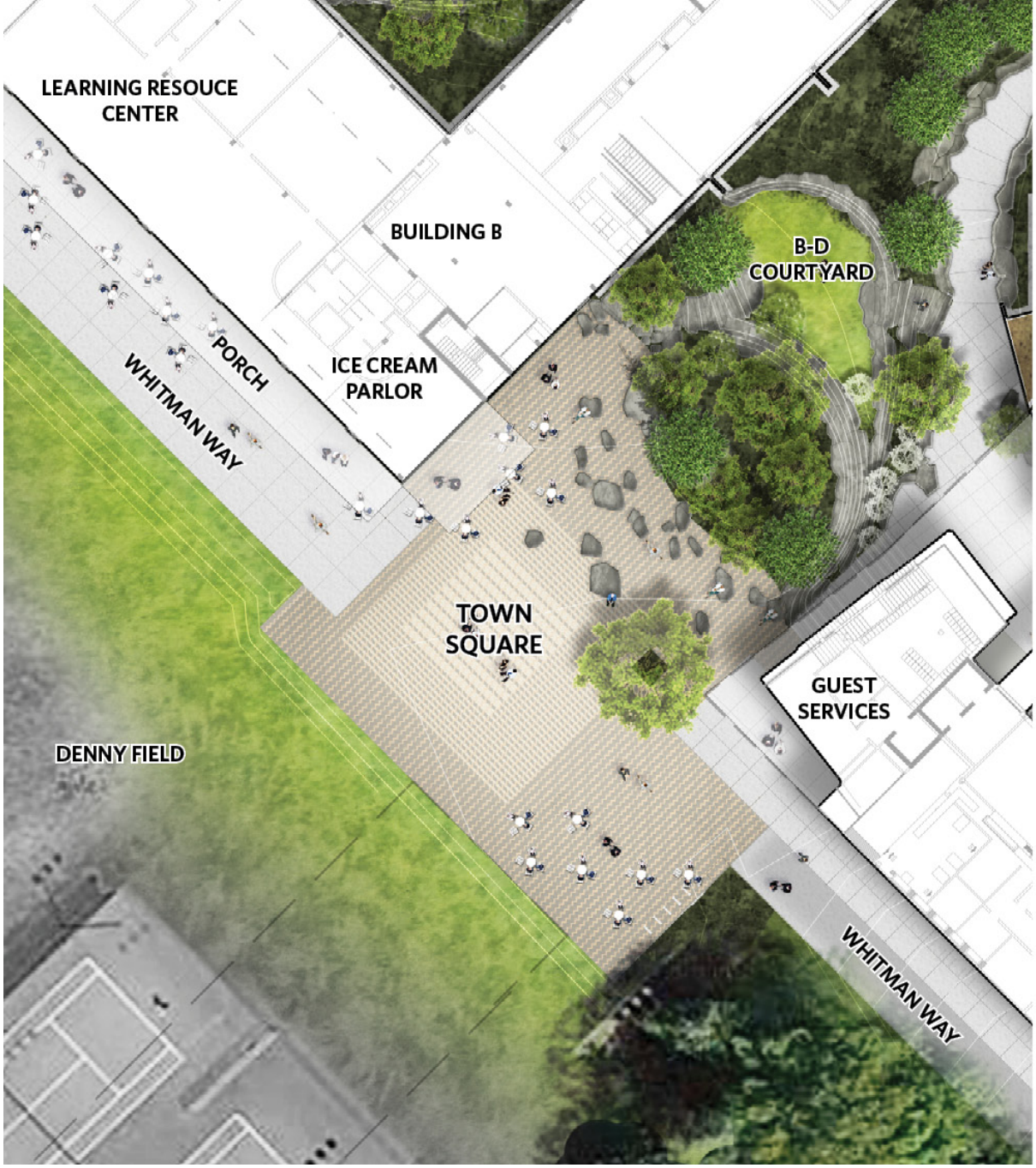
CHELAN LANE
TOWN SQUARE

OLMSTED AXIS
VIEW EAST

PHASE IVA WALKTHROUGH VIEWS

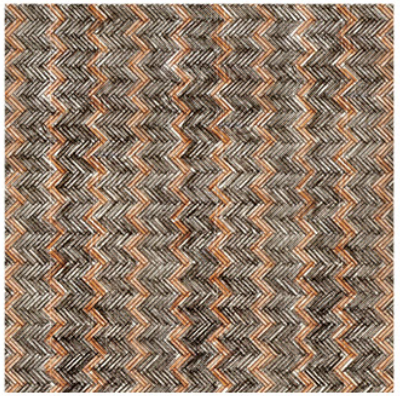
UNIVERSITY OF WASHINGTON NORTH CAMPUS HOUSING

PHASE IVA WALKTHROUGH TOWN SQUARE – PERSPECTIVE VIEW FROM DENNY FIELD



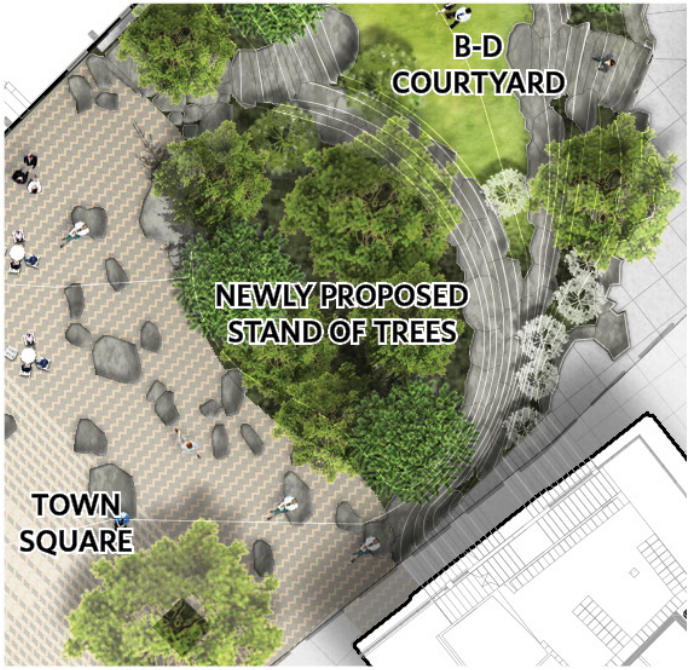
FOCAL SQUARE

LARGE SQUARE



BORDER SQUARE

PHASE IVA WALKTHROUGH TOWN SQUARE – SITE PLAN

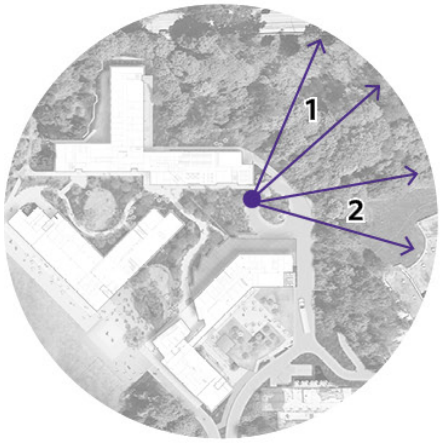


Big Leaf Maple (*Acer macrophyllum*)

Madronas (*Arbutus menziesii*)

Eddie's White Wonder Dogwood (*Cornus*)

Noble Fir (*Abies procera*)



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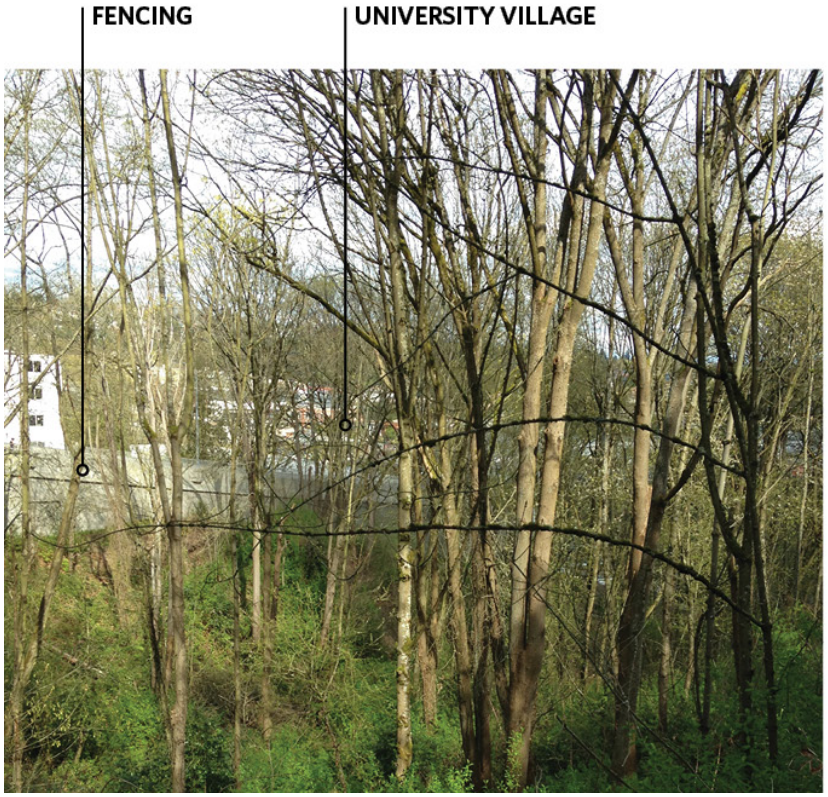


2

PHASE IVA WALKTHROUGH TOWN SQUARE – PERSPECTIVE VIEW FROM BUILDING A

PHASE IVA WALKTHROUGH PERSPECTIVE FROM BUILDING D TO TOWN SQUARE

PHASE IVA WALKTHROUGH PLAN OF BUILDING D AND EXTERIOR SPACES

PHASE IVA WALKTHROUGH PERSPECTIVE FROM WHITMAN WAY TO BUILDING D – PHASE IVA

PHASE IVA WALKTHROUGH PERSPECTIVE FROM WHITMAN WAY TO BUILDING D – PHASE IVB

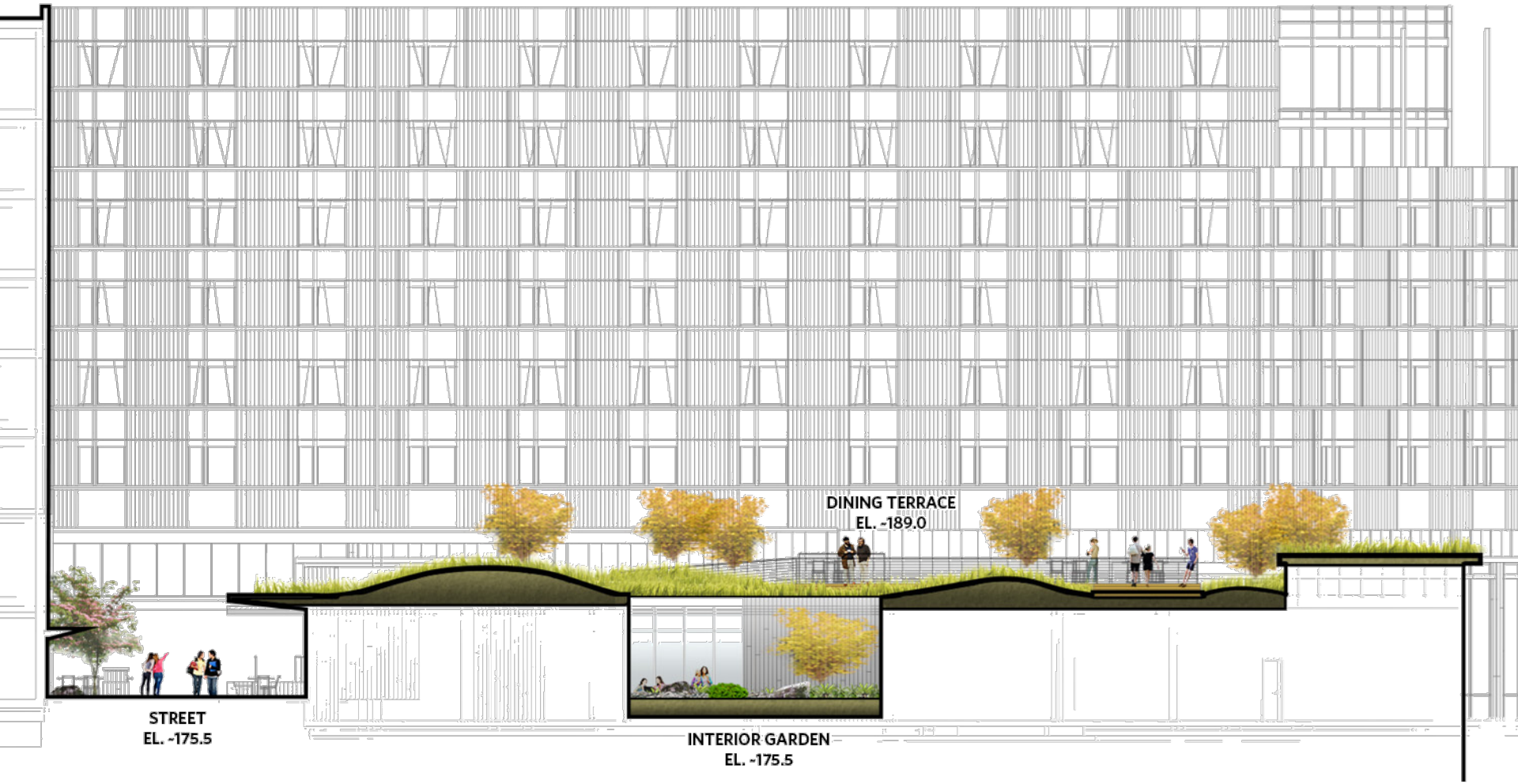
PHASE IVA WALKTHROUGH PLAN OF BUILDING D AND EXTERIOR SPACES

PHASE IVA WALKTHROUGH PERSPECTIVE THROUGH BUILDING D STREETSCAPE

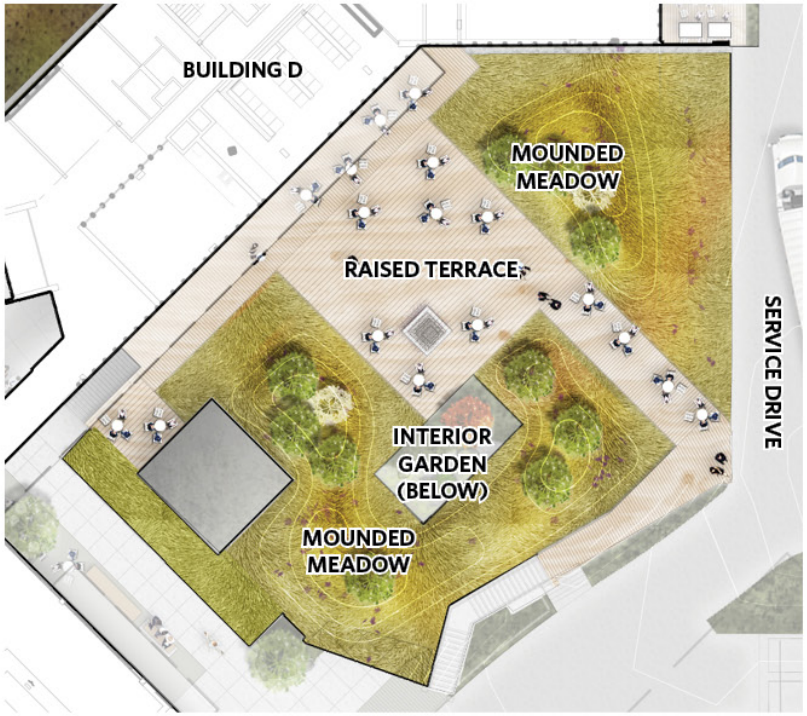
PHASE IVA WALKTHROUGH PERSPECTIVE THROUGH BUILDING D STREETSCAPE

PHASE IVA WALKTHROUGH PERSPECTIVE THROUGH BUILDING D STREETSCAPE

PHASE IVA WALKTHROUGH PLAN OF BUILDING D AND EXTERIOR SPACES



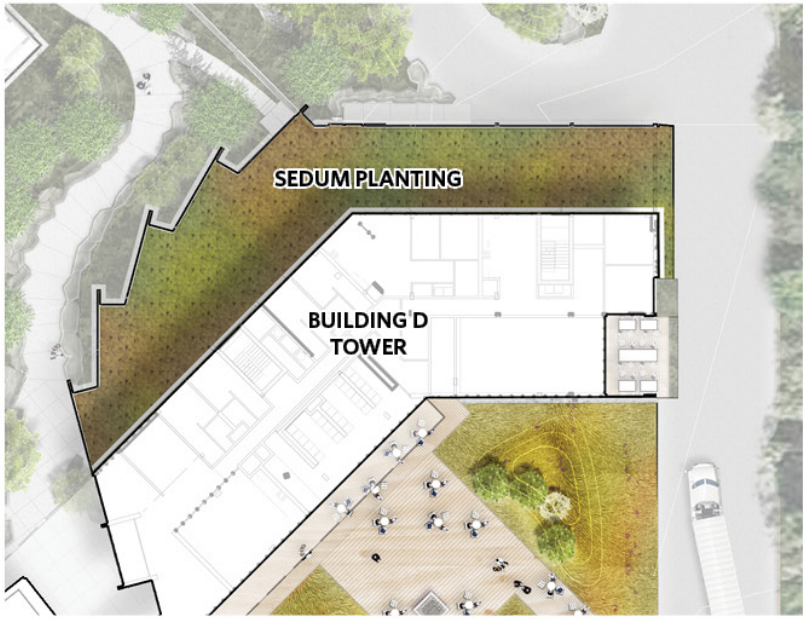
PHASE IVA WALKTHROUGH SECTION THROUGH BUILDING D EXTERIOR SPACES



Latter Day Saints Convention Center

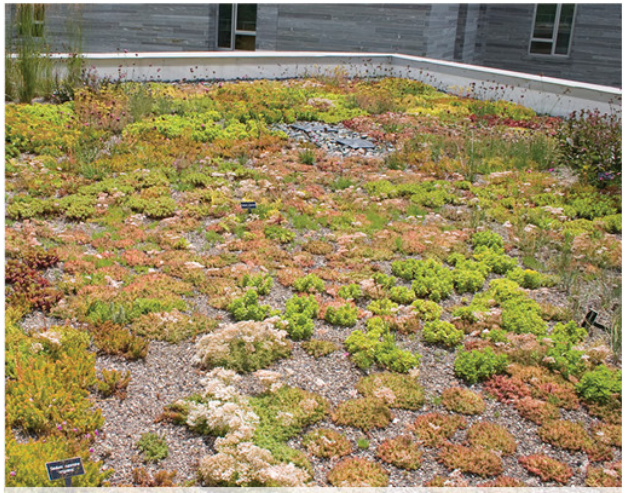
Washington Mutual Center

Enso Apartment Terrace



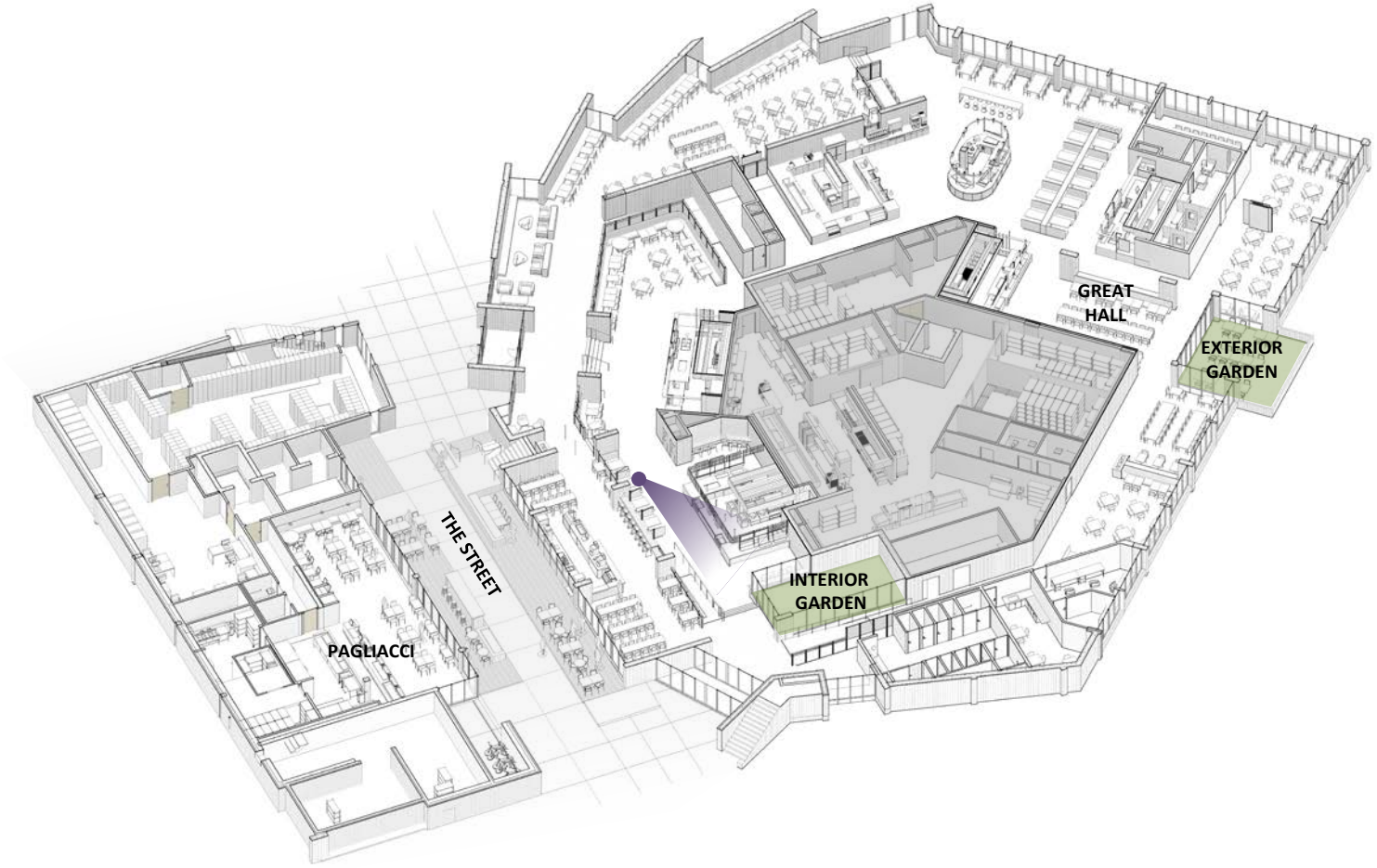
Yale University

Bill & Melinda Gates Foundation



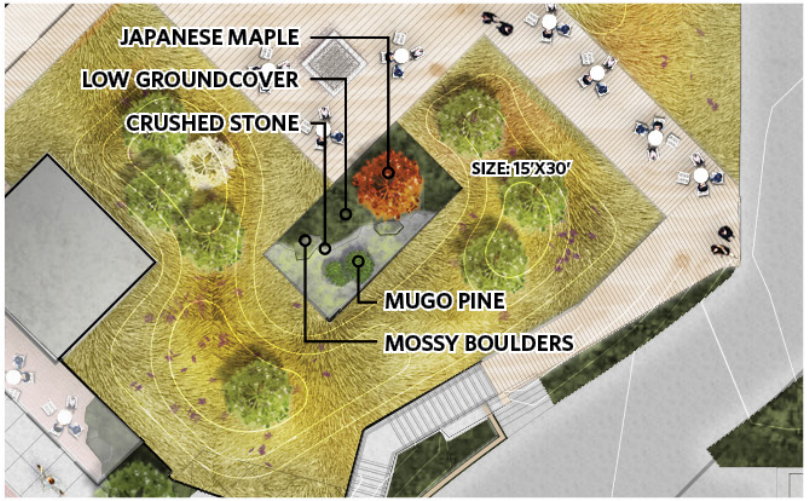
Swarthmore College

PHASE IVA WALKTHROUGH PERSPECTIVE THROUGH BUILDING D STREETSCAPE



PHASE IVA WALKTHROUGH AXONOMETRIC OF DINING HALL

PHASE IVA WALKTHROUGH PERSPECTIVE THROUGH DINING HALL

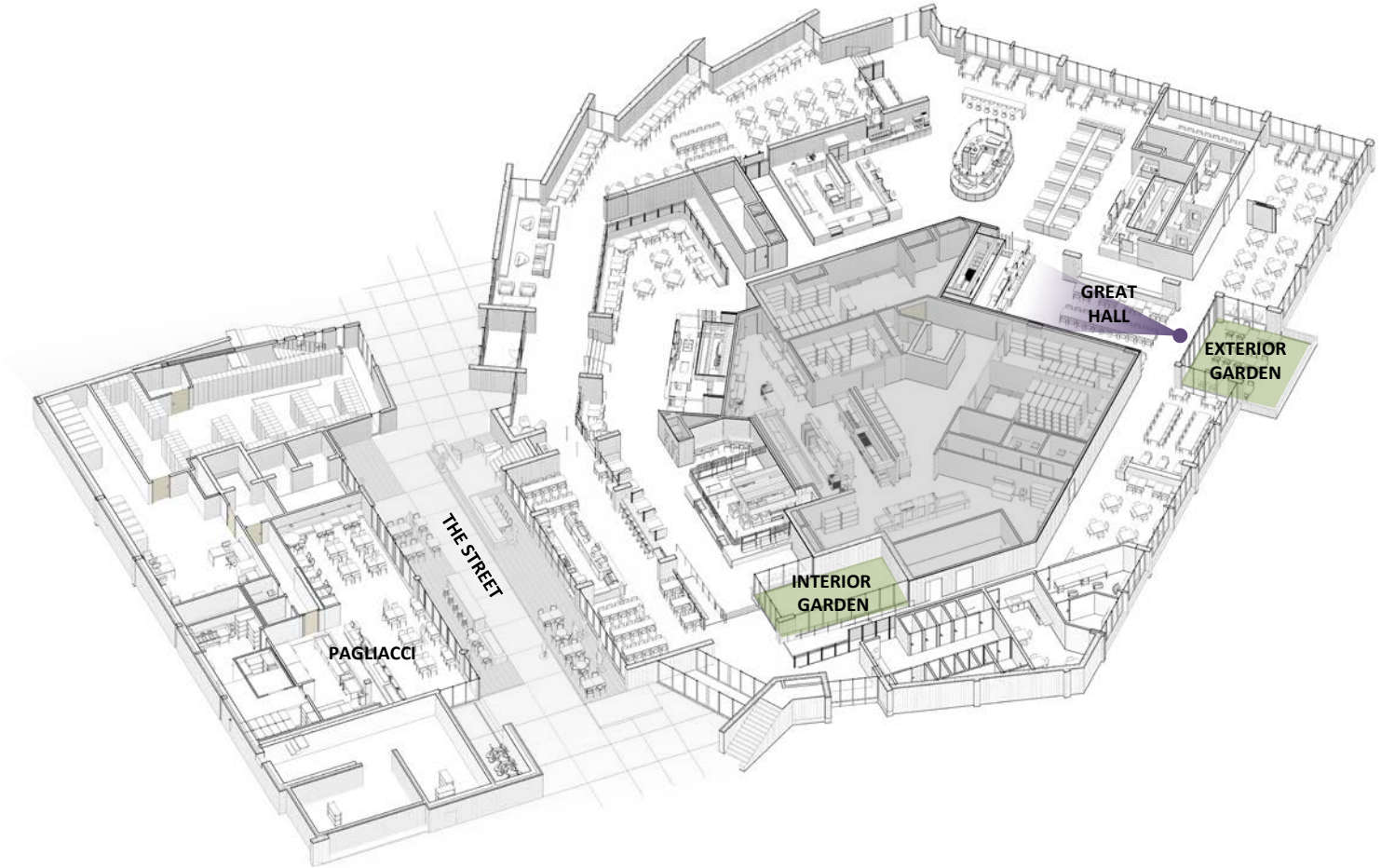


Japanese Maple

Board Form Concrete

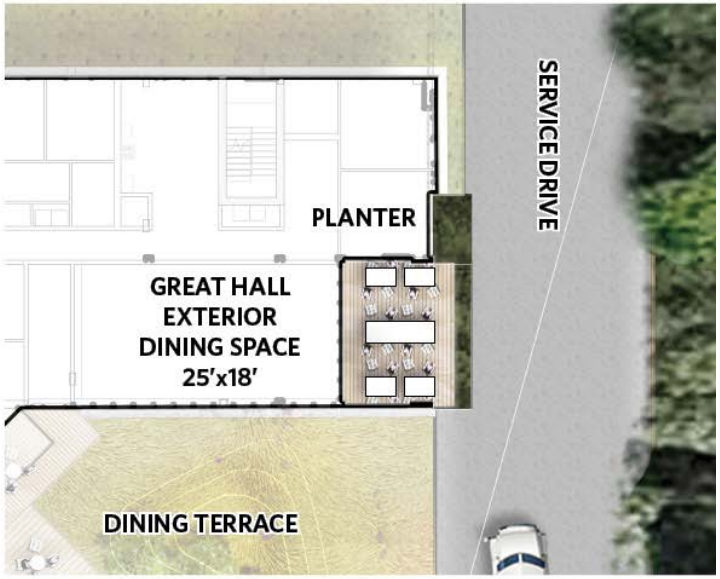
Japanese Mugo Pine

Moss and Fern Mix



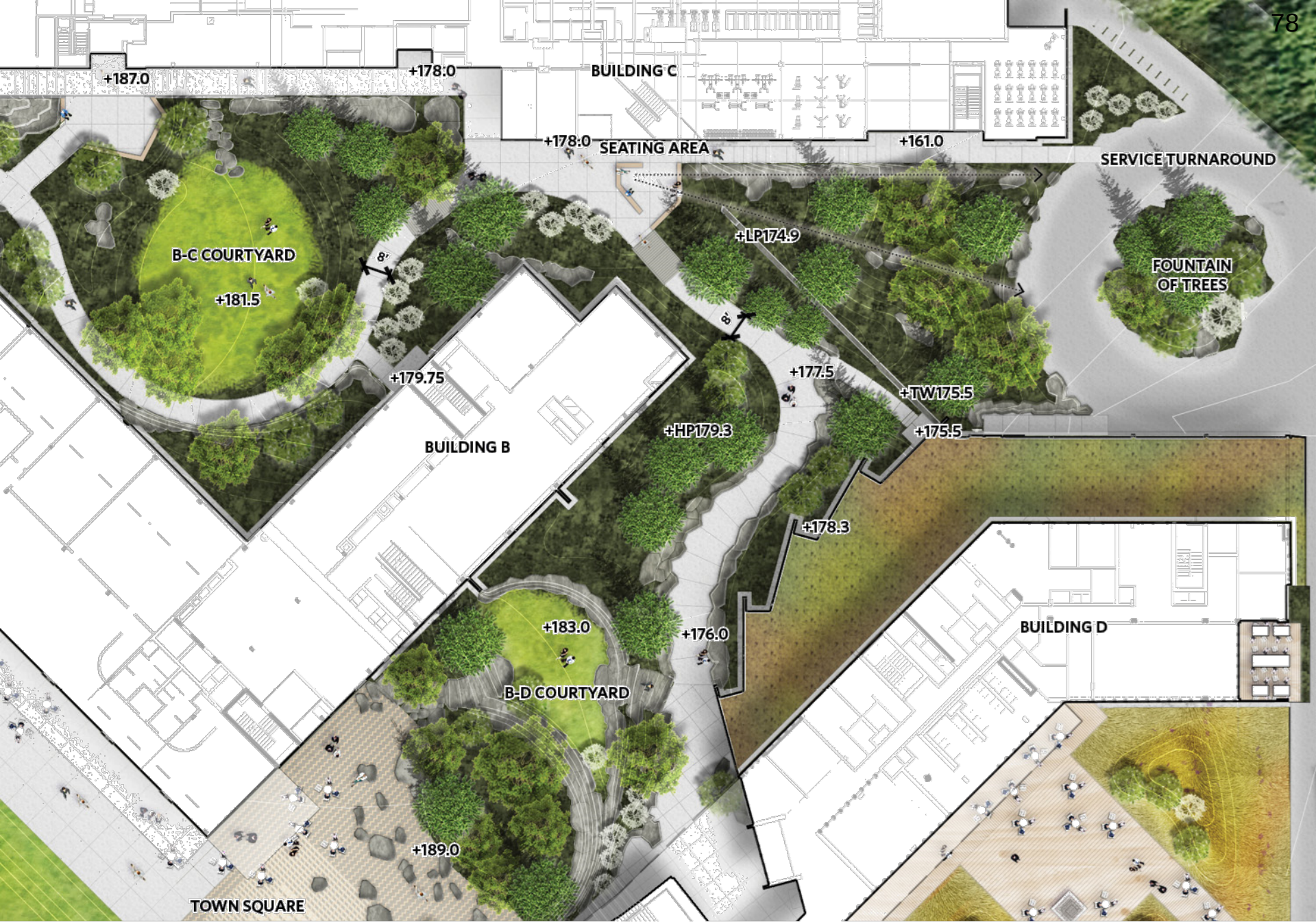
PHASE IVA WALKTHROUGH AXONOMETRIC OF DINING HALL

PHASE IVA WALKTHROUGH PERSPECTIVE THROUGH DINING HALL



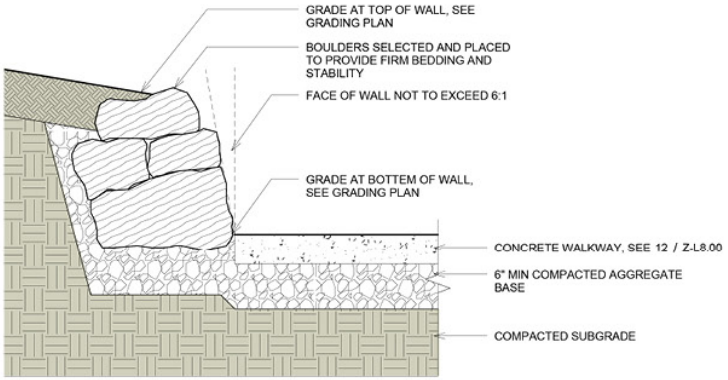
FSC Wood Deck Tiles

Evergreen Huckleberry



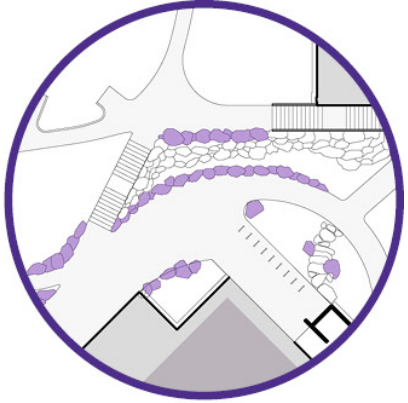
PHASE IVA WALKTHROUGH PLAN OF B-C COURTYARD

PHASE IVA WALKTHROUGH PERSPECTIVE FROM B-D COURTYARD TO TOWN SQUARE

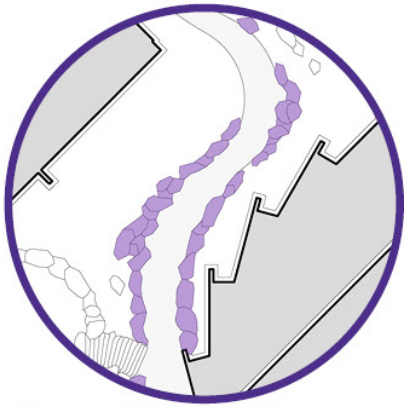


BOULDER WALL DETAIL

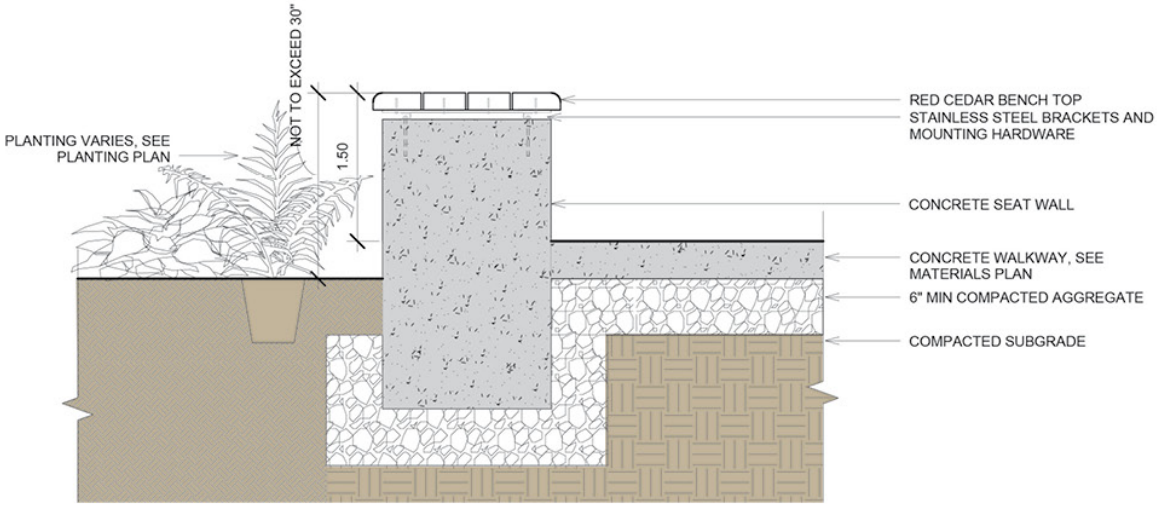
INTEGRATED BOULDER SEATWALLS



DENNY FIELD STAIR

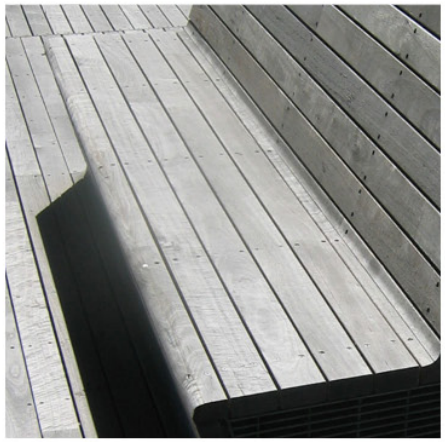


MID-SLOPE PATH

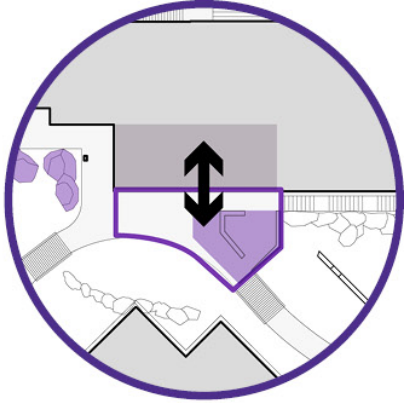


WOOD TOPPED CONCRETE SITEWALL

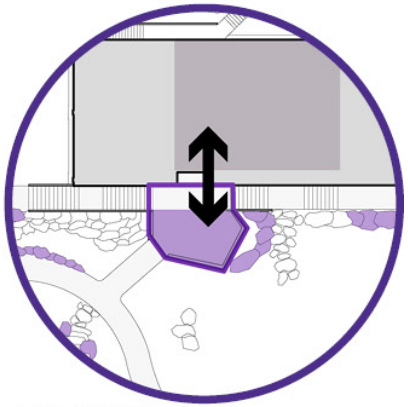
BOARD FORM CONCRETE



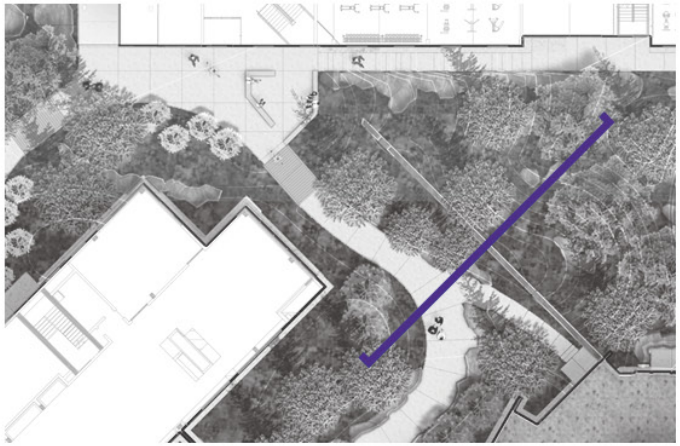
IPE BENCH TOP

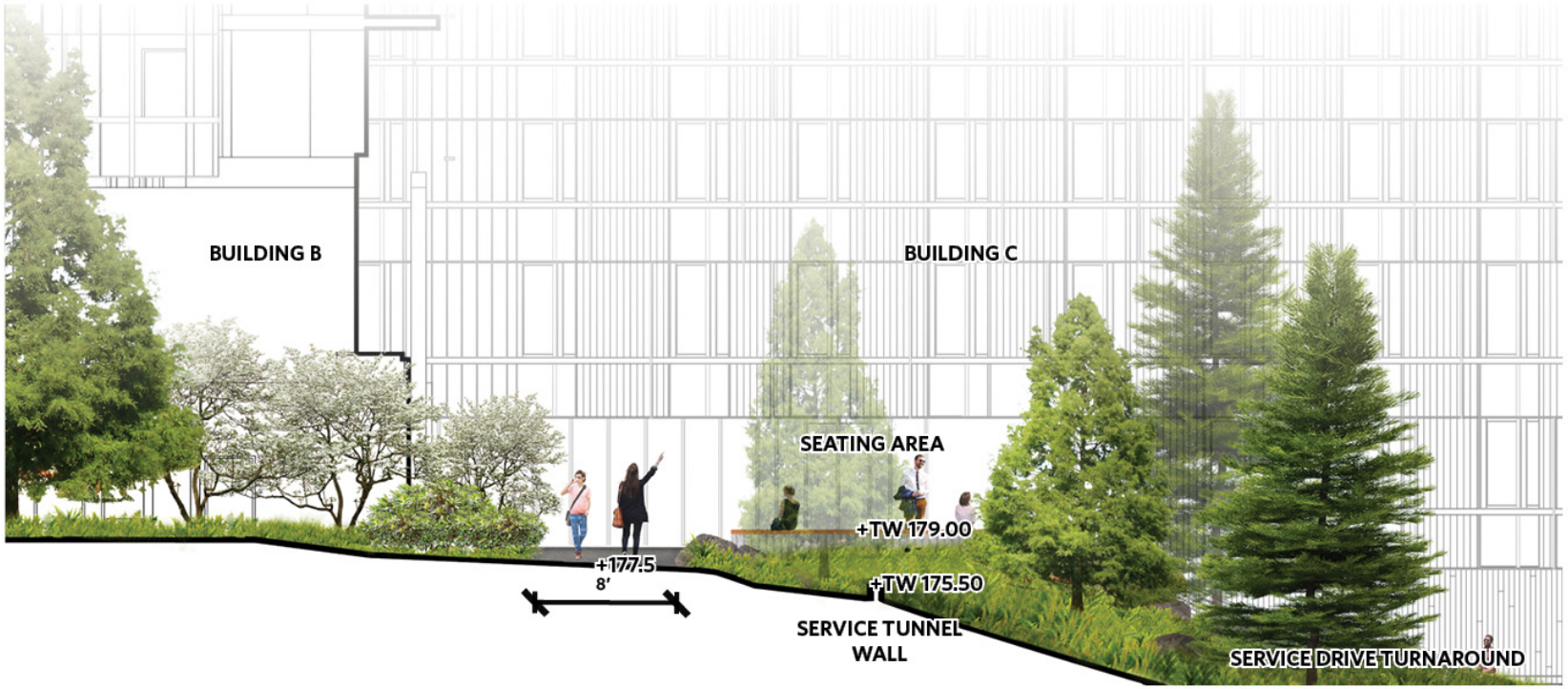


ENTRY PLAZA

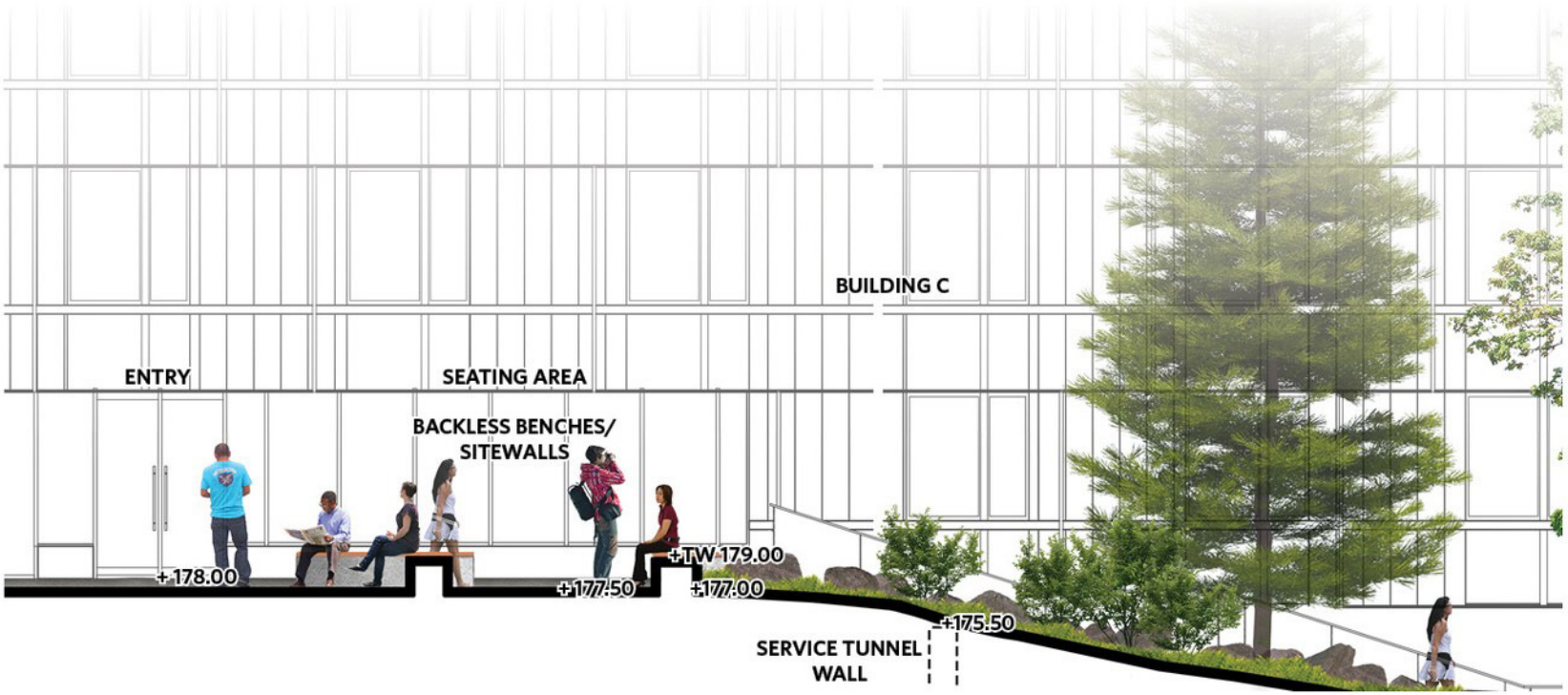


ENTRY PLAZA

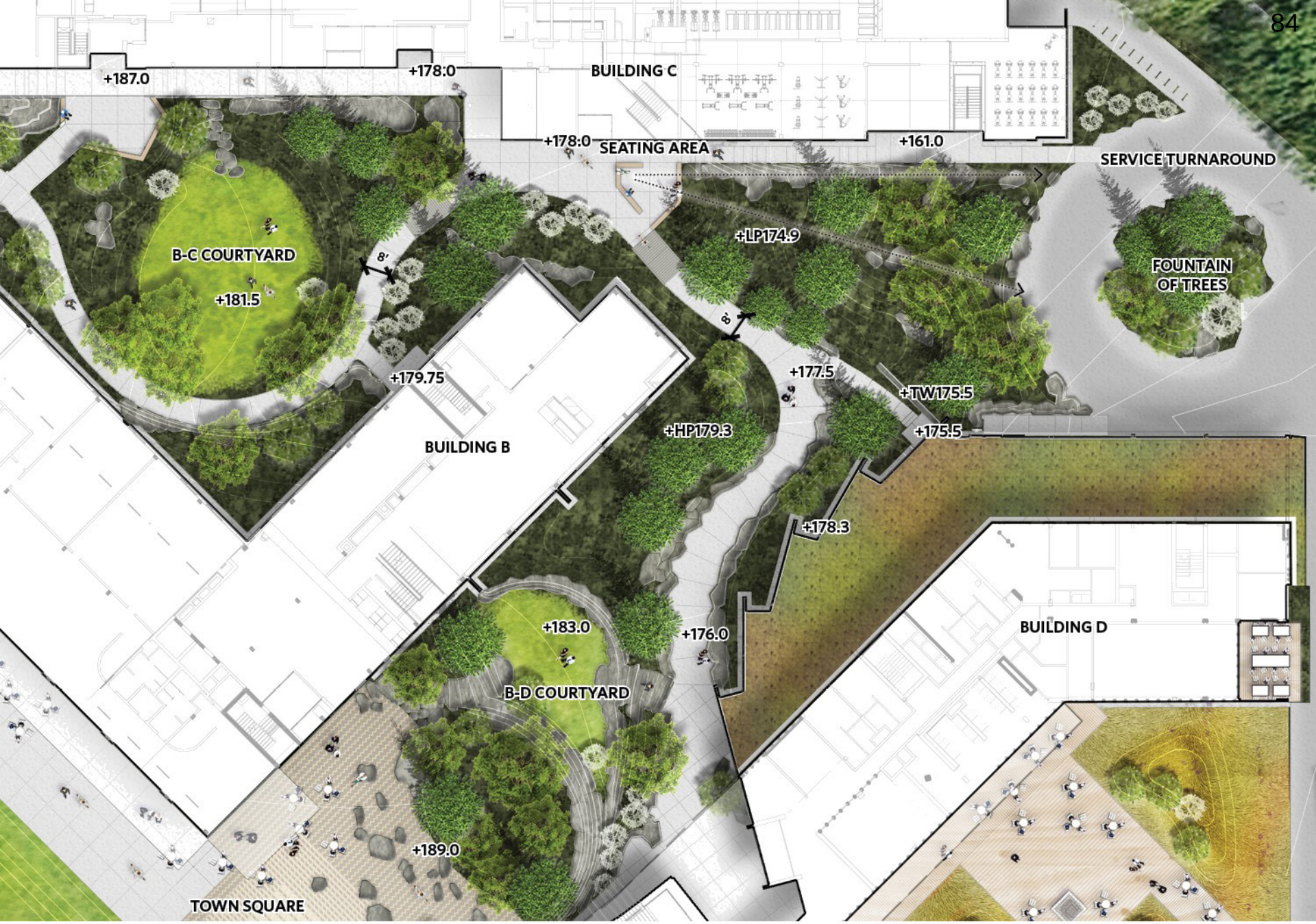




PHASE IVA WALKTHROUGH SECTION THROUGH B-C COURTYARD

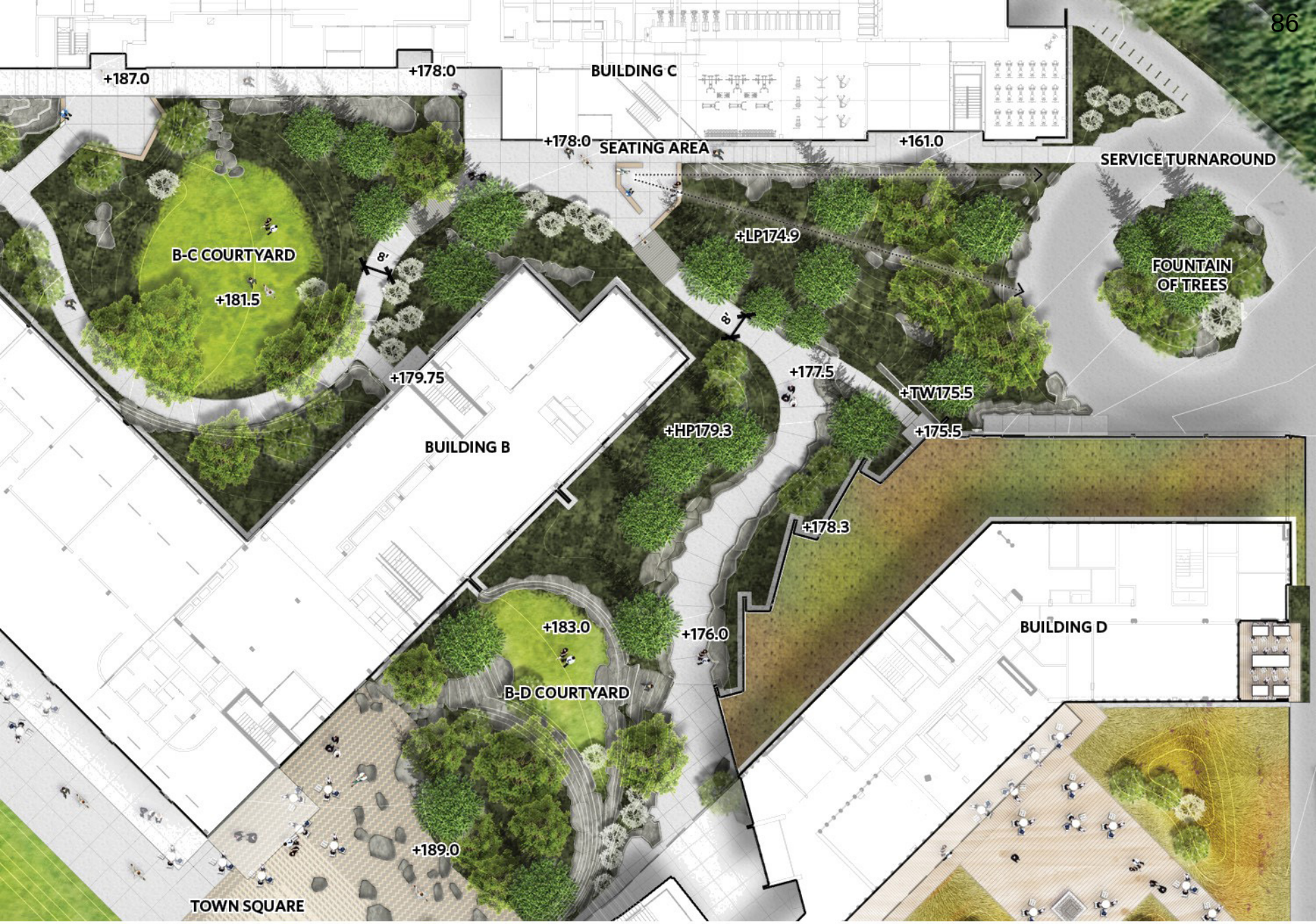


PHASE IVA WALKTHROUGH SECTION THROUGH B-C COURTYARD



PHASE IVA WALKTHROUGH PLAN OF B-C COURTYARD

PHASE IVA WALKTHROUGH PERSPECTIVE FROM SERVICE DRIVE TO B-C COURTYARD



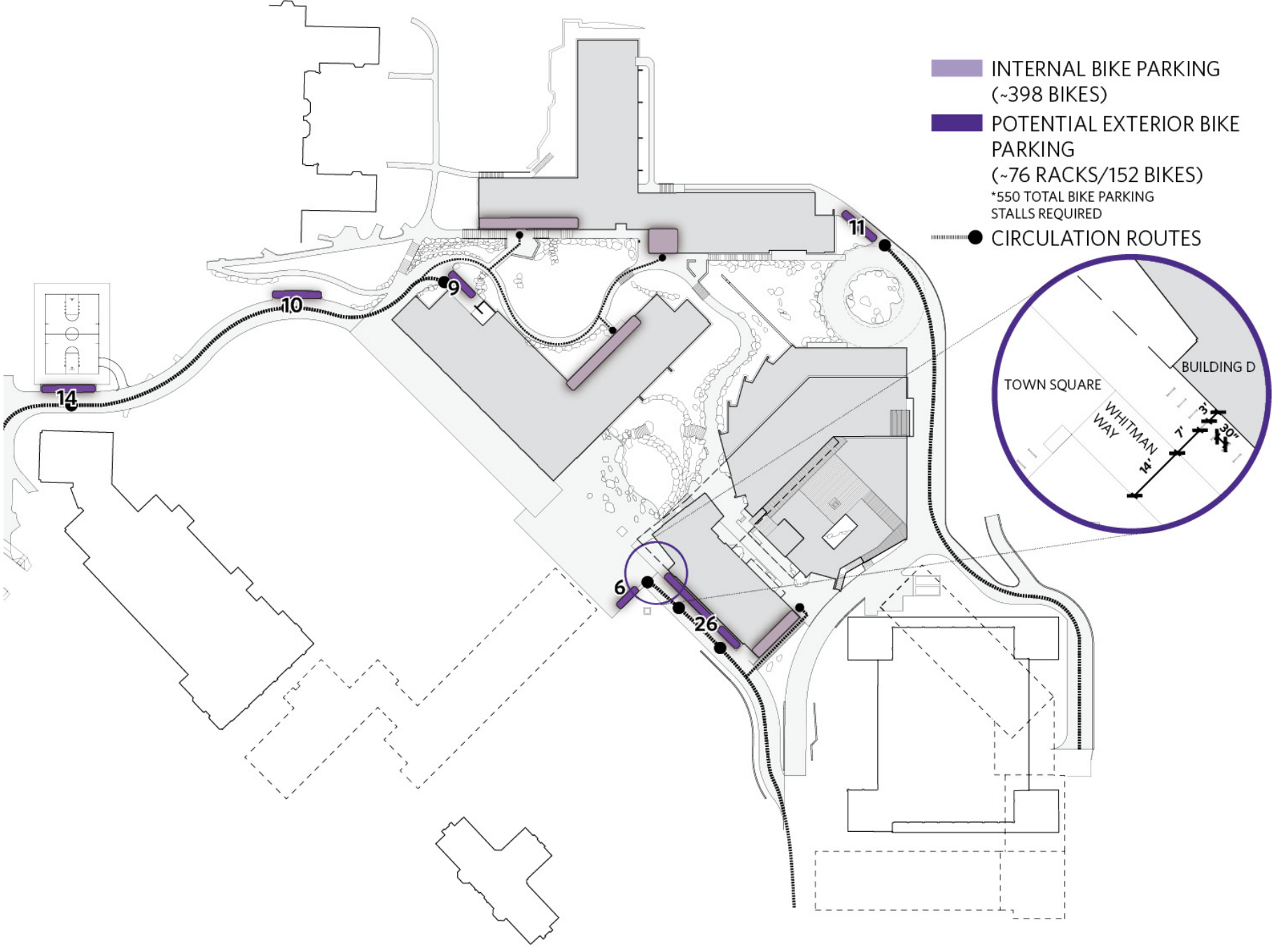
PHASE IVA WALKTHROUGH PLAN OF B-C COURTYARD

PHASE IVA WALKTHROUGH PERSPECTIVE OF B-C COURTYARD

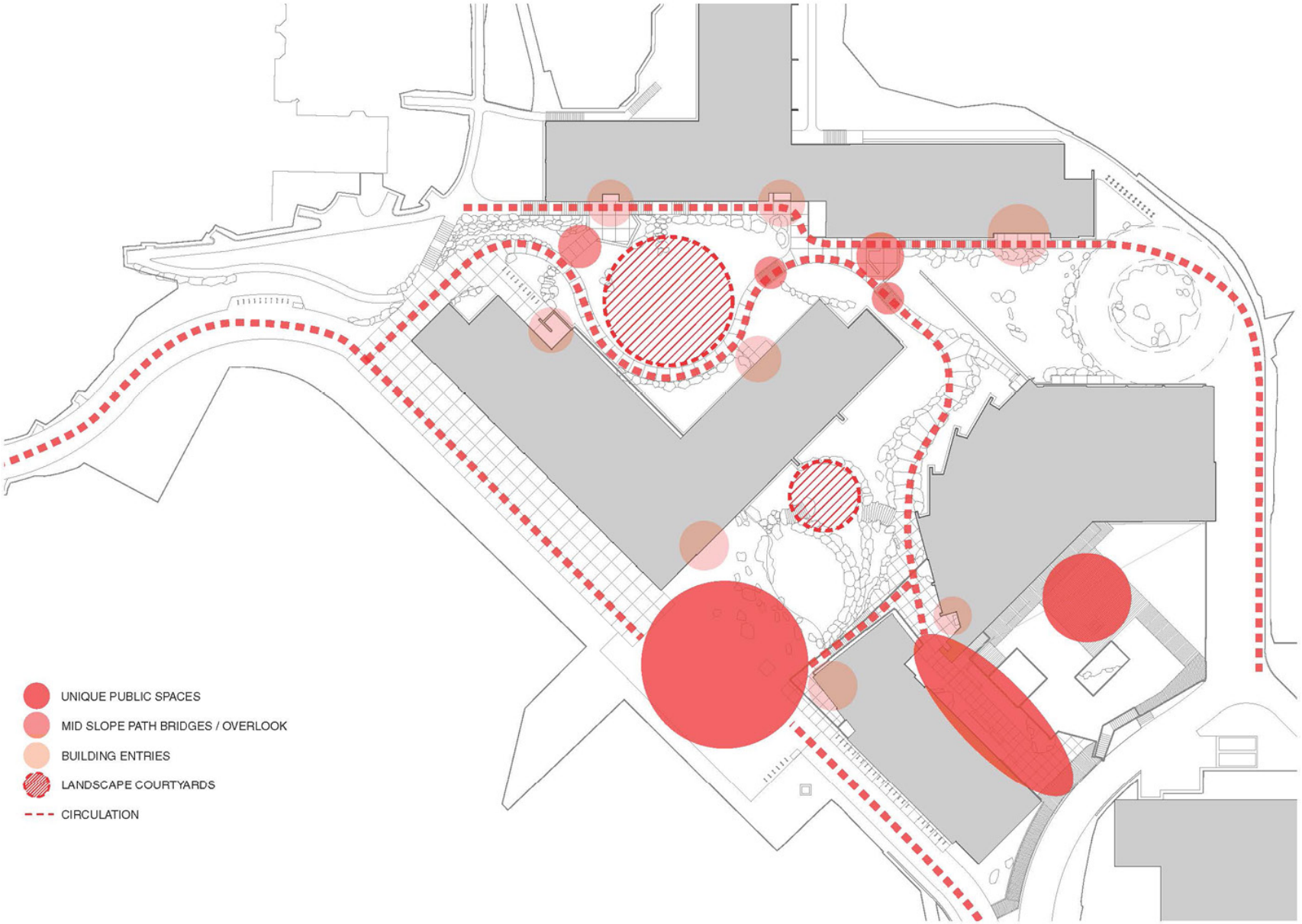
PHASE IVA WALKTHROUGH PLAN OF B-C COURTYARD

PHASE IVA WALKTHROUGH PERSPECTIVE FROM HANSEE TO DENNY FIELD

PHASE IVA WALKTHROUGH OVERALL SITE PLAN

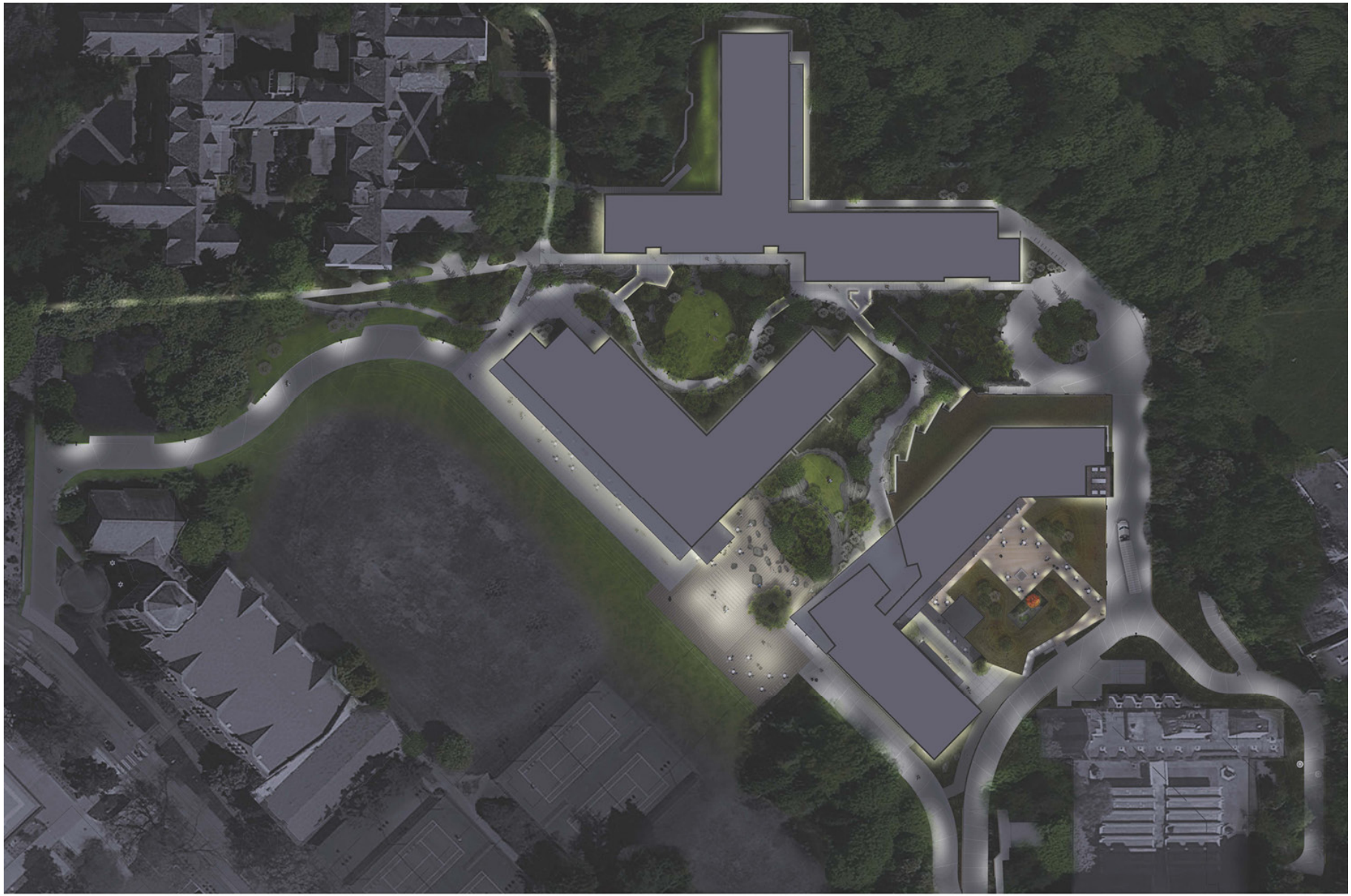


PHASE IVA WALKTHROUGH BIKE PARKING & CIRCULATION



OLIN FMS FISHER MARANTZ STONE

PHASE IVA WALKTHROUGH SITE LIGHTING



OLIN FMS FISHER MARANTZ STONE

PHASE IVA WALKTHROUGH SITE LIGHTING

PHASE IVA WALKTHROUGH SITE LIGHTING

PHASE IVA WALKTHROUGH AERIAL OR NORTH CAMPUS