KEY INTENTIONS

1. A NEW HIGH DENSITY PROTOTYPE and A CATALYST FOR CHANGE

provide generous amounts of green open space, trees, public and private amenities and gathering spaces to support the resident and wider neighbourhood community

2. PLACES TO GATHER AND ACCESS NATURE

places to gather, play, reflect, and celebrate culture

3. CULTURAL EXPRESSION

simple efficient high density buildings as canvases for cultural expression / public art

4. NEIGHBOURHOOD WALKABILITY

a repeating pattern of greenspaces, trees and amenities builds walking destinations into the

5. ENCOURAGING COMMUNITY

shared rooftop laundry, in-house daycare, resident-only sauna, and a variety of indoor and outdoor gathering spaces

6. CULTURAL COMMONS

a public street level greenspace with cultural and recreational spaces support inclusivity and celebration: sauna, drumming circle/performance space, seating areas

7. SUPPORT THE BC INDIGENOUS HOUSING SOCIETY'S MANDATE TO PROVIDE COMFORTABLE, AFFORDABLE HOUSING IN A SPACE DESIGNED TO SUPPORT THE CULTURAL AND SOCIAL LIFE OF THE RESIDENTS

5. ADDRESS CLIMATE CHANGE and COMMUNITY BUILDING

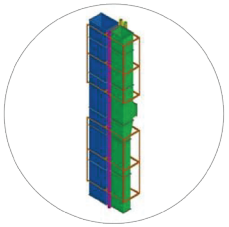
contributing to the urban forest canopy and green space networks, designing for social connections and cultural expression

ECONOMIC + CARBON RATIONALE

Our proposal balances cost competitiveness with constructability by adopting a hybrid system: one level of below-grade concrete parking and a concrete elevator shaft for resilience and code compliance, paired with an above-grade superstructure of prefabricated mass timber. This strategy reflects current market practice while unlocking timber's economic advantages where they matter most.

The project is located in Vancouver, BC, where both provincial and federal subsidies and grants are available to accelerate the adoption of mass timber. British Columbia has a strong regional CLT supply chain, lowering transportation costs and providing competitive pricing compared to imported products. Together, these factors make timber not only technically viable but financially attractive today. Looking ahead, as with any technological advancement, the cost of production will decline as economies of scale take effect. Even if subsidies and grants are phased out in future, the industry will be in motion, and the regular manufacturing cost of standardized timber components will naturally come down.

COST OPTIMIZATION TECHNIQUES



pre-fab MEP riser

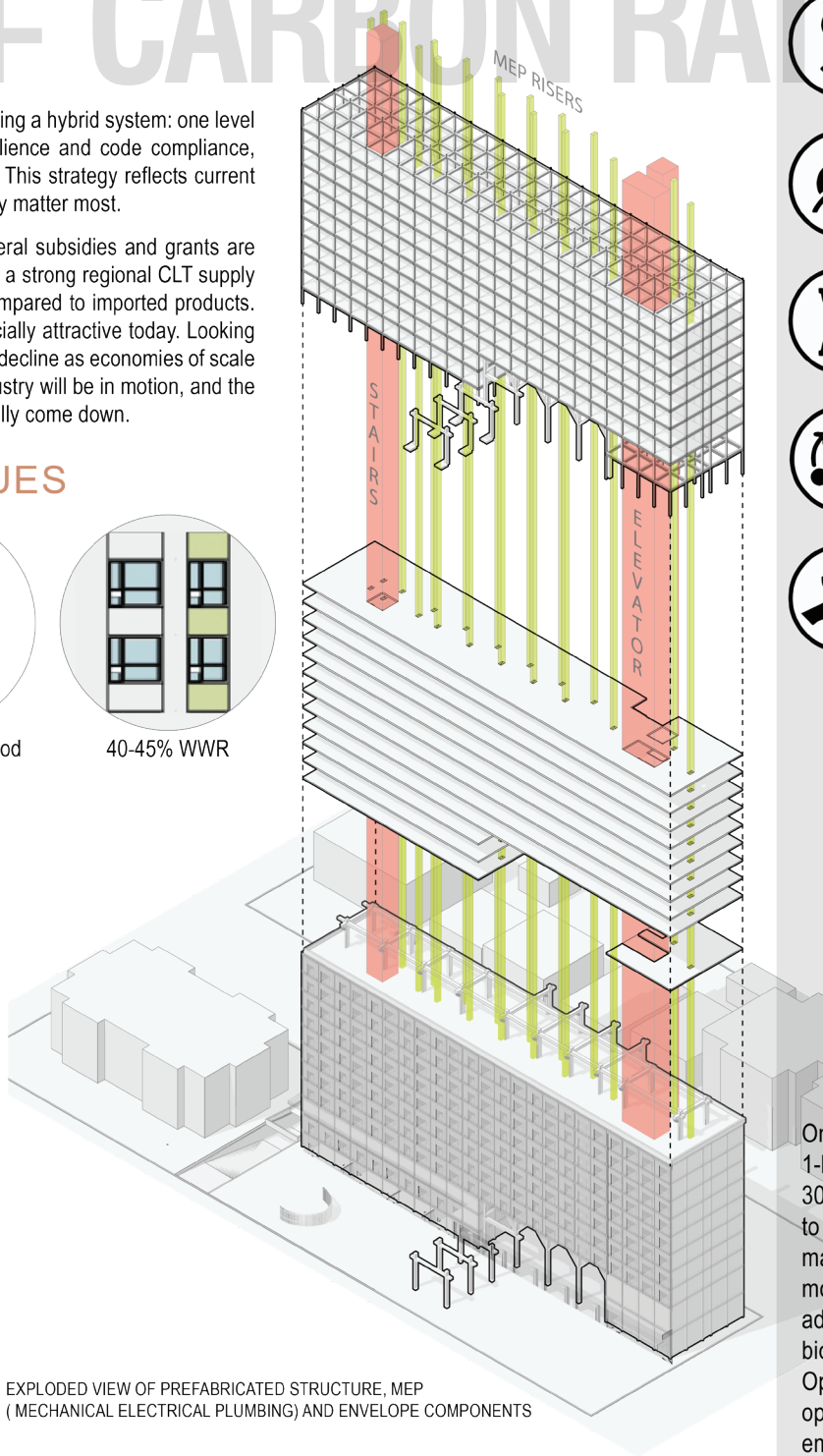
in-situ prefab MEP riser

pre-fab bathroom pod

40-45% WWR

CATEGORY	CONCRETE	CLT	SAVINGS
STRUCTURE	Cast in place slabs and Rebar ~$110/sf	CLT slabs +beam/columns frames ~$90 / sf	~$20 / sf
BATHROOMS	On site trades, coordination risks	Prefabricated Bathroom Pods	~$2-3 / sf (~$6-8k / unit)
KITCHENS	Varied layouts, bespoke millwork	Standardized kitchens in all units	~$1-2 / sf (~$1-1.5k / unit)
FACADE	Curtain Wall ~ $70 / sf facade	Panelized timber wall + punched windows ~ $50-55 / sf	~$8 - 12 / sf GFA
GLAZING RATIO	~ 65-70% WWR, Larger HVAC	~ 40% WWR, smaller HVAC	~$5 - 7 / sf
INTERIORS	Full drywall, suspended ceilings	Exposed CLT Soffits, reduced finish	~$3 - 5 / sf
MEP	Conventional risers, long runs	Prefab risers + shorter runs	~$2 - 3 / sf
SCHEDULE	~ 18 months	~ 14-15 months (20-25% faster)	~$12 - 15 / sf
GC OH&P	~ 5% of direct costs	~4% (lower risk + faster build)	~$4/ sf

BC Housing, "Comparative Feasibility Study for Encapsulated Mass Timber Construction" (2020) found timber 7–10% more expensive than concrete. Our design applies the recommended optimizations (prefabrication, panelized façade, reduced connectors) to achieve ~7–10% lower costs than concrete



EXPLODED VIEW OF PREFABRICATED STRUCTURE, MEP
(MECHANICAL ELECTRICAL PLUMBING) AND ENVELOPE COMPONENTS

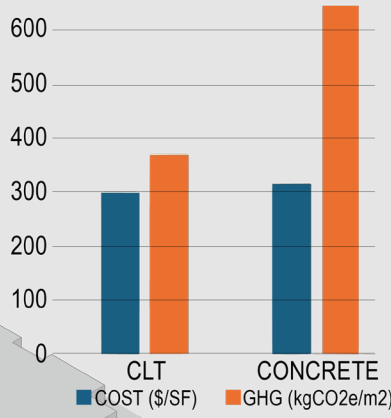
5% CHEAPER THAN CONVENTIONAL CONCRETE

40% - 50% LESS GHG EMISSIONS THAN CONCRETE

20% -25% LESS SCHEDULE CONSTRUCTION TIME

LIFECYCLE SAVINGS
Less maintenance, Simpler MEP, Less Operational Expenditure

BIOGENIC CARBON SINK
CLT locks in CO2 for the life of the building



On carbon performance, the whole building (with 1-level concrete parkade and shaft) achieves a 30–35% reduction in embodied carbon compared to a full concrete baseline. Above grade, where mass timber displaces concrete, the reduction is more pronounced at 45–50%. Mass timber additionally acts as a carbon store, sequestering biogenic carbon for the life of the building. Optimized façades (~40% glazing) further reduce operational carbon by 10–15%, cutting long-term emissions.

DESIGN RATIONALE

Three key ideas:

Higher density development, balanced with areas of nature, is good for city-building and city-living.

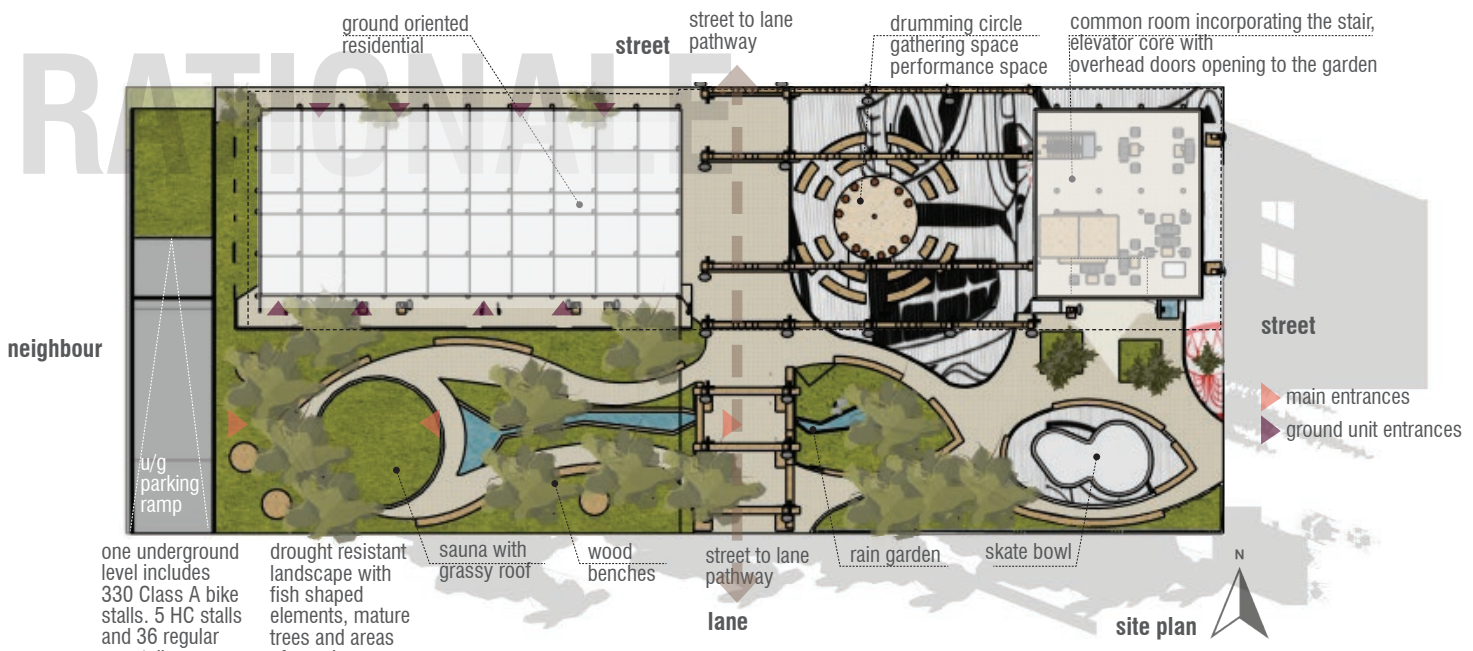
Simple, efficient, economical developments are wonderful canvases for colourful, inspiring, and culturally expressive buildings.

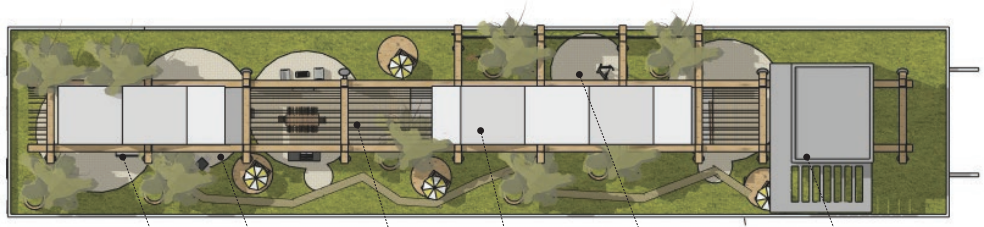
Inviting neighbours to share on-site green, open space and witness or participate in cultural activities follows the BC Indigenous Housing Society's Seven Laws of Life: Health, Happiness, Humbleness, Generations, Generosity, Forgiveness and Understanding.

Our proposal locates the building close to the front street to optimize open space. This open area, without the constraints of a parkade, will support mature trees and a patch of nature as an antidote to urban living and a welcome new green space in the neighbourhood.

We intend to provide a comfortable living space for residents, spaces where residents can spend time together and share cultural practices, if they choose to. The natural area is populated with a variety of seating and gathering spaces which would be shared with the surrounding community. Daycare for 25 3-5 year olds is located on the rooftop.

The landscape and building design offers something special to the neighbourhood in the spirit of inclusion and reconciliation





west / street elevation

north / street elevation

east / neighbour elevation

south / lane elevation

DATA + STRUCTURE + UNITS

Project Statistics

Site: Depth: 122’-0”
Length: 300’-0”
Site Area: 36,600 sf

Setbacks:

North	5-0”
West	6’-0”
East	27’-6”
South	63’-0”

Building: Depth: 54’-0”
Length: 266’-6”
Height: 11 Storeys + Rooftop Amenities
11’-0” floor to floor (133 ft)

FSR: **4**

Floor Area:

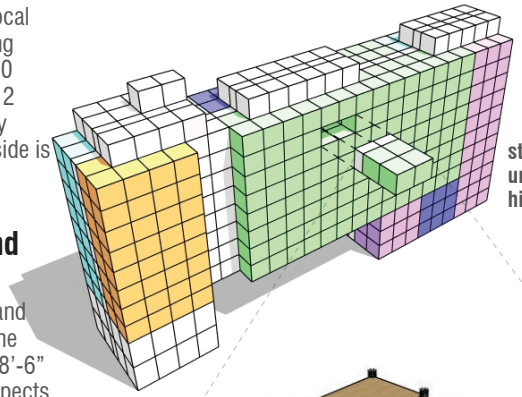
L1	**9,980 sf**	
	Residential + Circ	7,240 sf
	Lobby / Lounge	2,290 sf
	Sauna	450 sf
L2 & 3	**13,880 sf**	6,940 sf / floor
	Residential + Circ	6,940 sf
L4-11	**113,200 sf**	14,150 sf / floor
	Residential + Circ	13,910 sf
	Shared Lounge	240 sf
	Shared Balcony	240 sf *
	* Not Included in area	
L12	**6,640 sf**	Rooftop Amenity
	Childcare	2200 sf
	Kitchen & Laundry	1750 sf
	Lounge	2290 sf
	Circulation	400 sf
	Gross Area:	**143,700 sf**

Unit Mix:

1-Bedroom:	95
2-Bedroom:	26
2-Bedroom + flex:	11
3-Bedroom:	28
3-Bedroom + flex:	8
Total Suites:	**168 Units**

Site Description

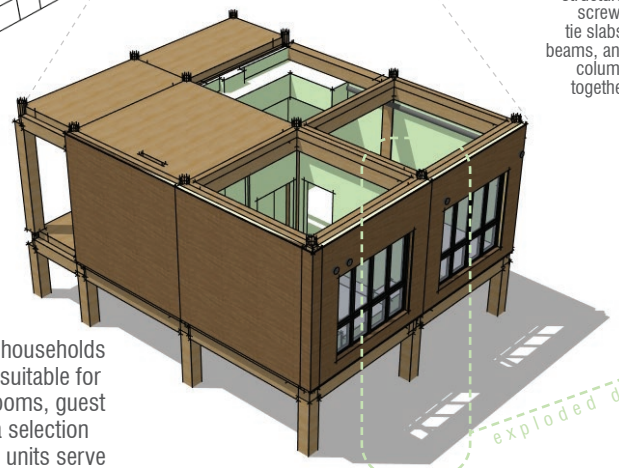
The site is situated on a corner site in Transit Oriented Area Tier 2, within 200 - 400m from the local skytrain station, allowing for maximum FSR of 4.0 & maximum height of 12 Storeys. A low-density neighbour on the east side is assumed.



structural grid and unit mix (one bed unit highlighted)

Building Form and Location

The building is simple and compact to maximize the building economy. A 28’-6” setback on the east respects the privacy of the neighbour and accommodates a parking ramp. Underground parking is limited to one level and exceeds marginally beyond the building footprint to provide optimum conditions for tall and mature tree growth.

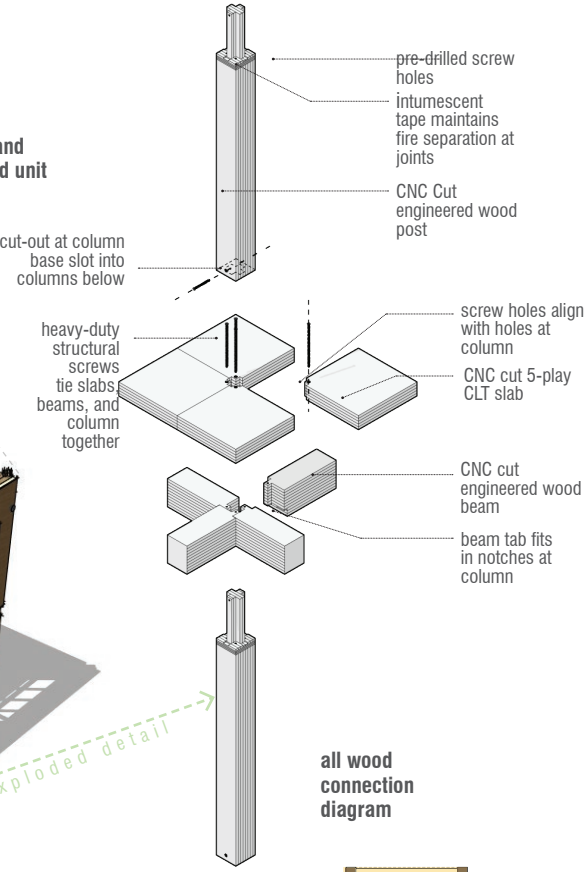


mass timber grid including and a one-bed unit

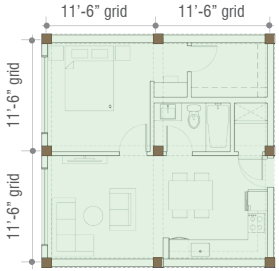
Dwelling Units

The development supports a range of households including larger families. Flex spaces suitable for home offices, kid’s homework, play rooms, guest rooms, media/tv, etc. are included in a selection of 2 and 3 bed units. Ground oriented units serve seniors and families.

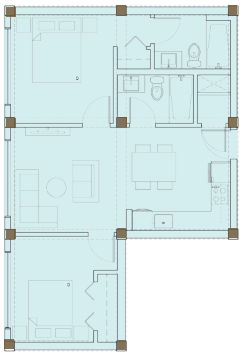
Units do not include private balconies. Large shared terraces are provided as a convenient outdoor space for residents on each floor.



all wood connection diagram

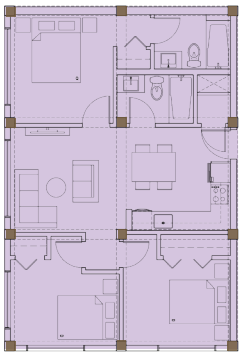


1 bedroom



2 bedroom

2 bedroom + flex



3 bedroom

3 bedroom + Flex

SOCIAL RATIONALE