Department Manager	Director	CAO

The Corporation of **THE CITY OF NORTH VANCOUVER**
ENGINEERING, PARKS & ENVIRONMENT DEPARTMENT

REPORT

To: Mayor Linda Buchanan and Members of Council

From: Mo Bot, Project Manager – Public Realm Infrastructure

Subject: UPPER LEVELS GREENWAY – PUBLIC ENGAGEMENT LAUNCH FOR CORRIDOR OPTIONS

Date: April 13, 2022 File No: 16-8350-20-0039/1

The following is a suggested recommendation only. Refer to Council Minutes for adopted resolution.

RECOMMENDATION

PURSUANT to the report of the Project Manager, Public Realm Infrastructure, dated April 13, 2022, entitled "Upper Levels Greenway – Public Engagement Launch for Corridor Options":

THAT the draft vision for the Upper Levels Greenway, reflecting the key priorities of the community, be endorsed;

AND THAT staff be directed to initiate the next public engagement phase.

ATTACHMENTS

1. "Upper Levels Greenway – Engagement Summary Report" (CD#2168624)
2. "Upper Levels Greenway – Phase 1 Engagement Summary Report" (CD#2158924)
3. "Upper Levels Greenway – Design Approaches, Benefits and Constraints (CD#2168341)
4. "Upper Levels Greenway – Comparative Route Evaluation (CD#2168459)

SUMMARY

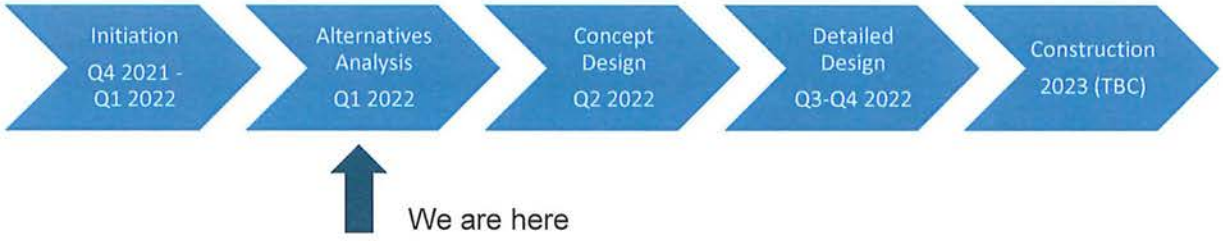
The Upper Levels Greenway project team has completed preliminary engagement with the community to inform the development of the draft project vision and three (3) route options for the project to traverse the Upper Levels Neighbourhoods of Tempe and Westview. The team is ready to proceed to the next phase of public engagement.

Staff recommend that the project advance to public discussion to gather feedback on the vision and the options in order to inform the selection of a preferred concept. Staff will report back to Council in early summer with details on what has been heard from the community on the options and how that feedback has informed the next steps in concept development.

BACKGROUND

The Upper Levels Greenway is being developed as part of the City's commitment to provide active transportation and recreation options that support and enhance the health and well-being of all community members. The Upper Levels Greenway will stretch from Lynn Valley Road to Westview Drive and will be approximately three (3) kilometres long. Once complete, it will give people more choice in how they move around the City by enhancing access to parks, recreation spaces, community amenities and other destinations, such as schools and commercial areas.

Without an established preferred corridor, this project presents many opportunities to work with the community to understand their needs and collaborate on delivering a responsive design that addresses issues and leverages opportunities. The engagement process has been designed with multiple community touch points to allow for incorporation of public and stakeholder feedback into the design and to demonstrate how community input informs decision-making.



DISCUSSION

What We Heard

In February, staff reached out to the community about our plans to begin designing the Upper Levels Greenway. The purpose of this initial outreach was to introduce the community to the project and to explore the following topics:

1. How do you enjoy spending time in the Westview and Tempe neighbourhoods?
2. What do you appreciate most about these areas?
3. What is important when choosing a greenway route?
4. Are there any neighbourhood issues, concerns, or challenges to address to help us develop greenway options and offer possible design solutions?

In response, over 2,400 people visited the Let's Talk Page and 925 individual survey responses were received.

The community raised a number of issues, opportunities, and design considerations that helped the project team focus our efforts on important themes.

The top sentiments shared were organized around four key themes:

1. **Concerns about safety:** Seeking improvements to crossings at major streets, safe space provision for all modes, and perceptions that greenways could increase crime.
2. **Desired greenway features:** Seeking more green spaces, dog walking space and amenities, lighting, public realm improvements including wider sidewalks and more seating, safety and wayfinding signage, and public washrooms.
3. **Concerns about traffic:** Identification of disruptive noise from the highway, traffic congestion and speeding issues, a need for targeted traffic calming to address traffic short cuts, and a desire to ensure vehicle traffic flow is not unduly impacted.
4. **Separation of users:** Desire to see separation of active modes from vehicle traffic, separation between people walking, rolling, and cycling, and wide enough paths to comfortably and safely accommodate all users regardless of mode of choice.

Please reference Attachments 1 and 2 for the March 16, 2022, Engagement Summary Information Report and the full Phase 1, What We Heard Engagement Summary Report.

Draft Project Vision

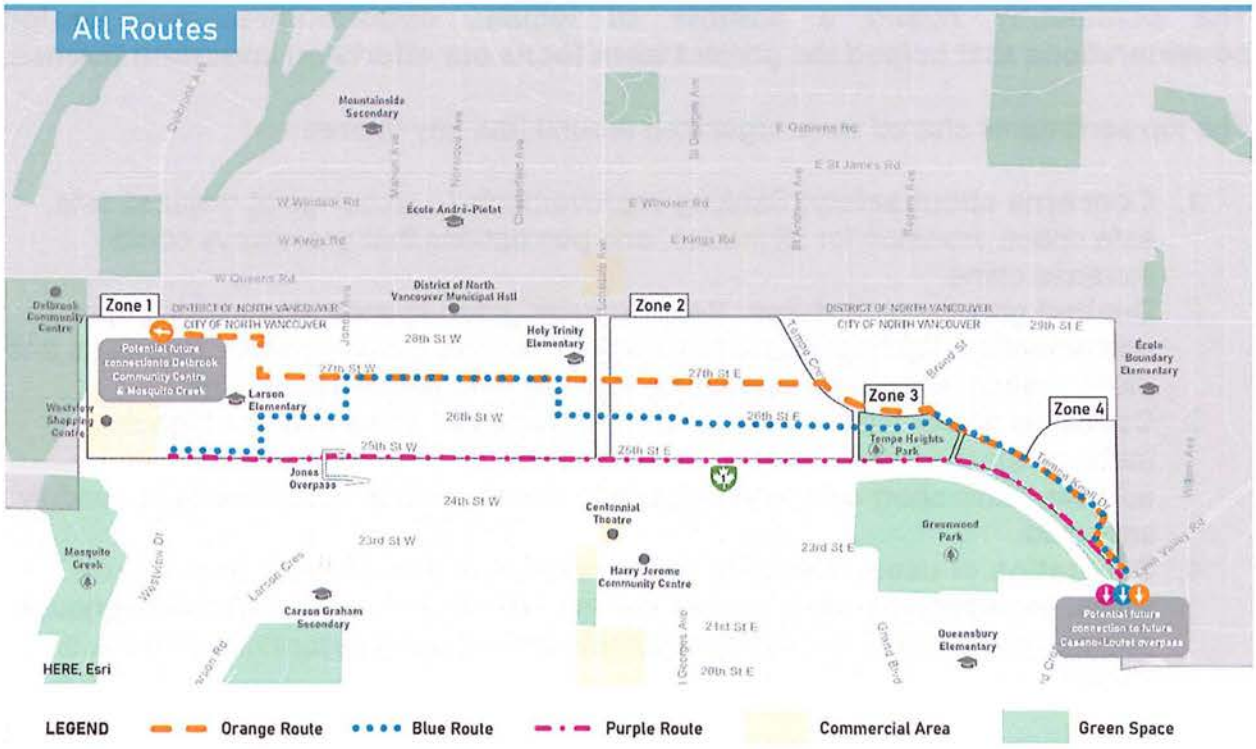
Informed by what we heard from during the first phase of engagement, the project team developed the following draft vision statement for the Upper Levels Greenway.

> *"The Upper Levels Greenway will be an active and healthy mobility corridor that celebrates connections to nature; provides a safe, comfortable and pleasant experience for people of all ages and abilities to walk, roll and cycle; and connects to other greenways and routes."*

The project team will be confirming this vision with the public during the upcoming engagement. Once confirmed, the vision statement will continue to guide the design choices we make through the project development process.

Neighbourhood Design Zones

Drawing from the draft vision and community feedback, we have developed three (3) different route options that each travel through four different zones. Each zone has unique characteristics to consider and incorporate into the design. This means the greenway may look different depending on which zone it is travelling through.



- **Zone 1** – The area between Lonsdale Avenue and Westview Drive, between 25th and 29th Avenues, at the west end of the study area. This zone is predominantly low density residential with quiet local streets, low traffic volumes and features the Jones Overpass.
- **Zone 2** – The area between Lonsdale and Tempe Heights Park, between 25th and 29th Avenues and Tempe Crescent. This zone is predominantly low density residential with moderately higher traffic volumes than Zone 1. This zone has areas known to experience driver short cutting.
- **Zone 3** – The main Tempe Heights Park area including the playground, pond, and forested area. The forest is home to several natural surface pathways with many exposed roots and a large tree canopy showing signs of deteriorating health.
- **Zone 4** – The eastern edge of the study area, including Tempe Heights Park Sports Courts and the pathway to Lynn Valley Road between Highway 1 and Tempe Knoll Drive. This zone is primarily natural space with low-density housing and suburban character local streets.

Evaluation Priorities

In order to assess the various options across the different neighbourhood zones, the project team developed four priority evaluation categories that align with the themes voiced by the community. These evaluation priorities are:



Safety

The option feels safe and minimizes risk from vehicle traffic for people of all ages and abilities. The *Safety* criterion considers traffic volumes and speeds, comfort for people walking and cycling, and street lighting levels.

Connection	The option connects to other greenways, routes and places people want to go. The *Connection* criterion considers route directness along the corridor, access to nature, access to destinations like businesses and schools, and overall connections to the broader mobility network in the City.
Experience	The option provides a pleasant and comfortable experience for recreation and/or getting around. The *Experience* criterion considers topography, environmental noise, and accessibility for people of all ages and abilities.
Features	The option provides opportunities to emphasize and incorporate natural features and community amenities. The *Features* criterion considers existing amenities and places of interest, views to celebrate, placemaking potential along the route, and how the greenway could fit with the neighbourhood character.

We also heard concerns around impacts to parking, privacy, and potential for noise. These impacts have been taken into consideration, along with additional criteria such as known technical constraints, to help us develop route options for the Upper Levels Greenway.

Design Approaches

In order to respond to the different neighbourhood zones and design challenges, it is recognized that the greenway may take different forms along the corridor. There are four (4) main infrastructure design approaches that would be considered feasible and appropriate to deliver a new community greenway.

These design approaches include:

Design Approach	Description	Example
Multi-Use Pathway	Off-street pathways that are physically separated from motor vehicle traffic and can be shared by people using active modes including walking, cycling, skateboarding, scootering, and in-line skating. Typically carries two-way active transportation modes on one side of the street.	

Design Approach	Description	Example
Wide Sidewalk & Protected Bicycle Lane	Separated bicycle and pedestrian facilities that are similar to multi-use pathways. The key difference is that people cycling, skating, or scootering are separated from pedestrians by a painted line or other physical barrier treatments. The facilities can be one-way on both sides of a road or a two-way facility on one side.	
Wide Sidewalk & Local Street Bikeway	Streets with low motor vehicle volumes and speeds, often with traffic calming treatments, that are comfortable for people cycling to share the road with motor vehicles. Local streets provide a more enjoyable and comfortable walking experience through separation of modes and slowing of vehicle traffic.	
Natural Surface Pathway*	Off-street pathways through under-developed areas, such as parks, can use gravel or other natural materials as a cost-effective alternative. The facilities are typically two-way for active transportation modes, and can be on one side of the street or through a park. *Natural surface pathways are not appropriate to deliver a fully accessible All Ages and Abilities facility. This design approach would only be considered appropriate if an accessible pathway is not achievable due to other constraints.	

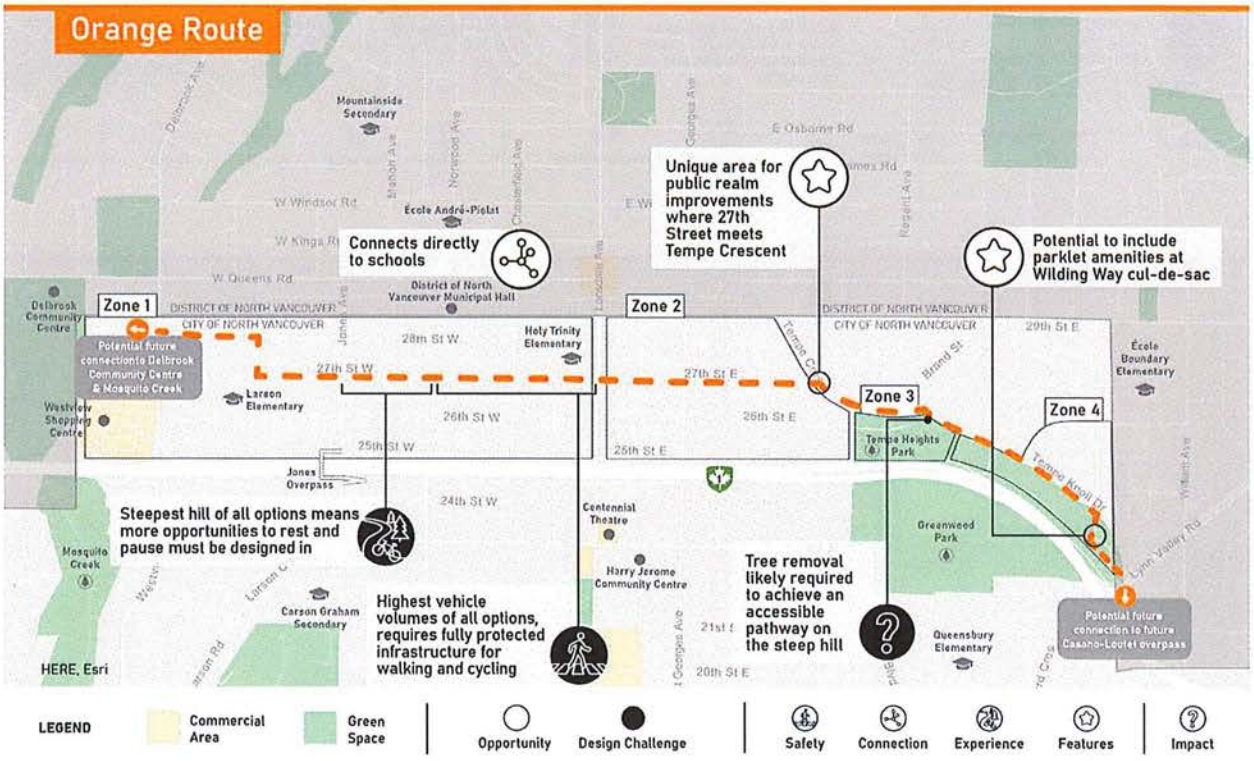
Each of these design approaches has benefits and constraints – primarily related to:

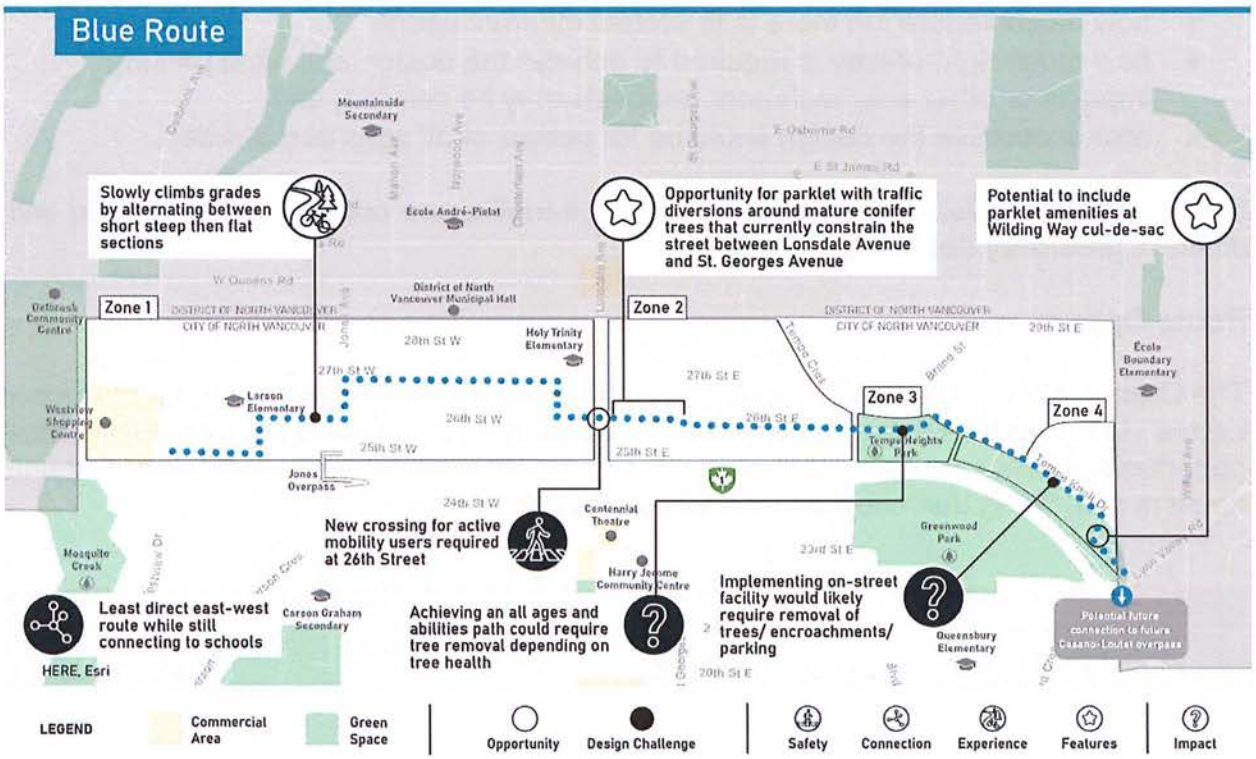
- how much separation there is to protect different users;
- how much right-of-way is required to achieve the design and what parking impacts or other encroachment removals may be needed; and
- how accessible the design could be for people of all ages and abilities.

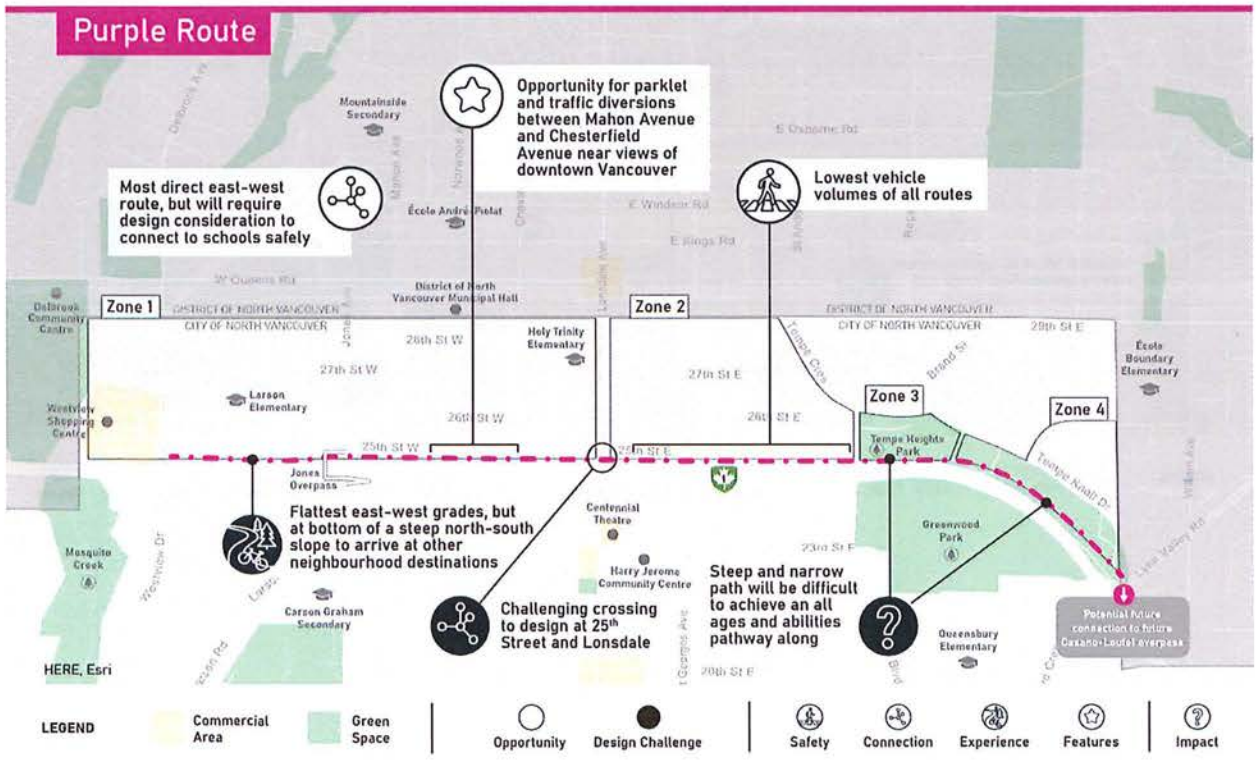
See Attachment 3 for a full description of the benefits and constraints associated with different greenway design approaches.

Route Options

The Orange, Blue, and Purple routes shown here are all feasible pathways for the Upper Levels Greenway. Every option has a different set of defining characteristics, opportunities (white icons), and design constraints (black icons). Each of the constraints noted is something that could be addressed through design.




Blue Route
Slowly climbs grades by alternating between short steep then flat sections
Opportunity for parklet with traffic diversions around mature conifer trees that currently constrain the street between Lonsdale Avenue and St. Georges Avenue
Potential to include parklet amenities at Wilding Way cul-de-sac
Zone 1
Zone 2
Zone 3
Zone 4
New crossing for active mobility users required at 26th Street
Least direct east-west route while still connecting to schools
Achieving an all ages and abilities path could require tree removal depending on tree health
Implementing on-street facility would likely require removal of trees/ encroachments/ parking
Potential future connection to future Cassano-Loutet overpass
HERE, Esri
LEGEND
Commercial Area
Green Space
Opportunity
Design Challenge
Safety
Connection
Experience
Features
Impact


Purple Route
Opportunity for parklet and traffic diversions between Mahon Avenue and Chesterfield Avenue near views of downtown Vancouver
Most direct east-west route, but will require design consideration to connect to schools safely
Lowest vehicle volumes of all routes
Zone 1
Zone 2
Zone 3
Zone 4
Flattest east-west grades, but at bottom of a steep north-south slope to arrive at other neighbourhood destinations
Challenging crossing to design at 25th Street and Lonsdale
Steep and narrow path will be difficult to achieve an all ages and abilities pathway along
Potential future connection to future Cassano-Loutet overpass
HERE, Esri
LEGEND
Commercial Area
Green Space
Opportunity
Design Challenge
Safety
Connection
Experience
Features
Impact

Initial Evaluation and Design Possibilities

The project team has compared the different routes against each other and across the various priority categories to determine what is most feasible across each route, and to identify what types of design choices may be appropriate to address both opportunities and constraints.

The comparative evaluation was conducted on a spectrum to help assess the level of significance of the challenge or opportunity presented.



The routes are primarily assessed against the existing conditions along each option expect in the case of placemaking, which was evaluated based on the potential to incorporate park and public realm improvements.

There is no single option that is strongly preferred over the others when considering the full range of public priorities and technical constraints.

See Attachment 4 for a break down of the comparative evaluation across the priority categories, examples of which design approaches could be feasible, and a preliminary assessment of what might not be feasible in specific zones on each route given the context and constraints.

Public Realm Opportunities

Each of the route options presents similar but different opportunities for expanded public realm infrastructure. This could include a range of potential designs such as linear parklet space with seating and places to rest and socialize, traffic diversions or street closures to create small park areas, and space for public art. Once the preferred route is selected, more detail will be developed around appropriate public realm improvements that best respond to the specific conditions found along the route. Council and the public will have opportunities to provide feedback on public realm designs in a future public engagement period.

Public and Stakeholder Engagement

Public engagement on the project vision and route options will begin April 27, 2022, and run until May 20, 2022. The public engagement will be gathering input on what people like, or are concerned about, with the different route options and potential design approaches for the greenway. The survey will seek to confirm the project vision and further confirm how different respondents see themselves using the greenway. This information will be used to narrow the project down to a single preferred concept alignment that will best respond to the context and needs of the community.

The project team will be utilizing a range of tactics to achieve broad outreach including:

- **Let's Talk and Survey**: The Let's Talk page will continue to be the leading source of information for the project. All people engaging with the project team will be encouraged to complete the full survey on Let's Talk.
- **Open House and Pop-Up Events**: An in-person Open House will be held May 10, 2022, at Larson Elementary School. A number of pop-up events are scheduled to reach future users of the greenway, including youth at CityFest, other schools in the project area, and active mobility patrons along other City greenways and trails.
- **City Website**: The City website will host a graphic banner on the homepage and highlight under the City News and Events section. Information posted on the project webpage (cnv.org/ULG) links to the Let's Talk page during the engagement period.
- **Postcard**: Postcards will be delivered via Canada Post to all addresses in the project area.
- **Print Ad**: A colour ad will appear in the North Shore News during the engagement period.
- **On-site Signage**: Project signs targeting people walking, rolling, cycling, and driving will be installed through the area for the engagement period.
- **Info Bulletin**: Project launch will include a direct bulletin delivered to Mailchimp subscribers.
- **CityView eNewsletter**: Information about the ongoing survey will be included in CityView during the engagement period.
- **Social Media**: Posts on Facebook, Twitter, and Instagram will be used to direct people to Let's Talk during the survey engagement period.

Staff have initiated engagement requests with Squamish Nation and Tsleil-Waututh Nation to understand interests they have in the project and to ensure the project is scoped to accommodate Indigenous requirements as we prepare for more detailed design activities later in 2022.

FINANCIAL IMPLICATIONS

The total preliminary estimated cost for design and construction of the Upper Levels Greenway is $6,665,000, as a balance of external and City funding with the majority of City funds identified for Council consideration in the 2023 and 2024 capital plan years. Actual project costs and delivery approach will be refined through the planning and design process.

As with past active mobility projects, the project team will be pursuing external funding from a variety of funding from senior government infrastructure grants. The City has been successful in accessing these grants for similar projects in the past, and staff will continue to pursue all external funding opportunities.

INTER-DEPARTMENTAL IMPLICATIONS

As the Upper Levels Greenway involves a variety of technical components including parks design, transportation planning, and overall road works coordination, the project will be delivered through the Public Realm Infrastructure group with a multi-department team from Parks, Environment, Engineering Design, Development Planning, Transportation Planning, Communications, and Finance contributing throughout the process.

STRATEGIC PLAN, OCP OR POLICY IMPLICATIONS

This project supports a Connected City, provides active and sustainable ways for people to move to, from and within the City safely and efficiently and will result in the increase of active transportation mode share, while also supporting the health and well-being of all.

In addition, the development and implementation of the City's Priority Mobility Network Project aligns with and advances key principles of the Mobility Strategy, Safe Mobility Strategy, WalkCNV, and established City goals and objectives. Specific OCP objectives include:

- Objective 2.1: Prioritize walking, cycling, transit and goods movement over single-occupancy vehicles;
- Objective 3.1: Enhance well-being and quality of life for all community members; and
- Objective 5.2: Support, enhance and maintain recreation as a vital aspect of a healthy community.

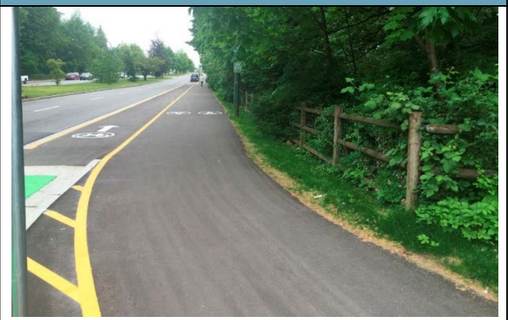
RESPECTFULLY SUBMITTED:



Mo Bot
Project Manager – Public Realm Infrastructure

Upper Levels Greenway – Design Approaches, Benefits, and Constraints

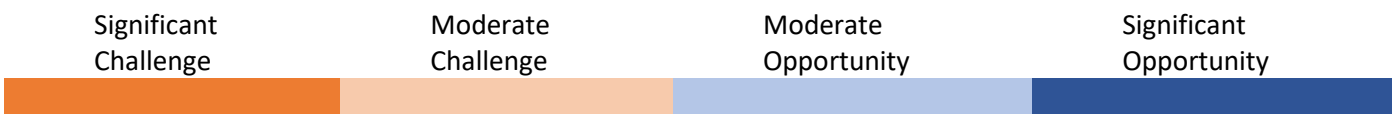
Attachment 3

	MULTI-USE PATHWAY	WIDENED SIDEWALK & PROTECTED BICYCLE LANE	WIDENED SIDEWALK & LOCAL STREET BIKEWAY	NATURAL SURFACE PATHWAY
EXAMPLES	 	 	 	 
DESCRIPTION	Off-street pathways that are physically separated from motor vehicle traffic and can be shared by people using active modes including walking, cycling, skateboarding, scootering, and in-line skating. Typically carries two-way active transportation modes on one side of the street.	Separated bicycle and pedestrian facilities that are similar to multi-use pathways. The key difference is that people cycling, skating, or scootering are separated from pedestrians by a painted line or other physical barrier treatments. The facilities can be one-way on both sides of a road or a two-way facility on one side.	Streets with low motor vehicle volumes and speeds, often with traffic calming treatments, that are comfortable for people cycling to share the road with motor vehicles. Local streets provide a more enjoyable and comfortable walking experience through separation of modes and slowing of vehicle traffic.	Off-street pathways through under-developed areas, such as parks, can use gravel or other natural materials as a cost-effective alternative. The facilities are typically two-way for active transportation modes, and can be on one side of the street or through a park.
BENEFITS	• Suitable for people of all ages and abilities. • People walking, wheeling, or rolling are physically separated from traffic. • Requires less space than wider sidewalks and protected bicycle lanes side by side. • Can be adapted and adjusted to a park setting (width, lighting, etc.)	• Suitable for people of all ages and abilities. • People walking, wheeling, or rolling are physically separated from traffic. • People cycling are physically separated from other active users. This creates a more comfortable environment and minimizes the potential safety conflicts between people walking and faster-moving users. • May be more attractive to people cycling for commuter purposes than a multi-use pathway.	• Suitable for people of all ages and abilities. • People cycling on the street are separated from people walking on the sidewalk. • Does not require additional space for dedicated infrastructure. • Slow the speed down on the street leading to increased safety for all users. • May be more attractive to people cycling for commuter purposes than a multi-use pathway.	• Appropriate for environmentally sensitive areas. • More cost-effective. • May allows for future improvements such as paving if desired. • Maintains the natural look and feel of natural settings such as a park or forested area.

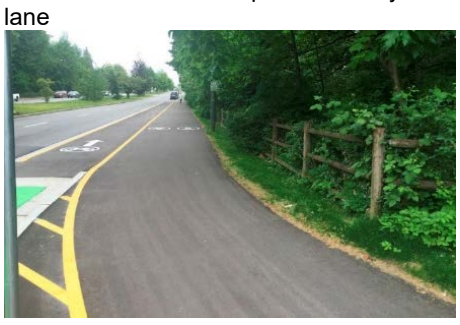
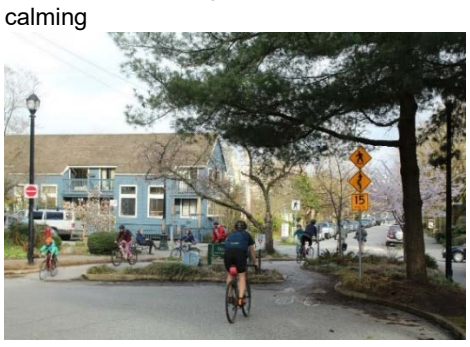
	MULTI-USE PATHWAY	WIDENED SIDEWALK & PROTECTED BICYCLE LANE	WIDENED SIDEWALK & LOCAL STREET BIKEWAY	NATURAL SURFACE PATHWAY
CONSTRAINTS	• There is a mix of users and speeds travelling in both directions, which creates potential for conflicts and may be a less comfortable environment for some. • May be less attractive to people cycling for commuter purposes	• Requires more space than multi-use pathways or local street bikeways.	• People cycling share the road with motor vehicles with no physical separation. This may not feel comfortable for less confident or experienced cyclists • Less intuitive for cyclists and drivers than designated facilities with clear space allocated to each user.	• Not considered appropriate for all ages and abilities. • Gravel pathways are inaccessible for certain user groups, including skateboarders and in-line skaters. • Gravel pathways may also be more difficult to navigate for people cycling and people using mobility devices.
IMPACTS	• On-street parking is typically impacted. • Encroachments within the City right-of-way may need to be removed. • Tree removal may be required to accommodate paving and path widening. • Limited impacts to traffic operations.	• On-street parking is typically impacted. Impacts may be more significant than a multi-use pathway due to the space required. • Encroachments within the City right-of-way may need to be removed. • Tree removal may be required to accommodate paving and path widening. • Limited impacts to traffic operations.	• Limited impacts to on-street parking. • Traffic calming and/or diversion may be required to reduce traffic speeds and volumes, which may have impacts on vehicle access and circulation.	• Limited impacts in natural spaces, however slope stabilization and tree removal may be required depending on the ground conditions.

Upper Levels Greenway – Initial Route Options Evaluation

A preliminary comparative evaluation of the three options was conducted on a spectrum to help assess the level of significance of the challenge or opportunity presented.



The routes are primarily assessed against the existing conditions along each option expect in the case of placemaking which was evaluated based on the potential to incorporate park and public realm improvements.

EVALUATION	ORANGE ROUTE	BLUE ROUTE	PURPLE ROUTE
SAFETY			
TRAFFIC VOLUMES / SPEEDS			
PEDESTRIAN / CYCLIST COMFORT			
LIGHTING			
CONNECTION			
DIRECTNESS			
ACCESS TO NATURE			
ACCESS TO BUSINESSES / SCHOOLS			
NETWORK CONNECTIVITY			
EXPERIENCE			
NOISE			
ACCESSIBILITY			
TOPOGRAPHY			
FEATURES			
PLACEMAKING POTENTIAL			
AMENITIES			
PLACES OF INTEREST			
VIEWS			
CHARACTER			
WHAT IS NOT FEASIBLE?	Zone 1/2: On-street, non-separated facilities on some blocks as climbing cyclists cannot keep up with the speed of traffic Zone 1/2: Multi-use pathway would not be appropriate on some blocks for downhill direction due to cyclist speeds	Zone 1/2: On-street, non-separated facilities on some blocks as climbing cyclists cannot keep up with the speed of traffic Zone 1/2: Multi-use pathway would not be appropriate on some blocks for downhill direction due to cyclist speeds	Zone 4: Path may require geotechnical assessment along berm.
WHAT COULD THIS LOOK LIKE?	Widened sidewalk and protected bicycle lane  Off-street multi-use pathway through parking reduction or widening sidewalk towards property line  Local street bikeway with moderate traffic calming 	Widened sidewalk and protected bicycle lane  Off-street multi-use pathway through parking reduction or widening sidewalk towards property line  Local street bikeway with moderate traffic calming  Paved multi-use pathway upgrade through short park section 	Road space reallocation and/or conversion to one-way street.  Local street bikeway with moderate traffic calming  Paved or gravel multi-use pathway upgrade through short park section 



Upper Levels Greenway

Corridor Options and Public Engagement Launch

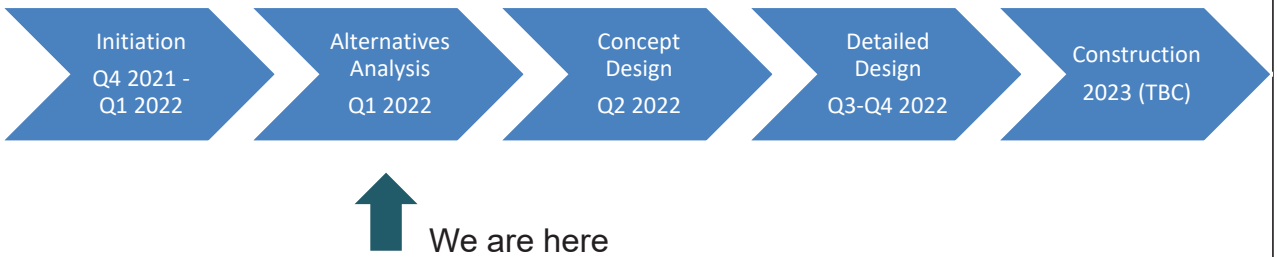
Presented April 25, 2022

Engineering, Parks and Environment

Background



Project Milestones

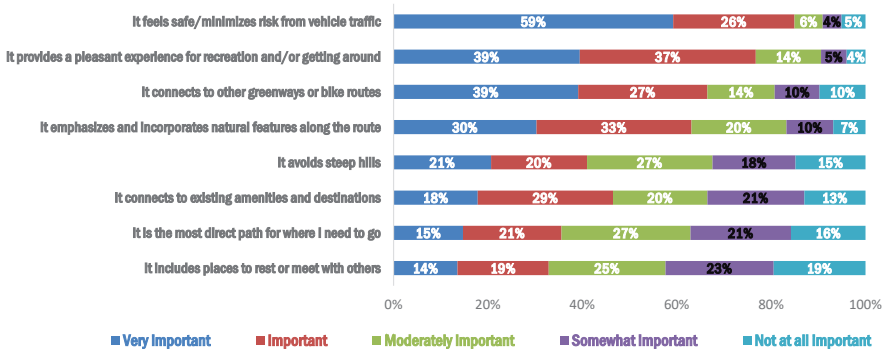


UPPER LEVELS greenway

What We Heard

Key Themes (900+ survey responses)

- Concerns about safety
- Desired greenway features
- Concerns about traffic
- Need for separation of users



UPPER LEVELS greenway

Draft Project Vision

*"The Upper Levels Greenway will be an **active and healthy** mobility corridor that **celebrates connections to nature**; provides a **safe, comfortable and pleasant** experience for people of **all ages and abilities** to walk, roll and cycle; and **connects** to other greenways and routes."*



UPPER LEVELS greenway

Evaluation Priorities



SAFETY



CONNECTION



EXPERIENCE



FEATURES

UPPER LEVELS greenway

Design Approaches



MULTI-USE PATHWAY



WIDE SIDEWALK &
PROTECTED BICYCLE LANE

UPPER LEVELS greenway

Design Approaches



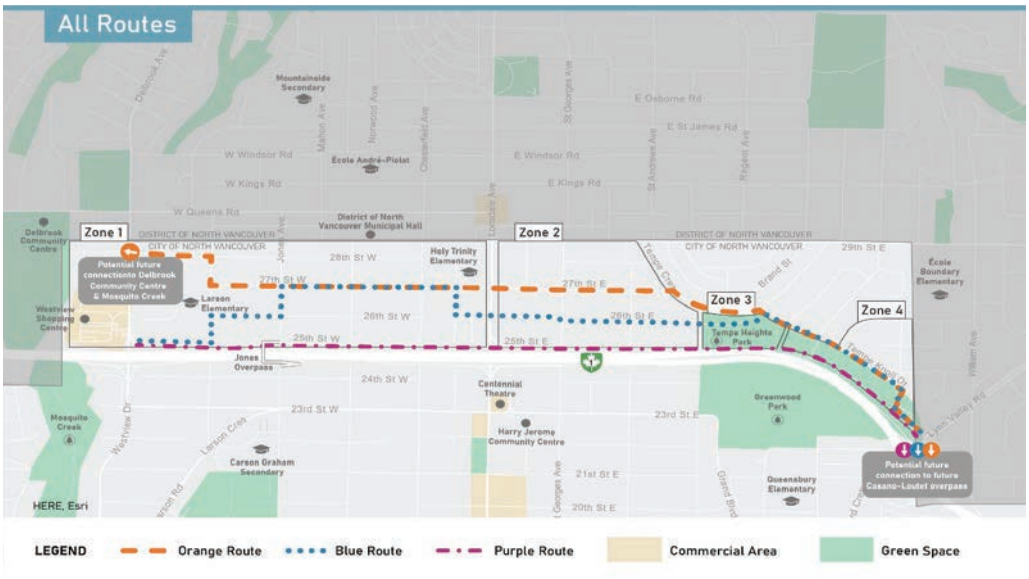
WIDE SIDEWALK & LOCAL
STREET BIKEWAY



NATURAL SURFACE
PATHWAY

UPPER LEVELS greenway

Neighbourhood Context



UPPER LEVELS greenway

Comparative Evaluation

There is no single option that is strongly preferred over the others when considering the full range of public priorities and technical constraints



UPPER LEVELS greenway

Phase 2 - Public Engagement

April 27 – May 20, 2022

- Let's Talk & survey
- Open house & pop-up events
- Print signs, postcards, advertisements
- Digital and social media campaign



UPPER LEVELS greenway



Thank you

city of north vancouver

ULG@cnv.org