Framework for Sustainable Design Strategies
It is a way to organize and distill the vast number of sustainable design strategies into a logical and useful framework. At the same time, it is a framework that would be relevant to a variety of site situations and that would encompass the broad range of issues that bear on sustainable site design.
There are four scales for urban design

1-Districts:
are the geographic and social units that collectively comprise our urban regions. They are the places where we live, work, play, and exchange.

2-Corridor
Corridors are the conduits for moving materials, energy, and resources within and between neighborhoods, districts, and regions.
3- Block
Blocks are the chunks of developable land that are available after a street pattern is imposed. Smaller blocks result from a more integrated (or net-like) street system, while large super-blocks are the result of a disintegrated (or tree-like) street system.

4-Parcel
The parcel is the smallest increment of development.
There are 4 strategies can be applied to the four Levels of sustainable urban design:

2- **Green infrastructure**
Green infrastructure refers to the ways in which natural systems are integrated into the structure of a community. Green infrastructure can mean using the naturally absorptive areas of the streets, forests, and open areas to allow rainwater to infiltrate the ground.

2- **Social infrastructure**
Communities with a healthy social infrastructure are complete communities. Healthy social infrastructure means that housing, jobs, and services are clustered and that residents can walk to a transit stop or to a corner store.
3-Movement
Organisms need a constant and efficient flow of materials and energy in order to survive. When this flow is interrupted or altered, the organism’s health is compromised.

4-cost
Sustainable communities are affordable communities. This means that they contain homes that citizens can afford; provide an equitable and reliable distribution of services; provide a reasonable return on investment over the long term.
1- Southeast False Creek
A District

Green Infrastructure
A1 Create a connected ecological network
In this proposal, all green areas on the site are “working green” areas that are important to maintaining the site’s ecological health. The plan detail shows part of a system that captures and cleans 100% of the storm water and grey water (from residential sinks and washing machines) flowing from this residential block.

Movement
A2 Connect districts with transit
The image below shows numerous transportation modes in a linked system. These include Sky Train, a ferry, a streetcar, roads, a waterfront path, and an underground path. Major on-site streets are connected to off-site streets, yet priority is given to walking and biking. The off-site connections allow SEFC residents to easily walk or bike to the Broadway Corridor, downtown, to the Sky Train station at Science World, and to other regional transit links.
Social Infrastructure

A3 Let the centre define the community

In order to enliven the public realm, it is important to concentrate civic, institutional, and commercial activity. Community centres should accommodate a range of activities and adapt to changing needs over time. The image above shows a boathouse/multi-purpose centre on the waterfront. Such a facility, serving the larger community, provides boating access to the restored waters of False Creek while still providing flexible space for community groups and for civic celebrations.

Cost

A4 Provide a variety of affordable housing types

A sustainable community can accommodate a diverse mix of incomes and family types. The above image shows a sample of a broad range of housing types, sizes, and tenures, which makes the site attractive to every income, age group, and household type. Overall, at least 20% of housing in this proposal would be for low-income households; 35% would be for families with children (with 10% of this being intended for low income families).
Green Infrastructure

B1 Create urban gardens
Even a high-density residential area can provide habitat for songbirds, amphibians, plants, and insects. The image below demonstrates how this is done. The street system in this image is actually a linear habitat corridor that links to habitat areas along and just off the shore.

B2 Create safe and comfortable streets
Designing streets for safety and comfort will encourage more people to use them. The cutaway view of this local street shows how this may be accomplished. A narrow roadway (approximately 6m wide) accommodates two travel lanes. Moving traffic is buffered from pedestrians by parking, located within grassy verges on either side of the street.
B3 Use streets to frame views

Grid street patterns usually protect long views. Modified grid street patterns can protect long views and/or emphasize key structures or locations within the district. In the plan detail shown, the street orientation and design ensures that views to local landmarks such as the North Shore mountains, city hall, the downtown core, and Science World are maintained.

B4 Centre activity on a “Main Street”

A primary through-corridor can become the commercial heart of the community. The centre could be linear and connect to the rest of the city along an active street corridor. Retail, services, and workshop spaces animate the Main Street while serving neighborhood residents and those that pass through by foot, car, bicycle or street.
Green Infrastructure

C1 Manage stormwater in the middle of a block
“Working greens” should be located prominently. This helps residents and visitors understand how the community’s natural systems are managed. The space is used for recreation when it is dry but fills with water immediately after it rains. The space dries out after a day or so as water infiltrates into the soil.

Movement

C2 Make short blocks
Large blocks are impenetrable to the movement of people. Shorter blocks mean more intersections and more intersections mean slower car speeds. A block dimension of approximately 180m by 60m continues the block pattern established by the existing city fabric to the site’s south.
C block

Social Infrastructure
C3 Encourage connection
The sidewalk is an essential connective element between blocks in a neighborhood and between residents and the public life of the street. Tight setbacks and front stoops, allow visual and even conversational exchange between residents and passers-by.

cost
C4 Create flexible row-house blocks
Townhouse type buildings, while seemingly all one size, are actually configured in a variety of ways. This kind of diversity welcomes a range of income groups and provides affordable options even when family circumstances change.
Green Infrastructure
Step the envelope
Incorporating "green infrastructure" into the function of buildings helped meet the "sustaining space" objective of the Southeast False Creek charrette. The building shown below is terraced in order to maximize outdoor space, and is oriented towards the sun. This allows roofs to be planted for both gardening and cooling.

Movement
Use tight setbacks
A residential street’s most important function may be to provide a place for people to interact. Its narrow width and on-street parking combine to discourage through traffic and to reduce car speed. Street trees and tight front yard setbacks create a pleasant and safe envelope for pedestrians while framing views at the ends of the street.
Social Infrastructure
Provide semi-private open space for each home. Each four-storey townhouse has direct access to a private garden and is close to the nearby elementary school. Patios and balconies allow upper storey units and basement suites to also enjoy the outdoors and socialize with neighbors.

Cost
Layer living and working. Mixed-use structures and settings help to create an economically vibrant community. The above section of a mixed-use building shows a flexible space that can adapt to diverse needs while promoting social exchange between live-work residents and day-use occupants.
Thank You

Any Questions ????