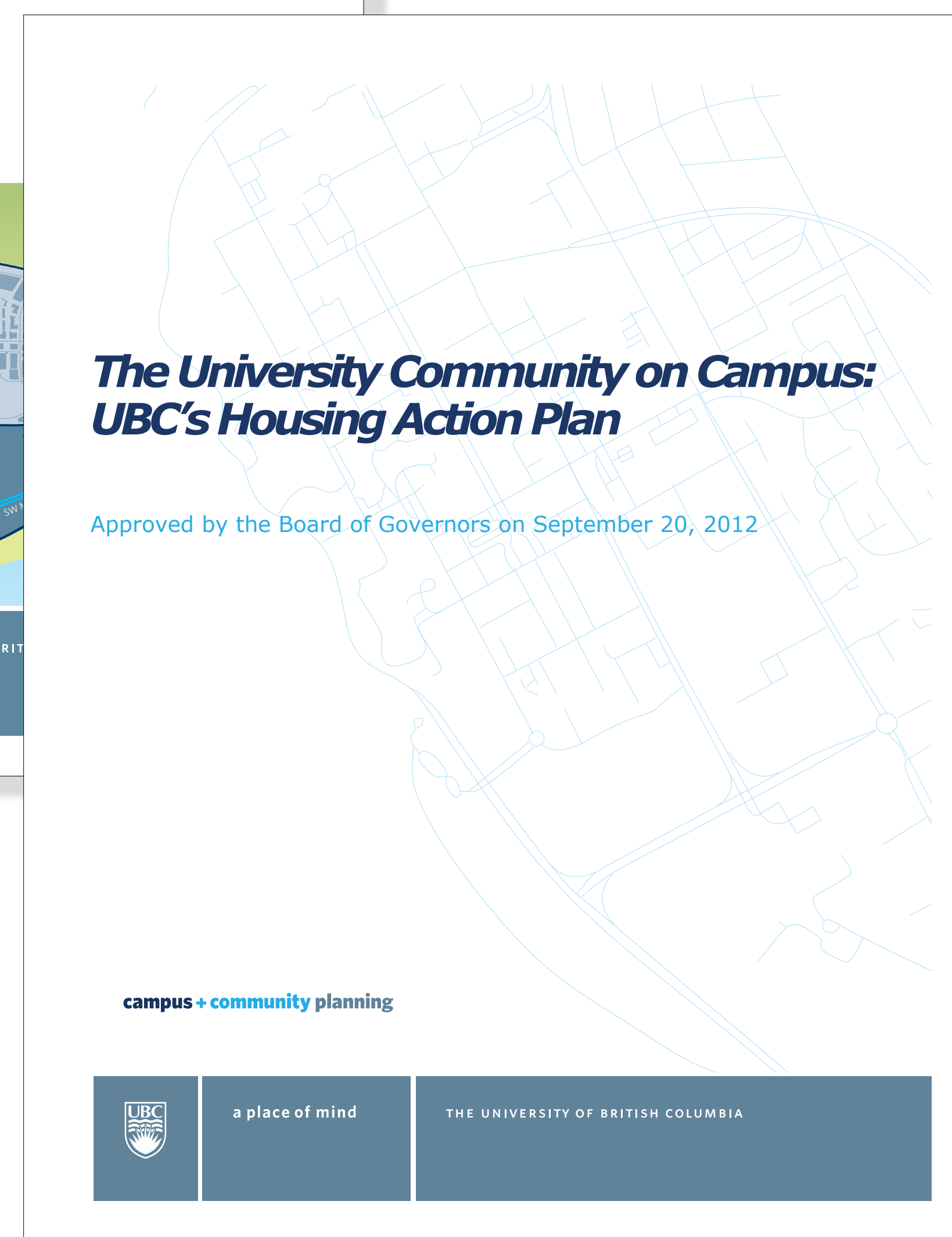


UBC Housing Plans & Policy



Student Housing:

- Requirement: 25% of undergrads housed
- Goal: 50% of housed full-time students*
- 'Commons' hubs

Neighbourhoods:

- Requirement: 20% rental housing, not less than half of which is non-market
- Goal: Up to 30% rental housing, 2/3 of which is faculty/staff

*Based on 2010 FTE student numbers



Student Housing Plan



The Vancouver Campus Plan designates areas for three types of student housing:

- **Traditional Room & Board Residences** (1st year)
- **Independent Living** (upper year/graduate students) including five new mixed use commons
- **Student Family Housing**

Current and Projected Student Beds:

2014	2021	2041
10,145	14,000	17,000*

* This target is subject to demand.

Future Student Residence Needs

- 72% of Demand Study respondents want to live on campus next year
- 60% want to live on campus for their entire studies
- 65% on campus report academic benefits (compared to 17% off campus)
- Despite recent growth, waitlist for student housing grows annually - Wait list in 2014, at its peak: 5,200



Brock Commons Phase 1

Phase 1 will deliver ~400 student beds. Amenities will include a house lounge, laundry, exterior patio. Other amenities and services will be provided at Walter Gage Residence until Phase 2 is complete.



Brock Commons Phase 1 is intended to address two objectives:

- ❶ To deliver 400+/- student residence beds for upper year / graduate students in suite style residence unit setting.
- ❷ To design, build, evaluate and monitor a 16-18 storey building utilizing advanced wood-based building systems, physically demonstrating the applicability of wood in the tall-building market.

Why Wood?

UBC has partnered with the forest industry to:

- Be a platform for Applied Science and Forestry research on: mass timber building design, constructability, building monitoring systems, building performance and occupants' experience
- Be a reference, and knowledge generation site for influencing the 2020 Canadian National Building Code
- Set the standard for future building structures at UBC
- Provide students living in the residence with the opportunity to interact with a tall wood building and experience its benefits



1

Student Residence at Brock Commons

Project Team



a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA



UBC PROPERTIES TRUST

ACTON OSTRY ARCHITECTS INC

Architekten **Hermann Kaufmann ZT GmbH**



Fast + Epp



Kamps Engineering Limited



Coordinate. Create. Innovate
CadMakers Inc.



WHITEWATER CONCRETE LTD.

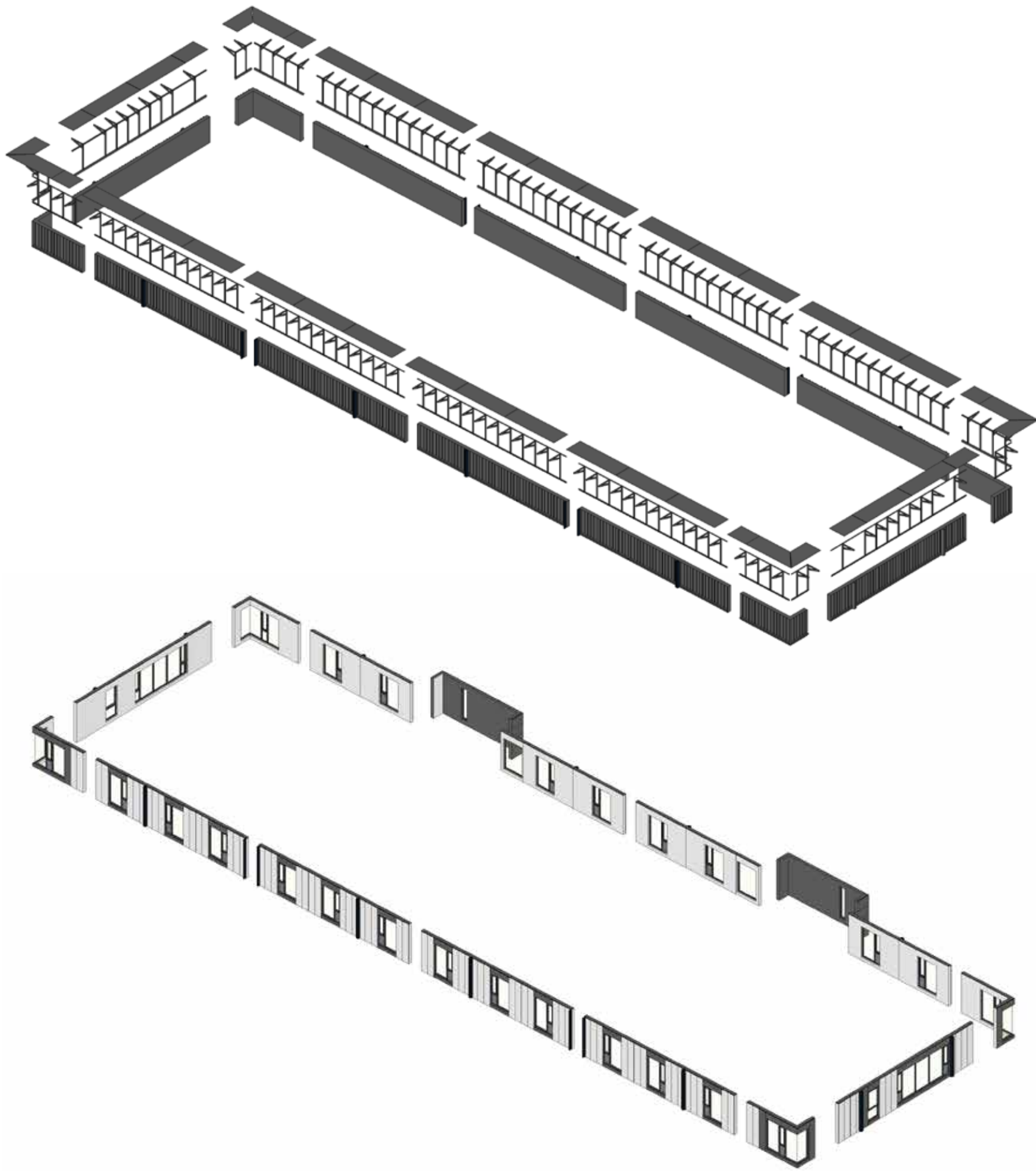
HAPA

The Project Team is comprised of representatives from the University of British Columbia and UBC Properties Trust; as well as architectural, engineering, landscape, sustainability and specialty consultants; and representatives from the construction industry.

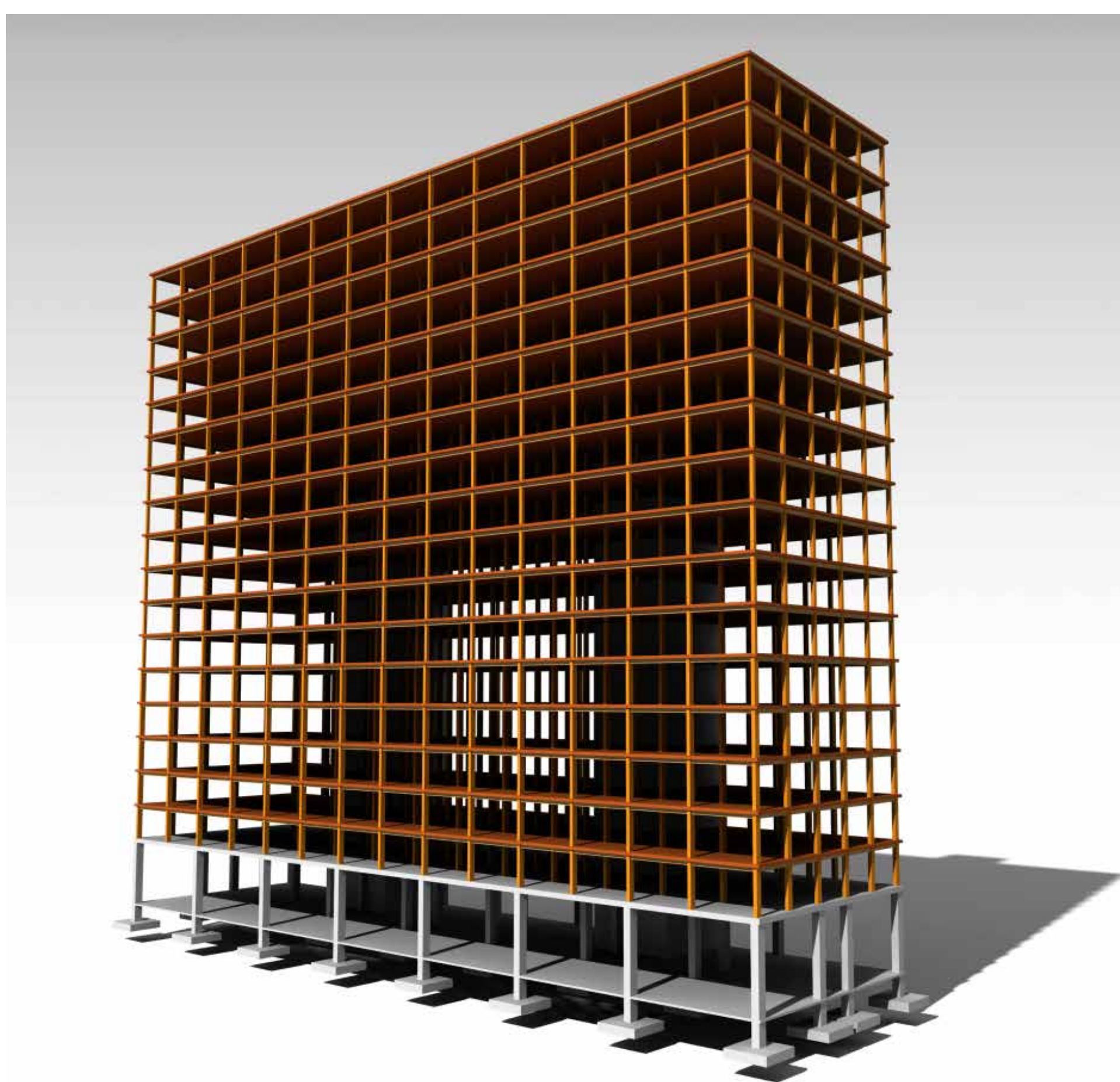
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Student Residence at Brock Commons

Project Mandate



prefabricated wall system



4D virtual modeling

The mandate for the Student Residence at Brock Commons project is to deliver approximately 400 student residence beds (408 currently proposed) as part of the Student Housing & Hospitality Services strategy to address a current 3,500 student wait list for on-campus housing and to physically demonstrate the applicability and financial viability of wood in the tall wood building market.

The project is to be a Living Laboratory in which UBC faculty and engineering and forestry professionals collaborate with operations staff and industry partners on the design, development and construction of the project.

UBC proposes to monitor and evaluate the project to provide reference knowledge for possible changes to the *2020 Canadian National Building Code* regarding mass timber construction.

The Student Residence at Brock Commons will be 18 storeys, with a maximum height of 53m, a typical building footprint measuring approximately 15m x 56m with a typical floor area of approximately 840m². The total gross floor area will be approximately 15,200m². The building will be of hybrid construction comprised of 17 storeys of mass wood timber construction above 1 storey of concrete construction located at grade level, with two concrete stair cores serving all floor levels.

The functional building program is for the housing of upper year and graduate students consisting of single-bed studio and 4-bed quad units, both with kitchens and bathrooms. Additional program elements include study and social space, laundry facilities, administration and storage space for the use of students, all located on the ground floor.

3

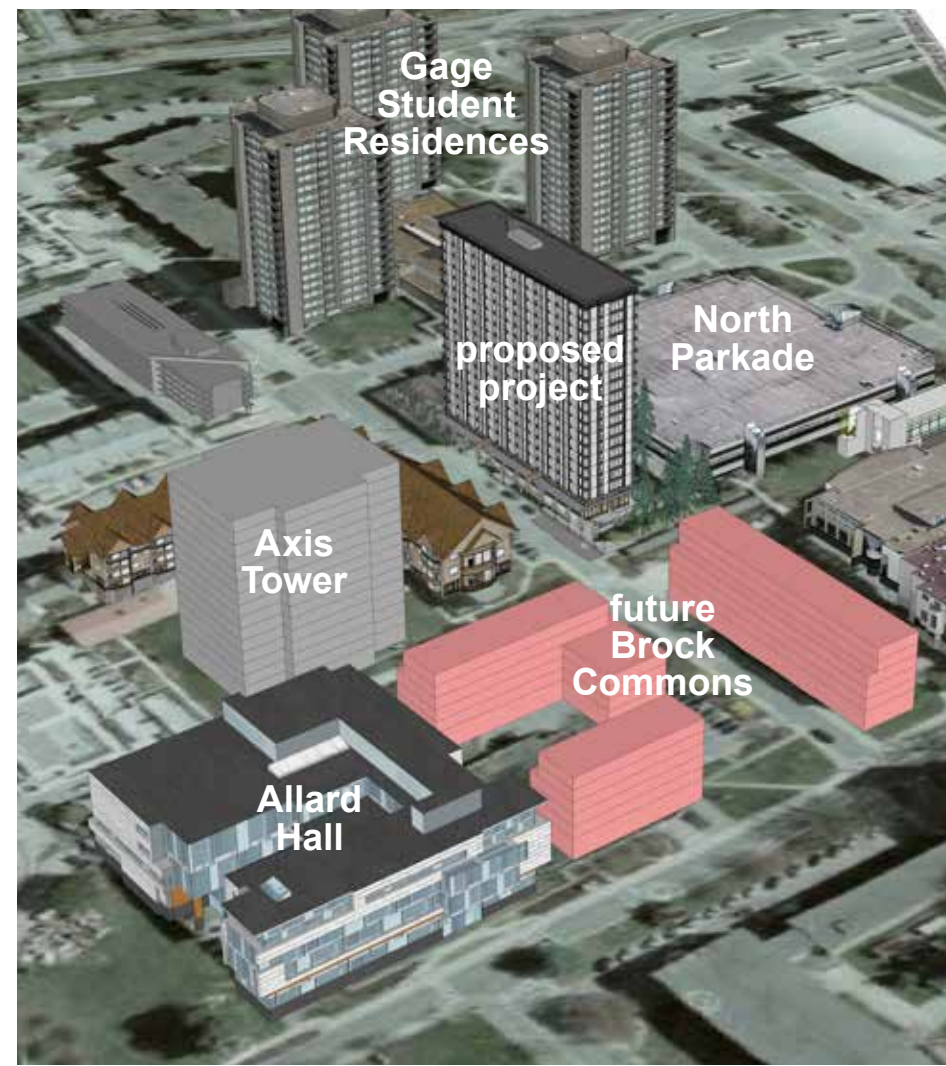
Student Residence at Brock Commons

Planning

master plan



C&CP future Brock Commons massing



project and future Brock Commons

design inspiration



Frederic Wood Theatre, UBC - 1963



Henry Angus Building, UBC - 1965

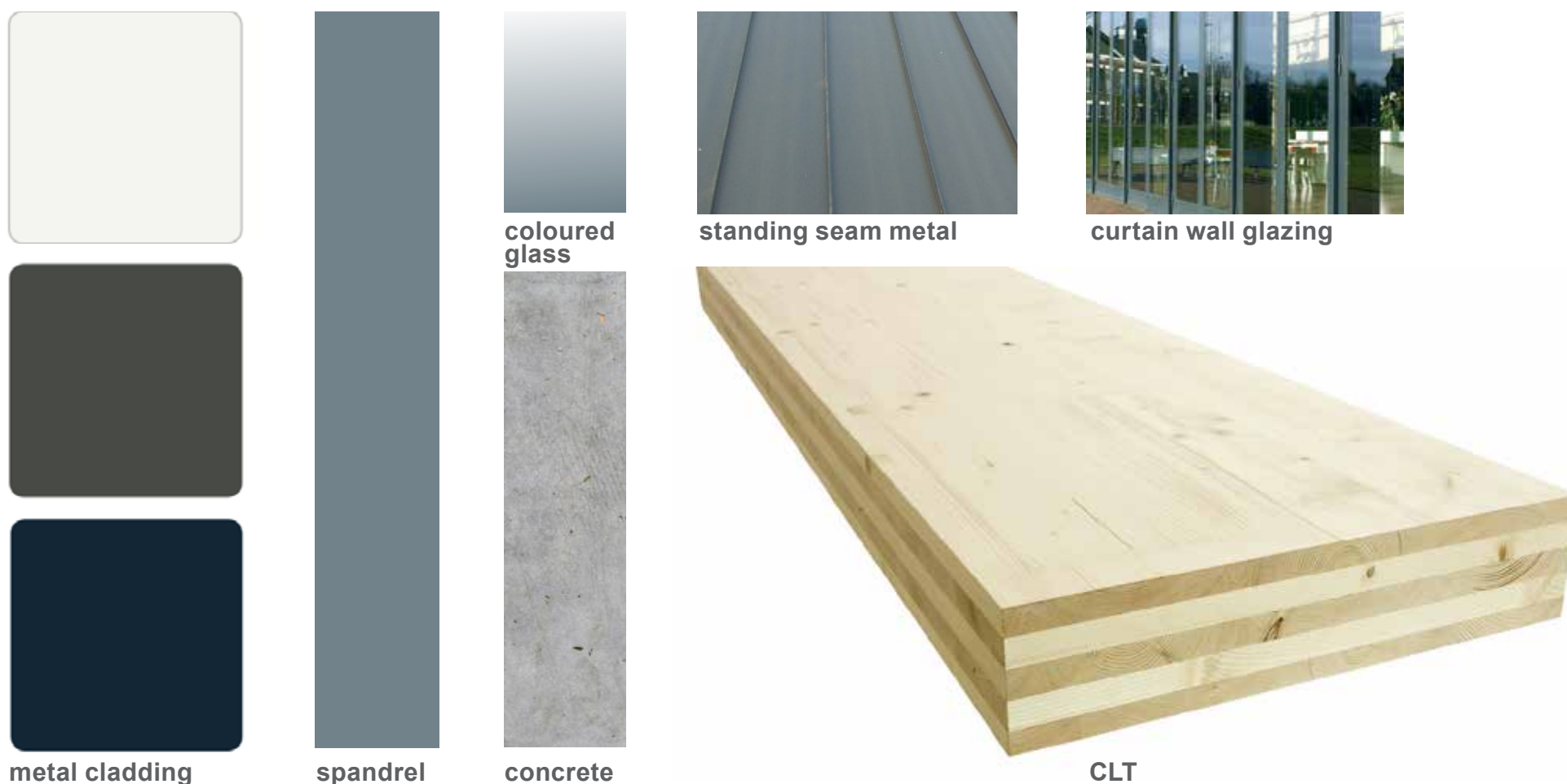


BC Electric, Victoria - 1955



BC Electric, Vancouver - 1957

building materials



metal cladding

spandrel

concrete

CLT

Master Plan

The Student Residence at Brock Commons will be an integral part of the future Brock Commons—a mixed-use hub that will build on the success of the Ponderosa Commons and Orchard Commons hub projects. Public realm upgrades to Walter Gage Road will include repaving, planting and street lights.

Sustainability

The project will connect to the *UBC Academic District Energy System* and is required to achieve *LEED Gold Certification* while targeting all mandatory credits on the *UBC LEED Implementation Guide*.

Design Compliance

The project is designed in compliance with *The University of British Columbia Vancouver Campus Plan – Part 3 Design Guidelines* which outlines how various component systems are to work in harmony to achieve the functional, sustainability and character objectives of the campus.

Design Inspiration

The project is located in the *Campus Core District* of the University. The *Campus Core District* is characterized by a mix of Collegiate Gothic academic buildings interspersed with West Coast Regional style architecture. In keeping with the style precedents for new development in the *Campus Core District*, the design takes its inspiration from UBC's collection of International Style modernist buildings, as well as taller modernist buildings located off the campus.

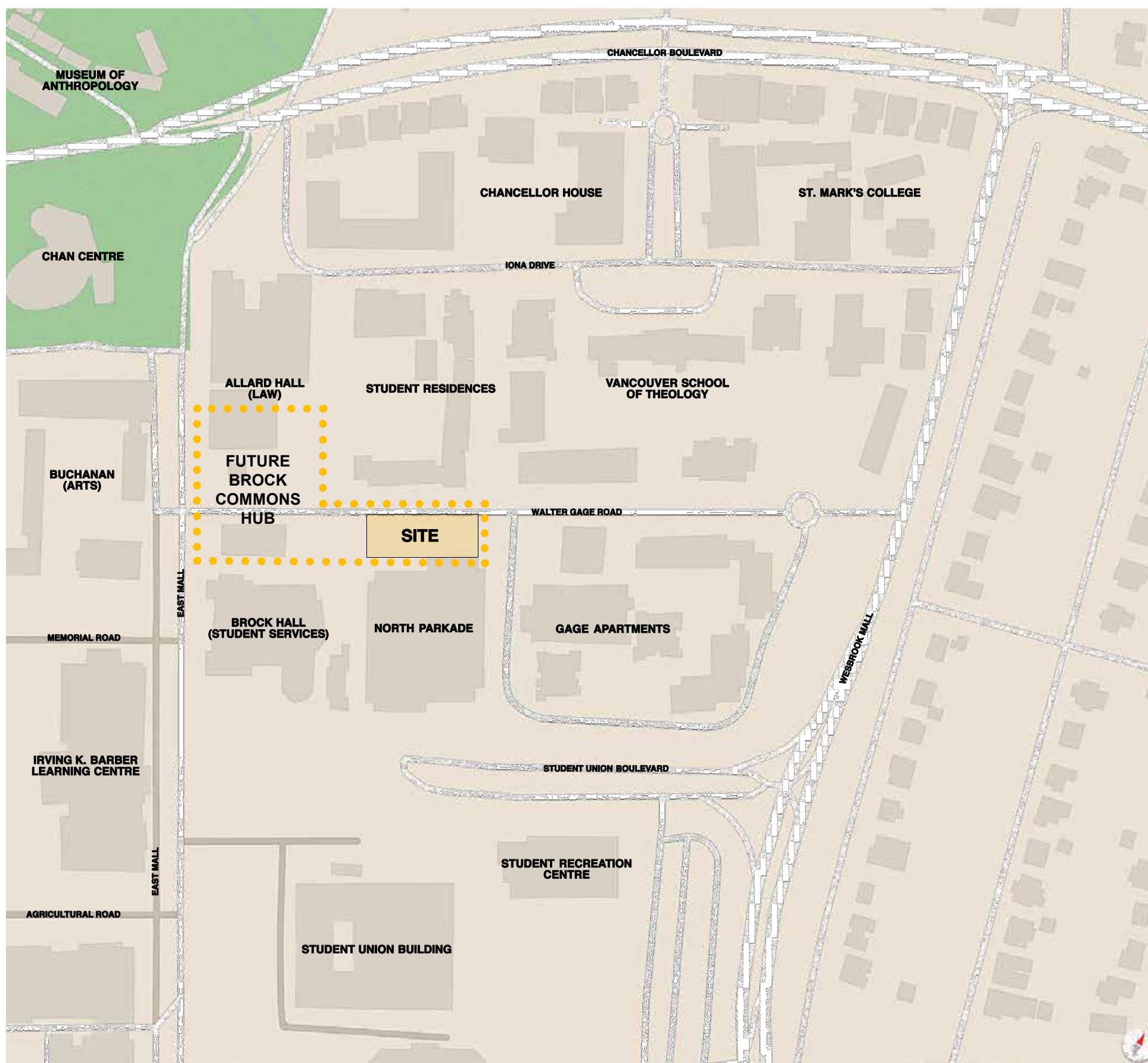
Building Materials

The building structure will be a mass wood and concrete hybrid system. Exterior materials will be: at the base a curtain wall glazing system with blue spandrel panels, blue accent glass and a cross laminated timber canopy; at the middle white- and charcoal-coloured metal panels with dark blue vertical spines with dark-framed windows with blue accent glass; and at the top a charcoal-coloured metal cornice.

4

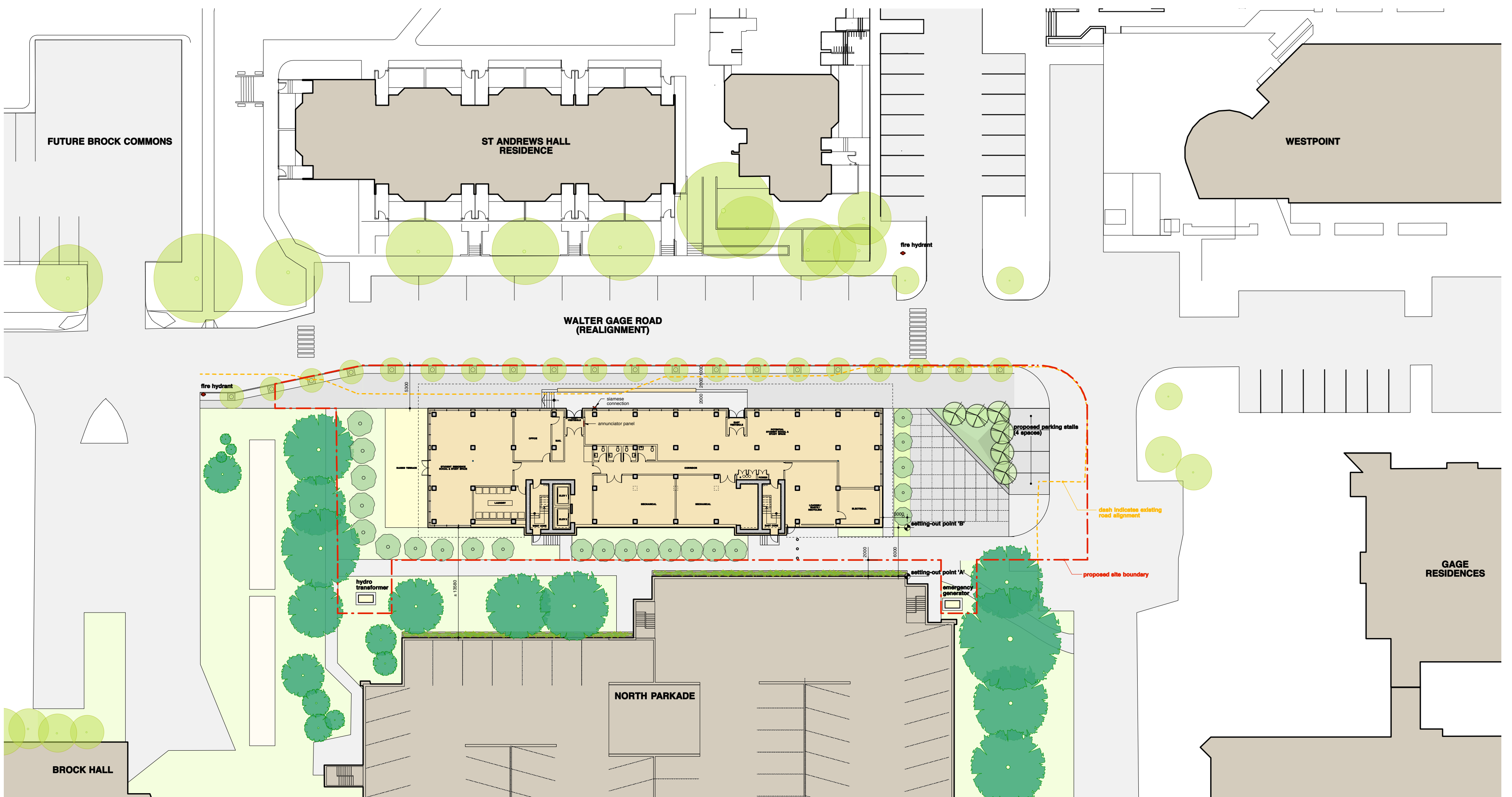
Student Residence at Brock Commons

Location & Site Plan



The project is located within the Brock Commons student housing hub site designated in the *UBC Vancouver Campus Plan*. The site fronts onto Walter Gage Road, immediately north of the North Parkade and to the west of the Gage Student Residences. Future phases of the Brock Commons hub will provide additional student housing, as well as campus amenities and academic spaces.

location plan



site plan

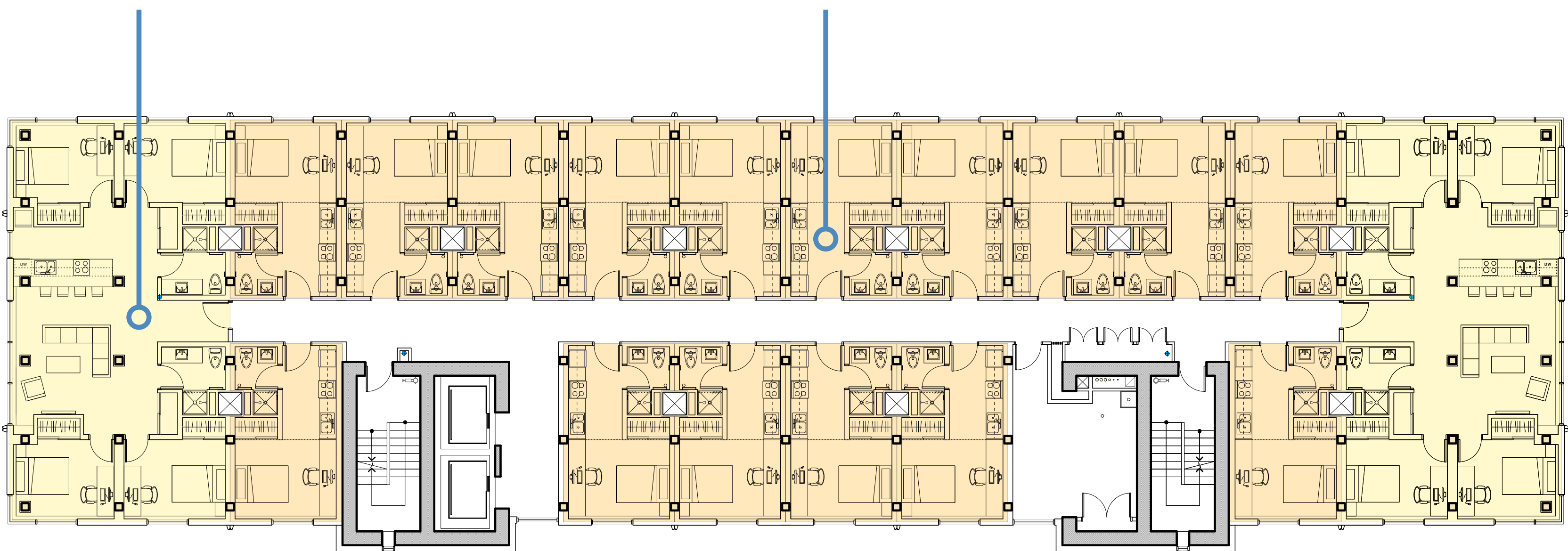
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Student Residence at Brock Commons

Floor Plans

4 bedroom residence

studio residence

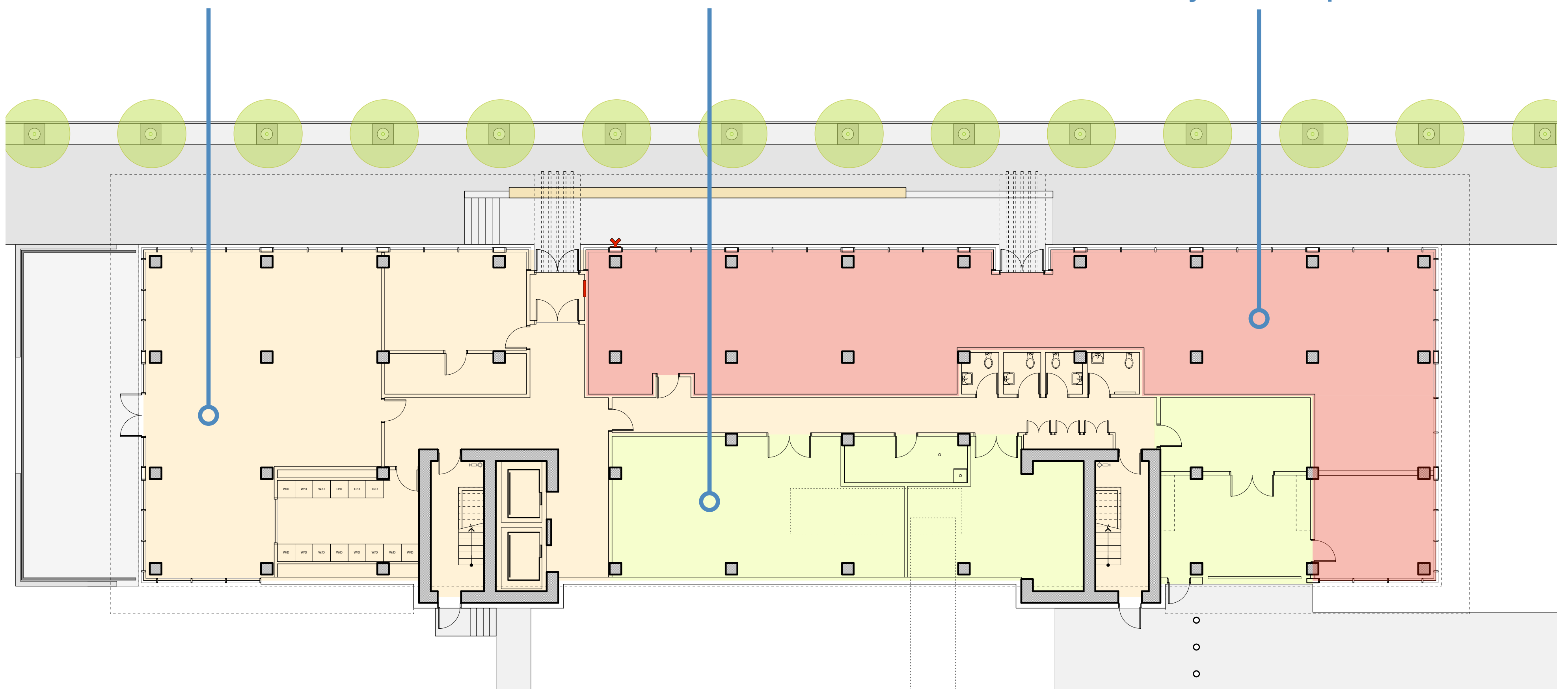


typical floor plan

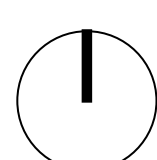
student residence
study & social space

building services

potential
off-campus student
study & social space



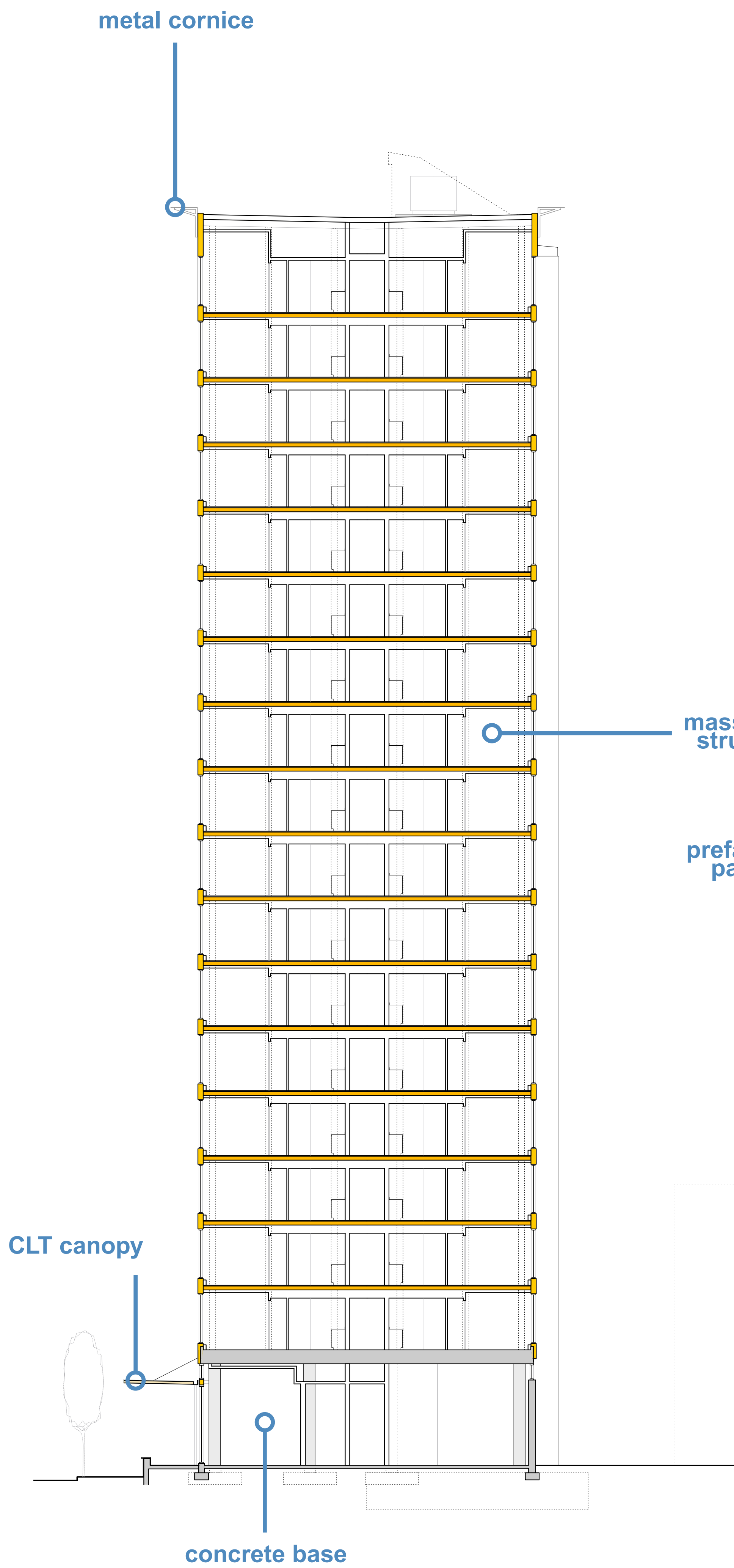
ground floor plan



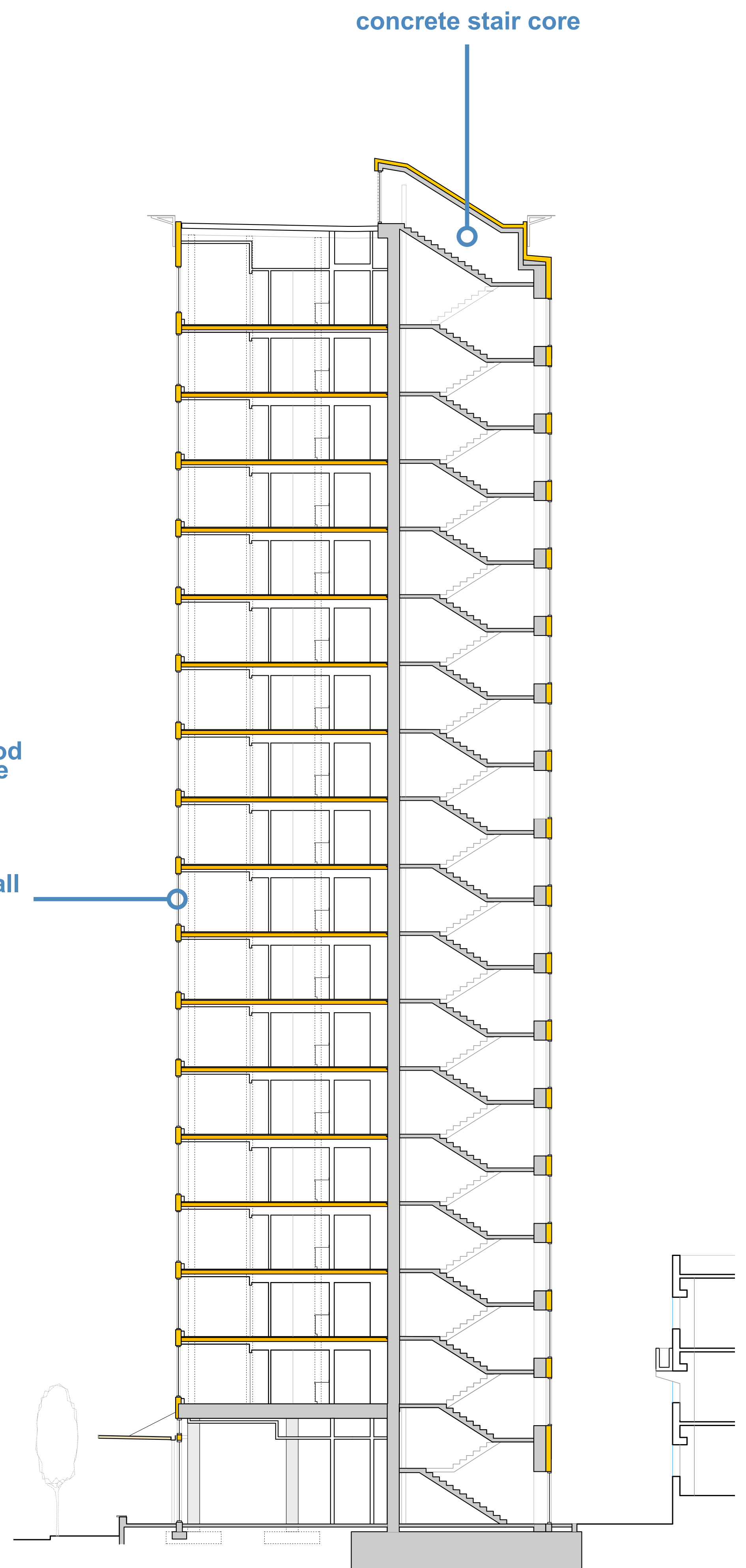
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Student Residence at Brock Commons

Building Sections



typical section



section at stair core

7

Student Residence at Brock Commons

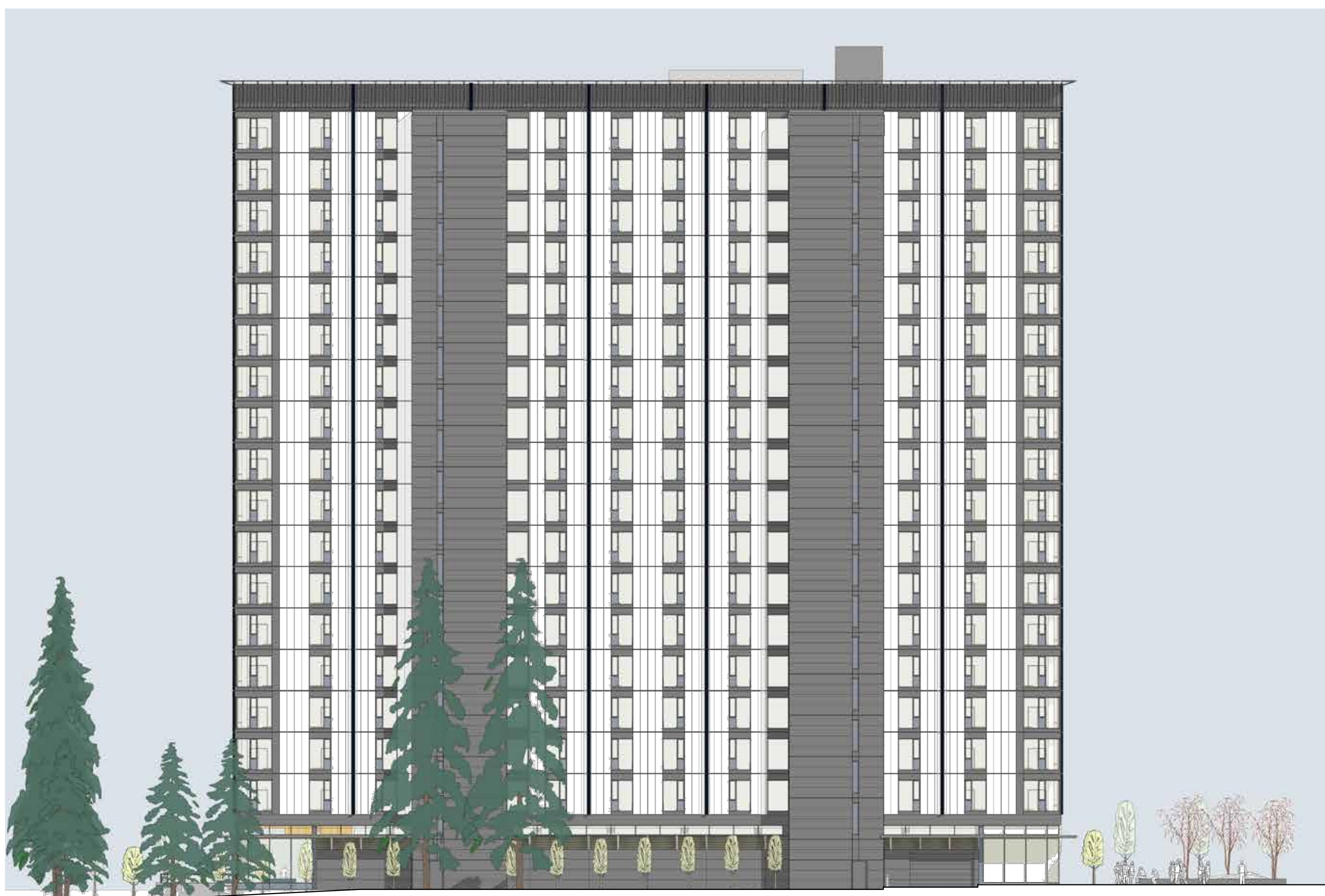
Elevations



west



north (at Walter Gage Road)



south



east

8

Student Residence at Brock Commons

Perspective



view to southeast

9

Student Residence at Brock Commons

Vignettes



view to west at public open space

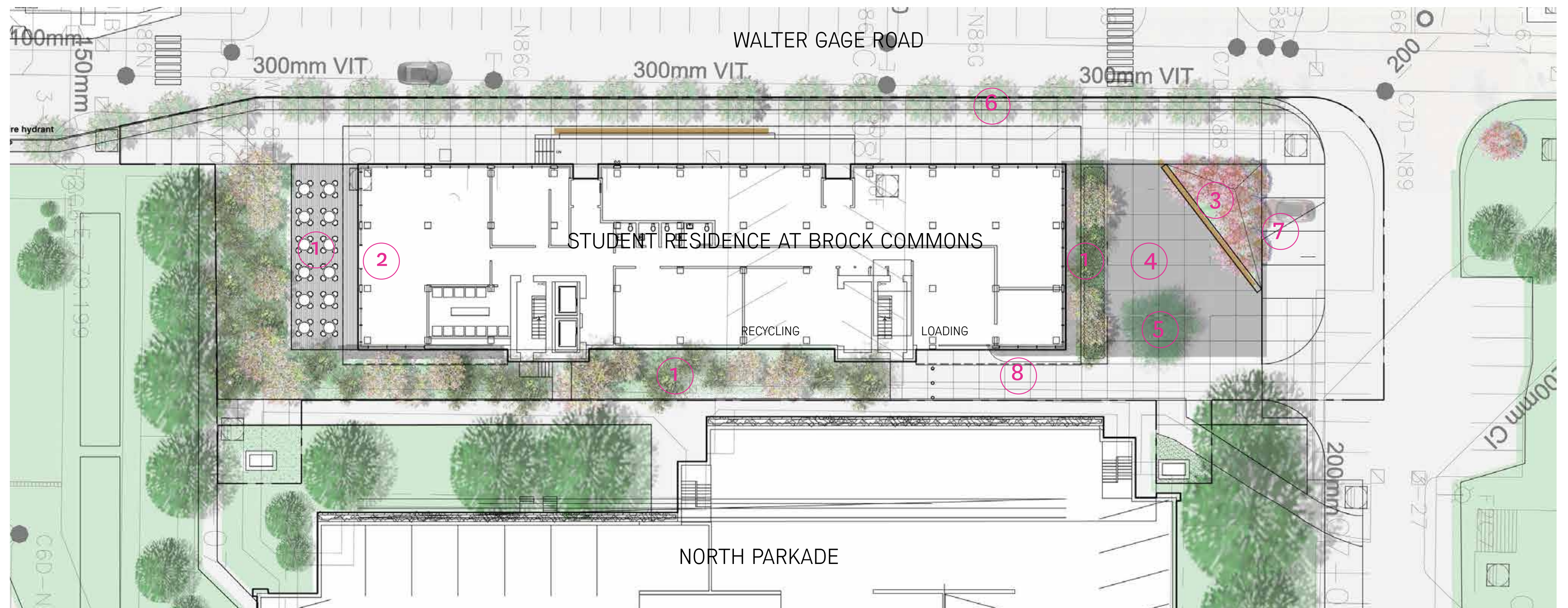


view to student study and social space

10

Student Residence at Brock Commons

Landscape



- 1 **West Coast Woodland**
Vine maples and Dogwoods with native ferns
- 2 **Outdoor Terrace**
Raised indoor/outdoor terrace enclosed with guardrails;
Cafe tables and chairs
- 3 **Cherry Mound**
Cherry trees on mounded lawn with long bench facing plaza
- 4 **Plaza**
Open CIP concrete paving plaza
- 5 **Feature Tree**
A single feature Douglas Fir tree
- 6 **Walter Gage Street Trees**
Raywood Ash trees following the UBC Campus Street
Tree Plan with UBC standard street lights
- 7 **Temporary Parking**
Four temporary parking stalls
- 8 **Service Lane**
CIP concrete paving to match plaza
Removable bollards

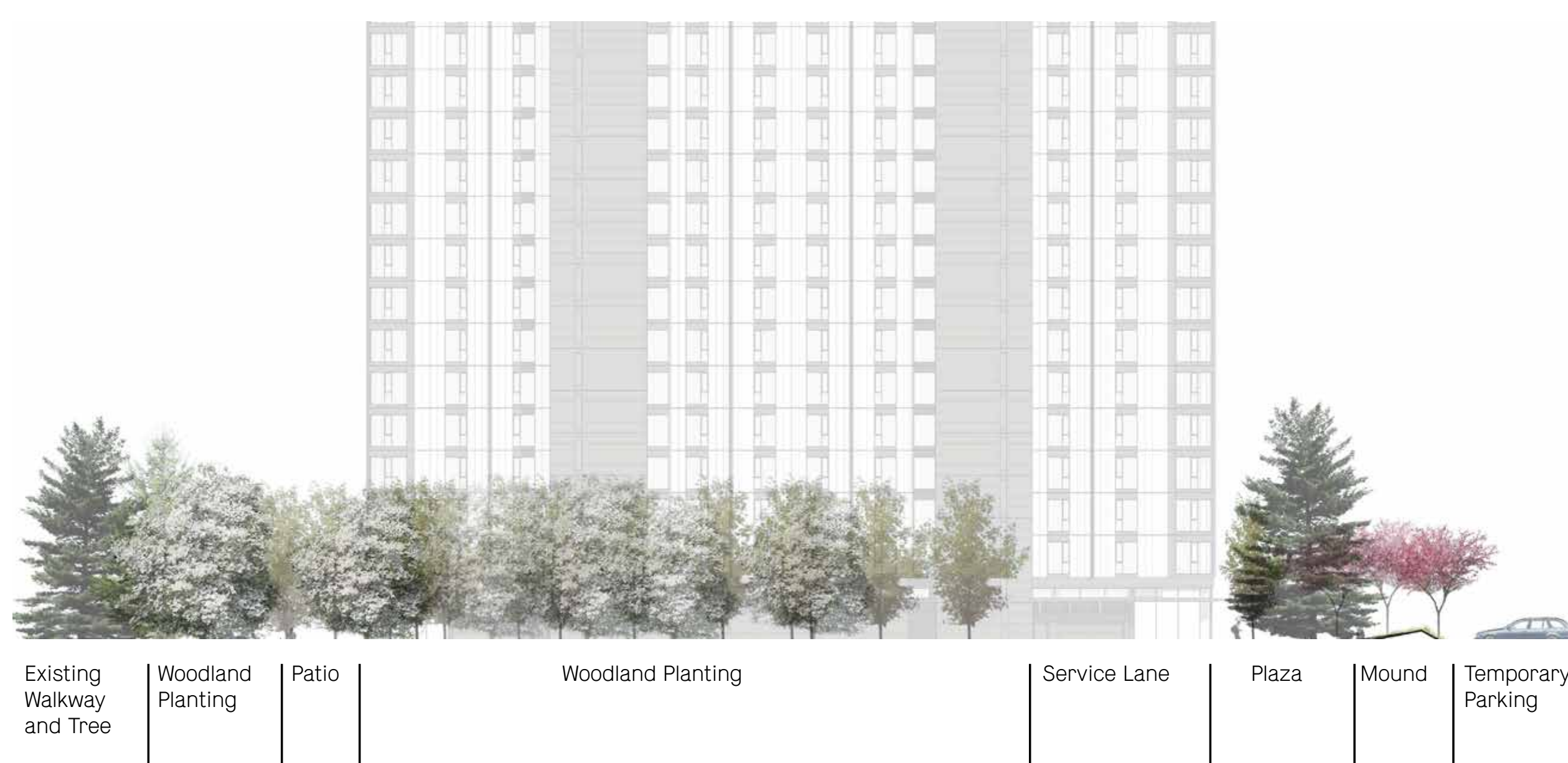
landscape plan

Pocket Plaza

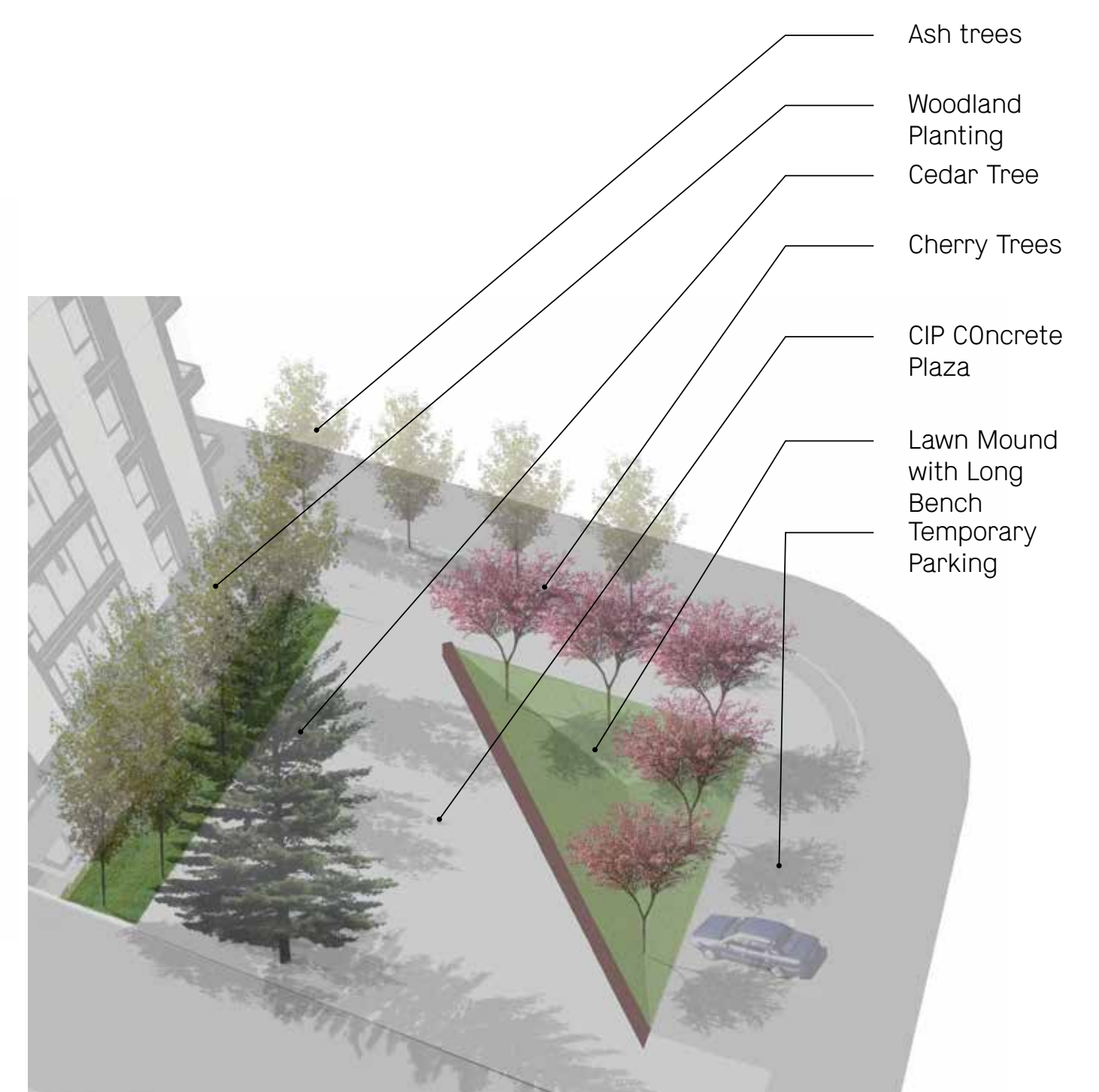
A public open space, located at the east end of the site, facilitates pedestrian circulation and encourages social interaction within a landscaped pocket plaza that includes a berm, a bosque of cherry trees and a long linear bench.

West Coast Woodland

Planting around the site has been inspired by Pacific Spirit Park with vine maples, dogwood trees and ferns.



- Existing Walkway and Tree
- Woodland Planting
- Patio
- Woodland Planting
- Service Lane
- Plaza
- Mound
- Temporary Parking



- Ash trees
- Woodland Planting
- Cedar Tree
- Cherry Trees
- CIP Concrete Plaza
- Lawn Mound with Long Bench
- Temporary Parking

section

aerial view