Appendix A - Design Rationale

MULTI-FAMILY RENTAL UNITS

Form + Character

The proposed design features two structures that present as a row housing typology. In response to the site, each party wall steps the structure down, northward keeping the lower level aligned to the existing grade. This design intention is in response to the sloping site conditions to allow water run-off to occur naturally. These two bulidings will be cladd in white board and batton with a feature color in the centre unit. The saw-tooth roof will be ashpalt singles. White down spouts tie into the storm system.

These two structures mirror eachother with a waste management room between them accessed from the parking area. The lower level of the wast management room is the main electrical room for the development which will be accessed off a shared courtyard.

PERSPECTIVE - LOOKING SOUTH WEST

Material / Colour Pallet

- *"EVENING BLUE" - JAMES HARDIE*
- *CEDAR BOARDS*
- *EGG-SHELL BLUE PAINTED DOORS*
- *"ARCTIC WHITE" - JAMES HARDIE*

PERSPECTIVE - LOOKING NORTH WEST

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MULTI-FAMILY RENTAL UNITS

Mixed Unit Types

Each building consists of units:

1 - Studio
2 - 1 Bedrooms
3 - 3 Bedrooms

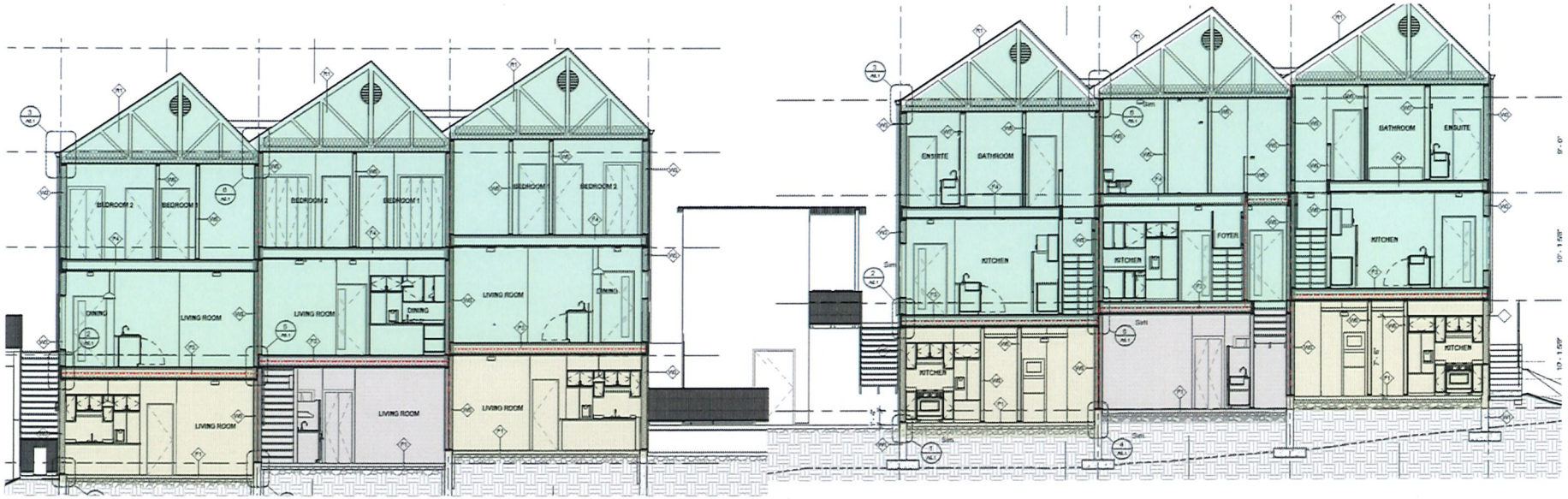
This mixture of unit types will allow for different demographics to live in the same building and ensure that large families and smaller house-holds can find adequate housing.

The two mirrored structures share a small common courtyard, seen below for shared events.

3 BEDROOM

1 BEDROOM

STUDIO UNIT



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MULTI-FAMILY RENTAL UNITS

Shared/Private Elements

In a multifamily development, providing moments where neighbours can cross paths but also collectively meet is just as important as ensuring privacy.

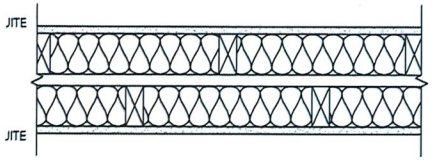
Shared Space

The development will feature a small, shared courtyard between the structures as well as a garden shed within a community garden. Places where kids can run and play in the lower area will also be open as a shared space.

Private Space

Sound transfer is an important aspect to multifamily development. Good sound transfer ratings and avoiding flanking sound is one way to ensure privacy and good neighbourly relations. No stairs separate any units and the 4 bedroom unit located in the centre with no units above/below will also assist in controlling sound transfer.

Private outdoor space is also important. Decks have been considered to ensure privacy in each unit.



P5 - PARTY WALL

(1 HOUR FRR, 57 STC, BCBC A9.10.3.1.A W13a):
- 5/8" TYPE 'X' GYPSUM WALL BOARD
- 2X4 WOOD STUD @ 16" O.C. c/w ACOUSTIC INSULATION
- 1" AIR SPACE
- 2X4 WOOD STUD @ 16" O.C. c/w ACOUSTIC INSULATION
- 5/8" TYPE 'X' GYPSUM WALL BOARD

(NOTE: APPLY CONTINUOUS ACOUSTICAL SEALANT TO BASE PERIMETER OF WALLS, AROUND ELECTRICAL AND ANY OTHER OPENINGS, AND AT THE JUNCTION OF INTERSECTING PARTITIONS. SHEATHING AND ANY OTHER MEMBRANE IS NOT TO BE LOCATED WITHIN THE AIR SPACE AS IT WILL ADVERSELY EFFECT THE ACOUSTIC PERFORMANCE OF THE PARTY WALL.)

REAR ELEVATION

Each unit has a private deck with views to the west

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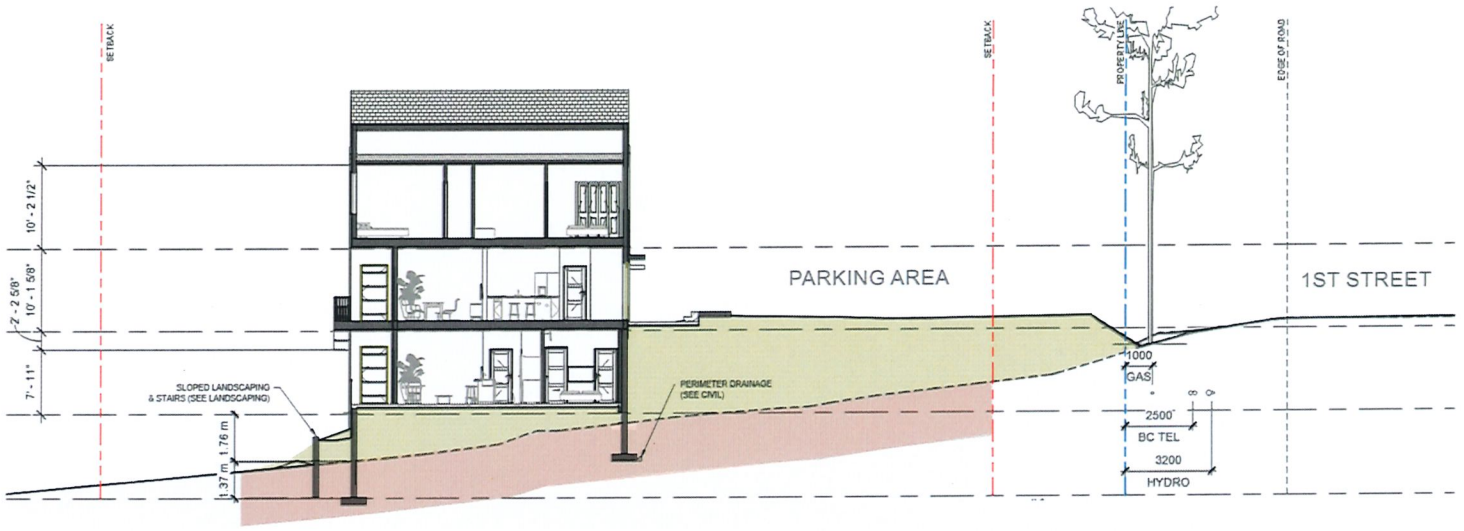
Retaining Walls and Fill

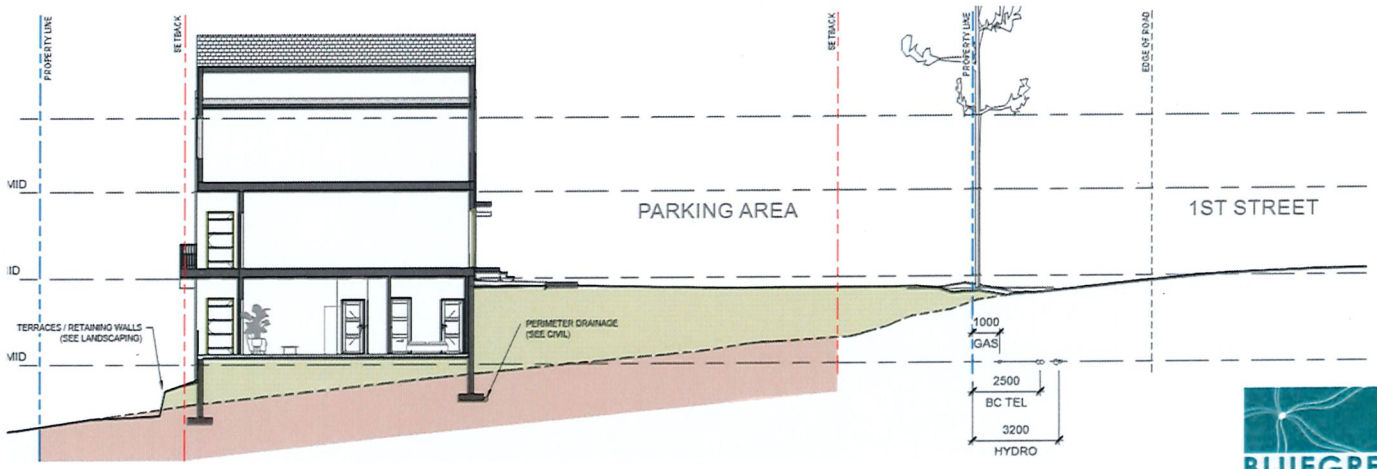
Drainage is one of the major factors to steep slope design. Ensuring the parking area and roof drain into the storm drains requires us to locate the parking and structure much higher then desired. This water will drain into a storm water tank located under the parking lot. This strategy will require a great amount of fill. The design has located each structure at different heights to lessen the building height to reduce retaining walls and fill required. Exposed retaining walls will be terraced, to reduce the visual and structural impact.



BUILDING A SITE SECTION

REMOVED + REPLACED FILL

NEW FILL



BUILDING B SITE SECTION

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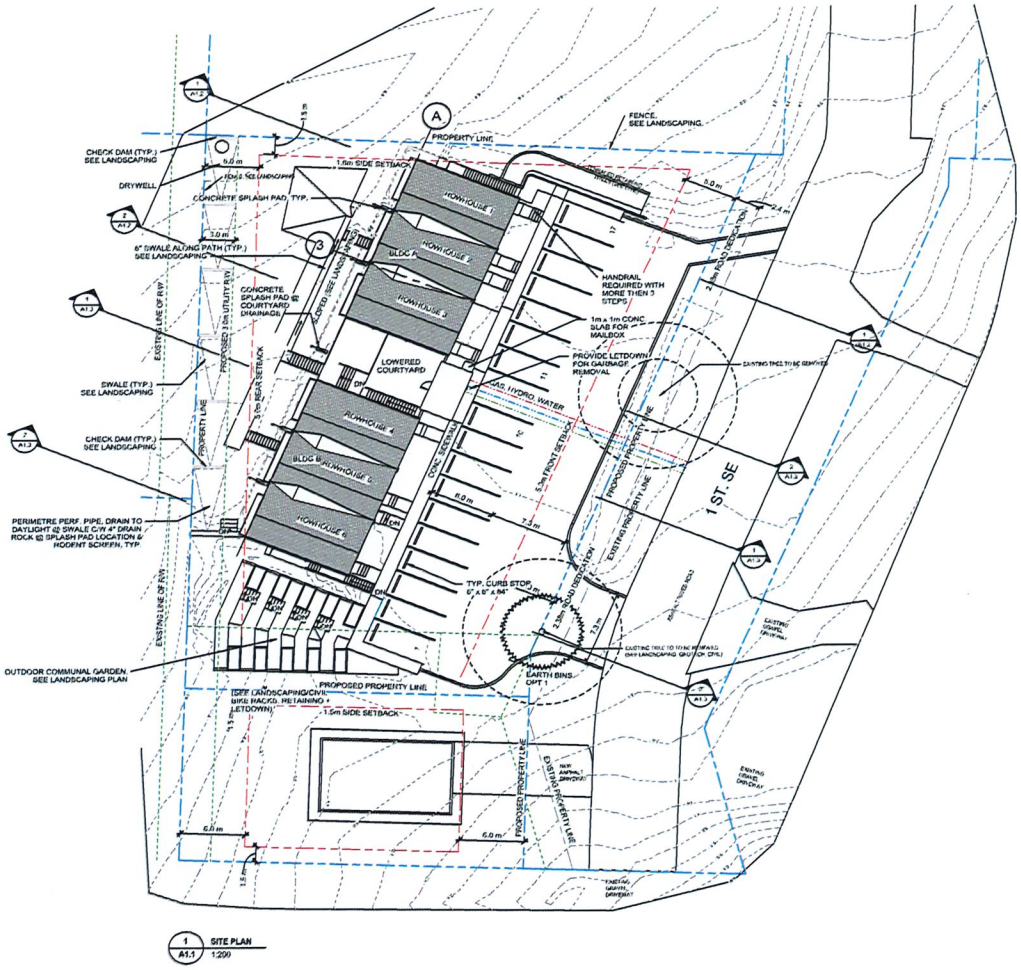
STEEP SLOPE DESIGN

Drainage + Detention + Retention

We have designed the buildings and parking area to feed into the city storm management system. Additionaly, as a steep slope development we are proposing landscaping techniques that will detain water and retaining walls that are vegitative with the aim to detain water on our site and have less impact on the properties below.

The landscape plan identifies the vegitative re-inforced sloped-earth and check dams.

(LEFT) VEGETATIVE RETAINING WALL
(RIGHT) VEGETATIVE SLOPED EARTH



SITE PLAN LEGEND

PROPERTY LINE	S.O.D
SETBACK LINE	DISPLAY VEHICLE PAD
RIGHT OF WAY	ASPHALT GROUND
EXISTING PROPERTY LINE	

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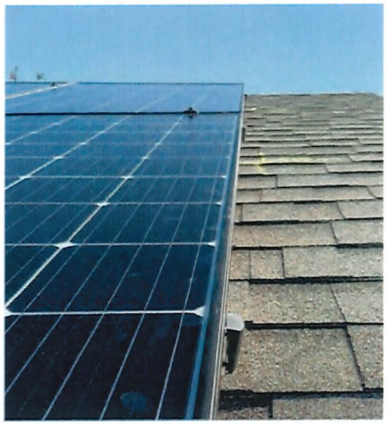
ENVIRONMENTAL CONSIDERATIONS

Solar Ready

The two buildings will be fed by a mechancia/electrical building that is located between them on the lower level. The building will be designed to be solar ready and the client will impliment this set at a later date. The angle of the roofs are ideal for solar collection and will be designed to take on solar panels in the future.

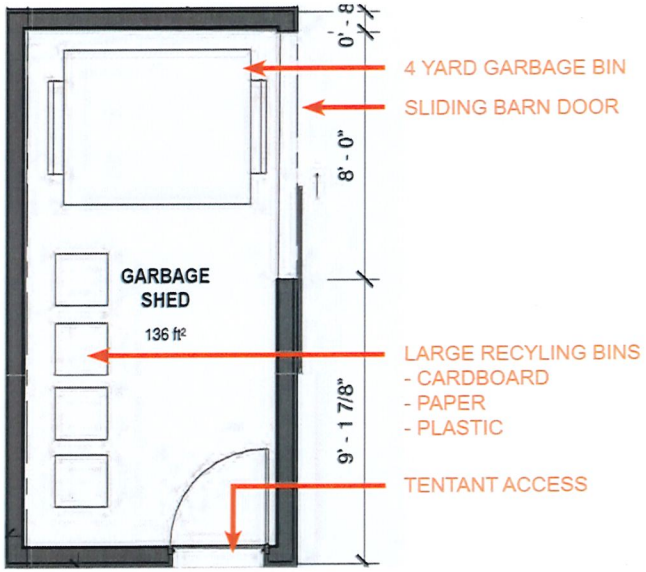


On-site Community Garden + Waste Managment

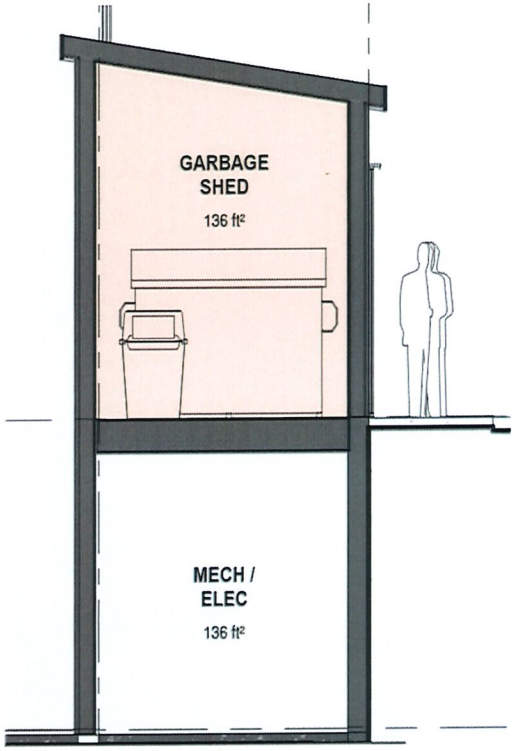
Waste management of a multifamily building is an important part of the design process. Having a clear system for organizing and managing the waste as well as making it accessible to tentants is paramount.

Food waste makes up a large portion of garbage and can be turned into soil. As such, this project aims to provide a composting program that integrates with a community garden for residents that wish to participate.

A central, enclosed waste room is proposed that separates recycling from garbage. After consulatation with local private waste collection services, this design proposes the waste room have a barn door for easy access so that an operator can easily access the room. The truck can drive into the parking area and reverse out.



GARBAGE SHED PLAN



GARBAGE SHED SECTION

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LANDSCAPE DESIGN

Fire smart landscaping:

The landscape design aims to integrate Fire Smart best practices, while balancing the other needs and aspirations for the landscape (i.e. community vegetable garden (southern boundary of the property); shared herbaceous and shrub garden (northwestern boundary of the property); softening the presence of and framing the buildings from the view of 1st St and the proposed parking lot; incorporation of indigenous plants for habitat value, reduction in maintenance and resource needs, and integration with the adjacent forested areas; detention and settling of stormwater; etc. Implimenting "check dams" where we can, and providing plantable concrete blocks for retaining are other ways that we aim to assist in passive water retention and fire smart landscaping.

Tree Retention:

Although much of the site will inhabit the new residence, we surveyed all existing trees and had aimed to keep what we had where possible. A tree protection plan & construction strategy was developed to retain suitable trees on the site but the efforts and cost to save the 2 Fir trees along 1st Street is no longer feasible. You will see a note on the Civil Drawing (C301) to retain these 2 trees but we can no longer achieve this goal and the landsape drawings have removed them from the scope.

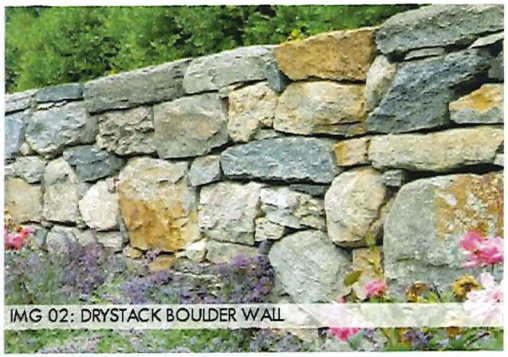
Vegitative retaining walls

Vegitative retaining walls can assist with slope stabilization. Native plants have also been proposed to require less irrigation. Terracing these walls can also reduce their size and visual impact.

Passive Water Detention: Check Dams

The landscape design aims to plant and contour the land to create berms and basins that assist in detaining water. This is important to assist in a greater response to a steep slope neighbourhood. Detaining water on each site can assist in less impact on the community below.

IMG 01: EARTHEN & COBBLE CHECK DAM



IMG 02: DRYSTACK BOULDER WALL

IMG 03: MIXED HEDGEROW

IMG 04: COURTYARD (PLANTING STYLE)

IMG 05: ORNAMENTAL GRASSES & PERENNIALS

IMG 06: COMMUNITY GARDEN

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