

## Lynn Valley Town Centre

Charrette Decision Support Framework ▪ 19 April 2007

In 2004, District of North Vancouver Council adopted sustainability objectives/principles with the goal of “becom[ing] one of the most sustainable communities in the world by 2020.” Toward advancing this goal, on December 4<sup>th</sup>, 2006, Council authorized District staff to proceed with the development of the Lynn Valley Town Centre Plan. The Design Centre for Sustainability at The University of British Columbia (the DCS) is working with the District to facilitate a stakeholder-driven, multidisciplinary design charrette<sup>1</sup> process to develop a sustainable and imminently implementable concept plan for the Town Centre.

The Town Centre charrette process will be guided by the *Charrette Decision Support Framework*. This framework is directed at the Town Centre charrette process, and will focus on design principles, indicators and targets specific to the development of a Town Centre concept plan. This framework is being developed from existing District policy, expert opinion, and the input of District Staff, the Steering Committee, and members of the community at large.

The Lynn Valley Plan provides the vision statement for this process. The six design principles from the DCS’s *Sustainability by Design* project provide a high level organizational and guiding structure for subsequent framework elements. These principles are a product of what the DCS has learned through twelve years of sustainable community design projects in the Greater Vancouver Region, and other BC communities. Each design principle is described by a statement of intent that incorporates the objectives of the Lynn Valley Plan, and is supported by the Official Community Plan community goals, and the adopted Community Sustainability Objectives. These design principles, indicators and targets will guide the decisions made by the charrette team toward generating a Town Centre concept that achieves the Lynn Valley neighbourhood vision.

### Lynn Valley Neighbourhood Vision

“Drawing on our spectacular natural forest and mountain setting and our pioneer roots, we will create a diverse community which combines the warmth of small town living with the convenience of city life. Distinct, livable neighbourhoods will surround and be linked to a vibrant attractive town centre which will include residential, commercial and mixed use buildings. With a keen sense of community identity and pride, our active, involved citizens welcome people from all walks of life supporting them through life’s transitions, working in partnership to provide lifelong learning and recreation.”

-- *Vision Statement, Lynn Valley Plan, 7 May 1998*



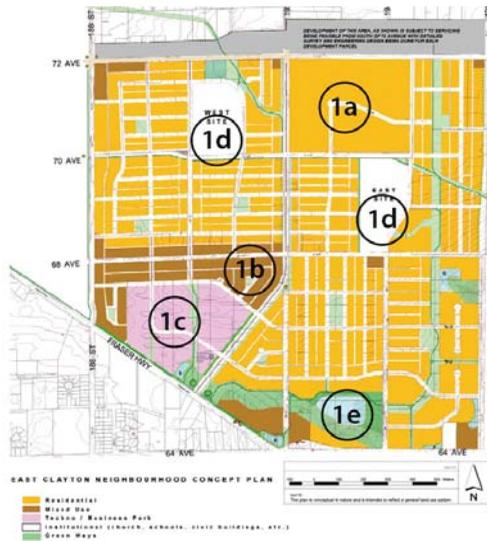
## Design Principles & Indicators

### 1 | *Five minute walk*

**Intent:** Sustainable communities have compact neighbourhoods surrounding a higher density, vibrant and stable core. Public gathering places provide a focus for each neighbourhood, and contribute to community identity. An interconnected grid of streets and arterials connects neighbourhoods, and is designed for walking, cycling and transit access. Neighbourhoods have enough density and use mix to support transit service.<sup>1</sup>

Indicator	Description
Distribution	To achieve walkability, land uses must be distributed throughout the community such that the majority of residents are within a five minute walk of their most basic daily needs.  <i>Example measurement:</i> % dwelling units within a 5-minute walk of a minimum of 3 different land uses.
Connectivity	Connectivity both within and between neighbourhoods for automobile and non-automobile transportation means people are able to get quickly and easily to their destination, reducing trip travel time and encouraging non-auto trips.  <i>Example measurements:</i> max. spacing between crosswalks, max. spacing between streets, # of connections from neighbourhoods onto collector and arterial streets, # intersections/sq. km.
Public realm	A safe and vibrant pedestrian environment means people have places to walk to and an enjoyable route to get there by. This means that the relationship of streets, buildings and public space create an urban form that is safe, comfortable and attractive. Within the Lynn Valley Town Centre, the new Library and public square is a keystone in creating this environment.  <i>Example measurements:</i> street tree canopy, % streets with sidewalks both sides, # front doors & windows facing street.
Accessibility	Accessibility ensures that a variety of land uses – including parks and open space – are in walking-distance proximity to residents. It also means the community is universally accessible.  <i>Example measurements:</i> area of new urban park, # of public art opportunities, max. walking dist. to nearest park or trail.

<sup>1</sup> (LVP objectives 5.3, 6.1, 7.1, 7.2, 8.2, 11.6; community sustainability objectives 1 & 3; OCP community goals 1 & 2).



**Distribution:**

**East Clayton**  
North Surrey, BC  
250 ha (562 ac)

A variety of land uses are distributed within a 5 to 10 minute walk of each other.

- 1(a) Residential
- 1(b) Mixed Use
- 1(c) Techno/Business Park
- 1(d) Institutional
- 1(e) Greenways



**Connectivity**

**Green Necklace Greenway**  
City of North Vancouver

Phase One: 2.2 km from a total 7 km route length.



**Public Realm:**

**Gastown**  
Vancouver

Design elements for safety and comfort include strategic lighting, wide sidewalks, canopy street trees, seats and narrow retail setbacks.



**Accessibility:**

**Newport Village**  
Port Moody  
5.5 ha. (13.5 ac.)  
900 residential units  
2.06 FAR

A universally-accessible mixed-use, transit-oriented urban village. The mix of high and medium-density residential units within low and high rise housing types provide access to a variety of retail and office spaces.

## 2 | *Mixed use locations accessible to all*

**Intent:** Sustainable communities are more complete communities where residents live, work, shop and play in their local area. Land and public infrastructure are designed for multiple purposes and mixed use, and to contribute to community identity. Corridors provide both effective commuter and goods transportation, and access to multiple services and daily activities. Corridors enable diverse transportation choices, including safe and efficient circulation for pedestrians, bicycles, transit and automobiles.<sup>2</sup>

Indicator	Description
Intensity	<p>Intensified commercial and office land uses along corridors puts jobs in the community and helps to create a vibrant pedestrian environment.</p> <p><i>Example measurements:</i> % commercial buildings fronting street, % mixed use buildings.</p>
Mobility	<p>Intensified uses along corridors puts jobs and businesses where people can easily access them from a variety of transportation modes.</p> <p><i>Example measurements:</i> distance between transit stops, proximity of transit to jobs and residences.</p>
Layering	<p>Layering means the structure and design of the landscape and buildings are flexible and can integrate multiple different uses at once, or over time. Layering contributes to intensity.</p> <p><i>Example measurements:</i> % street with multi-modal design, % mixed use buildings, % of street and site area with green function layered into design.</p>

<sup>2</sup> (LVP objectives 6.1, 8.2, 10.1, 10.2, 11.7; community sustainability objectives 1 & 4; OCP community goals 4 & 6).



**Intensity:**

**4<sup>th</sup> Avenue**  
Vancouver

Office and retail units here are located on a treed street, close to transit and bike routes, and clustered around residential units.



**Mobility:**

**Broadway + Commercial**  
Vancouver

Office, service and retail spaces are successful close to residential neighbourhoods, transit routes and crossroads.



**Layering:**

**Jean Vollum Natural Capital Centre (EcoTrust Building)**  
Portland, Oregon  
6,500 m<sup>2</sup> (70,000 ft<sup>2</sup>) building

Formerly a historic warehouse, the building was re-developed with ground floor retail and second and third floor office units. Accessible by streetcar, bus, bicycle and foot, with pedestrian and cyclist amenities around the building. Roof and parking lot runoff drains into a bioswale.

### 3 | *Good & plentiful jobs close to home*

**Intent:** Sustainable communities foster local economic opportunities and growth to support residents' needs. The Town Centre provides a majority of quality community facilities and services, and is key to creating a sense of community. Government policies and local infrastructure support local businesses and individual enterprise so residents can find employment close to home, which is more sustainable and beneficial to the community.<sup>3</sup>

Indicator	Description
Diversity	Job diversity means there are many different kinds of businesses and jobs within the community to suit the needs of a variety of people. Although we can't ensure residents will work where they live, we can provide more opportunities to do so, if desired.  <i>Example measurements:</i> number of dwelling units allocated to live-work, the ratio of local to non-local businesses, ratio of commercial frontage to commercial floor space.
Intensity	Job intensity means there are enough businesses and jobs within the community.  <i>Example measurements:</i> ratio of jobs to housing, ratio of retail and office floor space to dwelling units, the net increase number of new jobs, number of home-based businesses.

<sup>3</sup> (LVP objectives 6.1, 8.1, 8.2, 11.1, 11.2; community sustainability objectives 1 & 4; OCP community goal 5).



**Diversity + Intensity:**

**Broadway + Granville**  
Vancouver

A variety of office and retail spaces are provided here in close proximity to diverse residential neighbourhoods and a major transit node.



**Lonsdale Quay**  
North Vancouver

The lower Lonsdale and quay area provides a concentrated retail and office node for the area's dense surrounding neighbourhoods. A future addition is a neighbouring waterfront development known as "The Pier"; that will provide an additional 1.16 million square feet of residential, institutional and commercial job opportunities.

#### 4 | *Different housing types*

**Intent:** Sustainable communities include a variety of housing choice in type, tenure, affordability and accessibility in the same neighbourhood, and very often on the same street. A mix of housing types allows residents to live affordably in the same community throughout their lives. High quality neighbourhood design protects and enhances the character of residential neighbourhoods while responding to current and future community needs, such as ageing populations, empty nesters, single-parent families and smaller, non-traditional households.<sup>4</sup>

Indicator	Description
Diversity	<p>Diversity in housing types means there is enough variety in the kinds of units located in the community to meet the needs of all families, ages and abilities.</p> <p><i>Example measurements:</i> residential housing mix, amount of seniors assisted care housing, heritage preservation.</p>
Intensity	<p>Intensity of housing means there is enough housing clustered in the Town Centre to create a vibrant community and support business and transit.</p> <p><i>Example measurements:</i> overall residential density, density by housing types, housing distribution, each measured in residents per hectare.</p>
Affordability	<p>Affordability means there is housing to suite the needs of all family types and tenures throughout their lives.</p> <p><i>Example measurements:</i> % apartments of smaller size suited to rental or smaller families of modest means, ratio of rental to owner occupied units.</p>

<sup>4</sup> (LVP objectives 5.1, 5.2, 5.3, 5.4, 5.5, 8.2; community sustainability objective 4; OCP community goals 1 & 2).



**Diversity:**

**South Granville Bridge area**  
Vancouver

Residential development features both 6-storey ground-oriented townhomes and a 10-12 storey apartment tower.



**Intensity:**

**Vision for 200<sup>th</sup> Street (at 80<sup>th</sup> ave node), 2050**  
Langley

This land use concept envisions a residential intensity and housing mix that includes condominiums, stacked and ground-oriented townhomes, and live-work units. These are represented in orange and yellow around a red commercial centre.



**Affordability:**

**Arden Craig**  
Vancouver

Smaller units are more affordable and are more suited to rental. Here, a 1910 single-family house was converted into 3 stacked, strata-titled townhouse units with a new coach house addition.

## 5 | Access to linked natural areas & parks

**Intent:** Sustainable communities respect the natural functions of the landscape, particularly stream systems and habitat areas. Well designed communities integrate natural systems with human activities, placing high value on community access to natural systems and parks, yet recognizing their role as essential elements of the ecosystem. They protect the natural character of the community and secure opportunities for current and future active and passive recreation needs. Sustainable communities protect and preserve key natural areas and features, and maintain and restore ecosystem functions.<sup>5</sup>

Indicator	Description
Diversity	<p>Diversity ensures that a full range of park and open space types are included within the community.</p> <p><i>Example measurements:</i> ratio of public park to natural open space, % natural areas preserved.</p>
Distribution	<p>Distribution means amenities are located equitably throughout the community.</p> <p><i>Example measurements:</i> proximity of residents and jobs within a 3-minute walk to trail or greenway connections, % open space or naturalized area.</p>
Intensity	<p>Intensity ensures there is enough park and open space to meet the various needs of the community.</p> <p><i>Example measurement:</i> area of park and/or natural areas/resident, area of park and/or natural areas/worker.</p>
Connectivity	<p>Connectivity means that parks and open space are adequately connected to each other – so people and wildlife can easily move through the system, hydrologic systems can be restored, and the network connects all parts of the community.</p> <p><i>Example measurements:</i> % population and/or within 5-min walk of access points and routes which lead to a trail network, open space or other natural areas.</p>
Natural Environment	<p>Preserving and enhancing the natural environment – including forest, watercourses, and views – is key to creating a sustainable future.</p> <p><i>Example measurements:</i> % view corridors preserved, amount of native tree canopy and plant layer coverage, % tree canopy throughout community.</p>

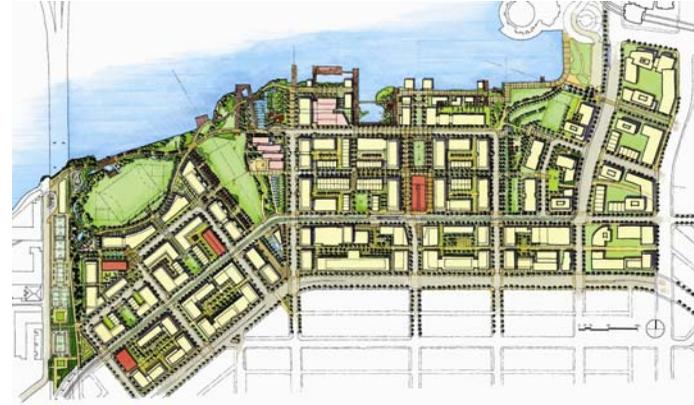
<sup>5</sup> (LVP objectives 4.1, 4.2, 4.3, 6.1, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6; community sustainability objectives 3 & 4; OCP community goal 3).



**Diversity:**

**Green Links**  
Lower Mainland

Various habitat “nodes” are linked in this initiative which supports biodiversity and provides a connected variety of passive and active open space for many communities. Green Links joins isolated parks and nature preserves with restored stream and utility corridors, residential greenways, and agricultural hedgerows.



**Distribution + Intensity:**

**South East False Creek Vision**  
Vancouver

One third of the site is retained for open space, with stormwater management, naturalized waterfront, habitat, and active park spaces distributed throughout the neighbourhood.



**Connectivity + Natural Environment:**

**Thain Creek**  
North Vancouver  
2,000m<sup>2</sup>

This project daylighted and restored Thain Creek to its natural state as a fishbearing stream, and includes an ecologically restored corridor with interpretive signage. There is an opportunity to extend a nature trail through the area in the future.

## 6 | *Lighter, greener, cheaper, smarter infrastructure*

**Intent:** Sustainable communities optimize the economic, social and ecological impacts of buildings and infrastructure. Innovative development standards and practices – including preserving, enhancing and maximizing use of existing public facilities and other local community resources – reduces community and environmental impacts as well as private, public, and taxpayer costs of development and infrastructure. Infrastructure that is distributed, clustered, interconnected, integrated, service oriented, responsive, renewable/low-impact, well-suited, multi-purpose, and adaptable will benefit both society and the environment, *and* save money over the longer-term, ensuring the sustainability of economic growth.<sup>6</sup>

Indicator	Description
Efficiency	<p>Efficient use of land, water, energy and resources are key to reducing the community's draw on the environment and achieving a sustainable future.</p> <p><i>Example measurements:</i> number of streets with on-street parking, ratio of surface to underground parking, street width, % south-facing building walls, density.</p>
Impact	<p>Good design of build areas – such as using alternative parking, storm water infrastructure, and building standards – means a decreased impact on the environment and contributes to efficiency.</p> <p><i>Example measurements:</i> % canopy and native plant coverage around parking spaces, % effective pervious surface area, % area of green roofs, sq. footage of green buildings (i.e. suitable building orientation, energy-efficient windows, passive-solar design, durable building envelopes, natural light and ventilation), % buildings supplied with alternative energy strategies (e.g. ground-source heat pump to heat &amp; cool), % of LEED certified buildings at or above the “Gold” standard.</p>
Net productivity	<p>Net productivity refers to amount of food-growing area, access to locally produced foods and products, canopy coverage, and waste management.</p> <p><i>Example measurements:</i> number of dwellings within a 3-minute walk of a garden plot, productive land/dwelling unit, area for an on-site farmer's market, number of composting and recycling facilities.</p>

<sup>6</sup> (LVP objectives 10.3, 11.3, 11.4, 11.5; community sustainability objectives 2 & 3; OCP community goal 6; GM pp.4-17).



**Efficiency:**

**Arbutus Walk**  
Vancouver

2.2 FAR  
2.4 ha (6 ac.)  
654 residential units

In this case, efficiency is proven by the development's re-use of a brownfield site, location close to major transit and bicycle routes, schools, shopping and services and greenspace. Street calming techniques increase safety and walkability. 80% of residents use alternative transportation modes when commuting to work. Parking is located on-street and underground.



**Impact:**

**Dockside Green**  
Victoria  
(under construction)

Low impact design will host a number of social, environmental and economic features in 1.3 million square feet of mixed residential, office, retail and industrial space. Features include 45-55% overall energy savings, per-unit energy metering, the on-site reuse and treatment of all sewage and rainwater, 65% less overall potable water consumption, emphasis on alternative transportation modes, an onsite centralized heat plant, and extensive tree planting and green roofs.  
<http://www.docksidegreen.ca>



**Net Productivity:**

**Strathcona and Cottonwood Community Gardens**  
Vancouver  
2.83 ha. (6.9 ac.)

Estimated annual garden productivity is 1,200 lbs (544 kg) of fruit, 980 lbs (444 kg) of produce. Food waste composted over 2 years: 231 tonnes, compost produced: 43.4 tonnes, reduction in CO2 equivalents: 258.2 tonnes (like taking 64 cars off the road for one year).