



Green Line North – Centre City Alignment

Stakeholder Report Back: What we Heard

June 1, 2016

Project overview

The Green Line will be an important piece of Calgary's transit network, adding 40 kilometres of track to the existing 59 kilometre LRT system. End-to-end, the line will connect North Pointe and Seton to downtown, and is estimated to serve 41 million passengers annually.

The Green Line is a top infrastructure priority in Calgary. It will form the spine of multiple neighbourhoods across Calgary and connect the downtown with residential communities in north and southeast Calgary. Additionally, the Green Line will provide direct connections to key community destinations like the new South Health Campus, new recreation centres, major employment centres, the new \$168 million National Music Centre, the new \$245 million Central Library, Stampede Park, and several business revitalization zones. The Green Line will also integrate with future rail connection to the Calgary International Airport, which is in the midst of a \$2 billion expansion.

The Green Line will not only bring transit into communities, but will connect neighbourhoods where Calgarians can live, work and play close to transit.

Engagement overview

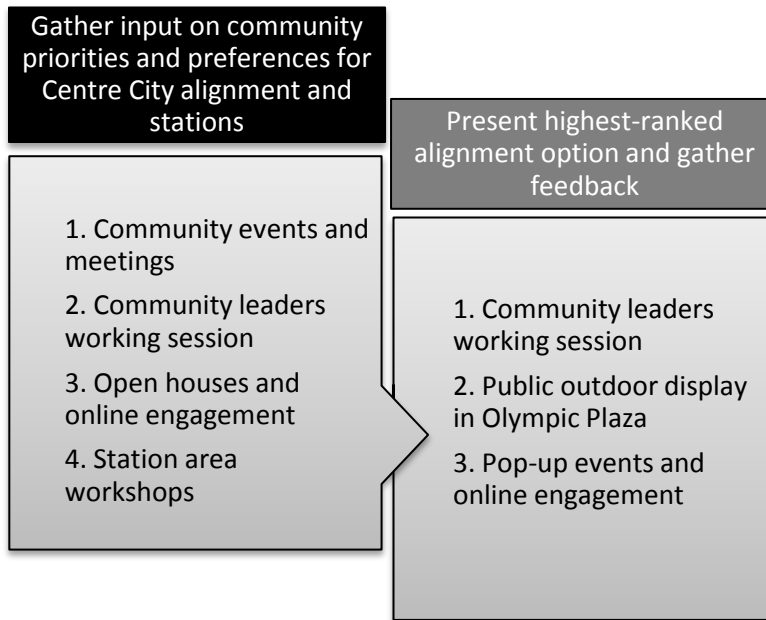
The City held a series of engagement events to solicit input on the community's expectations, issues, concerns and interests regarding alignment options for the Centre City portion of the Green Line. Businesses, community leaders, area residents, and the public were invited to participate.

Engagement activities included:

- Community engagement events and meetings: November 2015 – April 2016
- Community leaders working session: December 8, 2015
- Five open house style information sessions: February 2-16, 2016
- Four station area workshops and related online engagement: March 16 – April 27, 2016
- Highest-ranked option community leaders working session: April 18, 2016
- Highest-ranked option public outdoor display in Olympic Plaza, supported by nine related pop-up events, and online engagement: April 19-May 2, 2016

For a comprehensive list of engagement events, please see [Appendix A](#).

Flow of engagement events



Community leaders working session

In December, the project team met with community leaders including councilors, community organizations, and business leaders to gather input on Centre City alignment options and community needs.

What we asked

Community leaders were asked to provide input on:

- ▶ Potential opportunities for the Green Line in the Centre City for elevated, at-grade, and tunnel configurations
- ▶ The important factors that need to be considered in evaluating and comparing the five different Centre City options

For a detailed summary of the input that was provided, please see the [Summary of Input](#) section.

Open house information sessions

From February 2-20, 2016 the public was invited to attend six open house sessions held in locations along the Centre City and North leg of the Green Line. Approximately 920 people attended these events. The open house provided participants with an opportunity to learn about the project and to provide input on community preferences and priorities at several interactive stations through questionnaires, maps, and face-to-face conversations with staff.



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What we asked

Open house participants were asked to provide input on:

- ▶ How they would use the Green Line
- ▶ Preferences and priorities for the Green Line in the Centre City for elevated, at-grade, and tunnel configurations
- ▶ Benefits and challenges of integrating the Green Line with surrounding communities
- ▶ Preferences and opportunities for transit-oriented development
- ▶ Preferred station locations

For a detailed summary of the input that was provided, please see the [Summary of Input](#) section.

Community engagement events and meetings

Between November 2015 and April 2016 the project team held multiple meetings to engage with different stakeholders including the Chinatown community and nearby community associations. They also attended events like Baconfest and the Supertrain Model Railway Show in an effort to reach a variety of stakeholders. These activities reached approximately 900 people. Events provided stakeholders with information about the project and an opportunity to provide input on preferences, interests, and community concerns.

What we asked

Meeting attendees and event participants were asked to provide input on:

- ▶ Community expectations, interests, and issues
- ▶ Preferences and priorities for the Green Line in the Centre City for elevated, at-grade, and tunnel configurations

For a detailed summary of the input that was provided, please see the [Summary of Input](#) section.

Station area workshops

Between March and April 2016 the project team held four workshops in communities surrounding the proposed Green Line station locations. These events drew approximately 370 people. Online engagement activities supplemented these events for those who were unable to attend or for those wanting to provide additional input. Workshops were designed to gather input about the concerns and desires of residents close to the proposed station locations.

What we asked

Workshop participants were asked to provide input on:

- ▶ Preferred modes of transportation to and from the station (walk, bike, vehicle)



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- ▶ Key community destinations and features
- ▶ Key intersections to consider when addressing congestion
- ▶ Opportunities and constraints for the proposed stations

For a detailed summary of the input that was provided, please see the [Summary of Input](#) section.

Highest-ranked option community leaders working session

In follow up to the December community leaders working session, another meeting was held in April to present the public input that was gathered on the alignment options and the preferred alignment option that was chosen as a result. This meeting coincided with the launch of the Olympic Plaza public display and provided leaders with a chance to ask questions, voice concerns, and share ideas about the highest rank alignment option.

Community leaders were asked to provide input on:

- ▶ Concerns or questions related to the highest ranked option for their community
- ▶ The evaluation process the project team followed to arrive at the highest ranked option

For a detailed summary of the input that was provided, please see the [Summary of Input](#) section.

Highest-ranked option public outdoor display and pop-up events

Over the month of April the project team hosted a public display in Olympic Plaza and several pop-up events in locations in the Beltline, Centre City, and in some communities north of the Bow River to present the highest ranked alignment option to the public. Online engagement activities supplemented these events for those who were unable to attend or for those wanting to provide additional input.

These events provided stakeholders with information regarding the project team's evaluation process and introduced the highest ranked alignment option. They also provided stakeholders with an opportunity to ask questions, voice concerns, or share ideas about the preferred alignment option.

What we asked

Visitors to the public display, pop-up events, and related online engagement activities were asked to provide input on:

- ▶ Comments, questions or concerns related to the highest ranked option for their community
- ▶ The decision-making process for the highest ranked option

For a detailed summary of the input that was provided, please see the [Summary of Input](#) section.



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Next steps

- ▶ Further consultations will take place to gather additional input on the option evaluations and to identify any additional community considerations.
- ▶ A preliminary cost estimate on the Centre City portion of the Green Line will be shared with stakeholders and further input will be collected later this spring/summer.



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Summary of Input

A wide variety of input was gathered during the Centre City Alignment engagement events noted above. This input is summarized below including:

- [Input on community expectations, interests, issues, preferences and priorities as they relate to the Green Line Centre City alignment](#)
- [Input on Centre City alignment options](#)
- [Initial input on Beltline alignment options](#)
- [Feedback on current and desired modes of travel in the Centre City area](#)
- [Input on the highest-ranked Centre City alignment option, Option D](#)

Community expectations, interests, issues, preferences and priorities

Traffic

Traffic was a top consideration for stakeholders. In particular, there was a desire to keep traffic flowing along major routes. Reducing the number of lanes available for vehicle travel was a potential concern for some who felt this would create more congestion along an already busy corridor. Others noted that providing better transit options could result in less traffic along heavily travelled routes.

Integrating LRT with the existing roadway was also of interest to stakeholders. Considerations included ensuring the line did not create major delays at intersections, and ensuring pedestrians and cyclists could still move safely and efficiently through the area. Stakeholders also noted that any changes to the road network could create cut-through traffic in other communities and the full impact of traffic pattern changes and construction activities should be understood and mitigated.

Transit user experience

Stakeholders noted an opportunity to improve the transit experience in the City, including increasing the capacity of transit services and options, and improving the convenience and available connections to travel between communities, to downtown, and to key destinations. Stakeholders also noted the need to consider how the Green Line would connect to other transit options including existing and future bus and LRT lines, and active transit options like walking and cycling. They suggested considering the creation of transit hubs and noted the need to consider how park and rides and drop-off zones would be handled to support ridership.

Station design was also an important consideration with the desire to make stations accessible to the community, integrated with community character, and aesthetically pleasing. Proximity to established vehicle and pedestrian traffic routes, transit stops, and amenities was noted as an important consideration for station locations. Stakeholders also noted that stations provided an opportunity to incorporate public art displays into the community. Underground stations were mentioned as being more comfortable for users in bad weather, but were also seen as needing proper security to ensure riders felt safe.



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Travel times were another transit user consideration for stakeholders. Poor weather was noted as potentially impacting travel times as was the need to move vehicles along the same roadways as LRT trains. Stakeholders noted a need to balance competing priorities in a way that allowed the train to move faster than cars and buses so that the LRT was an appealing option when compared to other modes of travel.

Community impacts

Maintaining and/or enhancing community character was the top consideration for stakeholders in the construction of the Centre City alignment of the Green Line. Stakeholders wished to maintain existing community vibrancy by carefully considering how the placement of the line would divide and/or connect communities. The streetscape was likewise noted as a primary consideration and stakeholders felt that the line and stations should enhance the streetscape and community vibrancy by taking care not to create visual impacts like shadowing and 'dead zones'.

Stakeholders noted the desire to minimize noise, vibration, and visual impacts of the line both during and after construction. Consideration for the unique needs of adjacent communities was noted. Specifically, stakeholders were interested in how different community characteristics and transit needs would be addressed. Revitalization of the Centre Street area and surrounding communities was seen as a desirable outcome of the new alignment by attracting new development and amenities, improved pedestrian environments, and potential increases in property values.

The impact on businesses in the area was another key consideration mentioned by stakeholders. Some stakeholders noted that the alignment had the potential to attract more businesses and improve the economy in the area through job creation and increased investment. Others voiced concern over the risk to existing businesses both during and after construction, particularly the impact to the smaller businesses in the area. Property values were likewise a consideration for stakeholders with some stakeholders noting a potential decrease in value related to the construction and operation of the line.

Planning for the future was noted also several times as an important consideration. This included taking into account the future needs of the City, and not choosing an option based on cost if it would mean less capacity to support transportation needs over the long-term.

Transit-oriented development

Stakeholders noted that transit-oriented development had the potential to revitalize the area through increased development and amenities. The need to engage in transit-oriented development sensitively was noted as being particularly important. This included ensuring adequate amounts of public space in relation to commercial and residential development, respecting community character and property values, careful and considerate rezoning procedures, and ensuring in the inclusion of active transportation networks.

Parking

Ensuring that residents in surrounding communities would not be negatively impacted by commuter parking related the LRT was a significant consideration for many stakeholders. Many noted the need to accommodate parking and drop-off facilities in the project plans to prevent congestion, inconvenience, and safety issues for adjacent communities. Permit and pay parking were noted as possible solutions.



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Safety and accessibility

Personal safety at stations and within surrounding communities was an important consideration for stakeholders. Security measures such as cameras and lighting were noted as being important. Stakeholders also noted a need to consider how emergency situations would be handled. Flooding was a particular consideration for underground alignment options.

Pedestrian and cyclist safety and access were also noted as being important considerations for stakeholders. In particular, many noted the importance of improving the safety of pedestrian crossings at intersections, installing adequate lighting, and providing dedicated multi-use pathways that are maintained all year long. The safety of children, those with disabilities, and the elderly was a concern particularly in areas near schools and community centres. Accommodations for cyclists in the form of cycle tracks/bike lanes, tunnels/overpasses, and sheltered secure bike storage were also noted as key safety and accessibility considerations. Stakeholders also noted the need to consider safety and access in all weather conditions including ice and snow.

Environmental considerations

The preservation of Prince's Island Park, the Bow River, and the surrounding green space was a primary environmental consideration for stakeholders. The need to preserve the ecological and visual integrity of these community spaces was seen as important as was a thorough assessment of the environmental impact of alignment options. Stakeholders also felt that the LRT line represented an opportunity to reduce reliance on vehicles within the City but noted the need for public education to support this transition and encourage use of the line.

Project considerations

Project cost and timing were considered important by stakeholders. The desire to spend wisely was a commonly noted consideration, with the underground options being noted as more expensive but potentially better long-term options. There was a desire to see the project undertaken in a timely manner with continued stakeholder consultation activities throughout.

Centre City alignments

Option A – At-grade with existing bridge

Stakeholders noted the impact of an at-grade option on the community and vehicle traffic as a primary consideration for this option. Dividing the community with the LRT line was mentioned by many stakeholders who felt this option would make it difficult for vehicle, pedestrian, and cycling traffic to get around. Safety was a primary concern with stakeholders mentioning the high potential for conflicts between different modes of transportation, and concern over the speed of trains. Travel times were also a consideration for this option with stakeholders noting potential traffic disruptions, train crossings, the removal of travel lanes, and the need to slow vehicle speeds to accommodate LRT movement.



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Options B and C – Shallow tunnel with new bridge and Elevated structure with new bridge

Stakeholders noted that a visible LRT line could be desirable with the potential to add to the vibrancy of the City. Many stakeholders noted that bridges may be problematic for traffic and environmental reasons. Traffic concerns included increased congestion and the impact on travel times through the City. Environmental considerations revolved around the impact to Prince's Island Park and the desire to maintain the integrity of this landmark. The elevated structure in Option C lead some stakeholders to note the negative visual impact this option may have on the surrounding communities.

Option D – Tunnel

There was wide support for Option D with stakeholders noting advantages to traffic movement, community character, and the long-term growth of transit in the City. Stakeholders felt that going underground would allow vehicle traffic to continue to move freely on roadways and would help to preserve the character of surrounding communities. Stakeholders also felt this option addressed some of the environmental concerns surrounding Prince's Island Park and other community space in the area. Being able to maintain access, comfort, and efficient travel times in all weather conditions was also felt to be a consideration for this option.

Stakeholders noted the need to consider flooding if going underground, and asked that safety and security of underground stations be considered. Budget was also a consideration with stakeholders noting this option as potentially being the most expensive.

Option E – Hybrid with new bridge

Some stakeholders noted that the aesthetics and up-down nature of the alignment of this option were not as attractive as other options. As with options B and C the potential traffic, visual, and environmental impacts associated with a bridge were mentioned as considerations for this option.

Beltline alignments

Stakeholders noted similar considerations for underground alignments in the Beltline area as they did for Centre City alignments, namely preserving traffic movement, community character, and the surrounding environment. Stakeholders noted an opportunity to revitalize 10th avenue with an alignment as well as the availability of right of way for an LRT along this road. Some stakeholders noted that an elevated option may be desirable for this alignment. The impact on traffic along 11th and 12th avenue was noted as a consideration with stakeholders mentioning the importance of these streets for commuters currently. 12th avenue in particular was noted as being closer for people wishing to access LRT.

Current and desired modes of travel in the Centre City area

Stakeholders noted that driving was currently their main method of transportation through the Centre City area. Transit and walking were also popular methods of getting around. Many stakeholders reported that they would like to walk to Green Line stations and that they would drive less once the Green Line was in operation. Stakeholders also reported that they enjoyed walking and biking and that they would actively commute to stations more if additional



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accommodations for pedestrians and cyclists were in place including lighting, secure bike storage, and designated pathways.

Key destinations

Stakeholders noted that they would use the Green Line to access locations in the downtown core as well as surrounding businesses like grocery stores and shopping malls. Community facilities like libraries, hospitals, community centres, and schools were also mentioned as important destinations for commuters. Some stakeholders expressed a desire to incorporate airport access into LRT plans.

Important intersections for consideration

Several intersections were noted for consideration in addressing congestion concerns in the Centre City area with stakeholders pointing to congestion at the intersections of Centre Street and 16th Avenue, McKnight Boulevard, 20th Avenue and 40th Avenue.

Input on highest-ranked option

Stakeholders generally expressed support for the highest-ranked option, Option D: Tunnel through Centre City, noting that this option appeared to be the most harmonious to maintain traffic flow, community character, and environmental integrity. Stakeholders also felt this option would support future growth of the transportation network in the City.

Stakeholders did express some concern over the cost of this option and indicated a desire to know more about the financial requirements and technical details of tunneling, including how the risk of flooding would be managed. There was also a desire for more details on the ranking and weighting process that led to the choice of the highest-ranked option.



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Appendix A – List of Engagement Events

Date	Event
2015 September 30	Tuxedo Park Walkabout
2015 September 30	LRT on the Green Conference
2015 Sep-Dec	U of C - UBST 461
2015 Nov 16	Urban LRT with Cllr Farrell (evening)
2015 Nov 18	Beddington CA AGM
2015 November 24	Crescent Heights/Chinatown/Eau Claire CA reps
2015 December 02	Urban LRT with Cllr Farrell (lunch)
2015 December 08	Centre City Business/Community Leaders
2015 December 08	Ward 4 CA Presidents' Dinner
2016 January 06	Hillhurst-Sunnyside/Crescent Hts/Eau Claire
2016 January 20	Baconfest (co-present w/Farrell)
2016 February 02	Open House #1 - Telus Convention Centre
2016 February 03	Open House #2 - St. Henry School
2016 February 08	Developers Advisory Group
2016 February 09	Open House #3 - Rosedale School
2016 February 10	Open House #4 - Mount View School
2016 February 16	Open House # 5 - Thorncliffe School
2016 February 20	Chinatown community engagement event
2016 March 03	Calgary Regional Partnership presentation
2016 March 08	Presentation at U of C Faculty of Environmental Design
2016 March 10	Tuxedo Park AGM
2016 March 16	Station Area Workshop #1 – for the 28th Avenue and 40th Avenue station
2016 March 30	Public Safety + Enforcement presentation
2016 March 30	Green Line North Communities
2016 April 04	Developers Advisory Group
2016 April 06	Station Area Workshop #2 – for the McKnight Boulevard and 64th Avenue station
2016 April 07	Transportation Planning - Managers Meeting
2016 April 12	Station Area Workshop #3 – for the 64th Avenue / 72nd Avenue / Beddington Boulevard station
2016 April 17	Supertrain Model Railway Show
2016 April 18	Centre City Business/Community Leaders
2016 April 18 - April 28	Olympic Plaza Centre City MAE public display + lunch hour events
2016 April 18 - May 02	Beltline and Centre City MAE pop-up events
2016 April 18 - May 11	Centre City MAE online engagement via Hive



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2016 April 18 - May 11	Beltline MAE online engagement via Hive
2016 April 18	TOD Charrette #1 - Session 1
2016 April 19	TOD Charrette #1 - Session 2
2016 April 21	TOD Charrette #1 - Session 3
2016 April 23	TOD Charrette #1 - Session 4
2016 April 27	Station Area Workshop #4 – for the 96th Avenue and North Pointe station
2016 April - May	Centre City MAE brochures distributed by Calgary Transit
2016 April - May	Beltline MAE brochures distributed by Calgary Transit