

hastings street jobs neighbourhood
seela amaratunga

symbiotic urbanism masterplan : hastings corridor individual design

hastings street jobs neighbourhood



Approach to the comprehensive development area in the Team 2 Masterplan: urban agriculture and jobs Burnaby, BC.

Local Work: the shift from resources to people

There is a growing body of literature concerned with urbanization processes, and the problem of how growing cities are increasingly becoming spaces of consumption. Of particular concern is the consumption of energy and the production of greenhouse gases, which are largely attributed to buildings and the transportation of people and goods over large distances.

Much less is known however about how these transitioning urban spaces accommodate labour and support livelihoods. The trend of increased consumption contradicts the goals of sustainable communities, and the need to take immediate action to adapt to and mitigate the effects of global climate change.

This proposal challenges the notion that jobs need to be housed in conventional office towers located far distances from where people live, and promotes the idea that the opportunity for jobs and livelihood can be contained, and visible within the neighbourhood itself, and that this in the long term is a more sustainable solution to community development and urban growth.

Hypothesis:

A new concept for the jobs neighbourhood is required such that the needs of the community member, including that of the opportunity for livelihood, are contained within the neighbourhood itself. This concept is similar to a university, that is a self-contained community that provides the knowledge centre and knowledge sharing opportunities, shared interests, food, shelter, recreation, and a safe and secure physical environment.



Examples of office landscapes in the Burnaby area.

key issues

Job Future

Current job trends suggest a recent and on-going transition from resource and product-based livelihoods to people and knowledge-based livelihoods, particularly those that are web-assisted. The labour force will likely become more diversified, with more part-time work, and home-based businesses.

It is quite likely that the jobs of the future may no longer be housed in the generic office tower, and patterns of work may no longer include long distance commutes to the workplace.

Food Production

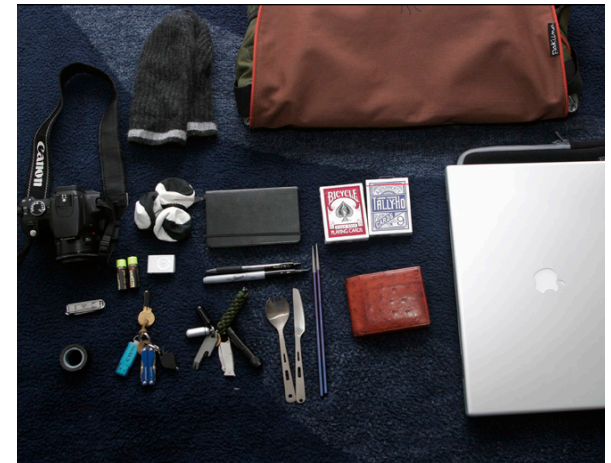
A closely linked issue is the sustainability of our current food system, in which foods typically travel 2500 to 4000 kilometers to our grocery outlets, and then an additional distance to reach our dinner plates. Experts on climate change predict that the first major socio-economic impact of climate change will be on the global food system, impacting the global food supply.

There is a need for greater localization of all aspects of the food system, including production, processing, distributing, preparing, consuming, and recycling.

Localizing the food system has the potential to increase the number and diversity of local jobs, as well as provide new opportunities for types of food outlets.

This presentation is based on several assumptions:

1. There will be a shift in the labour force and the types of industry.
2. The industries of the future will be clean and will support life.



Growing Power, Milwaukeee.

Everyday job necessities.

Hastings Jobs Hub

In its current usage, the future of the oil refinery site adjacent Hastings Street may be in question as it's believed we have surpassed peak oil production globally (Peak Oil Primer, www.energybulletin.net/primer). As we shift to alternative forms of energy, such as solar, hydro, biofuels, etc., what kinds of sustainable livelihoods and community development are possible in this area? What will this site look like by 2050?

Vision

The vision for this project is to see the future of the oil refinery site adjacent Hastings Street transformed to a walkable jobs neighbourhood, and food producing landscape, in which the daily needs of residents, including the need for livelihood, can be met within a five-minute walk.

Goal

The goal for this project is the creation of a holistic eco-industrial neighbourhood.

The Sustainable Neighbourhood: A Five Minute Walk

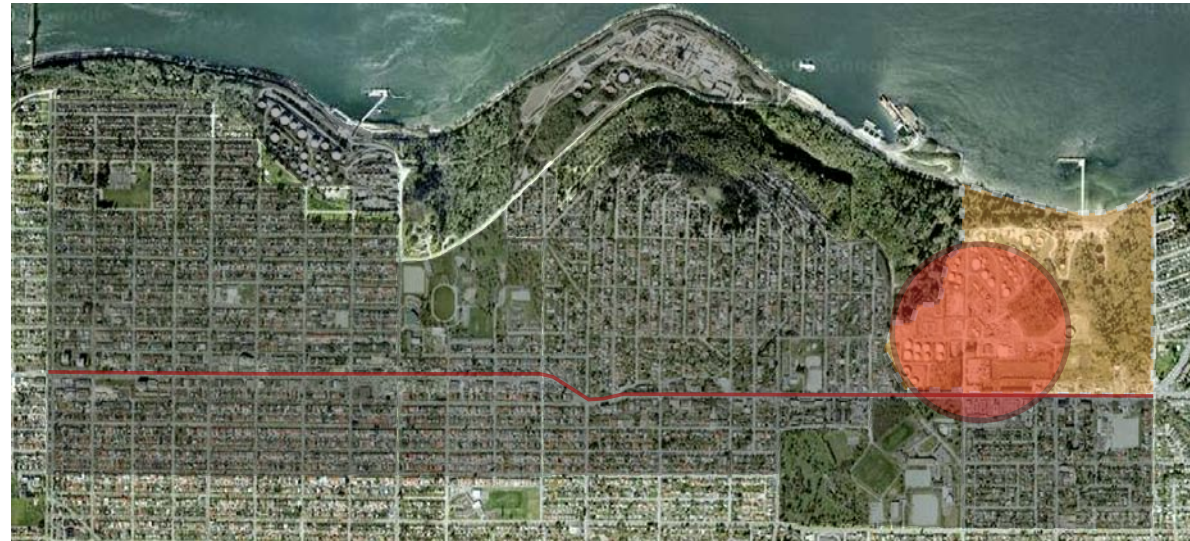
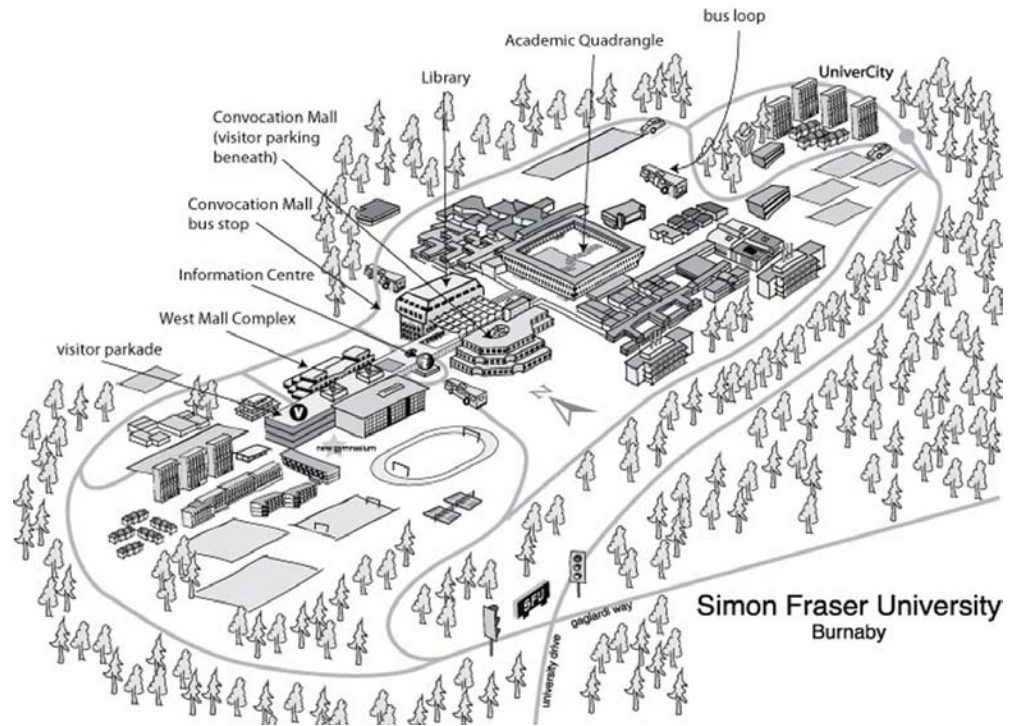


Diagram of a five minute walking distance on the site.

In order to commit to sustainability, the walkability of neighbourhoods needs to be considered, such that residents can meet their daily needs within a 400 m, or five minute walking distance. This proposal seeks to create a walkable neighbourhood in which the daily needs of residents, including that of livelihood, are met within a five-minute walk. Five-minute walk destinations include from home to work, home to store (commercial district), home to park, home to urban farm, home to school, library, community centre and home to transit stop.

The University as Analog UniverCity at Simon Fraser

The university is analogous with the concept of a jobs neighbourhood in the way that multiple uses and functions are layered, including land-use sharing with essential services and jobs. The university campus includes housing at a number of densities, jobs of many different types, services including medical care, food outlets, pharmacy/convenience stores, and a wealth of public spaces to meet the needs of many people, including students, as well as faculty, staff, and those employed by the university.



These images of the UniverCity at Simon Fraser show the finer grained mixing of land use on campus.

BedZED, South London UK

The principles of BedZED and the integration of eco-buildings and sustainable lifestyle are of interest for this project.

The Beddington Zero Energy Development, is considered the largest eco-village in the UK. The multi-award winning project is one of the UK's most coherent examples of sustainable living.

The project comprises 100 homes, communities facilities and workspace for 100 people. The development is focussed on reducing our ecological footprint primarily in the areas of food, transport, housing, wood products, textiles, and paper.

The approach to BedZED was based on:

- *local resource availability: using local farmland, woodlands, renewable energy and waste efficiently to meet more of our needs.*
- *closing the loop: recycling and reclaiming materials or using waste heat from industry.*
- *appropriate scale technology: allowing us to use regional resources which reduces transport and boosts the local economy.*
- *network production: producing locally with centralised co-ordination and marketing.*
- *fair trade: moving away from damaging low-value commodities to higher value, environmentally sound products. (source: BioRegional website, <http://www.bioregional.com>)*





Growing Power, Milwaukee

Mole Hill, Vancouver

Nathan Creek Farm, Langley



design inspiration



Village Homes, Davis CA

**South East False Creek,
Vancouver**

**4th Avenue Residential
and Commercial, Kitsilano,
Vancouver**



objectives

Symbiotic Urbanism

Symbiotic urbanism, which creates a mutually enhancing relationship between the corridor and the neighbourhood, can best be achieved through the dynamic interplay among the following core elements, which were considered in the formation of objectives:

1. Land Use
2. Gray Network (Streets and Paths)
3. Eco-Friendly Buildings
4. Green Network (Open Space and Infrastructure)
5. Energy, Waste, and Water
6. Urban Farming
7. Commercial Enterprises

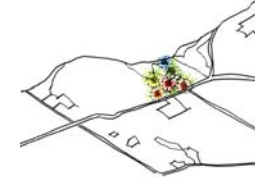
The dynamic aspect is reflected in the synergistic effect of these elements working together in the neighbourhood, in which the whole is greater than the sum of the parts.

Objectives

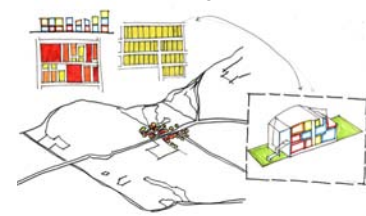
1. Create a land use pattern that integrates multiple uses while protecting and enhancing the natural resources of the site.
2. Provide enough housing so that population supports transportation choices, local services and community amenities.
3. Provide a walkable neighbourhood that presents a safe and pleasant experience, and easy access.
4. Provide a pedestrian and cyclist oriented street network.
5. Incorporate buildings that reduce energy and water consumption, greenhouse gas emissions, which are integrated into the natural systems of the site, with the provision of 3500 new jobs at 150 square feet/job, and x new housing units.
6. Infiltrate 1" of rainfall per day.
7. Link with local trail system.
8. Minimizes waste outputs, and energy inputs.
9. Produce 15% of local food for the neighbourhood.

symbiotic urbanism

Micro-climate → Micro-culture



Land Use Sharing



Define districts through scale, variety and character



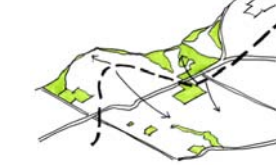
Five Minute Walk



Amplify the intensity of intersections



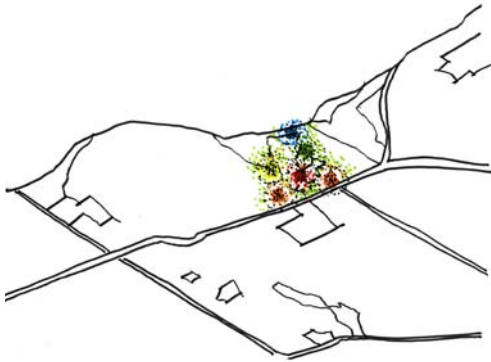
Look to the Land



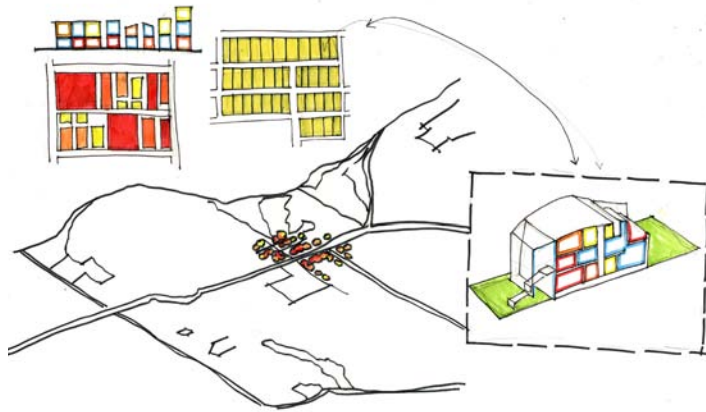
design principles

symbiotic urbanism

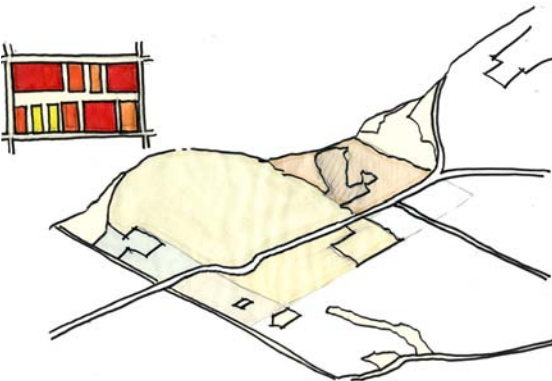
The design principles were formed in conjunction with the project goal and objectives, as well as in following from the group's Masterplan design principles. The principles apply to all scales of the design.



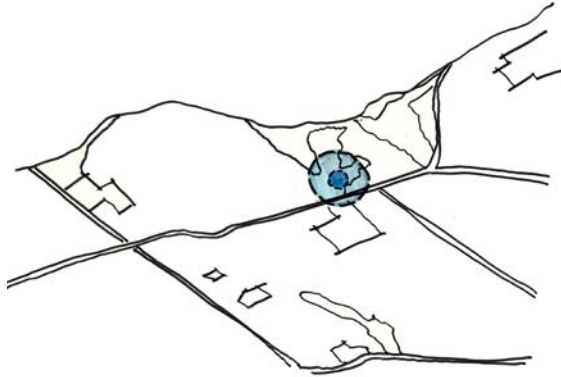
1. Micro-climate → Micro-culture:
Relationships based on cooperation and interdependence;
small community that is relationship based.



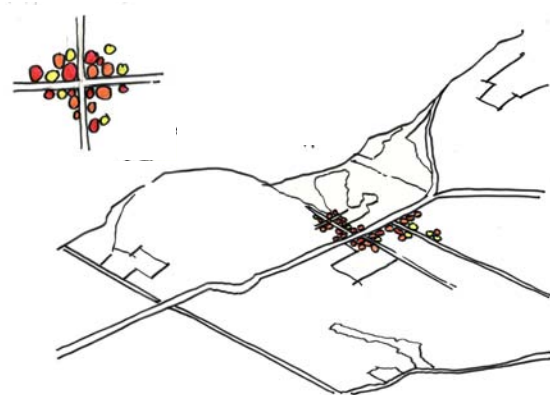
2. Land Use Sharing: Challenge the stigma of single-use
and single-family.



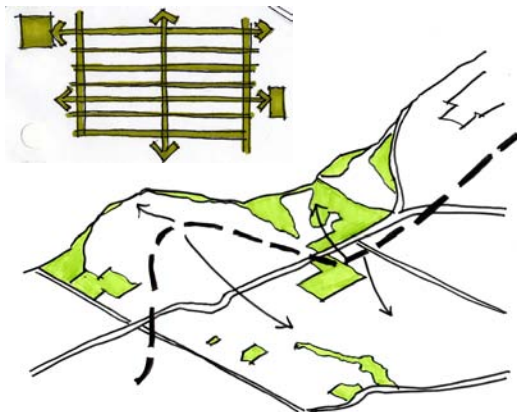
3. Define Neighbourhoods through scale, variety, and
character.



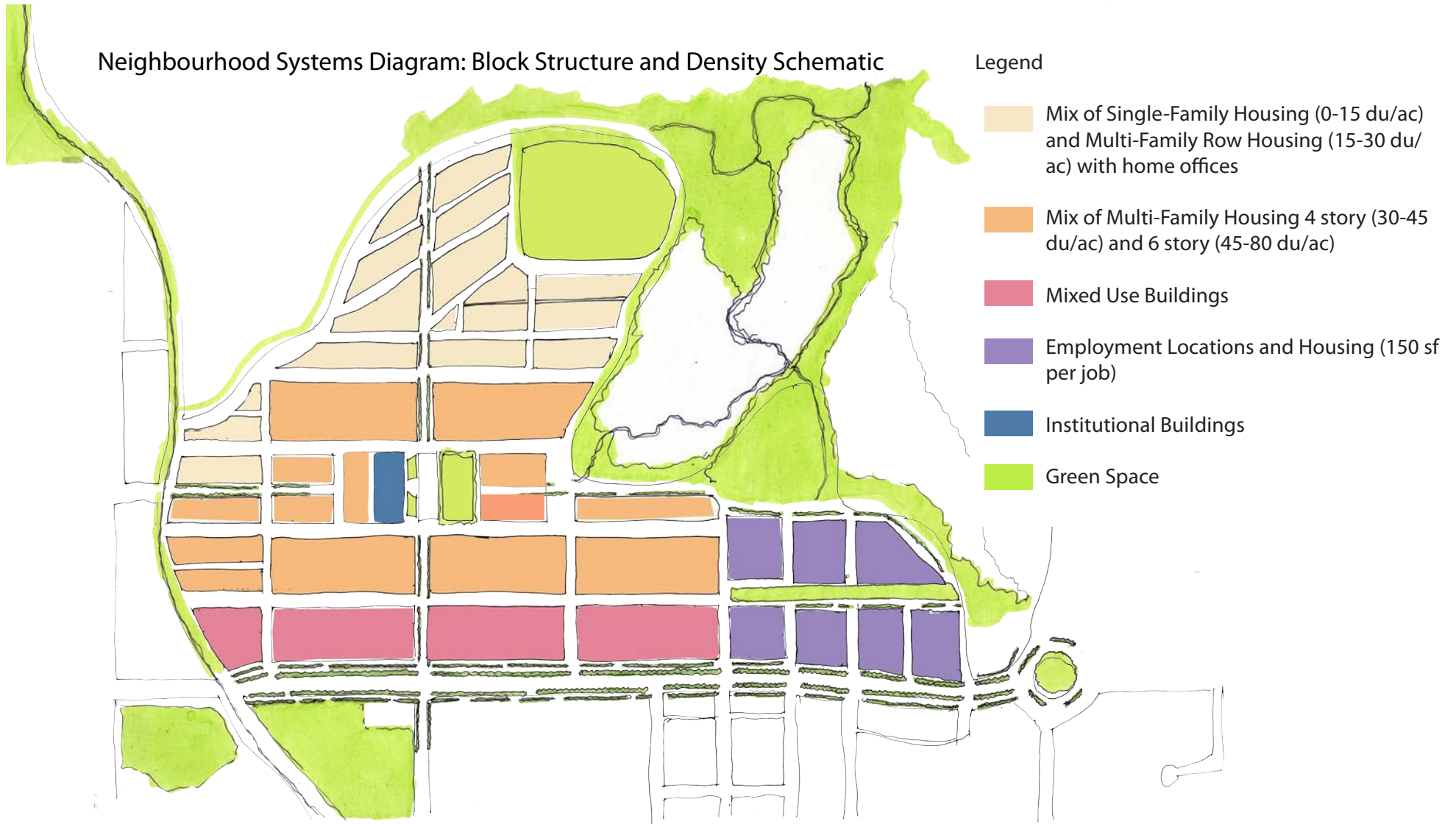
4. Five Minute Walk: create a walkable neighbourhood in which housing is no more than a five-minute walk to services, workplaces, transit, parks, and community amenities.



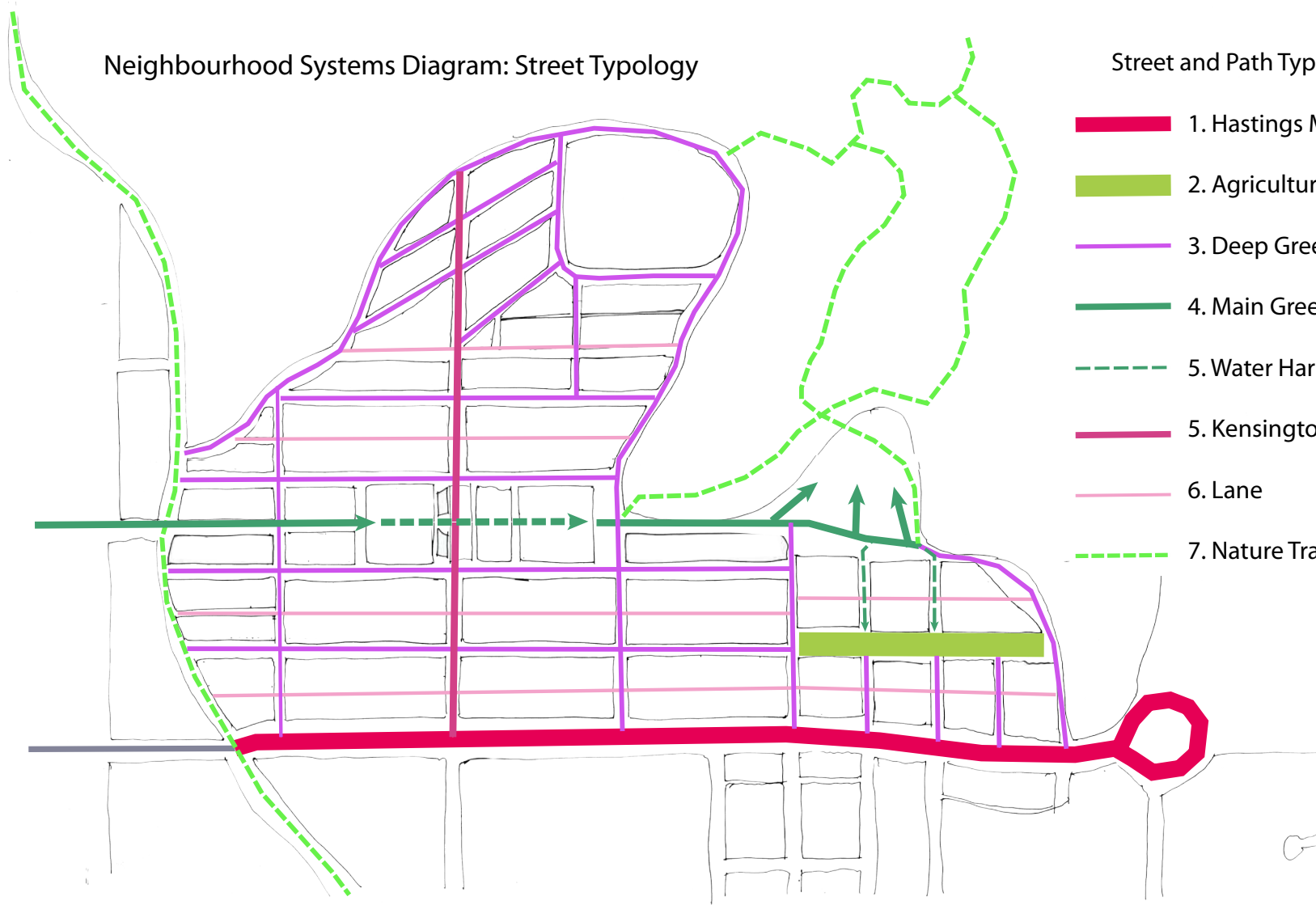
5. Amplify the intensity of intersections



6. Look to the land: design didactic and participatory green infrastructure, and work with the natural systems of the site

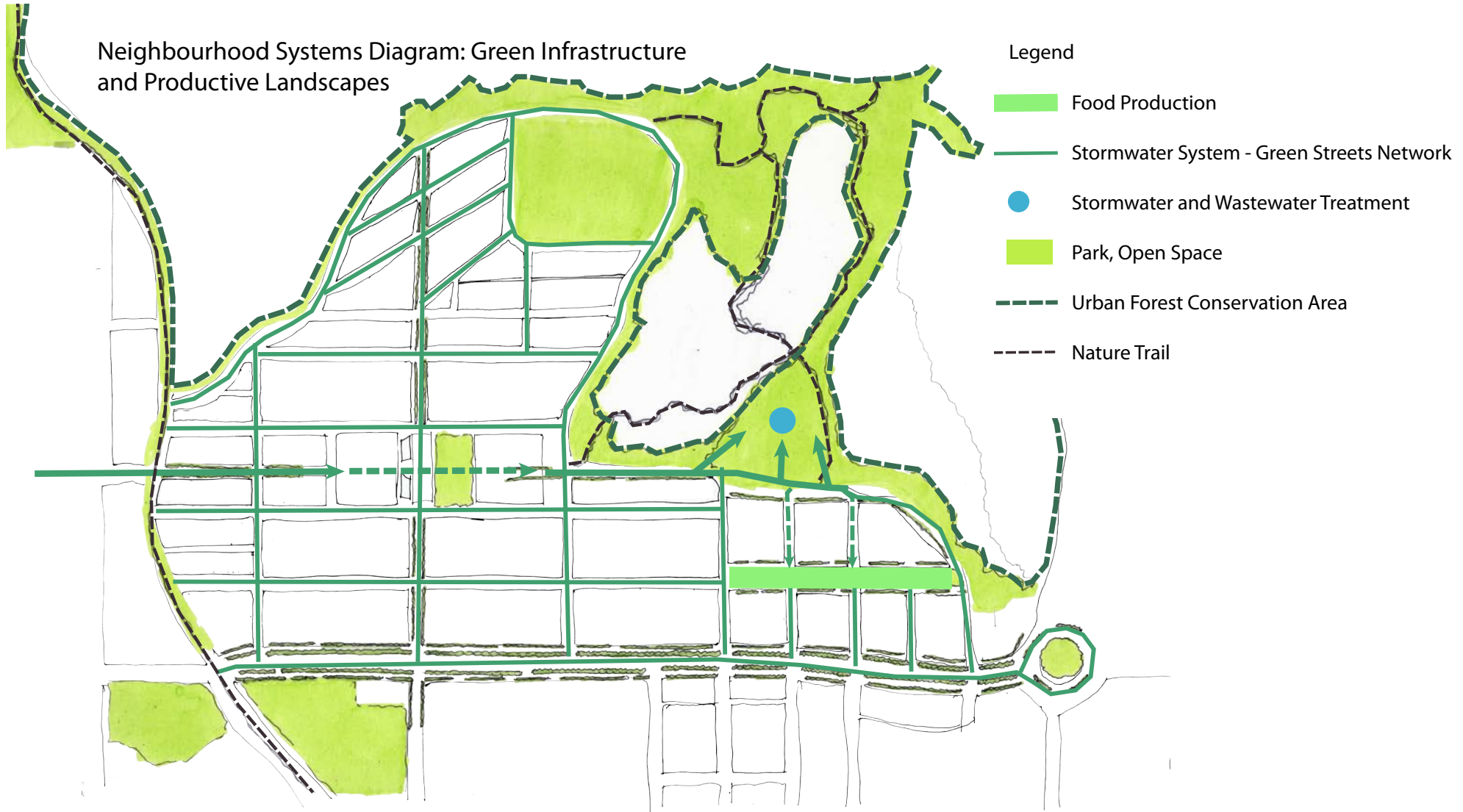


Neighbourhood Systems Diagram: Street Typology



Street and Path Types

-  1. Hastings Multiway Boulevard
-  2. Agriculture Greenway
-  3. Deep Green Queing Street
-  4. Main Green Street
-  5. Water Harvest for Agriculture
-  5. Kensington Street
-  6. Lane
-  7. Nature Trail





The design accomplishes a fine grained mix of land uses that includes a commercial district on Hastings St. that creates a high street for the Kensington neighbourhood, an eco-industrial and agriculture area that serves for research and development, live-work residential areas, a library and public plaza that form the community heart, and a parkland which links to the Burrard Inlet.

The Numbers:

3000 new jobs

9000 square feet workspace in eco-industrial area

7000 people

1.75 acres for agriculture

Legend: Buildings Coloured According to Density

- Mix of Single-Family Housing (0-15 du/ac) and Multi-Family Row Housing (15-30 du/ac) with home offices
- Mix of Multi-Family Housing 4 story (30-45 du/ac) and 6 story (45-80 du/ac) with home offices
- Mixed Use Buildings
- Employment Locations and Housing (150 sf per job)
- Institutional Buildings
- Green Space

Hastings Streetcar and Commercial District



Commercial land uses along Hastings Street enforce its role as a village centre, and commercial arterial. The commercial district creates a high street for the Kensington neighbourhood both North and South of Hastings Street.

Living: Mix of Housing Types and the Home Office



The residential neighbourhood is a finer grained mix of housing types, that supports the development of the home office.

Jobs Area and the Agriculture Greenway



Eco-industrial and agriculture area serves as a centre for research and development, with the potential to create public-private partnerships between the neighbourhood, Burnaby, and Simon Fraser University.

Community Heart: Library and Public Plaza



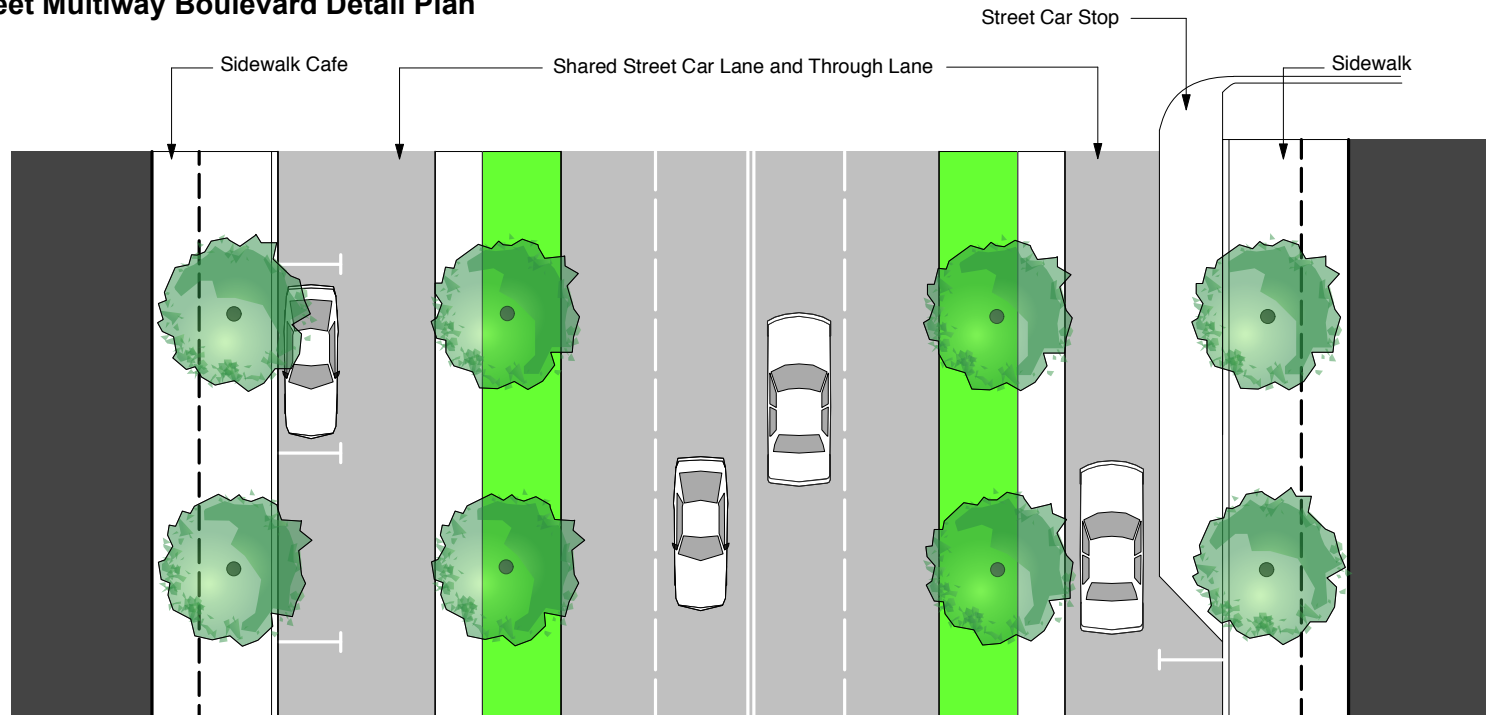
A library and public plaza in the centre of the plan create a community heart to develop a node of social interaction, and support the community, and draw people from Hastings Street.

hastings streetcar and commercial district

symbiotic urbanism



Hastings Street Multiway Boulevard Detail Plan



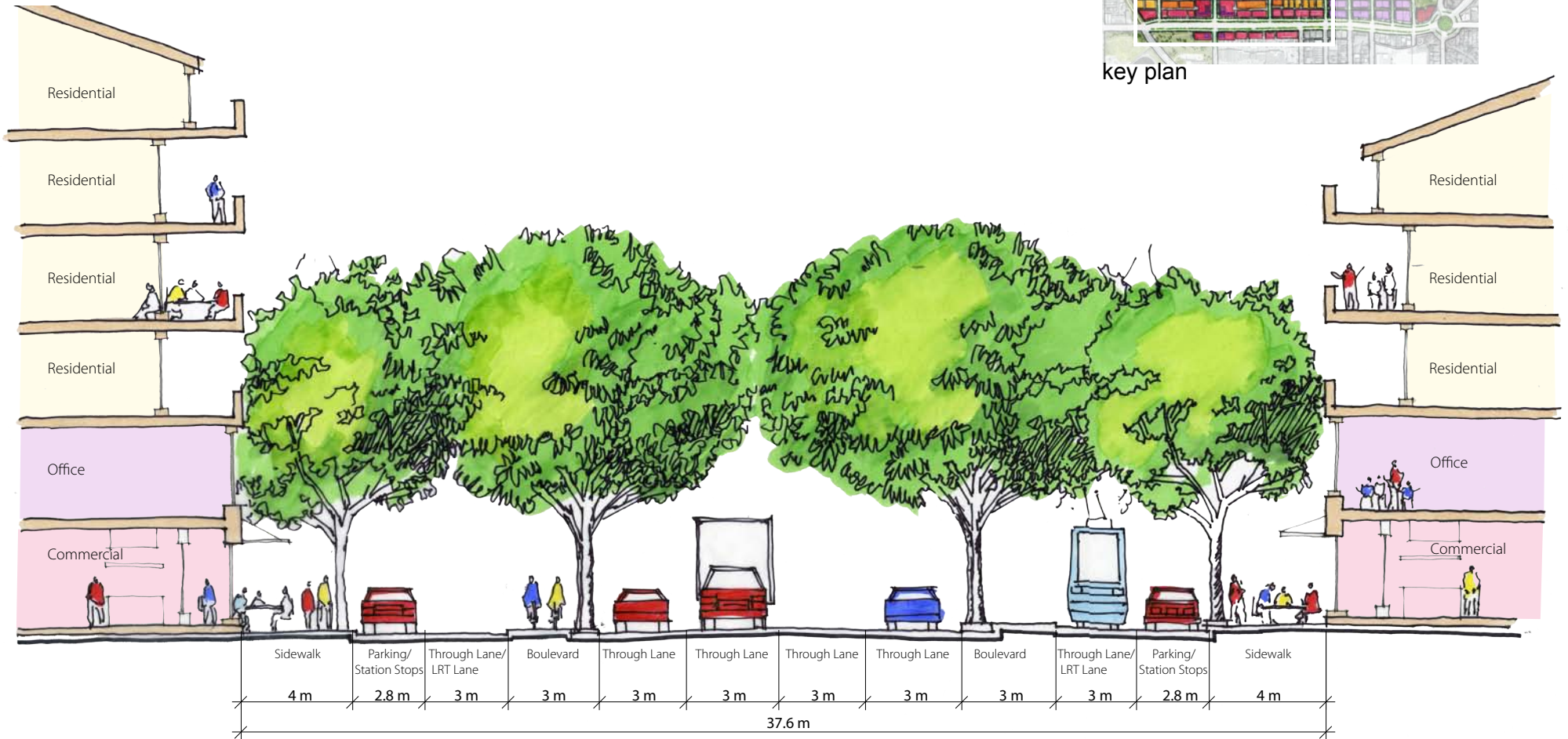
hastings streetcar and commercial district

symbiotic urbanism



key plan

Hastings Street Multiway Boulevard Detail Section



Hastings Street Multi-Way Boulevard
Streetcar and Commercial District

jobs area and the agriculture greenway

symbiotic urbanism

Agriculture public-private partnerships modelled after Growing Power, Milwaukee.



key plan

Building Types: Eco-buildings modelled after BedZED, UK.



jobs area and the agriculture greenway

symbiotic urbanism



key plan

Agriculture Greenway Detail Section



Jobs Area Living and Agriculture Greenway
Local Processing | Pedestrian and Cycling Oriented

living | residential queuing streets

symbiotic urbanism

Village Homes, and mix of housing types, UniverCity, Simon Fraser University



key plan

Hastings Street Multiway Boulevard Detail Plan



sustainable urbanism : the hastings corridor

sa:21

ubc urban studio : fall 2008

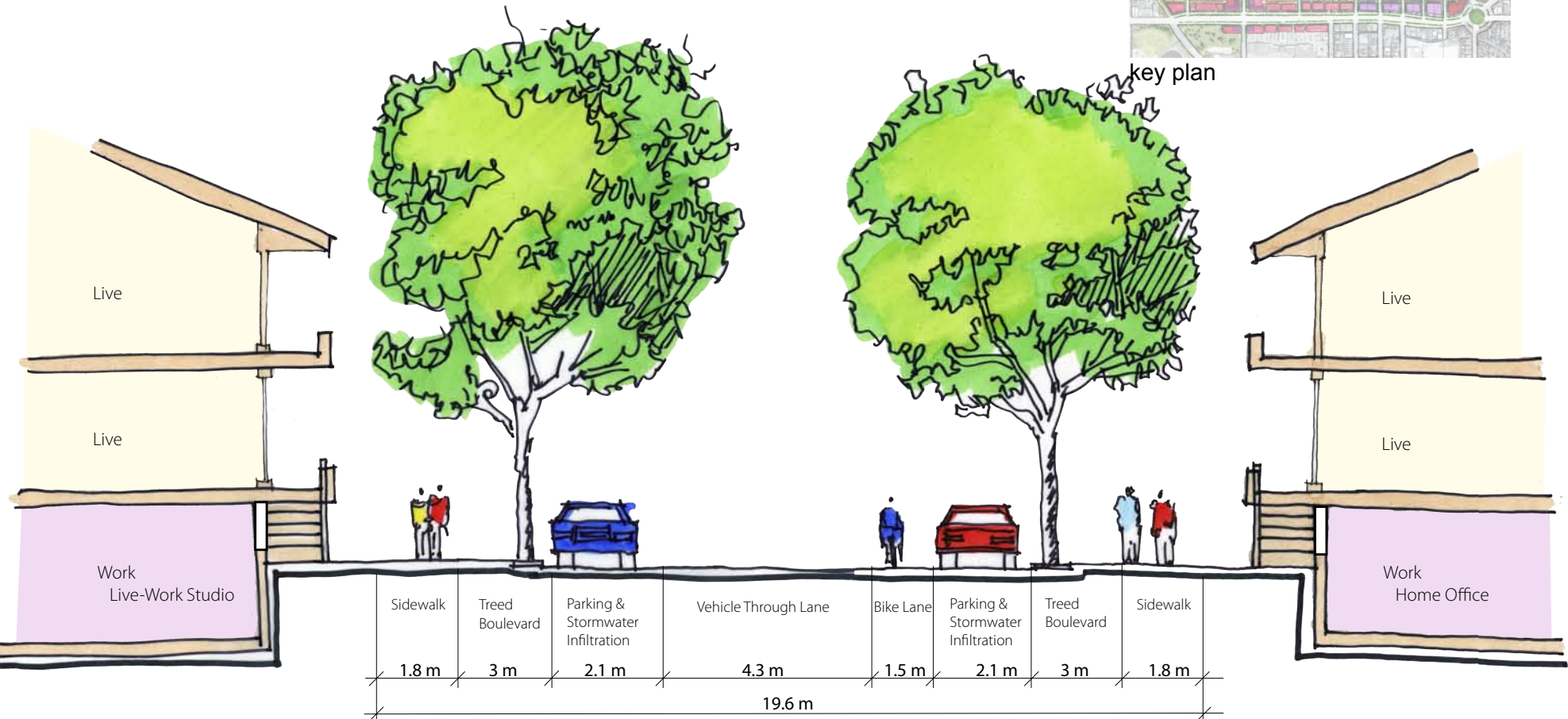
living | residential queing streets

symbiotic urbanism

Residential Deep Green Queing Street Detail Section



key plan



Living | Residential Deep Green Queing Street
Single Family and Live-Work Units

community heart | library and public square

symbiotic urbanism



key plan



Brian MacKay Lyons Library, UoT.



Library Plaza character, Koerner Library Plaza, UBC.

