SECTION B – PEDESTRIAN ORIENTED PATTERN: CITY OF VANCOUVER

B.4 **FAIRVIEW - INTRODUCTION**

THE MODERN FAMILY

Meet the Larc-Scarp's, the future sustainable family from the year 2102. On the surface they may not appear to be much different from a family of our time. However, their lives are lived in a much more eco-equitable way, due to some fundamental changes in their city that began over a hundred years ago.
If there is any similarity to the past, it is because the visionaries from long ago decided to maintain a high quality of life in society and allow the level of freedom that the people preferred. Yet, the visionaries knew that major changes in infrastructure, energy use, and economics had to take place. They reasoned correctly that in order for these changes to happen, they had to provide positive incentives, rather than impose laws that would be difficult to adhere to. That is why the Larc-Scarp's are such a happy bunch. They hardly miss the privileges of 100 years ago, because those privileges have been replaced with alternatives that make life better.

FAIRVIEW – PARCEL (INSIDE)

Pat in the bathroom

BATHROOM

- greywater recycled in biofilter.
- composting toilet, sludge goes to bioponic greenhouse.
- common sense practices—water turned off when not in use, low-flow shower heads.
- Pat wears organically grown cotton robe.

Jackie eats breakfast

KITCHEN

- greywater is used in first cycle of dishwasher.
- energy saving appliances run on electricity from solar panels and windmills.
- solar oriented windows help heat house.
- organic waste is composted.
- cabinets made from recycled wood.
- Jackie eats organic strawberries raised in the roof-top garden.

In the Larc-Scarp house everybody is up early in the morning. Pat plans this evening to walk down the street a few hundred metres to the transit stop, to take the light rail to see a friend. Pat knows the chance will come to get a look at the new public art piece on the corner. Pat hurries to get ready for the day, but doesn't forget to turn the water off while performing dental hygiene!

Downstairs, Jackie is munching on the cereal she bought at the neighbourhood grocery. The berries were grown by Penny in their garden. Food tends to taste better when you know it was grown at home, Jackie marvels. Whatever isn't eaten will go into the compost for the garden. The Larc-Scarp's love the features of their home in Fairview, which costs less than 30% of their income.

TARGETS ADDRESSED:

- 100% neighbourhood walk ability; nearby shops/transport.
- >=50% renewable energy from parcel.
- 20% locally produced food.
- >=1 public art per block.
- 100% organic waste staying in region.

Doug ponders over the past while gathering stuff to bring to the ”community attic”.

“My how things have changed in the neighbourhood over the years”, Doug reminisces. Doug thinks about the stories about what it was like **80 years ago**, in 2022. People back then were smart when they decided to start implementing sustainable practices. He lists their changes:

- 20% daylighted and protected streams, starting way back with Musquem Creek.
- No new landfills.
- 30% new energy from renewable sources.
- Improvements in soil permeability.
- Beginning light rail throughout the city.

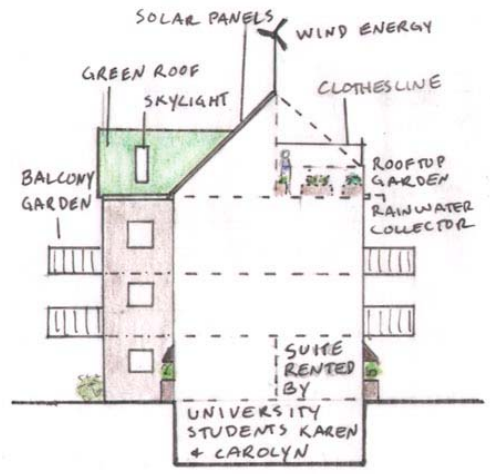
Doug thinks about when he was a lad, **50 years ago**, in 2052.

- Above 50% daylighted streams.
- No new landfills; biofiltration and bioponic greenhouses becoming common.
- Soil permeability up to 75%.
- Public transport closer than before; 30% less use of autos.

Doug decides to go outside and watch the world go by. All the houses on the street have a nice porch where the older folks keep an eye out as the sustainable new generation whizzes by.

FAIRVIEW – PARCEL (OUTSIDE)

ELEVATION OF THE TOWNHOUSE COMPLEX WHERE THE LARC-SCARP FAMILY LIVES.



SECTION-ELEVATION OF THEIR RESIDENCE.

TARGETS ADDRESSED:

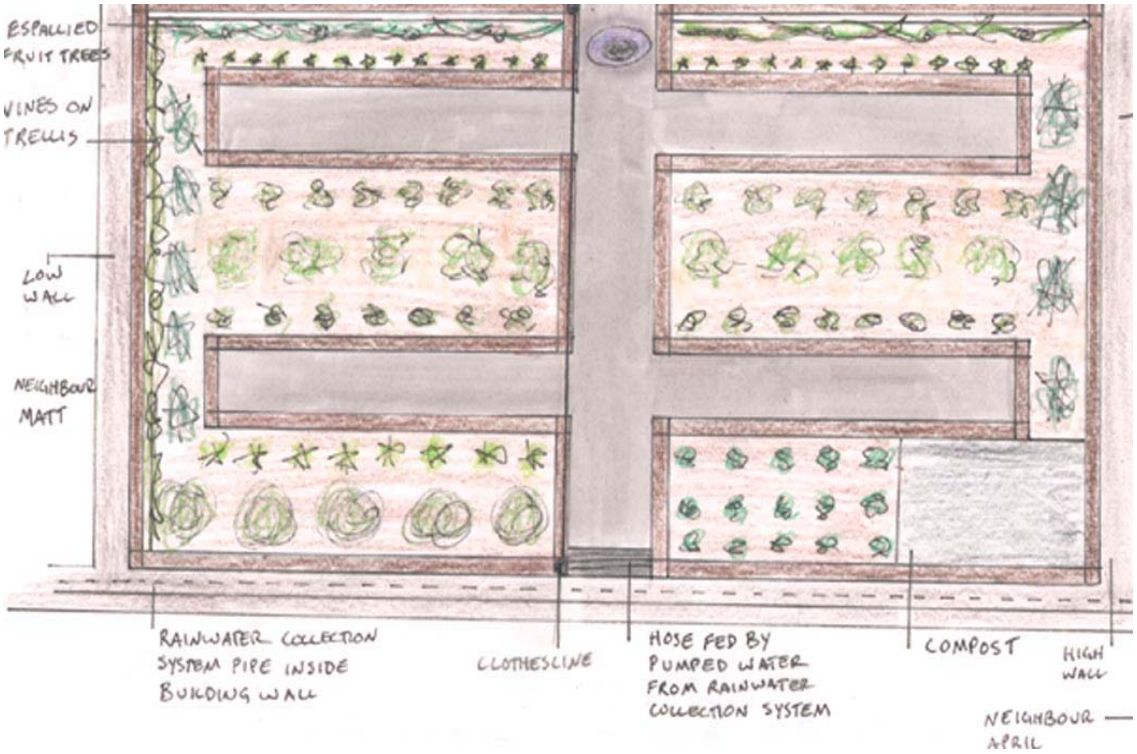
- 100% of new streets where buildings are oriented in a way conducive to having "eyes on the street"
- 100% of buildings built or retrofitted to LEED PLATINUM standards or higher
- >=80% of dwelling units (as measured using floor space) that are oriented within 30 degrees of east-west to provide good solar orientation)
- 100% of buildings that obtain at least 50% of their energy requirements from the land parcel or surrounding block
- >=30% of residential dwelling units that are affordable
- 100% of rain falling on parcel or block infiltrating into the ground or collected for reuse

The Larc-Scarp family resides in a 4-story townhouse, which is part of a larger townhouse complex. Grandpa Doug lives with the family and they also rent out part of their house to university students, which provides affordable housing and increases overall density.

The complex presents a "friendly face" to the street and is also oriented to have "eyes on the street" with balconies, landscaped front porches and windows located close to the street edge.

Each unit is oriented to the sun for maximum exposure for the solar panels on the roof. There are also skylights for natural lighting, so when Pat is home working, fewer lights need to be turned on. The energy for those lights comes from the solar panels and the wind energy generators situated on top of the roof.

In order to deal with water run-off, there are green roofs incorporated into the building. Excess water from these roofs, as well as from the solar panels, is collected in pipes along the rooflines and directed to collection cisterns. This water can then be used to irrigate the rooftop gardens located in the back of the building.



THE LARC-SCARP ROOFTOP GARDEN.

The garden grows the majority of the produce for the family during a significant part of the year. There are espallied fruit trees, vine fruit on a trellis, and a large selection of vegetables growing in the raised planter beds.

The garden also has a compost, clothesline and built in irrigation system that uses recycled rainwater collected from the roof.

TARGETS ADDRESSED:

- >=20% of food that each neighbourhood consumes annually that is produced within the neighbourhood
- 0% organic waste from food produce that leaves the region
- >=65% of roof area of buildings in the neighbourhood that are vegetated and designed to support plant life
- >=50% of each block's energy needs that are supplied by clean and renewable energy sources

In the morning, Pat comes up to the rooftop garden to collect fruit for breakfast. Pat says hello to neighbour Matt, who is reading his book and enjoying his cup of coffee, over the low wall that separates their gardens.

Pat takes the fruit back to the kitchen where the family has breakfast. After breakfast, Pat takes the organic leftovers back up to the rooftop garden to the compost.

Pat then waters the plants with the water collected from the roof with a hose that is connected to the collection cisterns. The water is pumped using energy generated by the solar panels.

Pat tends to the garden before heading back into the house to gather the washed laundry. The laundry was washed in recycled water (on the first cycle – it was rinsed with fresh water). Pat then hangs the laundry on the clothesline that runs from the house to the edge of their rooftop garden. There is a crisp breeze today so the laundry should be dry quickly.

Pat then goes back inside to have a quick shower before settling down to work at home for a couple hours prior to heading to the community centre later in the day.

FAIRVIEW - BLOCK

TARGETS ADDRESSED:

- >=20% of locally grown food
- 0% of organic waste that leaves region
- >=30% mixed type/affordable houses
- 100% buildings fitted to LEEDS platinum standards
- >=65% green roofs
- 100% of buildings generate 50% energy from parcel/block
- 1 social space on each block
- 100% dwelling unites within 400m of shops/services
- >=50% block energy from renewable source
- 100% green corridors identified
- >= 40p/ha population density
- >=90% houses within 350m of transit

As Penny leaves her home she passes the community garden where the residents of the neighbouring apartment grow some of their own vegetables. She thinks to herself “the orchard behind the garden looks so nice when they are in bloom”. Penny walks to the transit stop at the end of the green street to hop a ride to the grocery store. If she gets too many bags to carry back home she can borrow the community cart that is parked in the lot beside the transit stop.

TARGETS ADDRESSED

- 100% daylighted streams
- 100% infiltration of precipitation

Pat likes walking through the park on the way to the community centre. The walk is short but allows for a visit past the day lighted stream and the bioponic greenhouse to inspect the progress, and Pat really likes infrastructure. Pat loves the way that something so functional can also make the world a beautiful place.

GREEN STREETS

Jackie has decided to play in the greenspace between the buildings where Grandpa Doug said the street used to be. Jackie especially likes it when it has been raining heavily and there are little pools of water left to splash in.

TARGETS ADDRESSED:

- 100% of precipitation infiltrating ground
- >=90% non-auto share travelling
- 100% of organic waste composted
- increased population density
- identified greenways
- biofiltration of grey water

WIND TURBINES GENERATE ENERGY TO BE STORED FOR LATER USE

Jackie and the other children from the neighbourhood like to run up to the hill in the neighbourhood when it is windy so they can watch the wind turbines spin their shiny propeller like blades as they generate the power to light the school for tomorrow's class.

TARGETS ADDRESSED:

- 50% of blocks energy needs met by renewable source
- <=1 co2 emission/capita/year

Doug wanders past the old brick red heritage house that is used for public meetings and classes. He nostalgically remembers how life used to be 50 years ago in 2052. He remembers when the new policies came into place that preserved the old buildings and comfortable lifestyle while at the same time preserved the Earth. Because of the innovative design and willingness to adapt to change he can still teach his grandchildren about place.

TARGETS ADDRESSED:

- Preserve heritage buildings and sense of place
- >=1 designated areas within neighbourhood for providing emergency shelter
- >=1 public facilities for cultural events

FAIRVIEW - SITE

KEY:

-Commercial / Mixed-Use
-Public – schools, geothermal plants for neighbourhood heat and hot water, community centres, trails, gathering places
-Inter-urban or rapid transit routes, a mix of above ground and tunnels, cycle and pedestrian friendly
-Greened streets with access only for emergency vehicles
-Heritage designation
-Short streets and lanes providing dead-end local access for cars and service vehicles, light pedestrian and cycle friendly surfaces with through access for alternative transport
-Local arterial roads for all forms of transit, follow historic commercial development
-High density, 8-12 storey towers
-4-6 storey
-2 – 4 storey

TARGETS ADDRESSED-

>=40 people per hectare
Highly urban neighbourhoods like this one will increase density by zoning for apartment towers towards the south end of the site, which follows the topography and preserves site lines.
New Development enables increased green space, heritage preservation, and incorporation of 30% social or intermediate market housing into developments. By-laws will dictate green construction.
<=400 m to goods and services
Existing commercial districts have been maintained and augmented with smaller commercial zones within residential areas. Not all areas are zoned mixed-use as residential character is deemed desirable.
<=350 m to transit
The neighbourhood is served by both local 'slow' transit along major commercial routes and inter-urban rapid transit at regular intervals
100% Daylighted streams are buffered with restricted 15-30 m riparian edges.