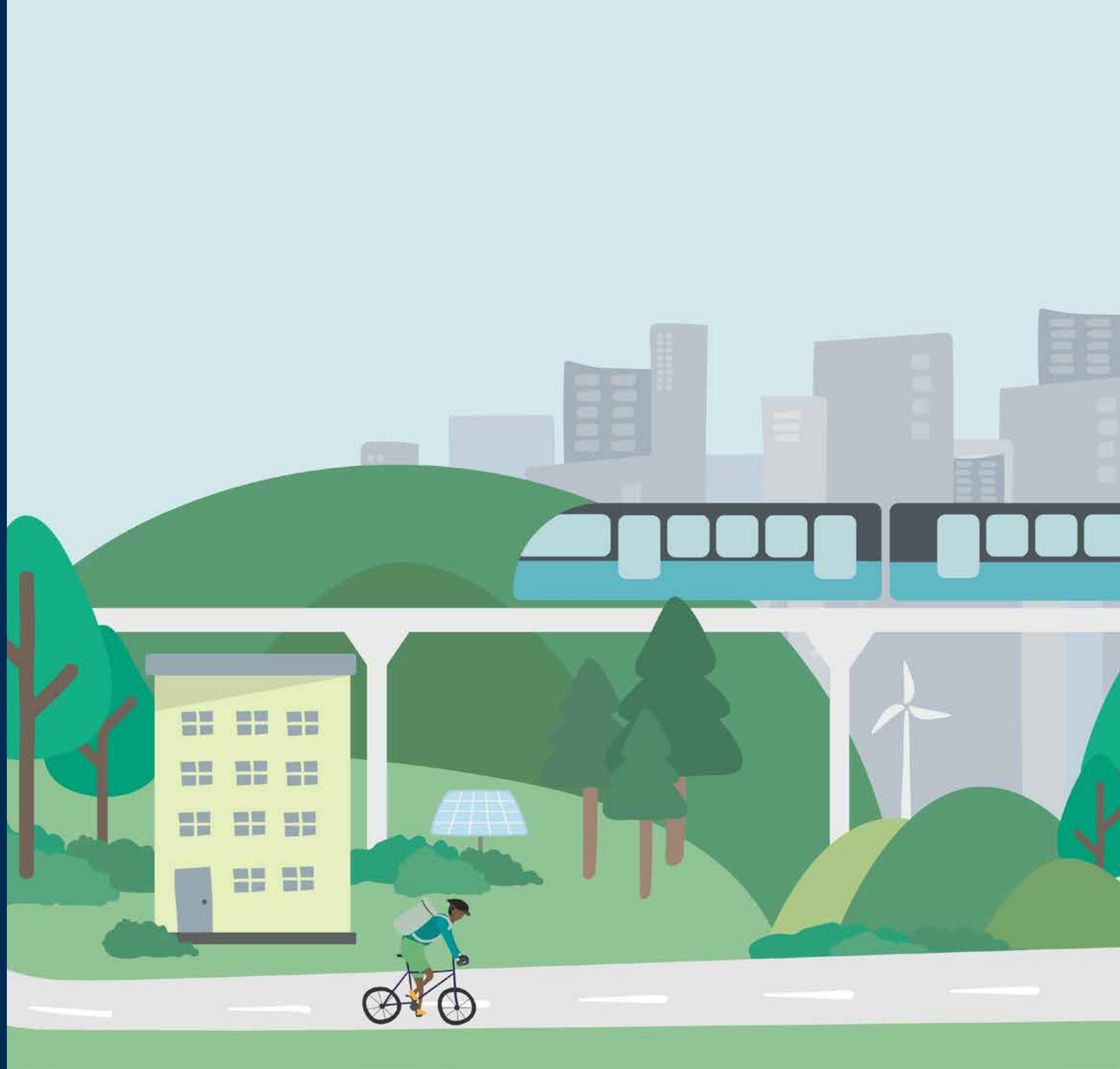
reGENERATE
Ideas Challenge

WINNERS AND SHORTLISTED SUBMISSIONS

MARCH 2024

NEW WESTMINSTER



Land Acknowledgment

We recognise and respect that New Westminster is on the unceded and unsurrendered land of the Halkomelem (hənqəmiməm, Halq'eméylem, Hul'q'umi'num') speaking peoples. We acknowledge that colonialism has made invisible their histories and connections to the land. As a City, we are learning and building relationships with the people whose lands we are on.

INTRODUCTION

The City of New Westminster is committed to addressing the housing crisis and taking bold action on climate, including changing the way we plan for growth. The reGENERATE Ideas Challenge, which closed at the end of January 2024, was part of the City's visioning process for the area around the 22nd Street Station.

THE IDEAS CHALLENGE

Between November 2023 and January 2024, everyone was invited to submit ideas for a climate-friendly neighbourhood around the 22nd Street SkyTrain Station. The City was interested in ideas that fell under the following themes:

- **Land Use and Housing**: focused growth near transit, diverse & affordable housing
- **Mobility, Access and Infrastructure**: sustainable transportation options, infrastructure
- **Landscape and Water:** nature-based design, connected open spaces, sustainable food systems
- **Buildings, Energy and Waste:** zero emission buildings, energy efficiency and conservation, embodied energy and carbon, local renewable energy, construction waste reduction, circular economy opportunities
- **Community Connections and Belonging:** community well-being, sense of place and safety, celebrating culture

And answered questions such as:

- How can we plan for neighbourhood growth with climate change at the forefront of our thinking?
- What are the most urgent adaptation measures we need to design into our communities?
- How do we best reduce our emissions through neighbourhood or building design?
- How can we plan neighbourhoods that are inclusive and safe for everyone, now and into the future?

Entry was open to everyone – community members, students, youth, designers, urban development professionals, climate thought leaders, and everyone in between. Entrants could participate individually or in groups. Interdisciplinary teams were encouraged.

REVIEW PROCESS

82 submissions were received from diverse countries and age groups that embody the creativity, passion, and enthusiasm of proud community members and environmentally-conscious professionals towards shaping an inclusive and climate-friendly future.

The submissions were shortlisted by a diverse jury:

- New Westminster high school student
- Local representative from the Advisory Planning Commission
- Climate planner from Metro Vancouver
- Architect from Human Studio
- Planner from Happy Cities
- Coast Salish cultural advisor

The jury selected the winners for the Top Comprehensive Idea, Top Local Community Idea, Top Youth Idea, as well as the honourable mentions.

Submissions explored opportunities to:

- Create and expand spaces for public gathering, including green space with ecological and climate adaptation functions, as well as indoor gathering spaces where neighbours could connect, support each other's wellbeing, and advance climate action
- Promote local renewable energy generation, such as through wind, solar, or even capturing kinetic energy along pathways
- Redevelop the station and its immediate surroundings into a mixed-use hub that could serve daily needs of residents
- Support a range of housing typologies, from high rise, to mixed-use low rise, courtyard orientations, townhouses, and multiplexes
- Support sustainable transportation modes by expanding bike and pedestrian infrastructure, or closing select roads to cars
- Promote Coast Salish culture and values through building design, greenspace and public art

Community members voted on the shortlist of submissions to determine the Community's Choice Award.

SUMMARY

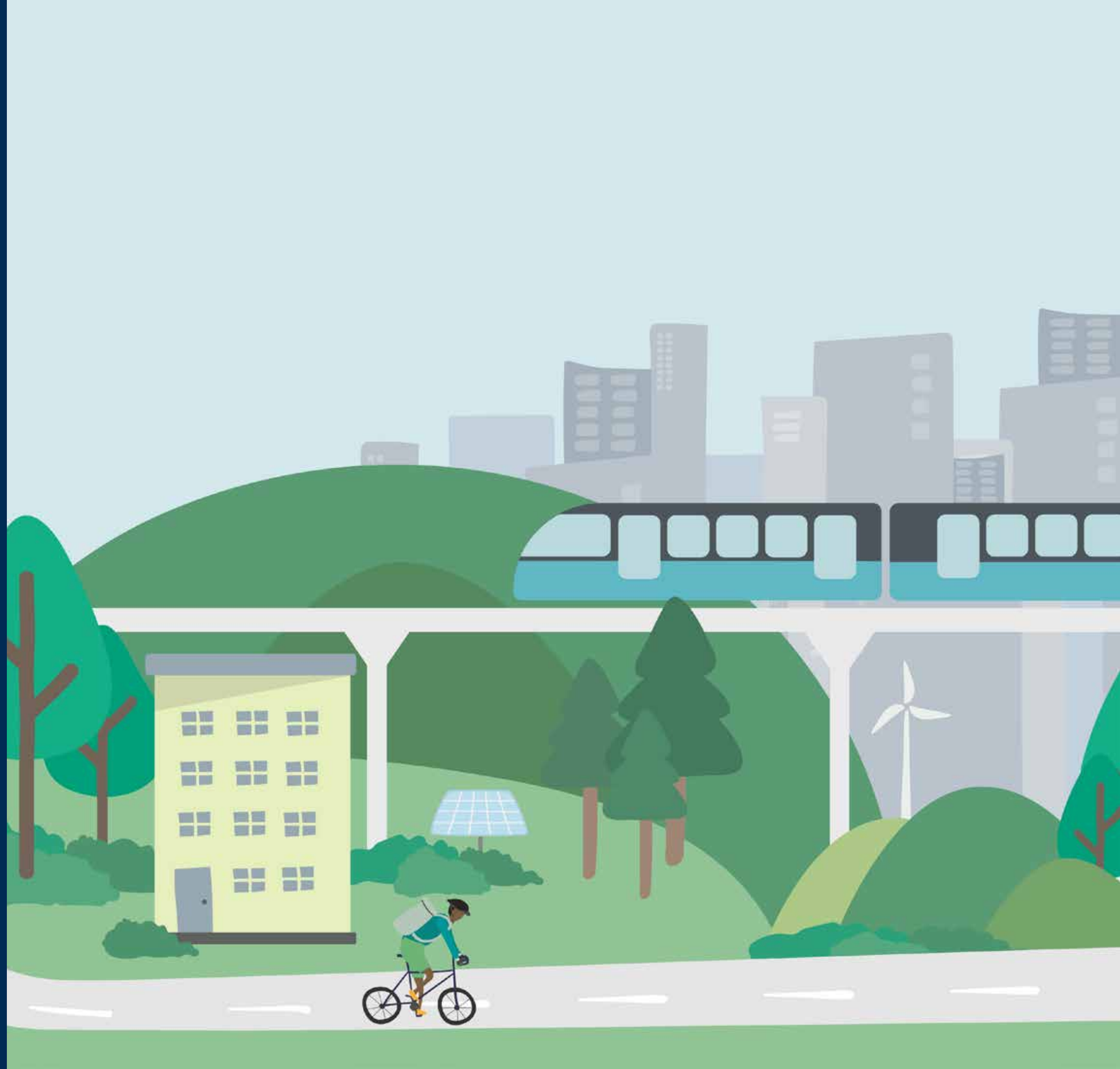
The following consists of twenty submissions that were shortlisted by the jury, with written descriptions submitted by participants. The first six submissions are of the winners and honourable mentions and are accompanied by statements from the jury, on particularly inspiring components and considerations.

The reGENERATE ideas challenge submissions were taken as inspiration and integrated into the visioning for the area around 22nd Street SkyTrain station at a design workshop in March, 2024, together with input from community members and other considerations. The ideas challenge submissions will continue to be considered as the vision for the area is developed.

reGENERATE
Ideas Challenge

WINNING SUBMISSIONS

NEW WESTMINSTER



TOP COMPREHENSIVE IDEA (A)

THE SAME STATION IN AN URBAN CITY

BY JIM ARCHITECTURE (JAMES HUEMOELLER)

Our proposal introduces a pedestrian-friendly vision for Connaught Heights with access to a healthy ecological urban landscape that can support increased density through high-quality, diverse housing options. The proposal begins with a phased enabling project that revises the existing 22nd Street Station into the transportation hub it needs to serve New Westminster and the larger region beyond.

Considerable effort at the provincial level is being made to lower our building stock's operation carbon and energy footprint. However, low-carbon communities that can provide resiliency to the impacts of climate change while also providing a high quality of life must address transportation costs first and foremost. Transportation accounts for well over 50% of the operational carbon footprint for buildings in North America, and research clearly shows that the traditional urban core of cities, less dependent on the car as the primary means of transportation, has a lower carbon footprint. Not only that, more transportation options also significantly improves our communities' equitability, removing structural barriers to social justice.

The proposal then looks at building a solid foundation for the neighbourhood through a revised urban landscape that deprioritizes the car and creates space for people and nature. Every great neighbourhood has a strong park system that supports it. The myth of Vancouverism is that innovative tools such as the tower and podium made the city a success story. The reality is that improvements to the waterfront were essential to the success of those neighbourhoods. Thriving urban communities need access to high-quality public space, especially as density increases. Instead, looking at Metro Vancouver, the places often with the best access to open space are low-density neighbourhoods. The neighbourhoods around Lynn Canyon and Pacific Spirit Park are just two examples.

With a robust framework, the proposal finally begins offering low-cost, resilient densification strategies. Rather than solely focusing on density or use, the zoning strategies focus on the urban landscape's distinct qualities. Density at Connaught Heights's edges should operate differently than that along a commercial street. Critical to the success is that a coherent landscape condition should be followed for any future development. By revisiting planning tools such as setbacks and site coverage, we set more specific guidelines that ensure the development of open spaces on-site contributes to the larger whole instead of being left to chance. Better building-to-landscape relationships and a few guidelines for building efficient, healthy buildings can create the diverse, high-quality housing New West needs for a growing population. In other words, we must build as if every square meter matters.

Finally, the proposal brings it together into a single roadmap for the future of the Connaught Heights neighbourhoods and beyond. Below are some critical responses to the challenges and opportunities facing the community as outlined in the competition brief:

Views: The views of Fraser River and beyond are vital assets that future development should incorporate using the existing topography. Development of the public open space should encourage view corridors where possible.

Street Alignment and Congestion: For far too long, the development of the western end of New West has prioritized the automobile, and yet the problem remains. The revision of the Queensborough Bridge in 2007 is the latest redevelopment of the transportation system that ultimately failed to alleviate congestion nor enhance access to alternative means of transportation. The future Connaught Heights and the adjacent communities deserve a plan that focuses away from the car towards the people. It can impact only with a real commitment to successful public transportation.

Single-Detached Lots: Reusing existing buildings is often the most sustainable alternative to new construction. The plan accommodates the existing building infrastructure outside the area immediately adjacent to the station. Though there is a commitment to a coherent urban landscape around specific typologies, the strategies can easily be incorporated into the existing fabric and allow a variety of pathways to the required lot consolidation. Furthermore, we encourage the city to look at alternative solutions that avoid the need for consolidation. Though that is a common strategy in Metro Vancouver, many cities have accommodated density without consolidation globally.

Multiple Jurisdictions: Cross-jurisdiction coordination is a challenge that any ambitious plan faces. Coordination between the different interested parties begins by identifying the common goals that can offer terrain for creating the coherent vision needed. Everyone understands that change is necessary. Creating more equitable cities that respond to the impacts of climate change is critical to ensuring the resiliency of Metro Vancouver communities.

Aging Buildings and Train Station: Though the existing train station is dated, we feel it is worth keeping with the additions of a few amenities. More critically, the landscape around the station does not offer the space needed for a successful hub. Simply put, the station's landscape is not safe. The need for bus connections and traffic movement limits the space available to pedestrians, especially for those with disabilities. Limited sightlines across the station further reduce pedestrian comfort and safety. Finally, there is also little room for programming to further bring eyes to the place and activate the site throughout the day and evening. These challenges are why we focus first on improving the station.

Steep Slopes: Steep slopes represent a challenge and an opportunity. Future buildings should take full advantage of the slopes to improve views and limit the impact of parkades and other underground services. The development of public spaces will need to consider accessibility. Ourproposal for the station, for example, centres on convenient routes for those with limited mobility and ensures adequate sightlines to avoid unexpected interactions between different forms of transportation.
We agree with the competition brief for the project and share common values. Our proposal looks to create a more equitable city that enhances the sense of place and creates a more resilient community. Of course, this proposal is only an idea, but one that we hope the city finds useful for future conversations on 22nd Street Station and the communities it supports.

JURY STATEMENT

For the "Top Comprehensive Idea", the Jury was looking for a comprehensive submission that considered the entire neighbourhood. This submission provided an in-depth response to land use, landscape design, transportation, and the pedestrian experience. The Jury particularly commended the bold idea to create a meaningful and naturalized greenspace (i.e. the "Woodlands"). Other strong ideas included transforming the transit station area into a great public space; and ensuring a range of building forms.

The Jury recommends careful consideration about ensuring that people feel safe in a rewilded natural space and ensuring a well-executed public space near the transit station. There are some areas in the land use plan where increased density may be warranted.

THE SAME STATION IN AN URBAN CITY

Our proposal introduces a pedestrian-friendly vision for Connaught Heights with access to a healthy ecological urban landscape that can support increased density through high-quality, diverse housing options. We agree with the competition brief for the project and share common values. Our proposal looks to create a more equitable city that enhances the sense of place and creates a more resilient community. Of course, this proposal is only an idea, but one that we hope the city finds useful for future conversations on 22nd Street Station and the communities it supports.

2040

TOC

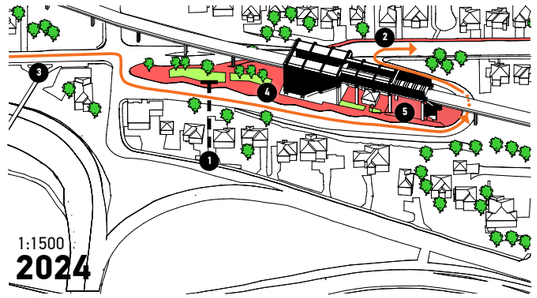
Page 1: **THE ENABLING PROJECT**

Page 2: **THE FRAMEWORK**

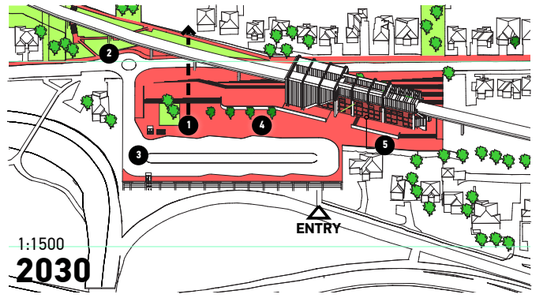
Page 3: **THE BUILD OUT**

Page 4: **NEW WEST FUTURE**

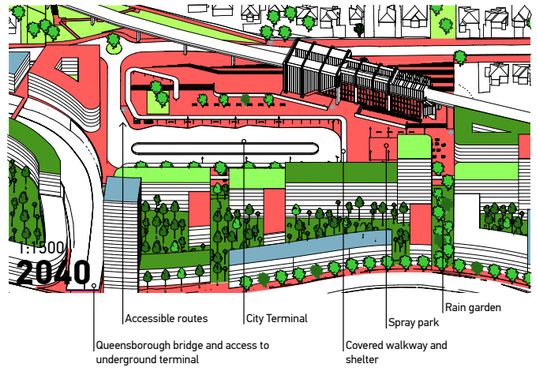
PHASED DEVELOPMENT



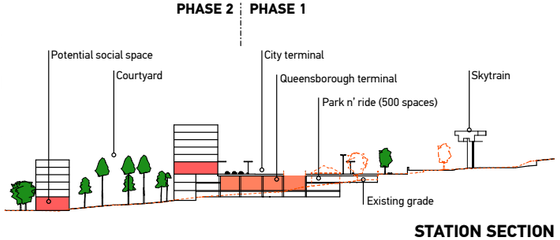
EXISTING CONDITIONS - 1: poor visibility across the site, 2: poor pedestrian infrastructure to the station, 3: bus lane bisects pedestrian pathways, 4: no space for programing or activity, 4: no amenities



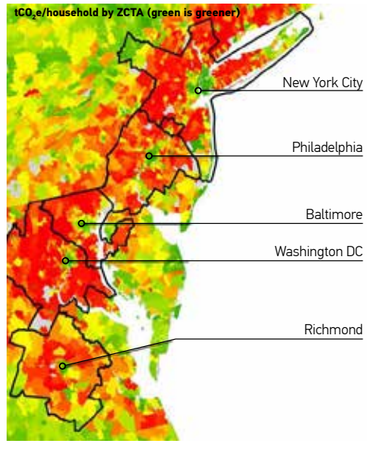
ENHANCED STATION - 1: increased visibility across site, 2: improved pedestrian infrastructure to the station, 3: clear separation between bus and pedestrian traffic, 4: space for programing and activity, 5: space for amenities to activate the station

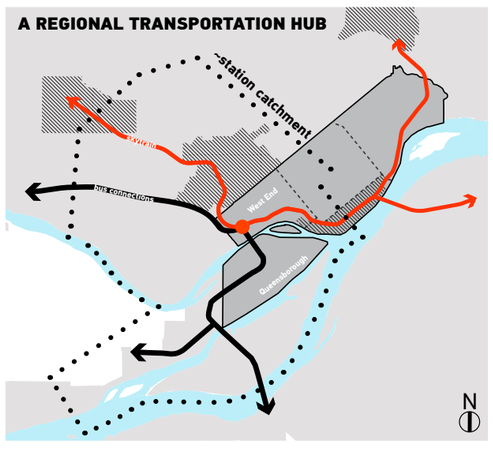


FINAL STATION: Successful transit stations need pedestrian access and efficient public transportation connections. The current configuration of 22nd Street Station has neither. The proposed renovation first involves building a parking garage that can house a new bus loop, accommodate a future terminal with direct access to the Queensborough Bridge, and provide 500 spaces that serve the larger community and anticipate further densification to the south. The new garage consolidates traffic and gives space to pedestrians to ensure a safer, more active station. This proposal uses the existing topography to limit excavation. There are other options, but regardless of the existing conditions, adjacent properties will likely need to be purchased to give the space the station needs.

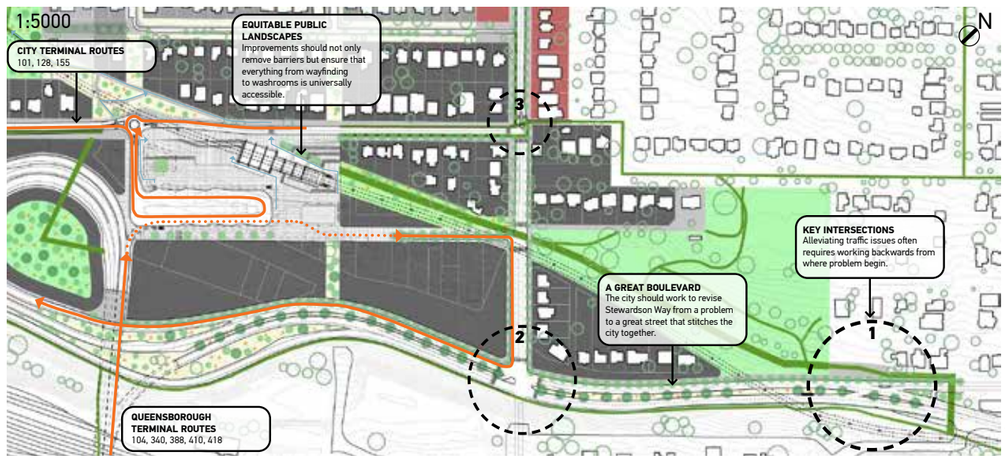


STATION SECTION





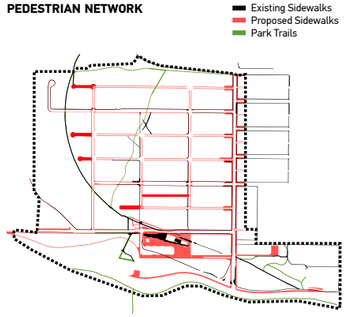
The first step is to develop a coherent plan supported by all the interested parties for the 22nd Street Station, including the City of New West, the Ministry of Transportation and Infrastructure, TransLink, and BC Hydro. For far too long, the station has failed to be integrated into Metro Vancouver, constrained by the car's needs. Prioritizing public transportation will improve Connaught Heights and allow public transport to alleviate the endless traffic issues in the area. The research is clear that denser communities centred on public transit have a lower carbon footprint.[1]



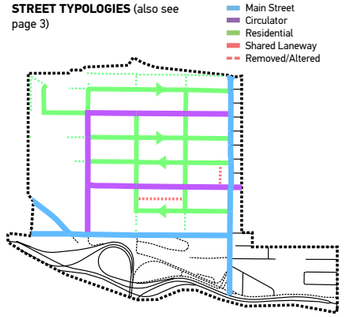
TRANSPORTATION ACCOUNTS FOR OVER 50% OF BUILDING EMISSIONS[2]

THE ENABLING PROJECT: BUILDING THE HUB

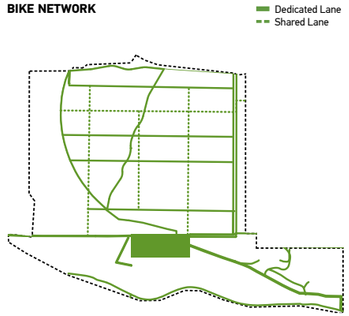
PEDESTRIAN NETWORK

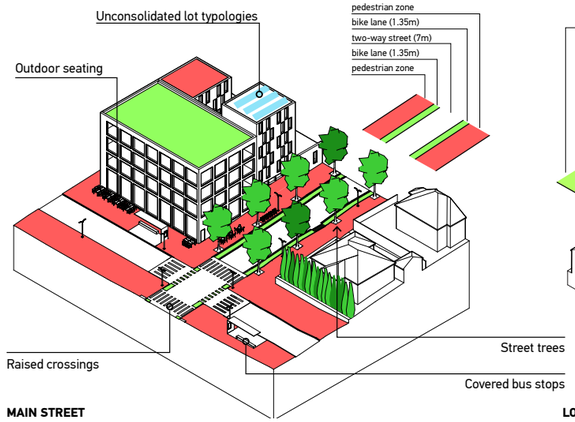


STREET TYPOLOGIES (also see page 3)

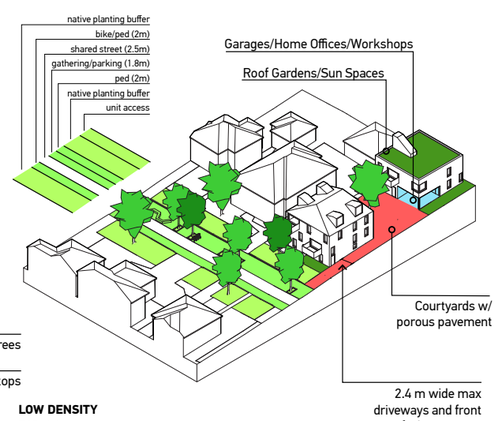


BIKE NETWORK





MAIN STREET
FSR: 3.0 (Single Lot) or 4.5 (Consolidated Lot)
Site Coverage: 100%



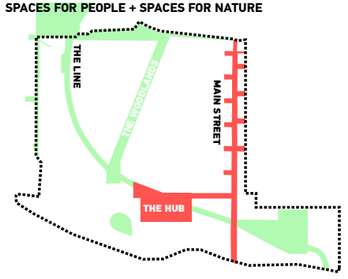
LOW DENSITY
FSR: 2.0
Site Coverage: 50%



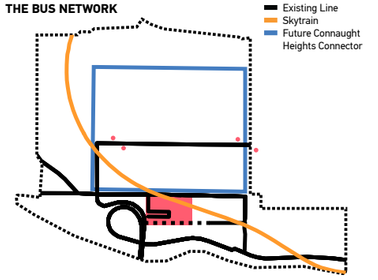
Every great neighbourhood has a strong park system that supports it. The myth of Vancouverism is that innovative tools such as the tower and podium made the city a success story. The reality is that improvements to the waterfront were essential to the success of those neighbourhoods. Thriving urban communities need access to high-quality public space, especially as density increases. Instead, looking at Metro Vancouver, the places often with the best access to open space are low-density neighbourhoods. The neighbourhoods around Lynn Canyon and Pacific Spirit Park are just two examples. Therefore before we think about housing its imperative that we first look at the landscape as the framework for new densities..



SPACES FOR PEOPLE + SPACES FOR NATURE

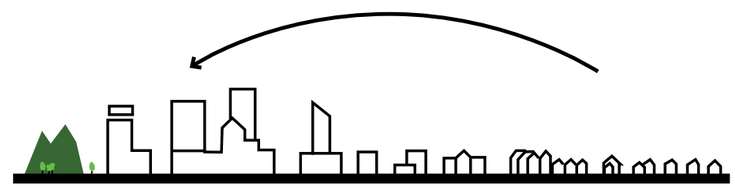


THE BUS NETWORK





THE TRANSECT MODEL[3]

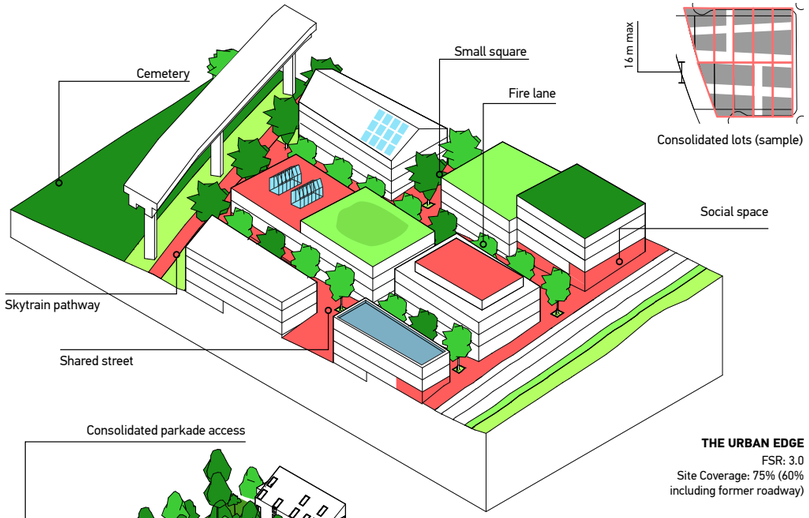


THE BALANCED MODEL

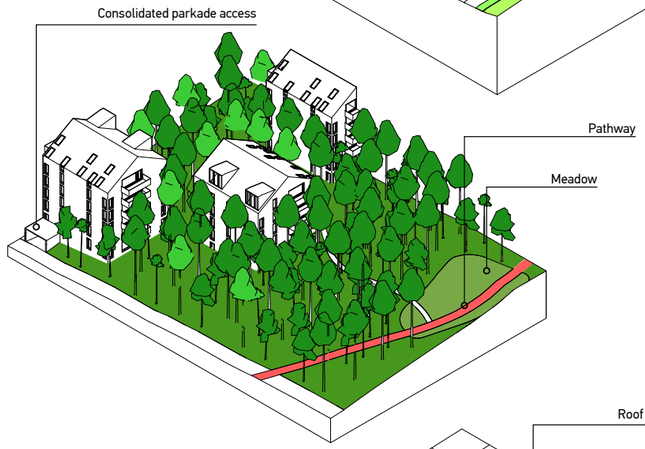


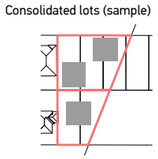


THE FRAMEWORK : **AN URBAN LANDSCAPE**

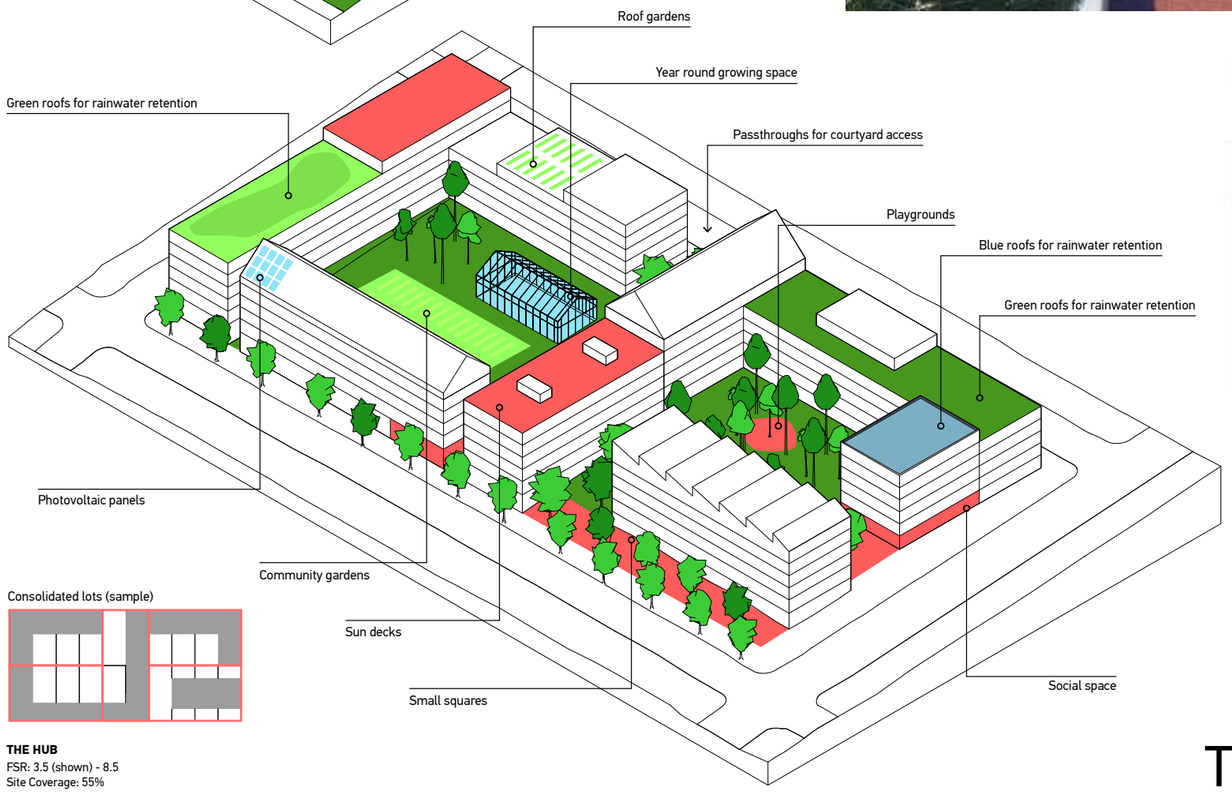


THE URBAN EDGE
FSR: 3.0
Site Coverage: 75% (60% including former roadway)





THE WOODLANDS
FSR: 2.0
Site Coverage: 33%



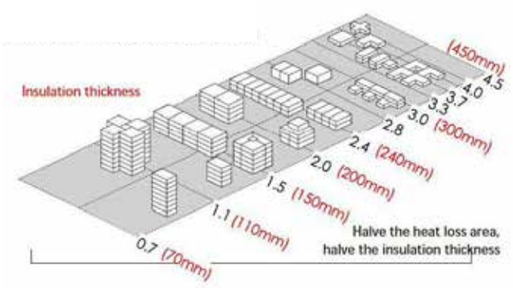
THE HUB
FSR: 3.5 (shown) - 8.5
Site Coverage: 55%



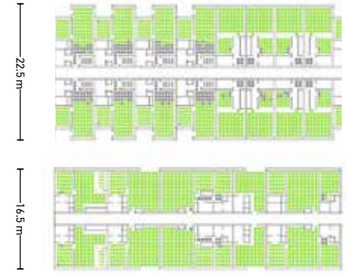
SOME PRINCIPLES FOR RESILIENCY

COMPACT FORMS... BUT WITH ACCESS TO DAYLIGHT AND NATURAL VENTILATION

FORM FACTOR[4]



DAYLIGHT ANALYSIS

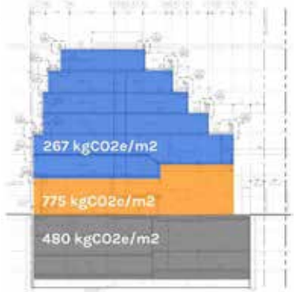


The key to resilient building is to compact, denser buildings that minimize heat loss. Buildings with low form factors perform better, and the decrease in insulation can lower costs. However, compact forms cannot come at the expense of access to daylight and natural ventilation. Not only does daylight and natural ventilation improve the aesthetic quality of the housing, but it reduces dependency on building systems to provide comfortable dwelling units. Overly deep floor plates require higher floor-to-floor heights, larger windows, and complex stack ventilation systems to provide passive performance levels.

Excavation costs money and has twice the carbon footprint of the upper levels of a mid-rise structure. The means to reduce the impact of the ground floor exists, but basements without concrete remain unfeasible. Taking advantage of the topography to build structures above grade will reduce the structure's cost and allow for future re-purposing of the garage.

BUILD UP, NOT DOWN

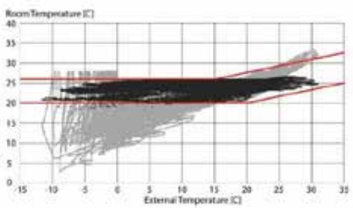
MID-RISE CARBON COST BY FLOOR[4]



INCREASED INSULATION, AIR TIGHT CONSTRUCTION AND LOW WINDOW-TO-WALL RATIO IS THE NEW STANDARD, BUT WE CAN STILL DO BETTER.

Passive House buildings use low window-to-wall ratios, air-tight construction, and increased insulation levels to lower the operating costs of a building, reducing the carbon footprint, and improving the overall thermal comfort of a building. Research shows, however, that adding thermal mass, preferably through non-concrete sources, can stabilize temperatures and further reduce dependence on mechanical systems for heating, cooling and ventilation.

THERMAL COMFORT BY CONSTRUCTION TYPE[6]



heavy construction light construction

THE BUILD OUT: **LOW-COST RESILIENT HOUSING**

1:2500

MULTIFUNCTIONAL PUBLIC AMENITIES
To accommodate increased densities, our public facilities need to be fully utilized. Single-use buildings should be replaced with centres that can accommodate various uses for people of all types.

THE WOODLANDS
Despite the housing crisis, the temptation to prioritize open space for buildings should be resisted. Open space is critical to healthy, dense communities, and any opportunity to add functional open space should be taken.

ENGAGING THE FREEWAY
Jurisdictional barriers must be removed to allow enhancements around Highway 91a. Further widening will only increase volume, not relieve congestion, and the space around the highway is too valuable to be left to pasture.

THE HUB
A new transit hub organized around equitable pedestrian access is at the centre of it all. The hub will be the active heart of the community, providing key services as commuters move to and from work during the day.

N

Networks

Ecological
Open spaces need to be either productive for people or for nature. Too many landscape buffers consist of unproductive monoculture landscapes. Ensuring those buffers are more ecologically productive will improve the community's overall health.

Park
Though the area has a significant amount of open space, much of it lacks identify, neither for people nor ecologically productive. The proposal introduces a nature corridor along the existing BC Hydro line that will enhance the community's ecological health and provide a key connector for increased density within the community.

Pedestrian
Rather than adding expensive traditional sidewalks to the area, the focus should be on giving space dedicated to cars over to other modes of transportation, including pedestrians. Wide existing streets create distance from front porch to the front porch, reducing informal interactions. An improved network compresses the street while accommodating more varied uses.

Zoning

Type: **The Woodlands** Stories: 6
FSR: 2.0 Site Coverage: 33%
A zoning district characterized by its relationship to the adjacent Woodlands. Though denser than the traditional residential blocks, the density should be consolidated as much as possible to minimize site coverage and allow for enlarged park space, increasing the ecologically productive area.

Type: **Low Density** Stories: 3
FSR: 1.2 Site Coverage: 50%
This zoning district maintains the neighbourhood's existing character with a slight increase in density and a new streetscape, making it more urban. Using porous pavement for driveways rather than concrete and more varied uses will foster more activity and improved exterior comfort.

Type: **Hub** Stories: 6 to 25
FSR: 3.5 to 8.5 Site Coverage: 55%
An intensification of the area around the transit station will make the station a safer and more active place and provide more housing with convenient access to the station. The density will vary from block to block, with high density and taller structures as one moves south down the hill and closer to Highway 91a. Incorporation of social space to support the denser neighbourhood will be necessary for the new developments.

Type: **Main Street** Stories: 6
FSR: 3.5 to 4.5 Site Coverage: 100%
20th Street and 7th Avenue are the main commercial streets for the neighbourhood and should be developed to support further additional amenities. Improvements to the existing streetscape will allow for outdoor activities and improve pedestrian comfort. Though traditionally, in Metro Vancouver, consolidation is the preferred method of development, typologies for single lots should be available for landowners.

Type: **Urban Edge** Stories: 4
FSR: 3.0 Site Coverage: 75%
Neighbourhoods are not islands. Development of the edges is important to ensure access to surrounding amenities and to maintain urban continuity. Here, 4-story rows of 16m to 12m structures (townhomes of apartments) along pedestrian-centred shared streets will maintain those critical connections beyond Connaught Heights.

References

1 Jones, Christopher, and Daniel M. Kammen. 2014. "Spatial Distribution of U.S. Household Carbon Footprints Reveals Suburbanization Undermines Greenhouse Gas Benefits of Urban Population Density." Environmental Science & Technology 48 (2): 895–902.
2 Wilson, Alex, and Paula Melton. 2018. "Driving to Green Buildings: The Transportation Energy Intensity of Buildings." BuildingGreen. October 22, 2018.
3 "Smart Code Version 9.2." 2009. The Town Paper.
4 "The Challenge of Shape and Form: Understanding the Benefits of Efficient Design." 2016. NHBC Foundation.
5 "Half_City of Toronto_Comparative Carbon Emissions of Mid-Rise Buildings_2023.Pdf." n.d.
6 Junghans, Lars. 2019. "Feasibility of the '22/26' Building under Varying Construction, Occupancy and Climate Condition." In LowTech in Buildings, 21:54–65. Bundesamt fuer Bauwesen (Department of Building Construction and Urban Planning, Germany).

THE VISION: **A NEW WEST FUTURE**

TOP COMPREHENSIVE IDEA (B)

22ND STREET STATION COURTYARD COMMUNITY

BY PETER WILLIAMS AND JAMIE EDEN

22nd Street Courtyard Community is a revolutionary vision for an innovative, multi-functional, and climate-friendly neighborhood. The proposal reimagines the 20th Street station area, weaving together strategically positioned courtyard blocks that redefine public streets and space that transcend boundaries. Rooted in the 15-minute city concept, this design not only prioritizes short travel distances to everyday amenities but also advocates for the use of truthful natural materials, meaningful patterns, and community-centered living.

Urban Design
22nd Street Courtyard Community is a paradigm shift in urban planning. The strategically positioned courtyard blocks redefine public spaces, creating a socially integrated community with enhanced intimacy and surveillance. Strengthened pedestrian connections form a vibrant social landscape where people can meet, greet, and interact. This approach opens up possibilities for community gardens, allotments, and playgrounds, fostering connections and a sense of belonging.

Mobility, Access, Infrastructure - The 15-Minute City
Our proposal encourages reduced reliance on cars, emphasizing improved pedestrian and cycle links to the station along with regular electric bus services. New streets and public spaces are designed to inspire a sense of community and improve public health. The flexible courtyard urban framework can extend beyond the current site boundaries, adapting to the success of initial development phases. To align with resident needs, we propose local surveys focusing on desired amenities.

Truth and Reconciliation - Honest Materials and Patterns
To reconcile historical imbalances, we propose implementing rules for individual plot designs. Recognizing the deep connection of First Nations, Inuit, and Metis with the Earth, we advocate for respectful and gratitude-filled expressions through the use of truthful natural materials. We call for a reduction in contemporary materials like petroleum-based products, artificial wood/stone, and AST paneled buildings. Building facades are encouraged to incorporate:
Truthful materials: Natural wood, treated or weathered, natural stones, brick, or naturally weathering paneling (e.g., Corten). First Nation identity expressed through patterns, inspired by the Salish weave seen in the New Vancouver Art Gallery.
International identity reflecting New Westminster's cultural diversity.
Incentives for developers who embrace these principles, such as fast-tracking development permits, will ensure the successful implementation of this vision. Our proposal explores these concepts, utilizing timber on various building types, with facades expressing patterns and textures, creating a distinct identity. Locals and pre-purchasers can participate in the design process during the DP stage, making individual choices to strengthen identity.

Buildings and Energy - Mass Timber Off-Site Prefabrication
All buildings are to be constructed from locally sourced, sustainably harvested timber to reduce embodied carbon emissions. Various timber construction systems, including mass timber for structural materials and lightweight timber frame for standardized prefabricated components, will be deployed. Innovative off-site manufacturing processes reduce construction waste, increase accuracy, and enhance quality. Timber's exposure internally and externally offers physiological and psychological health benefits, contributing to increased air quality. Mass timber structures will be incentivized during the development permit stage.

Climate Action - Natural Systems
Our holistic approach to sustainability forms a climate-resilient neighborhood, emphasizing increased green spaces, tree planting, and vertical farming. The proposal includes a tower with a vertical farm and farmers market, aligning with Vancouver's latest policies on vertical farming. This collaboration could involve a flagship supermarket. Green roof terraces, landscaped streets, and courtyard gardens will mitigate stormwater runoff, urban heat island effects, and improve air quality and biodiversity.

Buildings, Energy, and Waste - Circular Economy Systems
Rooftops and courtyards become spaces for community food production and agriculture. New developments are urged to combine passive natural strategies with cutting-edge, data-driven energy solutions. Green space and a connection to the landscape should drive future zoning and development decisions, aligning with the respect for the land upheld by First Nations.

Landscape and Water - Wildlife Corridor Pontoon Log Rafts
Transforming 21st and 22nd streets into pedestrian-friendly green corridors with seating, trees, and playgrounds, our proposal envisions a dynamic connection to the river edge. Wildlife bridges and floating log pontoons create a unique meeting place for the local community and wildlife throughout the year.
Buildings - Variation and Identity
While offering simplicity and coherence from a top view, New Westminster Courtyard Community introduces variation in building height and form in three dimensions. Each part of the city gains a clear identity, with low-rise courtyard blocks blending into the surrounding neighborhood and higher towers rising towards the river.

Land Use and Housing - Diverse Housing For All
Housing has a unique capacity to define the form and character of a city. A diverse mix of housing typologies will be provided, including low-rise courtyard row houses, medium-rise mixed-use apartments, and marionettes. Socially rented and affordable housing will be integrated with privately sold units.

Community Connections and Belonging - Green Amenity
Prioritizing outside amenity space for all homes, our proposal ensures residents have access to roof terraces or gardens, fostering a sense of belonging and connection to nature.

Mobility, Access, Infrastructure - Bicycle Commuting
The station area becomes the community heart, with commercial and community facilities creating a vibrant core. Improved connections to surrounding buildings and a dedicated SkyTrain commuter carriage for bicycles enhance sustainable transportation options. This proposal also considers a potential 10-20 year concept to negotiate with Vancouver for a dedicated SkyTrain commuter carriage.

Summary
22nd Street Community embodies a bold vision for sustainable urban living, aligning seamlessly with the 15-minute city concept and fostering community through the use of truthful natural materials and meaningful patterns. This proposal presents not just a reimagined city but a blueprint for a harmonious, inclusive, and environmentally conscious future that respects the local context, catalyzing change towards a climate-friendly neighborhood.

JURY STATEMENT

Sharing the spotlight for "Top Comprehensive Idea" is the 22nd Street Courtyard Community. Jurors admired the focus on social connection through semi-public and public spaces. As one juror stated: the most climate resilient form of housing is one where people get to know each other. Another standout idea: embedding Indigenous inspired art and architectural styles into the design guidelines for the neighbourhood. As one Jury member stated, to reach climate justice, we must make neighbourhoods that encourage people to care about the climate because they know each other.

The Jury recommends considering higher density in certain areas than proposed in this submission; and cautioned that courtyards writ large may not work in this context – but there the Jury recommends prioritizing social connection and unique housing forms.

22ND STREET COURTYARD COMMUNITY

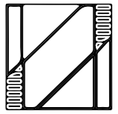
RECONCILIATION DECORATION



1. TRUTHFUL MATERIAL



2. FIRST NATION IDENTITY



3.INTERNATIONAL IDENTITY



IMAGE 2. RESIDENTIAL MID/HIGH RISE EXAMPLE PLOT: TIMBER CLAD, SHADING DEVICES, PATTERN TO EXPRESS IDNETITY IDENTITY

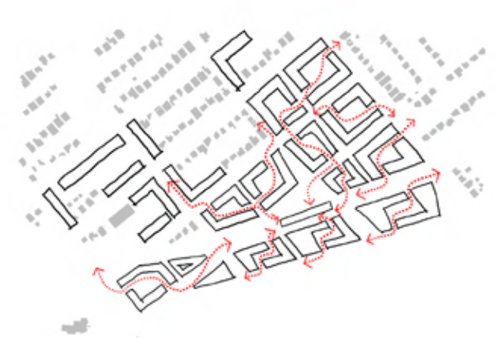


IMAGE 3. RESIDENTIAL MID/HIGH RISE EXAMPLE PLOT: TIMBER CLAD, MOVE ABLE SHADING PANELS, PATTERN IDENTITY

IMAGE 1. POROSITY BETWEEN PLOTS, SHADING BY MASSING, VEGETATED PEDESTRIANIZED STREETS, NATURAL MATERIALS

SITE PLAN

22ND STREET STATION DISTRICT



ENHANCED CONNECTIVITY

POROSITY OF STREET AND BLOCKS



WILDLIFE CORRDIORS

21ST AND 22ND STREETS ARE TRANSFORMED INTO PEDESTRIAN FRIENDLY GREEN CORRIDORS WITH SEATING, TREES, PLANTING AND PLAYGROUNDS.



STREET AXIS AND NAMING

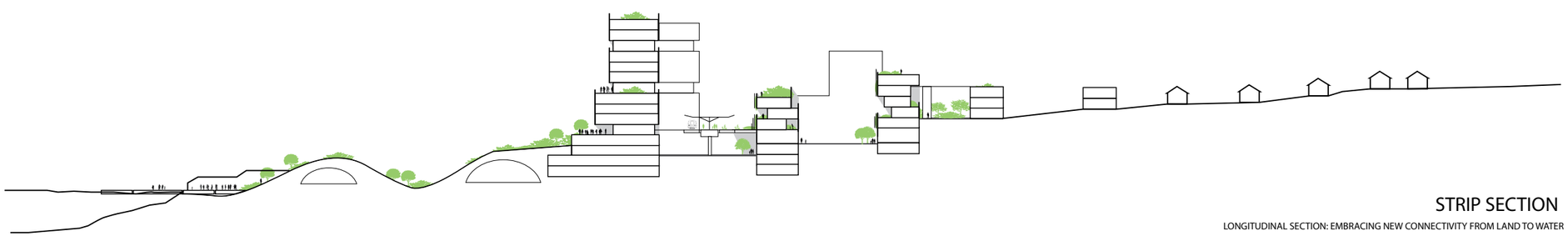
ENGAGEMENT WITH FIRST NATIONS AND CURRENT COMMUNITY ON RE-NAMING (OR CO-NAMING STREETS)





1. 20TH STREET
2. 21ST STREET RENAMED: SEYMOUR VIEW, CH'ICH ELIWXIH'
3. 22ND STREET RENAMED. 'TWIN SISTERS CH'ICH'IYÚY ELXWÍKN'
4. 23RD STREET
5. SEVENTH AVENUE SHOPPING STREET
6. HAMILTON STREET
7. 8TH AVENUE
8. EDINBURGH STREET
9. STATION HUB
10. STATION PLAZA
11. WILDLIFE BRIDGES
12. PONTOON LOG RAFTS
13. CAFE
14. COURTYARD GARDEN
15. ALLOTMENT
16. HERB GARDEN
17. RAISED PODIUM COURTYARD GARDEN
18. HEALTH CENTRE WITH HOUSING ABOVE
19. MIXED USE TOWER WITH PUBLIC TERRACE
20. VERTICAL FARM TOWER WITH FARMERS MARKET AT GROUND LEVEL
21. MIXED USE RESIDENTIAL TOWER WITH APARTMENTS LIBRARY AND PUBLIC TERRACES
22. COURTYARD TOWER PODIUM
23. MIXED USE TOWER WITH PUBLIC ROOF TERRACES
24. INFILL ROW HOUSING
25. ROW HOUSE COURTYARD BLOCK
26. LEISURE COMPLEX WITH OFFICES ABOVE
27. RESIDENTIAL COURTYARD BLOCK WITH ELECTRIC CAR SHARING
28. COMMERCIAL BUILDING COURTYARD GARDEN
29. COMMUNITY TOWN HALL

MASTERPLAN

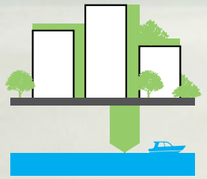


STRIP SECTION

LONGITUDINAL SECTION: EMBRACING NEW CONNECTIVITY FROM LAND TO WATER

URBAN FRAMEWORK

URBAN FABRIC. MASTERPLAN CONCEPTS



WILDLIFE CORRIDOR

A SERIES OF WILDLIFE BRIDGES EXTEND OVER ROADS AND RAIL-WAY LINES FORMING A NEW CONNECTION TO THE RIVER EDGE



PONTOON LOG RAFTS

AT THE EDGE OF THE FRASER RIVER, IN KEEPING WITH THE EXIST-ING CONTEXT, A SERIES OF COMMUNITY FLOATING LOG PON-TOONS AND CAFE ARE DOCKED



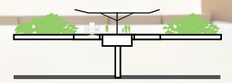
BIKE COMMUTE CARRIAGE

DEDICATED BIKE COMMUTER CARRIAGE ADDED TO THE SKY TRAIN TO ENCOURAGE BIKE COMMUTING



VERTICAL FARM MARKET

VERTICAL FARM WITH FARMERS MARKET AT STREET LEVEL, THIS IS A CONCEPT WHICH ALIGNS WITH THE LATEST UPDATES IN VANCOU-VER POLICY WITH RESPECT TO VERTICAL FARMING INITIATIVES. THIS COULD BE ACHIEVED WITH A COLLABORATION WITH A FLAGSHIP SUPERMARKET.



ELEVATED GREEN PATHS

THE TRAIN STATION WILL HAVE IMPROVED CONNECTIONS TO SUR-ROUNDING COMMERCIAL BUILDINGS, ELEVATED PATHS WILL CON-NECT WITH PLATFORM LEVEL.



NATURE FIRST

GREEN SPACE FIRST AND A CONNECTION TO LANDSCAPE AS A PRIMARY DRIVER IN ALL FUTURE ZONING AND\DEVELOPMENT PERMIT DECISIONS. PUTTING THE LAND FIRST AS WAS THE PRIORITY OF THE FIRST NATIONS.



15 MIN CITY

IDEAL GEOGRAPHY WHERE MOST HUMAN NEEDS AND MANY DESIRES ARE LOCATED WITHIN A TRAVEL DISTANCE OF 15 MINUTES

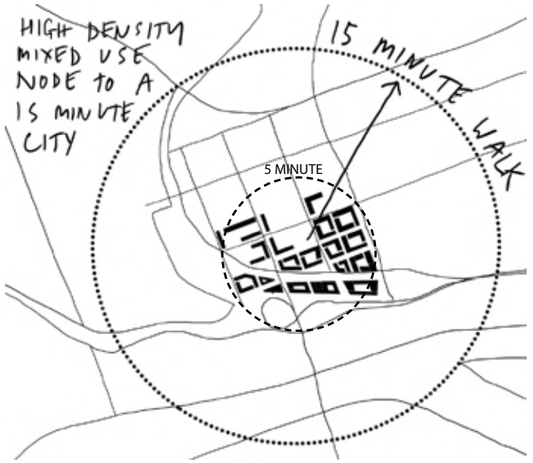


OPEN HEART

EXPOSED COMMUNITY HEART BASED AROUND THE NEW WESTMINSTER SKY TRAIN NODE, FACILITIES, COMMERCIAL AND COMMUNITY LAYERED TO CREATE A VIBRANT CORE

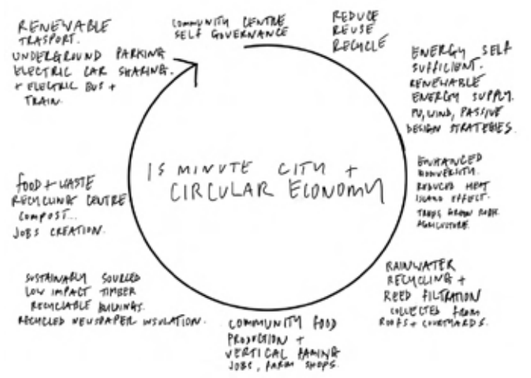
IMAGE 4. COMMUNITY OVERVIEW





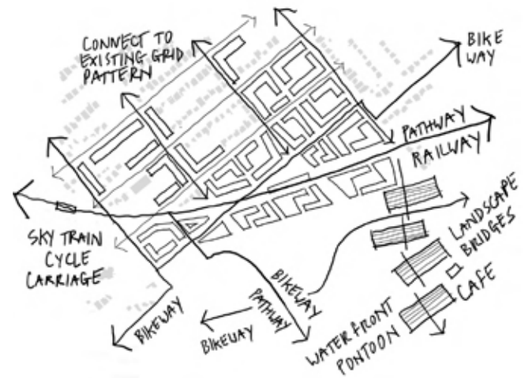
WALKING RADIUS

WALKING RADIUS NODE TO SKY TRAIN TO BE MAINTAINED A PRIORITIZED



CIRCULAR ECONOMY

CIRCULAR ECONOMY PRINCIPALS



CONCEPT SKETCH

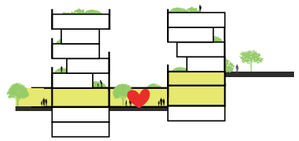
CONCEPT IDEAS ILLUSTRATION, LINKING WITH SURROUNDING CONTEXT

TYPOLOGY

COURTYARDS AND PEDESTRIANIZATION

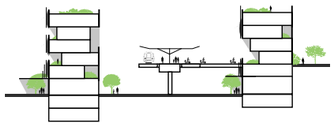
COURTYARD CONNECTIVITY

THE STRATEGICALLY POSITIONED COURTYARD BLOCKS ESTABLISH PUBLIC SPACES AND STREETS THAT ENJOY GREATER INTIMACY AND SURVEILLANCE AS WELL AS CREATING A MORE SOCIALLY INTEGRATED COMMUNITY



PUBLIC STREETS

THE NEW STREETS AND PUBLIC SPACES WILL ENCOURAGE A SENSE OF COMMUNITY AND IMPROVE PUBLIC HEALTH.



TRANSIT CONNECTION

15 MINUTE ACCESSIBLE STRATEGY CAN BE DELIVERED BY RAISED ACCESS WALKWAYS MINIMIZING OBSTACLES OF MULTIPLE CROSS ROADS OT CROSS FOR PEDESTRIANS AND KEEPING TRAVEL TIMES BY FOOT <15 MINUTES AS THE COMMUNITY GROWS



COURYARD ENTRANCES

COMMUNITY COURTYARD ENTRANCES TO RESIDENTIAL UNITS. UTILIZING PASSIVE SHADING STRATEGY'S TO ENSURE RESILIENCE FOR FUTURE CLIMATE CHANGE WITH SHADING.

IMAGE 5: VIEW THROUGH RAISED COURTYARD. APARTMENT ENTRANCES ARE COURTYARD SIDE

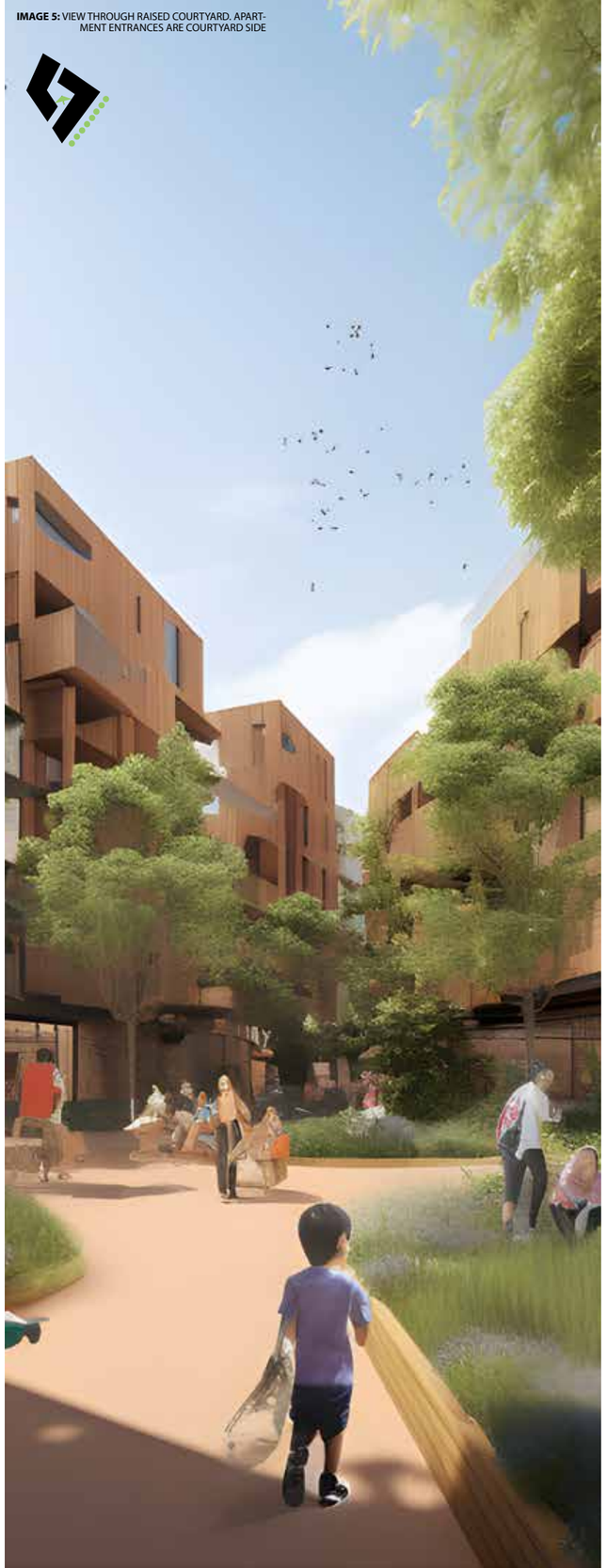


IMAGE 6: TOWNSCAPE



IMAGE 7: MIXED USE TOWER SOUTH OF SKYTRAIN



TOP LOCAL COMMUNITY IDEA

A VISION FOR THE FUTURE

BY MONKEY REBEL SOCIETY

My name is Angela, and I am the sponsor teacher of the Monkey Rebel Society, a middle-school team of very eager kids who want to make their community (and the world) a better place. They are all aged between 11 and 14 years old. They meet twice a week for an hour, and something more depending on the project they are working on.

Instead of defending one idea, the students took this opportunity to offer a vision of the City they would like to see instead. The ideas included in these 4 posters were gathered in several brainstorming activities, including one very prolific workshop with the City's Planning Division, and compiled their ideas in Canva, creating a visual representation of their vision. Due to the amount of writing the students had, each poster has lots of information, and some of the text needs to be read in conjunction with others; in other words, their vision works if you read through everything.

There has been much consideration given to environmental solutions throughout their presentation, such as different power sources, green roofs and more green spaces; community building, such as a library and different ideas for people to gather and meet each other; Indigenous peoples and reconciliation, such as artwork and architecture; as well as equity, diversity and inclusion.

There is something in there for everyone, from young to old. They hope you enjoy their ideas and that you can use some of them in your plan!

JURY STATEMENT

The Jury was very impressed with this thoughtful submission, filled with many impactful (and feasible) suggestions to incrementally transform the neighbourhood into a climate-friendly and community-oriented place. This concise and specific collection of tangible ideas, from pocket parks and public art to green roofs and renewable energy sources –certainly provides helpful and practical considerations for the vision for the neighbourhood.







MORE MURALS AND ART INSTALLATIONS

Art make places look more attractive and inviting. They also add more character to a city and allow people to be creative and open minded. Murals could also spread an **inclusion message**, with Indigenous art, anti-racism, feminism, 2SLGBTQQIAP+ rights, and so much more. These help people feel accepted and connected with their community, and give minority artists a chance to shine.
Think interactive art!



INCORPORATE INDIGENOUS ARCHITECTURE AND DESIGN

One way to honour the Indigenous territories in which we live in is to include Indigenous people in city projects. Using **Indigenous architects for outdoor structures,** as well as placing a requirement that new buildings utilize elements of **Indigenous artists or architecture in their design,** is a great step towards **reconciliation.**

MORE GREEN AREAS, WATER FOUNTAINS AND BENCHES

Plant more trees and **greenery,** with emphasis on local plants and plants that help **pollinators**, instead of just making the garden look pretty. Some wild areas are good, as long as they are kept clean from trash! Make spaces more appealing for people to connect with nature by adding lots of **benches and water fountains**. Flowers, bushes, trees are good for fostering community. This is very important because we are losing green spaces every day and we need to protect them as much as we can.

mobi

Mobi is a company that specializes in **bike sharing**. They have been working really well in Vancouver, and so extending the service to New Westminster would not be too hard. This would be a City-Wide implementation.

HELLO CITY OF NEW WESTMINSTER!

The **Monkey Rebel Society** is excited to propose a few ideas to help shape and improve our community. A lot of us live around the 22nd Station area, and we want to be a part of shaping its future! We hope you consider our ideas of what to add and employ them to enhance the quality and comfort of our neighborhood, and the city!



monkey rebel

a bunch of Middle School Monkeys who want to change the world





ENCOURAGE MIXED USE BUILDINGS

Mixed use buildings foster community and make the most of the land. Make the buildings **sustainable**, by **collecting rainwater using pipes, and installing heat pumps**. We need not only to build better buildings for ourselves, but better buildings for the planet.



A SMALL GROCERY STORE

Planning the space for a grocery store may be a big investment, but we talked to people who live in this area, and they said that they have to drive just to get a couple ingredients. It's very inefficient, so it would be easier and cheaper for everyone. Giving the space a little bit of a financial break or incentive may attract a good store!



MORE COMMUNITY EVENTS

Organize more **events and festivals**! This establishes a community where people can become friends and feel wanted in the neighborhood. These events can look like mini-concerts, arts and crafts sessions for kids. During winter seasons, there could be cookie-decorating, hot chocolate, etc. People could pay maybe a small amount, or there could be a fundraising committee.



ENCOURAGE LOCAL BUSINESS OVER BIG CHAINS

It's important to promote and support small, local businesses with unique products. This creates a diverse and inclusive cultural space that invites learning. It's also better for the community and makes a happier living space. Think about it; would you rather go to a boring McDonald's, or the small independently owned restaurant down the street you've gone to all your life?



MORE AFFORDABLE HOUSING FOR FAMILIES

We need more affordable homes for families. But you have to make sure that these go to families, and not to people who just want to buy more property!

These new buildings should be made to the latest environmental standards and offer opportunities for community engagement within the building. Check out Via Verde, in the Bronx, for an example of an environmentally friendly affordable complex that makes the inhabitants proud!



GREEN RETROFITTING PROGRAM: INCENTIVES FOR PEOPLE TO UPDATE OLDER HOMES

We're sure a lot of people would like to update their homes, making windows double-pane, adding green roofs and walls, and other changes that would make the building more environmentally friendly, but money is tight.

What if the city had an active, well-advertised program for families to help them update their homes? The city doesn't even have to pay for it -- the government itself has money available for this, but people don't know where to find it.

Some buildings are still pretty good, but they need updating; we should help them catch up to newer standards, so we can make the city even more green. If the City takes the lead and contacts buildings in need of retrofitting, the process would be easier!



Decorate the City! A pretty city makes people want to get outside.

3



POCKET PARKS : NOT JUST FOR ADDING NATURE. A MULTI-USE SOLUTION!

COMMUNITY GARDEN

One of the **pocket parks** would have space for people to plant their own flowers and vegetables! That would be a **pocket park** of a different nature. Fresh vegetables and gardening increase health in many different ways!



NEW PLAYGROUNDS

Playgrounds in these **pocket parks** would be amazing, to implant the love and passion for the outdoors in young children. **Wooden playgrounds would be the best.** Benches and water fountains, as we said before, and maybe a mini spray park to help cool down in the summer.

Make sure there is something for every kid on the playground! Older kids like to have fun too. **Make it exciting**!



GATHERINGS SPACES

Neighborhoods need places to get together, not just for kids but for adults too! Places with picnic tables, open areas, benches facing each other, fun things to do, are super important to create pride and community. **Pocket parks** would give people little areas for rest and calm. This helps welcome people and lets them feel like they have a place to meet and have fun!



A NEW LIBRARY

We like books! A library makes people feel connected and gives parents a cool place to take their kids. All public libraries are really far away from the 22nd street area! This library does not need to be huge -- one or two houses in size would do the trick. The space could double as an **activity centre,** with activities, exercise and classes. **Pocket parks** to the rescue!



INCORPORATING INDIGENOUS CULTURE

What better way to give each p**ocket park** a unique identity than putting some beautiful, welcoming **Indigenous art** on each of them, and giving each park an **Indigenous name**? We could honour the people whose land we are occupying, as well as expose our citizens to the rich Indigenous culture.





WHAT IS A POCKET PARK???

Pocket parks are all the rage in big cities! They are small parks that only take up a house or two worth of space. Instead of spending a lot of money on giant parks and having less of them, cities are buying houses and using those to make parks. It may seem like a waste of space in a tight city, but when you consider quality of life, this is the perfect solution to add green areas and relaxation in an urban centre. Add to that low-rise condos and mixed use buildings, and you have a nice place to live!

4

FOCUS ON GREEN INFRASTRUCTURE

- More streetlights
- Accessibility: widen sidewalks, more of them
- More bike lanes and bike racks
- Public bathrooms that are **well kept and clean!**
- Public workout spaces!
- Bike and scooter rental
- A cooling centre for Summer time
- Gargabe, green and recycling bins
- Gutter sieves
- Hydrogen cell buses
- Use solar panels or wind energy for infrastructure buildings and lights



PEDESTRIAN BRIDGES WITH ELEVATORS

Walking from the bottom of a hill to the top can be challenging even to healthy adults.
Flat bridges with elevators on the lower end would help everyone feel more comfortable walking!









IDEA for Free transit for youth!
Since our province is dragging their feet, can New Westminster have their own free transit program for 18 and under? **Can you find a way for us to go to school without having to pay?**



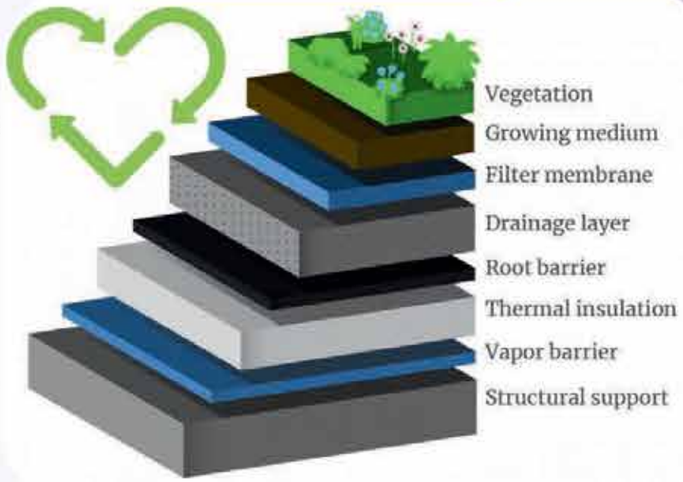
GREEN ROOF: THE COOL SOLUTION TO CLEANER AIR

OUTDOOR ESCALATOR RAMPS, A PROVEN SOLUTION FOR HILLY CITIES

This covered ramp on the picture is an outdoor ramp/staircase combo from Hong Kong.
Imagine how cool this would be in our super hilly streets?
A couple of those should take care of the area – then people would just have to walk to the street with a ramp on a flat surface and then ride it up on the ramp.
Ramps like this one make things more inclusive!
This would be awesome for wheelchairs and the elderly, as well as little kids!

IDEAS FOR NEW BUILDINGS (AND TO REFURBISH OLD ONES!)

- Heat pumps and electrical heating.
- Tankless water heaters -- shower without energy waste! A tankless water heater **saves from 27% to 50% of fuel costs** compared to regular ones! They also **last 2 to 3 times longer** than tank water heaters! Since they are an investment initially, the city could offer rebates and incentives to do this.
- Solar, wind and geothermal power sources for new buildings, and add them to old ones.
- GREEN ROOFS to reduce heat and rainwater run-off in buildings, as well as improve insulation.
- Rainwater harvest system! Install systems to collect rain water for reuse.
- Smart appliances and no gas on new buildings, as well as programmable thermostats
- Use sustainable woods such as bamboo!



STREET SAFETY

Streets should be designed to support both local transportation and pedestrians, with **wider bike lanes, more and wider sidewalks, bike racks, and crossing roads and signs for children playing.** A lot of the streets in this area are not safe to walk on. They don't have sidewalks, and therefore people don't always enjoy walking here. This change would encourage people to get more exercise, connect with nature, and reduce pollution. Having less cars on the road also encourages people to get out and walk because gas really stinks, so people don't want to walk.

Streetlights are also vital in the safety of pedestrians. Safety is promoted in an emotional sense but also a physical sense. People need to feel safe when walking at night, or anytime that the sun is down, especially in the winter times when the sun sets really quickly - but cars need to see us, too! There would need to be lights in parks, playgrounds, and on every street.



MAINTENANCE

You did all of this – HURRAY!!!
Now what? Keep places clean and neat. Trim grass if it gets too long, get rid of weeds, pick up litter on the streets; maybe some people can volunteer, or we can also help sometimes.
Just let us know! This also relates to organizing more events -- things must be neat! People won't want to lay in the grass if it's too long. People will think it's dirty if there's litter. It's important to make people feel safe and clean when outside.

TOP YOUTH IDEA

MAKING CONNAUGHT HEIGHTS A DESTINATION

BY CHRISTIAN ZOLLNER

The plan to turn Connaught Heights into a destination involves upgrading local infrastructure, building community amenities, and creating affordable housing opportunities in a manageable, phased approach. The goal is to create a climate-friendly neighbourhood by 2050 where everyone can live, work, and play.

Destination 2030
Destination 2030 envisions the construction of quality infrastructure to accommodate future growth. Currently, many streets in the neighbourhood lack sidewalks, making active transportation difficult and unsafe. The City of New Westminster should follow complete street design principles, especially in areas around the 22nd Street Station, where higher-density developments will take place. Complete streets provide safety and mobility to all road users, whether they bike, walk, ride, or roll. One particular street that should be redesigned is 7th Avenue. The redesign would include wider sidewalks, a bike path to connect the BC Parkway to the rest of 7th (a main bike route designated by the city), trees, benches, rainwater gardens, and other amenities to ensure all road users are accommodated and active transportation is encouraged. Traffic in the neighbourhood is a common concern among residents. It is a cause of air pollution and can discourage public transit use. A major cause of traffic is vehicles waiting to turn onto the Queensborough Bridge at the bottom of 20th Street. The confusing intersection is inefficient and dangerous in its current state. Building a new off-ramp that comes off Queensborough sooner allows the on-ramp to stay on the right side of the road, improving traffic flow by allowing right turns more often, while also improving safety by taking out the confusing traffic cross-over between north and southbound lanes.

Destination 2040
Destination 2040 sees the development of Connaught Park as a vibrant and sustainable neighbourhood heart. During the various community engagement events, residents consistently expressed their desire for new community amenities. Repurposing space under the current hydro right-of-way will see the development of Connaught Park, complete with a playground, community garden, public library, and plaza. The proposed design includes working with BC Hydro, amalgamating lots and converting parts of 22nd Street to establish a meandering path that enhances walkability, connecting the entire community and promoting a healthier, more active lifestyle. Guiding design principles should include working alongside Indigenous peoples and residents in the design process to create a park that celebrates the local culture and community connections. The city should also design the park through a lens of inclusivity, such as lining the path with benches for those with mobility issues to take breaks and providing universal bathrooms. Finally, the design should follow an overall principle of sustainability by incorporating solar-powered lighting and using nature creatively to adapt to climate change such as building rainwater gardens to manage storm-water runoff.

Destination 2050
Destination 2050 envisions a fully developed neighbourhood in which everyone can live, work, and play. Using form-based zoning mediates sustainable and affordable growth. Form-based zoning is an innovative zoning bylaw that focuses on the size, shape, and design of buildings rather than their specific uses. Moving to a form-based zoning code sets the stage for a well-designed community by 2050. Form-based zoning is clear and understandable, which allows greater transparency between all stakeholders. It also allows for the construction of in-demand housing and amenities without changing the character and feel of neighborhoods, creating affordable housing, and promoting mixed-use development through less strict land-use regulations. Finally, the city can use form-based zoning to create walkable neighbourhoods while integrating green building standards like sun-oriented façades to create a sustainable future for Connaught Heights. Form-based zoning creatively addresses Bill 47 and transit-oriented development, allowing for high-density mixed-use development while keeping street-level façades human-scale and walkable. Additionally, form requirements can be crafted to cast shadows in summer months but allow sun in winter months, passively regulating street temperatures. The new form-based zoning code in Connaught Heights will include high-density mixed-use developments around the station, followed by medium-density projects acting as a buffer before low-density residential areas. The low-density areas will preserve existing housing stock while allowing up to 6 units per lot (including laneway homes and suites). Medium and high-density areas will provide affordable housing, walkable neighbourhoods, shops, and amenities, all while preserving neighbourhood views and sightlines.

Conclusion
"Making Connaught Heights a Destination" is a bold and realistic plan that brings new infrastructure, amenities, and a developmental framework to Connaught Heights by 2050. Creating a destination brings goods and services closer to where people live, promoting active and sustainable lifestyles. Connaught Heights should use a form-based zoning code to bring mixed-use, affordable, and aesthetically pleasing development to the neighbourhood. To teach people about sustainability, Connaught Park brings traditional Indigenous knowledge mixed into new community amenities like the community garden and public library, where people can meet, gather, and learn about what it means to be healthy and sustainable. Finally, to accommodate this development and growth, quality infrastructure including complete street designs is necessary to ensure accessibility and mobility for everyone. Making Connaught Heights a destination means making a climate-friendly, equitable, diverse, and inclusive neighbourhood, where everyone can live, work, and play.

JURY STATEMENT

This submission is a comprehensive planning approach. It addressed many of the key issues that were identified by community members during engagement – including the traffic congestion, food security, and complete streets. Jurors felt that this response was rooted in community context with many achievable suggestions.

Coast Salish Cultural Advisor Cory Douglas appreciated the guiding principles for working alongside Indigenous peoples and residents.

The Jury recommends that elements of this submission could be more bold. Further investigation would be needed to understand the value of adopting a form-based code in this context.

Making a Destination

Destination - Connaught Heights



Land use & Housing

- Simple zoning codes to diversify housing stock
- Form-based zoning codes to work with Bill 47 while preserving the neighbourhood's feel and character
- Create transit oriented development and affordable housing



Mobility & Accessibility

- Improve traffic flow by upgrading the Queensborough Bridge intersection
- Design complete streets in the 22nd Street Station area
- Provide meandering paths through buildings and Connaught Park, connecting the neighbourhood



Landscape & Water

- Work with BC Hydro, Indigenous Peoples, and locals to redesign the space under the powerlines into Connaught Park
- Use nature to create rainwater gardens that help with water run-off
- Plant trees in the park and along roads to improve local air quality
- Create pollinator gardens mixed into the new community garden



Buildings & Energy

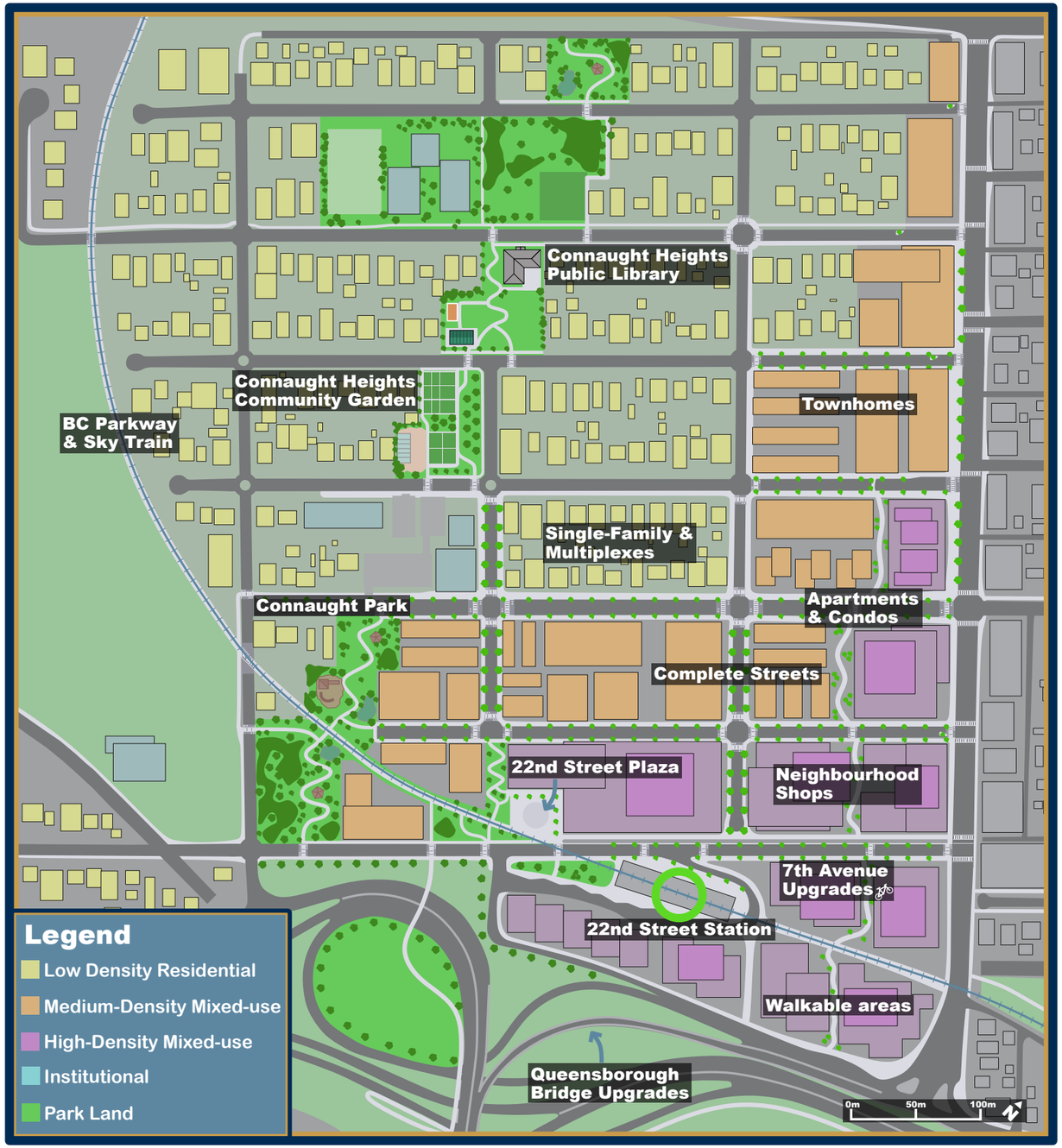
- Use form-based zoning to regulate construction materials and building shapes to optimize energy use
- Orient high and medium-density buildings to best capture the sun's energy, passively cooling buildings and streets



Community Belonging

- Design Connaught Park to encourage community gatherings
- Build a new public library, plaza, and community garden
- Use form-based zoning to allow the growth of shops and services in the neighbourhood

Make a destination where everyone can live, work, and play.



Infrastructure

Destination 2030 - Paving the Way for the Future

Design Complete Streets in Connaught Heights

Complete streets provide saftey and mobility for all road users



1 Have a Sense of Space
Mobility and Accessibility

Sidewalks on all roads in the station area
On-street parking for new businesses
Bike lanes on 7th between the BC Parkway and 20th

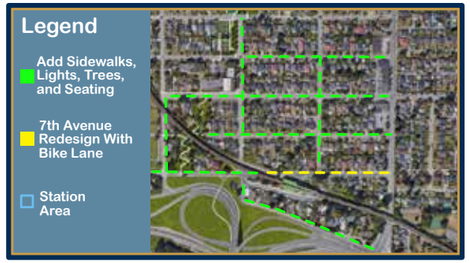


2 Make a Destination
Place making and Urban Design

Lively streets with shops and amenities
Street Lighting to increase saftey
Form-based zoning to design appealing façades

3 Create Comfort for All
Inclusivity and Wellbeing

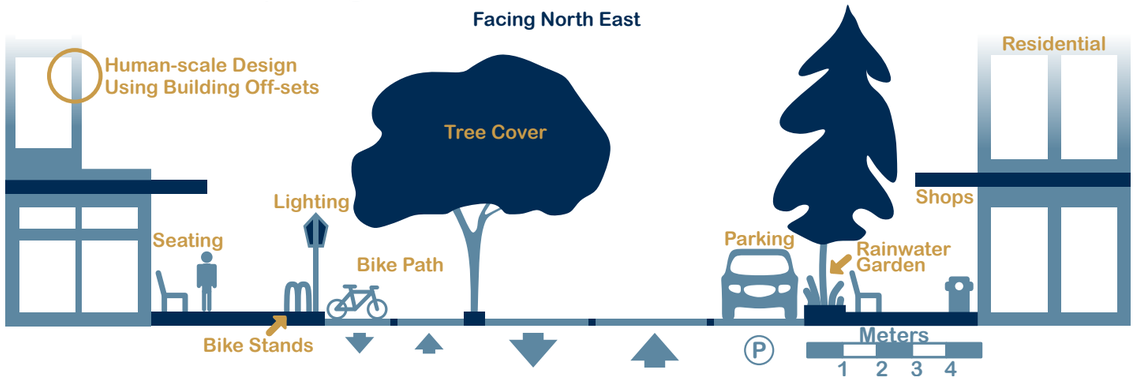
Seating to stop, rest, and gather
Trees to provide shade and a connection to nature
Street art showcasing local Indigenous cultures



Making Complete Streets

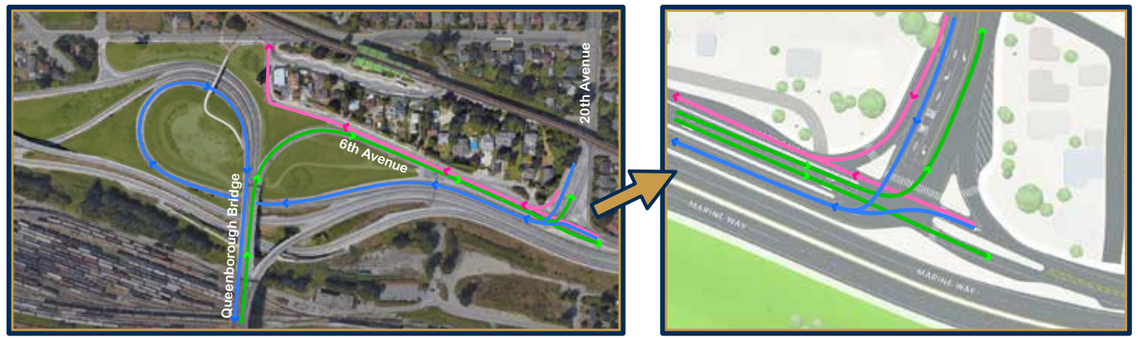
Completing 7th Avenue Between 22nd and 20th

Facing North East



Revise the Queensborough Bridge Intersection

Current Intersection



20th onto the Queensborough Bridge | Queensborough Bridge onto 6th Avenue and 20th | 6th Avenue up to the 22nd Street Station

The Big Issue

- Traffic on 20th must wait to turn right for traffic coming off the bridge (blue crosses green)
- Traffic congestion increases noise and air pollution
- The confusing intersection is dangerous to all road users
- As density in and around Connaught Heights increases, traffic will increase

Future Intersection



20th onto the Queensborough Bridge | Queensborough Bridge onto 6th Avenue and 20th | 6th Avenue up to the 22nd Street Station

Proposed Solution

- Rebuild the off-ramp from the Queensborough Bridge to come off sooner
- Move the on-ramp to correctly allign it with 6th Avenue (blue on the same side as pink)
- Traffic turning right onto Queensborough Bridge only need to wait for 6th Avenue traffic
- Prepares the neighbourhood for future growth

Connaught Park

Destination 2040 - Connecting the Community



New Amenities in Connaught Park

Nature

Rainwater Gardens

Naturalized areas that absorb rain water
Reduce the severity of heavy rainfall
Provide water ecosystem for plants and animals

Rewilded Area

Increase tree cover in the neighbourhood
Provide shade to cool the area
Build natural habitats for birds and other animals



Build Community

Community Garden

Promote community well-being
Grow food for individual and chartiable uses
Complete with a public tool shed and greenhouse

Commuity Orchard

Fruit trees surronding the community garden
Sheltered Beehives to promote pollination





Spaces to Gathers

Picnic Shelter

Places to meet and gather out of the elements
Places to tell stories and share experiences

Playground

Naturalized Playground to connect with nature
Spaces for kids to play



Community Services

Local Library

Complete with a meeting room for local events
A space to share ideas and learn

Public Plaza

Make a destination next to the Skytrain Station
Provide shops for people waiting

Design Principles in Connaught Park

Indigenous Involvment

Creating spaces to celebrate Indigenous cultures, tell stories, and use the land. Designing Connaught Park must involve Indigenous Peoples.

Community Designed

Creating services and amenities that further connect the community. Involving the public in the design process is necessary.

Inclusivity

Universally designed with meandering paths. Lined with ample seating to allow people with mobility issues to easily go up and down the neighbourhood, especially in steep sections.

Sustainability

Incorporating native plant species, rainwater gardens, and solar-powered lighting,



Form-Based Zoning

Destination 2050 - Sustainable Growth

What is Form-Based Zoning and Why Use It

It is an innovative zoning bylaw that focuses on the size, shape, and design of buildings rather than their specific uses. Moving to form-based zoning now sets the stage for future growth

Form-Based Zoning Creates:



Sustainable and Future-Ready Cities

- Crafts walkable streets shaded in the summer but sunny in the winter, passively regulating temprature
- Promotes alternative transportation and shorter trips by providing neighbourhood amenities
- Integrates green building standards and eco-friendly designs like sun oriented roofs

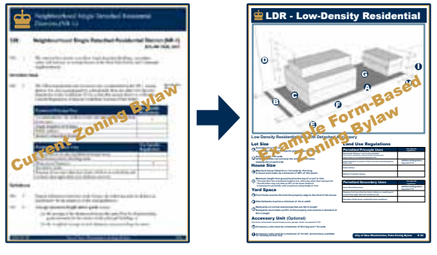


Affordable and Adaptable Housing

- Provides a greater variety of housing types with up to six units per lot for Low-Density areas
- Promotes mixed-use developments by not focusing specifically on land-use
- Works with provincial legislation to design a coherent and beautiful neighbourhood

Clear and Understandable Bylaws

- Combines current regualtions (RQ-1, NR-5...) into simple forms: Low-Density Residential, Medium-Density Mixed-Use, and High-Density Mixed-Use
- Simplifies zoning and uses visuals to convey meaning



What Does Bill 47 Mean for Connaught Heights

Bill 47 passed by the provincial government requires municipalities to allow the construction of 20+ story sky-scrapers within 200 meters of transit stations; such as within the 22nd street station area.

Using a form-based zoning code works with bill 47 to create defined streetscapes and outline view corridors in Connaught Heights to create a beautiful neighbourhood

What Could Form-Based Zoning Look Like by 2050

Low-Density:

Single-Family +



Keep existing housing stock while allowing laneway homes and suites

Duplexes and Multi-Plexes



Allowing up to 6 units per property

Medium-Density:

Apartments and Townhomes



Including affordable units for individuals and families

Walkable Neighbourhoods



Crafting coherent streetscapes through form-based regulation

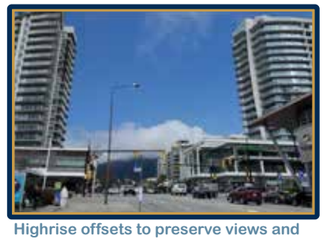
High-Density:

Shops and Services



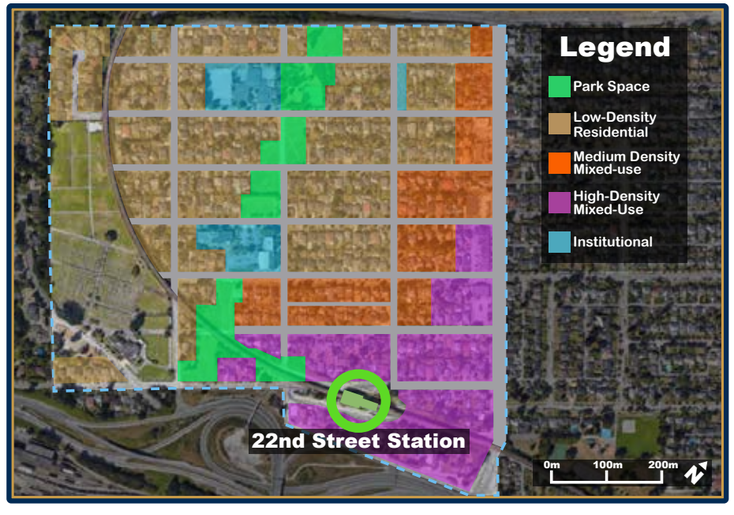
Less strict land-use regulations allowing mixed-use buildings

Preserve Views



Highrise offsets to preserve views and maintain human-scale buildings

Connaught Heights in 2050 – Making a Destination



Housing opportunities for all

Shops, groceries, restaurants, & cafés

Health, financial, & professional services

COMMUNITY CHOICE AWARD & HONOURABLE MENTION

“WE ARE THE MEMORY WE INHABIT”

BY FIORELLA PINILLOS, NATALIA BOTERO DUQUE AND JOHANNA PABON VILLANUEVA

Without memory, we lack identity, both individually and collectively. Constructing memory in the territories involves identifying traces of the past, recognizing the present, and constructing a new collective discourse for the future of a society. Memory is the reconnection with the history and inhabitants, especially in the territory of the ‘Halkomelem’ community (hənqəmin̓əm, Halq’eméylem, Hul’q’umi’num’). This recognition seeks justice, truth, and reparations in a society that, for many years, remained oblivious to the history of colonization. Building on this premise and drawing inspiration from social projects that address memory, reconciliation, and recognition, such as “Comuna 13” in Colombia and the Apartheid Museum in Africa, we envision a project called “We are the Memory We Inhabit.” In ‘We are the Memory We Inhabit,’ we center memory as a design concept that permeates every aspect of the neighbourhood, encompassing housing, sustainability, public space, and social connection. This approach arises from the necessity to resist erasure as a viable option for existence.

JURY STATEMENT

Memory is a compelling concept that could drive the design of the neighbourhood. The Jury appreciated that this submission is rooted in Indigenous tradition, identity, and memory. There is opportunity for this neighbourhood to become a memorable place. Some specific ideas, including live-work micro-businesses, creating a community centre focused on Truth & Reconciliation, and providing affordable, family-focused, and Indigenous-run housing stood out. The Jury cannot speak for the preferences of local Nations and further consultation would be needed to understand how to implement this concept.

HONOURABLE MENTION

“SENSORY PARK”

BY CARTER MISLE-CANTON

Hi, my name is Carter, I’m 8 years old and was very excited to come up with an idea for the neighbourhood. My idea is to create “Sensory Park”. This is a park that has different fun features so people can enjoy being outside and explore their senses. The purpose of this park is to build more of a community feel by giving people in the neighbourhood a fun place to gather. My best friends live in that neighbourhood and this is important to me because I wanted to make something fun for them to do. The park is also eco-friendly as I want all of the different parts I included to be powered through solar power. People can: make new friends by sitting on the joke bench and sharing some funny moments, learn about local birds through the sounds from the bird tree, have fun and competition with the x and o game, get some exercise and have fun leaping across the lily pads, or find a great new book to read with the book tree. This is my dream park that includes, nature, connection with community and lots of fun through an interactive experience. I hope you like it!

JURY STATEMENT

This submission was playful, innovative and creative.

This submission sparked the Jury to think: How do we make a neighgbourhood more interactive and oriented towards children?

Everyone on the Jury wants to experience a Joke bench!



WE ARE THE MEMORY WE INHABIT

Photo credit: City of New Westminster Museum and Archives

Without memory, we lack identity, both individually and collectively. Constructing memory in the land involves identifying traces of the past, recognizing the present, and creating a new collective discourse for the future of society. Memory is the reconnection with the history and inhabitants, especially in the territory of the 'Halkomelem' community (hənqəmin̓əm, Halq'eméylem, Hul'q'umi'num'). This recognition seeks justice, truth, and reparations in a society that, for many years, remained oblivious to the history of colonization.

MEMORY AS A DESIGN CONCEPT:



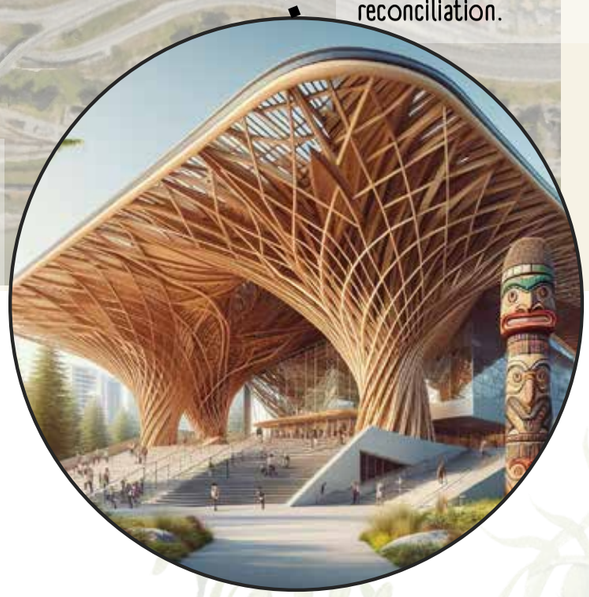
Centering memory as a design concept that intersects every aspect of the neighbourhood, comes from the need of resisting erasure as an option of existence.

Memory would be interwoven into the community through art, the incorporation of names in the Halkomelem language on streets, trails, and signs, and the creation of a garden with native plants.





At the core of the community, the 'House of Memory: Truth and Reconciliation Museum' and Community Centre blend art, education, sports, and social activities to foster intercultural integration. The goal is to revitalize the urban environment, enrich the community experience through memory dissemination, and create a dynamic space for culture, recreation, and reflection on truth and reconciliation.



Memory serves as the foundation for constructing an inclusive future for society. This neighbourhood is designed to welcome neighbours from diverse socio-economic backgrounds by allocating 25% to 30% for affordable housing, including family and artist housing. Additionally, Indigenous Housing organizations are encouraged to manage this housing stock.

MEMORY AND SOCIAL CONNECTION





At the heart of the project are The House of Memory: Truth and Reconciliation Museum and the Community Center—essential foundations of the community. The former is a key driver for historical reconciliation, while the latter serves as a comprehensive sanctuary fostering human development and social cohesion.

The strategic location of the museum and cultural center, in proximity to the 22nd Street station, ensures excellent visibility. This advantageous placement allows easy access for both the local community and visitors, enhancing outreach and engagement.



This project aims to transform the empty lots in the neighbourhood into lively green areas with native plants, offering a variety of spaces for people of all ages to connect. Specifically, one area will be designated for a community garden, and a small farmers market will be established to promote food security and stimulate the local economy.

In these spaces, memory will be interwoven through the incorporation of native art and references to the truth and reconciliation process. Additionally, signage in the Halkomelem language will enhance the cultural richness of these areas.







INCLUSIVE AND SUSTAINABLE LIVING



20th Street - a mix of a commercial and residential area. A place for galleries, coffee shops, mini markets and art studios.

This project aims to introduce density to a traditionally single-family housing neighbourhood by incorporating a variety of housing types, including multiplexes, row houses, and laneway houses, with structures reaching up to three stories in most of the neighbourhood. Additionally, an area for six-story apartment buildings is contemplated next to 22nd Street Station on 7th Avenue.

The proposed approach seeks to preserve the neighbourhood's character while creating space for more residents. This strategy ensures a balanced approach to neighbourhood growth without causing extreme intensification.

In this resilient neighbourhood, the focus is on promoting active transportation over private automobiles, featuring sidewalks and bike paths while minimizing parking spot requirements in new developments. The community is characterized by its green environment, abundant with trees, native plants, and green roofs, and neighbours actively utilizing renewable energies.

Additionally, it fosters a live-work community model that encourages the establishment of micro-businesses throughout the neighbourhood.



A variety of housing types from single-homes, row houses and multiplexes.



On 7th Avenue, we envision 6-story apartment buildings with commerce on the lower level.

Housing is designed to provide comfort and dignity to those living in the area. Throughout the neighbourhood, 25% to 30% of housing would be designated as affordable, with a specific percentage allocated for three-bedroom apartments. Preference would be given to Indigenous non-profit organizations for housing management.



WE ARE THE MEMORY WE INHABIT

Photo credit: City of New Westminster Museum and Archives

WHO WE ARE

We are three Latin American women who have made Canada our new home, hailing from Venezuela, Colombia, and Perú. Our rich cultural heritage, spanning before colonization to the present, reflects multicultural identities shaped by various conflicts in Latin America. Despite these challenges, Latin America has navigated processes of peace, memory, truth, and reparation, showcasing resilience and a commitment to justice and reconciliation for our communities. Demonstrating resilience and a commitment to justice and reconciliation, we share our knowledge and experiences in Canada to honour human struggles, defend life, and embrace diverse perspectives. Our mission is to strengthen New Westminster's identity by actively contributing to a community centred on memory, recognizing and celebrating the city's diversity while respecting the legacy of the Halkomelem community.

The posters' outcomes are the result of knowledge exchange among us, research conducted in the area, and the utilization of AI technology.



Johanna Pabon

I am a Venezuelan journalist and refugee with a background in marketing. After the conflict in my country, which led to one of the largest exoduses in Latin America, I became interested in contributing and expressing gratitude for the privilege of being welcomed in another country. In New West, I use my photographs and videos to tell stories that explore institutions, places, events, and characters in the city, contributing to the strengthening of our community.



Natalia Botero

As a photojournalist from Colombia, I have witnessed various forms of violence for three decades. These include drug trafficking, illegal armed groups, and state violence. My goal through photography is to bring visibility to the victims of war, honor the survivors, and prevent erasure. The photographs I take serve as a testament to truth, recognizing the memories of communities and reconstructing the social fabric. As a refugee in a city like New Westminster, I have learned the importance of recognizing my experiences, acknowledging the past, and building connections with diverse cultures.



Fiorella Pinillos

I am a Peruvian-Canadian planner and community engagement specialist who centers equity in all of my work. I operate at the intersection of urban planning, creative public engagement, and arts & culture, bringing over seven years of experience working with equity-denied groups.
I am the Co-Founder and Co-Director of City in Colour Urban Consultancy Cooperative, our mission at City in Colour is to engage those who are often left out of planning processes. Additionally, I founded La Libélula Cooperative, an organization working to connect the Latin American Community in BC through art.

INSPIRATION

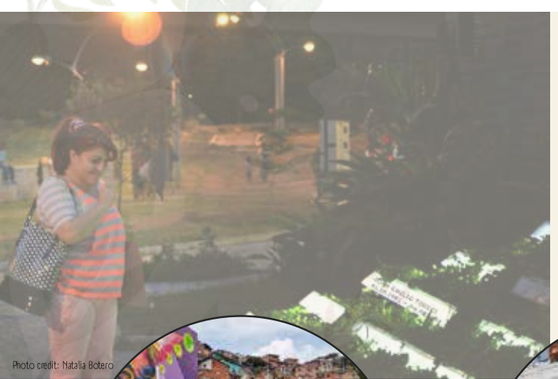


Photo credit: Natalia Botero

The experiences of memory and resilience are important for people who have been the victims of social, political and economic struggles. They allow for reconciliation with the past, justice, and truth.
In the world there are several examples of places of memory, such as Comuna 13 in Medellin, Colombia and the Apartheid Museum in South Africa.

These places represent resistance and recognition of the community to prevent the repetition of a violent past.





Comuna 13, Medellin Colombia

Photo credit Comuna 13: civitatis.com/es/medellin/comuna-13-museo-memoria-parques-medellin/





Apartheid Museum, South Africa

Photo credit Apartheid Museum: apartheidmuseum.org

Sensory Park

① Lily Pad Stepping Stones

When you step on the lily Pads it will make frog sounds.

② Bird tree

motion detection to create Bird Sounds and visual Light effect.

③ Joke Bench

When You sit on it it will tell you a joke.

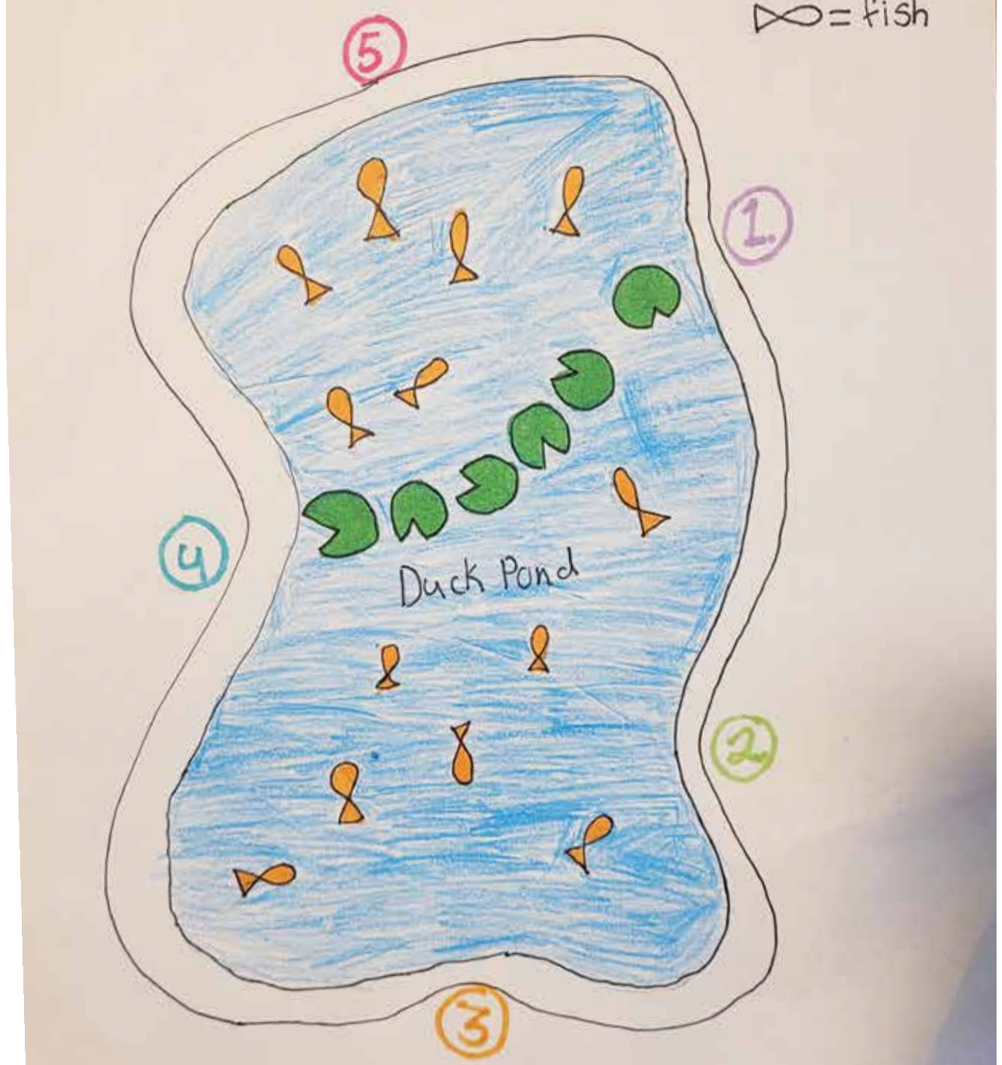
④ X and Os

When you step 2 times you will Be X if you step 1 time you will Be O and if you Step too many times you step 4 more times to reset the game.

(P.S) after you choose X or O you step on the square you want to Light up.

⑤ Book tree

its a tree and it has books for children Youth and adults.



By: Carter Misle-Carton age: 8

reGENERATE
Ideas Challenge

SHORTLISTED SUBMISSIONS

NEW WESTMINSTER



22ND STREET STATION STORIES

BY ERICK VILLAGOMEZ

All big changes in cities begin as imaginative tales. Urban planners and designers use these ideas to shape how real cities look and function. However, not every story is powerful enough to make people take action. Still, the influence of made-up stories in shaping cities is hugely important.

Right now, we're stuck in a cycle of repeating the same old ideas. Terms like "*Transit Oriented Development*," "*high-density neighbourhoods*," and "*economic feasibility*" are being overused. This repetition results in building similar structures in every city—lots of tall buildings with shops and businesses around public transportation nodes.

In the past, different places had unique solutions to city problems. Other cultures could learn from these diverse approaches. But nowadays, we keep recycling the same ideas. Unfortunately, these recycled ideas have led to environmental problems, economic inequality, and social conflicts. We have been trying hard to fix these issues, but by repeating the same ideas, we are not making progress.

How can we escape this never-ending loop?

We need to start from scratch. We need new stories about what the future could be like. These stories should be drastically different. They should make us think more and challenge the assumptions we have about future cities—who they're meant for and what's really best. These stories should be the beginning of new buildings, neighbourhoods, and even entire cities. To quote Nick Dunn and Paul Cureton in Future Cities:

Without knowing what choices we have, we're stuck following the same limited paths. This is why imagining tomorrow's world is so important for our future together. The time to create these visions is now.

That's what the *22nd Street Station Stories* Project is about. It's a collection of four different stories set in a distant future. Some of these stories are more extreme than others. Each story is represented by a single picture centered around 22nd Street Station. These pictures show endless possibilities and come with titles and notes to encourage people to create their own stories.

Hopefully, these images will inspire urban planners and decision-makers to think beyond what's currently possible. They should encourage us to aim for city landscapes that reflect the idealized worlds we see in fiction. By blending fiction with urban planning, we have the potential to create cities that go beyond imagination and become real-life utopias.

EXCEPTIONS & ASSUMPTIONS

Skytrain and Public Transit
Given the focus of the Ideas Challenge, each story assumes the continuation of the public transit system roughly as we know it today. This should not be taken for granted, however. If history is any guide, transportation and its supporting infrastructure will change drastically with social and technological shifts in the future.

Speculative Architecture
Contemporary architecture and urbanism have contributed to the many global challenges we face today. Different futures require different architecture with equally varied uses and services than those we see today.

LOCATION

Although the *Stories* presented here can scale to entire neighbourhood, regions and cities, they will focus on 22nd Street Station and the blocks immediately adjacent. Please refer to the board for the graphic of the designated area.

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Although the *Stories* presented here can scale to entire neighbourhood, regions and cities, they will focus on 22nd Street Station and the blocks immediately adjacent, as outlined below.



MOD-BLOCK
Integrates and stacks a wide range of affordable dwelling modules—from two-story row houses units to apartments of different sizes—with office and commercial spaces. The semi-circular form encloses an open space that mixes public and private activities.

ECOHIVE DWELLINGS
These sustainable, modular homes are designed to minimize environmental impact. Incorporate eco-friendly materials and smart design, they offer energy efficiency and a low carbon footprint for comfortable living to a diversity of households.

NEXGEN HABITAT
Explores innovative design, materials, and technologies to redefine living spaces for a variety of households. It aims to address sustainability, functionality, and adaptability while pushing boundaries to create unconventional, efficient, comfortable homes.

SUSTAINASCAPE DWELLINGS
Epitomize eco-friendly living with its innovative design, renewable energy integration, and lush green spaces. These sustainable dwellings offer a harmonious blend of modern comfort and environmental consciousness for a very wide range of families and households.

INNOVATERRA ABODES
Pioneers futuristic living spaces, integrating indoor and outdoor spaces with cutting-edge technology. Its avant-garde approach redefines urban living, crafting eco-friendly dwellings that prioritize efficiency, comfort, and harmonious integration with the environment.



THE COMMONS

22nd Street Station Stories

PHOTOVOLTAIC SKIN
Integrates solar cells into all building exteriors, generating renewable energy for the entire neighbourhood. This enables structures to harness sunlight, producing electricity while offering aesthetic appeal and sustainable functionality.

ECOSPHERE HUB
Facilitates year-round cultivation of organic local produce. Fostering community empowerment, it is a permanent communal space offering community-agriculture education, job training, and nurturing the growth and development of urban agriculture.

DIVERSE HOUSING
Integrates various house types—from apartments to co-housing, tiny houses to unforeseen new housing arrangements. This reflects differing needs, preferences, and lifestyles, promoting inclusive communities and accommodating diverse populations.

'WELCOME MAT' GREEN SPACE
A new type of open space designed to dissolve economic boundaries. It fosters collaboration and innovation through its programming while serves as a welcome mat for the 22nd Avenue Station neighbourhood for those entering the area.

GUIDEWAY INFILL
Minimizing urban space below train guideways is crucial for optimizing land use, promoting efficient transportation infrastructure, and fostering enovironmentally responsible urban development. These incorporate commercial and community amenities.

ECO-EDUCATIONAL INSTITUTE
Foster environmental awareness by engaging students in sustainability initiatives. These programs empower youth to lead change, promote eco-friendly practices, and cultivate a greener, more responsible approach to education and living.



GREEN SHIRE



22nd Street Station Stories

ARBOREAL HEIGHTS RESIDENCES
Is a serene living experience amidst lush landscapes. Offering a wide range of dwelling options for a number of different households, modern amenities, and scenic views, these residences blend nature and comfort for an idyllic setting.

ARBOREAL SANCTUARY
A curated collections of trees and woody plants, serving as living museums that educate and conserve biodiversity. These diverse landscapes showcase various species, providing beauty, research opportunities, and environmental benefits

PLATFORM VERDE GARDENS
The centre piece of this elevated urban oasis-transit hub. Accessible directly from the skytrain platform and the 22nd Ave. Station mixed-use entry building, it is the main gateway to the gardens, walking trails, meadows, events, and stunning views of the surrounding areas.

THE MEADOWS
This mix of dwellings blends sustainable architecture with natural landscapes, integrating homes harmoniously into meadows. These eco-friendly dwellings prioritize biodiversity, renewable resources, and innovative design, fostering a closer connection to nature

SYMBIOTIC ARBORETUM DWELLINGS
An experimental arboretum housing concept integrating sustainable living with biodiverse flora and public-access rooftop. Blending unique architecture and natural habitats, it redefines residential spaces while prioritizing ecological preservation and community connectivity.



BOTANIC NEXUS



22nd Street Station Stories

SUNSET SPRINGS
Nestled on the west-facing side of the neighbourhood, this dwelling complex harnesses, stores and redistributes the (over) heating provided by the west sun. It also offers a breathtaking spectacle for every unit on clear evenings.

ZENITH CENTRE
This state-of-the-art facility offers diverse amenities for leisure, conferences, and events. Boasting cutting-edge, renewable energy technology focusing on harnessing solar energy, the centre caters to various needs, fostering community engagement and innovation.

WATER-WISE ROOFTOP GARDENS
These public-access, drought-resistant rooftop gardens covering the Zenith Centre use solar-powered irrigation systems and drought-resistant plants to conserve water. They harness rainwater, mitigate urban heat, and promote biodiversity.

PHOTOCATALYTIC EXTERIOR
The building complex exterior uses titanium dioxide—a photocatalyst—and its derivatives to purify air by breaking down pollutants when exposed to light. Its use in coatings on surfaces aids in reducing harmful compounds, contributing to cleaner air quality.

SOLSTICE HEIGHTS
The highest building in the complex in order to maximize harnessing solar energy. It integrates a mix of dwellings with energy-efficient community spaces and services. Its serene ambiance embraces energy solutions epitomizes ecologically-responsible community spirit.

HELIO HAVEN
Is a sustainable dwelling complex embracing solar energy and ecological practices. It fosters a harmonious blend of nature and modern living, harnessing solar energy and other renewable resources for ecologically-responsible living for a variety of households and demographics.



SOLARA



22nd Street Station Stories

TRANSFORMATION STATION

BY NEW WESTMINSTER CLIMATE ACTION TEAM

Our vision for the 22nd Street "Transformation Station" neighbourhood focuses on climate action that fosters connection, inclusivity, and affordability. It includes several spaces for gathering, such as reconciliation park (name TBD), Charge-Up-Park, 15-Minute City Plaza, and Off-Grid-Dog Park. The accompanying 4 boards are grouped by spaces; however, the documentation below is grouped by Foundational Values and Themes.

Climate Action

Land Use and Housing
The plan significantly densifies the neighbourhood, while prioritizing green space and sunlight. The density of the area increases from about 1000 to over 15,000 residents. Mid-rises allow for sunlight to reach food gardens and solar panels while towers over 40 storeys achieve the higher density required.

The site includes a 15-minute city plaza with shops, services, recreation, and entertainment options all within a walkable range (Board 4).

Mobility, Access and Infrastructure
Due to existing congestion on 20th Street, proposed solutions to vehicle access can be found on Board 1. Parking is underground, making ground level car-free.

Connection to other neighbourhoods is enhanced with paths, bikeways and transit.

Landscape and Water
In support of New Westminster's Biodiversity Corridor, rewilding, rain gardens and a connected tree canopy is proposed along 7th Ave. Additionally, green-blue-roofs transit shelters are incorporated.

Food gardens take advantage of the sunny location under the power lines. As the land is sloped, design features such as swales and berms will absorb water.

Several elements pertain to stormwater management and water conservation. Stormwater management incorporates rain gardens, rewilding, permeable surfaces, blue-green transit shelters and rainwater collection. For water conservation, collected rainwater is used for irrigation and flushing toilets.

To avoid polluting the Fraser River with salt/chemicals (which poses risks to aquatic ecosystems), technologies draw thermal heat from sewer pipes to distribute heat throughout surfaces of the plaza, thus preventing icy surfaces.

Buildings, Energy and Waste

Buildings
To enhance affordability, simple building forms are used and visual interest is achieved with colours, etc. Fewer parking spaces enhances affordability. The mid-rise buildings and the community center have metal roofs to collect rainwater.

The community center balances affordability and sustainability. For affordability, a simple building form is used. For sustainability, windows on the south and west sides use efficient dynamic glass, collected rainwater flushes toilets and a community solar garden sits on the roof.
The community center is built for disaster resilience. Features are incorporated to enable the building to functionally shelter people impacted by extreme climate events, such as heat domes and flooding (Board 4).

Energy
Multiple types of renewable energy are utilized in the neighbourhood, and Charge-Up-Park showcases the energy in a fun, interactive and educational manner. Energy storage is incorporated to provide power when renewable energy is not generating electricity and to educate on the potential of energy storage (Board 3). District energy - the thermal energy of sewer provides space heating/cooling and hot water. Solar energy - benefits from the southern exposure of the site. Free standing solar structures in Charge-Up-Park and Off-Grid-Dog Park generate electricity while harvesting rainwater for irrigation and providing shelter for people. Additionally, small wind power is utilized on site with different types of wind turbines in different locations being evaluated in partnership with a local school.
The elevation change along the power line space enables gravitational energy storage using closed loop pumped hydro. Two water reservoirs at different elevations along the power lines (but outside the Hydro right-of-way) will be connected by underground pipes. When excess solar/wind energy is generated, renewable electricity will be used to pump water from the lower reservoir to the upper reservoir. When there is a lack of renewable power, the water will be released from the upper reservoir and generate hydro electricity (Board 3).
The park will incorporate interactive energy features such as pedal power for powering lighting displays and a solar tree for charging phones.
This park features education through its outdoor digital kiosks displaying information and visuals of the energy generated by source.
It would be a destination for many school groups so planning input from nearby schools is recommended.

Waste
Existing homes that need to be demolished would be deconstructed carefully to recycle / reuse as much as possible. Some material could be reused in the community center.

Community Connections and Belonging
The community center, 15-min city plaza, and the parks are gathering places for community, connections and belonging. The community center could host Aunt Leah's, whose current location may be impacted by development.

A path connects 15-min city plaza to the shops on 20th Street.

Truth and Reconciliation (name TBD by Indigenous leadership)

The bold vision for the neighbourhood includes an Indigenous space under the power lines as well as adjoining properties, which provides a starting point for improved relations between First Nations and Settlers. It will be planned and developed under the leadership of local Indigenous members. One vision which could be explored for this space is an Indigenous garden and food sovereignty building. The building could be used for processing food, hosting cultural celebrations and nature-based education, which includes sharing Indigenous agricultural knowledge and land stewardship wisdom (Board 2).

Equity, Diversity & Inclusion
Multiple features to be welcoming to all: Educational kiosks to include language selection. Hand cranks for group exercise bikes to be wheelchair accessible. Paths routed to have gradual inclines to increase accessibility. Off-Grid-Dog park to be an enriched environment for dogs and their people. Solar structures will generate electricity for lighting, collect rainwater for irrigation and provide shelter. For a stimulating environment, an agility course would be incorporated. (board 1).

Planning stages should include consultation with resident's representative of the diverse cultures and minority groups that presently reside in this area.

Transformation Station will be a climate-friendly hub of inclusion and interaction. It is designed to not only reduce emissions but also to improve the quality of life of the residents and be a model of the urban transformation that we need to improve our society and sustain our home planet.

New Westminster Climate Action Team

Project Title: Transformation Station
Board 1 of 4

Main Map Overview

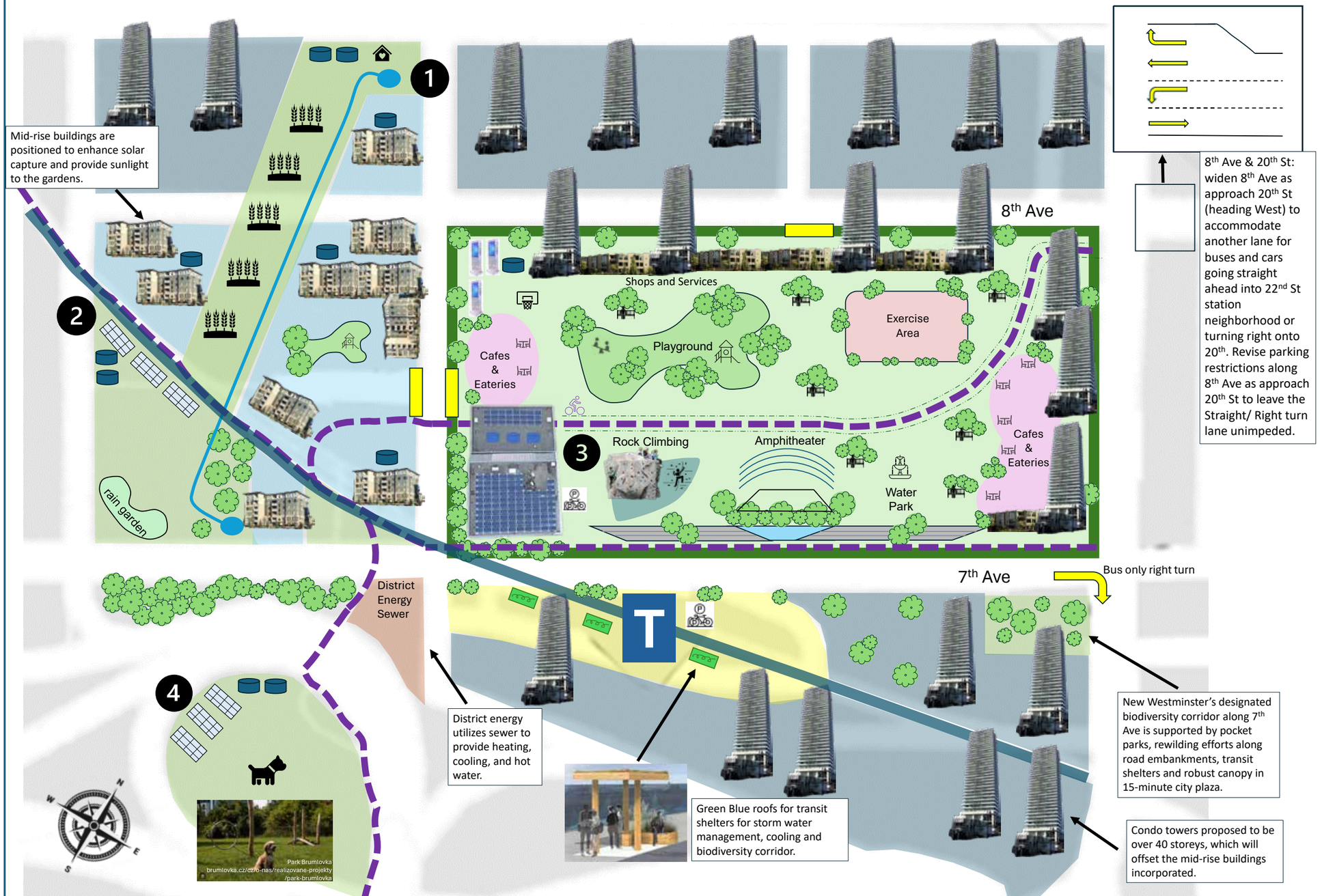
Our vision for the 22nd Street "Transformation Station" neighborhood focuses on climate action that fosters connection, inclusivity and affordability – happy climate action! Our vision focuses on several spaces for gathering and prioritizes green space and sunshine. Areas of specific importance are the 15-Minute City Plaza, pocket parks of Truth and Reconciliation park and Charge Up Park, and an enriched environment for dogs and their people at the Off Grid Dog Park.

Truth and Reconciliation park will be developed under the leadership of First Nations according to their vision of what climate action and reconciliation could look like in this neighborhood. A suggestion to explore would be a space focused on food sovereignty and decolonizing agriculture. (refer to board #2).

Charge Up Park is an interactive space that showcases renewable energies and renewable energy storage. (refer to board #3).

At the heart of the community, the 15-minute city pedestrian plaza provides multiple amenities to meet daily needs. A community center would incorporate features that are required if the building were needed to shelter people impacted by severe heat events or other natural disasters. (refer to board #4).

Connection to other neighborhoods is built with accessible paths and bikeways. This community will be a climate-friendly hub of inclusion and interaction. It is designed not only to reduce emissions but also to improve the quality of life of its residents.



New Westminster Climate Action Team

Project Title: Transformation Station

Board 2 of 4

Truth & Reconciliation park

(name to be determined by the Indigenous leadership)

The bold vision for the neighbourhood will include an indigenous space under the hydroelectric lines which will provide a starting point for improved relations between First Nations and Settlers. It will be developed under the leadership of local Indigenous members at the planning and developing stages. This will ensure that their vision of what climate action and reconciliation could look like in this neighbourhood.

One vision which could be explored for this space is an Indigenous garden and food sovereignty building. The building could be used for processing food, nature-based education, which includes sharing Indigenous agricultural knowledge and land stewardship wisdom. It could also be a place for hosting cultural celebrations.



As the gardens will be on a slope, design features will be required to slow water down and absorb it into the soil, such as swales, berms and potentially terrace garden beds.

Gardens orientated towards southern exposure.

1







The Indigenous food sovereignty building could be a center for sharing of indigenous agriculture methods and processing culturally appropriate foods. To support these goals, the building could have a kitchen and processing facilities as well as gathering spaces for sharing of indigenous knowledge related to agriculture and the responsibility to the land, the plants and the animals that provide the food. In addition, there could be a venue for outdoor performances.

2



INDIGENOUS GARDENS

Indigenous gardens with the guiding principle of 'food as medicine'. The hope would be for a sharing of Indigenous agricultural knowledge and growing culturally appropriate foods in a sustainable manner.

3 Traditional agricultural method of clay pot irrigation

4 Community Gardens

5 Rainwater collected from metal roof of indigenous food sovereignty building to be used for irrigation.

6 Upper elevation water reservoir for closed loop pumped hydro . Could be incorporated into landscape of food sovereignty building. as represented above. (refer to Charge Up Park board for additional details)

Photos not cited provided by Microsoft Stock Photo

New Westminster Climate Action Team

Project Title: Transformation Station

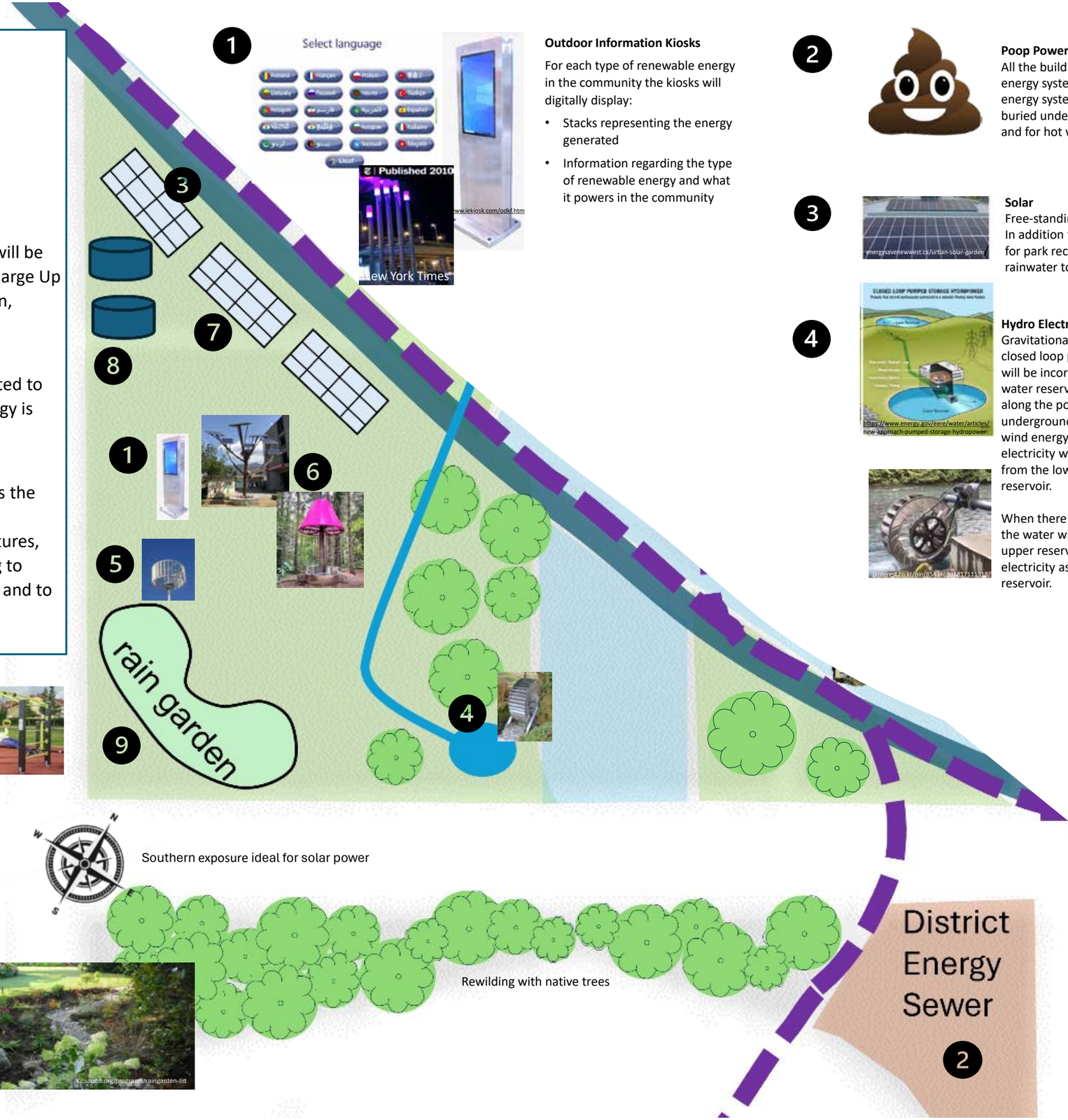
Board 3 Of 4

Charge Up Park

Multiple types of renewable energy will be utilized in the neighbourhood and Charge Up Park will showcase the energy in a fun, interactive and accessible manner.

Energy storage will also be incorporated to provide power when renewable energy is not generating electricity.

Additionally, Charge Up Park supports the biodiversity corridor on 7th Ave and incorporates water management features, such as the rain garden and rewilding to infiltrate and purify water on the site and to protect against erosion.



1 Outdoor Information Kiosks

For each type of renewable energy in the community the kiosks will digitally display:

- Stacks representing the energy generated
- Information regarding the type of renewable energy and what it powers in the community

2 Poop Power

All the buildings in this neighbourhood will operate with a district energy system which will utilize the thermal energy of sewer. District energy systems are networks of hot and cold-water pipes, typically buried underground that are used for efficient space heating & cooling and for hot water.

3 Solar

Free-standing solar structures in the park will be multi-functional. In addition to generating electricity , they will provide shelter for park recreational features (refer to #7), and would collect rainwater to meet the site's irrigation needs.

4 Hydro Electricity & Hydro Energy Storage

Gravitational energy storage utilizing closed loop pumped hydro energy storage will be incorporated into the park. Two water reservoirs at different elevations along the power lines will be connected by underground pipes. When excess solar and wind energy is being generated, renewable electricity will be used to pump water from the lower reservoir to the upper reservoir.

When there is a lack of renewable power, the water will then be released from the upper reservoir and generate hydro electricity as it flows back to the lower reservoir.

5 Wind power

Different types of rooftop wind turbines to be evaluated at various locations – hopefully in partnership with college / university

6 Interactive Public Art

Solar tree public art provides lighting and has electrical outlets to charge phones and laptops

Pedal power public art is powered by 3 pedal generators and 2 hand crank generators suitable for wheelchair users. The generators power the lights in the giant tree 'top'. The lights come on sequentially, reacting to the power produced by the users.

7 Recreational features under the shelter of solar structures

8 Rainwater storage

9 Rain Garden incorporated to use nature to purify water, which will ultimately flow into the Fraser River

Photos not cited provided by Microsoft Stock Photo

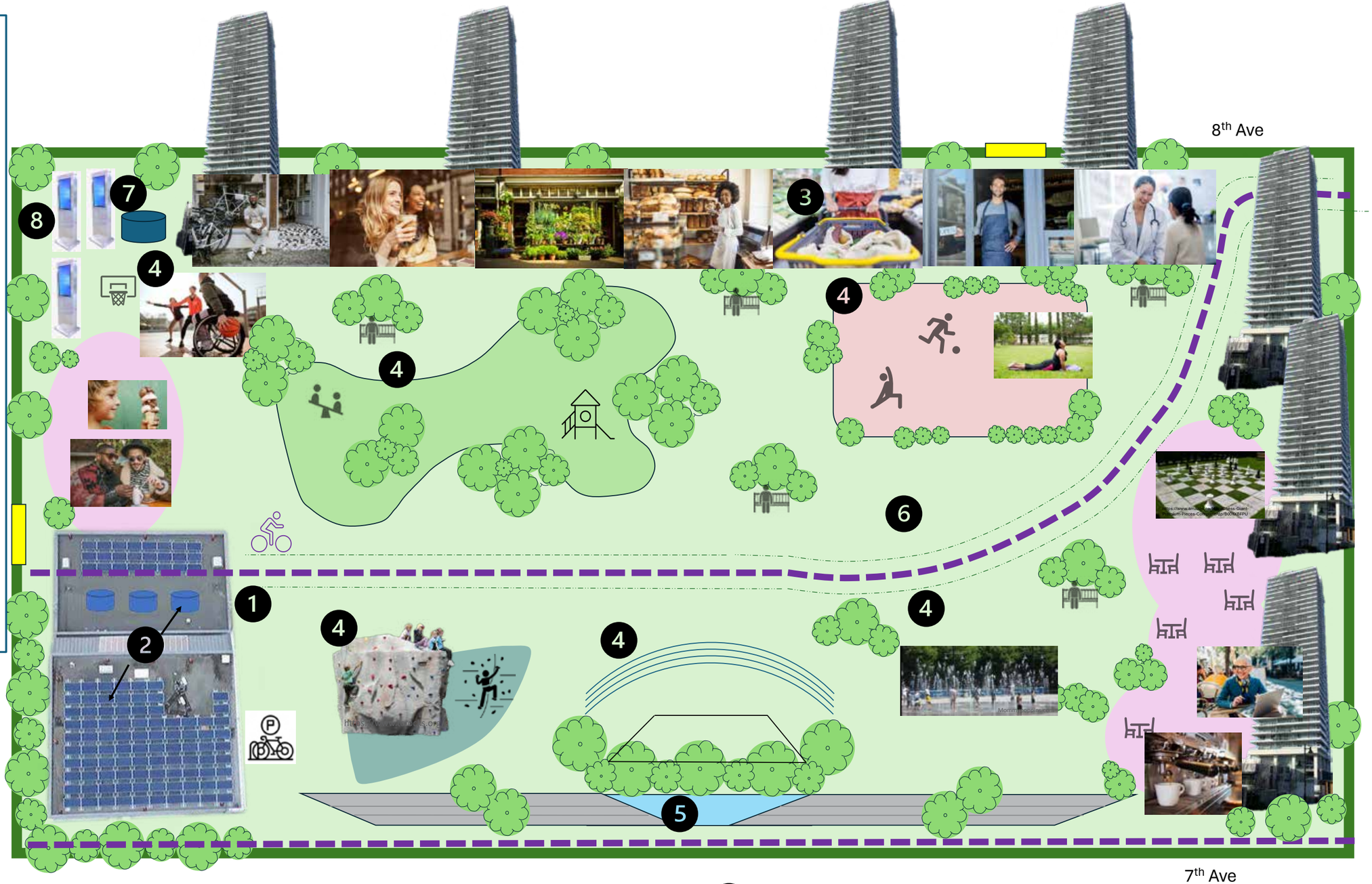
New Westminster Climate Action Team

Project Title: Transformation Station
Board 4 of 4

15-Minute City Plaza

The 15-minute city plaza is central to the 22nd Street "Transformation Station" neighbourhood. The plaza site between 7th and 8th Avenue is sloped. To improve accessibility, the bulk of the site would be leveled. Stairs and an elevator would be built at the south end. Also, a gradually inclining pathway (safely divided for pedestrians and bikes) would wind across and back, allowing improved access for all. Parking would be underground, making the plaza car-free.

Fun, time-saving, climate-friendly plaza! Reducing emissions, exercising and connecting with others along the way - happy climate action! Once there, they would have many choices to meet their daily needs. A model of the urban transformation that we need to improve our society and sustain our home planet.



1



Community center building will be a key feature of the 15-minute city plaza. It would balance affordability and sustainability while providing amenities for the community. To enhance affordability, a simple building form would be used and inexpensive design details would be incorporated, such as colour. The bike lane would traverse through the building overhang. The community center would be built for disaster reliance. Features would be incorporated to enable the building to functionally shelter people impacted by extreme climate events, such as heat domes and flooding.

2 **Community center sustainability features** include a metal roof to harvest rainwater that will be used to flush toilets. The southern exposure is ideal to support a community solar garden on this roof. Windows on the South and West sides would use dynamic glass, which would reduce the need for air conditioning.

3 **Shops and services** on the lower floors of the surrounding towers would include grocery stores, other shops, cafes and restaurants, theatres, medical services and so on.

4 **4 denotes recreational activities for the plaza** including a basketball court, rock wall, amphitheater, playground, exercise area, and water park cooling station.

5 **Water feature to muffle transportation noise.**

6 For biodiversity purposes, **technologies will be incorporated that utilize thermal heat from sewer** pipes to distribute heat throughout the plaza. This prevents icy surfaces in the winter and avoids using salt and chemicals that wash into waterways and pose risks to fish and ecosystems.

7 **Rainwater capture**

8 **Information kiosks** (refer to board #3)

Photos not cited provided by Microsoft Stock Photo

NEW WEST AMPERSAND

BY ANDREW SCOTT AND VIVIAN CHOW

Rising above sea level on the hillside well above the Fraser River, seven tall pylon towers provide much sunlit housing, all with distant views, linked to the Skytrain for less dependence on the atmospheric carbon producing car.

Rising above the traffic the pylon towers support an elevated pedestrian circuit, bridging above the busy road network, the circuit 'ampersand' safely and efficiently connects three neighbourhoods by foot with a new Skytrain entrance from above.

Rising above isolation as the elevated walkway connects homes to each other, casual meetings occur both along the circuit and at ground level at the designated food truck park; the weekend farmer's market; the 'Island Fish' community centre; the 'Red Cedar Tree Forest' pocket park and the 'Downriver' community auditorium.

Honouring our Heritage
Celebrate the three languages of the Hul'qumi'num by naming the three 'ampersand' neighbourhoods: Upriver; Downriver and Island neighbourhoods.
Reinstate the central place of the Red Cedar Tree through the inclusion of a 'Cedar Forest' on Hamilton Street at the start of the ampersand ramp, reconciling nature & technology; tree & tower & culture.
Remember the historical and cultural significance of sustaining fish through the 'fish and water edge' motif of the Community Centre.
The public can swim in the outdoor 'wet edge' infinity pool - elevated yet visually connected to the river, looking past the highway below.
The infinity pool open to everyone, reflects the spirit of inclusion as it is usually only available in luxury properties.

Let's Go to the Ampersand...
Enter from the 'Downriver' Hamilton St 'Cedar Forest Shops' and their accessible ramp to the Skytrain's roof with its additional elevator and escalators.
Cross the great divide of Twentieth Street to the 'Upriver' neighbourhood and Grimston Park and descend through the tower elevators.
Dash over Sixth Avenue to the 'Island Fish' Community Centre to play pickleball & swim, then return at the ground level to shop on the way home.

A New 15 Minute City with Safe and Sustainable Connections – Design Principles

Towards Zero Carbon
CO_2 producing concrete and steel to be substituted where possible with local Mass Timber products, such as CLT and Glulam Beams. Exposed mass timber structures have the added poetry of daily linking with the views of Fraser River log barges.
Also, carbon fibre concrete can give options for lighter and environmentally friendly construction. Rather than generating carbon we use it.

Slender Buildings
Smaller tower footprints allow more daylight deep within buildings.
Tall buildings with centralised and well insulated heating and cooling minimise household energy use and greenhouse gas emission.

Red Cedar Tree Forest Tower Setting
Entrance Towers are glass pavilions set in a 'Red Cedar Tree Forest' pocket park.

Tower Separation
Maintain sunlight penetration, views and privacy. Tower locations and heights are designed to overcome residential and park overshadowing.

Retail and Sustainable Urban Design
Anchor supermarkets are elevated to the upper level so that the ground plane is activated with small business shopfronts, coffee shops & affordable pubs.

Podiums
Podiums accommodate employment & art space with child daycare using the podium roof for contained outdoor space. Childcare to have a private access elevator.
Podiums to provide large clear spans for medical imaging & other medical/dental uses. Provide for rooftop drone delivery.

Kitchen Club Building
Stand-alone building for eight take out commercial kitchens with exhaust at the SW corner of 22nd Street & Seventh Ave.

Gathering Auditorium
Community auditorium for gathering to celebrate, worship, engage and be entertained at the SE corner of 22nd & Seventh Ave.

Off Leash Dog Park
The dog park topography to become a landscaped hill, gated to encourage dogs & owners to move down from the exposed northern entrance to the southside of the park, finally walking under the Queensborough Bridge to link with the Community Centre ramps.

How Do We Get There?
Work with Translink to provide a new vertical typology for the Skytrain Station, linked in all directions with its surroundings.
Find the right developer for the entire site or assemble three to six lots at a time to create 'ampersand-ready' building phases of around one acre.
Pay for the 'ampersand' and amenities by offsetting infrastructure costs against increased residential density.
Partner with the BC Ministry of Transportation and Infrastructure (MOTI), the City of New Westminster and Hul'qumi'num artists to establish the 'Island Fish' Neighbourhood Centre.
Honour the Hul'qumi'num through ongoing care of the growing Red Cedar Trees.

Comprehensive Project Site Boundaries
Three 'ampersand' neighbourhoods are bounded by Hamilton Street to the north and pass over the partially closed Sixth Avenue to the MOTI owned 'Island' to the south. The western edge is just past 22nd Street & Grimston Park is the eastern boundary.
The surrounding lands follow the previously proposed OCP with a healthy mix of ground-oriented townhouses, residential multi-units and development of the commercial node at Edinburgh and Twentieth Street.

Three Neighbourhoods
1. The Upriver neighbourhood is characterised by the being adjacent to the park. The tower has fewer floors so that it does not overshadow the open space. The strongly dividing traffic of Twentieth St is overcome through the elevated pedestrian walkway ampersand, linking the Grimston Park to the Skytrain and beyond.

2. The Downriver neighbourhood has the greatest residential density as it is closest to the Skytrain station. Included at grade are farmer's markets, food trucks and affordable pubs bringing an informality that starts conversations. Downriver also contains the Red Cedar Trees that present opportunities for telling epic First Nations stories around the greatly loved Red Cedar Tree, representing a deep respect for truth and reconciliation.

3. The Island Neighbourhood is where fish and river come together at the 'Island Fish' Community Centre. It is linked to the Skytrain by the ampersand walkway along with a ground level bridge with accessible ramps throughout.
The New West Ampersand will provide a safe and welcoming place where there is food, friendship and home - connected to services and amenity – all while reducing household energy consumption.

We are placemaking a destination of density, diversity and dialogue.

NEW west
ampersand

Rising above sea level

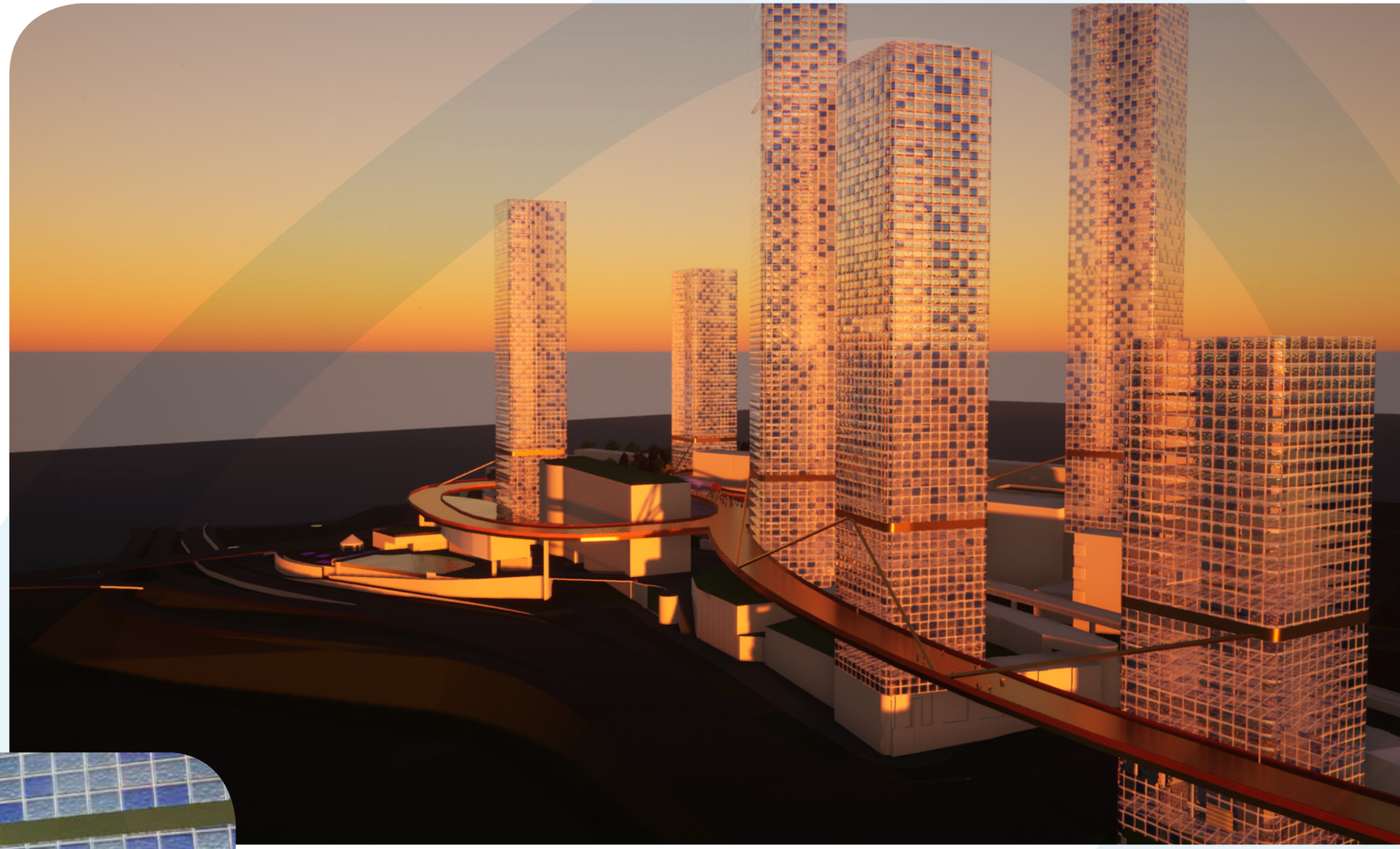
on the hillside well above the Fraser River, seven tall pylon towers provide much sunlit housing, all with distant views, linked to the Skytrain for less dependence on the atmospheric carbon producing car.

Rising above the traffic

the pylon towers support an elevated pedestrian circuit bridging above the busy road network, the 'ampersand' safely and efficiently connects three neighbourhoods by foot with a new Skytrain entrance from above.

Rising above isolation

as the elevated walkway connects homes to each other, casual meetings occur both along the circuit and later at ground level at the designated food truck park; the weekend farmer's market; the 'Island Fish' community centre; the 'Red Cedar Tree Forest' pocket park and the 'Downriver' community auditorium.

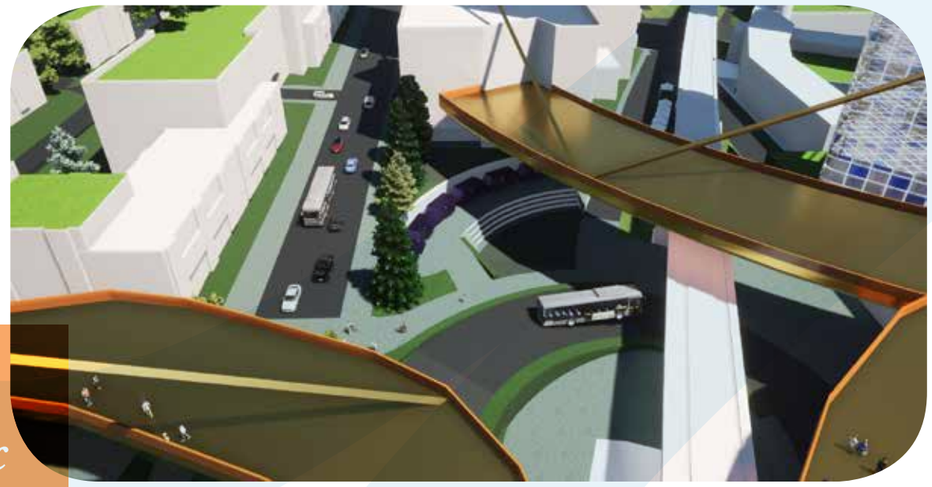




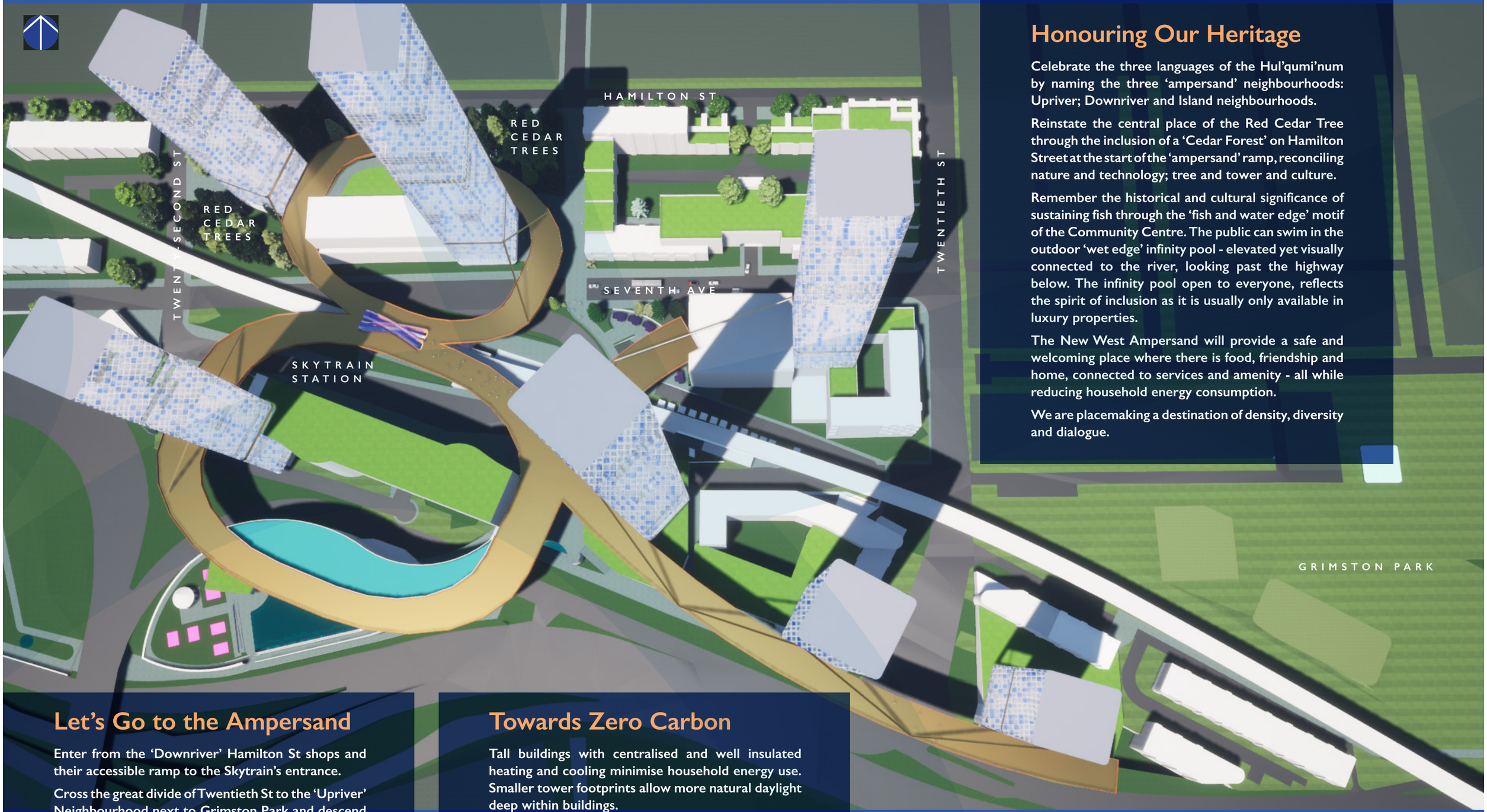
ABOVE: SUNRISE AT THE 22ND STREET FREQUENT TRANSIT INTERCHANGE & AMPERSAND

LEFT: RESIDENTIAL TOWERS STRUCTURALLY & FINANCIALLY SUPPORT THE CONNECTING AMPERSAND CIRCUIT BRIDGE

RIGHT: RISING ABOVE THE TRAFFIC WHILE LOOKING DOWN TO FOOD TRUCKS, FARMER'S MARKETS & AN ACTIVE STREETSCAPE



Pylon towers support an elevated walkway bridging above the busy traffic



Honouring Our Heritage

Celebrate the three languages of the Hul'qumi'num by naming the three 'ampersand' neighbourhoods: Upriver; Downriver and Island neighbourhoods.

Reinstate the central place of the Red Cedar Tree through the inclusion of a 'Cedar Forest' on Hamilton Street at the start of the 'ampersand' ramp, reconciling nature and technology; tree and tower and culture.

Remember the historical and cultural significance of sustaining fish through the 'fish and water edge' motif of the Community Centre. The public can swim in the outdoor 'wet edge' infinity pool - elevated yet visually connected to the river, looking past the highway below. The infinity pool open to everyone, reflects the spirit of inclusion as it is usually only available in luxury properties.

The New West Ampersand will provide a safe and welcoming place where there is food, friendship and home, connected to services and amenity - all while reducing household energy consumption.

We are placemaking a destination of density, diversity and dialogue.

Let's Go to the Ampersand

Enter from the 'Downriver' Hamilton St shops and their accessible ramp to the Skytrain's entrance.

Cross the great divide of Twentieth St to the 'Upriver' Neighbourhood next to Grimston Park and descend through the tower elevators.

Dash over Sixth Ave to the 'Island Fish' Community Centre to play pickleball & swim, then return at the ground level to shop on the way home.

Towards Zero Carbon

Tall buildings with centralised and well insulated heating and cooling minimise household energy use. Smaller tower footprints allow more natural daylight deep within buildings.

CO2 producing concrete and steel to be substituted where possible with local 'Mass Timber' products such as Cross Laminated Timber (CLT) and Glulam Beams. Exposing mass timber structures also poetically links with the views of Fraser River log barges.

ABOVE: PLAN VIEW OF THE HEART OF THE 22ND STREET FREQUENT TRANSIT DEVELOPMENT AREA



Northwest towers are glass pavilions set in a 'red cedar tree forest'

Design Principles

SLENDER AND SEPARATED TOWERS

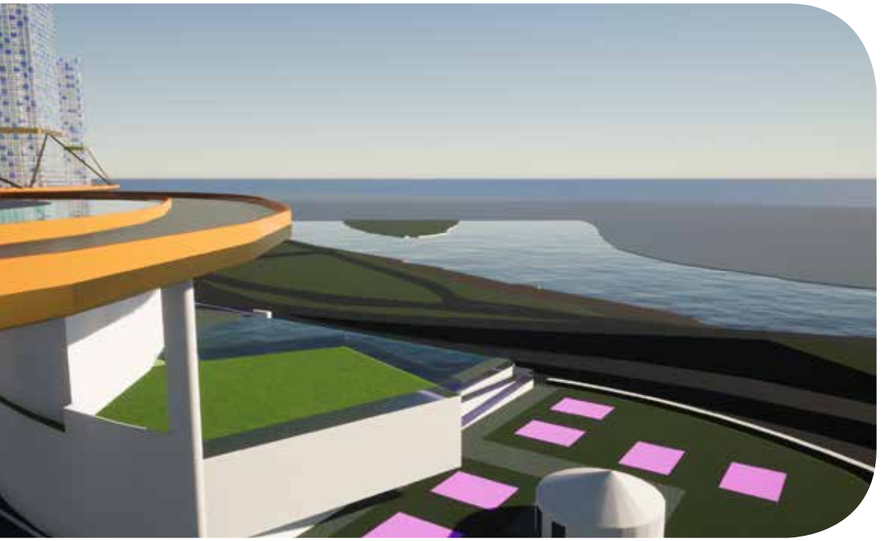
Smaller tower footprints minimise household energy use. Separated to maintain sunlight penetration, views and privacy, tower locations and heights are also placed to overcome residential and park overshadowing.

RETAIL AND SUSTAINABLE URBAN DESIGN

Anchor supermarkets are elevated to the upper level so that the ground plane is activated with small business shopfronts; coffee shops and affordable pubs.

PODIUMS

Podiums accomodate employment and art space with child daycare using the podium roof for contained outdoor space. Childcare to have a private access elevator. Podiums to provide large clear spans for medical imaging and other medical/dental uses. Provide for rooftop drone delivery.



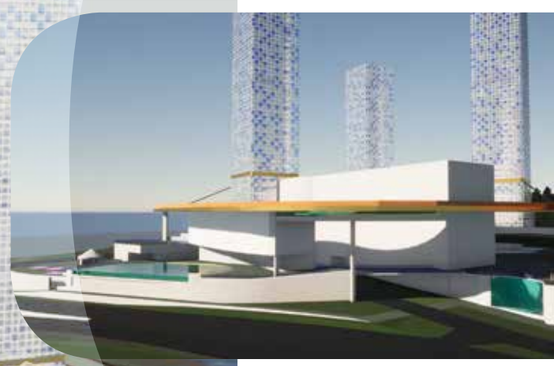
ABOVE: VIEW FROM WEST SHOWING AN AUDITORIUM UNDER THE AMPERSAND FOR GATHERING TO CELEBRATE, WORSHIP, ENGAGE & BE ENTERTAINED AT THE SE CORNER OF 22ND STREET & SEVENTH AVE. OPPOSITE (IN THE FOREGROUND) IS A STAND-ALONE KITCHEN CLUB FOR EIGHT TAKE OUT COMMERCIAL KITCHENS WITH FAN EXHAUST

LEFT: THE INFINITY POOL IS PLACED TO SEAMLESSLY VISUALLY LINK THE ISLAND NEIGHBOURHOOD TO THE FLOWING FRASER RIVER; A SECOND UPPER POOL IS STRATA-OWNED

RIGHT: NW ENTRANCE TOWERS ARE GLASS PAVILIONS SET IN A 'RED CEDAR TREE FOREST' POCKET PARK

FAR RIGHT: SE VIEW OF THE 'ISLAND FISH' NEIGHBOURHOOD CENTRE ACCESSIBLE BOTH FROM THE AMPERSAND & A STREET LEVEL FOOTBRIDGE WHERE A WATERFALL MASKS THE SOUND OF THE TRAFFIC





NEW west
ampersand

How Do We Get There?

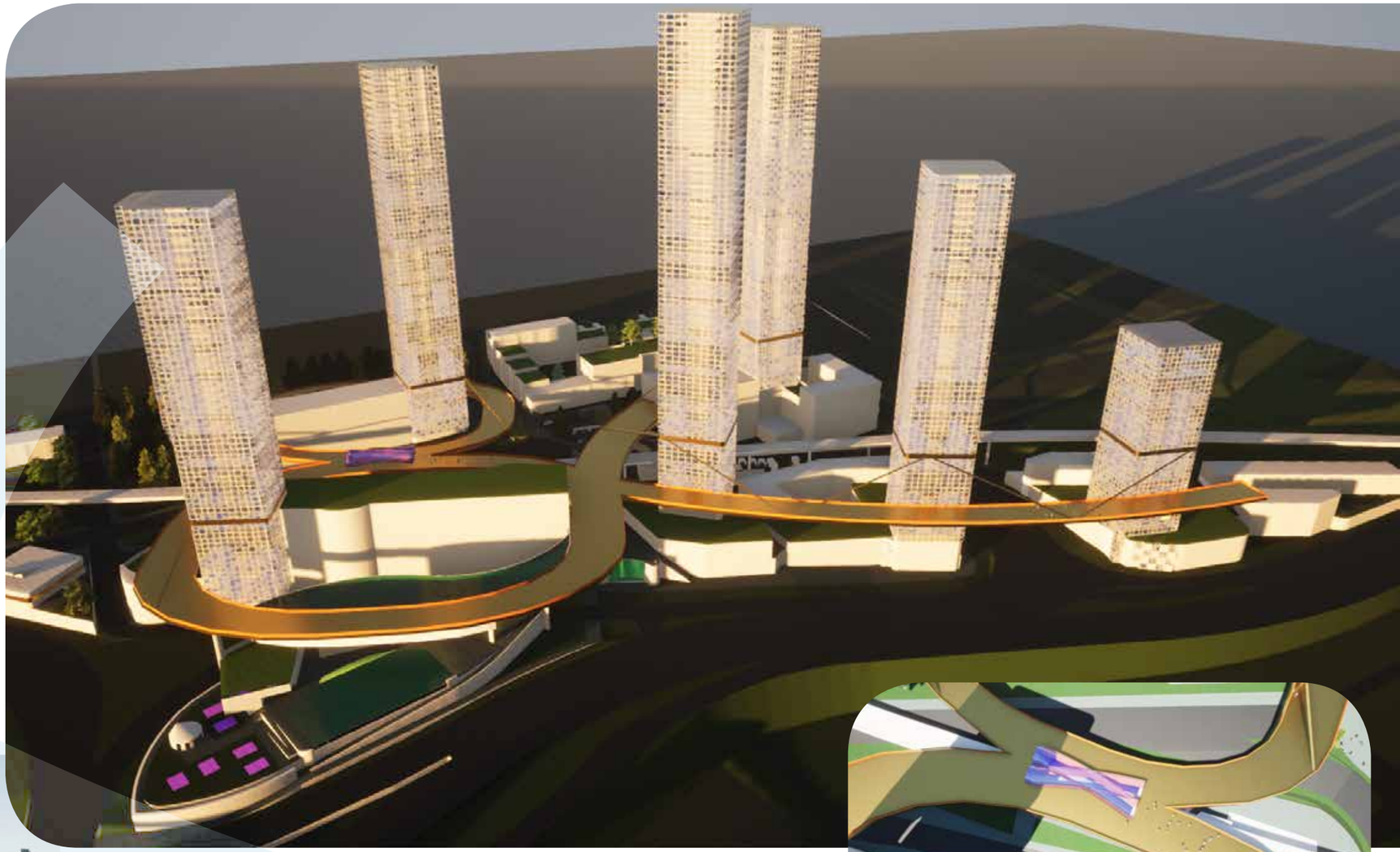
Work with Translink to provide a new vertical typology for the Skytrain Station that is linked in all directions with its surroundings.

Find the right developer for the entire site or assemble three to six lots at a time to create 'ampersand-ready' building phases around one acre.

Pay for the 'ampersand' and local amenities by offsetting infrastructure costs against increased residential density.

Partner with the BC Ministry of Transportation and Infrastructure (MOTI), the City of New Westminster and Hul'qumi'num artists to establish the 'Island Fish' community Neighbourhood Centre.

Continue to honour the Hul'qumi'num through ongoing care of the growing Red Cedar Trees.





ABOVE: SLENDER & SEPARATED TOWERS ALLOW MORE DAYLIGHT IN & DISTANT VIEWS OUT

LEFT: SAFE & ACCESSIBLE, OMNIDIRECTIONAL SKYTRAIN ENTRANCE HUB



Walkable 15-minute city with safe and sustainable connections

ABOVE: NEW SKYTRAIN TYPOLOGY WITH ENTRANCES FROM ABOVE LINKING THE COMMUNITY NEIGHBOURHOODS TOGETHER

LEFT: ACTIVATED STREETSCAPE UNDER THE AMPERSAND ROOF CREATING A MEMORABLE & UNIQUE INCLUSIVE DESTINATION

ARCHITECTURAL DESIGN NOTICE FOR THE 22ND STREET SKYTRAIN ECO-DISTRICT COMPETITION

BY CANELLE LE GAL AND DAMIEN ZALA

Project Overview:
The conception of this eco-district around the 22nd Street SkyTrain station is grounded in three key general observations:
Lack of Natural Spaces Fostering Biodiversity:
The existing limited natural spaces primarily consist of grassy gardens and a few trees, which do not effectively promote biodiversity.
Low-Density Suburban Neighborhood:
The area is characterized as a low-density suburban neighborhood, primarily functioning as a dormitory. The urban planning is orthogonal, identical, and monotonous, with minimal diversification in usage and housing typologies. Furthermore, there is no imprint of indigenous civilizations, their architecture, or culture.
No Measures Implemented for Resource Optimization:
There are no implemented measures to economize and optimize resource consumption.

Project Axes:
1. Integration of City and Nature:
Urban planning adopts an innovative strategy, steering towards a seamless integration of city life with the surrounding nature. This involves a comprehensive expanse of greenery enveloping the district, strategically interspersed with thoughtfully placed construction clusters. Diverse layers of vegetation have been implemented to not only enhance biodiversity but also harmonize with the architectural volumes, shaping distinct spaces dictated by the natural environment itself. A communal vegetable garden acts as a central hub, motivating residents to re-establish a connection with nature. From roadside greening to vegetation on rooftops and facades, individual gardens interweave, creating verdant islands. Gardeners' practices undergo a transformative shift, embracing zero use of phytosanitary products, thereby empowering gardeners to undertake life-enhancing actions.

2. Vernacular Architecture and Programmatic Diversity:
The eco-district embraces a diverse architectural and programmatic approach. Clusters of rectangular constructions, varying in height and proximity, form a structured organization that gives rise to a range of urban spaces like squares and passages. Salish art finds expression on facades, exemplified by the moucharabieh of the community center and imaginative structures in children's play areas. Urban planning amalgamates different housing typologies, including the renovation of existing houses, spacious apartments with terraces, and more compact living spaces. The pyramid-shaped urban layout facilitates seamless integration, promoting programmatic diversity with ground-floor establishments for commerce, bars, and restaurants, first-floor spaces for tertiary activities like offices and medical services, and upper floors designated for housing. Connectivity through walkways ensures a fluid transition between buildings, while partial car integration minimizes pollution, featuring a large external parking area and exclusive underground or ground-level resident parking.

3. Resource-Efficient Solutions:
In pursuit of sustainability, the eco-district implements innovative systems. Water recycling involves the harvesting and reuse of rainwater and greywater, complemented by a permeable surface to enhance soil infiltration. The introduction of a collective geothermal boiler system ensures energy-efficient heating and cooling. A comprehensive waste recycling system encompasses composting, resale of usable objects, and object repair facilitated by a public fabrication laboratory. The reuse of demolition waste in new constructions exemplifies the district's commitment to holistic resource efficiency.
This comprehensive approach envisions an eco-district that seamlessly integrates nature, culture, and functionality, fostering vibrancy and sustainability around the 22nd Street SkyTrain station.

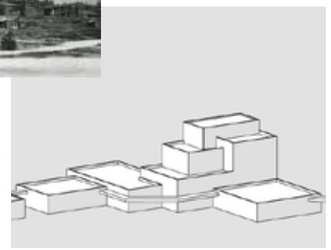
SKY TRAIN // Eco Neighborhood

Design principles

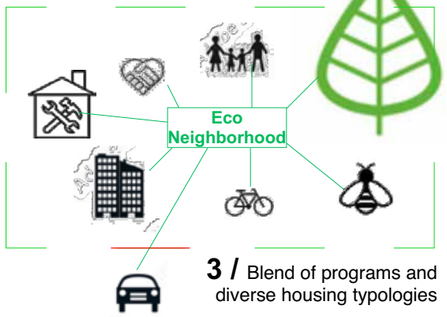


1 / Merged city and nature



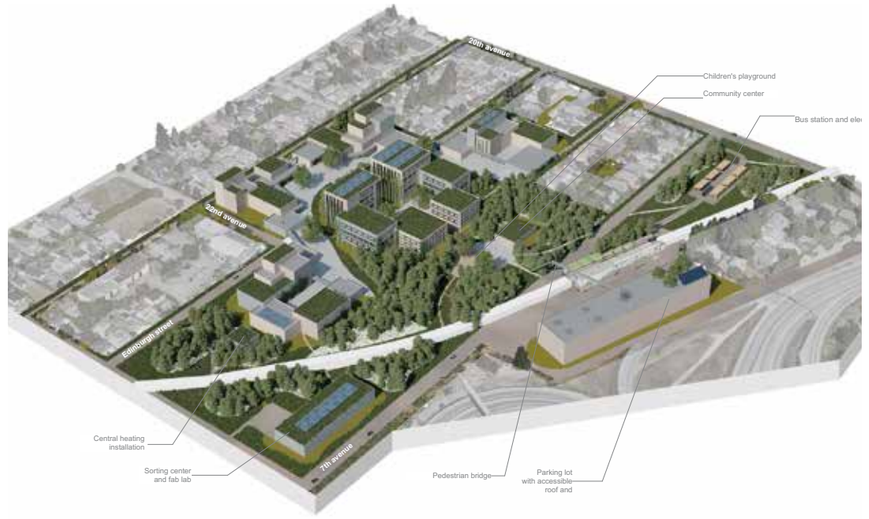


2 / Design concept inspired by Salish art and architecture



3 / Blend of programs and diverse housing typologies

Axonometry



Mass plan 1/1500°



Legendary:

- electric bike
- bus station
- compost
- hives
- birdhouse and insect hotel

Program

Architecture :

- Multifunctional buildings
- Collective housing program
- Tertiary activities
- Shops
- Design concept inspired by Salish art and architecture
- Connection between buildings
- Public spaces on several levels connected through a network of gateways

Biodiversity :

- Park
- Vegetation islands
- Green roofs and facades
- Compost bins in green spaces
- Biodiversity habitats (insect hotel, beehive on roof, birdhouse, pile of wood, rockery)

Mobility :

- Pedestrian paths and squares
- Electric bikes and scooter rental
- Bicycle parking
- Electric car rental
- Large parking lot
- Underground parking for residents only
- Bus station relocation
- Electric car charging stations
- One-way road
- Carpool point

Sustainable development :

- Reuse of demolition materials as much as possible for reconstruction
- Low energy consumption buildings
- Heating and air conditioning by collective geothermal heat pump
- Rainwater recovery
- Gray water recycling
- Large surface area of permeable soil
- Installation of solar panels on green roofs
- Optimized waste management (organic bulk store, electronic repairer, thrift shop, etc.)
- Implementation of virtuous and ethical commerce

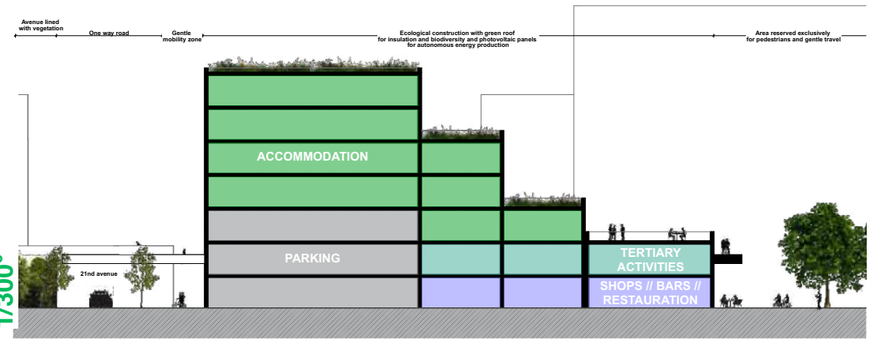
Social :

- Community center:
  - Youth club
  - Senior center
  - Associative space
  - Event reception space
- Solidarity canteen
- Children's playground
- Picnic area
- Shared vegetable garden
- 30 percent of housing stock accessible to low-income people
- Creation of new municipal jobs specialized in biodiversity, sustainable development, maintenance of green spaces, and personal services

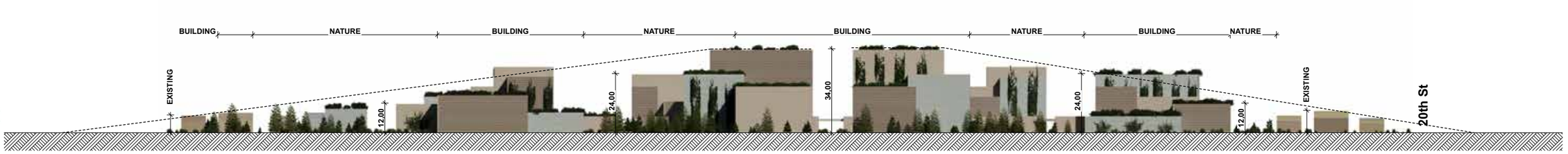
Culture and sport:

- Street workout space
- Media library
- Fabrication laboratory
- Running circuit
- Art gallery/concept store

Principal section BB' 1/300°



Elevation AA' 1/750°

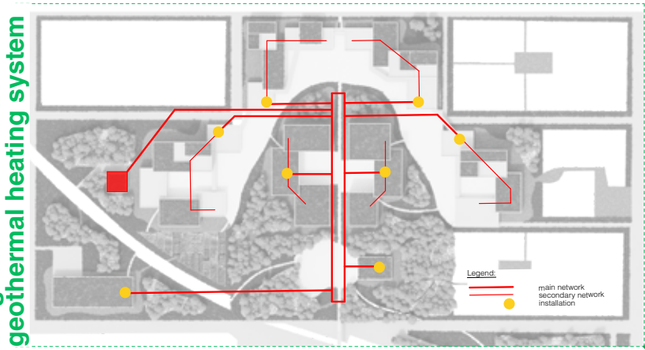


SKY TRAIN // Eco Neighborhood

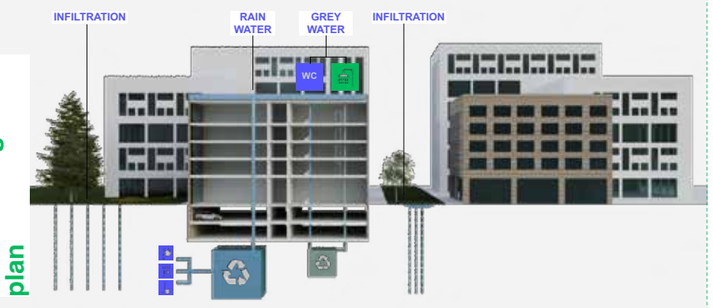
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SUSTAINABLE DEVELOPMENT & DESIGN CONCEPT 2/2

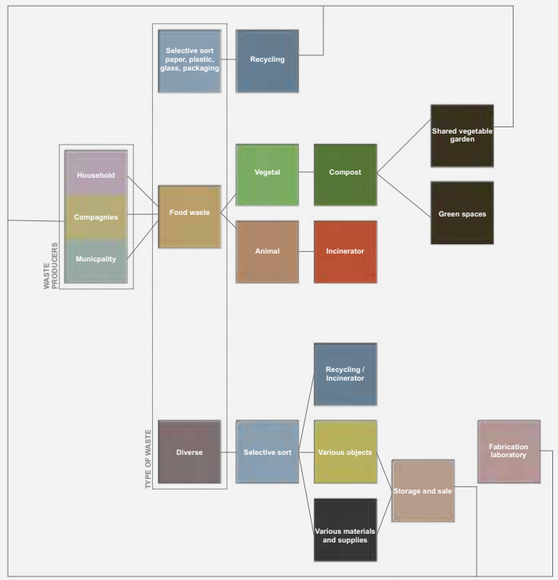
Diagram of a collective geothermal heating system



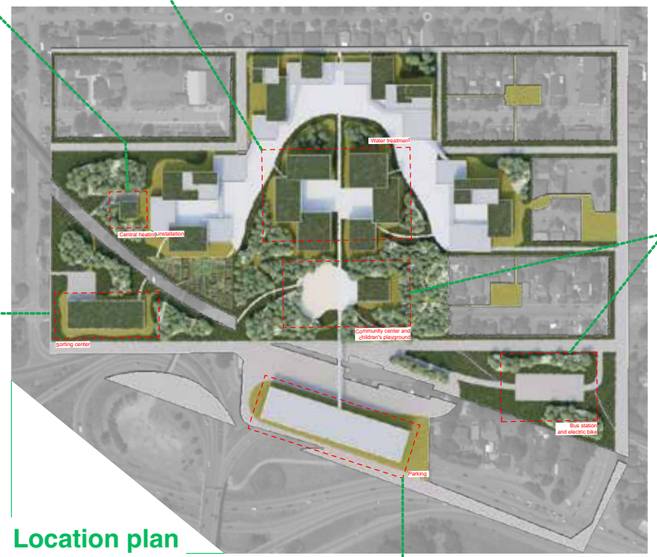
Water management plan



Waste treatment plan



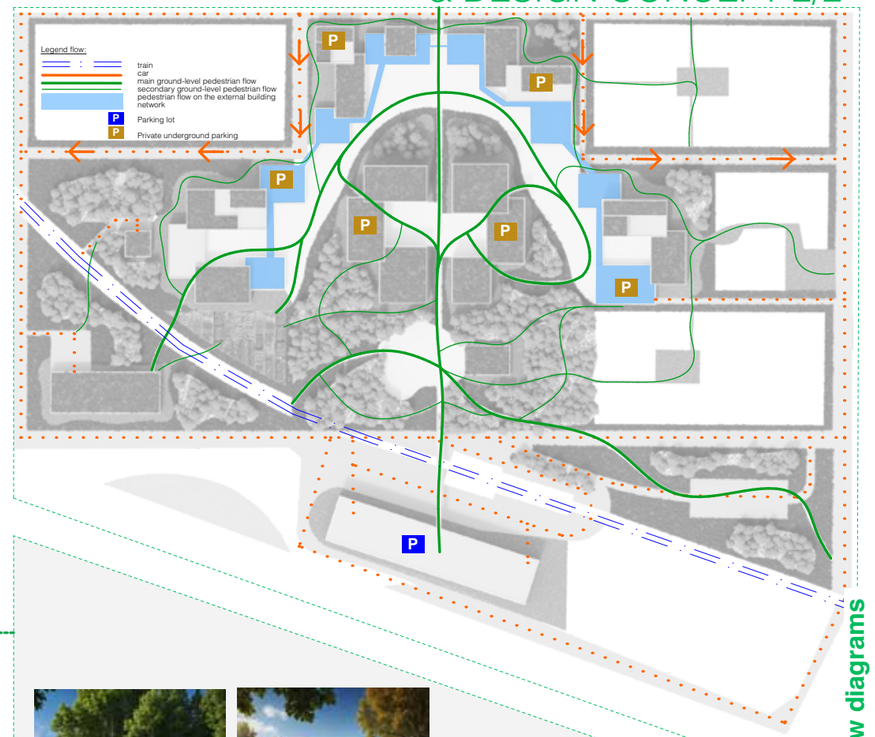
Location plan



Axonometry parking



Flow diagrams



3D



3D representations of the bus and bicycle stations.



3D representations of the community center and children's play area directly inspired by Salish art.



MEDICINE WHEEL GARDEN: REGENERATE FOR GENERATIONS PROPOSAL

BY JJ COLAB

Introduction:
The "Medicine Wheel Garden: reGENERATE for Generations" is a proposal that aims to create a meaningful space based on the sacred symbol of the medicine wheel. This circular garden layout, divided into four quadrants, holds cultural and spiritual significance for Indigenous peoples in North America. The garden is designed not only to be aesthetically pleasing but also to serve as a living representation of Indigenous wisdom, values, and the interconnectedness of all elements.

Why a Medicine Wheel Garden - Alignment to Foundational Values:
The proposal aligns with the foundational values of the City of New Westminster, emphasizing climate action, truth and reconciliation, and equity, diversity, and inclusion.

Climate Action:
Mitigation: The garden promotes sustainable practices, reducing greenhouse gas emissions using native, low-maintenance plants.
Adaptation: It serves as a green space contributing to climate change adaptation, showcasing resilience to local climate conditions.

Truth and Reconciliation:
Cultural Connection: The medicine wheel's cultural significance acknowledges and respects the identity and heritage of Indigenous peoples, contributing to healing from historical trauma.
Learning and Celebrating Indigenous Knowledge: The garden becomes an educational space, highlighting Indigenous ways of knowing and sustainable land management practices.

Equity, Diversity, Inclusion:
Accessible Community Space: The public and accessible garden promotes equity and inclusion, providing a welcoming environment for diverse community members.
Representation: Inclusion of diverse plant species reflects the city's commitment to leveraging insights from various perspectives, promoting inclusivity.
The medicine wheel garden contributes to building a climate-friendly neighborhood that embraces sustainability, cultural respect, and inclusivity.

Why a Medicine Wheel Garden - Connection to Themes: Themes of landscape and water, along with community connections and belonging, play pivotal roles in achieving climate resilience and advancing truth and reconciliation.

Landscape and Water:
Climate Resilience: Sustainable landscaping enhances climate resilience, with drought-resistant plants and green spaces contributing to better water management.
Ecological Health: Preserving native plant species promotes biodiversity, creating a more robust and adaptable ecosystem.

Community Connections and Belonging:
Social Resilience: Communal spaces, potentially tied to a medicine wheel garden, strengthen social ties and resilience.

Cultural Revitalization: The garden provides opportunities for cultural exchange and learning, contributing to a deeper understanding of Indigenous perspectives.
Involving the local community in this medicine wheel garden project, including Indigenous groups, ensures diverse perspectives and fosters a sense of ownership. Truth and reconciliation principles will guide the project, acknowledging historical contexts and First Peoples principles of learning.

Feasibility Considerations:
Key considerations include community engagement, maintenance, cultural respect, plant selection, harvesting protocols, and land use permissions. Engaging with local organizations and elders, selecting appropriate plants, and establishing clear harvesting protocols ensure cultural sensitivity.

Garden Design:
The sacred Medicine Wheel is represented with four quadrants, each associated with a cardinal direction, color, and symbolism. The proposed garden design includes a central focal point, potentially a peace pole or a painted rock, surrounded by stones and four quadrants with healing plants corresponding to the symbolism of each direction.

Intended Impact:
The medicine wheel garden is designed to positively impact individuals, communities, and the environment. It serves as an educational resource for individuals, a space for cultural preservation and reconciliation for communities, and a contributor to climate action and sustainability for the environment.

Location:
Potential locations include educational institutions, public parks and gardens, BC Parkway, and SkyTrain stations. Each has its opportunities and challenges, with schools offering educational benefits, public parks fostering community engagement, parkways providing high visibility, and SkyTrain stations ensuring accessibility.

Timeline and Implementation:
The proposed timeline includes project initiation, site assessment and design, finalizing garden design, regulatory approvals, fundraising, construction/planting, and community celebration and education. An anticipated timeline is provided.

Cost Estimate:
Estimated costs range from $23,000 to $60,000, covering design and planning, construction, miscellaneous costs, community engagement and education, and maintenance. Actual costs may vary based on local factors and project specifics.

Potential Expansion Ideas:
Ideas for potential expansion include incorporating structures, resting areas, a peace pole, and workshops on topics like worm composting and companion planting. These additions enhance the garden's aesthetic appeal, functionality, and educational value.

The proposed Medicine Wheel Garden aligns with the City of New Westminster's values, contributing to climate action, truth and reconciliation, equity, diversity, and inclusion. It stands as a tangible and symbolic expression of the interconnectedness of cultural respect, environmental sustainability, and community well-being.

Medicine Wheel Garden
reGENERATE for GENERATIONS

22nd Street Station Area Proposal

Big Idea 1: <u>What</u> is a Medicine Wheel Garden?

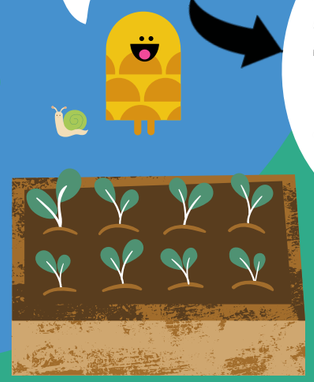
The medicine wheel is a sacred symbol that holds cultural and spiritual significance for many Indigenous peoples in North America. A medicine wheel garden is a circular garden layout with four distinct quadrants, each representing one of the cardinal directions (east, south, west, north). The center point of the circle is also significant, often symbolizing the interconnectedness of all elements. Each quadrant may be assigned specific plants, colors, or symbols associated with the teachings of the medicine wheel.

The plants chosen for a medicine wheel garden are often selected for their cultural, spiritual, or medicinal significance to Indigenous communities. These gardens are not only aesthetically pleasing but also serve as living representations of Indigenous wisdom, values, and the relationship between people and nature. The typical medicine wheel has four cardinal directions (east, south, west, north) and a central point, each representing different aspects of life, nature, and spirituality. The meanings associated with these directions can vary among different Indigenous cultures.



Big Idea 2: Why a Medicine Wheel Garden?

New Westminster and the 22nd Street Station Area is situated on the traditional, ancestral, and unceded territory of the Halkomelem speaking peoples. A medicine wheel garden is a meaningful idea to support the next generation as it provides a space for learning, connection, and respect, emphasizing the sacredness of children and their role in carrying forward the rich heritage of Indigenous communities. A medicine wheel garden can also align with the foundational values of climate action, truth and reconciliation, and equity, diversity, and inclusion in the following ways:



Big Idea 2A: Why a Medicine Wheel Garden?

Climate Action:

Mitigation: The garden can contribute to reducing greenhouse gas emissions by promoting sustainable practices such as using native, low-maintenance plants, which can minimize the need for water and chemical inputs. Emphasizing eco-friendly landscaping techniques aligns with mitigating the causes of climate change.

Adaptation: A well-designed medicine wheel garden can serve as a green space that contributes to climate change adaptation. Native plants selected for the garden may be resilient to local climate conditions, and the garden can serve as a model for enhancing community resilience in the face of extreme weather events.

Teaching and Education: The medicine wheel can serve as a powerful educational tool. Its symbolism can be used to educate both Indigenous and non-Indigenous people about the history, values, and perspectives of Indigenous cultures and environmental stewardship. In Indigenous cultures, children are regarded as sacred beings who embody the continuity of life and the preservation of cultural traditions. Medicine Wheel Gardens serve as educational resources, providing opportunities for the next generation to learn about the significance of specific plants, their traditional uses, and the importance of sustainable harvesting practices.

Big Idea 2B: Why a Medicine Wheel Garden?

Truth and Reconciliation:

Cultural Connection: Medicine wheels are deeply rooted in Indigenous cultures and traditions. Recognizing and respecting these symbols is a way of acknowledging the cultural identity and heritage of Indigenous peoples. The teachings of the medicine wheel often emphasize balance, harmony, and interconnectedness. In the context of truth and reconciliation, these teachings can contribute to healing and restoring balance within communities that have experienced historical trauma. The inclusion of plants with cultural significance and incorporating Indigenous design principles respects and honours the historical connection of Indigenous peoples to the land.

Learning and Celebrating Indigenous Knowledge: The garden can be an educational space that highlights Indigenous ways of knowing, including sustainable land management practices. This aligns with the City's acknowledgment that responding effectively to the climate emergency involves learning from Indigenous communities and celebrating Coast Salish culture.

Community Building: The medicine wheel's emphasis on interconnectedness and community can be a guiding principle for fostering positive relationships between Indigenous and non-Indigenous communities. Community-building initiatives that draw on the principles of the medicine wheel can contribute to the development of respectful and reciprocal relationships, essential for the reconciliation process.

Big Idea 2C: <u>Why</u> a Medicine Wheel Garden?

Equity, Diversity, Inclusion:

Accessible Community Space: Having the medicine wheel garden as a public and accessible space promotes equity and inclusion. It provides a welcoming environment for diverse community members to connect with nature, fostering a sense of belonging.

Representation: The intentional inclusion of diverse plant species, some of which may have cultural significance to different communities, reflects the city's commitment to leveraging unique insights from diverse perspectives. This promotes inclusivity and acknowledges the richness of the community's diversity.
Symbol of Unity: The medicine wheel can serve as a symbol of unity. Recognizing and respecting the symbolism of the medicine wheel can be a tangible expression of the collective commitment to building a more just and inclusive society.



Big Idea 2: Why a Medicine Wheel Garden?

Considering all these foundational values, a medicine wheel garden contributes to building a climate-friendly neighbourhood that aligns with the values of the City of New Westminster. It embraces the principles of sustainability, cultural respect, and inclusivity, recognizing that climate-friendly communities must be accessible and beneficial to everyone, including Indigenous and equity-denied communities. The garden serves as a tangible and symbolic expression of the interconnectedness of climate action, truth and reconciliation, and equity.



Big Idea 3: Connection to Themes

The themes of landscape and water, as well as community connections and belonging, can play pivotal roles in achieving the project goal. Medicine wheel gardens help create a neighbourhood that is more resilient to the effects of climate change, while also advancing truth and reconciliation with local First Nations. Here's how these themes can contribute to the overall objective:

Big Idea 3A: Connection to Themes – Landscape and Water

Sustainable Landscaping: Implementing nature-based solutions, such as sustainable and native landscaping of the medicine wheel garden, can enhance the neighbourhood's resilience to climate change. Drought-resistant plants and green spaces contribute to better water management and overall climate resilience.

Biodiversity Preservation: Promoting native plant species and preserving green spaces contributes to biodiversity. A diverse ecosystem is more robust and adaptable, providing natural buffers against climate-related challenges.

Big Idea 3B: Connection to Themes – Community Connections and Belonging

Community Gardens and Spaces: Creating communal spaces, potentially tied to the principles of a medicine wheel garden, fosters a sense of community. These spaces can serve as gathering points, strengthening social ties and resilience.

Shared Experiences: Establishing community-led initiatives, events, or educational programs within these spaces can promote shared experiences, increasing community cohesion and resilience.

Celebrating Indigenous Culture: Medicine wheel gardens can provide opportunities for cultural exchange and learning. This engagement can contribute to a deeper understanding of Indigenous perspectives on sustainability and resilience.

Big Idea 3: <u>How</u> do these key themes support the project vision?

Equitable, Accessible and Inclusive Decision-Making: Involving the local community, including First Nations, in the decision-making process ensures that the vision reflects diverse perspectives. Inclusivity fosters a sense of ownership, encouraging responsible and sustainable practices and care for our landscape and water resources while maintaining the medicine wheel garden.

Truth and Reconciliation as a Guiding Principle: By integrating sustainable practices, celebrating cultural diversity, and fostering community bonds, the garden project can create a neighbourhood that not only adapts to climate change but also embodies principles of justice, inclusivity, and respect for Indigenous knowledge and culture.

Big Idea 4: Is it Feasibile?

Creating a medicinal garden involves several considerations to ensure its feasibility and success. Below are key aspects that should be considered when planning a medicinal garden, especially in the context of community and cultural sensitivity:

1) Maintenance:
• Involve the community in the maintenance of the garden. Community engagement fosters a sense of ownership and ensures the garden's long-term success.
• *Feasibility* - A medicine wheel garden designed with native plants can often require less maintenance work compared to other types of gardens as they are adapted to local climate, soil conditions and pest problems. In addition, community members of 22nd Street Station had a positive and fulfilling experience during a similar project, the pollinator garden in 2019, as noted in a newspaper article of the New West Record. They may be open to supporting this medicine garden as well.

2) Cultural Respect:
• Seek guidance from Indigenous elders or knowledge keepers who can provide insights into traditional medicinal plants, their uses, and cultural practices related to their cultivation.
• *Feasibility* - One may want to reach out to local organizations such as Spirit of the Children Society and the City of New Westminster's Elder in Residence program. Ernie Cardinal from Spirit of the Children is knowledgeable about medicine wheel gardens and has experience with these gardens during his time working with the school board.

3) Plant Selection:
• Include plants that have cultural significance to the Indigenous communities of the lower mainland. Respectful consultation and collaboration are crucial for determining which plants are appropriate for inclusion. Also, select plants based on their medicinal properties and traditional uses. Consider the therapeutic value of the plants and their relevance to community health and well-being.
• *Feasibility* – There are many seed co-ops that could provide medicinal plants, including the BC Eco Seed Co-op. There are also seed libraries that may have a selection of common medicinal plant seeds, including the New Westminster Public Library – Main Branch; the medicinal garden may offer collaboration opportunities between organizations. Nurseries such as the NAT's Nursery also sell budded and bloomed Pacific Northwest native plants.

4) Harvesting Protocols:
• Establish protocols for harvesting medicinal plants, considering traditional methods, timing, and quantities. This ensures the sustainability of the garden and respects cultural practices.
• *Feasibility* - Install clear and culturally sensitive signage within the garden that outlines the harvesting protocols. Use visual aids and multilingual information to ensure accessibility for all community members and visitor.

5) Community Engagement:
• The garden will support active community engagement. This shared space fosters a sense of belonging and may also be a platform for gardening and harvesting opportunities, storytelling, and traditional ceremonies.
• *Feasibility* - The creation of a Connaught Heights pollinator garden can serve as a precedent or example that demonstrates the community's ability to come together and volunteer again for a similar project, such as this medicine wheel garden.

6) Land Use and Permissions:
• Land Access and Permissions: Secure the necessary permissions and agreements for using the land. Ensure that the project aligns with local regulations and Indigenous protocols for land use.
• *Feasibility* – Consultation with the Parks and Recreation Department or the New Westminster City regulations office, and local community members of the proposed medicine wheel garden site will be required. One may consider having the medicine wheel garden close to the Connaught Heights pollinator garden in the city boulevard at the intersection of London and 22nd Street, given the success of the pollinator garden and the ability of the pollinators to interact with the medicine wheel garden.

7) Educational Components:
• Plan educational workshops and programs to share knowledge about medicinal plants, Indigenous healing practices, use of plants as natural dye and the cultural significance of the garden.
• *Feasibility* – Install signage that provides information about each plant, its traditional uses, and its cultural importance. This helps educate visitors and fosters a deeper understanding of Indigenous traditions. In addition, invite local community members and knowledge keepers to run workshops near the garden, offering promotion through the New Westminster City Page, community bulletin boards and the New Westminster program guide.

By addressing these considerations, the medicinal garden project can be more feasible, culturally appropriate, and beneficial to both the community and the promotion of Indigenous knowledge and traditions.

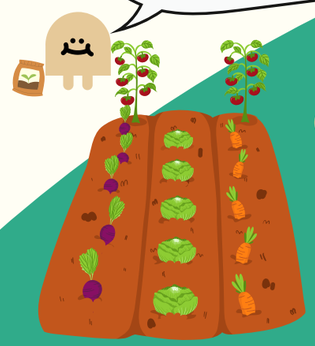
22nd Street Station Area Proposal:

Medicine Wheel Garden

Start Here

BIG IDEA 5: INTENDED IMPACT

This medicine wheel garden is designed to have positive effects on individuals, communities, and the environment. Here are some potential intended impacts of a medicine garden:



BIG IDEA 5A: FOR THE INDIVIDUAL

Education, Equity and Accessibility

In many Indigenous cultures, children are regarded as sacred beings, embodying the potential for the continuity of life, the preservation of cultural traditions, and the interconnectedness of the community and the land. Medicine gardens serve as educational resources, providing opportunities for community members and the next generations to learn about the significance of specific plants, their traditional uses, and the importance of sustainable harvesting practices. This contributes to increased awareness about the value of medicinal plants and the broader ecosystem.

The intention may be to create a space that is accessible to diverse community members, promoting equity and inclusion. This includes considerations for physical accessibility, cultural inclusivity, and ensuring that the benefits of the garden are accessible to all.

BIG IDEA 5B: FOR THE COMMUNITY

Cultural Preservation and Reconciliation and Respect

The centre of the medicine wheel may include a large rock painted with the colours of the four quadrants, aligning with the directions of the land (e.g. the yellow side of the stone faces east). Depending on resources, one may choose to erect a tall peace pole at the centre of the garden instead.

The centre of the garden will be the heart of the medicine wheel garden and may be a place to provide offerings (e.g. pinches of sacred tobacco) and prayers for peace, healing, gratitude or more. If a peace pole is included, community members may also lay a small stone at the base of the peace pole with their prayers.

BIG IDEA 5C: FOR THE ENVIRONMENT

Climate Action and Sustainability, Aesthetic and Therapeutic Value

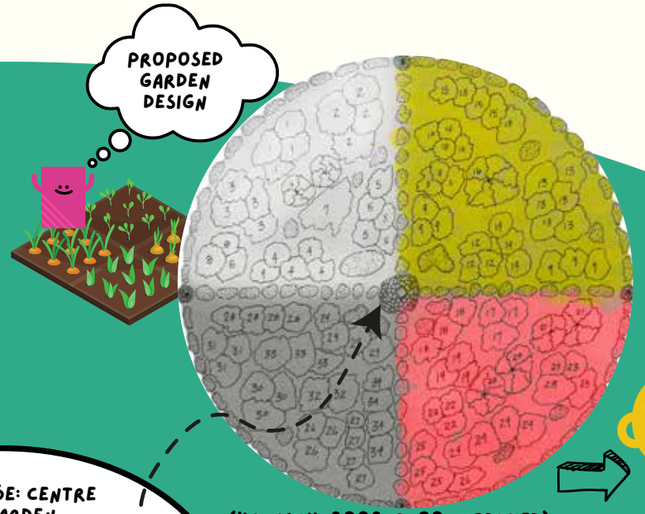
Beyond its practical uses, a medicine garden can also enhance the aesthetics of the surrounding area, contributing to the overall beauty and tranquility of the space. This aesthetic value can have therapeutic benefits for individuals who visit the garden.

Additionally, many medicine wheel gardens incorporate native and locally adapted plants, promoting environmental stewardship and biodiversity. The intention is often to create a garden that aligns with ecological principles, supporting the health of the local ecosystem. The medicine wheel garden can be designed with sustainability in mind, incorporating climate-friendly practices such as water conservation, organic gardening methods, and the use of native plants adapted to the local climate. This aligns with broader environmental and climate action goals.

BIG IDEA 6: GARDEN DESIGN

It's important to note that the meanings and colors associated with the Medicine Wheel can vary among different Indigenous cultures, and each community may have its own unique interpretation. The Medicine Wheel is a sacred and spiritual symbol, and understanding its significance requires respect for the specific cultural context in which it is used.

PROPOSED GARDEN DESIGN



(KAVASCH, 2002, P. 30, MODIFIED)

BIG IDEA 6E: CENTRE OF GARDEN

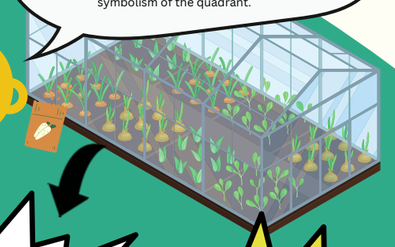
The centre of the medicine wheel may include a large rock painted with the colours of the four quadrants, aligning with the directions of the land (e.g. the yellow side of the stone faces east). Depending on resources, one may choose to erect a tall peace pole at the centre of the garden instead.

The centre of the garden will be the heart of the medicine wheel garden and may be a place to provide offerings (e.g. pinches of sacred tobacco) and prayers for peace, healing, gratitude or more. If a peace pole is included, community members may also lay a small stone at the base of the peace pole with their prayers.

BIG IDEA 7: PLANT SELECTION

The Four Quadrants

- As shown in the diagram (see garden layout visual) stones are laid in a circle and divide the garden into four sections. Each directional quadrant has healing plants whose characteristics coordinate with the symbolism of the quadrant.



BIG IDEA 7A: - NORTH - WHITE

1) Sweetgrass
2) Sage
3) Beneset
4) Pipsissewa (aka Prince's Pine)
5) Winterberry
6) Bayberry
7) Clematis
8) Cleome (i.e. Spider Flower)

*Note: Annual Plant

BIG IDEA 7B: EAST - YELLOW

9) *Arnica - note: may require specific microclimate in lower mainland
10) Evening Primrose
11) Goldenseal
12) Goldthread
13) St. John's Wort
14) Jewelweed
15) Yellow Dock
16) Witch Hazel

BIG IDEA 7C: SOUTH - RED

17) Blue flag
18) Heal-all
19) Lobelia
20) Blueberry
21) Elderberry
22) Blue Cohosh
23) Skullcap
24) Black Cohosh
25) Sage

BIG IDEA 7D: WEST - BLACK OR BLUE

- 26) Bee Balm
- 27) Cardinal Flower
- 28) Wild Ginger
- 29) Woodland Strawberry
- 30) Echinacea
- 31) Bloodroot
- 32) Poke
- 33) Joe-pye weed
- 34) Bearberry

BIG IDEA 7E: RECOMMENDATIONS

Recommendation: Start with 3 to 5 kinds of plants for each of the four quadrants. The selection of plants will depend on the garden's location, considering factors such as the type of soil and whether the plant is native to the environment. Allow the land to guide us in understanding which plants are best suited for the space. Consider introducing new plants after each season.

BIG IDEA 6A: EAST - YELLOW

- **Animal Represented:** Eagle
- **Element:** Air
- **Season:** Spring
- **Symbolism:** Represents new beginnings, the rising sun, and the emergence of life. It is associated with clarity, illumination, and spiritual growth. The East often symbolizes birth and infancy.

BIG IDEA 6D: - NORTH - WHITE

- **Animal Represented**: Buffalo
- **Element**: Earth
- **Season**: Winter
- **Symbolism**: Represents the wisdom of old age, purity, and the quiet of winter. The North is associated with introspection, wisdom, and the deepening understanding that comes with age. It symbolizes the elder years.

BIG IDEA 6B: SOUTH - RED

- **Animal Represented:** Wolf
- **Element**: Fire
- **Season**: Summer
- **Symbolism**: Represents youth, vitality, and passion. The South is associated with warmth, growth, and the height of life. It symbolizes adolescence and the energy of midday.

BIG IDEA 6C: WEST - BLACK OR BLUE

- **Animal Represented**: Bear
- **Element**: Water
- **Season**: Fall
- **Symbolism**: Represents adulthood, introspection, and the setting sun. The West is associated with emotions, introspection, and the contemplative phase of life. It symbolizes maturity and the end of the day.

BIG IDEA 5: INTENDED IMPACT

The intended impact of a medicine wheel garden fulfills the specific goals and values of the 22nd Street Station Project by contributing to climate action, truth and reconciliation, equity, diversity, inclusion, community well-being, responsible land use, and sustainable practices. Its incorporation reflects a holistic approach to urban planning that considers both cultural and environmental dimensions for the benefit of the community and the broader goals of the project.

BIG IDEA 6: GARDEN DESIGN

The Medicine Wheel is a sacred symbol, and its representation can vary among different nations and tribes. The garden will consist of a circle divided into four quadrants, surrounded by stones, each associated with a specific color, direction, element, and set of meanings. While interpretations may differ, here is a general overview of the medicine wheel and its colors and meanings:

22nd Street Station Area Proposal:
Medicine Wheel Garden

BIG IDEA 8: RECOMMENDATION

A medicine wheel garden at schools and educational institutions offer numerous benefits in alignment with the project's goals of climate action, equity, diversity and inclusion as well as truth and reconciliation. Lord Tweedsmuir Elementary and Connaught Heights Elementary are suitable locations for a medicine wheel garden. Considering the established pollinator's garden on London and 22nd Street, it may be advisable to position the medicine wheel garden close to or on the fields of Connaught Heights Elementary, enabling students to forge connections between ecosystems (e.g. pollinator gardens and medicine wheel gardens). However, it is important to note that the pollinator's garden has only secured its lease with BC Hydro until 2025.

BIG IDEA 9: TIMELINE
WHEN?

Planning a medicine wheel garden involves multiple steps, and the timeline can vary depending on factors such as the scale of the project, community engagement processes, and the availability of resources. Here is a suggested timeline that outlines key stages in planning a medicine wheel garden:

EDUCATIONAL INSTITUTIONS

Schools, colleges, and universities can incorporate medicine wheel gardens as educational tools. Elementary schools provide an excellent opportunity for educational programs. A medicine wheel garden can serve as an outdoor classroom, teaching students about Indigenous culture, sustainable practices, and the environment.

Opportunities:
Community Engagement: Gardens at schools often involve students, teachers, and parents. A medicine wheel garden can be a community project, fostering a sense of unity and cultural understanding.
Long-Term Impact: The garden can have a lasting impact on the next generation. Children, regarded as sacred beings in many Indigenous cultures, can learn about the importance of nature, traditional plants, and sustainable living practices.

Challenges:
Maintenance: The school's staff may have limited resources for garden maintenance. Planning should involve strategies for upkeep, possibly through involving students, parents, or local community members.
Curriculum Integration: Aligning the garden with the school curriculum may require coordination and collaboration. Working with the New Westminster School District to develop educational materials or professional development workshops that complement existing lesson plans is essential.

BC PARKWAY

A parkway offers high visibility to both pedestrians and motorists, making the medicine wheel garden a focal point for the community.

Opportunities:
Public Awareness: Parkways have high visibility, providing an opportunity to raise public awareness about Indigenous cultures, environmental stewardship, and climate action through the symbolism of the medicine wheel. Consider including educational signage explaining the cultural significance of the medicine wheel, the chosen plant species, and their traditional uses to enhance the educational value of the garden.
Recreational Integration: Integrating the garden into a parkway allows for a blend of nature and recreation. It becomes a space where people can relax, learn, and appreciate the outdoors.

Challenges:
Environmental Factors: Parkways can be exposed to environmental elements, such as pollution or road debris. Design considerations should include protective measures to ensure the garden's health.
Permit and Regulations: Establishing a garden in a public space may require permits and adherence to local regulations. Collaboration with city authorities is crucial for a successful project.
Safety Concerns: Safety is paramount in public spaces. Ensuring that the garden does not pose any safety risks, especially to children and pedestrians, is essential.

PUBLIC PARKS AND GARDENS

Integrating medicine wheel gardens into public parks or community gardens makes them accessible to a broader audience. These spaces encourage community engagement and appreciation for Indigenous cultures. Grimston Park or the Connaught Village Green lots could be considered spaces to include a medicine wheel garden:

Opportunities:
Community Engagement: Public parks attract a diverse group of community members, providing an opportunity for engagement, education, and cultural exchange.
Recreation and Relaxation: Parks are spaces for recreation and relaxation. Integrating a medicine wheel garden can offer a peaceful and aesthetically pleasing environment for visitors.

Challenges:
Potential Disturbance: Parks may experience high foot traffic and activity levels, posing a challenge to the garden's integrity. Protective measures should be considered to prevent unintended disturbances.
Maintenance Needs: Public parks may have different maintenance needs. Ensuring that the garden design and plant selection align with the park's maintenance capabilities is crucial.
Pet Interaction: Pets, such as dogs, are common in parks, and there is a risk of them interacting with the garden in harmful ways, such as ingesting plants. Measures should be taken to prevent this. Due to the focus of the park, the West Side Off-Leash park may particularly be vulnerable to this issue.

SKYTRAIN STATION

Placing a medicine wheel garden near the 22nd Street SkyTrain Station ensures accessibility for a diverse range of people who use public transportation.

Opportunities:
High Foot Traffic: SkyTrain stations experience high foot traffic, providing an opportunity to reach a diverse audience. The garden can serve as a point of interest and education for commuters. This can include interactive displays or QR codes linking to online resources.
Cultural Exchange: SkyTrain stations are hubs of cultural diversity. A medicine wheel garden can facilitate cultural exchange, introducing Indigenous perspectives to a broad and multicultural audience.
Urban Green Space: SkyTrain stations are often located in urban areas with limited green spaces. The garden contributes to urban beautification, providing a tranquil and aesthetically pleasing environment.

Challenges:
Limited Space: Space constraints at SkyTrain stations may pose a challenge. The design should optimize available space without disrupting the station's functionality.
Security: Security considerations are crucial in transit areas. Ensuring that the garden is secure and does not pose any risks to the transit system or passengers is essential.

Start Here

BIG IDEA 8: LOCATION
WHERE?

Medicine wheel gardens, with their cultural and spiritual significance, are often created in locations where they can serve both symbolic and practical purposes. Here are some suggested places where medicine wheel gardens can be established:

BUDGET

If the medicine wheel garden is for a smaller plot with around 128 plants, 32 plants per quadrant, here's a possible breakdown:

- **Design and Planning:**
  - Landscape Consultation Fees: $3,000 - $8,000
  - Community Engagement Events: $1,000 - $3,000
- **Construction:**
  - Site Preparation and Earthwork: $3,000 - $6,000
  - Hardscape (Pathways, Stones, etc.): $5,000 - $10,000
  - Plant Materials: $3,000 - $5,000
  - Soil Amendments and Mulch: $1,000 - $3,000
  - Signage and Interpretive Elements: $1,000 - $3,000
- **Miscellaneous Costs:**
  - Permits and Regulatory Fees: $1,000 - $3,000
  - Contingency (10-15% of Total): $2,500 - $10,000
- **Community Engagement and Education:**
  - Community Events and Celebrations: $2,000 - $5,000
  - Educational Signage and Materials: $1,000 - $3,000
- **Maintenance:**
  - Supplies: $500 - $1,500
- **Total Estimated Cost Range**: $23,000 - $60,000

*These figures are approximate, and actual costs may vary based on local factors, material choices, and specific project requirements.



1 PROJECT INITIATION (1-2 MONTHS)

- Define Project Objectives: Clearly articulate the goals and objectives of the medicine wheel garden, considering cultural, environmental, and community aspects.
- Establish a Project Team: Form a team that includes representatives from the community, local Indigenous groups, landscape architects, horticulturists, and project coordinators.

2 SITE ASSESSMENT AND DESIGN (3-4 MONTHS)

- Conduct Community Consultations: Engage with the local community, including Indigenous groups, to gather input, insights, and preferences for the garden design. Work closely with Indigenous knowledge keepers and community members to identify culturally significant plants, symbols, and design elements for the medicine wheel.
- Conduct Site Analysis: Assess the proposed site for soil conditions, sunlight exposure, drainage, and other environmental factors.

3 FINALIZE GARDEN DESIGN (2-3 MONTHS)

- Refine the garden design based on community feedback and technical considerations.
- Develop Construction Documents: Create detailed event plans and specifications.

4 REGULATORY APPROVALS (2-4 MONTHS)

- Obtain Necessary Permits: Work with local authorities to obtain permits and approvals for the garden construction, ensuring compliance with regulations.

5 FUNDRAISING AND RESOURCE MOBILIZATION

- Identify Funding Sources: Explore funding opportunities from government grants, private donations, community fundraising, or corporate sponsorships.
- Develop a Budget: Create a detailed budget that covers design fees, construction costs, plant materials, signage, and ongoing maintenance.
- Recruit volunteers from the community and promote awareness of the medicine wheel garden and a possible seed planting work party.

6 CONSTRUCTION/PLANTING (ONGOING)

- Coordinate Planting: Select a date to host a launch and celebration event or ceremony. Work with community volunteers to plant native species in alignment with the medicine wheel design.
- Continuously add to the medicine wheel throughout the year, for example, inviting community members to contribute painted rocks associated with the garden design or adding additional plants to the garden.
- Monitor Garden Health: Regularly assess the condition of the garden, addressing any issues related to plant health, irrigation, or other maintenance needs.
- Gather Community Feedback: Continuously engage with the community to gather feedback on the garden's impact and identify opportunities for improvement.

7 COMMUNITY CELEBRATION AND EDUCATION (1-2 MONTHS)

- Develop Educational Programming: Establish educational initiatives to inform the community about the cultural and environmental significance of the garden.
- Some ideas include:
  - Host Workshops on Medicinal Plants:
    - Organize workshops to educate the community about the medicinal properties of the plants in the garden.
  - Invite Local Artists for Natural Dye Art Classes:
    - Collaborate with local artists-in-residence to conduct art classes using plants for natural dye, enhancing cultural appreciation and creativity. Refer to the additional resource list for contacts and ideas to enhance the educational and artistic aspects of the medicine wheel garden.
  - Engage Schools in Educational Visits:
    - Encourage local schools to visit the garden, providing students with an interactive and educational experience.
  - Involve Students in Creating Signage:
    - Inspire student volunteers to contribute by creating informative signage for the plants, showcasing their learning and understanding.

8 ANTICIPATED PROJECT LENGTH: 9 - 15 MONTHS

Keep in mind that these timeframes are approximate, and the actual timeline may vary based on project-specific considerations and unforeseen challenges. Flexibility and ongoing community involvement are crucial elements for the success of the project.



22nd Street Station Area Proposal:

Medicine Wheel Garden

BONUS! POTENTIAL EXPANSION IDEAS

STRUCTURES

After the garden is established, one may consider incorporating structures to further enhance the garden. These ideas depend on budgetary and spatial constraints, and the engagement of community members; engaging with the local community, conducting surveys, and seeking input from stakeholders can help in making an informed decision. Additionally, collaboration with relevant authorities, such as school administrations, city officials, or transportation authorities, is crucial for successful implementation.

Resting Areas:
- Incorporating structures within the garden, such as seating areas, pergolas, or artistic installations, can enhance the overall aesthetic appeal and functionality of the space. Structures provide opportunities for community members to gather, learn, and connect with nature in a more immersive way.

Peace Pole:
- A peace pole is a tall, slender monument displaying the message of peace and may be in multiple languages. Including a peace pole in the garden signifies a commitment to peace, unity, and understanding among diverse communities. It serves as a symbolic focal point for reflection and mindfulness.

Rainwater Barrel:
- Rainwater barrels collect and store rainwater for later use in watering the garden. This sustainable practice aligns with eco-friendly principles, promoting water conservation and reducing reliance on traditional water sources. It contributes to the overall environmental sustainability of the garden.

Seed Library:
- A seed library allows community members to borrow, exchange, and share seeds for different plant varieties. It promotes biodiversity, encourages local food cultivation, and fosters a sense of community collaboration in sustainable gardening practices.

Plant Book Library:
- A plant book library provides educational resources about various plant species, gardening techniques, and the cultural significance of plants. Community members can access information to deepen their understanding of the garden's flora, contributing to both education and appreciation.

Worm Compost/Compost Bin:
- Worm composting or compost bins facilitate the decomposition of organic waste, turning it into nutrient-rich compost for the garden. This sustainable practice reduces waste, enriches soil health, and provides an opportunity for community members to engage in environmentally friendly practices.

WORKSHOPS

Workshops conducted within the garden cover a range of topics, including gardening techniques, sustainable practices, and cultural insights. Workshops bring community members together for hands-on learning and skill development, fostering a sense of empowerment and connection. These workshop ideas too depend on the resources available as well as the interest of community members. If there is interest, see additional resource list for descriptions and information about other local community organizations that could bring these workshop ideas to fruition to our New Westminster community.

- **Worm Composting**
  - Introduction to the art and science of vermicomposting, providing a close look at the role of worms in breaking down organic waste into nutrient-rich compost. Participants learn about the benefits of worm composting, its environmental impact, and how to set up and maintain a worm composting system at home. This engaging workshop fosters environmental stewardship and empowers individuals to implement eco-friendly practices in their daily lives.
  - Possible Resources: Vancouver Compost Demonstration Garden, Burnaby Red Wigglers
- **Companion Planting (e.g. Three Sisters Concept)**
  - Involves strategically placing plants that benefit each other when grown in close proximity. The Three Sisters Concept, for example, involves planting corn, beans, and squash together. This method maximizes space, enhances soil fertility, and reflects Indigenous agricultural traditions.
- **Medicine Wheel Informational Workshop**
  - Educates participants about the cultural and spiritual significance of the medicine wheel. It explores the symbolism associated with each quadrant, plant choices, and the broader Indigenous perspectives on nature, fostering cultural understanding and appreciation.
  - Possible Resource: Ernie Cardinal, Spirit of the Children
- **Natural Dye Workshops**
  - Teaches participants how to extract color from plants for dyeing fabrics or materials. This hands-on experience connects individuals with the garden's plant life, showcasing the diverse uses of plants beyond their aesthetic or medicinal value.
  - Possible Resource: Cedar Cottage Food Network - Medicine Wheel Garden at John Hendry Park
- **Medicinal Rollers**
  - Involves creating natural remedies using medicinal plants from the garden. Participants can learn about the healing properties of specific plants and create their own medicinal rollers, promoting holistic well-being and encouraging a connection to traditional healing practices.
  - Possible Resource: Deanna Miller (sxwnem) of Katzie First Nation
- **Beeswax Salves**
  - Guides participants in making salves using beeswax and herbs from the garden. This hands-on activity teaches practical skills and emphasizes the value of using natural ingredients for personal care, aligning with sustainable and health-conscious principles.
  - Possible Resources: Deanna Miller (sxwnem) of Katzie First Nation

ADDITIONAL RESOURCES AND BIBLIOGRAPHY

ADDITIONAL RESOURCES AND DESCRIPTIONS

BC Hydro Grassroots Program
- https://www.bchydro.com/community/community-giving/grants/eligibility.html
- The BC Hydro Grassroots Program presents an opportunity for financial support and community collaboration. Applying for a grant from this program could assist in funding various aspects of the medicine wheel garden project, aligning with the values of environmental sustainability and community engagement.

Burnaby Red Wigglers
- https://www.burnabyredwigglers.com/
- Burnaby Red Wigglers, specializing in worm composting, can offer expertise on creating and maintaining a composting system within the medicine wheel garden. Utilizing red wigglers for composting aligns with sustainable practices, enhancing soil fertility and supporting the overall health of the garden.

Cedar Cottage Food Network - Medicine Wheel Garden at John Hendry Park
- https://cedarcottagefoodnetwork.com/projects-events/medicine-wheel-garden-at-john-henry-park/
- The Medicine Wheel Garden at John Hendry Park serves as an inspiring example of successfully integrating Indigenous cultural elements into an urban green space. Exploring this garden can provide ideas for design, plant selection, and community engagement, contributing to the thoughtful creation of a similar space in another location. Cedar Cottage Food Network also organizes a variety of workshops involving their own Medicine Wheel Garden including the use of twinberries as natural fabric dye and making beeswax salves.

Deanna Miller (sxwnem) of Katzie First Nation
- https://sxwnem.com/pages/about
- Deanna has experience facilitating Medicinal Roller Ball Workshops and teaching about different medicinal plants and their benefits. She has facilitated workshops with the Surrey Museum, Parks Canada and more. She also offers workshops in tea-making, salve making and medicine soap making.

New Westminster City Staff
- https://newwestanchor.com/p/soup-bannock-community-new-west-city-hall
- https://yearoftruth.ca/
- William “Bill” Nelson, an Indigenous elder, and Christina Coolidge, the city’s manager of Indigenous relations, can offer guidance and possible collaboration . Together, they host weekly soup and bannock events at New Westminster city hall on Wednesdays. Christina also organized and created artwork for the New Westminster “Year of Truth” event. Christina may be able to offer guidance and possibly the use of her daffodil artwork in the medicine wheel garden.

New Westminster Public Library Seed Garden
- https://www.nwpl.ca/books-and-more/seeds/
- The New Westminster Public Library Seed Garden is a valuable resource for sourcing diverse and locally adapted seeds. Partnering with the library can enrich the medicine wheel garden with a variety of plants, emphasizing the importance of seed sovereignty, biodiversity, and community involvement in the gardening process.

New Westminster Community Gardening Society
- https://nwcgs.ca
- The New Westminster Community Gardening Society is a hub of community gardening knowledge and support. Engaging with this society can facilitate collaboration, provide access to resources, and offer guidance on community-driven initiatives, fostering a sense of belonging and shared responsibility in the development of the medicine wheel garden.

Spirit of the Children Society and Ernie Cardinal
- https://sotcs.ca
- The Spirit of the Children Society’s Indigenous Cultural Liaison Advisor, Ernie Cardinal, contributes valuable insights to the creation of a medicine wheel garden. He has worked with the school board to create medicine wheel gardens in the past and presented medicine wheel workshops with the New Westminster Public Library. Ernie's expertise and the society's commitment to Indigenous well-being can provide guidance on cultural aspects, community engagement, and the sacred significance of the medicine wheel.

"The Medicine Wheel Garden" by E. Barrie Kavasch
- This book is a practical guide that explores the cultural and spiritual significance of the medicine wheel. It provides insights into creating a sacred garden space, offering practical tips on design, plant selection, and cultural sensitivity. The book is a valuable resource for those looking to implement a Medicine Wheel Garden, combining historical context with practical advice for healing, celebration, and tranquility.

Vancouver Compost Demonstration Garden
- https://vancouver.ca/home-property-development/apartment-worm-composters.aspx
- The Vancouver Compost Demonstration Garden offers practical knowledge on sustainable gardening practices, including composting. Learning from this resource can enhance the environmental sustainability of the medicine wheel garden by incorporating eco-friendly methods and fostering a holistic approach to cultivation.

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THANK YOU FOR CONSIDERING THIS PROJECT PROPOSAL!

22ND STREET URBAN VILLAGE

BY HUDA SUWI

The 22nd Street Urban Village is a transit-oriented hub and central nexus for employment opportunities, diverse housing choices, and community amenities. It sets forth directives promoting sustainable land utilization, building designs, and height ranges across different sections of the urban Village, fostering a more sustainable, resilient economic, social, and environmental future. Concurrently, it aims to enrich the local identity and cohesion within the community.

The urban village promotes establishing a compact and mixed-use community that provides employment space, community services, public transit, and daily commercial necessities within a walkable community. A climate-friendly neighbourhood where everyone can thrive, equitable, and accessible to all community members. The 22nd Street urban village development also acknowledges the significance of local First Nations' traditional knowledge and ongoing stewardship in climate action decisions.

The Urban Village Center serves as the primary entrance to the neighbourhood. A welcoming space that signifies arrival into a vibrant neighbourhood center, hosting gatherings, events, and recreational activities throughout the seasons. Sustainable placemaking involves the thoughtful design of spaces that promote social interaction and connectivity. It aims to ensure inclusivity and accessibility for all residents and uphold stewardship of the environment and the unique natural assets that define a community.

The village contributes to city-wide and local housing objectives through mixed-use and high-rise developments, supporting the implementation of "missing middle" housing forms and aging-in-place initiatives. Smaller-scale commercial enterprises within residential areas further enhance social interaction and community cohesion.

The character areas of the urban village center are enhanced by an expansive "green" network comprising public plazas, green spaces and corridors. This network of public spaces showcases the natural and communal assets within the Urban Village. These hubs serve as focal points where transportation modes converge, including walking, cycling, and transit, creating vibrant and distinctive gathering places. Developing the BC Hydro area as a green corridor aims to create a vibrant, harmonious environment conducive to living and working, supporting aging in place and fostering intergenerational community engagement.

The urban village embraces implementing comprehensive building energy and waste strategies to reduce the environmental impact, conserve resources, and create healthier and more sustainable built environments for current and future generations. Promote active transportation modes by enhancing networks for pedestrians, cyclists, public transit, and vehicular movement over time.

22nd Street Urban Village

A Transit-oriented Hub Close To Skytrain Station Complete With Commercial, Employment Uses And Public Spaces.

The 22nd Street Urban Village is a transit-oriented hub and central nexus for employment opportunities, diverse housing choices, and community amenities. It sets forth directives promoting sustainable land utilization, building designs, and height ranges across different sections of the urban Village, fostering a more sustainable, resilient economic, social, and environmental future. Concurrently, it aims to enrich the local identity and cohesion within the community.

Climate action, Reconciliation, Diversity and Inclusion

- The urban village promotes establishing a compact and mixed-use community that provides employment space, community services, public transit, and daily commercial necessities within a walkable community. Focusing on public and private site design and land stewardship that emphasizes urban cooling, sustainable infrastructure, and enhancing the resilience and health of natural ecosystems.

- A climate-friendly neighbourhood where everyone can thrive, equitable, and accessible to all community members. The development initiatives in the 22nd Street urban village also acknowledge the significance of local First Nations' traditional knowledge and ongoing stewardship in climate action decisions. Embracing Indigenous modes of understanding, the initiatives honour and celebrate the rich Coast Salish culture.

URBAN VILLAGE CENTER

The Urban Village Center serves as the primary entrance to the neighborhood.

Key Features:

•A welcoming space that signifies arrival into a vibrant neighborhood center, hosting gatherings, events, and recreational activities throughout the seasons.

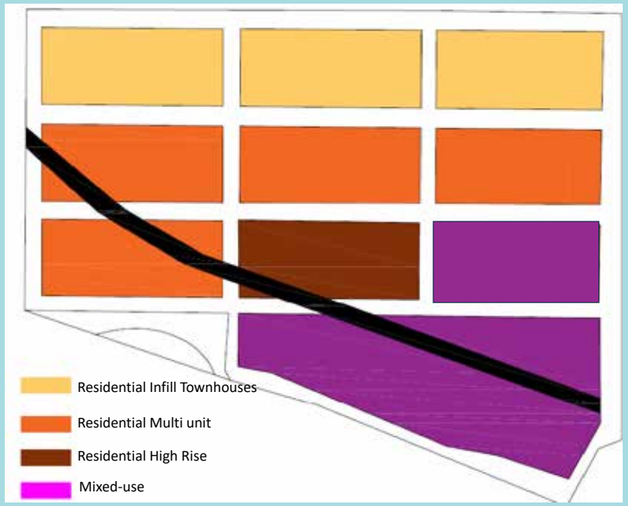
•Including expansive public pedestrian plazas, dynamic storefronts, commercial spaces, restaurants, cafes, and a significant mix of both market and on-market rental housing.

•Public plazas and multi-modal connections underscore transit connectivity, social interaction, and essential visual and physical links to the surrounding community.

•Sustainable placemaking involves the thoughtful design of spaces that promote social interaction and connectivity. It aims to ensure inclusivity and accessibility for all residents and uphold stewardship of the environment and the unique natural assets that define a community.

Land use designation	Built form
Mixed use	10-25 storey
Residential high rise	8-16 storey
Residential multi unit	3-4 storey
Residential infill townhouses	2-3 storey

Land use proposal





Village center Plaza



Urban Village Center site plan



Urban Village Center



Mixed-use building and public plaza



3D Arial View for the urban village

Housing

22nd Street Urban Village contributes to both city-wide and local housing objectives through the following measures:
- Establish mixed-use and highrise developments. This ensures that a significant portion of the neighbourhood's market and non-market housing is situated in close proximity to rapid transit, local employment, and commercial facilities.
. Support the implementation of "missing middle" housing forms where appropriate. This includes housing options between single-family dwellings and apartments, such as ground-oriented townhouses , houseplexes, and other residential infill forms that support aging in place.

Neighborhood Node in Residential Areas (small – scale commercial stores)
Smaller-scale commercial enterprises within residential neighbourhoods often serve as focal points for local social interaction and community gatherings. These include cafes, smaller grocery stores, and retailers occupying spaces generally less than 186 m² (2,000 sq. ft.). These establishments are strategically positioned near prominent intersections within the residential neighbourhood.



Ground oriented fourplex



3D Arial view for Multi-housing units

Landscape and Water

- Green Network and Multi-modal Hubs:
The character areas of the urban village center are enhanced by an expansive "green" network comprising public plazas, green spaces and corridors. This network of public spaces showcases the natural and communal assets within the Urban Village. These hubs serve as focal points where transportation modes converge, including walking, cycling, and transit, creating vibrant and distinctive gathering places.

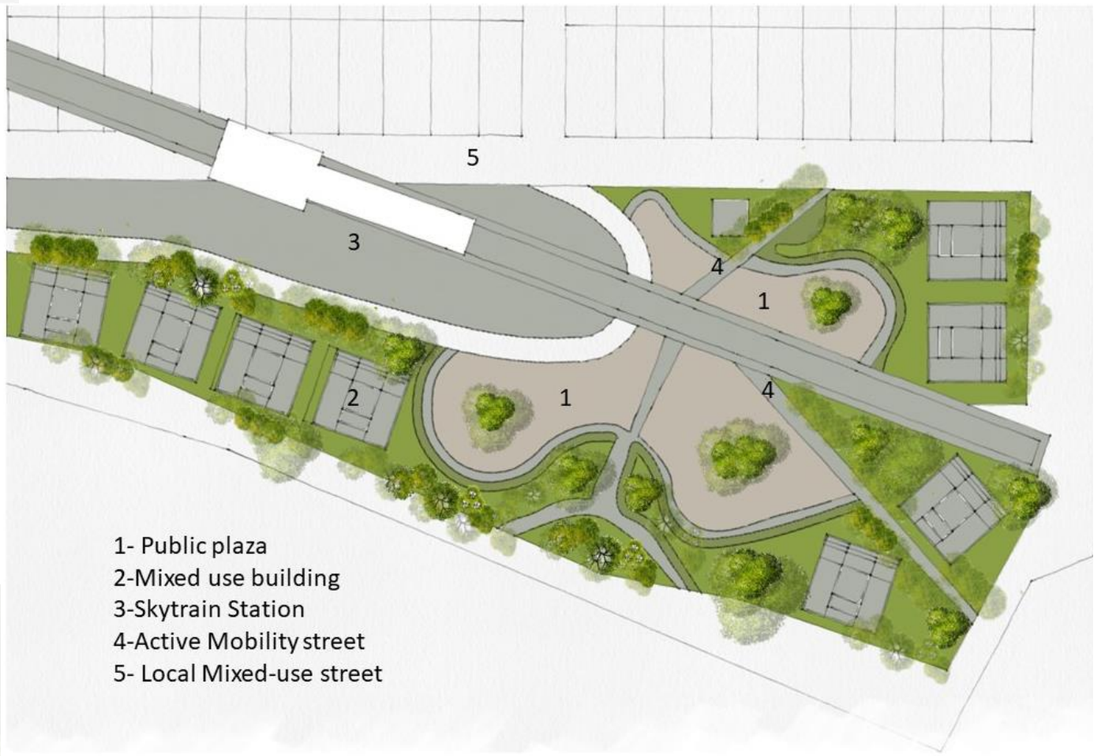
- Leverage the BC Hydro corridor to provide greenspace for the community.



Small-scale grocery store, Kitsilano, Vancouver



BC Hydro Corridor



Urban Village Center site plan

Rainwater Management

Effectively managing rainwater entails ensuring that its movement and collection do not adversely impact private and public property, natural water bodies and watercourses, ecosystems, and habitats. Rainwater management employs an approach to control, treat, and convey precipitation within the landscape, utilizing a combination of natural and constructed infrastructure**. The following tools can be used in the urban village in suitable areas:**

Absorbent Landscapes
To minimize runoff from impermeable surfaces, the goal is to establish absorbent landscapes capable of intercepting and retaining rainwater. This tool is suitable for medium/high density, commercial, mixed-use, parks and green space, and Local Streets.

Infiltration Swales
Refers to a shallow, grassed, or vegetated channel specifically crafted to capture, detain, and treat stormwater while facilitating the conveyance of larger flows. This system intercepts surface flows from nearby paved surfaces, retaining the water behind weirs and enabling infiltration through a soil bed into the underlying soils. This tool is suitable for medium/high density, commercial, mixed-use, parPrevious pavingks and green space, and Local/collector Street

Rain Gardens & Infiltration Bulges
An Infiltration Rain Garden is a bioretention facility combining aesthetic appeal and stormwater functionality. Typically designed as a concave landscaped area, these gardens allow runoff from roofs or paved surfaces to infiltrate into deep constructed soils and subsoils underneath. When subsoils exhibit low infiltration rates, Rain Gardens often incorporate a drain rock reservoir and a perforated drain system. This tool is suitable for medium/high density, commercial, mixed-use, parks and green space, and Local Streets.

Pervious Paving
Pervious paving refers to a surface layer that enables rainfall to seep into an underlying reservoir base. This base either facilitates the infiltration of rainfall into the underlying soils or directs it for removal through a subsurface drain. This tool is suitable for medium/high density, commercial, mixed-use, parks and green space, and Local/collector Streets

Rainwater harvesting
Rainwater harvesting involves collecting rainwater from roofs and storing it for non-potable uses.



Mid-rise adjacent to Lion station, Richmond



Hinge Park, Vancouver-multi modal hub



Absorbent landscapes



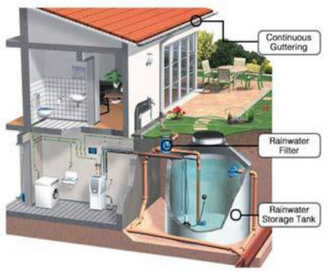
Infiltration swales



Rain gardens & infiltration bulges



Previous paving



Rainwater harvesting

Community Building

Developing the BC Hydro area as a green corridor aims to establish an exceptional environment where individuals can foster connections and envisioned as a vibrant community; it will be a harmonious space for both living and working, **supporting aging in place,** allowing residents to engage in recreational activities and community life **across generations and cultures. The green corridor includes :**

Community Gardens: beyond growing food

Through the expansion of local community gardeners and available garden spaces, families and individuals can cultivate fresh, healthy produce at minimal cost. This initiative also transforms underutilized areas into green spaces, bolsters local food security, fosters neighbourly connections, and promotes collaborative efforts to uplift the communities in which they reside.

Community Park

The Community park serve as gathering place where people from diverse backgrounds can come together and interact. To foster a sense of community by providing spaces for socializing, organizing events, and building relationships among residents. The park includes Kids playground to promote children's physical, cognitive, social, and emotional development, contributing to their overall health, well-being, and happiness



Kids playground



Concept for community garden, Halifax



Triangle Planter

Building's Energy and Waste

By implementing comprehensive building energy and waste strategies, communities can reduce their environmental impact, conserve resources, and create healthier and more sustainable built environments for current and future generations.
Strategies include:

Enhance energy efficiency in existing structures
Aging structures often suffer from compromised air sealing due to inefficient windows and doors, inadequate or absent wall insulation, and outdated furnaces and water-heating appliances. These issues collectively contribute to heightened energy demands and increased greenhouse gas emissions. This approach encourages homeowners, landlords, commercial property owners, and property managers to upgrade their buildings, aligning them with higher energy performance standards.

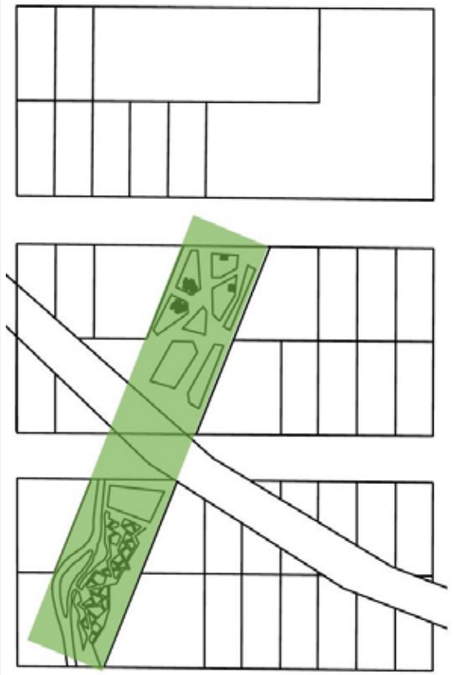
Construct the most energy-efficient new buildings
The city can promote elevated energy performance standards in recent developments. This approach not only lessens the overall demand for new energy supply but also diminishes the necessity for infrastructure replacement. The primary emphasis for new construction will be on multi-unit residential and mixed-use buildings. Consequently, the energy efficiency of new constructions is expected to surpass that of communities where anticipated growth predominantly revolves around single-family dwellings.

Promote renewable, sustainable, and local energy usage
Energy-powering buildings, primarily sourced from a blend of electricity (predominantly hydro) and natural gas, are the current norm. Advocating for adopting alternative energy systems in both new and existing buildings is crucial to diminishing the community's collective dependence on fossil fuel energy sources, particularly for heating purposes. Building-scale alternatives encompass solar panels for hot water, solar photovoltaic panels for electricity generation, and heat exchange systems utilizing the ground, air, or water for heating and hot water.
On a larger scale, such as groups of buildings or blocks, district energy systems offer a viable solution. These systems can provide heat and hot water by utilizing heat recovered from sewers, various available heat sources, or heat exchange systems. Developing these alternative energy systems at the individual building level or across larger groups of structures fosters heightened community resilience, especially when the energy is sourced locally.

Reduce waste production
The quantity of generated waste is intricately tied to the volume and nature of consumed goods and services. Cultivating heightened awareness is imperative to alter consumption patterns, and materials not conducive to reuse or recycling should be either eliminated or, at the very least, significantly reduced.

Utilizing renewable resources offers a pathway to sustainable development, environmental protection, and a resilient, equitable, and prosperous future for all. Renewable resources strategies include:

Solar Thermal: Solar hot water systems harness heat from sunlight through solar collectors, typically installed on rooftops. A fluid carries the collected heat, pumping it through a heat exchanger into a storage tank for subsequent use. In the New Westminster area, solar energy varies from a daily average of 1.4 kWh/m2/day in winter to 5.9 kWh/m2/day in summer, with an annual daily average of 3.7 kWh/m2/day. Given the relatively low electricity costs in British Columbia, solar thermal systems are generally more economically viable than photovoltaic systems. Assuming a 10% reduction in a building's greenhouse gas (GHG) emissions and a 2% increase in electricity consumption for each installation, the 2032 "Moderate" scenario anticipates a 10% adoption in existing buildings and a 15% adoption in new residential buildings, resulting in a 1% reduction in building GHG emissions from the business-as-usual (BAU) scenario.
Geo-exchange: Geo-exchange systems extract heat from the ground using heat pumps. While primarily installed in individual homes or buildings, larger systems serving multiple buildings are becoming more common. Soil type affects the cost and efficiency of the ground field, and alternative heat sources like groundwater or wastewater can also be utilized. Assuming a 70% reduction in building GHG emissions and a 50% increase in electricity consumption for each installation.
Sewer Heat Recovery: Raw sewage often contains significant latent heat, presenting opportunities to capture and utilize otherwise wasted energy. Larger sewer mains at strategic junctions may provide sufficient flow for energy capture infrastructure. Sewer heat recovery may be feasible in areas with increasing building densities, particularly around major sewer pipes (greater than 800 millimeters in diameter).
Photovoltaics: Solar panels, using photovoltaic cells, convert sunlight into electricity. Site selection considers insolation, or solar radiation power on a surface, accounting for seasonal variations, sun angle, atmospheric conditions, and cloud cover. Solar installations are often integrated into existing developed areas, such as rooftops, to reduce reliance on traditional power sources.



BC Hydro Corridor



Community Park site plan



Community Garden site plan



Renewable Resource



Community garden products

Mobility

Transportation Mobility Network diagrams offer insights into enhancing networks for pedestrians, cyclists, public transit, and vehicular movement over time. This coordinated strategy for future mobility network planning aims to foster a well-connected Urban Village, providing diverse travel mode choices.



Mobility network

Prioritizing Sustainable Transport "*The Transportation Hierarchy is a concept and approach that prioritizes walking, cycling and transit use over driving. It gives priority to the modes that tend to serve shorter local trips by walking and cycling over longer trips by transit and driving. It prioritizes the needs of the vulnerable users, with consideration for what is most equitable and sustainable for the community and its members.*"

Pedestrian Network

Establishing novel, more intimate connections that promote walkability, elevate the pedestrian experience, and facilitate comfortable on-foot access to all corners of the Urban Village.

Cycling network

Establishing cycling infrastructure involves creating secured and covered bike parking, bike repair stations, end-of-trip facilities, and additional amenities strategically placed at public locations.

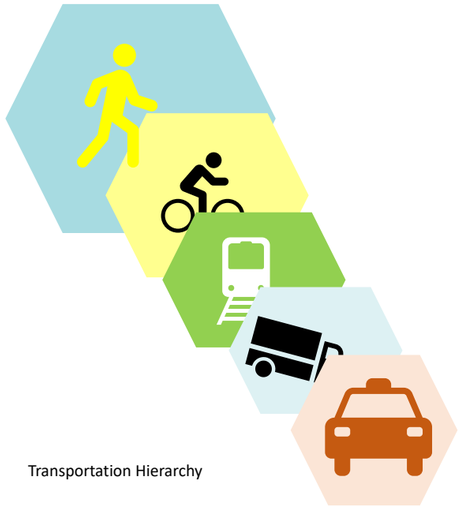
Streets



Active mobility streets represent a unique fusion of pathways designed to offer intimate, and lushly landscaped connections throughout the central Urban Village area, devoid of vehicular traffic. These routes encompass features such as mews, which resemble courtyard-style trails, linking to public spaces. This could be constructed at the center of the urban village.

Local neighbourhood streets are primarily positioned in the residential area, serving as unhurried yet crucial connections to busier thoroughfares and public spaces. Beyond their travel function, these streets also cater to various purposes, offering pedestrian seating, resting areas, and versatile and adaptable flexible zones. This could include Hamilton St, Eighth St, Edinburgh St, 21st St, and 22nd St.

Local mixed-use streets are strategically positioned in the Village Centre, directing individuals from bustling areas. The street leads people into a serene internal-facing public space while maintaining vibrancy through various commercial establishments and community amenities lining the street fronts. This could include Seventh Street.


Transportation Hierarchy


Defined pedestrian and cycling zones, in North Vancouver


Street with a place to sit and gather, UniverCity, Burnaby


Local mixed-use street, Metrotown, Burnaby


Local Neighbourhood street ,East Fraser Lands, Vancouver


Neo Bankside, London, England






Active mobility street
(Bainbridge ,Burnaby)

TREAD GREEN

BY JOYCE CARRERA, SARAH LETOURNEAU AND HANNA GRIMMINCK

In response to Westministers's call for action, Tread Green suggests an encompassing path system that caters to a more dynamic and sustainable community. This fluid path is incorporated along common commutes to connect green spaces and community landmarks. Integrating natural and city systems as one significantly improves both ecology and the pedestrian experience. Renewed public spaces provide greater opportunities for cultural exchange and community involvement. By reimagining existing city infrastructure, Tread Green responds to the challenges new development faces regarding climate change. Traditional techniques alongside technological innovations will generate renewable energy and decrease the urban impact on natural cycles.

Given the importance of respecting the traditional territory of the Halkomelem peoples, there must be a balanced relationship between treaty land and built forms. Our design is dedicated to creating equitable relationships as one moves throughout the city. This approach is necessary to merge the present conditions and future visions. To do so, the proposed development should take into account the impact of change in relation to those whom it affects most closely: the Westminister community.

Our plan reimagines 22nd Street Skytrain Station as the new heart of transportation for Connaught Heights. It will act as a convergent point for path and trail systems woven throughout the city. This renovation envisions a carbon-neutral station with wastewater retention and reuse, native plant reintegration, as well as cyclist storage and utilities. Additionally, street furnishings such as living willow bus stops and red cedar-inspired street lights will reflect Westminister's natural character.

Inspired by Indigenous forms of architecture, the new Skytrain station aims to promote public transport, green infrastructure, and communal gathering, making this amenity more than just a transitional space but an important fixture within city life. A major feature throughout high-traffic paths in and around the train station is The Pavegen Tile Technology. These tiles convert the kinetic energy from footsteps into electrical energy that can be stored in batteries and used to power the city. This will create a more energy-efficient and interactive community.

In order to address the needs of walkable streetscapes we implement multiple elements to improve the pedestrian experience. Firstly, there is the introduction of Silva Cell, a modular pavement system along urban streetscapes that uses soil volumes to support large tree growth. Additionally, the incorporation of a bioswale system will enhance water quality and mitigate flooding on city streets. Applying an impressive selection of native plants will also promote environmental cohesion across communities; encouraging locals to build a relationship with their natural surroundings.

The introduction of these adaptations will humanize the pedestrian experience by producing an overhead shade canopy and creating a buffer between pedestrians and vehicular traffic. This development is fueled by the belief that decolonizing our spaces from both a socioeconomic and ecological standpoint creates a more connected and sustainable city. Within the example of converting an underutilized space into a bridged park, our design facilitates further integration of local biodiversity and marginalized communities within the city. The proposed parks do not only function as wildlife corridors but provide opportunities for greater community outreach and involvement.
Parks and shared public spaces play important roles as meeting points for diverse communities facilitating cultural exchanges.

By implementing welcoming and abundant public space, our design creates accessible areas for varying demographics to learn, play, and move within the neighborhood. Within the development of this green pathway, the voices of local Indigenous communities will be of priority. Together we contribute to a greener future, one step at a time.

THE ROUTE TO CONNECTING THE COMMUNITY



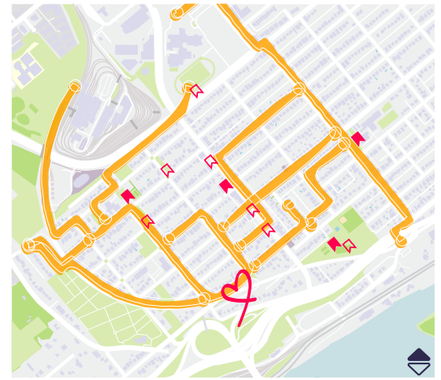
THE BIG IDEA

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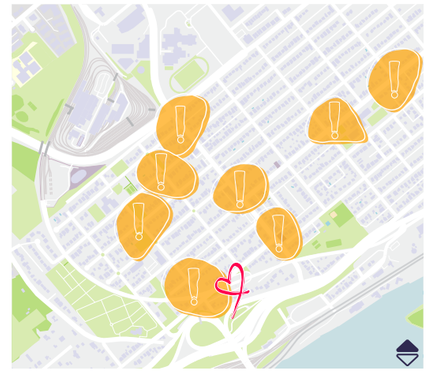
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COMMUNITY VOICE



HIGHLIGHTING WESTMINISTER'S FAVOURITE PLACES

- PEDESTRIAN MOVEMENT
- CURRENT FAVOURITE AREAS
- SPECIAL AREAS TO ENHANCE
- 22nd STREET SKYTRAIN STATION



ADRESSING WESTMINISTER'S PEDESTRIAN NEEDS

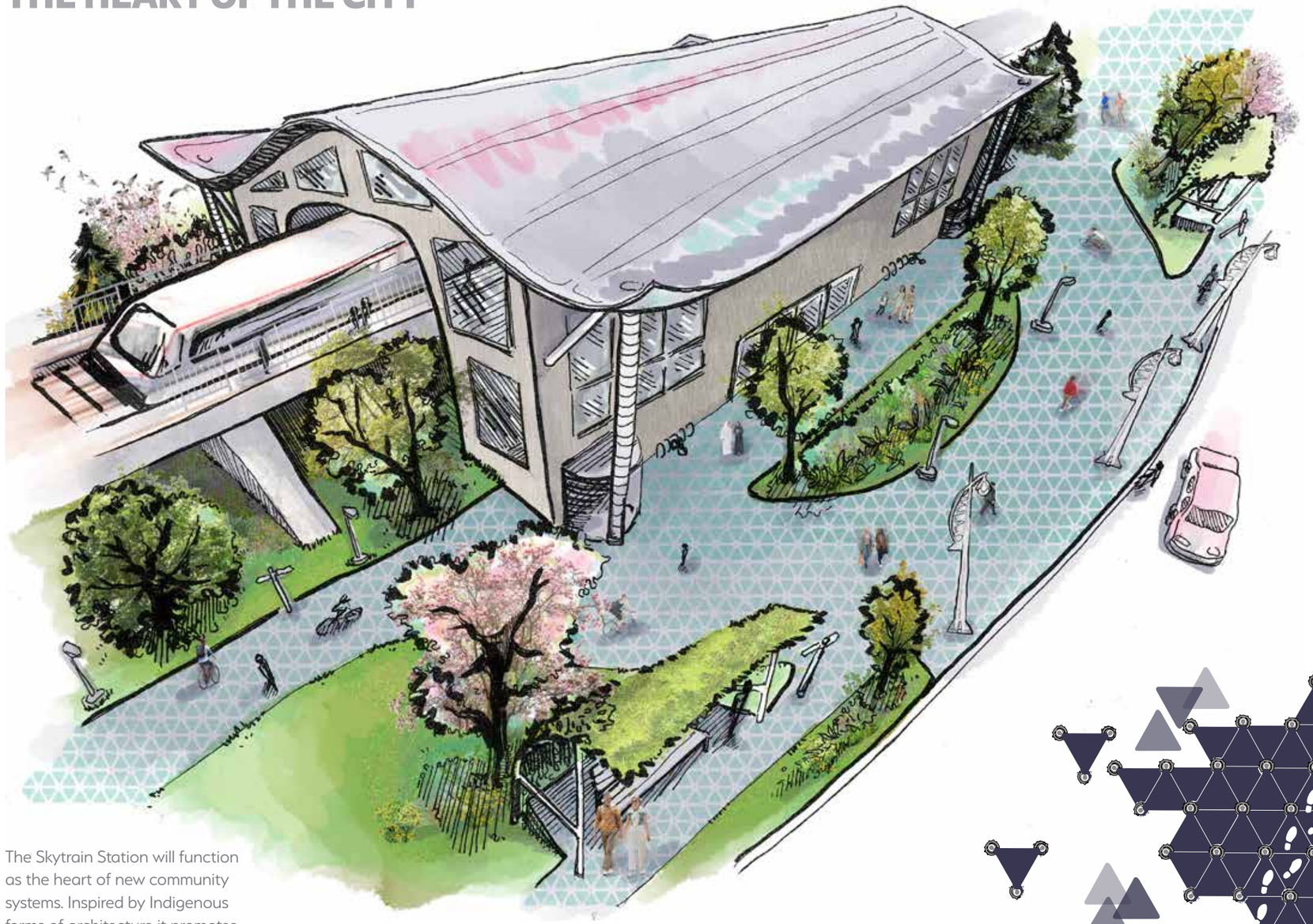
- AREAS OF CONCERN
- 22nd STREET SKYTRAIN STATION



INFILTRATE. INTEGRATE. reGENERATE.

TREAD GREEN

THE HEART OF THE CITY

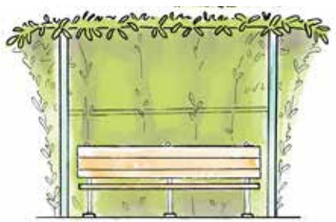


The Skytrain Station will function as the heart of new community systems. Inspired by Indigenous forms of architecture it promotes public transport, green infrastructure, and communal gathering.

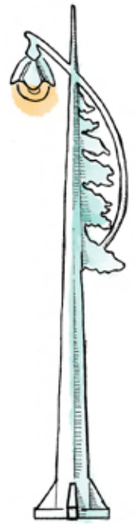


Westminister's natural character will be reflected in the street furnishing along the proposed paths. It's all in the details.

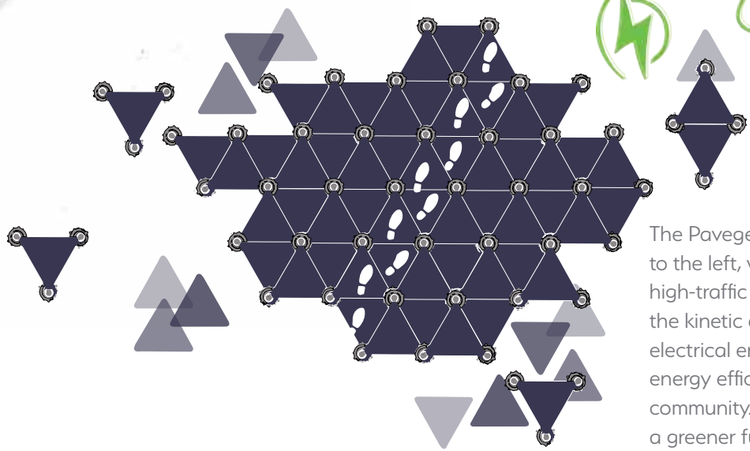
LIVING WILLOW BUS SHELTER SECTION



LIVING WILLOW BUS SHELTER SECTION



RED CEDAR LAMPOST TYPOLOGY



The Pavegen Tile Technology shown to the left, will be integrated into all high-traffic paths. These tiles convert the kinetic energy of footsteps into electrical energy. This will create a more energy efficient and interactive community. Together we contribute to a greener future, one step at a time.



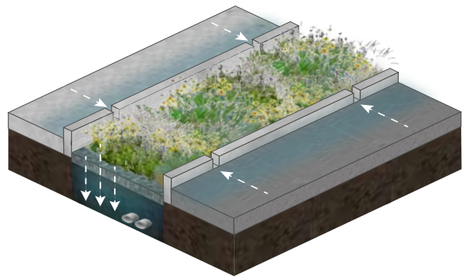
TREAD GREEN

GREENING 20th STREET

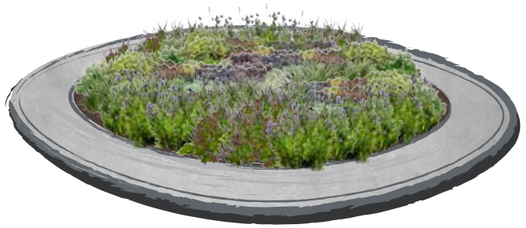




The introduction of Silva Cell, a modular pavement system along urban streetscapes that uses soil volumes to support large tree growth. The introduction of this technology will humanize the pedestrian experience.

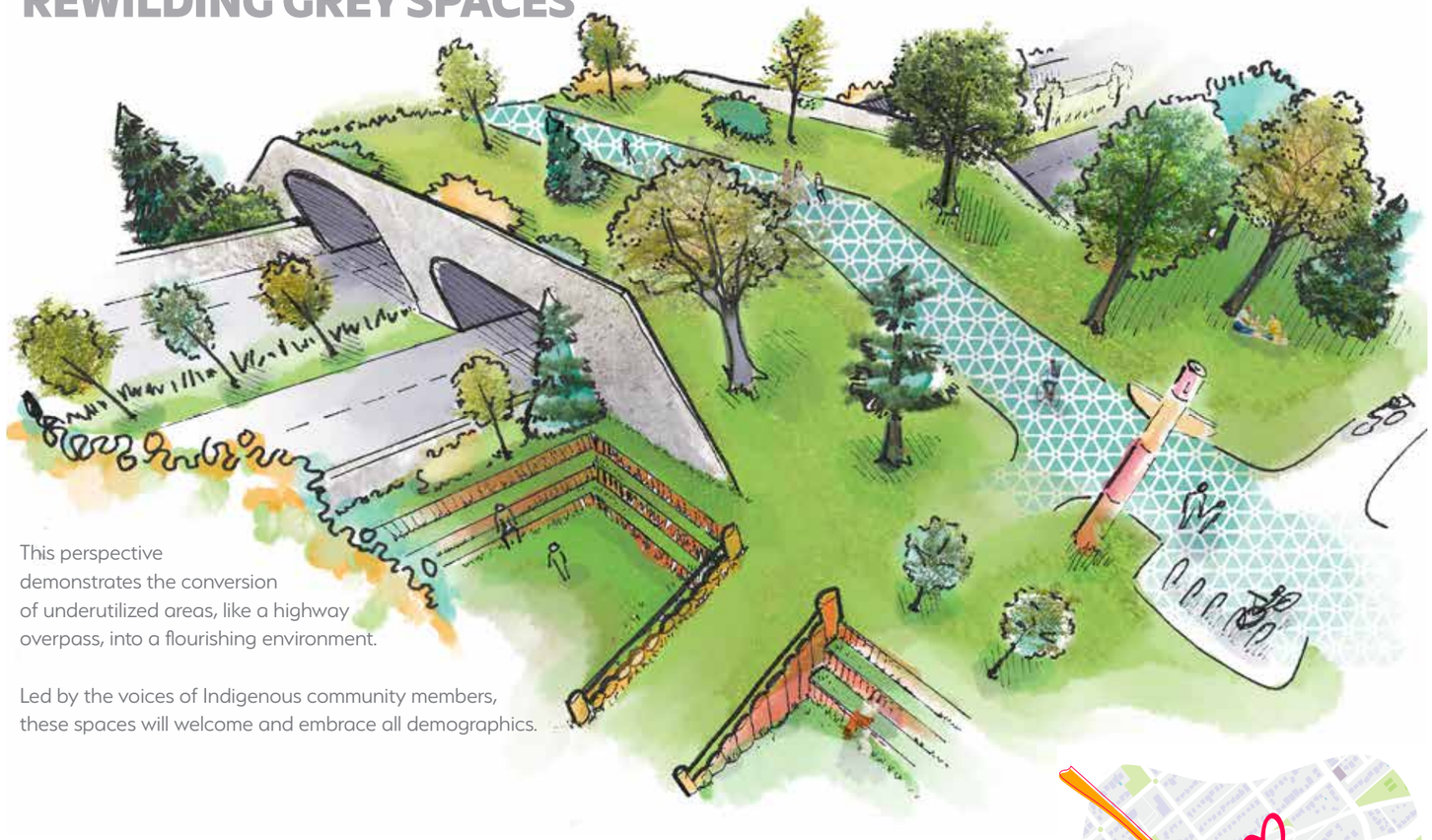


Creating a buffer between pedestrians and vehicular traffic, a bioswale system enhances water quality and mitigates flooding on city streets



Planted roundabouts increase water retention and native biodiversity within the neighbourhood.

REWILDING GREY SPACES



This perspective demonstrates the conversion of underutilized areas, like a highway overpass, into a flourishing environment.

Led by the voices of Indigenous community members, these spaces will welcome and embrace all demographics.



An impressive selection of native plants promotes environmental cohesion across communities; encouraging locals to build a relationship with their natural surroundings.





TREAD GREEN

CONNAUGHT ON FOOT: A NEIGHBOURHOOD REDESIGN

BY ANDREW MARUMOTO AND RORY LABELLE

Picture yourself entering into the Connaught Heights Neighbourhood off of 8th Ave, 20th Street, or 22nd Street Station. Immediately you are met with streets with little to no street trees; tight or little to no sidewalks; few community gathering spaces; and a lack of diversity in housing. Due to the design of the Connaught Heights street network, the neighborhood is perceived as unwalkable and one that leads to a reliance on a personal car for travel. Now what if the neighborhood were reGENERATED to be a pedestrianized, inclusive, diverse, and equitable, climate-friendly neighborhood that relies on public transportation rather than cars?

The Big Idea
The approach of the Connaught on Foot project is to redesign the existing streets to support communities and diversity, take advantage of green spaces, and introduce a variety of building and housing typologies. To design a street network for communities, a number of streets have been designated for pedestrian and cyclist use only while the bordering streets allow for access into the proposed housing and multi-use developments. This encourages the community to use the public transportation methods available and reduce their reliance on cars. This then creates a more sustainable neighbourhood with a lower carbon footprint. The proposed pedestrianized street network acts as one large park network throughout the neighbourhood that takes advantage of existing open spaces and creates new ones to introduce more greenspace for people to enjoy. It connects the station to the elementary school and 20th Street to the BC Parkway. The use of open greenspace, planters, and bioswales creates an opportunity for water to infiltrate into the soil and diverts water to storage as a sustainable way to manage rainwater runoff. This prevents urban sediment from depositing in the Fraser River. With a lack of diverse housing and minimal commercial opportunities, the redesign proposes a variety of building and housing types. Mixing more commercial, mixed-use mid-rise buildings, and townhouse complexes, with some of the existing single detached family homes allows for increased density and diversity in the area.

Streets
By designing streets for communities the street network from 20th Street to 23rd street along Edinburgh Street to 7th Avenue is treated as one large open park space. Elements that are typically seen in a park have been brought onto the street and broken down into three categories: play, community, and green space, under which all respond to the idea of diverse, inclusive, and climate-friendly communities. Play elements, such as sports courts and a playground have been placed between the multi-use mid-rise buildings to provide eyes on the street which improves public safety and allows for parents and children to gather in the core of the community.

With equitable, diverse, and inclusive communities in mind, elements such as community gathering spaces, plazas, and food options have been scattered throughout the core area. This creates a central node where commercial, community, and residential spaces are brought together. A variety of food options from patios, a community dining space, food trucks, and a farmers market have been placed along 8th Ave and Hamilton Street. This allows for people from diverse cultural backgrounds to converse and bond as food is an integral part of culture and community.

To draw people into the site, a large open green space expands from 22nd Street Station, to the core of the site. With the addition of improved greenspaces throughout the design, additional trees have been incorporated into the street network to reduce the Urban Heat Island Effect and blend the surrounding buildings into the street network. A community garden has been incorporated into the street-scape to create a gathering space and to provide food security to residents in need.

Buildings
The increase of housing variety and commercial buildings were added in order to promote equity, diversity and community. Having an assortment of housing types including four storey mixed use buildings with apartments and two storey townhouses are used to create a greater diversity in income. The apartments have been placed near the SkyTrain Station for people of lower income to have easier access to public transportation and are mid-rise to maintain a human scale and view of the Fraser River. The townhouse complexes are used to blend the mixed use buildings into the existing single-detached lots while providing small community spaces with the use of compact housing layouts and small parks spaces. Lastly, increasing commercial zoning draws people outside creating a livelier street network and promotes equal access to basic necessities within walking distance.

Greenspace
The use of green spaces including; street trees, planting beds, bioswales, and park spaces is designed to create a dense urban forest system in the area. This addition of natural elements encourages people to venture out into the street network and spend time in the community spaces while promoting cleaner air in the urban center. Having green elements throughout the street provides equal opportunity for people in the neighbourhood to experience the benefits of nature as spending time in nature improves a communities' health and wellbeing.

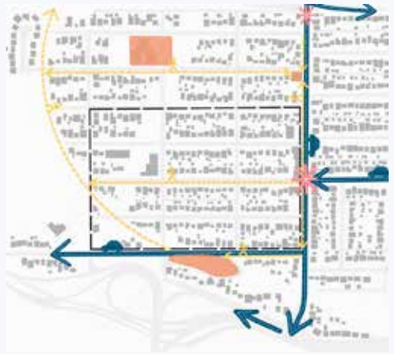
Truth & Reconciliation
By addressing the topic of Truth and Reconciliation, The QayQayt and Halkomelem speaking first peoples MUST be consulted for the material palette and overall design of the project. The central plaza is to be designed by Indigenous designers to how they see fit and must represent the Indigenous community. The site must also incorporate Indigenous environmental planting practices, have a planting palette of native species, and must include plant material that is of cultural significance to the Indigenous community.

The Goal
Imagine what Connaught Heights would look like if it truly were designed around people and not the car. The Connaught on Foot Project seeks to answer that question of a car-less neighbourhood through the redesigned street networks, new built typologies, and by the addition of green space. The twelve block redesign serves as a model that can be expanded to build an equitable, diverse, and inclusive climate-friendly community with truth and reconciliation in mind.

CONNAUGHT ON FOOT

ANALYSIS

STREET NETWORK ANALYSIS



LEGEND

- VEHICULAR TRAFFIC
- PEDESTRIAN TRAFFIC
- PEDESTRAIN DESTINATION AREAS
- VEHICULAR CONFLICT AREAS

HOUSING DIVERSITY ANALYSIS



LEGEND

- SINGLE DETACHED HOUSES

CONCEPT

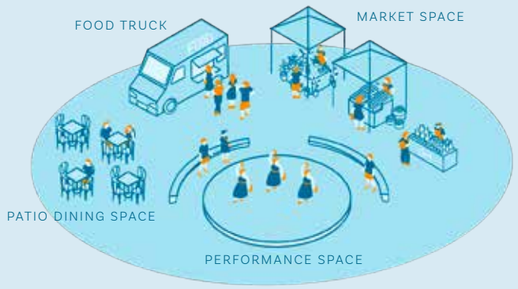
As we move towards 2030, we reach closer to the point of no-return with climate change, but what can we do to combat climate change? Must we adapt or do we mitigate? As a community, we must mitigate the effects of climate change by reGENERATing our cities and neighbourhoods to be designed around people rather than the car. According to the Government of Canada, transportation is the leading producer of greenhouse gas emissions in British Columbia and accounts for 38% of the total emissions the province produces. What would our neighbourhoods look like if cars were completely taken off the streets and if the streetscape was designed for pedestrians and cyclists and only them.

As Connaught Heights is adjacent to 22nd St Station, it provides a unique opportunity to guide people to use more sustainable transportation methods; however, the current infrastructure, including the uninviting streets, lack of housing diversity, and vacant lots, do not support this goal. Roughly three quarters of the local residents rely on personal vehicles as a form of transportation to work; therefore, the neighbourhood needs to be redesigned to decrease the amount of cars on the road and promote the use of public transit as a means of transportation.

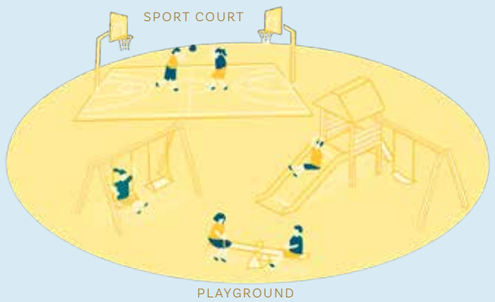
The Connaught on Foot project answers the question “What would our streets look like if they were truly designed for inclusive, diverse, equitable, climate-friendly communities?” It proposes a redesigned street network that takes cars off the roads and instead places community, play, and green spaces on the streets.

PROGRAMMING

COMMUNITY



PLAY



GREENSPACE



ISOMETRIC STREET VIEW



STREETS AS PARK SPACES

To promote a diverse, inclusive and equitable climate-friendly community, the Connaught on Foot project incorporates the elements of community, play, and greenspaces that are typically seen in a park out onto the open street network. Community focused spaces including market spaces, food trucks, patio dining spaces, and plazas, are added to create the opportunity for people to come together. Play elements including sport courts and playgrounds are included to create liveliness and support an active community. Green spaces including street trees, planting beds, bioswales, community gardens, and park spaces are designed to create a dense urban forest system in the area. These elements create opportunities to clean the air and manage water in a more eco-friendly way while allowing all community members to enjoy the benefits of spending time with nature. By taking cars off the street, it leaves space for communities to gather and converge on the streetscape, creating a vibrant and lively community space that supports people while mitigating climate-change.

PLAN



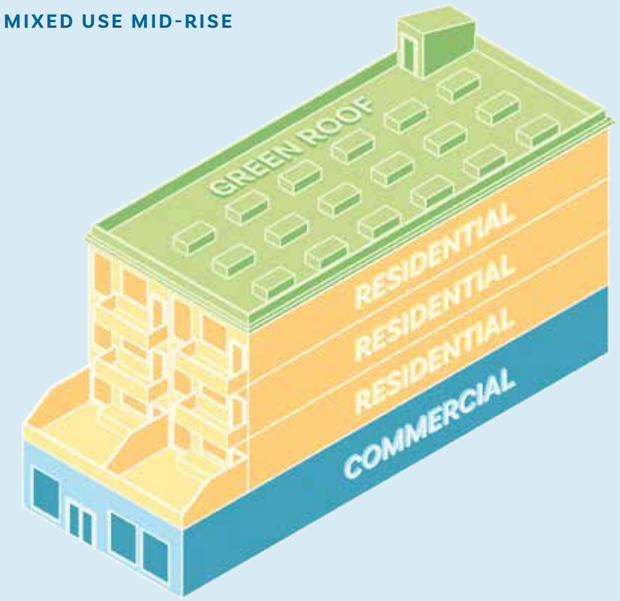
CREATING A DIVERSE COMMUNITY

By introducing a variety of housing and building types, the community welcomes people with differences in income rather than creating a single community that only supports residents within a certain income demographic. The Connaught on Foot Project proposes multi-use mid-rise buildings, new commercial buildings, and townhomes along with a portion of the existing single-detached homes in the neighbourhood. The design features mid-rise mixed-use commercial and residential buildings, just high enough to maintain an inviting human scale in the neighbourhood and the view out to the Fraser River.

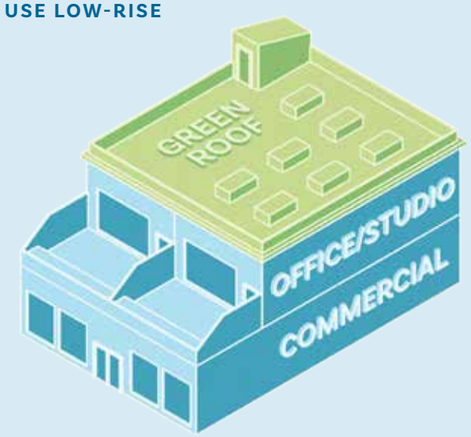
Low-rise mixed-use buildings with commercial, studio and office spaces are incorporated to create a lively, and walkable neighbourhood with all necessities within a 10 minute walking distance. Lastly, a series of townhouse complexes border the north end of the site to increase density and create a smooth transition of buildings back into the existing single detached homes. The compact housing layout and small parks of the townhouse complexes also provide small community spaces. This system of new housing types creates one unified neighbourhood that supports an inclusive, diverse, and equitable climate-friendly community.

BUILDING TYPOLOGIES

MIXED USE MID-RISE



MIXED USE LOW-RISE



TOWNHOUSE



22ND STREET STATION: A CLIMATE-RESILIENT COMMUNITY

BY JASMEEN KAUR SIDHU, SHEREE EMMANUEL, HANA AMBURY AND STEPHANIE GRONDIN

The New Westminster's Climate-Resilient Development Permit Area (DPA) proposal uses a policy-based approach to reimagine the 22nd Street Station Area. This proposal aims to reshape DPAs, leveraging them as a dynamic tool to guide and influence new climate-resilient developments. The intended impact is to build neighbourhood-level climate resilience, ensuring New Westminster's communities adapt to the challenges of changing climates.

Our approach includes piloting a Climate-Resilient DPA around the 22nd Street Station, allowing the City of New Westminster to set the stage for a groundbreaking policy approach that could extend to other station areas and surrounding neighbourhoods.This proposal aligns seamlessly with the new Transit-Oriented Development (TOD) legislation introduced by the B.C. Provincial Government.

By focusing on buildings, green infrastructure, mobility and transit infrastructure, and Indigenous partnership and sovereignty, our proposal aims to address future local, relevant, and observable impacts of climate change on community members. The need for such a policy is underscored by the imperative to address the City of New Westminster's foundational values of climate action, truth and reconciliation, and equity, diversity, and inclusion. Rooted in best practices, the innovative aspects of this approach lie in its climate-resilient development practices, as the DPA works to proactively target the reduction of the urban heat island effect and promote biodiversity and nature-based climate solutions. The envisioned climate-friendly building design for the New Westminster 22nd Street Station Area involves the construction of a diverse array of mixed-use buildings.

This strategy aims to create a vibrant urban landscape while maintaining the heritage and character of the existing neighbourhoods. The proposal prioritizes existing population groups through climate-friendly building retrofits and enhanced neighbourhood services and employment opportunities to ensure that community members are not displaced and equitable benefits from the DPA are actualized.

As well, the proposal centres on sustainable transportation infrastructure and micro-mobility, prioritizing sustainability, accessibility, and the overall well-being of the community. Further, in our proposal, we believe that it is imperative to be guided by reconciliation. By empowering Indigenous-led development within the DPA, Indigenous sovereignty and climate equity efforts are advanced, contributing to a more just urban landscape.

The feasibility of this approach is supported by the Local Government Act of British Columbia, which empowers local governments to designate DPAs where special regulations apply to the design and construction of buildings and communities. This legislative framework makes it not only possible but also within the jurisdiction of the City of New Westminster to create new DPAs, providing a legal foundation for the implementation of the Climate-Resilient Development Permit Area policy. Our policy approach expands upon the existing dimensions included in DPAs in order to advance climate-resilient developments that are equitable and just in the City of New Westminster.

22nd STREET STATION

A CLIMATE **RESILIENT** COMMUNITY

Land Acknowledgement

We recognize and respect that New Westminster is on the unceded and unsurrendered land of the Halkomelem speaking peoples. We acknowledge that colonialism has made invisible their histories and connections to the land.

THE IDEA

IMPLEMENTING A CLIMATE-RESILIENT DEVELOPMENT PERMIT AREA (DPA)

OUR PRINCIPLES

- Climate-Resilient Design
- Climate Equity & Community Well-Being
- Indigenous Partnership & Sovereignty
- Transit & Micromobility Promotion

OUR APPROACH

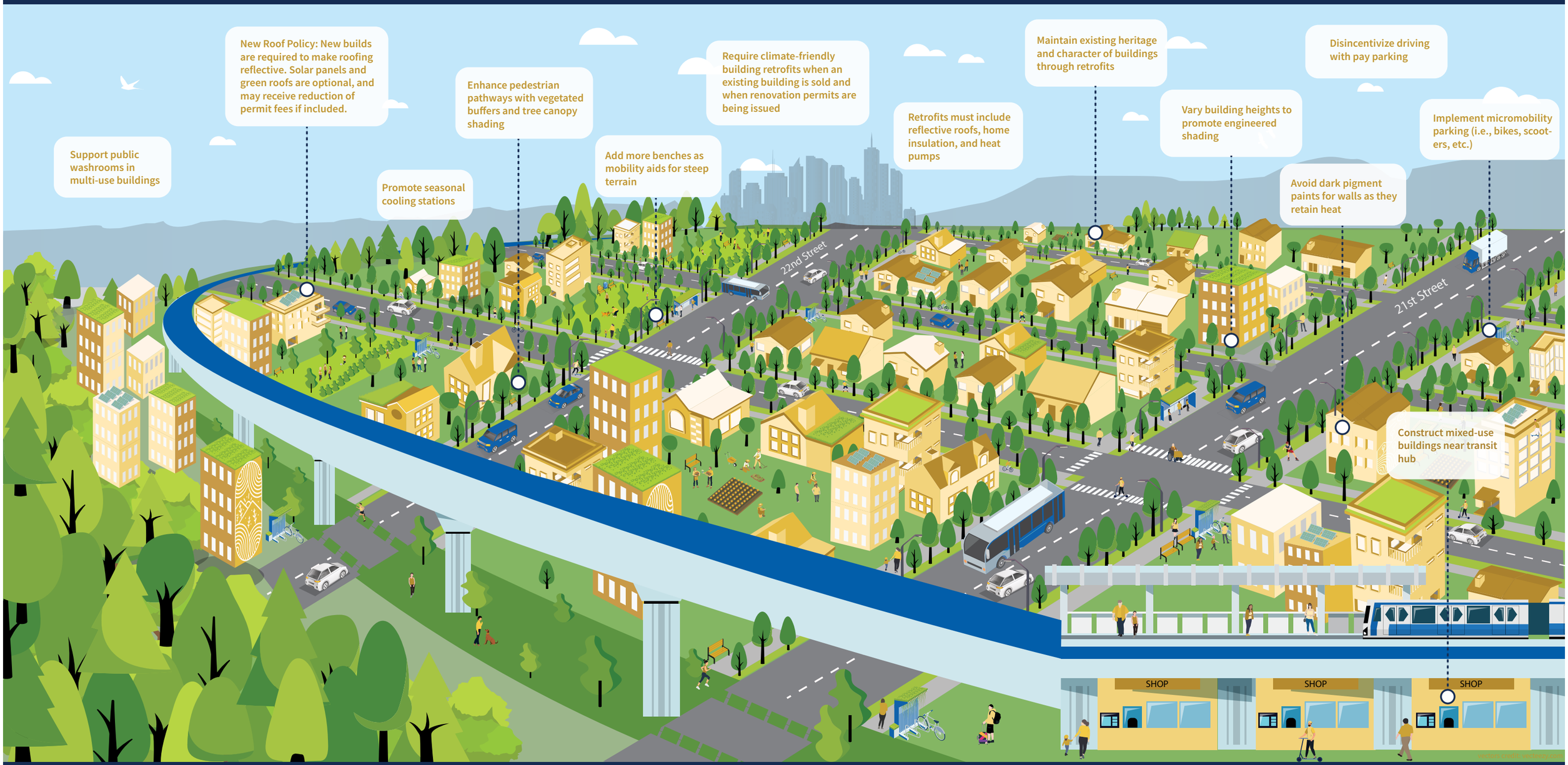
The City of New Westminster uses Development Permit Areas (DPAs) as a tool to guide and shape new development in the city's neighbourhoods. This reGENERATE ideas proposal focuses on modifying DPAs to be climate-resilient so that neighbourhoods can continue to thrive while adapting to changing climates. We envision the City piloting this *Climate-Resilient Development Permit Area* around the 22nd Street Station, with the opportunity to further apply to other station areas in the City.

Incorporating the new Transit-Oriented Development (TOD) legislation put forth by the B.C. Provincial Government, we are proposing climate-friendly elements to include in the DPA. These elements focus on climate-resilient development practices to reduce the urban heat island effect, bolster biodiversity and the environment, and promote the use of sustainable movement with public transit and micro-mobility.

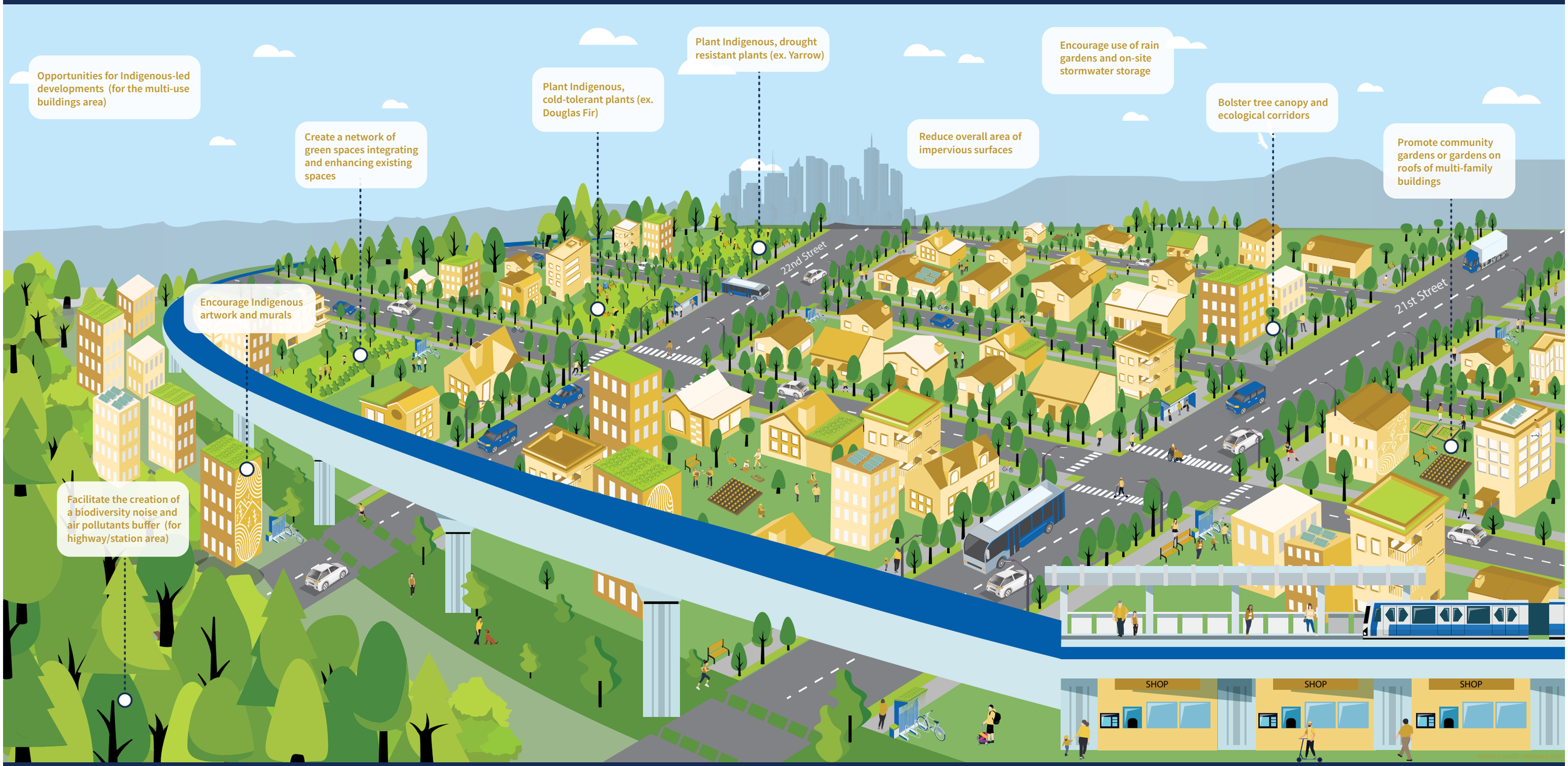
This approach utilizes an equity lens by centering existing population groups with climate-friendly building retrofits and increasing neighbourhood services and employment to ensure those who live in the community can remain, while maintaining a priority on climate resilience. A truth and reconciliation approach is also taken through encouraging Indigenous-led development in the DPA to advance Indigenous sovereignty and climate equity efforts at the City of New Westminster.

Our proposal incorporates visuals of maps and station hub designs to showcase the components of the climate-friendly development permit in practice, breaking down climate-smart practices through building enhancements, greening landscaping, and mobility infrastructure. Further details of the *Climate-Resilient Development Permit Area* policy is laid out in the final page.

Becoming a Climate Resilient Community



Becoming a Climate Resilient Community



NEW WESTMINSTER'S CLIMATE-RESILIENT DEVELOPMENT PERMIT AREA (DPA)



BUILDINGS

Building Form and Character

- Construct a variety of new mixed-use buildings around station area.
- Maintain heritage and character of existing neighbourhoods by promoting climate friendly retrofits.
- Ensure building design allows sunlight in winter and provides shading in summer. It is encouraged that building heights be varied to produce engineered shade and reduce the urban heat island effect.

Building Materials

- Select building materials that are climate resilient and durable to the hazards present in New Westminster (extreme heat and cold, flooding, drought, air pollution and smoke).
- When installing new roofing, reflective roofs are required. Solar panels and green roofs are encouraged, and may receive an expedited permit process and a reduction of permit fees if included.
- When existing buildings are being retrofitted, roofs must be painted to be reflective.

GREEN INFRASTRUCTURE & NATURE-BASED SOLUTIONS

Landscaping

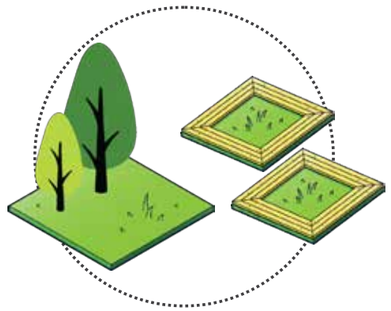
- Require that drought resistant and cold-tolerant native plant species be used for planting in residential and commercial landscaping.
- The planting of trees along residential street frontages and new developments is required to reach 27% canopy cover goal.

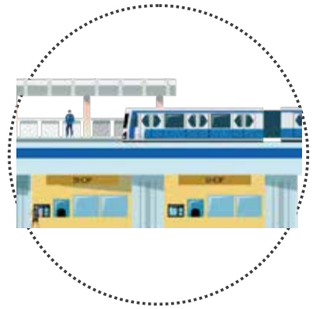
Stormwater Management

- Encourage use of rain gardens, on-site stormwater storage and vegetated filter strips.
- Reduce the overall area of impervious surfaces.

Green Areas

- Promote connectivity of existing and new green spaces with trees and vegetation to create ecological corridors.
- Encourage the development of community and rooftop gardens in DPA.
- Development nearby highway and station area to plant trees to create a biodiversity buffer for noise and air pollutants.





MOBILITY & TRANSIT INFRASTRUCTURE

Transit Hub

- Add seasonal cooling (misting) stations for extreme heat days.
- Multi-use buildings must provide clean and functional public washrooms.

Mobility

- Add public benches on sidewalks to promote accessibility and mobility on steep terrain.
- Enhance pedestrian pathways through vegetated buffers and tree canopy shading.
- Implement micromobility parking (for bikes, scooters, etc.) to provide storage options.

Streetscape and Parking

- Add permeable pavements on low-traffic roads, allowing water to move through and percolate into the soil.
- Implement a 1 to 5 ratio of trees to surface parking spaces.
- Add pay parking in commercial areas to disincentivize driving and increase higher turnover of customers.
- Add safe and secure micromobility parking at SkyTrain Station and commercial areas.

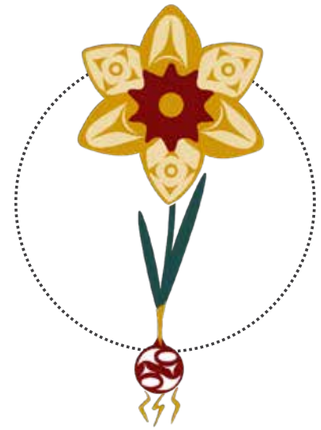
INDIGENOUS SOVEREIGNTY & RECONCILIATION

Developments

- Opportunities for Indigenous-led developments in the station area should be prioritized through potential partnerships and land-back.

Public Art

- Indigenous art is encouraged in new developments. Specifically, artwork that showcases the history, cultural, and the natural environment of New Westminster is supported.



New Westminister's Year of Truth
Artist: Christina Coolidge

Image Credits: Canva Graphics
vecteezy.com

PEOPLE CENTERED SPACES FOR A THRIVING COMMUNITY

BY ALEXANDRA ANGHEL, SIMONA LENGHEL AND ALEXANDRA POP-ARAD

Our proposal regards the entire neighborhood and addresses several points raised by the residents and municipality: the need for more outdoor spaces for various activities, the need for a more active shopping street, and better usage of existing facilities, while supporting the neighborhood to become more sustainable.

We engaged with several parts of the neighborhood, starting from a small intervention with a coffee kiosk at the Station, going north along the BC Hydro right-of-way green spaces where we introduced several temporary and mobile community spaces, and finally concluding with a community plaza along 20th Street, around one of the identified hearts of the neighborhood - Aunt Leah's Place. Our proposed strategy partly includes two nearby parking lots, marked on our boards, which seem to not be generally used to capacity. A percentage to be calculated based on maximum daily use can be dedicated to other activities. The main aims of this intervention are (1) the beautification of 20th Street in order to attract more businesses, (2) creating a social community space in an area deemed useful by the residents, and (3) attracting more footfall for current and future businesses, with an eye on environmentally friendly mobility, and (4) introducing sustainability oriented green spaces through the expansion the already present ones. As closely as possible, we have followed the submission criteria and tried to respect the values expressed in the call brief. While we are not proposing any technological innovation, we have looked for sustainable materials and modalities to create spaces for a thriving community. We hope the open, environmentally friendly, and engaging spaces will inspire the community to bring innovation from within. Rainwater management strategies that suit the soil and infrastructure should be used whenever possible, and we propose them for the area behind 20th Street.

While drawing inspiration from various areas we have visited or lived in, we have been respectful towards the local population and history. The community engagement and questionnaire revealed the community's need for indoor and outdoor community gathering and recreation spaces, which have been our focus. Most of the objects and procedures proposed are temporary and reusable, and as such a good medium-term investment. Water management interventions can be costly, but are a feasible and sustainability-wise important investment for the city. There are various cost-effective options, one of them also represented in our project.

We address the values of Diversity, Equity and Inclusion through an open and welcoming space, where people of various abilities, origins and interests can come together and participate in creating a greener neighborhood. This is done in a practical hands-on approach in the green area under the BC Hydro and can take different forms in the spaces offered by the greenhouses and behind 20th Street. We want to include Indigenous cultures and nations in the process of transformation, by outsourcing the design, delivery and governance of the spaces or offering the canvas of the walls behind 20th Street and the pavement treatment of pedestrianized streets.

The overarching value of our proposal is that of Climate Action. We touch on it through better use of the BC Hydro area, providing sustainable food for volunteer gardeners, an improved habitat for local biodiversity, and planting local vegetation. Furthermore, we propose an increase in CO_2-absorbing and rainwater management green spaces, through green roofs where the building structure allows and by introducing more pervious green spaces in parking lots and on streets. The latter has a twofold impact: bringing additional vegetation and reducing automobile traffic. In cities around the world, there has been pushback against the removal of parking lots, but previous placemaking activities involving the replacement of parking spaces with community spaces show an increase in pedestrian numbers. A lower number of parking spaces usually leads to lower demand for them, as the opposite is true, where there is more car infrastructure there will be more demand. By giving the lots back to the community for alternative uses, we support New Westminster's goal for a climate-friendly neighborhood. Part of the cement of the lots can be redesigned in a water sensitive manner, thus collecting rainwater and supporting local flora and fauna, as well as CO_2 retention, and safeguarding underground water reservoirs.

Our approach has community at its core. By giving safe, diverse spaces for conviviality we support growth and innovation from within. We cannot claim to understand the deep-rooted need for reconciliation considering general and site-specific or personal histories, but we believe the spaces we propose invite inclusivity and thriving. Our proposal draws inspiration from the Power of 10+, a placemaking concept which has demonstrated that considering human experience when building a city's neighborhoods and districts can have immediate, widespread and long-term impacts. The concept is built on the idea that places thrive when people have a range of reasons to be there, by promoting and facilitating activities that reflect the culture and history of the surrounding community, ideally layered to create synergy. We believe this type of locally-driven placemaking can lead to neighborhoods that are better equipped for resilience and innovation and promotes an inclusive, equitable and distributive ownership and use of city spaces, which aligns with the City of New Westminster's challenge goal.

People centered spaces for a thriving community



Our proposed strategy for the neighbourhood focuses on the area between 22nd Street Station, the green open spaces of BC Hydro right of way and 20th Street.



Community gardens

Spaces for gardening and community events
Photo: Ana Lisa @ Inhabitat, Berlin's organic mobile, urban agriculture Prinzessinnengarten, Germany



Shared streets

Temporary seating and planters to improve public space and encourage social interactions
Photo: Sant Antoni superblock in Barcelona, Spain by © DEL RIO BANI



Coffee and snack kiosk

Where commuters and travelers can grab a bite on their way to the station or while waiting. It also promotes the feeling of safety through an 'eyes on the street' approach.
Photo by Chaitawat Boonjubun



Street art at Aunt Leah's

Murals created with local artists that represent the community and the importance of Aunt Leah's for the neighborhood.
Above is an example of a community mural from Cincinnati, USA.



Mobility, Access and Infrastructure. Shared street



Landscape and Water



Community Connections and Belonging

Our proposal addresses three reGenerate values: Mobility, Access and Infrastructure. Shared street, Landscape and Water, Community Connections and Belonging. In each of the next boards one specific area of the neighborhood will be reimagined, with care for these values.

On the map the three main aspects of our proposal are highlighted: shared streets to improve safety and mobility, changed use of empty green spaces, and improved shared use of parking lots and other public spaces.

The focus is in providing a better, sustainable, and easily adaptable infrastructure for future projects proposed and implemented by and for residents. Re-greening spaces, slowing down traffic in residential areas, and most importantly, providing outdoor and protected community spaces for recreation and gathering.

Proposed shared streets

Proposed pedestrianised streets and new public space

Proposed community gardens and outdoor gathering space

Proposed community gardens with indoor gathering facilities in temporary greenhouse

Proposed reduction and shared use of existing parking spaces

20th Street neighbourhood plaza



A new neighbourhood plaza surrounding Aunt Leah's Place, reimagining existing infrastructure and facilities along 20th Street as shared community assets/spaces

The focus in this area is on creating outdoor community spaces for a number of activities to be decided by the community. Secondary purposes are re-greening, creating water capture green spaces around the parking lots and the streets, and supporting a reduction in car traffic by reducing parking spaces and closing down 8th Street on specific days.

In the marked space, we are proposing a neighbourhood plaza where Aunt Leah's, a space already identified by residents as significant, would be the center. In a pedestrian area of approximately 763 square meters, we propose an outdoor cafe, with monthly activities such as fairs, a pop-up playground and an adjacent sitting area unrelated to the cafe, to promote sociality without the obligation of consumption. The objects and interventions on the shared street and shared parking lot are temporary, while the cafè and seating area behind the commercial spaces can be permanent. The space also allows for vertical planters.

We propose to offer the wall space between Edinburgh Str and 8th Str, behind the commercial space and in front of private houses, as an open canvas to local artists, who in collaboration with residents can create a community mural. Setting up a seating area can create the opportunity for existing businesses to present their offer in a different way and open up new communication channels with their customers. If the structure allows and with consent of the owners, we also suggest biodiverse green roofs on the adjacent buildings.

A mixed-use approach is intended for the parking space in front of the commercial spaces between 820-826 on 20th Str., and those belonging to West End Medicine Centre and Ostomy Care and Supply. Understanding that there are moments where this parking space might be completely full, we propose minimal or temporary interventions, so that the space can be used during neighbourhood celebrations and fairs, yet still accessible for visitors of these spaces.



A new pedestrianised public space behind the commercial row on 20th Street, from Aunt Leah's Place to 8th Avenue. Permanent seating and planting is combined with temporary play infrastructure

Green spaces BC Hydro Right of Way



Hamilton Lane and surrounding green spaces - new community gardens and outdoor gathering place. Temporary planters, mobile greenhouse and seating spaces.

The residents of New Westminster expressed a desire for enhanced diversity of green spaces, availability of urban gardens and communal gathering areas for social interaction. Our proposal aims to enhance community cohesion and promote well-being and climate resilience while increasing biodiversity and stormwater management.

For the existing green areas between 7th and 9th Ave, our proposal advocates for the development of temporary community and pollinator gardens, complemented by public seating and gathering spaces. We advocate sub-contracting First Nations designers, landscape architects, and community organizers for the conceptualization and development of these spaces. This collaborative and inclusive approach would support environments that encourage intercultural exchange, storytelling, and the recognition of indigenous land stewardship traditions.

The community gardens would include accessible raised beds, mobile fruit tree pots, spaces for small events and greenhouse facilities. In instances where these green spaces are under private or BC Hydro ownership, we suggest temporary usage agreements and the implementation of mobile infrastructure such as raised beds on wheels, movable outdoor furniture and a temporary structure for the greenhouse (for winter planting workshops and events). These measures would optimize the flexibility and inclusivity of these communal spaces.



Mobile planters for herbs and veggies



Potential greenhouse and seating space - designed to be easily disassembled/reassembled and moved. London - Wilderness Street.
Photo: Jan Kattein



Exchange pantry - seeds, food and other small household objects.
Copley Community Orchard, Vancouver



Example of garden furniture in Stadtteilgarten Schillerkiez community gardens at Tempelhof Airport Berlin, Germany
Photo: Ana Lisa @Inhabitat

22nd Street and proposed shared streets



22nd Street - New shared street with temporary programming for neighborhood activities (flea market, estate sales, seating spaces)

To create vibrant community spaces, increase social connection and provide places for outdoor activities, we propose temporary programming along 22nd Street, Hamilton, 8th Avenue and part of London St. This would involve the installation of temporary infrastructure and implementation of shared streets.

A monthly community flea market is proposed as a focal point for neighborhood interaction, featuring estate sales, clothing stalls, food and lemonade stands, dance workshops, and various other activities chosen by the residents. The appointment of a rotating community leader, remunerated and selected through an open call process every six months, would ensure a continuation of the market with community input.

The four streets would be redesigned with floor murals/ street art installations and temporary sidewalks and public spaces. First Nations artists will be engaged through open calls to contribute to the artistic identity of the streets. Parklet-style temporary furniture will be strategically placed to provide seating, dining amenities, and opportunities for cultivating herbs and veggies.
Throughout the neighborhood, residents will be encouraged to steward small patches of green space, fostering a sense of ownership and environmental stewardship. Participation in a brief course on indigenous vegetation will support them with the knowledge and skills necessary for nurturing these areas sustainably.

At the 22nd Street Station, we advocate for issuing permits for a coffee and food stand/ kiosk, creating a welcoming environment for commuters and locals alike to gather and linger while waiting for their train. This amenity enhances the station's functionality as a gathering space, and would increase the perceived safety in the area.



Adopted curbside space - planting of native vegetation to improve stormwater management. London, UK (Photo by authors)



Adopted curbside space - veggie and herbs planters. Venice Beach, USA (Photo by authors)



Temporary town centre revitalisation using modular furniture, lighting and adaptable displays. All the plants and trees were given away to community groups at the end of the project. Ilford, UK (Photo by Jan Kattein)



Neighborhood flea market. Copenhagen, Denmark (Photo by Onkel Dannys Loppemarked)



Neighborhood theatre. Dalston Garden, UK (Photo by Dalston Curve Garden)

THE CRIB

BY STUDENTS FROM THE PRACTICAL ENERGY AND ADVANCED KNOWLEDGE – BUILDINGS CERTIFICATE PROGRAM AT DOUGLAS COLLEGE

Introduction
To facilitate the future development of the area around 22nd Street Station into a vibrant, climate-friendly neighbourhood where everyone can thrive, our idea is to develop small Community Research, Innovation, and Betterment micro-neighbourhood centres. "CRIB" is a playful name for our idea. We envision a building containing both community services scaled and tailored to the neighbourhood's needs, and cutting-edge research and demonstration facilities to allow residents to engage with learning opportunities. Accessible, inclusive, and socially dynamic spaces contribute to the fabric of our communities. They allow neighbours to share resources, information, and above all, the social connections that are so important for physical and mental health. We see this as a means of easing the transition from single-family homes to a denser Part 9 and Part 3 building pattern.

Proposal
The creation of a 'micro-neighbourhood' through the development of the space centred around a small, multi-faceted community, research, and innovation hub will add a fresh element to the area and support a more connected and walkable neighbourhood. This hub will feature a variety of functions and services, create more diversity of building typology, and offer residents the opportunity to experience and learn how innovations in our understanding of zero emission buildings, energy efficiency and conservation, embodied energy, local renewable energy, construction waste reduction, and circular economy opportunities can all become reality.

Adjacent outdoor spaces can also be developed in support of creating an open, welcoming, and pleasant space for residents to enjoy. Primary functions would be to provide better access to the amenities which are currently lacking in the defined area. CRIBs, and adjacent green spaces represent an opportunity to share knowledge and allow residents to learn and participate in new research and innovations. We recommend scaled-down versions of these distributed throughout the larger area (perhaps within an 800 m radius of the Skytrain station). CRIBs can re-purpose an existing Heritage, Character, or other building. They can be built from used building materials or constructed with new energy-efficient and resource-efficient materials. The buildings can be designed to achieve BC Energy Step Code 5 or other high-performance, measurable objective. Additional certifications to consider include LEED rating, WELL Building Standard, and The Living Building Challenge.

Rationale
The current building pattern is heavily based on single-family residences, with a higher-than-average proportion of multi-generational families, and relatively low transit use. As the city's population continues to rapidly grow, there is a need to transition away from this small residential building pattern to support a denser building pattern and increase the use of public transit. By providing a local, neighborhood-centred research, communication, and demonstration facility, residents from every generation can enjoy practical and useful amenities while becoming more aware, knowledgeable, and comfortable about the different methods we can use to achieve the goal of sustainable densification. Moving away from the traditional single-family model toward a more mixed-use plan that can better address the current housing crisis will represent a profound change for the neighbourhood, so a functional and welcoming gathering place that allows residents to learn about and feel involved with the future direction of the city will be an asset. Situating the information about the transition directly in the neighbourhood will encourage existing and new residents, Indigenous representatives, relevant organizations, new developers, and builders to participate in the process.

Features
A dedicated, car-free site containing one, or even multiple small buildings, with such amenities as:

- small cafe
- clinic
- grocery area
- community policing space
- daycare
- meeting rooms
- research labs
- demonstration and exhibition rooms
- community kitchen
- art, music, and maker spaces
- community libraries (tools, toys, sports equipment, art supplies, seeds, etc.)
- small gym/yoga space
- commercial spaces available to local small business entrepreneurs
- capacity for accommodating people during extreme hot or cold weather events
- caretaker housing
- bicycle maintenance stations
- e-scooter fleet useful on steep terrain
- A potential satellite car-share lot/zone created near the station
- to encourage car-sharing

Green space amenities:

- community gardens
- small playground
- elders' outdoor exercise equipment
- shade trees and other welcoming, functional native landscaping to support biodiversity and pollinator populations
- Greywater recycling and rainwater harvesting initiatives
- open space to host community events like Farmers Markets, cultural performances, sports
- further development of bikeways, green space, walkways, and paths throughout the whole neighbourhood, improving access to transit and other residential and non-residential developments
- public art installations and murals

Benefits

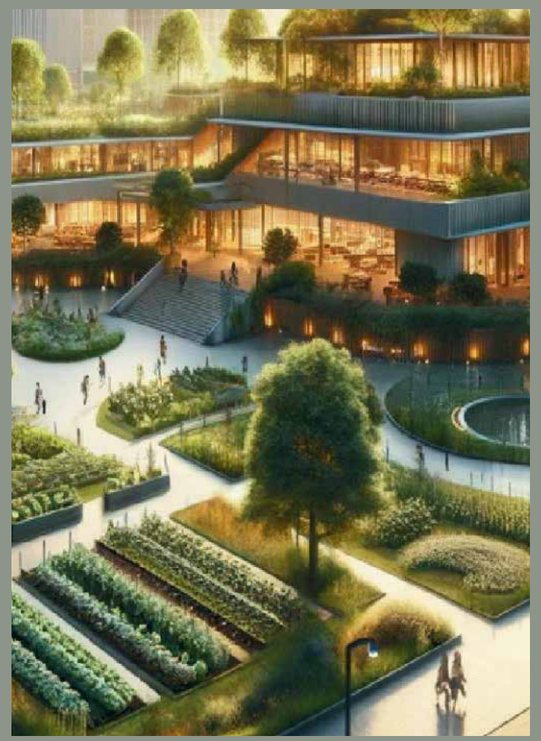
- Environmental - parks and green spaces will help absorb carbon dioxide and create shade areas during hot weather; a large, walkable area that is bike and pedestrian-friendly also helps reduce traffic congestion and emissions.
- Economic - bringing small, local businesses that incorporate seamlessly into an existing neighbourhood (childcare, cafe, etc.), gives residents the option to stay closer to their homes, where they may feel less inclined to use cars. As well as helping bolster an important middle class, greater variety in local businesses also opens the possibility of some commuters being able to work closer to home.
- Physical - increased walkability and bike-friendly access lessens dependence on cars and increases resident fitness and health. Resident safety will also be improved if car traffic is lessened; accidents and fatalities are reduced by planning and design that separates pedestrians from car traffic.
- Mental - taking opportunities to get outdoors and stay outdoors (whether gardening, exercising, playing, etc.), is a proven method to improve mood and morale. A greater inclination to spend time outdoors also increases the opportunity to make connections with other neighbors who may not otherwise cross paths, and therefore form a stronger sense of community.

Potential Partners and Stakeholders
The CRIB has the potential to touch on many stakeholders and parties who may have an interest in such a vision, in addition to the City of New Westminster:

- Indigenous organizations, including those nations, upon whose territory Connaught Heights is situated.
- Educational organizations (Douglas College, JIBC, UBC, SFU, BCIT).
- BC Housing, BCNPH, PHC, BOABC, Metro Vancouver, Habitat Housing Society.
- Government of Canada Affordable Housing Fund, BC Growing Communities Fund.
- Major Developers, Architecture, Engineering, and Construction firms.
- Go ByBike BC Society, HUB.
- Real Estate Foundation of BC, BCBEC.











The CRIB

is our idea of a micro-neighbourhood centre; built as a small community hub featuring a variety of functions and services to a local area, and support a more connected neighbourhood.

CRIBs (Community Research, Innovation and Betterment centres) will create opportunities for residents to experience and learn how innovations in energy efficiency can become reality, with a building containing services scaled and tailored to the neighbourhood's needs, and incorporating cutting-edge research and demonstration facilities to allow residents to engage with learning opportunities.

CRIBs and surrounding green spaces also represent an opportunity to share knowledge and allow residents to learn and participate in new research and innovations, and provide new features currently lacking.









Among others, features include a small cafe, clinic, grocery area, research labs and demonstration rooms, green space with a community garden and small playground, and conservation-friendly landscaping.









CRIBs would be designed to provide accessible, adaptable areas to be used and shared by researchers, artists, makers, students, and the curious of all ages and backgrounds.

By providing a local, neighborhood-centred research, amenity and demonstration faci commu,
CRIBs afford opportunities for residents from every generation to enjoy useful amenities while becoming more aware, knowledgeable, and comfortable about the different methods we can use to achieve the goal of sustainable densification.









We believe the creation of a new micro-neighbourhood will result in integrated environmental, economic, physical and mental benefits for all residents. Individual CRIBs can reflect the neighbourhood, reference vernacular architecture, and reimagine Indigenous building types.

CLIMATE-RESILIENCY AT THE HEART OF 22ND STATION

BY THEA JOHANNUS AND PLOY PIYAWASSOPON

No written description provided.

Climate-resiliency at the Heart of 22nd Station

Climate-resiliency at...

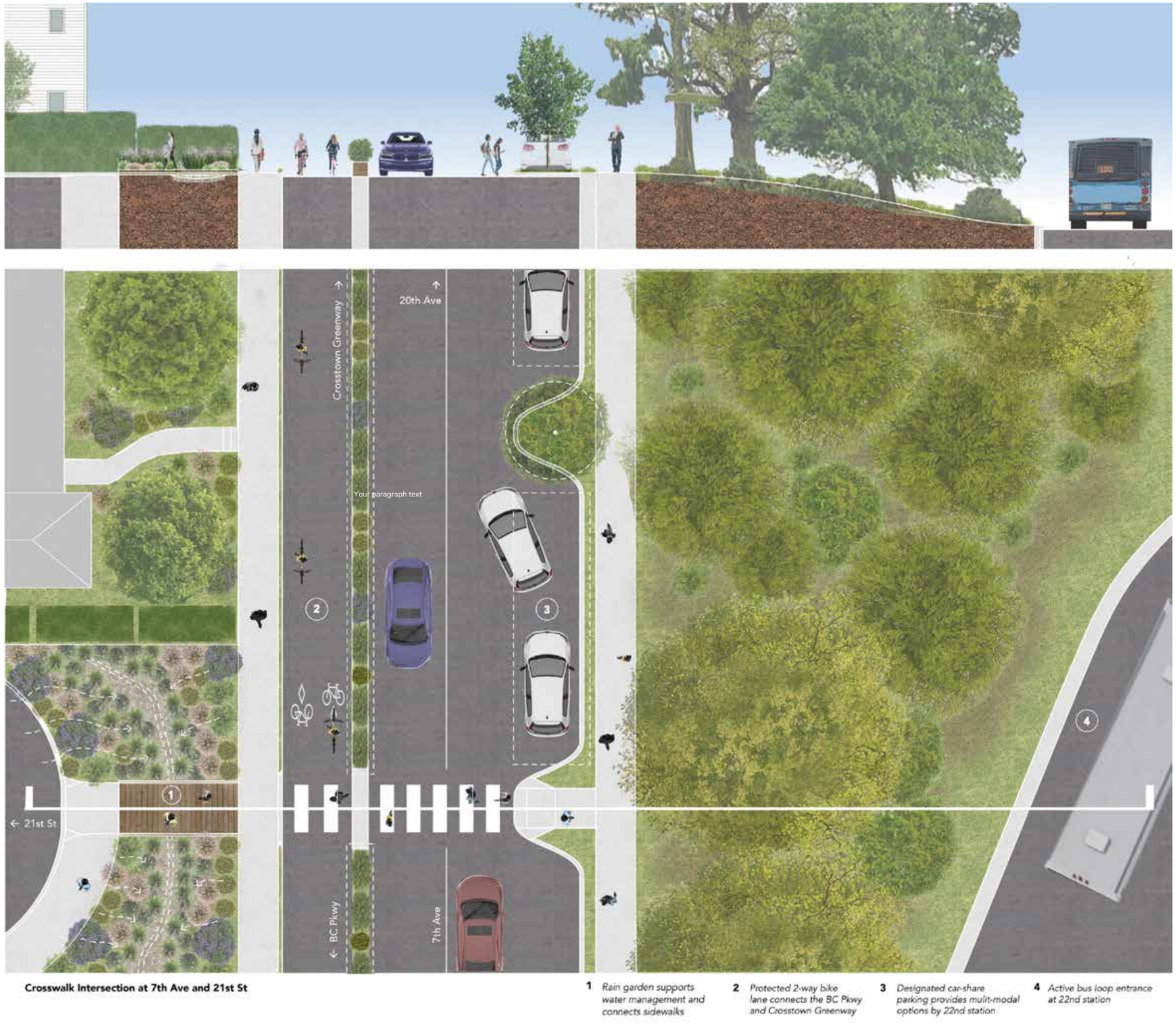
- rain gardens
  - assist with rain water management
  - make use of the site's slope
  - increase permeability and enhance greenery
- green buffers
  - increase permeability
  - protect pedestrians
  - enhance the feeling of safety from roads

...the Heart of...

- mixed-use and middle density housing
  - diversity of housing options for different residents
  - implements community facilities within residential area
- rezoning to permit carriage and laneways
  - introduces gentle density without disrupting the urban fabric
- on ground parking
  - utilizes the slope to mitigate use of underground parking

...22nd Station

- increased car share parking
  - provides multi-modal options around the station
- protected 2-way bike lane
  - prioritizes the safety of cyclists and other pedestrians
  - connects and enhances the existing greenways (BC pkwy and Crosstown Greenway



Crosswalk Intersection at 7th Ave and 21st St

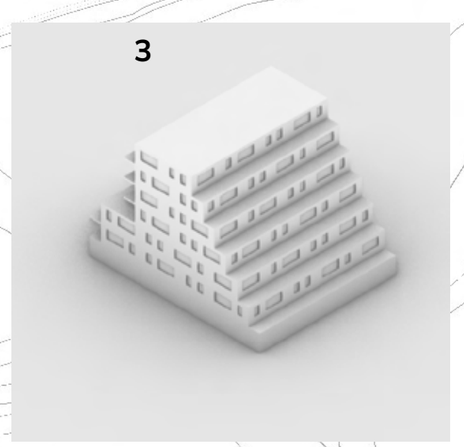
1 *Rain garden supports water management and connects sidewalks*

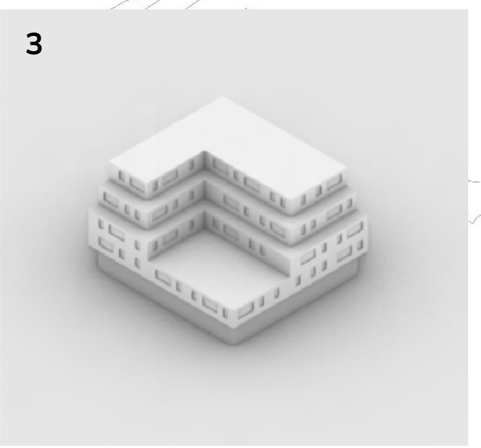
2 *Protected 2-way bike lane connects the BC Pkwy and Crosstown Greenway*

3 *Designated car-share parking provides mulit-modal options by 22nd station*

4 *Active bus loop entrance at 22nd station*

1 Community Plaza
2 Rain Garden
3 Mixed Use Corner Typology
4 Infill Apartment Typology
5 High Rise Typology
6 Carriage Home Typology

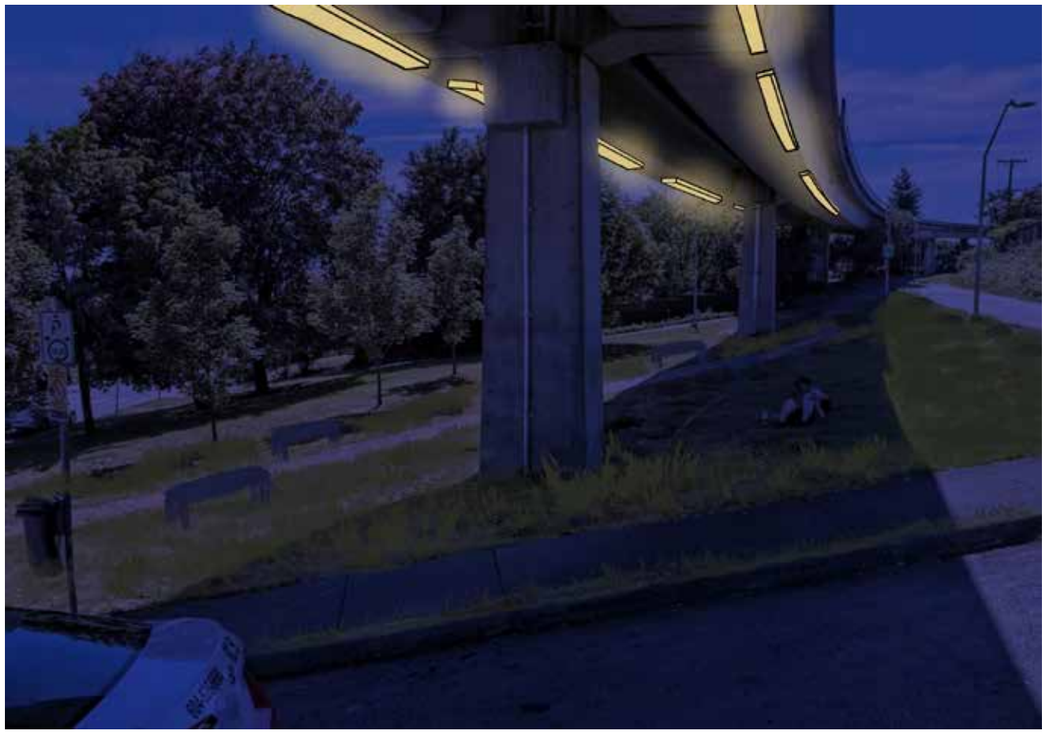




Potential design features to enhance the area around 22nd station

Lighting under the skytrain to increase safety and night atmosphere







Rain gardens to utilize sloped site for rain water management



DEMOCRATIC NEIGHBOURHOODS AS CLIMATE STEWARDS

BY ASIF EMRAN KHAN

In the heart of Vancouver's Connaught Heights neighborhood, a design attempt is set to redefine community living and reshape the urban landscape. The backdrop, an existing grid of housing blocks, stands as the canvas for a revolutionary concept – the Block Park, a transformative addition to the city's park network. The highlight of the place - the SkyTrain station near 22nd Street. The initial glance at 22nd Street reveals the conventional layout of residential plots, each confined within its designated space.

Yet, amidst the apparent monotony, lies an opportunity to inject vitality into the urban fabric. This proposal took inspiration from the absence of shared, responsive and mutually maintained space. Streets are full of cars and no people. People also don't talk, they don't need to. That's why green movements don't matter to the struggling class so much.

Enter the Block Park, a democratic, programmable oasis nestled within the housing blocks. A departure from the norm, each Block Park is a shared space, owned collectively by the residents of the surrounding block. The park features a storage wall, adorned with a wealth of communal resources – cycle repair tools, car equipment, snow removal gear, a library, communal kitchen etc. It's a space designed to foster collaboration, sharing, and a sense of community ownership. On the other side of the park, a memory/ exhibit wall stands tall, chronicling the narrative of the block. This wall serves as a testament to the identity of the place, showcasing the diversity of its residents, their stories, and the shared journey towards sustainability.

Surrounding the park, lush community gardens, pollinator havens, and innovative stormwater detention areas contribute to a greener, more environmentally conscious neighborhood.

The Block Park system is more than just a break from the spatial monotony; it's a strategic insertion that weaves a narrative of sustainability into the urban fabric. Each park becomes a distinctive representation of its respective block, acting as an anchor for the community. As the interconnected network of Block Parks unfolds, green spaces are evenly distributed, enriching neighborhoods and fostering a sense of place.

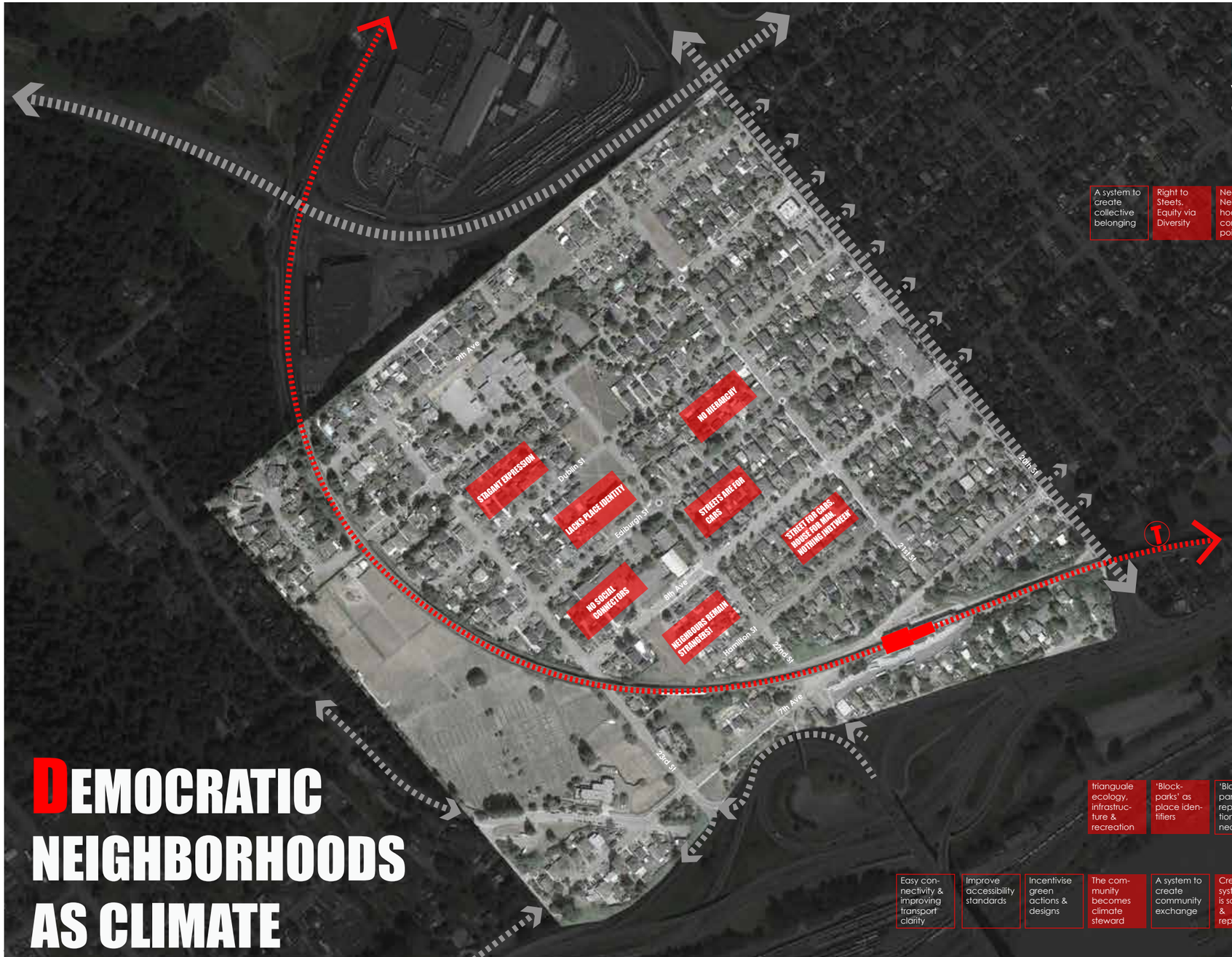
The proposed zoning plan is an attempt at diversifying housing types, with high-rise residences strategically placed near nodes, acting as landmarks for the community. Main streets, transformed into vibrant streetscapes, offer spaces of significance that go beyond mere transportation corridors. But it doesn't stop there – transport spaces themselves are envisioned as cultural hubs, adding layers of meaning to daily commutes.

The design panels tell a compelling story. The first board lays bare the existing conditions of the 22nd Street neighborhood, offering a canvas for transformation. It's a meticulous exploration of opportunities and ideas, aligned with the New Westminster Official Community Plan parameters. The second panel dives into the heart of the Block Park system and zoning strategy. Co-housing emerges as a solution to the pressing housing demand, echoing the sentiment of shared ownership embedded in the Block Park concept. High-rise residences become landmarks at street nodes, shaping the skyline and guiding residents home. Transport spaces transform into cultural hubs, enriching the urban experience.

The third panel paints a picture of accessibility and mobility, proposing complete bike loops within neighborhoods. These loops, culturally expressive and artistically designed, form a connected system that tells a story of green mobility. Central bike lanes on narrow roads not only reduce traffic speed but also enhance safety, discouraging excessive motor vehicle use and fuel consumption.

The vision doesn't end with aesthetics; it extends to human empowerment. Recognizing that successful schemes often falter without an empowered community, the proposal weaves stories into the urban fabric. These stories, intricately connected to the cultural expressions of the bike loops and the diverse programming of the Block Parks, empower individuals to take ownership of their environment.

At the heart of this narrative is the fight against the climate crisis. The Block Park network, with its green solutions embedded in recycling, solar use, and water balance, poses an opportunity to the story of sustainable living. The proposed central bike lane, cutting through the neighborhood, symbolizes a commitment to green transportation and a conscious effort to reduce the carbon footprint. The panels culminate in a vision of a neighborhood transformed – a network of democratic parks, diverse zoning, and empowered residents acting as stewards of the climate. It's a story of urban renewal, where the ordinary becomes extraordinary, and the community becomes the protagonist in a tale of sustainability and shared prosperity.



DEMOCRATIC NEIGHBORHOODS AS CLIMATE STEWARDS

A holistic approach - targeting integrated complexities, to envision a movement that inspires and nurutres democratic, active, programmable neighborhoods - which are flexible, resilient and diverse.

Investigating Opportunities

with regards to the NEW WESTMINISTER OFFICIAL COMMUNITY PLAN goals:

Community & Individual Well-being

- A system to create collective belonging
- Right to Steets, Equity via Diversity
- Need Neighbor-hood connector points
- Need neighbor-hood Health markers
- Sharing spaces
- Diverse facilitation
- Need collective food-grow spaces
- Need safety
- Need Childcare spaces
- Need accessible civic facili-ties

Culture

- Art to create place Identity
- Need cultural & creative community spaces
- Promote art and cultural identity
- Need Heritage representa-tion

Economy & Employment

- Improve existing & new business opportunities
- Facilitate healthy collabora-tion
- Diversity in retail & services
- Versatile work spaces

Energy emmisions & climate change

- Neighbor-hood energy & emmission monitor
- Incentivised Electric bike use
- Landscape Water con-trol Designs
- Imrove CO2 sequestra-tion
- Incentive for Solar use
- Reduce car dependen-cy and control use
- Increase & improve bike routes

Environment & Natural areas

- 'Remove the Lawn'- plant natives
- Program-mable parks
- Water retention areas
- Nurture native vegetaion growth
- Nurture pollinator gardens
- Increase Green area
- Protect existing natural features

Heritage

- Neighbor-hood Library + cafe
- Identify & Conserve physical heritage
- Neighbor-hood history walls
- Tribue to Native history of locals
- Transport hub as cultural spaces
- Salvage station parts as monuments
- Redesign Sky Train station-local Architect

Housing

- Housing with better space utilization
- Mixed use develop-ments to accomo-date retail
- Integrated zoning to facilitate diverse housing
- Develop high rise residence as land-marks
- Introduce Co-housing to accomo-date more people
- Affordable & varied housing schemes
- Mixed housing to increase

Parks & Recreation

- trianguale ecology, infrastruc-ture & recreation
- 'Block-parks' as place iden-tifiers
- 'Block-parks' as representa-tional con-nectors
- 'Block-parks' as 'function -led- parks'
- 'Block-parks' as democratic platforms
- 'Block-parks' as neighbor-hood makers
- 'Block-parks' as anchor points
- Neighbor-hood green employ-ment
- Develop community garden system
- Improve existing parks & trails

Public realm & Urban Design

- Easy con-nectivity & improving transport clarity
- Improve accessibility standards
- Incentivise green actions & designs
- The com-munity becomes climate steward
- A system to create community exchange
- Create a system that is scalable & replicable
- Breaking the monot-ony with new streets-cape
- Mixed building types
- Neighbor-hood Main street
- Pluralistic, festive, diverse expressions
- Democratic collabora-tion to bring place iden-tity
- System to develop unique place iden-tity
- Pedestrian friendly, safe, walk-able neigh-borhood

Transformation & Accessibility

- Utilize under-bridge areas as public space
- Creating easy & beautiful routes to destinations
- Affordable electric bikes & scooters
- Translink collabora-tion
- Streets as public spaces
- Pedestrian & bike friendly complete streets
- Controlled vehicle routes within inner streets
- Transporta-tion hubs as attraction ponts

Utilities & Service Infrastructure

- Use solar where applicable & feasible
- Monitor utility per-formance & updates
- Facilitate natural storm water manage-ment
- Green solutions to inspire and incentivise
- Neighbor-hood voice in utility efficiency

The challenge addresses multiple interconnected arena that are mines of opportunities and ideas respectively. Develop-ing a holistic, layered system can facilitate these relevant ideas and still be flexible to changes. A single neighborhood cannot resolve the climate crisis alone, but it can initiate a system that gives more power and voice to residents, nur-tures diversity & growth, is accessible, safe and walkable, displays cultural identy, fosters equity and spaces for all ages, takes measures against climate crisis, turns neighborhood as climate stewards. The scope of the project touches so many aspects that a brainstorming of relevant and necessary op-portunities prduced an array of ideas. The plot is to develop a system that can accomodate these and even more...

The Process

Identifying Major Constraints that prevent Place Identity:

Dominant Iron-Grid Road system



The street system is rigid. Visually and spatially, it confines, defines and isolates user spaces. People need connecting places - no just streets.

Zoning that segregates



Current Zoning does not inspire mixed and diverse growth. Each function seems independent with no connectors except the dominant streets. How can an inclusive culture grow when parameters are so constrictive?

Under-utilized Natural Spaces



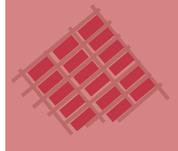
Current Natural space acting as left-over space - with no intermediatory connections. Less scope for people to voice actions and participations. Natural space can also accomodate culture, ecology, people spaces that activates.

No space for Democratic Expression



This system passively creates societal segregation - creates no need or scope for people to feel belonging to place, people or order.

Visual, Spatial, Functionally stagnant



The current neighborhood block system stagnates growth and connections. It can only increase quantity vertically but in terms of quality, they remain more or less the same - as there's no dynamics to change activity patterns.

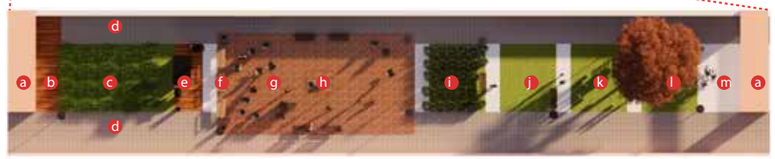
Unimpressive Heirarchy

The current state doesn't allow scopes for contextual hierarchy. Even if something is introduced, it falls on a similar physical strata. It might be new, but soon looses ability to stand out.

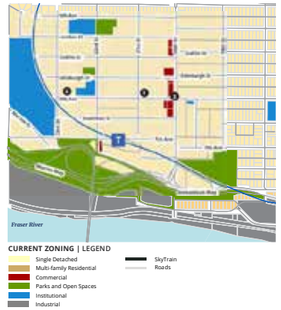
Community Connections & Belonging:

Neighborhood Block-Park Network





LandUse & Housing:

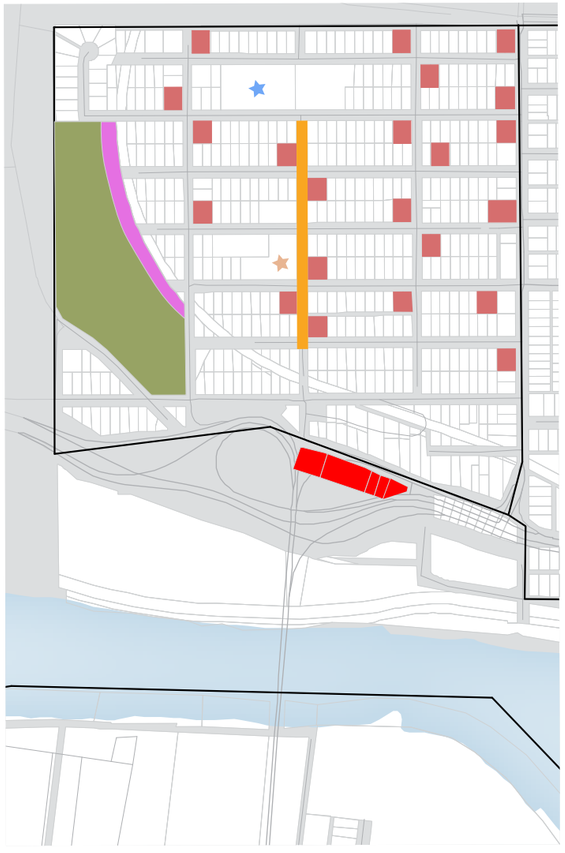




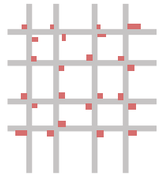
Proposed zoning layout



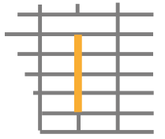
Recommending adjustment to mix housing types.



Breaking the 'zoning monotony'- Developing Mixed scale Housing



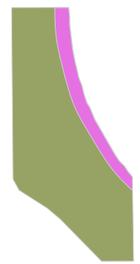
High rise Residence at Node markers:
As a strategy, developing high rise residence near nodes and using verticality as landmarks. Current land owners to get multiple units to incentivise the process. This will diversity housing and community energy even in micro- block levels. Block parks can be feasible if the high rie residences make up for the occupancy needed. The neighborhood can intake more people gracefully, but the current picture of hard-line zoning needs to change. We need to inspire living spaces more than hard spatial boundaries.



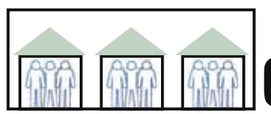
Developing neighbourhood Mainstreets: Identifying streets with heritage, community, tradition or aesthetic value - strategic actions to develop schemes for Neighborhood Main streets. Again, this is a community-led process that makes the election, selection and outcome of he process. This version of micro-Main street will have cultural and memorable relics, pedestrian and plaza spaces, vending machines, colored streetscape and lighting and festive transformations.



Transport spaces as Cultural Hubs:
Current transport spaces are only pause space for getting into or getting off vehicles. Whereas transport spaces are daily busy spaces with people and stories.
Transforming spaces near transport hubs to have retail, food places, exhibits and display stores, parks/parklets, bike parking and e-bike stops along with other amenities- can add a new layer that adds character. Honoring local Architects to engage in the processs can produce unified participation.



Stitching the edges with activity:
Currently, Streets dominate the cityscape datum with rigid visual, physical and spatial connection. But the streets also divide space and often impose its rigid nature along the transition-spaces.
As a strategy, street edges that have natural open space - **to have a thin belt of activity**. In the form of civic amenities such as open gym, nature centers, exhibits, plant nursery, recycle shops, bike parks etc. This activates the edges and transition to natural spaces. The current condition doesn't inspire activity and the space remains underutlized and stagnant.

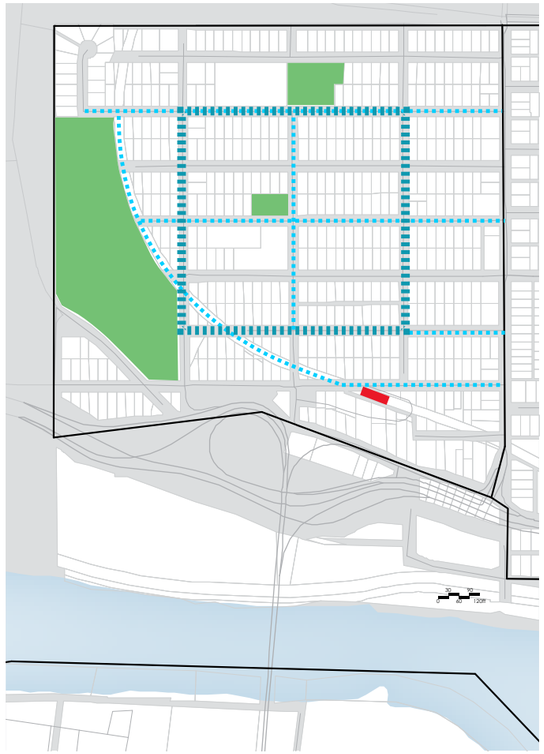


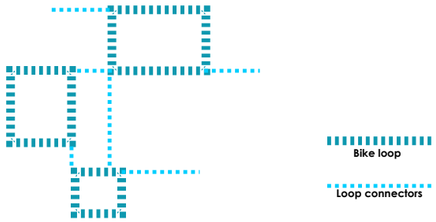
Co Housing

As a strategy to satisfy Housing demands, Co housing communities need to be encouraged and incentiised. Co housing is basically intentional co living of people in multiunit residences ith shared common spaces and individual living spaces. There are great successful examples of Co living that have provided value bth in reducing housing demands and also in consumption due to shared use.

Source: Maps and image have been used from the competition brief and suggested reading materials and google earth.

Mobility, Access & Infrastructure

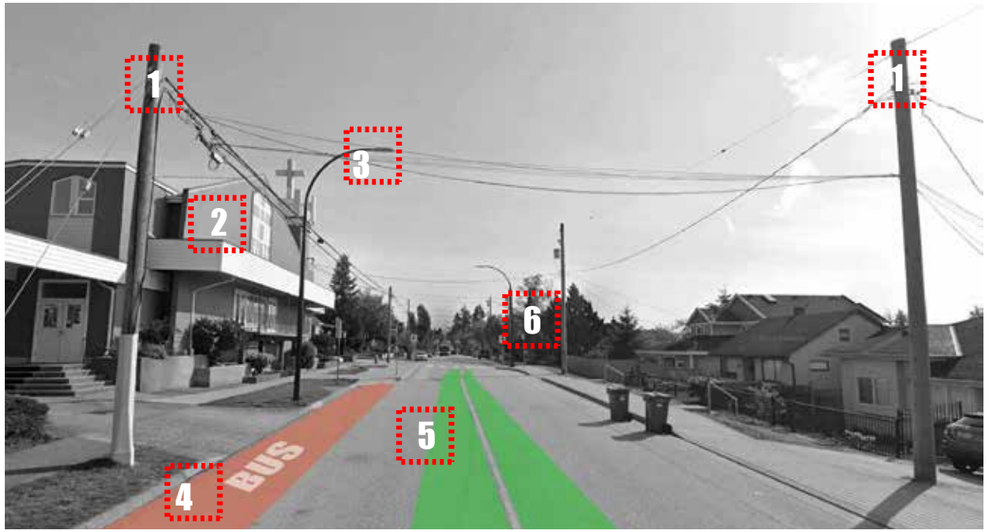




As a strategy, to enhance bike routes, complete loops to be identified in neighborhoods. These complete loops will act as representational routes of the neighbourhoods, createing pockets of cultural routes. These pockets will be connected with other bike lanes that creates an intricate netowrk of complete loops. Using bike routes not only as an added layer of green transport, but also embedding sense of place identity - inspires a lot of exchange between locals.
Block parks within the neighborhoods will act as stoppage points for other bikers fostering an experimental social trail of stories. The idea is to provide strategic character to bike routes so that green movement can foster cultural growth.



As a strategy, to connect green spaces and green edges with bike routes. The Connaught Heights neighborhood doesn't have sidewalks on both sides in many of the streets. In this scenario, strategic and bold decisions are needed to turn the streets bike friendly and safe. Many internal roads are 30 feet wide, and even in that, there are streetside paking and bus stoppages. With such contraint, bike routes can overlap the street as a central spine for narrow streets. This will slow down traffic in internal roads and provide clear central bike lanes.



1. Initiatie to start for shifting power lines and pillars underground. This can run parallel with providing sidewalks to streets. Power and other lines exporsed like this is not safe and costs more in the long run.

2. Identify points f significance - in heritage, culture, aesthetcs and transform them to be more inclusive and festive with lighting, providing amenities and secure access. These are needed to weave a trail of treasurable landmarks, a layer of culture and time.

3. Street Lamp-posts should be a neighborhood hanger- carrying an assortment of civic amenities like - notice boards, bird house, water sinks, lost and found box, food box etc. distributed according to the choices of neighborhood people.

4. Bus lanes within inner streets to be artfully marked. Even small interventions like this are needed to break the imposing character of streets and provide another layer of character. It is these things that bring people together and when people get together, thins get sustainable. Climate action cannot be solved by one neighborhood. But changing the view poits of social fabric can equip people to do what's necessary.

5. For narrow inner roads, overlapping central bike lanes to be introduced. This will slow down the traffic and it will create clear bike lanes that will dictate that the strets ae for bikers- first. Neighbourhoods can foster social bridging if traffic is controlled within he inner streets- not just by speed signs - but also with varied overlaps.

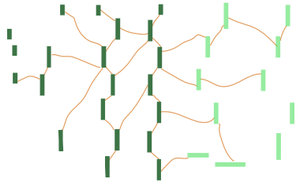
6. Increase trees and native planting in vacant spaces. A neghbourhood green council can be formed in the form of a democratic body to take care of the neighborhoods. These groups and initiatives need incentives and action plans.

Image from 8th Ave.

Landscape, Water, Buildings, Energy & Waste

Neighborhood Block Park Network

A nework of evenly distributed green spaces that utilize the current context and provide a way to create democratic expression and place identity for neighborhoods.

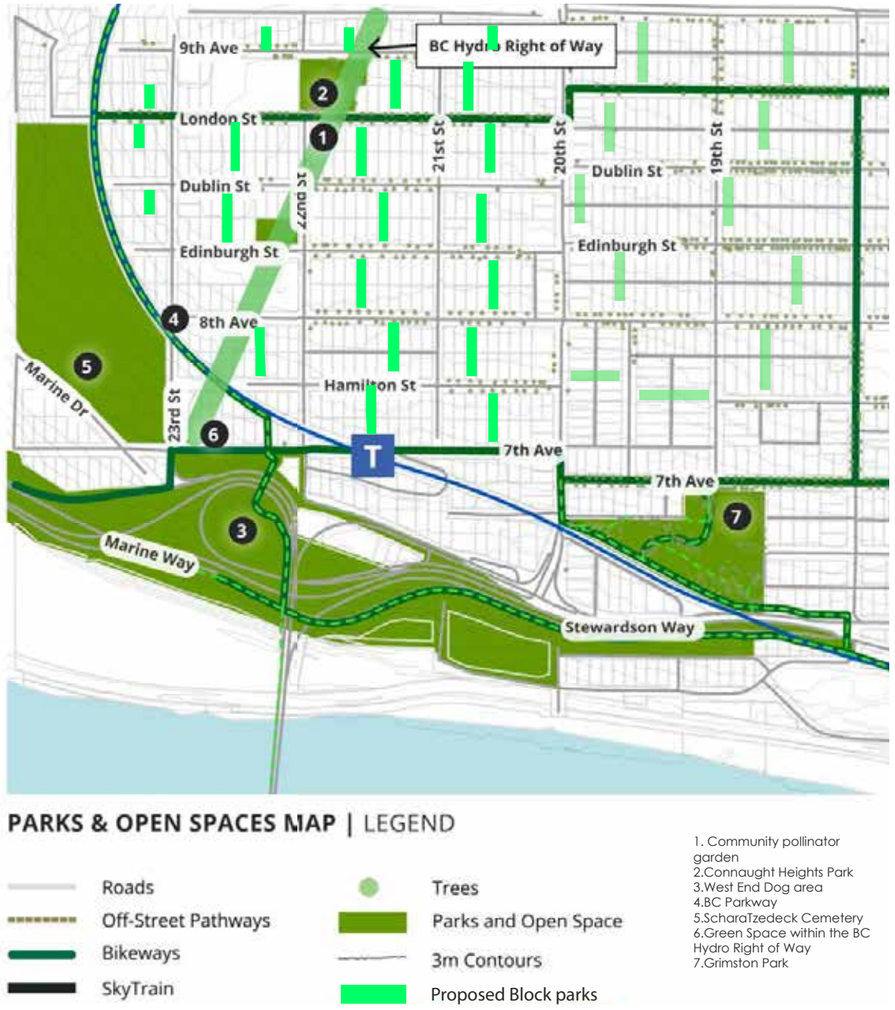




Landscape First: From now onwards, before anything is put into the Land, consult the Landscape people first! Not developers.
That's a Green Move! Zonign would be much more natural if nature is read carefully while zoning.

Remove the Lawn:

Among the steps to increase green surface and sustainable performances, removing the lawn from front and back yards and repacing with native planting can highly improve soil quality, percolation pollination and wild life co existance. It's not just about the people, it is important to think holistcally for all species and the natural balance.



PARKS & OPEN SPACES MAP | LEGEND

Roads
Off-Street Pathways
Bikeways
SkyTrain
Trees
Parks and Open Space
3m Contours
Proposed Block parks

1. Community pollinator garden
2.Connaught Heights Park
3.West End Dog area
4.BC Parkway
5.ScharaTzedeck Cemetery
6.Green Space within the BC Hydro Right of Way
7.Grimston Park



The city authority and the future planners have made some really great suggestions to reduce CO2 emmision and energy consumption.

The network of nighborhood block parks create a matrix of permale surface and water disipation areas. Moreover, most of those block parks also have community garden, pollinator garden and even water retention pool/ features. The possibilities are endless.
On the left, a sample idea for bike routes for narrow roads and their intersection is shown. To reduce emmision - some strong decision will eventually be needed. Spreading the message that the streets are for green movers first, to discourage motor vehicles and ther speed- central bike rotes and neighborhood loop-systems will strongly establish their own network of green transportation. The methods are already there. What we need are stimulants to trigger movement. Because without full perticipation, the green movement will not be possible.

SKYPATH

NAME NOT PROVIDED

The existing neighbourhood surrounding 22nd street station provides locals with convenient access to vibrant city life while retaining its historic form of a suburban community. As the neighbourhood develops, it is imperative that the dynamic needs of Connaught Heights are addressed in an informed and collaborative approach. The City of New Westminster has put forth a call for bold visions for the redevelopment around 22nd Street Station. We have responded to this call to action by addressing three main objectives that drove our climate-centred design:

1) Address circulation around the busy 20th Street intersection with an emphasis on pedestrian safety

2) Improve connectivity of the green corridors as highlighted in the Official Community Plan (OCP)

3) Preserve and enhance views of the Fraser River

These objectives led to the creation of SkyPath– a raised pedestrian bridge that links the existing green corridor from Grimston Park to the entrance of West Side Dog Area. Diverting foot traffic along SkyPath allows for safe pedestrian travel across 20th Street, improves connectivity through the Connaught Heights neighbourhood and provides users with an improved spatial experience by showcasing views of Fraser River. An innovative concept that puts pedestrian circulation at the forefront of the design process, SkyPath improves all forms of circulation around the overwhelmed existing transportation infrastructure. The design will also improve overall access to 22nd Street Station and surrounding areas. Realigning 7th Avenue to the street grid improves traffic flow by providing a seamless route for vehicles. Adjacent bike paths along the realigned 7th Avenue link together the disjointed section of BC Parkway at the intersections of 20th and 22nd street, providing a safe and connected cycling route. Our design also transforms Mead street into a pedestrian drop-off between 22nd Street Station and a newly created greenspace. The new greenspace features a spiralling ramp and look-out tower with an elevator that connects to the raised SkyPath. By providing this connection point, pedestrians can conveniently access the highest elevation point of SkyPath next to the drop-off zone and station.

The design of the pathway utilises sustainable materials and implements green technologies. This includes rain water harvesting via rain gardens and inclusion of permeable pavers. Materials should be sourced locally and reflect the modern design of SkyPath. SkyPath is also an opportunity to engage with indigenous consultants and incorporate Halkomelem language and cultural values through relief carvings, signage and native materials and planting selections. There is also an opportunity for future buildings to connect directly onto the SkyPath allowing residents direct access to 22nd Street Station. This will lead to an overall decrease in vehicular traffic in the area. The integrative design of Skypath reflects the form of both the highway and 22nd Street SkyTrain station and celebrates them as transit hubs. Additionally, the added visibility of the area from an above vantage point improves safety and reduces crime in the area surrounding 22nd Street Station. SkyPath addresses the current circulation challenges while providing a memorable experience specifically tailored to Connaught Heights.

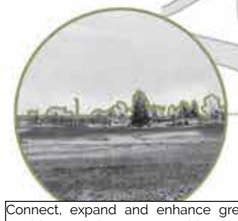
SKYPATH

As a rapidly growing Frequent Transit Development Area, it is imperative that the dynamic needs of Connaught Heights are addressed in an informed and collaborative approach. The area around 22nd Street Station suffers from disjointed and ineffective transportation infrastructure that will be detrimental to its future growth. Our design centres around improving circulation and greenspace in this developing transit hub.

OBJECTIVES



Improve circulation and reduce congestion while encouraging sustainable transportation through cycling and pedestrian paths



Connect, expand and enhance green corridors to bring nature and improved wellbeing into Connaught Heights



Preserve and celebrate views of the Fraser River while still providing opportunities for new developments around the SkyTrain Station

FURTHER DEVELOPMENT OPPORTUNITIES





WHY SKYPATH?

SkyPath is a green infrastructure pedestrian bridge that links the green corridor from Grimston Park to the entrance of West Side Dog Area, providing an additional connection point at a new greenspace conveniently located next to 22nd Street Station. By providing a safe route away from vehicular traffic, SkyPath encourages walking while reducing congestion along 20th Street. The view of the river is enhanced through an elevator tower and lookout points, creating a memorable and unique experience for the neighbourhood. The expansive view also discourages crime through improved visibility of the SkyTrain Station area.

The elevated design creates opportunities for new connection points to future surrounding green roofs while contributing to the health of the green corridor. The flexibility of SkyPath also allows for additional connection points to upper stories of multi-use buildings, so that residents can shop and access homes without traversing roads.

Simple and effective, SkyPath addresses several problems currently faced by the neighbourhood while breathing new life into Connaught Heights.

SOLUTIONS

6 **REIMAGINE**
a new future for 22nd Street Station as a vibrant and sustainable transportation hub

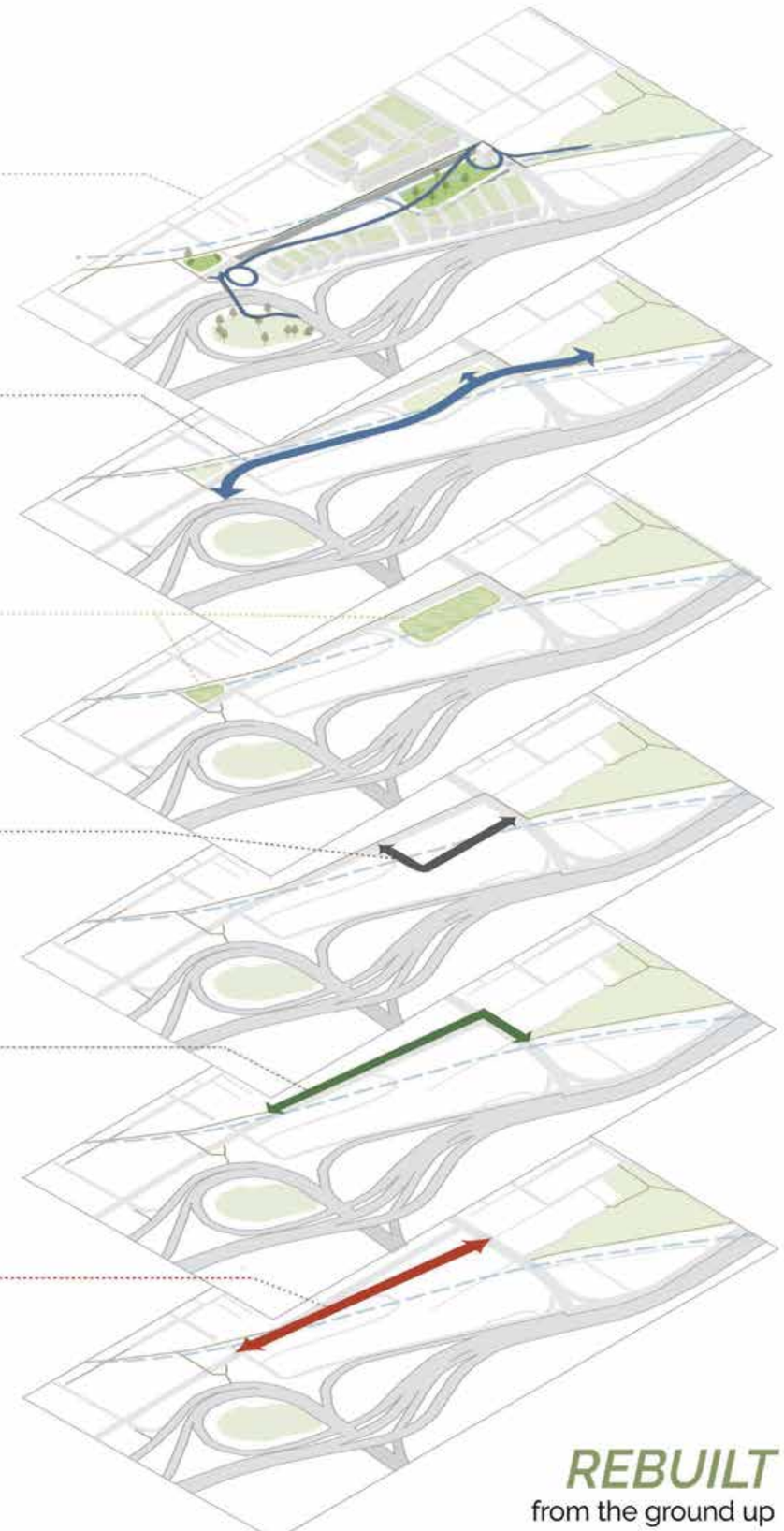
5 **REINSPIRE**
with a pedestrian bridge that promotes safety and wellbeing while preserving views of the river and connecting the green corridor

4 **REVITALIZE**
with new greenspaces and improvements to the dog park

3 **REPURPOSE**
the existing road as a dropoff to reduce traffic volume around 22nd Street Station

2 **RECONNECT**
the green corridor by creating a bike path that links together BC Parkway

1 **REALIGN**
the street grid on 7th Avenue to improve traffic flow



REBUILT
from the ground up

LEGEND: PLAN

1. IMPROVED WEST SIDE DOG AREA
2. CONNECTION NODE FOR GREEN CORRIDOR
3. MULTI-USE MID-RISE BUILDINGS WITH GREEN ROOFS
4. CONNECTION TO REVITALIZED SKYTRAIN STATION
5. ONE-WAY VEHICULAR ROUTE FOR DROP OFFS/PICK UPS
6. ELEVATOR AND LOOKOUT TOWER
7. RAISED PEDESTRIAN PATH OVER 20TH STREET



22nd STREET AREA PLAN

N

10 50

0 25 100m

SKYPATH SECTION-ELEVATION



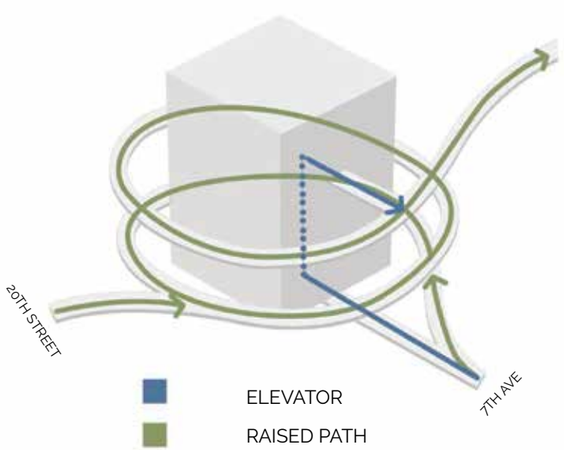
LEGEND: SECTION

i. RAINWATER DRAINAGE FOR HARVESTING

ii. PEDESTAL SYSTEM FOR WEIGHT REDUCTION

iii. PERMEABLE PAVEMENT FOR RAINWATER MANAGEMENT

LOOKOUT TOWER CIRCULATION



THANK YOU!

Thank you to everyone who showed interest and participated in the reGENERATE Ideas Challenge, and congratulations to the winners!

NEW WESTMINSTER