

NEIGHBOURHOOD planning + design

learning from
best practice



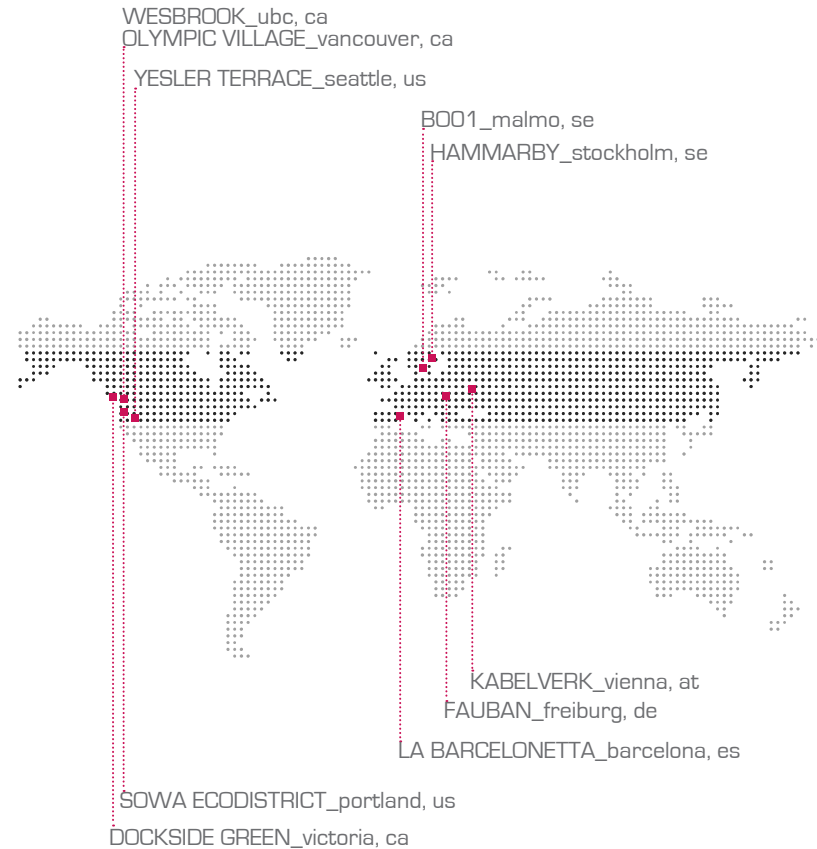
CASE STUDIES

WHY THEY MATTER

Examples of best-practice neighbourhood design can help to unearth new ideas, and get the creative juices flowing; studying what makes places great, as well as any challenges that arise in a development process can help us catalogue, and assess potential policy and design possibilities for the Stadium Road neighbourhood. Studying global precedents should not lead to “copy and paste” solutions; it should help inspire those involved in neighbourhood planning to think about how relevant ideas can be adapted to the local context.

HOW WE CHOSE THEM

Our case study review began with a look at several well-documented neighborhoods worldwide. We collected over 150 examples, and then came up with criteria to help us narrow down our list before taking a deeper dive into each case. That criteria is as follows: the 10 global precedents we chose all share a latitude similar to Stadium Road Neighbourhood (to ensure similar climate and sun access between buildings); all but one of the case studies are recent projects (to ensure contemporary construction technologies etc.); and half are located in nearby cities to maximize the potential for local solutions.



THEMATIC AREAS

WHY THEY MATTER

Coming up with thematic areas helps to clarify what information is relevant to neighbourhood planning at UBC and allows us to understand the selected cases in relation to one another. This document records best-practice examples in six thematic areas and where information was available, we included quantitative measures.

HOW WE CHOSE THEM

We are interested in best practices in neighbourhood sustainability, so we chose themes that reflect that. Our six themes touch on social, environmental and economic sustainability in a way that supports a balanced reading of each case study. The themes are relevant to neighbourhood planning policies at UBC.

RESOURCES + NATURAL SYSTEMS



_Respect and enhance existing ecological features in a way that is compatible with an urban neighbourhood

PLACE + EXPERIENCE



_Respond to surrounding historical + cultural uses
_Create a continuous pedestrian experience
_Prioritize the human experience through built form

AFFORDABLE LIVING



_Increase access to affordable housing
_Provide a complete, compact and largely self-sufficient community

CONVENIENT CONNECTIONS



_Connect the neighbourhood to the region
_Concentrate the population near jobs, shops and transit

SOCIAL COHESION + COMMUNITY



_Create opportunities for social interaction and innovation through a mix of uses and social spaces

PROCESS



_Involve citizens before, during and after the neighbourhood is built

AMENITIES FOR ALL!

In Vienna, quality housing and communal amenities are a top government priority and therefore viewed as basic rights.

site area_10 ha
no. dwelling units (DU)_1,004
construction period_2004-10

PROJECT OVERVIEW

Kabelwerk is an excellent example of the luxurious living standards made available to all Viennese people. Sitting atop a hill, homes are oriented to take advantage of great views and sun access, and are surrounded by playgrounds, sports fields, plazas and pedestrian pathways. The neighbourhood has over 30 restaurants and bars, several shops, a hotel, offices, cultural institutions, a daycare and an old age home, that is equipped with assisted living. The grand central plaza is decked out with interactive water features and there is a community rooftop pool! Did we mention that 100% of the units are subsidized? With approximately 60% of Vienna's population living in social housing, projects like this are the norm - a city that leads the way in social sustainability.

LESSONS LEARNED

- Innovation needs champions in positions of leadership
- Lesser investment in personal space means greater investment can be made on communal space
- When excellent transit is provided, people don't miss cars



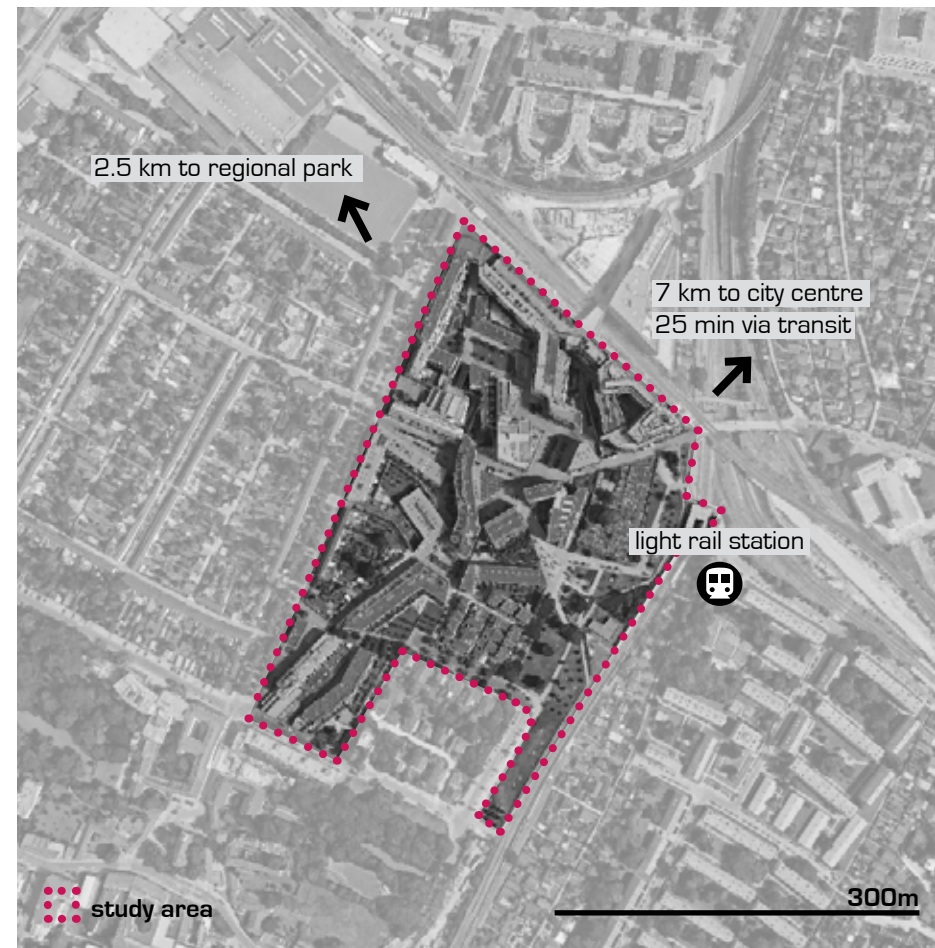
residents of kabelwerk enjoy communal rooftop pool



BIRD'S EYE (looking north)

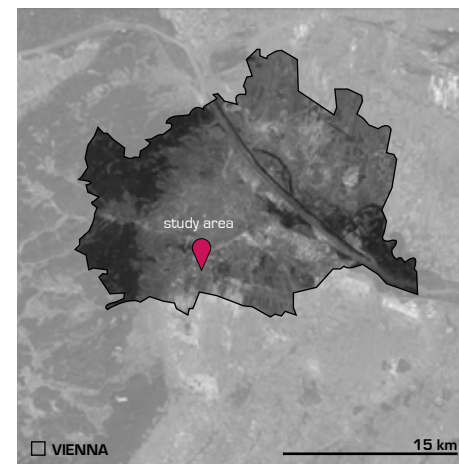


GROUND VIEW (interior playground)



study area

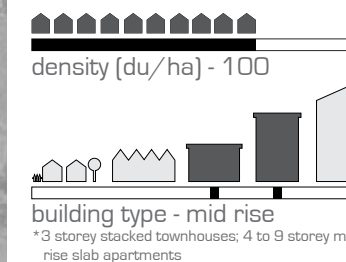
300m



VIENNA

15 km

COMPARATIVE CAPACITY



KABELWERK vienna, at

RESOURCES + NATURAL SYSTEMS

- 100% of buildings use district energy
- All buildings are passive house equivalent

PLACE + EXPERIENCE

- Reduced parking spaces with savings redirected to community amenities (Kabelwerk - 75% of DUs have 1 parking stall; Bike City - 50% of DUs have 1 parking stall; Car Free Housing Project - 10% of DUs have 1 parking stall)
- Social housing is delivered at a similar quality to civic architecture (architects compete for bids in a culture where diversity and innovation are prioritized)

AFFORDABLE LIVING

- 100% social housing (5,000 new units of social housing are built per year and 60% of the Viennese population live in subsidized housing)

CONVENIENT CONNECTIONS

- All homes within 5 min walk to transit
- Car free "heart" of neighbourhood

SOCIAL COHESION + COMMUNITY

- Wide range of housing types fosters families and aging in place
- All homes are surrounded by community amenities (e.g. playgrounds, plazas, fields)

PROCESS

- 6 teams of architects led a participatory design exercise to generate a variety of housing and built form options

SUSTAINABILITY 2.0

A renewed focus on community wellbeing helps development get rolling again after over-planning put the project in financial peril

site area **_7 ha**
no. dwelling units (DU) **_1,140**
construction period **_2005-PRES (22% built)**

PROJECT OVERVIEW

In 2008, the development of Docksider Green halted alongside the financial crisis. Since then, the project scope has shifted from leading solely in environmental sustainability to encompass social sustainability targets as well. The new development team [which assembled in 2014] has switched from a role of primary developer to community builder. The larger community of 'Vic West' has grown and changed significantly since Docksider's original 2005 proposal, and the new plan seeks to respond to that growth by playing a key role in the area's social and cultural vitality. An excellent example is BETA at Docksider, a large undeveloped lot programmed with part-time uses, such as food trucks and art installations, to serve as a community hub..

LESSONS LEARNED

- An incremental pace of development can allow home sales to support future environmental and social amenities and improve their financial feasibility
- True sustainability take into account social, economical and environmental factors



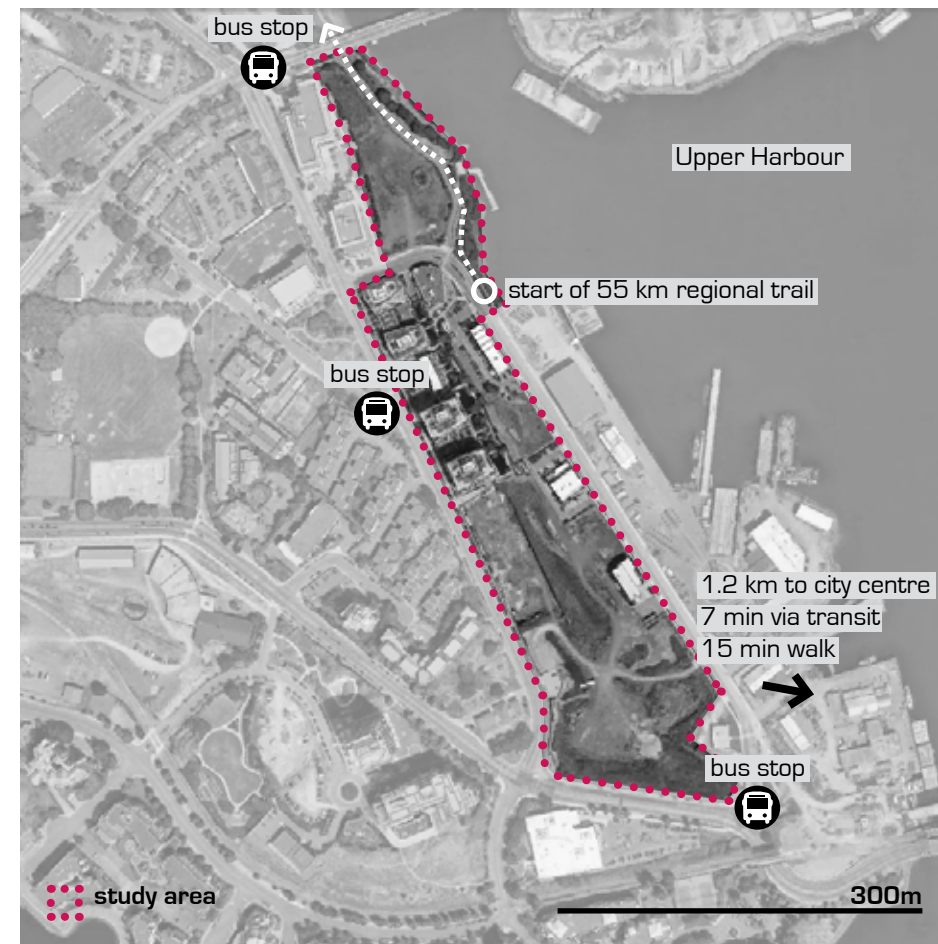
thinklandia at docksider's BETA



BIRD'S EYE (looking southwest)



GROUND VIEW (ribbon stormwater feature)

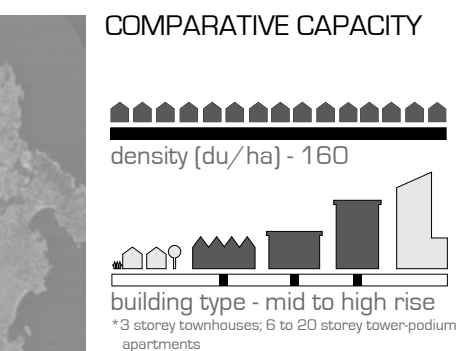


study area

300m



VICTORIA



DOCKSIDE GREEN victoria, ca

RESOURCES + NATURAL SYSTEMS

- 100% of sewage and grey water is treated on-site and re-used for toilets and landscape irrigation
- Stormwater captured and filtered through extensive system of permeable paving, rain gardens and drainage routes
- 100% of homes will use district energy
- All buildings will be built to LEED Green Building standards

PLACE + EXPERIENCE

- Stormwater features are designed to be a public space amenity
- Materiality and design elements evoke marine industrial heritage
- Ceremonial entrances (eg. sight lines, paving, art) at all intersections with surrounding community

SOCIAL COHESION + COMMUNITY

- BETA at Docksider utilizes empty lot for community uses (eg. food-trucks, art installations)
- Helped establish 'Vic West' street fest and host Docksider Dialogues and Thinklandia (festival of ideas)
- 25% of built-area will be non-residential (eg. a boutique hotel, offices, commercial and retail space, fitness centre, pubs, restaurants, and light industrial)

PROCESS

- Since 2014: hosted tours for over 500 guests; hosted 5 docksider dialogues; hosted participatory urban design workshops

ECOLOGICALLY DESIGNED

Olympic Village exemplifies how urban development can contribute to living lighter on the planet and in greater harmony with other species

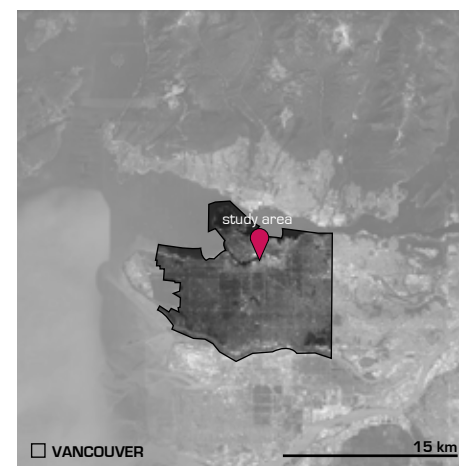
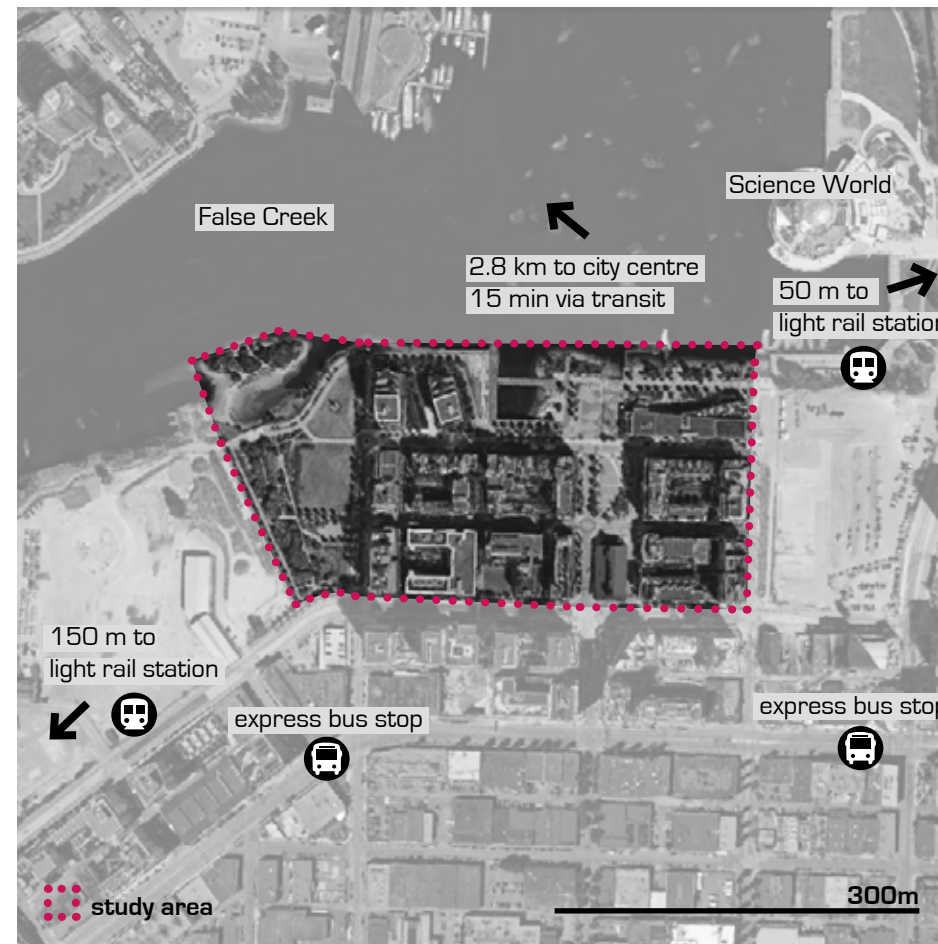
site area_10 ha
no. dwelling units (DU)_1,100
construction period_2006-09

PROJECT OVERVIEW

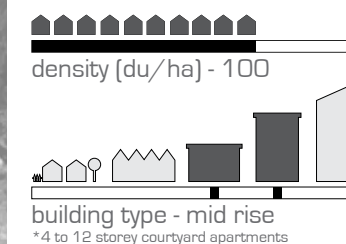
Olympic Village is an expression of Vancouver's drive to bridge the gap between city and nature - to demonstrate how these ecologies are compatible. Once a contaminated industrial zone, the site has been rehabilitated through the reintroduction of native plant species and the recreation of former coastal habitats. Herring have returned to spawn after an 80 year absence. Vegetated rooftops reduce both peak stormwater surges and provide an additional green space amenity. Trees are planted in larger than average soil volumes, which will extend their life to over 50 years thus increasing their ability to clean the surrounding air. This neighbourhood development exemplifies what it means to design with nature.

LESSONS LEARNED

- Site history gives shape and meaning to contemporary place
- Urban design and public spaces anticipate contribution by future community
- Best practices on display enable shared learning
- Neighbourhood form and identity is compatible with environmental performance



COMPARATIVE CAPACITY



OLYMPIC VILLAGE vancouver, ca

RESOURCES + NATURAL SYSTEMS

- Includes Canada's first net zero multi-unit residential building
- Certified LEED platinum neighbourhood
- Remediated contaminated soils and restored native habitat (Habitat Island)
- Stormwater is captured in underground cisterns and used for toilets and irrigation
- Stormwater runoff is filtered through wetlands and bioswales before entering the ocean
- Increased air quality through larger planting volumes for trees
- Heat from sewage is used to heat homes through district energy

PLACE + EXPERIENCE

- Restoration of key heritage buildings (reprogrammed into a restaurant/pub in heart of neighbourhood)
- High quality public space (central plaza and waterfront activated by bordering shops and services, a variety of park/green spaces)

AFFORDABLE LIVING

- 32% of housing units are subsidized (252 affordable, 100 modest-market)
- Athletes Village Co-op includes 84 units of mixed-market and non-market housing

CONVENIENT CONNECTIONS

- All homes within 5-min walk to transit
- Regional mixed-mode pathway along seawall
- Reduced the dominance of the private automobile through a road diet

WESTCOAST URBAN

Building a compact and complete community that pays tribute to the surrounding forest was the guiding vision for Wesbrook

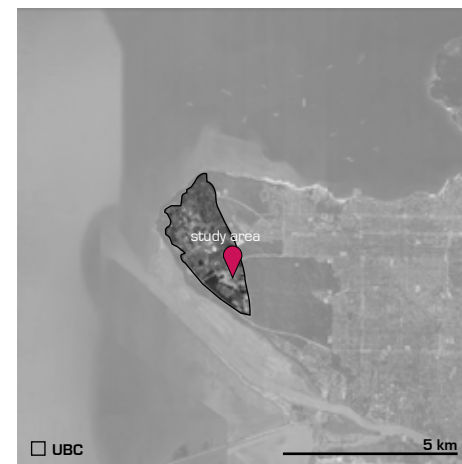
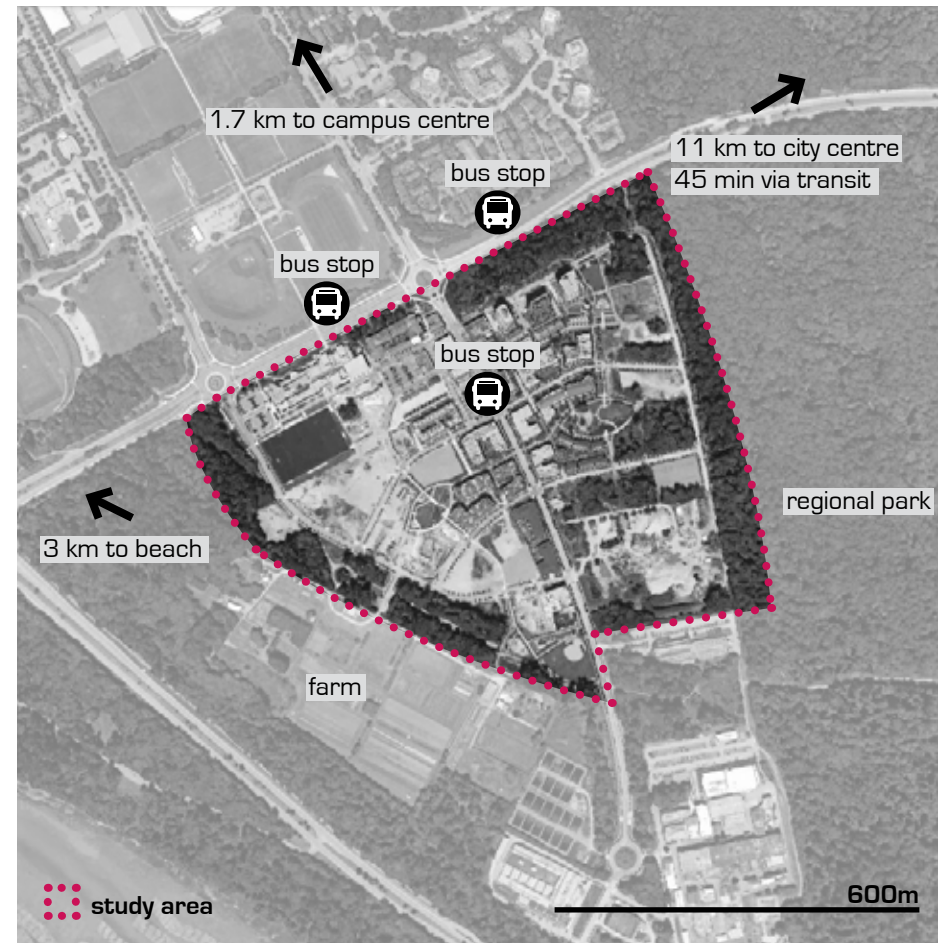
site area_44.5 ha
no. dwelling units (DU)_6,250
construction period_2005-PRES

PROJECT OVERVIEW

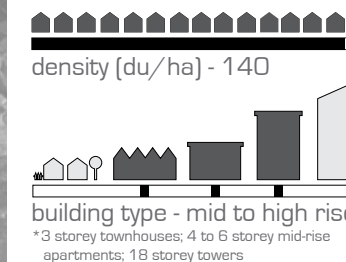
Once a commuter campus, UBC campus now includes more housing for students, faculty and staff. UBC's newest neighborhood, Wesbrook Place has been designed so residents have access to all their daily needs, and are provided with opportunities to live, work, study and play. The provision of mixed-use residential neighborhoods that fit within the larger context of campus life is now a key part of UBC's aspirations. While forested areas were removed to accommodate a new compact, mixed-use community, peripheral buffers were kept intact to minimize "edge effects" that urbanization has on natural habitat. Located in a unique and biologically rich setting, development at UBC must pay special attention to the balance between civilization and nature.

LESSONS LEARNED

- Compact and complete community with daily needs nearby housing
- Parking garage should have been designed with access from main arterial road for better circulation flow



COMPARATIVE CAPACITY



WESBROOK ubc, ca

RESOURCES + NATURAL SYSTEMS

- 100% of buildings will use district energy and will be connected to low carbon energy in 2024
- All buildings will be built to REAP, a green building standard developed by UBC
- Forest buffers along site edges are preserved along with key mature trees located in green/open areas
- A diversity of trees that support wildlife habitat have been planted on-site to mitigate effects of deforestation

PLACE + EXPERIENCE

- Prioritizes walkability and high quality open/public spaces
- All homes connects by greenway network

SOCIAL COHESION + COMMUNITY

- Includes shops and services to meet daily needs of residences (grocery store, elementary and high school, childcare, seniors care, community centre, shops and bars, dental and medical offices, etc.)

AFFORDABLE LIVING

- A target of 50% of households where one or more resident works or studies at UBC

GRASSROOTS GREEN

Every step of the way, the sustainable achievements of Vauban have been community led

site area_42 ha
no. dwelling units (DU)_2,500*
construction period_1998-2006

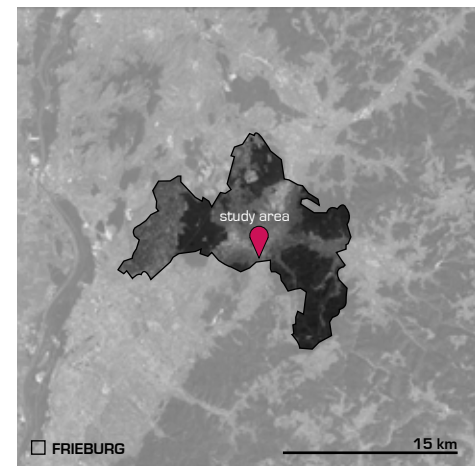
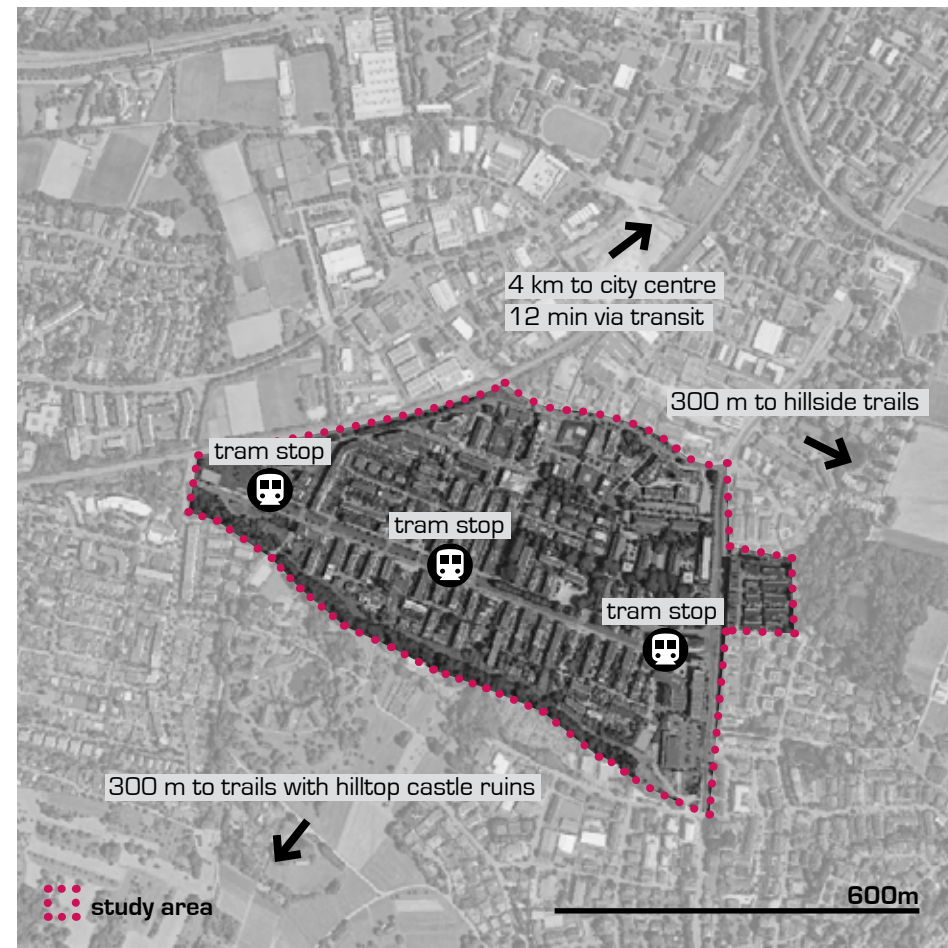
*based on assumption of 2.2 persons per household

PROJECT OVERVIEW

Vauban can easily be described as the greenest neighbourhood in the greenest city of the greenest country in the world. But the real story behind Vauban's environmental success is that of a citizen led process. What began as a general interest in the site (due to its beautiful natural setting with adjacency to the Black Forest) grew into citizen participation in the initial urban design competition, which then led to the creation of an official citizens committee - Forum Vauban. Forum Vauban has made community engagement its main objective from the beginning. This has led to sustainable energy and transportation infrastructure and innovative design solutions from Baugruppen (groups of future residents that design and develop their own homes). Ideas on how to become car-free and carbon neutral were made by the people who live there.

LESSONS LEARNED

- A "learning while planning" approach allowed the masterplan to adapt during buildout
- Community-led decision making bolstered dedication to sustainability



COMPARATIVE CAPACITY



VAUBAN freiburg, de

RESOURCES + NATURAL SYSTEMS

- First neighbourhood in Germany to produce more energy than it uses
- 90% of stormwater is managed on-site
- First multi-family passive house

PLACE + EXPERIENCE

- Well designed streets and public open spaces that are free of vehicular traffic

AFFORDABLE LIVING

- Baugruppen partner directly with city to develop land, thus driving down cost and making home ownership more affordable
- Sharing economy (eg. car share, co-ops)

CONVENIENT CONNECTIONS

- First car-free neighbourhood (only 10% of daily trips made by private car)
- All homes within 300 m of tram

SOCIAL COHESION + COMMUNITY

- Includes shops and services to meet daily needs of residences (primary school, kindergartens, farmers market, shops and 600 jobs in total on site)

PROCESS

- "Community-based" design process
- Formalized process to share past successes and failures in green building design with future project teams to constantly improve methods
- Planning, development and neighbourhood programs fostered by grassroots, community level engagement

DRAMA IN DESIGN

Seductive architecture and intriguing urban experiences prove that net-zero living can be much more than a zero-sum game

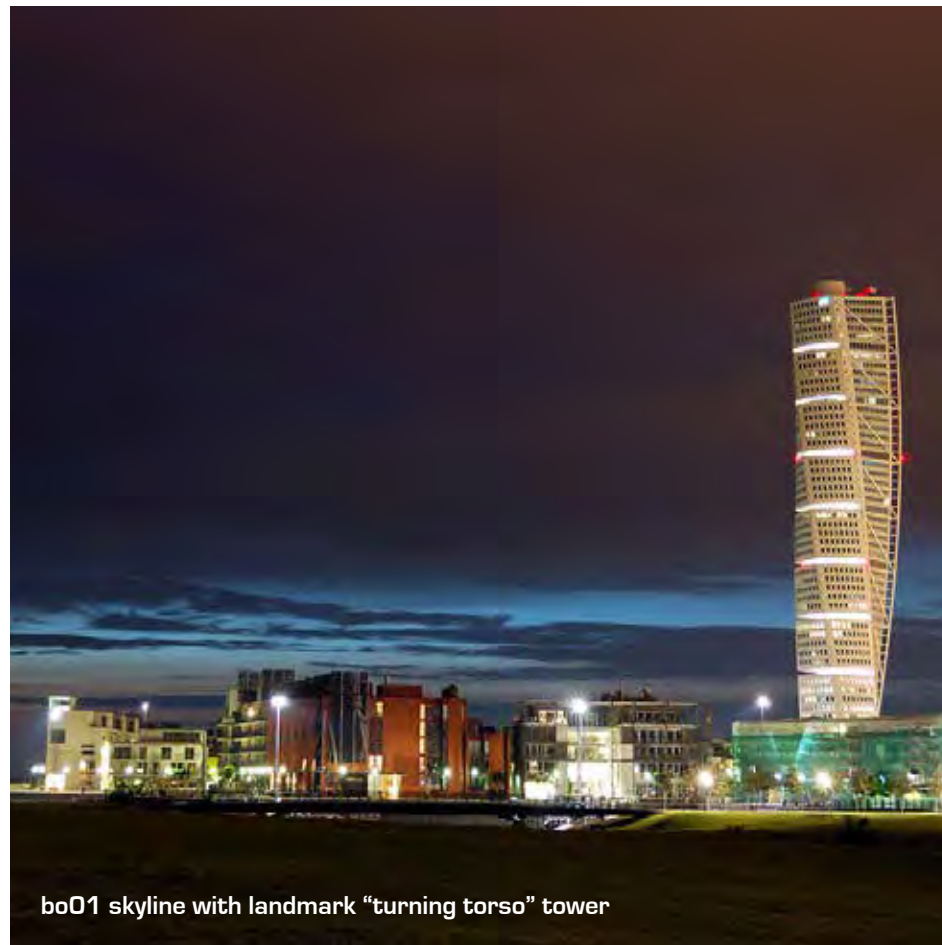
site area_18 ha
no. dwelling units (DU)_1,303
construction period_2001-05

PROJECT OVERVIEW

Bo01 (pronounced bo-no-lett and meaning live-one) is one of the most visited, cited and studied examples of sustainable development in the world. This neighbourhood, which is part of the larger Western Harbour redevelopment, was catalyzed by Malmö's winning bid to host the European Millennium Housing Exhibition. The goal was to make sustainability as attractive as the unsustainable city model. The City of Malmö and the Swedish National Board of Housing, Building and Planning (SVEBO) were responsible for all the public space and infrastructure, and private developers were responsible for all construction inside individual plot boundaries. The housing designs drew international attention, and innovative design proposals from over 50 teams. Bo01 set a new bar for quality urban design that's also ecologically sustainable.

LESSONS LEARNED

- Carbon reduction is a key part of the net-zero equation
- Not considering social and economic sustainability alongside environmental sustainability can lead to very expensive housing prices



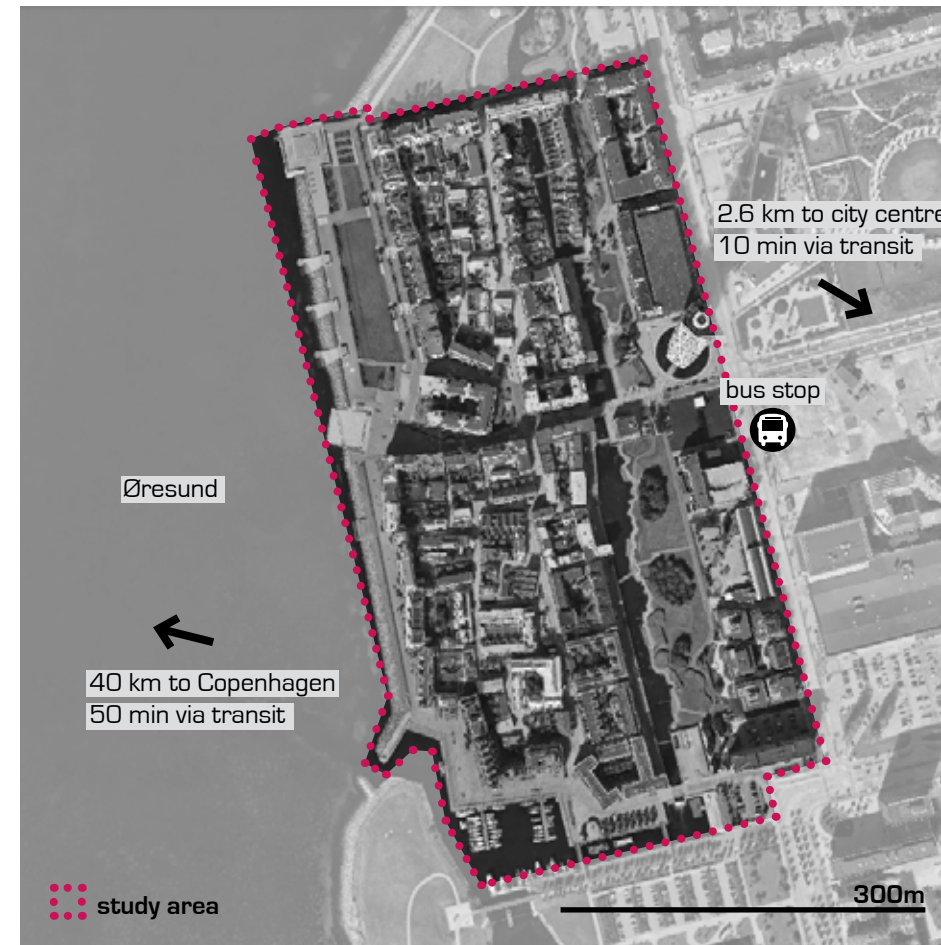
bo01 skyline with landmark "turning torso" tower



BIRD'S EYE (looking northeast)



GROUND VIEW (interior circulation)

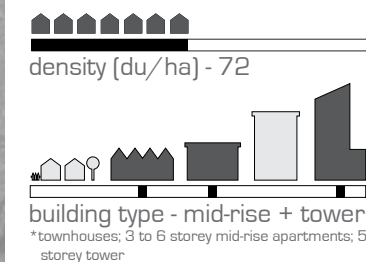


study area



MALMÖ

COMPARATIVE CAPACITY



BO01 malmö, se

RESOURCES + NATURAL SYSTEMS

- Integrated system of renewables (geothermal, wind, ocean and solar) supplies 100% of energy
- Eco-cycle recycling system that focuses on food-waste reduction
- Stormwater retention and filtration designed to be community amenity
- Waste water sludge converted to biogas
- Habitat performance evaluated through point-based standard

PLACE + EXPERIENCE

- Placement of 54-storey residential tower as landmark and architectural expression

AFFORDABLE LIVING

- While Bo01 lacks affordable housing, neighbouring Bo02 site will make up for the deficit by being 70% affordable

CONVENIENT CONNECTIONS

- all homes within 300 m of electric-bus

SOCIAL COHESION + COMMUNITY

- 20% of built area is non-residential

PROCESS

- City of Malmö and SVEBO framed entire process as an opportunity to disseminate information and knowledge about sustainability (exhibitions, research papers, report, fact boxes, brochures, etc.)
- Over 50 teams designed different plots which added to a quality and diversity
- Began as an international housing exhibition to promote innovation

WASTE NOT, WANT NOT!

Sweden leads the way in demonstrating the incredible usefulness of waste

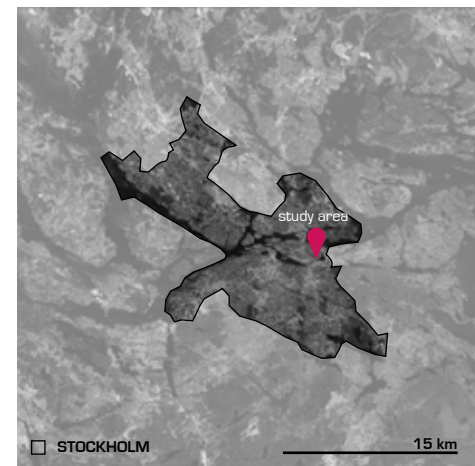
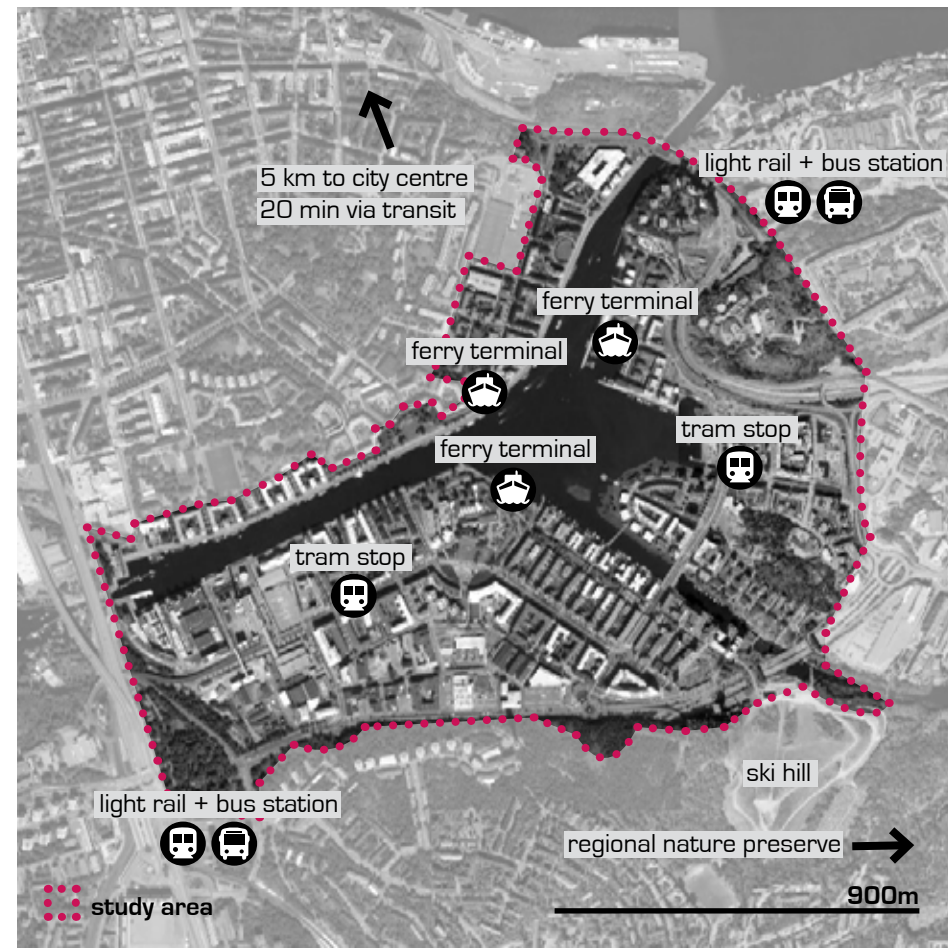
site area_250 ha
no. dwelling units (DU)_11,500
construction period_1998-PRES

PROJECT OVERVIEW

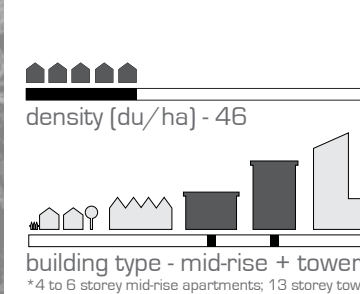
Hammarby gives us hope that a low-carbon future is possible. This is because, against the odds, it has become largely self-sufficient. Located in a region of Stockholm that gets very little wind and sun, the typical sources of renewable energy were unavailable. To achieve their goals of 50% on-site energy generation, designers had to get creative. The solution was to create the most advanced waste management system known at the time. An integrated, closed-loop system links water, waste, and energy systems to ensure all waste energy is being recovered and used. Household waste is sorted and collected through an underground vacuum system, where compostable items are converted into bio-fuel. Heat from wastewater is recovered to heat buildings. Such innovative thinking is exactly what the city is pushing for, as their long-term goal is to eliminate the concept of waste!

LESSONS LEARNED

- Energy reduction targets can suffer from seemingly minor construction details (large windows, thermal bridges, etc.)
- A good neighbourhood development process can adapt to unexpected demographic shifts



COMPARATIVE CAPACITY



HAMMARBY stockholm, se

RESOURCES + NATURAL SYSTEMS

- District energy (from wastewater)
- Underground waste collection system
- Solar to hydrogen conversion provides both power and heat in homes
- Buildings built to green building standards (planning applications in Sweden are based on life-cycle cost analysis therefore justifying higher initial investments)
- 20% of energy demands are met on site
- Energy consumption of 160 kilowatt-hours per square meter per year (down from national average of 270 kwh/sqm)
- Decontamination of soil and lake
- Habitat corridors to link nature preserves

PLACE + EXPERIENCE

- Stormwater features are designed as a community amenity
- Lake leveraged in design through public shoreline and bordering buildings

AFFORDABLE LIVING

- Subsidies provided to low income residents by government

CONVENIENT CONNECTIONS

- Extensive pedestrian/bike infrastructure
- Free public ferry; car-pooling system
- Road diet (reduced to 2m)
- All households within 300m of tram (79% of trips made by transit/bike/walk)

SOCIAL COHESION + COMMUNITY

- Most housing blocks have retail at-grade to foster a vibrant community
- 35,000 jobs when complete

ENGAGE FOR CHANGE!

Redevelopment of a historic social housing project demonstrates the importance of community participation in shaping a new vision

site area_11 ha
no. dwelling units (DU)_5,000
construction period_2013-PRES

PROJECT OVERVIEW

Yesler Terrace was a New Deal era social housing project, and until recently, was one of Seattle's most affordable and ethnically diverse neighbourhoods. Slated for significant growth from 561 dwelling units to 5,000, this will become one of the densest residential neighbourhoods in the city. But the most interesting aspect is not about density, but about social equity. With a strong commitment to avoid displacing the original tenants, it appears this enlightened redevelopment has learned from the dubious outcomes of 20th century planning. Residents of Yesler Terrace have been involved in the planning process from the beginning. Seattle Housing Authority (SHA) has committed to house all tenants in nearby neighbourhoods while new homes are built with no rent increase. In addition to participating in the planning process, community members were offered training in building construction. Only time will tell how equitable this redevelopment truly is, but so far, it's looking very promising!

LESSONS LEARNED

- Inclusive planning takes time in the beginning but can save time in the end and offer pathways to success for vulnerable populations



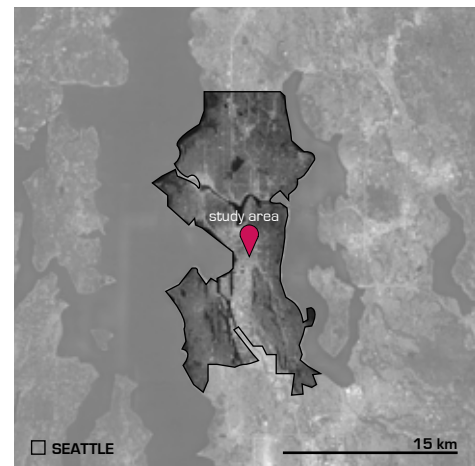
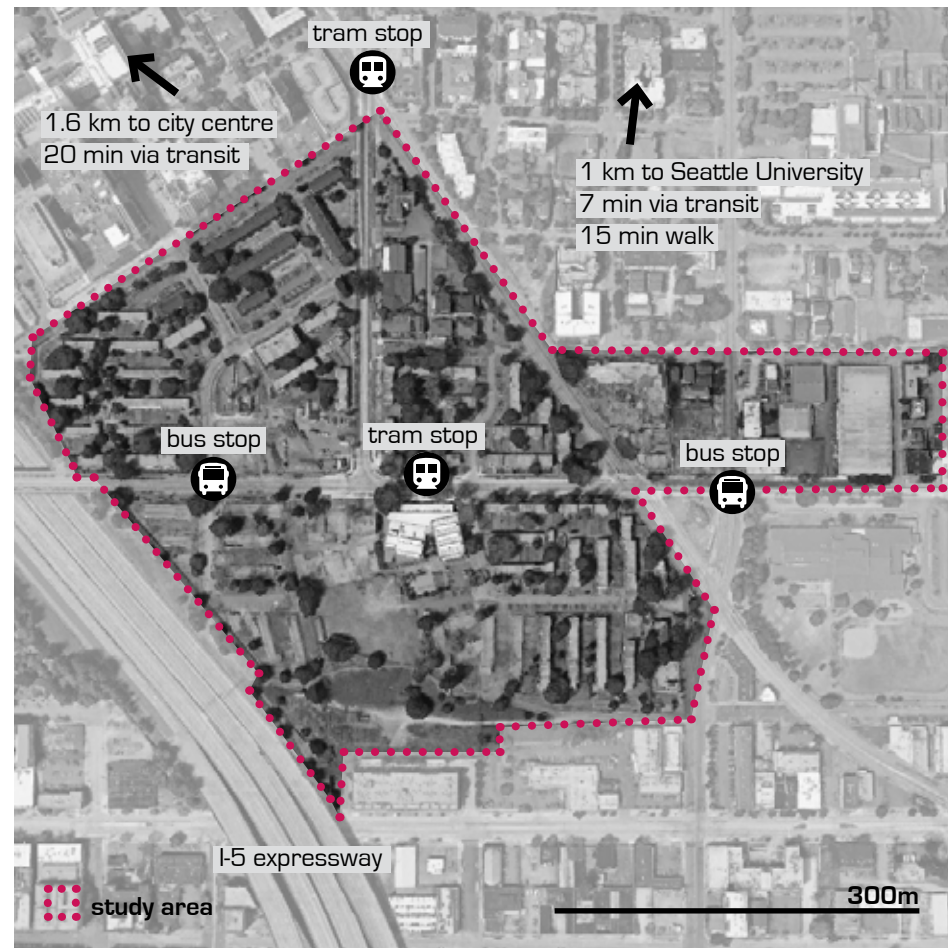
returning resident moves into one of the first completed buildings



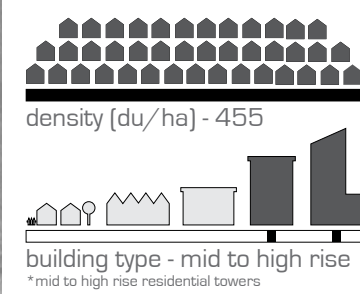
BIRD'S EYE (looking northeast)



GROUND VIEW (interior courtyard)



COMPARATIVE CAPACITY



YESLER TERRACE seattle, us

PLACE + EXPERIENCE

- Quality public space design with central park in heart of neighbourhood and differing scales of walkways/plazas/parklets throughout
- Significant density was accommodated through sensitive building placement and urban design

AFFORDABLE LIVING

- 34% subsidized housing (561 households earning 30% of area median income [AMI]; 290 for 60% of AMI and 850 for 80% AMI)

CONVENIENT CONNECTIONS

- New tram station built and all housing within 5 min walk of transit
- Complete and well-designed pedestrian network with vehicular through traffic kept out and traffic calming strategies throughout

SOCIAL COHESION + COMMUNITY

- 84,000 m² of office, 14,200 m² of retail/community (youth service, community and medical centre, elementary and future head start schools)

PROCESS

- Existing residents heavily involved in re-housing strategy and overall redevelopment plan (Citizen Review Committee)
- Existing residents trained in construction and involved in actual build-out

CREATIVE CONNECTIONS

At a time when people are looking for alternative modes of mobility to the private car, SoWa offers creative examples for getting around

site area_62 ha
construction period_2004-PRES

PROJECT OVERVIEW

SoWa (AKA South Waterfront) EcoDistrict is a brownfield redevelopment project taking place on Portland's riverfront. Most of the lands of this high-density project belong to Oregon Health and Science University (OHSU) and the Zydell family (who historically used the site for their barge business). Once an industrial site cut off from surrounding residential neighbourhoods, SoWa is being transformed into a vibrant area where people live, study, work and play. The story behind this project is really about people-centered, creative connections. Stretching from atop Marquam Hill, a gondola transports passengers from OHSU's main campus to its new centre. The river's edge has been set aside for public use as a linear park that will eventually be part of a continuous multi-modal network connected to nearby neighbourhoods. The Gibbs Street Pedestrian Bridge, which opened in 2012, connects the SoWa with Lair Hill over a major highway and the new Tillikum Crossing (AKA Bridge of the People) was completed in 2015, creating a car-free link across the water.

LESSONS LEARNED

- When it comes to mobility of both people and goods in the 21st century, thinking outside the box is key



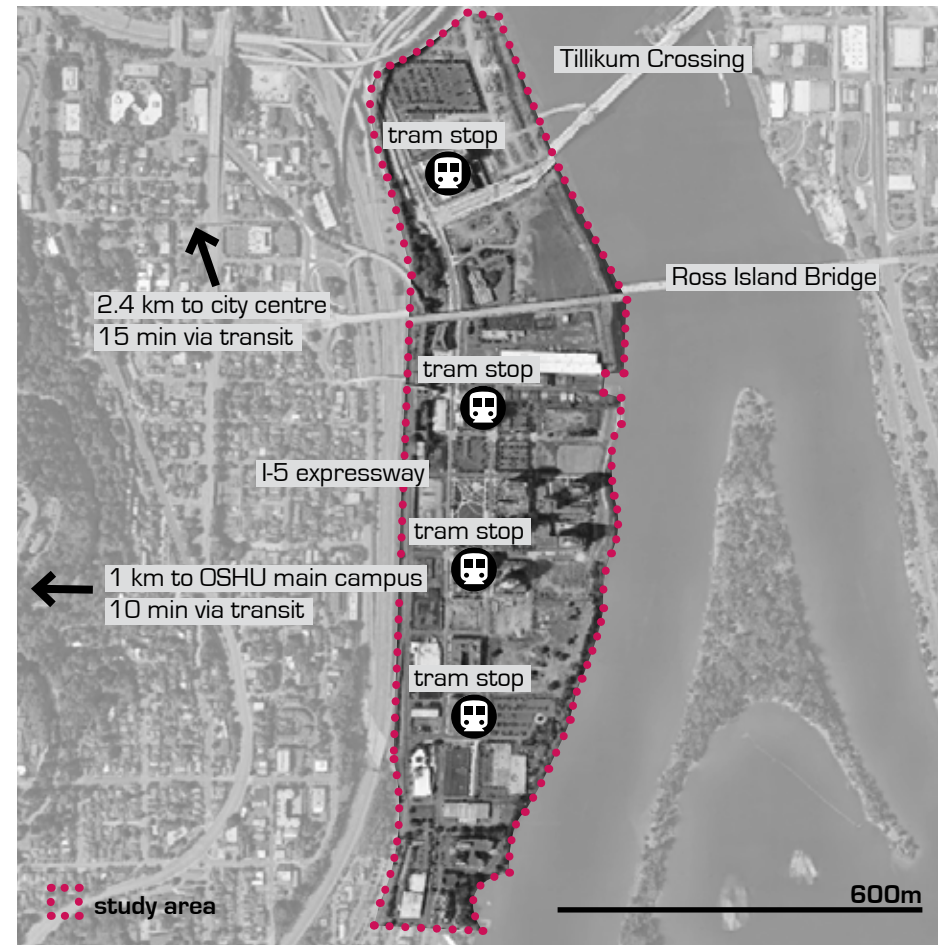
the tillikum "peoples" bridge



BIRD'S EYE (looking northwest)



BIRD'S EYE (looking east from OHSU main campus)



study area

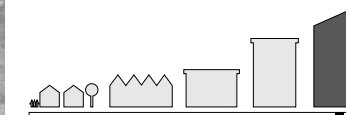
600m



PORTLAND

15 km

COMPARATIVE CAPACITY



building type - high rise
*high rise towers

SOWA ECODISTRICT portland, us

RESOURCES + NATURAL SYSTEMS



- Plans for district energy
- Potential for shared stormwater management, gray water collection and use, and local wastewater treatment
- 9 LEED certified towers have been constructed

PLACE + EXPERIENCE



- Willamette River Greenway bridges ecological restoration and green infrastructure with recreation
- Split large lots into finer grain blocks to foster an engaging pedestrian experience

CONVENIENT CONNECTIONS



- Plans for bike sharing infrastructure
- All homes within 5 min walk of public transit
- Multi-modal connections to larger region via rail, car-free bridge, gondola and greenway

SOCIAL COHESION + COMMUNITY



- The 30-storey Mirabella is designed for a senior living community

PROCESS



- Created a neighbourhood governing entity to manage sustainability goals as per EcoDistrict Protocol (South Waterfront Community Relations (SWCR))
- Engaged property owners to participate in planning process and sign MOU

BEFORE THE CAR

Sometimes we get it right the first time, such as in old neighbourhoods where the pedestrian experience drove decisions in urban design

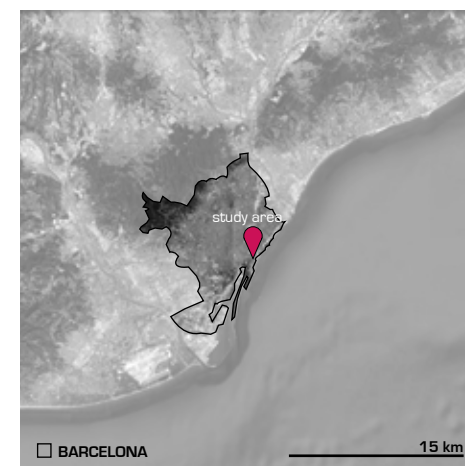
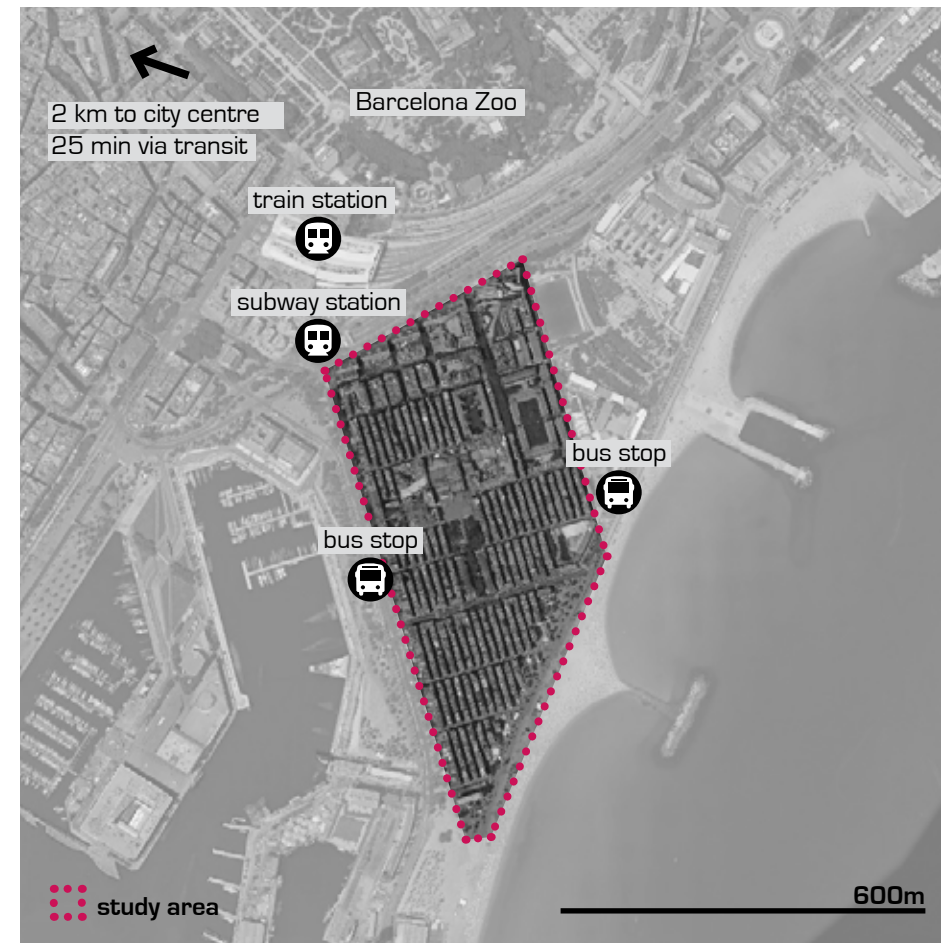
site area_32 ha
no. dwelling units (DU)_3,520*
construction period_mid 18th c
*extrapolated from area and population stats of Citutat Vella and based on assumption of 2.2 persons per household

PROJECT OVERVIEW

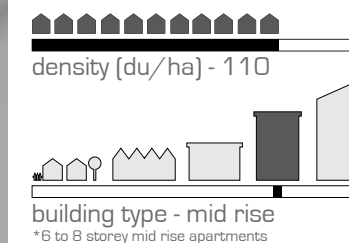
The historic La Barceloneta neighbourhood may be hundreds of years old, but it still holds valuable lessons for modern day urbanism. Developed well before the advent of the private automobile, La Barceloneta was designed to the human scale. A mix of apartments, restaurants, bars, grocery stores and other services all exist within a densely populated and compact urban form. Street widths are an intimate 5m, and blocks are approximately 25m wide by 80m long; at this scale pedestrians are better able to observe what is coming at each intersection increasing safety. Within one block there can be up to 10 buildings, creating a vibrant pedestrian experience within less than a minute's walk. A public plazas and parks break up the fine-grain street pattern; the plaza is activated by nearby a market and shops; the park is designed as a place of solace, walled off from the hustle and bustle of the street.

LESSONS LEARNED

- The scale and massing of pre-car neighbourhoods can guide current urban design strategies focused on the pedestrian experience



COMPARATIVE CAPACITY



LA BARCELONETA barcelona, es

PLACE + EXPERIENCE

- Narrow intimate streets and alleys that are filled with ground floor restaurants and bars slow vehicular traffic and give precedent to the pedestrian
- Lively plazas and quiet parks in close proximity to apartments
- Human scaled urban form that creates visual interest and intriguing

CONVENIENT CONNECTIONS

- All homes within 5 min walk from transit
- Neighbourhood designed around the pedestrian experience
- 80 m blocks allow people to see to each intersection, which helps with safety

SOCIAL COHESION + COMMUNITY

- High mix of uses keep the neighbourhood lively at all times
- Priority of public space fosters community connections

COMMON SPACE MAKES A PLACE

Eleanor has a ton of thoughtfully designed amenity space that makes “house” feel like “home”

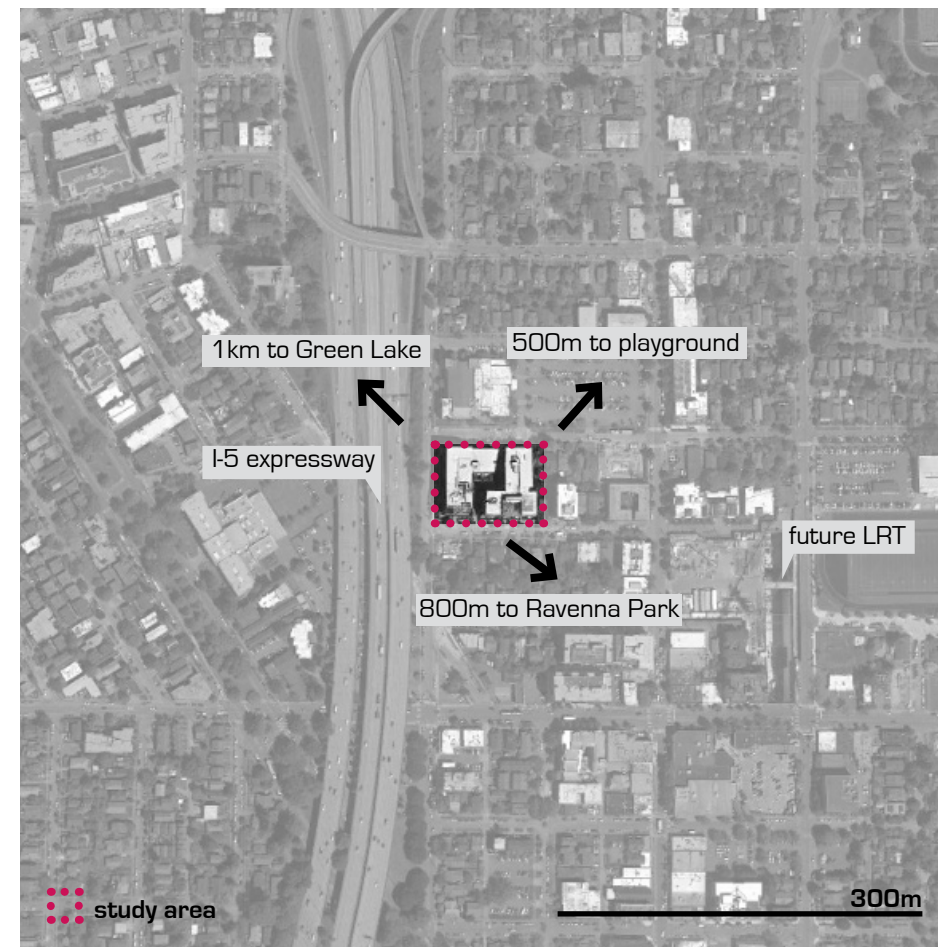
address_800 NE 67th st
site area_0.7 ha
no. dwelling units (DU)_260
construction period_2014-16

PROJECT OVERVIEW

The Eleanor apartment building is representative of a shift in building typology that’s taking place in many of Seattle’s residential neighbourhoods. The 260 unit building sits on a site that was previously occupied by 14 single family homes. While change is never easy, the Eleanor project demonstrates how many of the qualities we love about single-family neighbourhoods can still be achieved at higher densities. This 6 to 7 storey mid-rise building takes advantage of an interior courtyard design to provide quiet frontage for many apartment units; residents may live in more economically sized spaces, but due to thoughtful design, have access to an abundant amount of amenity space - gardens and terraces, a games room, gym, and big kitchen and dining area make it easy to entertain guests or simply socialize with neighbours.

LESSONS LEARNED

- An in depth and thoughtful site analysis leads to better architecture
- While the physical design of a space may be excellent, the management of a space may not - both are necessary for long term success



ELEANOR APTS seattle, us

RESOURCES + NATURAL SYSTEMS

- Rooftop and courtyard plantings designed to mitigate stormwater runoff
- Solar panels provide energy to all common and amenity spaces
- On-site recycling and composting facilities
- Built to LEED green building standards

PLACE + EXPERIENCE

- Designed to mitigate sound of traffic from adjacent highway
- Large interior courtyard gives residents and many apartments reprieve from surrounding urban neighbourhood
- gardens that act as water infrastructure give life to outdoor areas in all seasons
- Thoughtfully designed rooftop patios provide great views of the city and mountains

CONVENIENT CONNECTIONS

- Building is a part of a newly developing TOD neighbourhood and is only a couple minutes walk from a future LRT station
- A bike storage room equipped with tools is available to residents

SOCIAL COHESION + COMMUNITY

- Apartments range from studios to two bedrooms and some units have additional loft space - this fosters a mix of singles and families in the building
- The building features several amenities, such as a gym with towel service, dog washing area, games lounge, kitchen and dining area ground and roof patios, and bike storage

FINAL THOUGHTS

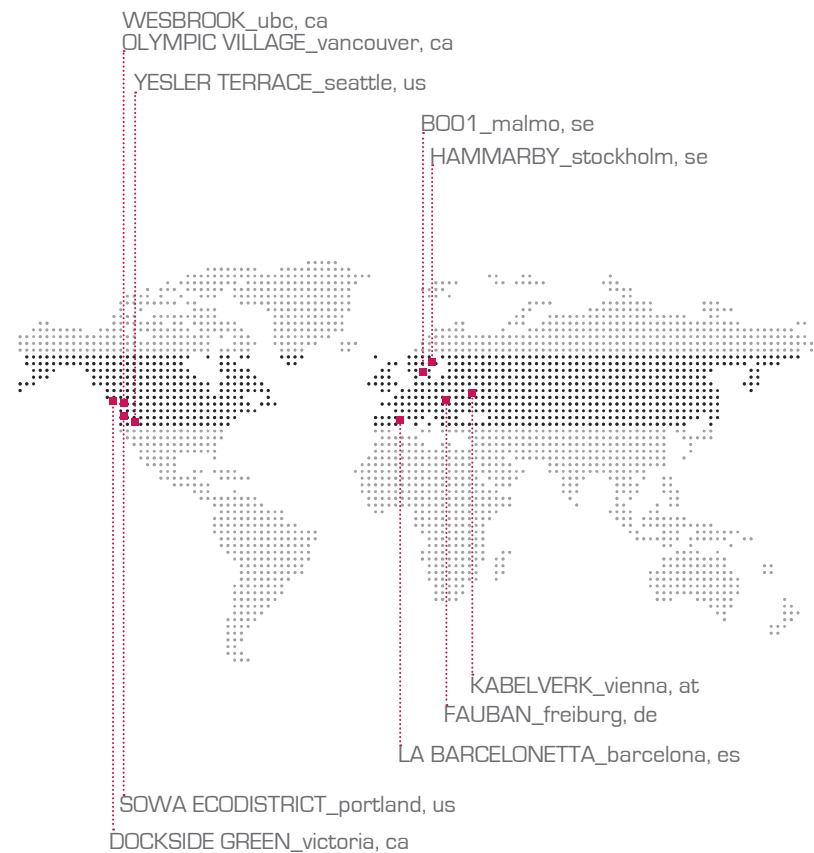
end

WHAT WE LEARNED

Researching and documenting some of the best practices in neighbourhood planning and design has been a good exercise to gain an understanding of what some of the greatest successes and challenges are from some emerging leaders in sustainable neighbourhood development. We have learned that finding a balance between social, economic and environmental factors is often difficult to achieve but crucial for success; a strong focus on environmental sustainability should not lead to overlooking social equity. It takes a concerted effort and awareness to ensure a holistic design. We have also learned that long-term commitment to sustainability is most successful when planning is participatory and involves input from the community.

MOVING FORWARD

Key highlights and major takeaways are summarized on the adjacent page. These best practices are a great place to begin a discussion around what is possible at UBC and what sort of sustainable future we should aspire to for the Stadium Road neighbourhood.



RESOURCES + NATURAL SYSTEMS



NOTABLE PRECEDENTS

Kabelwerk//Dockside Green//Olympic Village//Wesbrook//
Vauban// Bo01//Hammarby//SoWa Ecodistrict

BEST PRACTICES

- Certified green building standard (eg. LEED, Passive House)
- Neighbourhood district energy (waste heat and low carbon)
- All or most of neighbourhood uses on-site renewable energy
- Greywater used in toilets and for landscape irrigation
- Sludge from wastewater is converted to energy
- Restore/provide habitat through native vegetation
- Habitat linkages to surrounding region

PLACE + EXPERIENCE



NOTABLE PRECEDENTS

Kabelwerk//Dockside Green//Olympic Village//Wesbrook//
Vauban// Bo01//Hammarby//Yesler Terrace//SoWa
Ecodistrict//La Barcelonetta

BEST PRACTICES

- “Heart” of or all of neighbourhood is car-free
- Streets and open space are engaging and human scaled
- Ecological infrastructure doubles as public amenity
- For vibrancy and diversity, several firms design small parcels
- Increases in density are achieved sensitively and thoughtfully

AFFORDABLE LIVING



NOTABLE PRECEDENTS

Kabelwerk//Olympic Village//Vauban//Yesler Terrace

BEST PRACTICES

- Affordable housing is attainable to all citizens
- There is a balanced mix of market and non-market housing
- Housing costs are connected to household income
- There is a wide range of housing type and tenure

CONVENIENT CONNECTIONS



NOTABLE PRECEDENTS

Kabelwerk//Olympic Village//Vauban// Bo01//
Hammarby//Yesler Terrace//SoWa Ecodistrict//
La Barcelonetta

BEST PRACTICES

- All homes are within a 5 min walk of public transit
- Public transit is frequent and reliable
- The larger region is easily accessed via multiple modes
- Car sharing options are readily available
- Road diets can improve pedestrian and cyclist experience
- Bike storage is readily available to encourage cycling
- Neighbourhood is designed for universal accessibility

SOCIAL COHESION + COMMUNITY



NOTABLE PRECEDENTS

Kabelwerk//Dockside Green//Vauban//Bo01//Hammarby
//Yesler Terrace//SoWa Ecodistrict//La Barcelonetta

BEST PRACTICES

- Daily needs met within walking distance
- A wide range of shared community amenities
- Empty lots are programed for community use during build-out
- Around 20% of built-area is non-residential
- There are many neighbourhood “third places”

PROCESS



NOTABLE PRECEDENTS

Kabelwerk//Dockside Green//Vauban//Bo01//Yesler
Terrace//SoWa Ecodistrict

BEST PRACTICES

- Participatory design can generate locally relevant ideas
- High profile design competition can generate innovation
- Involve future residents in design of buildings
- Plan should be adapt to lessons learned in early projects

INDICATORS OF SUCCESS

WHAT IS AN INDICATOR?

Put simply, an indicator is a device that provides specific information on the state or condition of something in particular. In urban planning, we use indicators to measure, gauge and guide various aspects of the built environment. Indicators can allow us to glean insights into things such as a region's ecological health, a city's cultural diversity, or a neighbourhood's walkability. The frameworks below provide inspiration as to how we might assess community sustainability at Stadium Neighbourhood.

A GOOD INDICATOR IS...

- “Statistically sound”
- “Intelligible and easily interpreted”
- “Consistency over time”
- “Linked to policy or emerging issues”
- “Compel interest and excite”
- “Relate to other indicators”



LIVING COMMUNITIES CHALLENGE
 The Living Community Challenge is a framework for master planning, design, and construction. The Living Community Challenge is organized into seven performance areas (place, water, energy, health and happiness, materials, equity, and beauty). Since the program was launched in 2014, the Living Future Institute has conducted research on exemplary cases as well as register the first communities for LCC certification.

ECOSYSTEMIC URBANISM
 Ecosystemic Urbanism uses a comprehensive set of interconnected indicators to assess the sustainability of both existing and proposed neighbourhoods. The indicators are based on four key principles: Compactness and Functionality, Complexity, Efficiency, and Social Cohesion. Ecosystemic Urbanism was developed in Barcelona, where it has been tested and implemented most widely.

ECODISTRICTS PROTOCOL
 The EcoDistricts Protocol is both a certification standard as well as a tool for fostering neighbourhood sustainability. It is structured around three Imperatives: Equity, Resilience, and Climate Protection. The Protocol is designed to bring together city officials, community-based groups, real-estate developers, financiers, and all other major stakeholders in a manner that is process-based.

SITES
 The Sustainable SITES Initiative was developed to promote the design and management of sustainable landscapes. SITES comprehensive rating system is used by professionals who are seeking to protect and enhance the benefits derived from healthy functioning ecosystems. Projects seeking certification vary greatly – from sites like a university campus, the yard of a private home, to a regional park or streetscape.

ASSESSMENT FRAMEWORKS