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SUSTAINABILITY & RESILIENCE

Engagement period: March 29–April 25, 2021.



shapeyourcity.ca/jericho-lands



inspirejericho.ca

SUSTAINABILITY & RESILIENCE

Exploring Emerging Ideas

This is one of a series of four Discussion Guides that will frame Phase 2 public engagement for the ʔəyalməxʷ/Iýálmexw/Jericho Lands site.

The themes covered in the Discussion Guides are:

- **Natural Systems & Open Space**
- **Connections & Mobility**
- **Inclusive Neighbourhood**
- **Sustainability & Resilience**

The Discussion Guides build on the **Jericho Lands Guiding Principles, site analysis, and input received to date**, as well as City of Vancouver policies and objectives, and landowner aspirations.

Each of the Discussion Guides includes background information about the themes, along with reference to precedent projects from elsewhere. Each of the Discussion Guides identifies a set of 'Emerging Ideas' that will be considered during Phase 2 of public engagement. The outcomes of this process will be used to guide site planning and preliminary site concepts for the Jericho Lands.

How can you get involved?

We are looking for your feedback on the Emerging Ideas contained in the Discussion Guides.

A survey link is provided, along with discussion questions. You can also provide feedback by participating in upcoming virtual Design Workshops scheduled in mid-April 2021. The Design Workshops will include presentations and small group discussions focused on the Emerging Ideas.

Join us for a virtual Design Workshop about the Sustainability and Resilience theme.

You can register to participate at shapeyourcity.ca/jericho-lands.

ʔəyalməxʷ is the place name in the hənq̓əminəm' language spoken by Musqueam and Tsleil-Waututh ancestors.

Iýálmexw is the place name in the Skwxwú7mesh language spoken by Squamish and Tsleil-Waututh ancestors.

Embedding Indigenous Values

ʔəyalməxʷ/Iýálmexw/Jericho Lands (pronounced Ee'yullmough) lies in the unceded traditional territories of the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and səlílwətaʔt (Tsleil-Waututh) ("MST"). Redevelopment of these lands is an opportunity for the MST to express their deep connection to the land, while bringing forward new opportunities for prosperity for future generations. The stories, traditions and ways of being of the MST provide a cultural foundation that will be embedded through planning and design.

INTRODUCTION

Large sites like the Jericho Lands offer an opportunity to achieve a high standard of sustainability, to address climate change, and to consider ways to design a future new neighbourhood that is resilient and sustainable over the long-term.

Planning for the site will align with the City's recently adopted Climate Emergency Action Plan, and the long-term climate target of being carbon neutral before 2050. It is a significant opportunity to explore ways to future-proof the plan for a new neighbourhood, with flexibility built in to respond to changing conditions and innovations, and to leverage sustainable low-carbon building materials and design approaches.

The cultures and stories of the MST highlight the importance of stewarding the land, air, and water for all future generations. This is deeply ingrained in MST cultures as a sacred trust, built on the understanding that the health of our people is interconnected with the environment we inhabit. Planning for the future of ʔəʔalməxʷ/lýálməxw/ Jericho Lands is an opportunity to reflect that everything is connected, to be visionary leaders, and to remember that youth will inherit the land.

Thinking about sustainability and resilience for the Jericho Lands includes consideration of how we can dramatically reduce our carbon emissions while also ensuring our homes and neighbourhoods are resilient and adaptive to climate change.





CREATING A LOW-CARBON NEIGHBOURHOOD

The City's Climate Emergency Action Plan (CEAP) seeks to dramatically reduce Vancouver's biggest sources of carbon pollution (buildings and transportation), while sequestering more carbon through natural features like trees and wetlands. CEAP aims to reduce carbon pollution within Vancouver by 50% by 2030 and for Vancouver to be carbon neutral by 2050. These goals are in alignment with the recommendations of the United Nations Intergovernmental Panel on Climate Change to limit global warming to 1.5°C.

Applying the CEAP recommendations to the Jericho Lands means creating a compact, mixed-use neighbourhood that prioritizes active transportation and that facilitates people getting to work, school and other destinations without needing to rely on gas and diesel vehicles. It also means facilitating enhanced energy performance of buildings and transitioning off fossil fuels to renewable energy sources, and where possible, retaining tree canopy and restoring forest to sequester carbon.

Through our public engagement, many respondents identified that improved public transit and accessibility, as well as prioritisation of pedestrian and bicycle movement, is seen as an effective means of reducing environmental impacts. We also heard that respondents recognize the importance of sustainable energy systems. Mixed use development and higher densities were also seen as assisting sustainability by allowing people to have access to their daily needs and amenities within an easy walk or roll.

RESILIENCE AND CLIMATE CHANGE ADAPTATION

Despite measures to reduce carbon emissions, climate change is unavoidable given the current level of emissions. A number of climate risks are expected to have local impacts, including:

- Increasing winter precipitation and extreme weather events;
- Increasing summer temperatures, and drought;
- Reduced air-quality caused by wildfires; and
- Rising sea levels, king tides, and storm surge.

It's important that ʔə́yalməxʷ/lý álmexw/Jericho Lands be built in a way that is resilient and adaptable to climate change, as well as to other potential risks such as a seismic event. Buildings should be able to weather and recover from climate shocks and stresses of today and the future, with flexibility, adaptability and resilience in mind. Rainwater management systems should be able to handle more extreme storms but also replicate and restore the natural hydrologic cycle wherever possible. The urban realm should be resilient to hotter summers and warmer, wetter winters, with an abundance of trees and natural vegetation to provide shade and habitat.

Through our engagement, we heard from respondents that it is desirable to develop in a way that responds to and mitigates future climate changes.

SITE PLANNING EMERGING IDEAS

The following Emerging Ideas have been prepared to help us think about how to plan and design the ʔəyálməx^w/Iýálmexw/Jericho Lands site in a way that addresses opportunities and objectives related to Sustainability and Resilience.

EMBED INDIGENOUS VALUES

- Tangibly express Musqueam, Squamish and Tsleil-Waututh culture, values and identity in the planning and design of all aspects of the site.

PLAN FOR A LOW CARBON NEIGHBOURHOOD

- Respond to the climate emergency with a comprehensive approach that minimizes carbon pollution through supporting transit and active transportation and through building efficiency, renewable energy supply, and sustainable material choices.
- Create a compact, mixed-use neighbourhood. Orient streets, movement corridors and buildings to promote passive design, optimize energy performance and take advantage of Vancouver's climate to minimize reliance on engineered systems.
- Pursue the highest sustainability and low-carbon standards in place at time of building design as development will be phased over coming decades.
- Recognize that designing the Jericho Lands to prioritize active transportation modes, encourage transit use and provide housing near shops and services, plays a significant role in the reduction of carbon emissions.





- Consider impacts of changing climate conditions on the site. Plan for future air quality events with careful design of building ventilation systems and 'clean air shelters' in community spaces, in recognition of the increased frequency and severity of forest fires expected to impact our region.
- Ensure buildings, ecosystems and landscapes, and public spaces are designed with future climate conditions in mind, including hotter, drier summers, and wetter rainy seasons.
- Facilitate low-impact approaches to water infrastructure. Embed rainwater management into the core of the site design so future increases in amount and intensity of rainfall can be handled using natural systems. Conserve potable water to recognize the future increase in demand and decrease in available drinking water in summer months.

DEFINE A PLACE THAT IS RESILIENT AND ADAPTABLE

- Design with flexibility, adaptability and resilience in mind. Develop a thriving and prepared neighbourhood that can respond effectively to climate shocks and stresses over the long-term.
- Design buildings and infrastructure to be reliable and able to withstand significant events like earthquakes, overland flooding, and fire.
- Provide public amenities that support community resilience and foster equity, and that are able to serve as emergency support hubs in times of need.
- Consider ways to increase local food security through enhancing access to sustainably grown food, and to healthy and affordable food retail options both within the neighbourhood and within walking, transit or cycling distance.



AMPLIFY RECONCILIATION AND LONG-TERM PROSPERITY

- Recognize and support the Jericho Lands as a site of reconciliation and prosperity to support the Musqueam, Squamish and Tsleil-Waututh communities.
- Develop and support ongoing opportunities for education, training and employment for members of the MST Nations.
- Reflect the leadership role of the MST as stewards of these lands and aspire to a future for ʔə́yalməxʷ/Iý álmexw/Jericho that is a global precedent for reconciliation and contemporary Indigenous urbanism.

Links to Other Emerging Site Planning Ideas

Designing ʔə́yalməxʷ/Iý álmexw/Jericho to become a sustainable and resilient new neighbourhood relies on a complementary strategies. Many of these strategies are outlined in the companion Discussion Guides. Please refer to these documents for additional Emerging Ideas.

- **Natural Systems & Open Space**
- **Connections & Mobility**
- **Inclusive Neighbourhood**

IDEAS FROM ELSEWHERE

We are gathering ideas, and learning from local and international urban redevelopment projects. The following projects offer some examples of ideas related to Sustainability and Resilience.



WYNYARD QUARTER (AUCKLAND, NEW ZEALAND)

Informed by engagement with the mana whenua (territorial rights holders) and the *Te Aranga Māori Design Principles*, the Wynyard Quarter development maintains a commitment to sustainability and resilience. The result is a significant reduction in stormwater discharge, housing built to passive house standards, including natural ventilation, and 30% of energy supplied by solar power.



TSLEIL-WAUTUTH ADMINISTRATION AND HEALTH CENTRE (NORTH VANCOUVER)

The Tsleil-Waututh Administration and Health Centre located in North Vancouver, BC is a two-storey mass timber structure, with a unique stepped wavy roof. It is a hub for the community that reflects the culture of the Tsleil-Waututh Nation (TWN) and demonstrates leadership in sustainable building approaches. The exterior cladding is made from locally harvested wood, and serves to connect the building with its natural surroundings. In recent months, the TWN unveiled a new installation of 350 solar panels to supply power to the building. It is the largest ground-mount solar power project in the Metro Vancouver region, and the second solar power project in the TWN community.



HAMMARBY SJÖSTAD (STOCKHOLM, SWEDEN)

Hammarby Sjöstad is a brownfield redevelopment project that pioneered an integrated approach to energy, waste, and water management. Using the "Hammarby Model," energy sources are integrated into a network that converts waste into a resource. For example, wastewater treatment extracts biogas, used to power buses and boats, and waste incineration produces over 20% of building energy.



HAFENCITY (HAMBURG, GERMANY)

HafenCity is a large-scale (388 acres) harbour redevelopment in Hamburg, Germany. HafenCity focuses on mixed-use neighbourhoods and the synergies resulting from proximity to promote social, economic and environmental sustainability. HafenCity has been designed to address flooding risk of the Elbe River by raising buildings 8 to 9 metres above sea level. In addition, new buildings are targeting HafenCity Ecolabel which outlines goals for sustainability including district energy. This significant site is also providing public amenities to the City of Hamburg.



VILLIERS ISLAND (TORONTO)

Created as a result of the naturalization of the Don River, the formation of a new river mouth outlet into Lake Ontario, and the related investment in flood protection, Villiers Island will be Canada's first climate positive community. Passive house standards are encouraged, height is distributed to maximize exposure to the sun and support solar energy production, and remaining energy requirement is met using thermal energy.

Emerging Ideas for Planning the Site

A summary of the Emerging Ideas in the four Discussion Guides is provided below for context. We invite you to provide feedback on each Discussion Guide.

Theme	Site Planning: Emerging Ideas
	Embed Indigenous values
NATURAL SYSTEMS & OPEN SPACE	<ul style="list-style-type: none">Start with the landRecognize the ridgeFrame significant viewsCelebrate rainwaterEnhance biodiversity and ecological connectionsConnect parks and open space
CONNECTIONS & MOBILITY	<ul style="list-style-type: none">Design to be welcoming and inclusivePrioritize walking, rolling and cyclingEncourage transit use through site designEnhance neighbourhood connectionsRe-imagine West 4th AvenueDesign the site to be car-light
INCLUSIVE NEIGHBOURHOOD	<ul style="list-style-type: none">Diverse housing choicesDesign a new neighbourhood with distinct districtsCreate a destination for culture, jobs and shoppingProvide amenities to support the neighbourhoodA unique and vibrant public realmNeighbourhood spaces foster health and well-beingRecognize land as a limited resource
SUSTAINABILITY & RESILIENCE	<ul style="list-style-type: none">Plan for a low carbon neighbourhoodDesign with climate change in mindDefine a place that is resilient and adaptableAmplify reconciliation and long-term prosperity

STAY INFORMED

While restrictions on large gatherings and social distancing measures remain in place, we are committed to providing ways for you to continue to engage in the Jericho Lands planning process. In addition to the upcoming engagement activities, there are a variety of ways for you to provide input and stay informed with the process.

**VISIT THE
PROJECT WEB PAGE**

To learn more about the Jericho Lands planning process, the public engagement completed to date, participate in a survey, or ask a City staff member a question, you can visit:

shapeyourcity.ca/jericho-lands

SIGN UP TO THE CITY'S PROJECT EMAIL LIST

The best way to keep up-to-date with the planning process is by signing up to the project email list. You will receive updates from the City's planning team informing you of any upcoming engagement opportunities or project milestones. To sign up, visit the project web page and leave your contact information under "Get updates." Alternatively, you can email the project team and ask to be added to the list.

CONTACT THE CITY'S PROJECT TEAM

If you would like to contact the City's project team, you can email us at jericholands@vancouver.ca, or leave a question on the Q&A section of the project web page. Alternatively, you can send your inquiries via mail by writing to:

**c/o Jericho Lands planning team
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