

An aerial photograph of a city skyline, likely Los Angeles, with several high-rise buildings and a body of water in the foreground. The buildings and sky are reflected in the water. The text is overlaid on a semi-transparent white rectangular area.

***Brownfields
LEED ND,
Southeast False Creek
and the future of cities***

October 2009

21st century coming at us



Development

Climate change

Peak oil

Water

Resources & waste

Ecosystem degradation

Global food system

Demographic change

Economic change

8 Pillars of Sustainable Cities

1. **A complete community**
2. **Low impact transportation**
3. **Green buildings**
4. **Multi-dimensional landscape**
5. **Innovative utility infrastructure**
6. **Healthy Food Systems**
7. **Facilities / Programs / Process for social health**
8. **Sustainable economic systems**



Brownfields are great!

- ❑ Old downtowns and industrial areas
- ❑ Serviced by infrastructure
- ❑ Less expensive land
- ❑ Authentic history
- ❑ Large parcels



LEED for Neighbourhood and Southeast False Creek



LEED-ND – Background

A Neighbourhood Rating System

A synthesis of *Smart Growth, New Urbanist & Green Building* principles -
Sustainable Urbanism

Developed in partnership between:

- US Green Building Council
- Congress for New Urbanism
- Natural Resource Defense Council

Administered by USGBC

**LEED ND will become the most influential
brownfield development planning document
in the future**



LEED ND - Priorities

Overarching Themes

- Appropriate location
- Compact, complete, connected
- Active transport & transit
- Green, energy efficient buildings

Intent

- Healthy population
- Vibrant economy
- Environmental performance



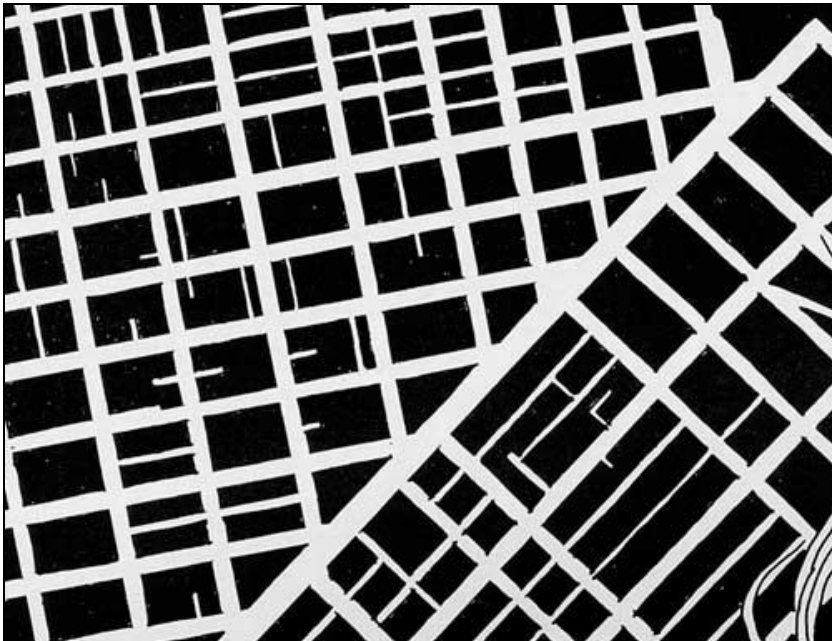
LEED ND – Stages of Certification

Stage 1 – Pre-review

Stage 2 – Certification of an **Approved** Plan

→ SEFC Stage 2; not certified yet

Stage 3 – Post-construction



LEED ND Rating System

Platinum

- 80-106 points

Gold

- 60 – 79 points

Silver

- 50 – 59 points

Certified

- 40 – 49 points



LEED ND Scoring Overview

Series of credits and prerequisites

Smart Location & Linkage

- 30 possible points

Neighbourhood Pattern & Design

- 39 possible points

Green Infrastructure & Buildings

- 31 possible points

Innovation & Design Process

- 6 possible points



Southeast False Creek

- 85 acre site - Former industrial site
- Home for over 10,000 – 2010 Olympic Village
- Extensive contamination – zinc, benzene, xylenes, trichloroethylene, VPHv, etc.
- Envisioned in early 1990s as a model of sustainable development



**Brownie winner this year
– Best Overall Project**

Southeast False Creek

- Infill brownfield
- Housing / jobs - mixed use project
- High density
- TDM
- Bicycle networks
- Alternative district energy system
- Re-use of existing buildings
- Stormwater management
- Net Zero Bldg – multifamily – First in BC/Canada



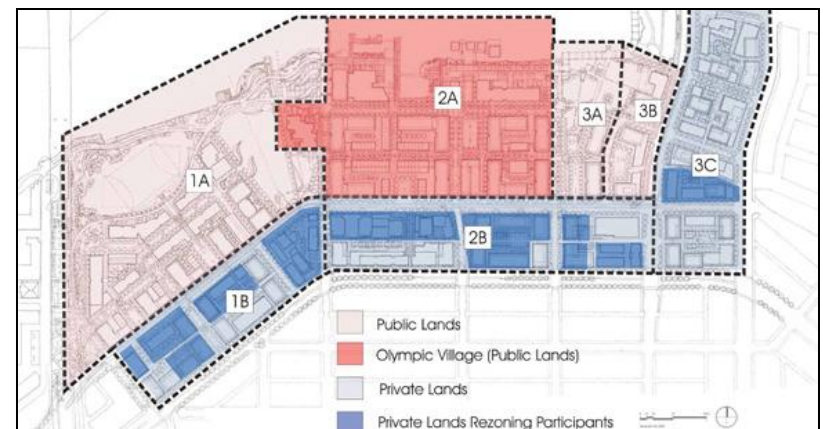
Southeast False Creek

- ❑ Reduced parking
- ❑ Innovative streets
- ❑ Transit access
- ❑ Extensive community outreach
- ❑ Hiring disadvantaged people in construction
- ❑ Extensive local food agenda
- ❑ Green buildings
- ❑ Sustainability education
- ❑ Habitat Island



How Does LEED-ND Promote Brownfield Redevelopment?

- Up to 4 points for brownfields
 - Brownfield Redevelopment (2 points)
 - High Priority Brownfield Redevelopment (1 point)
 - Contamination Reduction in Brownfield Remediation (1 point)



SLLc1: Brownfield Redevelopment

Intent

- Brownfield redevelopment helps reduce pressure on undeveloped land



Requirements

- Locate project on brownfield
- Remediate site



SEFC Submission

SLLc1: Brownfield Redevelopment

- ❑ Identified as contaminated site
- ❑ Site assessment and remediation efforts were conducted
- ❑ 2 points awarded



SLLc2: High Priority Brownfield Redevelopment

Intent

- Encourage the cleanup of contaminated brownfield sites in areas targeted for redevelopment.

Requirements

- Project must be located in government-identified prioritized development area



SLLc2: High Priority Brownfield Redevelopment

SLLc2: High Priority Brownfield Redevelopment

- As Canadian project, SEFC not eligible for redevelopment incentive programs listed
- Have tried to demonstrate equivalency, but difficult in the absence of comparable Canadian development incentive area programs
- 1 point pending



GCTc8: Contaminant Reduction in Brownfields Remediation

Intent

- Reduce contaminant volume or toxicity and thereby minimize long-term remediation or monitoring burdens.

Requirements

- Accepted cleanup methods: treatment, reduction or elimination
- Capping and/or translocation only, unless unavoidable, will not achieve this credit.



Southeast False Creek Experience

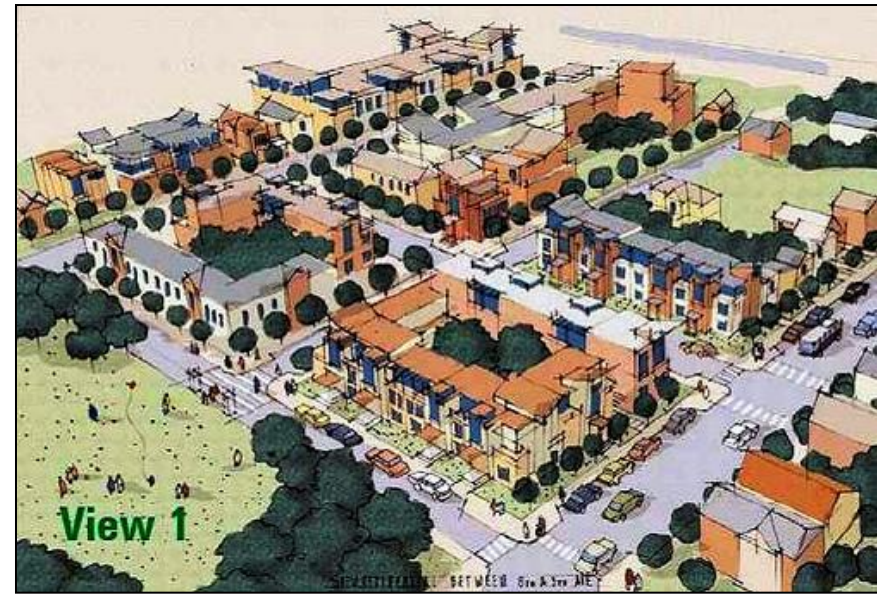
- ❑ **GCTc8: Contamination Reduction in Brownfield Remediation**
- ❑ Translocation was primary clean-up method, but was unavoidable
- ❑ 1 credit pending



Opportunities for Brownfield Sites

Urban brownfield sites often well-suited to LEED-ND program, as many points available for project sites that are:

- Previously Developed
- Infill
- Close to jobs
- In higher density areas
- And many more...



Review of Challenges

Challenges faced in meeting LEED-ND's criteria for brownfield redevelopment:

- U.S. development incentives programs– Canadian equivalencies don't always exist
- Cap and translocation not enough
- CaGBC and Canadian version coming in 2010



The future of cities

- Sustainability is the new normal
- Greenwash vs
3rd party proof
 - LEED ND
- Infill mandate – brownfields
- The 21st century – our generations challenge



Thank You!



www.hblanarc.ca