100 Street Pedestrian Bridge

Concept Design | What We Heard Report

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SHARE YOUR VOICE SHAPE OUR CITY

Edmonton

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About the Project

The 100 Street Pedestrian Bridge will connect the energy of downtown Edmonton with the vibrancy of the river valley! This new iconic bridge will become the latest addition to Edmonton's skyline and create a continuous circuit along the edge of downtown. Located at the crest of McDougall Hill Road and 100 Street NW, the proposed pedestrian bridge will connect the future MacDonald Drive Promenade to the 100 Street Funicular Upper Plaza. Sitting above McDougall Hill Road, the pedestrian bridge will provide a safe passageway for active modes of transportation and create a new public place for Edmontonians and visitors alike to enjoy the river valley edge.

This bridge was identified in the <u>Capital</u> <u>City Downtown Plan, Capital City</u> <u>Downtown Community Revitalization</u> <u>Levy Plan and Bike Plan</u>. The concept for this bridge was further developed in the <u>Downtown Public Places Plan</u>, which calls for space improvements to create a greener, healthier and more family friendly downtown. This plan also provides recommendations for a network of interconnected spaces that enhance downtown's vibrancy and accessibility.

Instantly recognizable as a public landmark on the skyline, the 100 Street Pedestrian Bridge will be a destination in itself. By improving access through downtown and into the park network, the pedestrian bridge and public spaces around it will provide diverse opportunities for commuting, recreation, and gathering. Connecting Edmonton's downtown and its river valley, the bridge provides a much needed pedestrian connection along the top-of bank, and celebrates the expansive view of the river valley and its special place in Edmonton's history. The pedestrian bridge will also be an inviting and inclusive place for users of all abilities to stroll and sit - a contemplative space that instills a unique sense of place in Canada's northernmost major city.



Project Objectives

- + To provide a critical connection
- To become a signature destination
- To promote activation and placemaking
- To maximize user experience and aesthetics

Public Engagement Approach

How We Engaged

Public Engagement for this Concept Design phase was open for feedback from **April 4–24**, **2022** at <u>edmonton.ca/100StreetPedBridge</u>.

An online survey was the primary tool used to gather feedback from the public, accompanied by supporting materials to explain and illustrate the bridge options. Due to the Covid–19 pandemic and the City's current engagement policies, this phase did not include any in–person engagement.

Engagement & Communications Tools

Engage			
× ×	Public Survey	The online survey was the primary means to share information and collect feedback during this phase of engagement.	
×=	Stakeholder Survey	Public survey questions were included in a PDF discussion guide booklet to collect consolidated feedback from stakeholder groups.	
Inform			
	Project Webpage	The online hub for all project information, including public survey, bridge option renderings, and the items listed below.	
	Project Video	A short project video highlighted the purpose of the project and showcased the three bridge options.	
	Flythrough Videos	Additional videos showcased the bridge concepts from the perspective of a pedestrian on the bridge and a car approaching the bridge from McDougall Hill Rd.	
뫪	Virtual Reality Panoramas	QR codes allowed participants to access 360° virtual reality views of each of the bridge concepts on their phones.	
	Concept Design Overview	A PDF document highlighting bridge renderings and additional background information about the project and concepts.	
Communications			
() () () () () () () () () () () () () (Social Media	Posts on the City of Edmonton's Facebook and Twitter accounts.	
₽	Posters & Lobby Displays	Signage was posted around the site and within the lobbies of surrounding properties to inform users of the area about the project, share bridge images, and promote engagement.	
Ļ,	Road Signage	Signs placed along major roadways.	
	Postcards	Postcards promoting the public engagement opportunity distributed to neighbouring communities.	
	Direct Emails	Direct emails to identified stakeholder organizations and property owners.	

Who We Engaged

The City is committed to involving the people affected by the decisions it makes, and seeks diverse opinions, experiences and information so that a wide spectrum of perspectives are represented in the process. This included:

- + **General Public:** Engagement opportunities were open to all Edmontonians to participate and were promoted widely through social media, signage around the site, and other direct communications.
- + Stakeholder Groups: Adjacent property owners, residents associations, downtown business and tourism groups, and active transportation and environmental organizations were invited to share feedback on the bridge concepts. Prior to the public Concept Design stage, these groups were also invited to participate in conversations with the project team to discuss issues and opportunities to inform the design process.

What We Asked

The survey was the primary tool used to collect feedback from the public and stakeholders, with **900 participants**. Below is an overview of the survey questions.

WHAT WE ASKED

IMPORTANT FACTORS

- + Thinking about the new bridge, please rate how important the following factors are to consider for the bridge design.
 - + Minimal impact to the existing natural environment
 - + Embodies low-carbon construction
 - + Becomes a destination and gathering place
 - + Provides scenic views of the city and river valley
 - + Provides all-season comfort
 - + Positively impacts the skyline
 - + Unique and site-specific design
 - + Easily accessible for all users
- + Are there any other important factors to consider for the bridge design?

BRIDGE CONCEPT OPTIONS

Repeated for all three bridge options:

- + Level of agreement with the following statements:
 - + I would feel comfortable and safe walking across the bridge.
 - + I would feel comfortable and safe cycling/wheeling across the bridge.
 - + The bridge would create a unique landmark destination for the city by providing a signature Edmonton experience for both residents and visitors.
 - + The bridge would fit in the city's skyline and surrounding area, being respectful of how it integrates with its surroundings.
 - + The bridge would feel safe and welcoming and offer a place to stop, sit, gather, and enjoy the views.
- + Do you have any additional comments (regarding the statements above) that you would like to share with the project team about this design option?

IDEAS FOR IMPROVEMENT

- + How could the experience on and around the bridge be improved as a shared space for different active modes of transportation (walking, wheeling, etc)?
- + How could the experience on the bridge be improved as an attractive, safe, and comfortable destination? Consider use through all seasons and times of day.
- + How could the area be activated with events, festivals, and retail opportunities?





WHY WE ASKED

To inform the bridge option evaluation, along with other technical inputs and considerations.

To inform the
bridge option
evaluation and help
design changes of
the selected option
in the Preliminary
Design phase.

To help guide design changes of the selected option in the Preliminary Design phase.

Public Engagement Summary & Results

Important Factors

Thinking about the new bridge, please rate how important the following factors are to consider for the bridge design.

The most important factor indicated by respondents was for the bridge to be **easily accessible for all users**. This objective received the most *strongly agree* responses as well as the least number of *strongly disagree* responses. It is understood that respondents believe inclusivity is a key design element for the bridge.

Providing **scenic views** and **positive impacts to the skyline** were also rated highly, which suggests that many respondents believe the experience on and off the bridge is of key importance. Two factors which received nearly identical responses were **impact to existing environment** and a **site-specific design**.

The least important objectives were for the bridge to be a **destination and gathering place** and to use **low-carbon construction**. However, even these two objectives were *strongly* or *somewhat* supported by over half of respondents.

A consistent theme of the open-ended comments was the concern over bridge **cost**. There was feedback about fiscal responsibility within the current economy and whether this was a good use of taxpayer funds. Further, many respondents questioned whether a bridge was required at all with preference for a crosswalk across 100 Street as an alternative.

A selection of quotes from respondents is highlighted to the right.



Thinking about the new bridge, please rate how important the following factors are to consider for the bridge design

Comment Quotes

Design

- + "A design that minimizes construction impacts and keeps the roadway open. A design that is easy to clear of snow and ice in winter. A design that we can afford to maintain in good condition."
- "Cost efficient design based on materials/inflation and making it an inclusive space that is safe and welcoming for people of different ages and abilities and backgrounds."

Safety

- + "Safety, adequate space for all users to pass each other especially while traveling at different speeds or using different modes, and cost effectiveness."
- + "Connects and enhances bike infrastructure into downtown/river valley. Also includes safety features to prevent suicide."
- "Safety concerns with low barriers, lack of high mesh fencing (as seen on high level bridge) for a bridge that runs over a major road and high above sloped hill balanced with visibility, visually appealing bridge to provide unobstructed views."

Cost

- + "Keep it cost effective. Taxpayers don't want too much of a burden on their budget. The city just needs to build a simple bridge that is accessible for everyone."
- + "Cost, the City of Edmonton must exercise fiscal responsibility for this project as it benefits a small number of Edmontonians. Maintenance and upkeep costs must also be factored into the final design and price tag."
- + "Need to know costs before actually agreeing this bridge is even worth building it."
- + "Complete waste of time and money!"

Option 1: Timber Bridge

Made of low-carbon timber construction, this bridge spans over McDougall Hill Road, extending over the hillside.

Nearly three-quarters of respondents indicated they would feel comfortable and safe walking across the bridge, with slightly fewer saying the same for cycling or wheeling.* Similarly, the majority of respondents thought the bridge would feel safe and welcoming to enjoy the views. Over half of respondents thought the bridge would create a unique landmark and fit into the city skyline. General sentiment was favourable towards this design option.

In the open-ended comments, some respondents remarked on the choice of material, noting that they preferred the appearance of wood, because it would match the immediate surroundings such as the funicular. However, there were also concerns about the longevity and long-term maintenance of the timber. Some preferred the minimal impact to the skyline of this option, while others wanted to see a more iconic design and that the timber bridge may appear too bulky.

Safety concerns were also raised about the bridge edges and the ability to climb over and/or drop items onto the road below. Chain link fencing was noted to be easier to climb and less attractive than the glass option.



Option 1: Timber Bridge



Comment Quotes

Timber Material

- + "This option would be a great showcase for mass timber, which is extremely important for the construction industry to reduce our carbon emissions.
- "I like the idea of the timber bridge, but wonder how it will weather given the harsh winter climate. How will it be protected and kept up as it gets older?"
- "This design is excessively prominent, large and does not integrate into the natural setting."

Design

- + "This option is most aesthetically pleasing as well as people friendly design. I see this as a natural meeting spot for many types of users."
- + "I like this design, but feel it isn't as impactful as the two mast style systems."
- + "This is my choice of designs. Not overly complicated and compliments the funicular wood elements."

Safety

- "This area is not currently a space that I would feel safe or comfortable sitting and gathering during certain times of the day.
 Without addressing this, I am concerned that it will become quickly run down and not used for its intended purpose."
- + "Maybe an emergency phone of some type could be installed here for safety. This could be a bit of a scary place at night."

* The description above considers the combined rating of strongly agree and somewhat agree as a general indication of support. Similarly, the strongly disagree and somewhat disagree are combined to indicate general opposition.

Option 2: Cable Stayed Bridge

The Cable Stayed Bridge is a suspension-like structure with a central mast on the north side of the road.

The majority of respondents (over two-thirds) indicated they would feel comfortable and safe walking across the bridge, with a nearly identical amount saying the same for cycling or wheeling.* Closely behind in level of agreement was that this bridge option would create a unique landmark and that it would feel safe and welcoming as a place to enjoy views. Just over half of respondents thought the bridge would fit into the city skyline.

In the open-ended comments, some respondents felt that the cables would obstruct views to the river valley and Hotel Macdonald. Others preferred this design as it was more impactful or iconic and matched other bridge projects like the Walterdale Bridge.

Safety concerns were also raised about the bridge edges and the ability to climb over or drop items onto the road below. It was noted that wind may also affect users with the proposed railing type. Additionally, some respondents noticed that the bridge width was noted to seem too narrow to safely accommodate all users.







Comment Quotes

Design

- + "Option 2 is a wonderful construction and design with cable. It is a complement to the newest bridge in Edmonton. Maintenance costs still need consideration, all in."
- "This design is excessively abrasive, prominent, large and does not integrate into the natural setting."
- "I feel the cables might distract partially from the skyline. The aesthetic of the buildings behind would be obscured, however slightly."

Safety

- + "Don't feel the cables are going to support the weight of ice in winter, corrosion and wind may not make it safe to be on during some weather conditions."
- + "I would feel this bridge to be my least acceptable option as the structure seems less safe and comfortable due to the stress on the main mast. I feel this would be under maintenance all the time."

Views

- "Cable stayed bridges have become overwhelmingly common around the world, and in a location like this I'm worried a tall mast would intrude on views of downtown, and the hotel, and negatively busy-up the view of the skyline."
- "While the cables are more of statement and might be more interesting to look at, I wouldn't want it to obstruct any views."

* The description above considers the combined rating of strongly agree and somewhat agree as a general indication of support. Similarly, the strongly disagree and somewhat disagree are combined to indicate general opposition.

Option 3: Suspended Bridge

The Suspended Bridge also uses a mast, but with tension cables that wrap under the bridge on the south side of McDougall Hill Road.

This bridge option received the most uniformly favorably response, with general agreement of 60% or above on all questions . Over two-thirds of respondents indicated they would feel comfortable and safe walking across the bridge, with nearly the same amount saying the same for cycling or wheeling.* Shortly behind, respondents thought the bridge would create a unique landmark and that the bridge would fit into the city skyline. Lastly, respondents thought this option would feel safe and welcoming as a place to enjoy views.

In the open-ended comments, respondents noted that the design was clean and visually interesting, that the "floating" design was intriguing and that it would connect well to surroundings. Others found the design to be too sleek and busy with cables and that the angle of the mast was awk ward in appearance.

Safety concerns were raised about the bridge design itself, such as allowing safe allocations for different users like pedestrians and cyclists, having appropriately high railings and the effects of snow and ice on cables. Practical suggestions to increase the feeling of security in the area included additional lighting and an emergency phone.



Option 3: Suspended Bridge

* The description above considers the combined rating of strongly agree and somewhat agree as a general indication of support. Similarly, the strongly disagree and somewhat disagree are combined to indicate general opposition.



Comment Quotes

Design

- "This is my second favorite of the designs. It looks contemporary and modern but doesn't fit as nicely with the landscape."
- + "Not as attractive as the timber bridge."
- "I strongly support this unique design. I have not seen a similar design in all my travels throughout different parts of the world. The city badly needs a modern signature structure like this."
- + "Another wonderful design. Love it."

Safety

- + "My concern about safety is related to the criminal and nuisance activities so prevalent downtown. This is just another stopping place for such further activity. How will it be policed?"
- + "Make sure that active transport users can easily flow on and off whatever you build. No acute angles or weird barriers that prevent safe and efficient flow."

Views

- + "Most interesting, provides a unique design while minimizing obstruction to views."
- + "I really like the unobstructed view of the river valley of this design, and that it is extended out more."

Ideas for Improvement

In response to all three questions, safety was the most critical aspect of the design for respondents. As a shared space for those who walk, bike, and wheel, it is important that the areas are clearly separated. Lighting, signage, designated bike lanes, sufficient space for all speeds, and connection to the existing cycling grid were indicated as methods to improve the experience for all.

A consistent concern across all questions was protection from crime, as people feel that, at present, users may feel unsafe stopping in the area. Security, consistent maintenance, emergency phones, and improved sight lines were suggested as potential solutions.

As a destination, it was stated that the area should include the appropriate site furniture to promote stopping. Visual interest was found to be important as well. Adding accent/holiday lighting, public art, and an attractive planting design were recommended. Consistent snow/ice removal and wind buffering were noted to improve year round use and protection from the elements on the bridge.

As a gathering space, respondents generally noted that events or festivals should take place adjacent to the bridge in order to keep the area clear for commuters. MacDonald Drive was noted as an opportunity for enhanced pedestrian space. Food vendors, farmers markets, and musical events were proposed for the area. Events that utilize the surrounding areas like the funicular and river valley trails were also suggested.



Connection

How could the experience on and around the bridge be improved as a shared space for different active modes of transportation (walking, wheeling, etc)?

- + Ensure accessibility for all mobility levels (e.g. canes, strollers, wheelchairs)
- + Clear visual distinction between walking and wheeled areas
- Physical barrier between walking and wheeled areas
- + Sufficient lighting on and around the bridge
- + Connections to existing cycling grid
- + Adequate deck width to accommodate all users safely
- + Ensure bridge landings are safe for users coming off and onto the bridge at different speeds

Destination

How could the experience on the bridge be improved as an attractive, safe, and comfortable destination? Consider use through all seasons and times of day.

- Regular year-round maintenance, including consistent snow removal
- + Amenities for users that stop in the area (e.g. seating, bike racks, waste receptacles, public washrooms)
- + Sufficient railing height
- + Adequate space for all user types
- + Wind protection
- + Accent and holiday lighting
- + Crime protections (e.g. security, emergency phone, lighting)
- + Attractive planting design
- + Public art
- + 'Instagramable' areas

Gathering

How could the area be activated with events, festivals, and retail opportunities?

- + Space for food vendors (e.g. food trucks, coffee carts, ice cream stands)
- + Encourage events that utilize surrounding areas (e.g. historical tours, funicular, trail network, river valley)
- + Ensure events/festivals do not block the bridge for commuters
- + Minimize traffic and enhance pedestrian space along MacDonald Drive
- + Expand McDougall Hill Lookout
- + Fireworks viewpoint for events like Canada Day and New Years
- + Create programming/events spaces adjacent to the bridge

Next Steps

What Happens Next?

Thank you for your participation!

Overall, participants indicated a high level of agreement with all three bridge designs, with Option 2 (Cable–Stayed Bridge) slightly less supported than the other two concepts. For details on the selected bridge option, please see the *Concept Design | What We Decided Report*.

Along with other technical inputs and considerations, public and stakeholder input was used to help inform the bridge option evaluation and the decision on the selected concept. Feedback will also be used to help guide design refinements in the upcoming Preliminary Design phase.

To stay up-to-date with the project, visit edmonton.ca/100StreetPedBridge



