

CORCORAN NEIGHBORHOOD MICRO-FLAT COMMUNITY

Design Strategies

Throughout the designs, the main strategy is to integrate the core values at Cocoran Neighborhood Organization.; empowering residents, equality & diversity, innovation & creativity, and sustainability & placemaking.

Sustainability

- Double glazed low-e clear photovoltaic windows, led lighting, green living roofs, well insulated roofs, improved airtightness, natural ventilation, renewable energy such as solar photovoltaic cells and panels variable thermal retention flooring and variable refrigerant flow HVAC systems.
- Individualized HVAC systems that can be controlled individually to reduce annual cooling and heating. The utility billing by 50% on the current time monetary charge gaining 95% daylight into the building during winter and 70% during summer and reduce heat by the glazing index at 25%.

- Lighting and cooling
Passively lighting the buildings reduces the dependence on HVAC heating or cooling services. The residential building foot print was staggered to improve on the energy conservation goal by allowing more light into the complex. Cooling goals will be achieved by cross ventilating the spaces. During the summer and winter seasons there is a constant movement of natural air masses within the spaces.

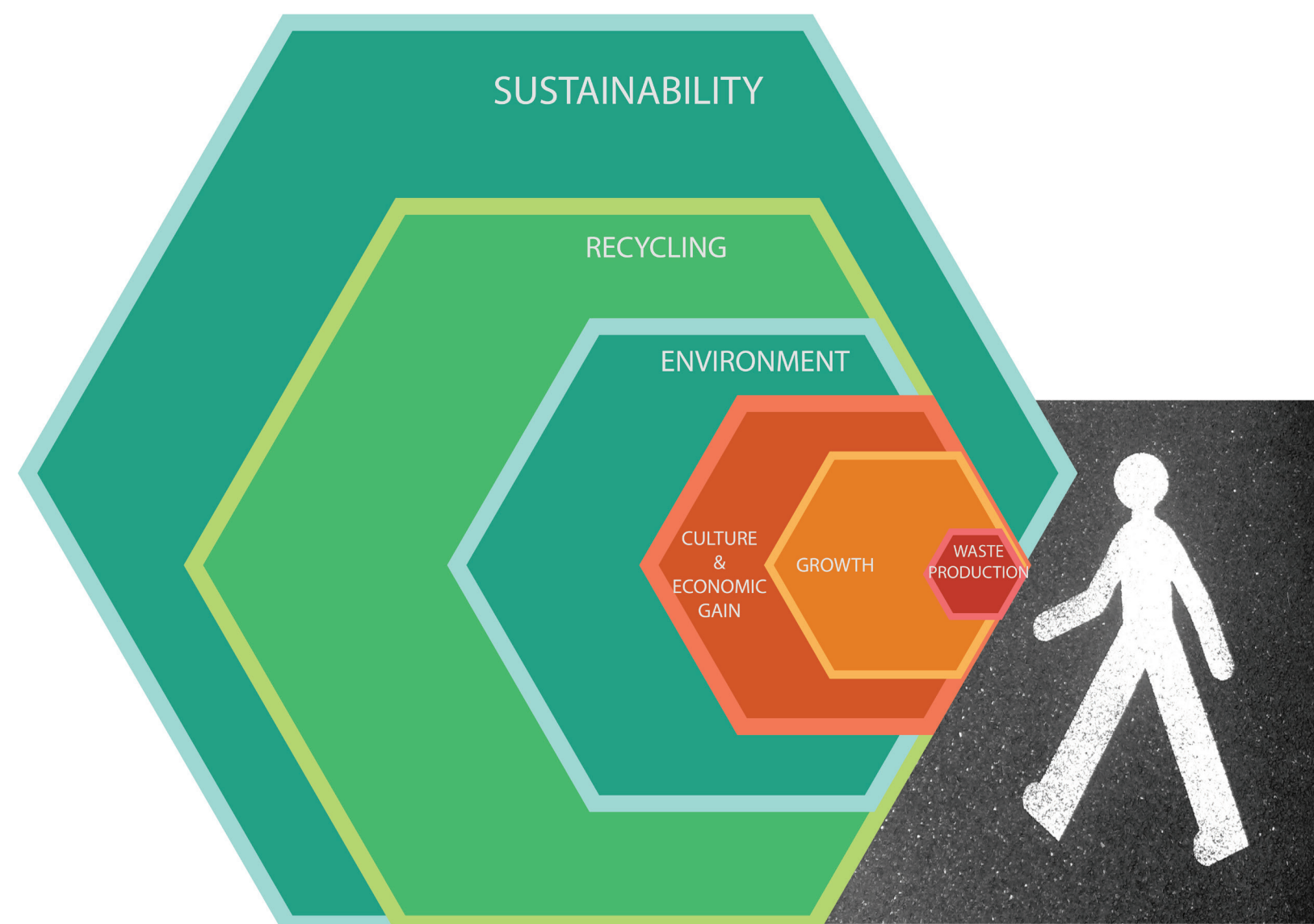
- Photovoltaic cells
The electric charge built up can be used to power the equipment within the house and to power the pumps and water filtration system within the property. The same power can be used to charge the electric cars and motorcycles for both residents and the community to reduce carbon output.

- Water catchment and recycle program
The surface water run off systems are placed in strategic places such as the roofs, lawns, parking lots, and pathways between the buildings. The two systems used are water types potable and non-potable, which can be used to irrigate the plants and cool off the buildings. The porous or permeable paving placed in the parking area, alley, and sidewalks will improve soil composition.

- Flora and Fauna
The use of edible vegetation can be a sustainable option. An option for compost will not only decrease the amount of waste within the neighborhood, but help with the growth of plants.

- Transit development
Improving the community living standards draws a diverse range of people, which then increase the need for more transit stops. Expanding roads or creating biking lanes to promote a healthy and ecofriendly lifestyle.

SUSTAINABILITY DESIGN DIAGRAM



SITE MAP OF CORCORAN NEIGHBORHOOD



A. SITE ONE - MUTLI-USE HOUSING
LOCATED : 3448 20TH AVE S.

B. SITE TWO - MICRO- FLAT COMMUNITY TYPE 1
LOCATED: 3133 LONGFELLOW AVE

C. SITE THREE - MIRO- FLAT COMMUNITY TYPE 2
LOCATED: 3321 25TH AVE S.

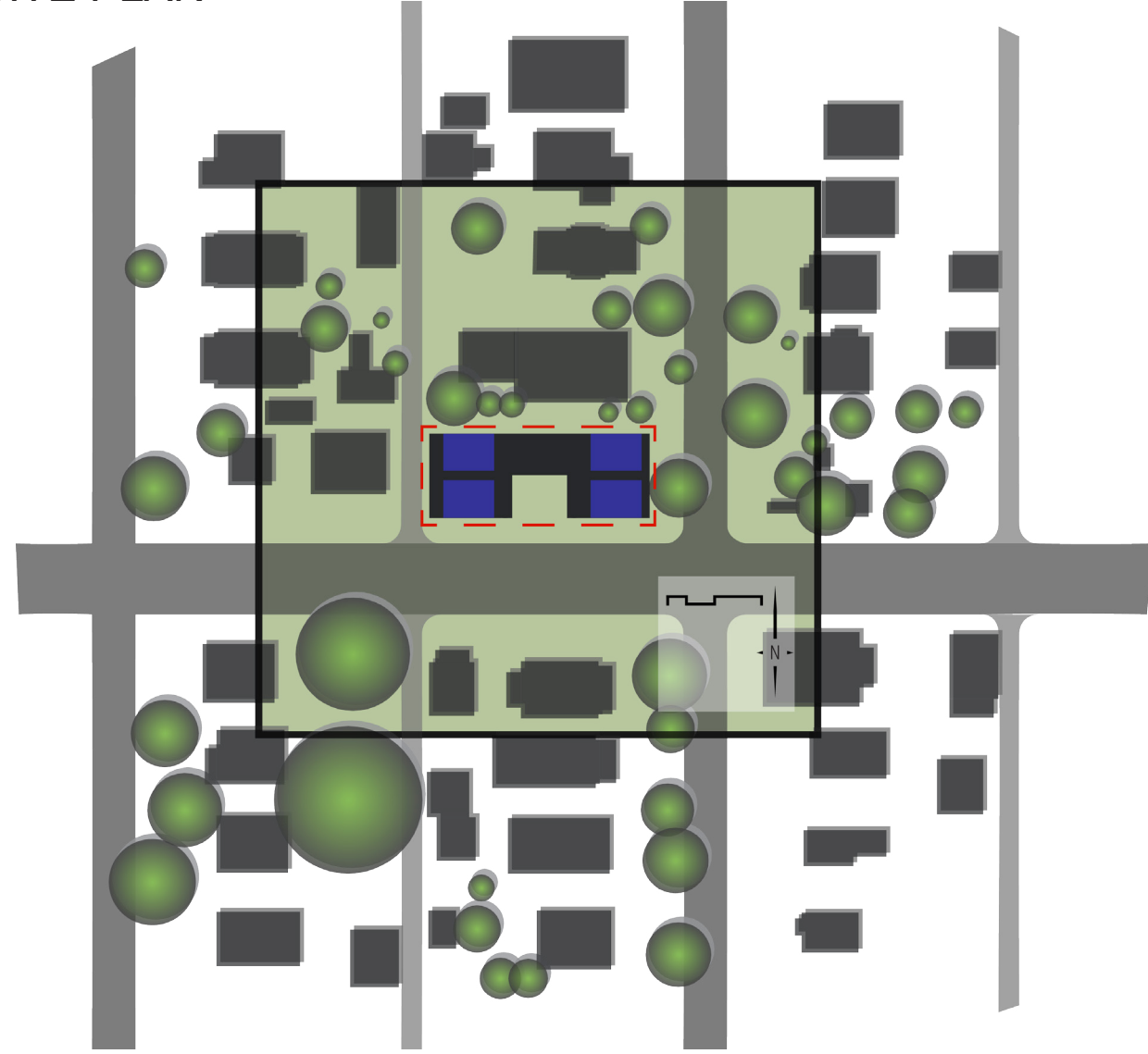
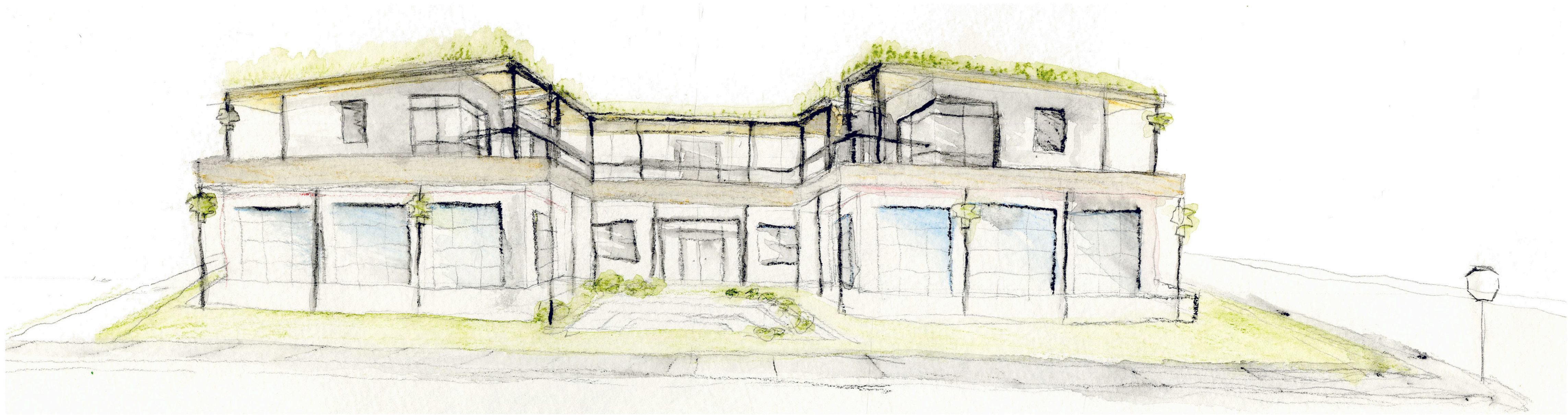


CORCORAN NEIGHBORHOOD SITE ONE MULTIUSE HOUSING

The size of the structure was co-represented by following the grid patterns on 35th, with larger surrounding structures and the availability for commercial space. The design integrates the first level as a space for economic development for the community. There is a central courtyard for the community to use as a gathering and growing space. The second level serves as affordable residential, which allows people to work on the first floor.

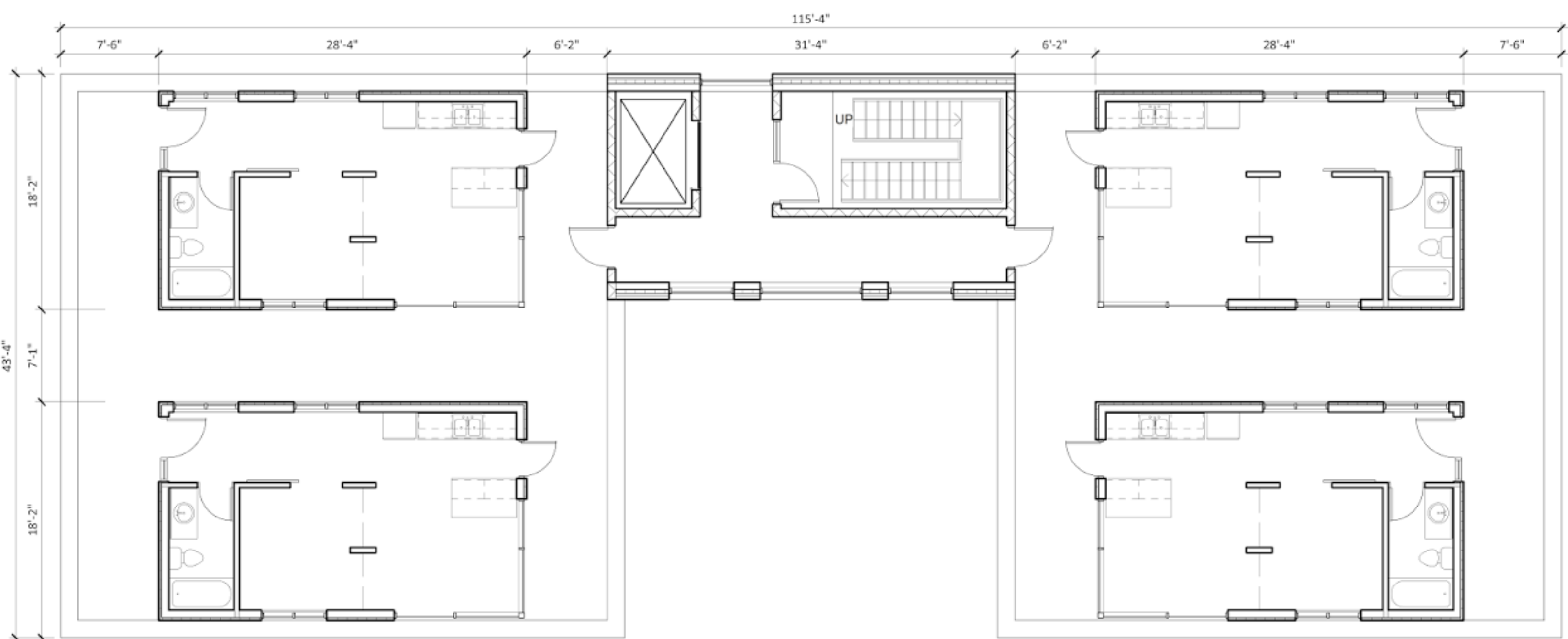
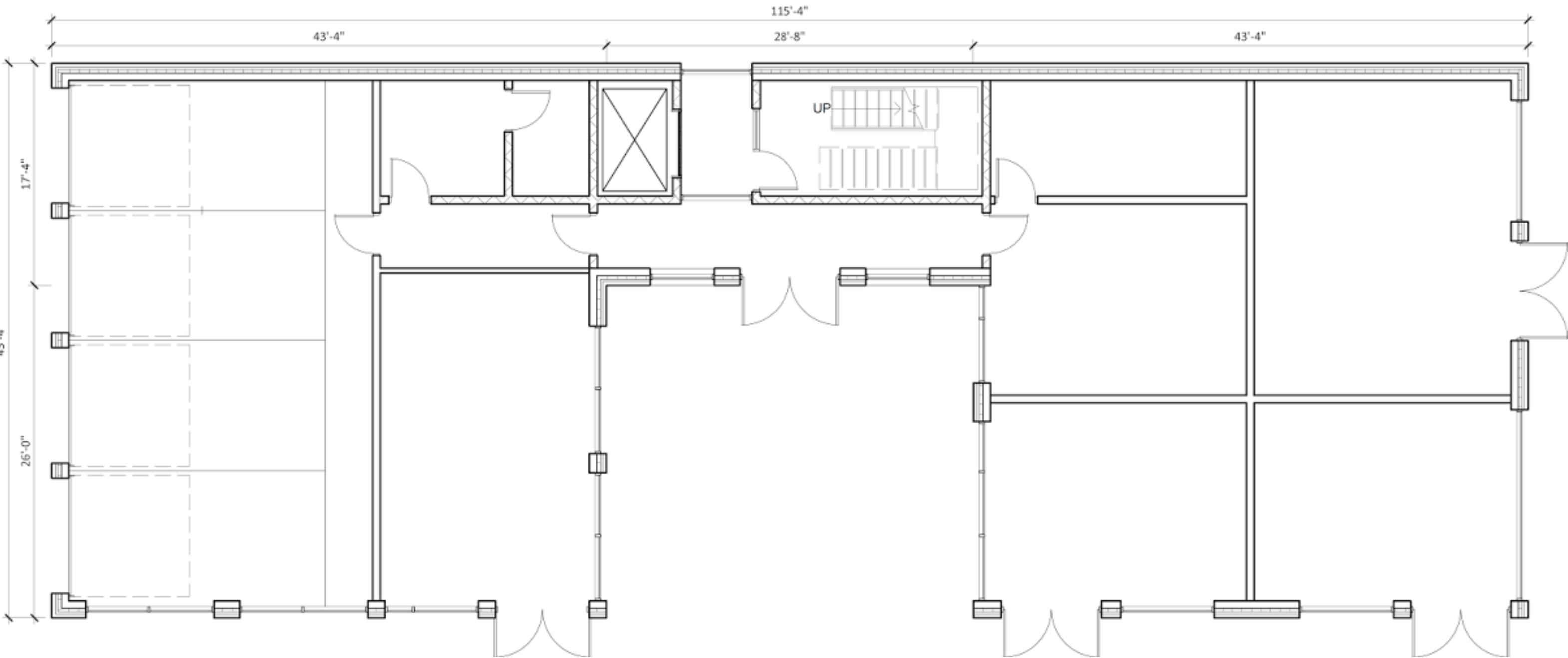
EXTERIOR RENDERING

SITE PLAN



FIRST FLOOR PLAN

SECOND FLOOR PLAN

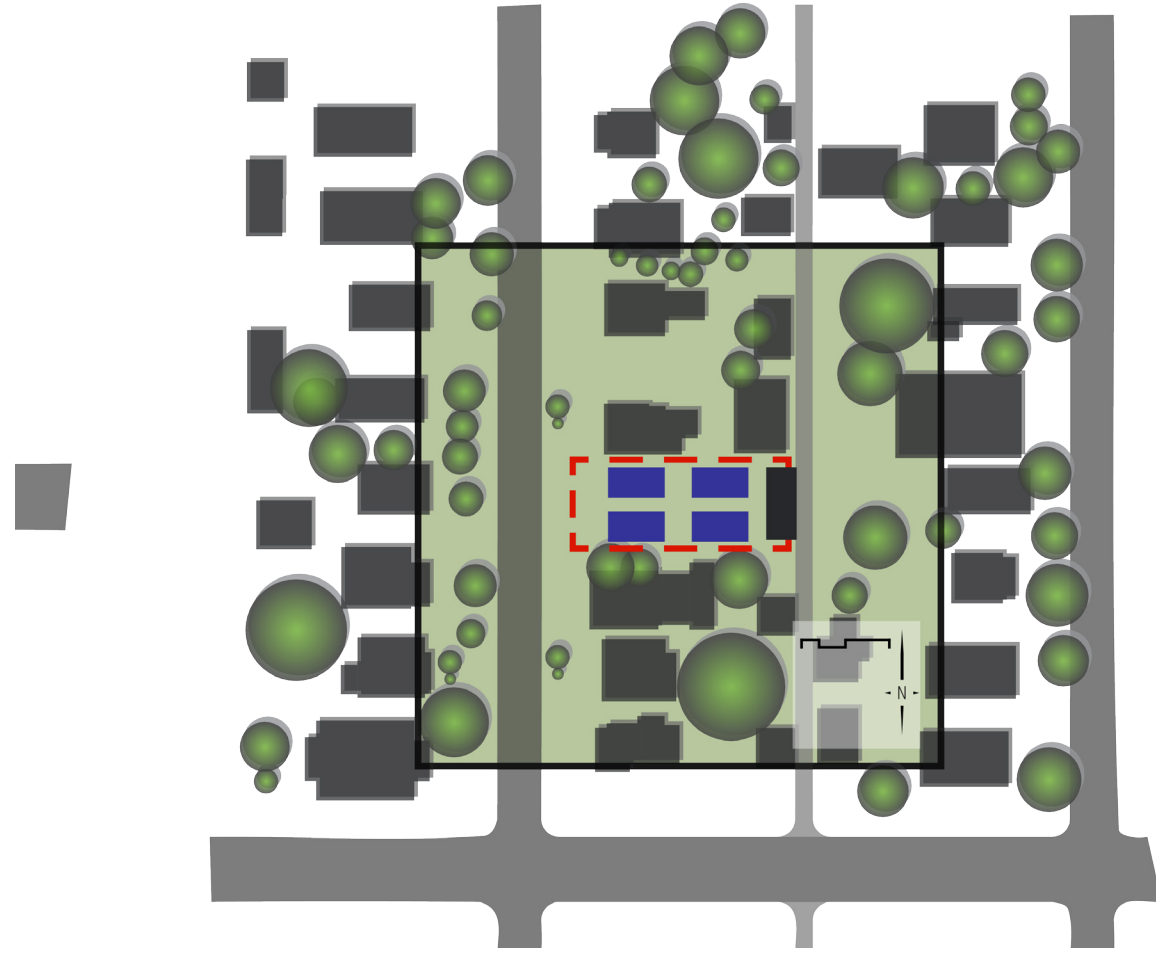


CORCORAN NEIGHBORHOOD SITE TWO

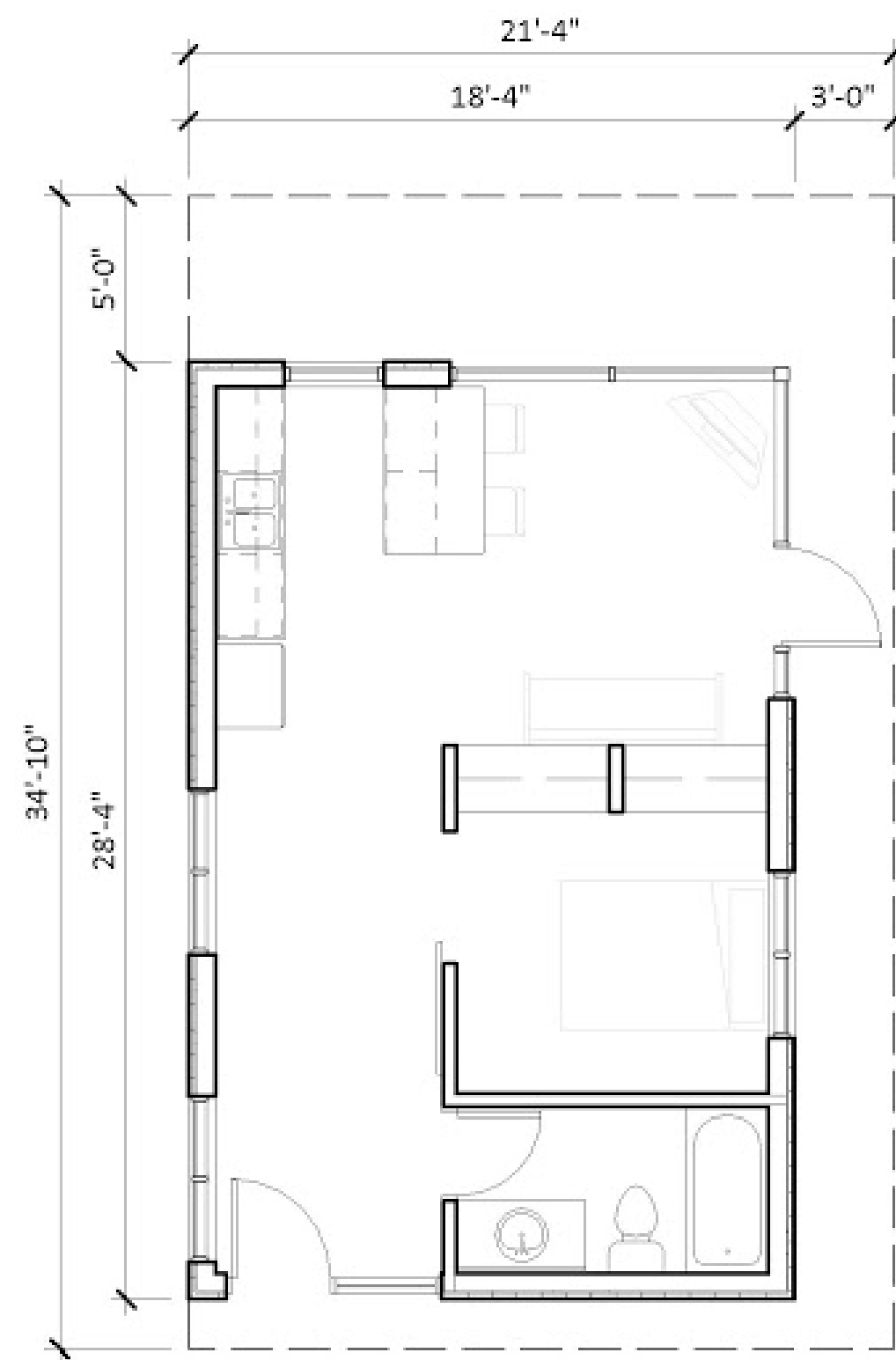
MICRO- FLAT COMMUNITY TYPE 1

The single flat design is a flexible prototype which can be replicated throughout the neighborhood. The design emphasizes environmental and social sustainability. Community is created through focusing on shared outdoor spaces that encourage interaction between multiple tiny homes on one lot. Views are oriented towards the community garden at the core of the tiny home plot. Windows are full-length and enhance natural daylighting.

SITE PLAN



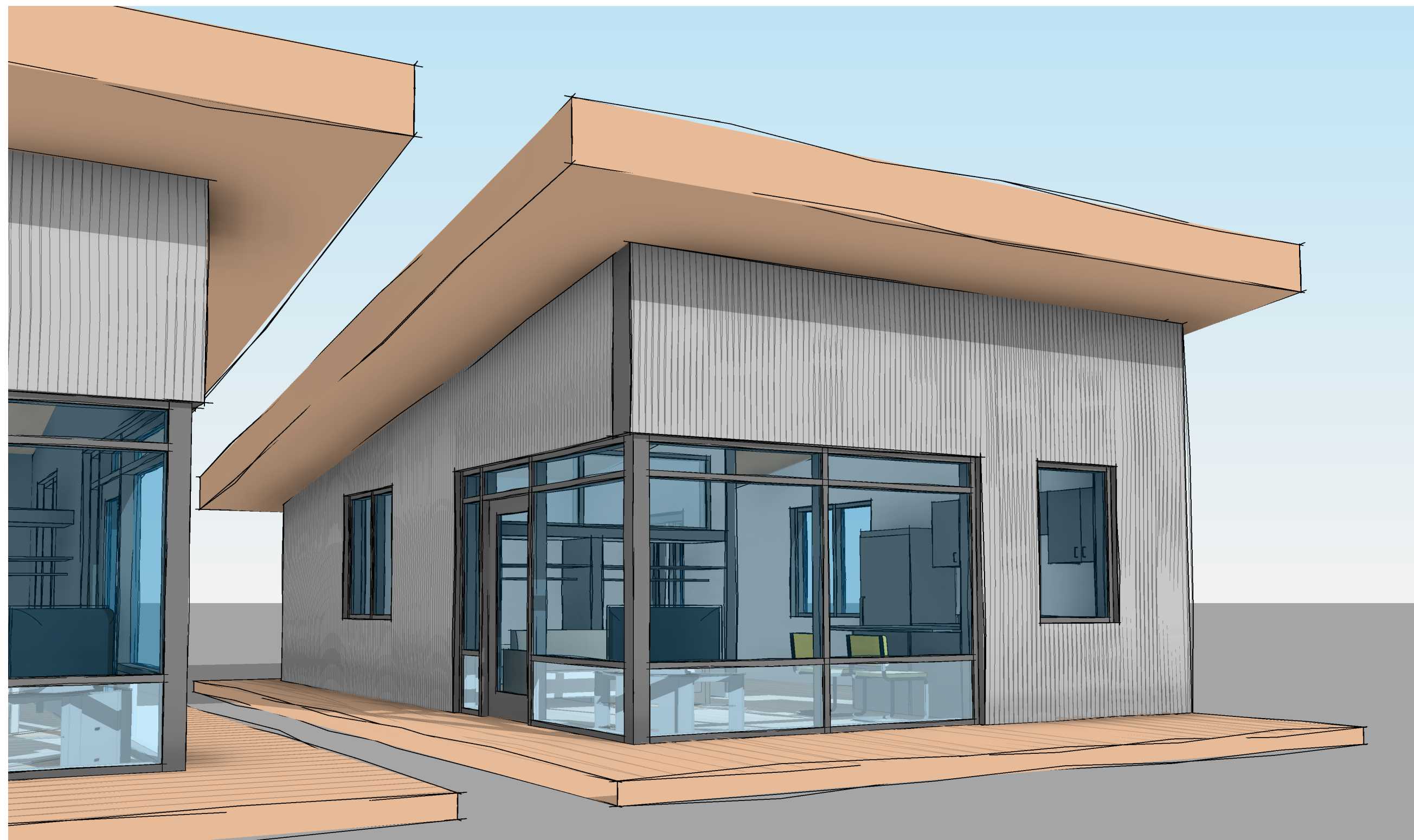
SINGLE FLAT FLOOR PLAN



EXTERIOR RENDERING



EXTERIOR RENDERING



EXTERIOR RENDERING



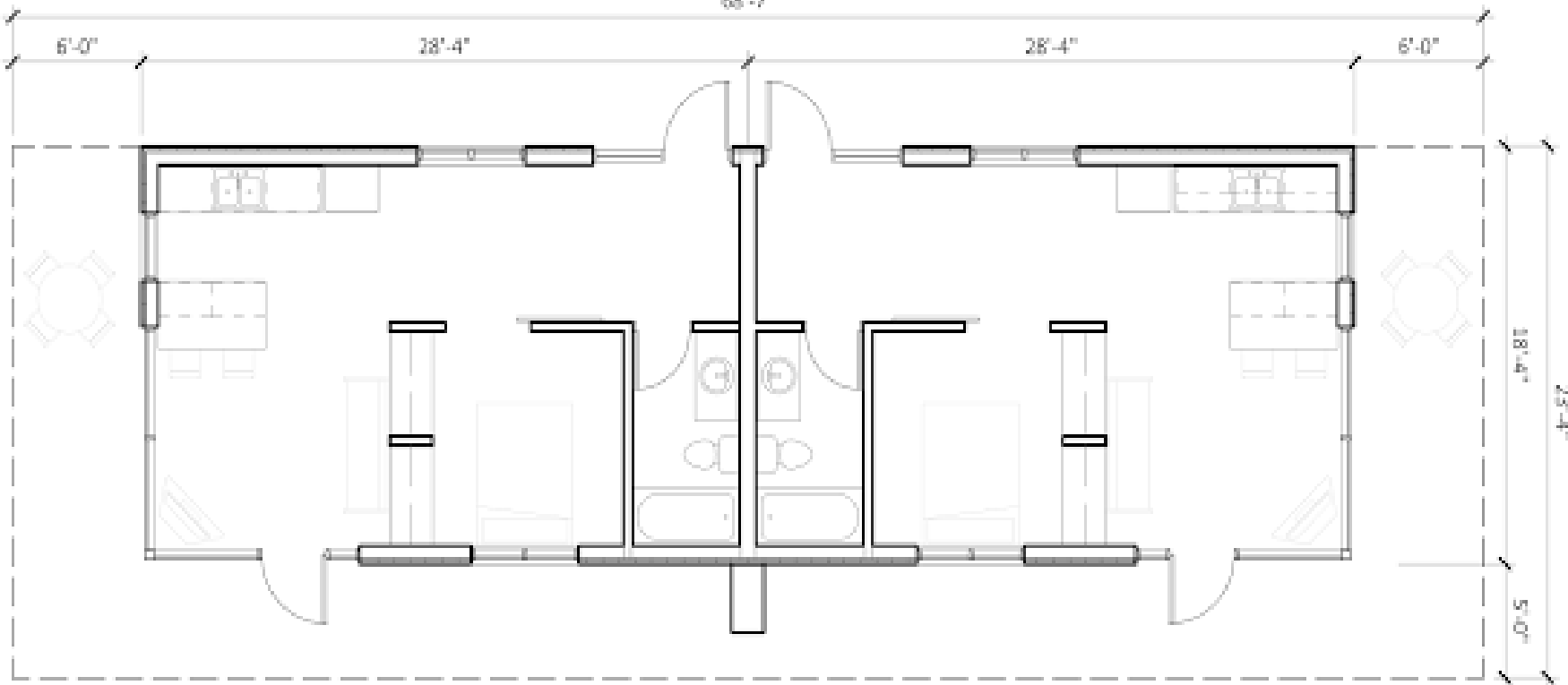
CORCORAN NEIGHBORHOOD SITE THREE MICRO- FLAT COMMUNITY TYPE 2

The double flat design is to serve as an opportunity of affordable studio living. The micro-flat prototype adapted to site-specific conditions including the neighboring structure sizes and types. The neighboring homes have doors located halfway down the length of the site. The micro-flat responded by placing openings oriented towards interaction so as not to create a wall between the lots. By mirroring the layout of the micro-flat, you can create an innovative granny flat/duplex house where multiple generations of one family can live together.

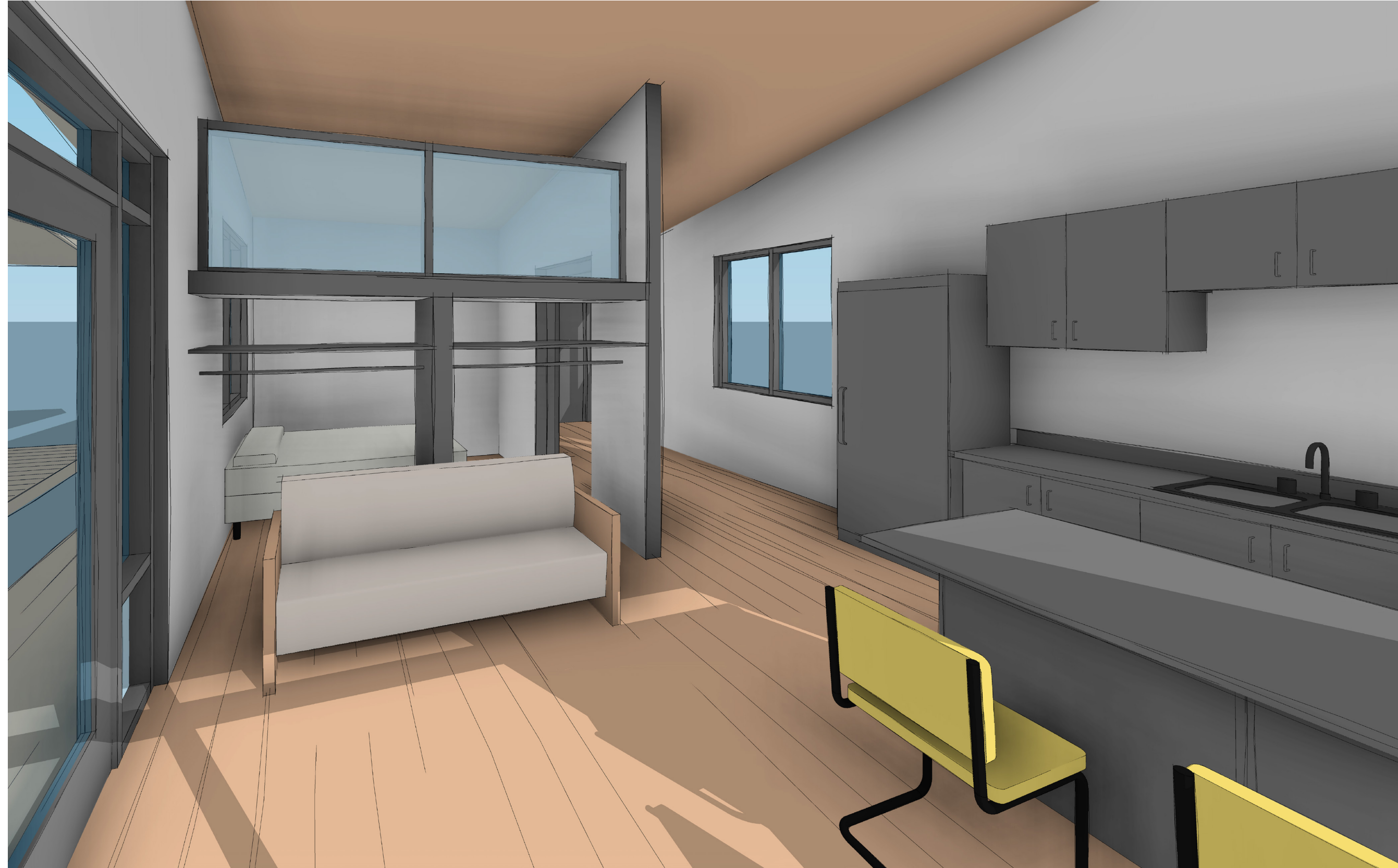
SITE PLAN



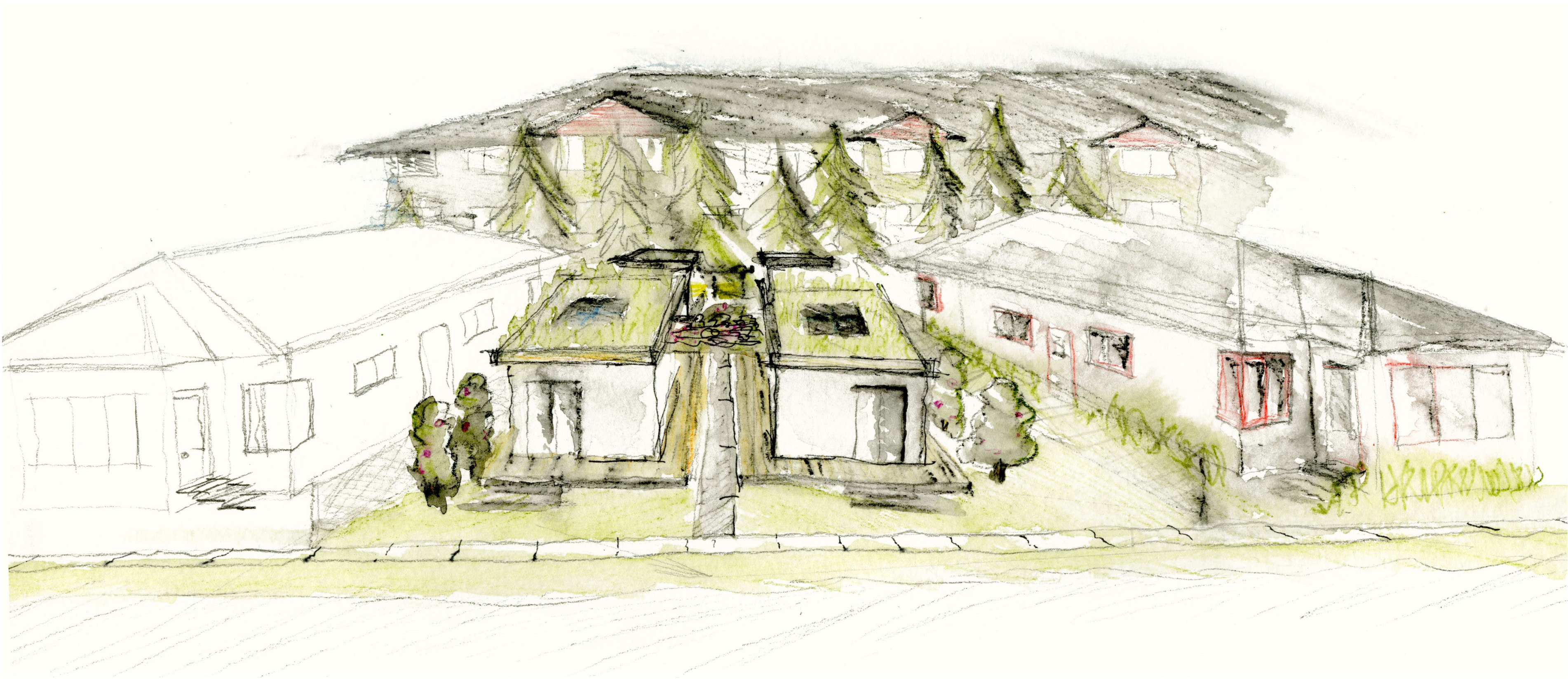
FLOOR PLAN



INTERIOR RENDERING



EXTERIOR RENDERING



EXTERIOR RENDERING

