Riverwalk on the Coquitlam

Charrette Date
February 2000

Charrette Client
Landview Group

Charrette Type
Consultant

Consultant Team

Aplin and Martin Consultants Ltd.
Tera Planning Ltd.
Golder Associates Ltd.
Moriarty/Condon Ltd.
Ward Consulting Group
CWMM Consulting Engineers Ltd.
Site Economics Ltd.

CONSULTANT CHARRETTE

Some charrettes involve a relatively closed group of participants in an effort to produce a proposal for a specific opportunity or problem presented by a specific site. The consultant charrette for the Riverwalk proposal involved designers, urban planning and environmental engineering specialists in a day-long charrette early in the development of their proposal for this sensitive hillside site. This charrette led to the basic urban form for the site as well as to the establishment of the fundamental role of "green infrastructure."

Above
The site shown in its local context. To the west of the site is Westwood Plateau, and to its south are the Coquitlam Town Centre and the River Springs development.

The Riverwalk Village proposal tests key principles of low-impact development on a fifty-three hectare (130 acre) greenfield site on the slopes adjacent to the Coquitlam River.
The site is located in the GVRD's "Growth Concentration Area" and was designated "Development Reserve" in the City's Official Community Plan. It is close to community infrastructure and is within three kilometers of regional commuter rail and the proposed "Millenium Line" Skytrain extension. Finally, the site can provide for a variety of housing types and tenures to meet increased demand for affordable homes in the city.

Given the site's location within a sensitive river ecosystem, the design challenge was to accommodate schools, commercial development, and market/non-market housing in a village community made up of distinct neighbour-hoods in ways that would reduce impacts to sensitive aquatic systems.

Guiding Policy:
Northeast Coquitlam Official Community Plan (2000)
The revised Coquitlam Official Community Plan (OCP)[1] was under development during the initial stages of planning for the Riverwalk site. The new OCP was adopted in July 2000. The OCP generally outlines the broad objectives and policies that will direct development within the community in an efficient and orderly fashion. Specifically, it outlines a long-range planning framework for developing this community and establishes principles to guide the planning and development process. The OCP designated the Riverwalk site a "Development Reserve," which means that it is recognized as an area for future development subject to confirmation of servicing and access. After its consideration as an amendment to the Northeast OCP, the Riverwalk proposal received municipal endorsement when City Council passed the adopting bylaw in September 2001.

Goals and Principles
The design brief for Riverwalk evolved over the course of the planning process and took into account input from the client, consultant team members, and City staff. Based on this input, the design team derived the following general goal for the Riverwalk site:

To enhance and preserve its special environmental features, to provide amenities for the benefit of surrounding neighbourhoods and region, and to create a village atmosphere and residential environment that is in harmony with its natural setting.[2]

In an attempt to achieve this goal, the team followed the planning principles outlined in the OCP:

1. *Protect the area's natural features and environmentally sensitive areas*
2. *Promote efficient use of resources, including land, energy, and capital*
3. *Create a complete community in terms of population, housing types, and uses and services*
4. *Increase transportation choices*
5. *Address regional and local housing needs by providing a diverse mix of housing types and tenures*
6. *Promote community and social well-being, including health, safety, and access to safety services*

Design Proposal
Proposed land uses at Riverwalk include high, medium and low density residential, village commercial, school, parks and recreation, linear park, and environmentally sensitive areas. A total of 1,100 new homes are planned. In order to conserve the area's prominent natural features and ecological function, almost 40% of the site is dedicated to natural lands, with an additional 13% dedicated to public parks, schoolyards, and play areas. The school site is flexible enough to accommodate both an elementary and middle school with separate street access. The Coquitlam River is protected with a significant buffer at the top of the bank. Passive recreation corridors will provide access to the river and waterfall north of the site.

The transportation system is intended to facilitate walking and cycling, and to accommodate transit service. Schools and commercial services are located on-site and within walking distance of all homes. Access to the site is via a bridge. The layout of internal streets follows the site's contours in order to minimize impact upon streams and the adjacent Coquitlam River.

Conclusions and Lessons Learned
The Riverwalk consultant team charrette was carried out in an atmosphere sensitive to further development of this area. This sensitivity was based on concerns about impact on the site's natural environment; the ability to fully mitigate all development associated impacts in this area, and the impacts from historic patterns of insensitive development in the Coquitlam River watershed. Consequently, the possibility for resolving the conflict between site and watershed environmental concerns and the compatibility of the development proposal with regional and community growth management strategies, set up a unique challenge for a charrette-based resolution.

The Riverwalk consultant team achieved a much higher degree of internal integration (incorporating ecological, planning, design, and engineering expertise) than other BC projects of its kind. However, unlike the process for the East Clayton area (see pages 42-47), it did not involve all possible stakeholders.

The key lessons learned from this consultant charrette are:

- Consultant charrettes involving a highly integrated consultant team can measurably reduce the environmental impact of plan but can be challenged for lack of stakeholder involvement.
- Low impact development principles can be applied to difficult sites such as Riverwalk, but implementation problems can be expected because of site sensitivity, the potential for impacts, and the feasibility of applying all required mitigation measures and/or developing acceptable compensation options to offset any residual impacts associated with development in this area. As such, any development will require extraordinary care on the part of both developers and municipalities.

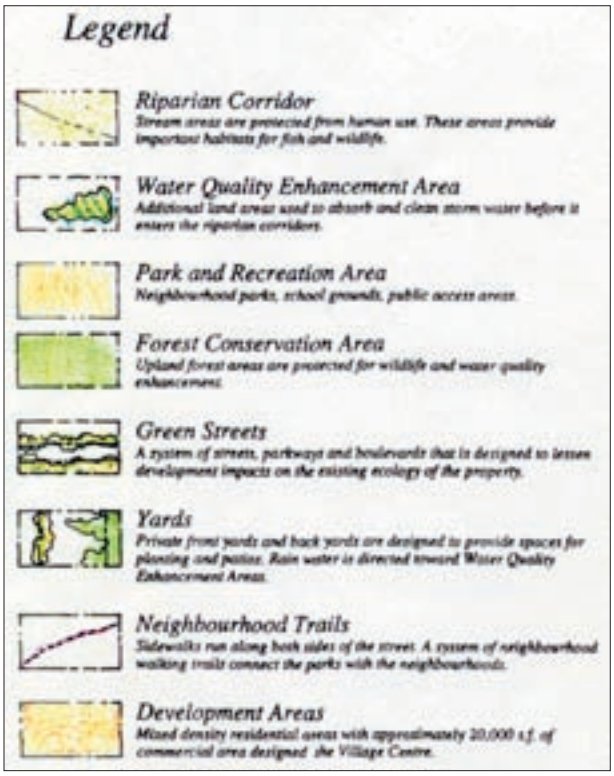
Notes:

[1]City of Coquitlam, *Northeast Coquitlam Official Community Plan* (Coquitlam, BC: City of Coquitlam Department of Planning and Development, 2000).
[2]Landview Group, *Riverwalk on the Coquitlam: Official Community Plan Amendment* (Coquitlam, BC: Landview Group, 2000).

Illustrative Plan

Riverwalk on the Coquitlam

Riverwalk on the Coquitlam



A Green Infrastructure Vision

Recognizing the wealth of natural amenities in and around the Riverwalk site, the design team concluded that the success of the project would depend on how effectively the plan protected and capitalized on both internal and external natural landscape features. This insight lead to a concept for the Riverwalk "green infrastructure" system – a system of streets, greenways, and open spaces that organizes and gives special character to the site. The features of this green infrastructure vision include:

- maintaining forest corridors in order to provide habitat and to visually absorb the community into the hillside
- incorporating natural features into parks and open space
- preserving streams that flow through the site to the Coquitlam River and act as a natural boundary between residential "blocks"
- aligning proposed streets with the natural topography in order to minimize disturbance, increase accessibility, and minimize stream crossings
- protecting streams with an overland stormwater drainage system

Streets, parks, yards, and open space are also part of the infrastructure system. These features capture, direct, and infiltrate rainwater on site in a way that copies pre-development patterns.

In addition to the comprehensive green infrastructure system, the plan integrates a high degree of affordable housing types (ranging from single-family homes to high-density townhomes) within neighbourhoods clustered around areas of community open space. Village commercial is located at the entry of the community, within a short walk or cycle of all residences.