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PROGRAM 566 - ROUTEAHEAD RAPID TRANSIT CORRIDORS UPDATE

EXECUTIVE SUMMARY

RouteAhead Rapid Transit Corridors (capital budget Program 566) is a series of Bus Rapid Transit (BRT) projects stretching over 70km across all four quadrants of the city. The Program is projected to carry over 30,000 average weekday passengers and has been designed to provide more frequent, reliable and fast transit service than traditional bus service in a more cost effective approach to mass transit projects such as Light Rail Transit (LRT). The BRT Program is the first step in developing an enhanced grid of primary transit service which supplements the existing LRT network. The BRT Program will connect existing and future destination points such as hospitals, universities, and major employment centres, making it easier to connect with these destinations without a rider taking LRT through downtown. The initial BRT Program includes the following four projects: North Crosstown BRT, South Crosstown BRT, Southwest BRT and 17 Avenue SE BRT. This report provides an update on the status of the Program, including infrastructure development, risks/challenges, feedback from stakeholder engagement, updated cost estimates, and next steps.

ADMINISTRATION RECOMMENDATION

That the SPC on Transportation and Transit recommends that Council receive this report for information.

PREVIOUS COUNCIL DIRECTION / POLICY

The following is a list of relevant previous Council direction and approvals:

- 2007 Sustainability Principles for Land Use and Mobility approved.
 - Among the principles approved were: provide a variety of transportation options; strategically direct and manage redevelopment opportunities within existing areas; support compact development; provide transportation services in a safe, effective, affordable and efficient manner that ensures reasonable accessibility to all areas of the city for all citizens (Municipal Development Plan, page 1-6).
- 2008 Key Directions for Land Use and Mobility approved.
 - Among the key directions approved were: direct land use change within a framework of nodes and corridors; link land use decisions to transit; increase mobility choices; develop a Primary Transit Network.
- 2009 Municipal Development Plan (MDP)/Calgary Transportation Plan (CTP) approved.
- Notice of Motion to conduct a study for Southwest BRT; study conducted in 2010-2011 (LPT2011-04).
- Notice of Motion to conduct city-wide BRT network plan; study conducted in 2010-2011 (LPT2011-03).
- 2010 17 Avenue SE Transportation Planning Study (LPT2010-56) approved in July.
- 2011 Southwest BRT functional planning study approved by Council in February (LPT2011-04).
- Direction received from Council in February related to BRT Network Plan (LPT2011-03).

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- 2011 Council direction to create new long-term plan for transit in Calgary (incorporating direction related to BRT network plan and other priorities).
- Development of RouteAhead 30-year plan for transit in Calgary, including prioritization of candidate projects (May-December).
- 2012 RouteAhead Core Principles for Transit in Calgary approved September.
- 2013 RouteAhead approved by Council in March. BRT and Transitway corridors identified as part of 10-year priority list.
- 2013 Investing in Mobility Transit Corridor Benefit-Cost Analysis presented to SPC on Transportation and Transit in July, identifying potential funding sources and project prioritization.
- Approval of the \$52 million tax room fund for 10 years for the Green Line in November, freeing up potential grant funding for other projects.
- 2014 Council direction to use Green Transit Incentives Program (GreenTRIP) and Municipal Sustainability Initiative funds for BRT/Transitway projects in January (C2014-0081 Transit Corridor Funding and Prioritization verbal report).
- 2014 Investing in Mobility approved May.
- Action Plan 2015-2018 approved in November, including Program 566 RouteAhead Rapid Transit Corridors (Transportation business plan and budget, page 191).

Program 566 also strategically aligns with elements for successful main streets as covered in other Urban Strategies/Planning and Development initiatives, which received Council approval as part of Planning, Development and Assessment's business plan and the Local Area Planning work plan. "Main streets" are important to the long-term growth of our city, and are ideal places for mixed-use development, including residential, commercial and retail development. Access to transportation options, infrastructure and amenities make these areas great places to live, work or visit.

BACKGROUND

BRT is a frequent, reliable and fast transit service achieved through infrastructure improvements such as dedicated bus lanes and transit priority at traffic at signals. BRT is a cost effective approach to providing a high quality transit service at a fraction of the construction cost of LRT.

A vision for new BRT projects was seeded almost a decade ago when Sustainability Principles for Land Use and Mobility and Key Directions for Land Use and Mobility were approved as part of the PlanIt Calgary project in 2007-2008. PlanIt Calgary led to the approval of the MDP and CTP in 2009. Those plans identify how we will accommodate 1 million more people moving to Calgary and 500,000 new jobs over the next 60 years, how they will travel, and how to address the implications (e.g. what form of city we want for our children and grandchildren). The MDP and CTP identified these corridors, among others, as part of the primary transit network, a frequent, high quality transit corridor that people can rely on for meeting their day to day travel needs.

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In 2011, a BRT Network Plan was presented to Council. Administration received direction to identify how major centres (e.g. campuses, hospitals) could be better connected and to improve the customer experience on BRT through better features (rather than simply branding express bus service as BRT).

Subsequently, RouteAhead, a 30-year strategic plan for transit in Calgary, was developed in 2012 and work on the BRT network was included in the scope of the project. RouteAhead included extensive public and employee engagement resulting in the development of new visions, directions and strategies for public transit delivery. Part of the RouteAhead plan was a vision for a new rapid transit network connecting more parts of the city to frequent, reliable and fast transit service.

Capital budget Program 566 includes the top rated corridors that were identified in RouteAhead as part of the 10-year priority list. A map of the corridors and a list of key features and project status are included in Attachment 1.

The objectives of the Program include the following:

- Connect major centres outside of the downtown to one and another and to the existing LRT.
- Make transit a more attractive choice by providing a frequent, reliable and fast service making it easier to get around Calgary.
- Deliver part of a new Rapid Transit Network for Calgary to improve access to many parts of Calgary.
- Strategically invest in infrastructure, creating dedicated lanes in highly congested areas, repurposing existing infrastructure, and extensively utilizing technology through transit priority at congested intersections to make the service more reliable while optimizing the investment.
- Create stations and stops with features to make using transit easy, safe, comfortable and accessible for customers.

These objectives align with Calgary Transit's mission statement: Connecting you with people and places you care about by providing safe, accessible, reliable and courteous public transportation services.

Action Plan 2015-2018 allocated funding to the commencement of the BRT network through Program 566. Council approved the plan in 2014 May, except for the recommendation to fund traction power upgrades for four-car trains instead of the NW-HUB rapid transit project (formerly "West Campus Mobility"). On July 28, 2014, Council approved a recommendation from Administration for deferral of a report on the NW-HUB and traction power upgrades until no later than September 8, 2014. Subsequently, on September 8, 2014, Council approved recommendations from Administration to fund the traction power upgrades and to identify funding sources for the NW-HUB as part the NW-HUB Transit Enhancement Study, a

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partnership between The City, Alberta Health Service, and the University of Calgary. This study is still in progress.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Staging

Administration has conducted analysis on staged Program delivery. Staging will mitigate several of the risks discussed later in this report. A draft staging plan is included in Attachment 2.

Customer Features at Stations

When RouteAhead, the 30-year plan for transit in Calgary was developed, over 4,000 citizens told us what mattered most to them. Hundreds of employees were also engaged to get their input on how the customer experience could be improved. In response, as part of Program 566, additional amenities are proposed as part of the stations, such as:

- Near-level boarding.
- Real time information displays.
- · Larger shelters.
- Additional pedestrian scale lighting.
- Architecture that enhances the corridor.
- Provision for off-board fare payment.

Together with frequent service and reliability achieved through transit-only lanes and transit priority at intersections, these new features will address performance indicators associated with the six elements of Calgary Transit's Customer Commitment (safe, reliable, helpful, informative, easy to use and clean). Administration conducted in person and online engagement to identify stakeholder input on the value of different station features. Preliminary results from the engagement are included in Attachment 4. These results will inform decisions regarding what features are included at stations throughout the network.

Ridership

Ridership forecasts have been identified as part of the identification of projects in RouteAhead and the subsequent capital project prioritization conducted as part of Investing in Mobility. These ridership forecasts are identified in public reports as outlined in Attachment 3. In response to stakeholder inquiries, Administration has conducted further analysis of potential ridership from the BRT services that will operate in these corridors. Attachment 3 includes a summary of the results of this ridership analysis. The ridership forecast demonstrates the value of building a connected network that will enhance the overall network performance in the city and provide customers with more direct routes to their destinations.

Stakeholder Engagement, Research and Communication

A summary of the Online Engagement for the BRT Program is included in Attachment 4. Previous stakeholder engagement has been conducted as part of many of the initiatives listed under Previous Council Direction/Policy.

Future engagement will be conducted to refine the transit service plans for new service in the corridors, including connections to other local transit routes. Other project-level engagement

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will be conducted to: maximize the efficiency and effectiveness of integrating station features with adjacent lands and buildings, engage local area business redevelopment zones on urban realm and landscaping improvements, and fine-tune station locations and features on campuses (e.g. University of Calgary, Mount Royal University, SAIT, Alberta Health Services facilities).

Strategic Alignment

As discussed above, these corridors are identified as part of the RouteAhead 30-year Strategic Plan for Transit in Calgary. The RouteAhead plan is aligned with the policy direction and strategic goals of the Municipal Development Plan and Calgary Transportation Plan, the 2020 Sustainability Direction and Council's Action Plan priorities. RouteAhead was developed in coordination with Investing in Mobility to ensure strategic alignment within the Transportation Department capital plans and growth management strategies. Provision of BRT on 16 Avenue N, 37 Street SW, and 17 Avenue SE aligns with the Main Streets initiatives. Furthermore, other Main Streets intersect this BRT network (e.g. 33 Avenue SW, Macleod Trail SE, and so on) providing connections to and from the Main Streets that are critical for the success of urban/neighbourhood corridors.

Social, Environmental, Economic (External)

Mobility is essential for promoting regional and provincial economic development and improving productivity by reducing congestion. Improving travel options in established communities makes them more attractive to live in and provides development opportunities in the city. This in turn can slow the rate of urban expansion, in turn reducing the associated loss of natural habitat and agricultural land. The longer extents of transit infrastructure help create complete communities in suburban areas.

Calgary Transit customers, and in particular those segments who benefit from low-cost mobility options, will have improved connections to the following: University of Calgary, Mount Royal University, SAIT, Foothills Hospital, Alberta Children's Hospital, Rocky View Hospital, the 16 Avenue North urban corridor and Quarry Park and International Avenue in Forest Lawn, among others.

Many other developments that are currently in the planning/conceptual phase will be supported in term of travel demand. For example, on the SW BRT project alone, The City has been working with land owners on developments that rely on public transit at Currie Barracks, Glenmore Landing, Jewish Community Centre and the 24th Street SW Co-op.

The BRT Program does not include any city initiated land use redesignations. This was a misconception heard by City staff during SW BRT project engagement.

Delivering BRT will improve social outcomes through health benefits from reduced emissions and physical activity such as walking to and from the station. There will be increased safety in some areas by facilitating more 'eyes on the street'. Investing in rapid transit also supports Calgarians who rely on public transit as their primary mode of transportation while providing improved mobility options for all Calgarians.

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Investment in public transit provides environmental benefits that extend beyond the reduction of greenhouse gases with every vehicle removed from the road. Improved, higher quality transit service and complete communities attract higher levels of ridership, decreasing the environmental impacts associated with urban travel and mitigating the impacts of urban expansion.

Financial Capacity

Current and Future Operating Budget:

As outlined in RouteAhead Update (TT2016-0193), the 2017–2018 operating budget could include a request for additional operating funding requirements associated with capital projects. Timing of the operating funds for BRT are dependent on completion of the projects. Acceleration of project completion could result in an earlier realization of operating costs. Costs will include the vehicle service as well as station cleaning, maintenance and power/communications.

There are no operating cost implications associated with the recommendations of this report.

Current and Future Capital Budget:

There is no impact to the approved budget for Program 566 associated with this report.

Summary of Capital Project Estimates

Administration has progressed the cost estimated for the BRT Program based on the project work and engagement conducted over the past several months.

Class 5 estimates were prepared for the purposes of project prioritization/evaluation for the North Crosstown and South Crosstown BRT projects using per-kilometre costs from similar North American projects, as described in the RouteAhead plan. An explanation of The City's estimate classes is included in Attachment 5. The estimates were \$20 million for South Crosstown BRT and \$50 million for North Crosstown BRT.

The Southwest BRT Functional Planning Study conducted in 2010 and approved by Council in February 2011 included a Class 4 estimate of \$40 million.

A Transportation Planning Study for the 17 Avenue SE corridor was approved by Council in 2010, including the 17 Avenue SE BRT (LPT2010-56). A follow-up report on the staging of improvements was presented in April 2012 (TT2012-12). The report identifies project phasing. A Class 4 cost estimate of \$98 million was included in this report for the segment between 26 Street SE and Hubalta Road.

These estimates were carried forward (unescalated for inflation) through the 2012-2013 RouteAhead project prioritization, the 2013-2014 IIM Benefit-Cost Analysis, and Action Plan 2015-2018. The Class 5 and Class 4 estimates were carried forward with the understanding that refined project cost estimates would be developed when more detailed information was available at the preliminary design stage. In the case of the 17 Avenue SE Corridor and Southwest BRT, fundamental differences exist between station features included as part of the project vision at time of conception in 2010-2011 and the vision adopted in RouteAhead core principles. However, no changes to project estimates were made at that time. This decision

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was based on the detailed design having yet to be carried out. The timing of carrying out the detailed design was yet to be determined.

As a result of the previous work mentioned above, Investing in Mobility (TT2014-0308) included the following project estimates:

North Crosstown BRT: \$50 million (Class 5 estimate)
 South Crosstown BRT: \$20 million (Class 5 estimate)
 Southwest BRT: \$40 million (Class 4 estimate)
 17 Avenue SE BRT: \$98 million (Class 4 estimate)

Total Route Ahead Rapid \$208 million

Transit Corridor Budget:

Cost estimates have since been advanced further based on design advanced to date. The cost estimates are being displayed as range estimates. The low end of the range includes all currently known costs including, construction estimates, land acquisition, utility relocations, noise mitigation triggered by the projects, engineering and design, temporary traffic control, and the required public art allocation. The high end of the range includes all of the items listed in the low end of the range along with a contingency for unknown risks. Below are the current cost estimates:

North Crosstown BRT: \$20.4-24.7 million (Class 4 estimate)
 South Crosstown BRT: \$18.7-21.2 million (Class 4 estimate)
 Southwest BRT: \$57.0-65.6 million (Class 3 estimate)
 17 Avenue SE BRT: \$88.0-96.0 million (Class 3 estimate)

Total Route Ahead Rapid \$184.1-207.5 million

Transit Corridor Budget:

There is no change to the overall Program budget. As the Program continues to progress through detailed design and to tendering for construction, the estimates will continue to be refined. This refinement is a normal process as additional project details are finalized more detailed costs can be estimated and unknown risk can be reduced.

Comparables

The entire Program 566 budget amounts to a per-km cost of approximately \$3 million per km. The segments with the most infrastructure and largest stations are currently estimated to cost between \$5-20 million per km (e.g. 17 Avenue SE including complete street reconstruction from property line to property line). These costs compare favourable to our colleagues. For comparative purposes, the following is a list of recently opened Canadian BRT projects and their costs:

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Project	Description	Cost	Cost per km
Winnipeg Transitway	3.6 km, completed in 2012	\$138 million	\$38 million
Phase 1	Source: winnipeg.ca		
Mississauga MiWay	Phase 1: 11 km, complete in 2014	\$259 million	\$23 million
Transitway	Source: metrolinx.com		
Brampton Züm (BRT)	91 km in total; Phase 1 completed	\$285 million	\$3 million
	in 2012, Phases 2/3 underway		
	Source: metrolinx.com		
York Region	Davis Drive and Highway 7	\$250 million	\$26 million
VIVAnext (BRT)	phases: 9.6 km, completed in		
	2015		
	Source: metrolinx.com		
Gatineau RapiBus	12 km, completed in 2013	\$250 million	\$21 million
	Source: Société de transport de		
	l'Outaouais' (STO); Gatineau.ca		
	(per-km cost cited in STO press		
	release)		

Funding Sources

The Government of Alberta's GreenTRIP funding Program is a source of funding for the BRT Program. GreenTRIP provides up to two-thirds of the funding for approved public transit projects, with one-third funding to be provided by the municipality from other sources (which can include other Provincial grants).

These projects were included in Action Plan 2015-2018 as part of the Transportation Infrastructure capital budget, which was approved at the 2014 November 24 Special Meeting of Council. The matching funds for the Program were identified from Municipal Sustainability Initiative funds. These matching funds were approved under Program 566 as follows:

Transportation Infrastructure Capital Budget (\$000s)						
	2015	2016	2017	2018	2019+	Total (2015-2019+)
Program 566:	10,000	30,000	30,000	8,000	0	78,000
RouteAhead Rapid						
Transit Corridors						

GreenTRIP funding was not appropriated when Action Plan was presented to Council in 2014. The Government of Alberta subsequently approved funding for these projects in 2015 September. The remaining \$130 million provided by GreenTRIP will be appropriated to Program 566, subject to Council approval, as part of Transportation's future capital budget adjustments. The \$130 million of Green TRIP funds, together with the Council approved \$78 million in Program 566, will fully fund the total expected Route Ahead Rapid Transit Corridor Projects.

Risk Assessment

There are several risks associated with delivery of the projects including:

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- Identification of unforeseen environmental or geotechnical obstacles.
- Barriers to land acquisition (cost, time).
- Protracted public engagement.
- Utility relocation and coordination.

These risks have been included in the project charters and mitigating strategies have been identified; however, all could have an impact on the schedule, cost and/or quality of the BRT Program. In the event of an impact on costs, decisions will be required regarding the scaling or exclusion of various station features currently included in the Program cost estimates. The stakeholder engagement completed as part of RouteAhead as well as the online engagement completed in 2016 identified numerous station features which Calgarians would like to have included in the BRT Program. In the event of pressures on project costs, decisions will need to be made regarding the scaling or exclusion of station features, and the results of stakeholder engagement will help inform these decisions.

As part of the staged approach to infrastructure delivery, a report to Council is anticipated in 2017-2018 identifying the impact (if any) of risks and the impact on infrastructure/station features and/or schedule.

There are several risks associated with not delivering these projects including:

- Increased traffic congestion associated with new land developments requiring alternative transportation service.
- Increased parking supply required at major employment and post-secondary sites due to a lack of alternative mobility choices
- Continued pressure on the transportation network in established communities, resulting in:
 - o degrading travel for all modes
 - o Increasing pressure to invest more in auto/commercial vehicle infrastructure; and
 - impacting the character of communities
- Lack of affordability of the combination of housing and transportation costs in established communities
- Impact on the long-term efficiency of public investments made in other transit corridors that are integrated with this network

REASONS FOR RECOMMENDATIONS:

The BRT Program rationale, budget and schedule were the subject of many comments received during stakeholder engagement. As a result, an update to Council on the status of the Program is warranted.

ATTACHMENTS

- 1. Overview of Program 566 RouteAhead Rapid Transit Corridors
- 2. Draft Staging Plan and Schedule
- 3. BRT Service Ridership Estimates
- 4. Engagement Summary
- 5. Estimate Classes

Overview of Program 566 RouteAhead Rapid Transit Corridors

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Calgary's Bus Rapid Transit (BRT) network is an important part of The City's overall transportation plan and, along with the Southwest Calgary Ring Road, the Green Line and other major transportation projects, will provide Calgarians with the travel options they need to move through and around the city quickly and efficiently.

BRT is a fast, reliable bus service. Cities around the world have adopted BRT services, and view them as an integral part of their overall transit and transportation plans. BRT routes have fewer stops than a regular bus route, which means they can cover more ground, more quickly.

Four new BRT projects will fill important gaps in the existing transit network, and provide more direct connections to major destinations.

Program 566 includes the following projects:

- North Crosstown BRT
- South Crosstown BRT
- 17 Avenue S.E. BRT (identified previously as 17 Avenue SE Transitway)
- Southwest BRT (identified previously as Southwest Transitway)

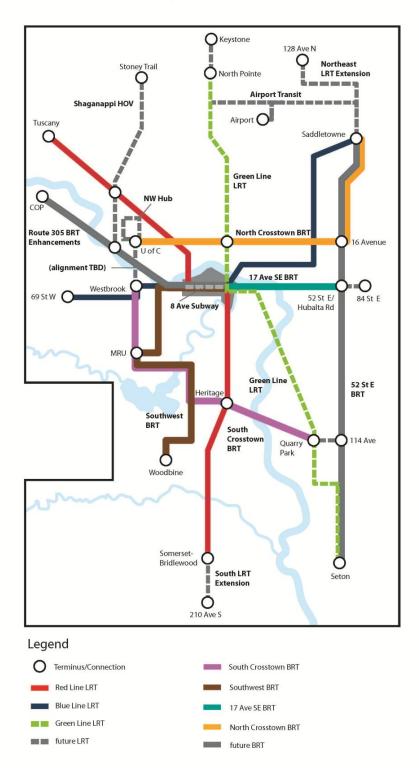
The City of Calgary currently operates five BRT routes, including routes 300, 301, 302, 305 and 306. The infrastructure projects in Program 566 complement the existing network of BRT and LRT routes, and are designed with connections to the future Green Line LRT in mind.

The map below shows future transit capital projects, as identified in RouteAhead (2012). A brief overview and map for each of the projects in Program 566 follows.

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30-Year Rapid Transit Network



TT2016-0335 Overview of Program 566 RouteAhead Rapid Transit Corridors Att-1.doc ISC: Unrestricted

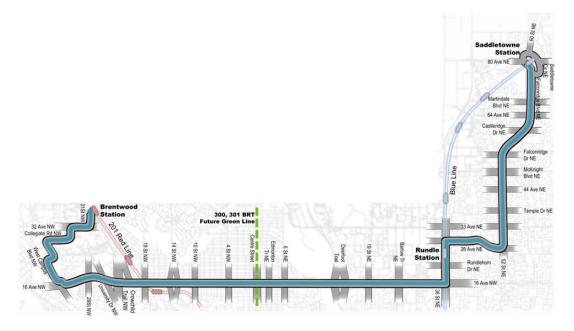
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North Crosstown BRT

The North Crosstown BRT project includes station upgrades along the corridor, and the addition of transit priority measures such as queue jumps or priority signals.

The North Crosstown BRT is a key part of Calgary Transit's primary transit network and is identified as a high priority in RouteAhead.

The new BRT project will operate mainly in regular traffic lanes. Transit vehicles will be given signal priority at intersections along the entire route. This is known as curbside service and has minimal infrastructure requirements while supporting active, pedestrian-friendly streets.



TT2016-0335 Overview of Program 566 RouteAhead Rapid Transit Corridors Att-1.doc ISC: Unrestricted

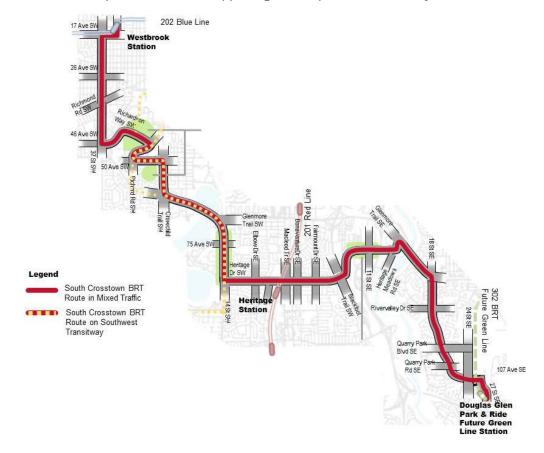
South Crosstown BRT

The South Crosstown BRT project includes station upgrades along the corridor, and the addition of transit priority measures such as queue jumps or priority signals where appropriate.

The South Crosstown BRT project is a key part of Calgary Transit's future primary transit network and is identified as a high priority in RouteAhead. It will connect with the future stations located at Quarry Park and Douglas Glen in the southeast, offering riders an additional connection to the future Green Line LRT. This project will improve the existing Route 306 service and extend the route to connect with the future Green Line LRT.

Bus-only lanes are not planned for the South Crosstown BRT project, except between Richard Road S.W. and Heritage Drive S.W. where the South Crosstown BRT project will overlap with the Southwest BRT Project.

Similar to North Crosstown BRT, the project includes curbside service and has minimal infrastructure requirements while supporting active, pedestrian-friendly streets.



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Southwest BRT

The Southwest BRT project includes new BRT stations along the length of the route, and construction of new bus-only travel lanes on 14 Street W between Southland Drive and 75 Avenue S.W. Buses will run in mixed traffic along the rest of the route, except on portions of Glenmore Trail and Crowchild Trail, where buses will be able to use the shoulder lanes to bypass traffic in rush hour.

The new Southwest BRT project will run from Downtown Calgary to Woodbine, and will provide direct connections to major destinations that are currently underserviced by rapid transit, such as Southland Leisure Centre, Glenmore Landing, Heritage Park, Rockyview Hospital, Mount Royal University, Lincoln Park, Currie Barracks, and Marda Loop.

The Southwest BRT project is a better service for current transit passengers and is a necessary, long-term transportation solution for the city.



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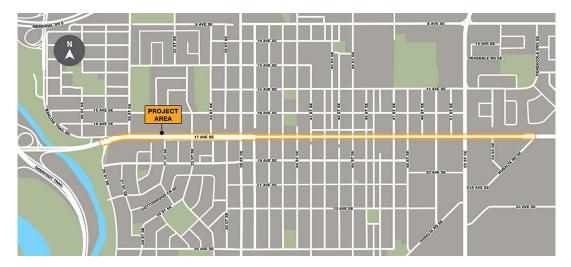
17 Avenue SE BRT

The 17 Avenue S.E. BRT project includes construction of new bus-only travel lanes and new BRT stations. The project also includes a refresh of the corridor itself, turning the avenue into a Complete Street with wider sidewalks, improved biking facilities, and new urban character elements.

The City is moving forward with the design and construction of the 17 Avenue S.E. BRT project from 26 Street S.E. to Hubalta Road S.E.

Historically known as the original Main Street of Forest Lawn, 17 Avenue S.E. is a unique corridor with many uses. This area is not only a secondary highway with regional connections, but it is also a culturally diverse hub (International Avenue), and part of Calgary's Primary Transit and Cycling Networks. 17 Avenue S.E. is identified as an Urban Boulevard in the Municipal Development Plan and is an area that is expected to redevelop in the future.

This project will be the first step towards revitalizing 17 Avenue S.E., and the BRT will provide high-quality transit service for residents, commuters, and businesses in the area.



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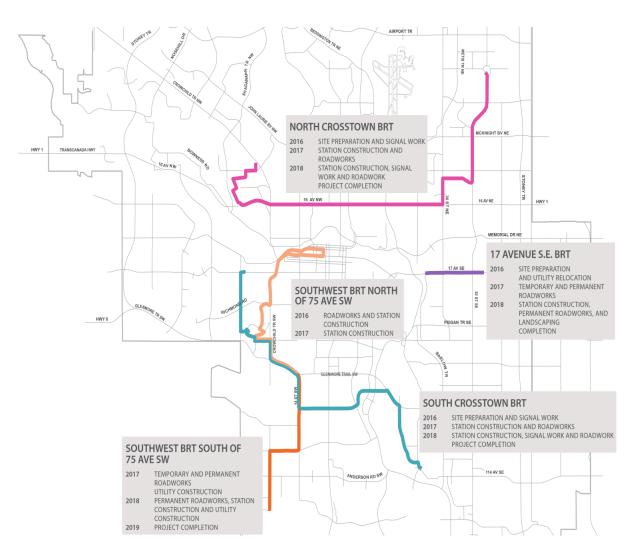
Draft Staging Plan and Schedule

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BRT network

Project construction timelines



Construction Staging Plan

General Program

2016 – Station design progression including passenger amenities and information services. Complete detailed designs, geotechnical and environmental site investigations, and preparation of procurement documentation. Contract and material procurement.

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Draft Staging Plan and Schedule

2016 to 2018 – Construction management including communication of construction activities.

17 Avenue SE BRT

2016 – Land assembly, Site preparation. Shallow and deep utility relocation in station areas will also be underway.

2017 – Temporary and permanent roadworks with focus on creating space in median to construct the stations.

2018 – Station construction, permanent roadworks, access work and landscaping / streetscaping construction. Completion targeted by end of 2018.

Southwest BRT

2016 - Roadworks and station construction north of 75 Avenue S.W.

2017 – Temporary and permanent roadworks south of 75 Avenue S.W., underpass construction at 90 Avenue S.W., and commence utility relocation and renewal construction including coordination with ATCO Pipelines on Urban Pipeline Replacement program and work required on 14 Street.

2018 – Continue permanent roadworks and utility construction, underpass construction completion, and commence station construction south of 75 Avenue S.W.

2019 – Complete station construction south of 75 Avenue S.W., noise wall construction and landscape rehabilitation. Completion targeted in 2019.

North and South Cross Town

2016 – Site preparations, removals and relocations, signals work.

2017 – Signals work continued, queue jump lane construction. Station construction; priority to phase 1 (larger) corridors (16 Ave NW, 52 Street NE, 37 St SW, Heritage Dr SW).

2018 – Signals work continued, continued station construction, roadworks; phase 2 corridors (36 Ave NE, 18 St SE, Quarry Park). Completion targeted by end of 2018.

Note: Detailed procurement strategy to be developed in the summer of 2016 pending further design work. Above schedules may be revised depending on options for procurement and construction efficiencies.

BRT Service Ridership Estimates

UNRESTRICTED TT2016-0335 ATTACHMENT 3

Ridership estimates have been prepared for the Bus Rapid Transit (BRT) projects in RouteAhead Rapid Transit Corridors. The following is a description of how ridership is forecast, what a corridor forecast means and the specific corridor estimates.

Background

Ridership was used as part of the selection criteria for the public transit infrastructure projects in RouteAhead and Investing in Mobility. Ridership was also used in a detailed benefit-cost analysis in 2013 to determine operating cost per rider and capital cost per rider for the purposes of project prioritization.

Ridership estimates are calculated based on numerous factors including forecasted residents, employees and students within a route catchment area. Trip generation rates are applied to estimate how many people from a given area wish to travel to another given destination. Travellers have a number of options on how they make the trip. The attractiveness of public transit varies by the characteristics of the traveller (age, income, auto ownership) and the destination (parking supply, cost of parking, etc) as well as factoring in the relative time to make the trip using different modes (i.e. walk, bike, transit, drive). Total ridership is also dependent on the frequency of the service (i.e. the time between buses) and well as the hours of the day the routes run.

The ridership model uses the proposed BRT routes to predict travel between the origins and destinations along the proposed routes. The four new BRT projects under Program 566 will fill important gaps in the existing transit network, and provide more convenient connections to major destinations.

Explaining the Ridership Estimates

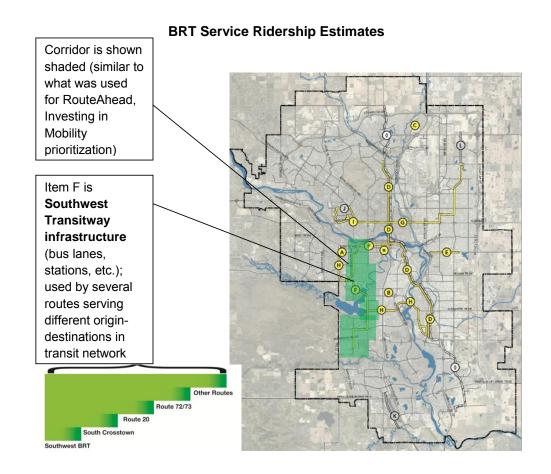
The use of the terminology *corridor*, *transitway*, and *BRT* each have implications in terms of how ridership is interpreted.

The term *corridor* refers to a catchment area of all transit services in proximity to the infrastructure; *corridor ridership* was used for the purposes of project prioritization during RouteAhead and Investing in Mobility. BRT corridors differ from LRT lines as they typically are used by multiple routes. It is important to note that a **corridor** is not necessarily the same as a **transitway**.

Below is an explanation using the Southwest BRT as an example. The map is an exhibit used in the 2015-2024 Investing in Mobility plan.

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BRT Corridor Ridership Used in RouteAhead and Investing in Mobility

Investing in Mobility included a forecast for the year 2019 of 9,000,000 annual passengers, or approximately 34,500 average weekday passengers in the Southwest Transitway corridor. These ridership estimates reflected the variety of bus routes that would benefit from the infrastructure (e.g. multiple routes using transit-only lanes on 17 Avenue SE).

The RouteAhead network overview included a forecast for the year 2029 of 12,000,000 annual passengers, or approximately 46,000 average weekday passengers in the Southwest Transitway corridor.

Below are the equivalent estimates of total average weekday transit passengers in the corridor in the year 2029 for all four corridors included in Program 566:

North Crosstown BRT corridor ridership: 54,000 rider/day
 South Crosstown BRT corridor ridership: 35,000 riders/day
 17 Avenue S.E. BRT corridor ridership: 11,500 riders/day
 Southwest BRT corridor ridership: 46,000 riders/day

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BRT Service Ridership Estimates

BRT Route Ridership Estimates

Potentially low ridership was one of the most frequent concerns expressed during recent engagement on the SW BRT project. In response, Administration has prepared a summary of estimates of BRT route ridership in the form of average weekday passengers.

There will be BRT service operating on each of these corridors on opening day. The routes are designed to provide primary transit level of service which is defined by RouteAhead as 10 minutes or better frequency service over 15 hours per day for 7 days a week. That level of service makes transit a viable option to the regular use of a car.

The following ridership forecasts are based on the most current City geodemographic information. The closest horizon to opening day for the BRT network is the year 2024. Daily ridership is forecast as follows:

North Crosstown BRT route: 7,000 riders/day
 South Crosstown BRT route: 3,100 riders/day
 17 Avenue S.E. BRT route: 8,800 riders/day
 Southwest BRT route: 12,500 riders/day

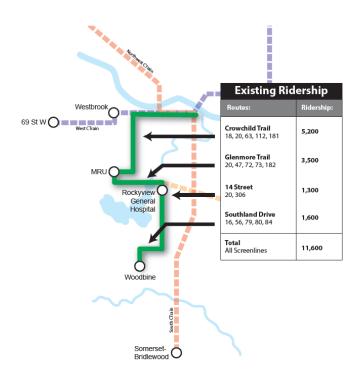
For comparison, the existing ridership on BRT Route 301 (North-Downtown) and BRT Route 302 (S.E.-Downtown) carry 11,300 and 3,700 average weekday riders, respectively. They also compete with local and mainline routes (e.g. Route 3, Route 24 and the Route 300 Airport express on the Centre Street corridor). These existing BRT routes attract riders with high frequency, travel time advantages with transit priority and less frequent stops.

In response to public inquiries, Administration provided the following information regarding existing ridership on the proposed Southwest Transitway infrastructure at recent public engagement sessions. In 2013 there were approximately 11,500 customers per weekday using transit services on the same stretches of road as the *Southwest Transitway infrastructure*, as outlined in the exhibit below.

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BRT Service Ridership Estimates



Implications of Not Attracting BRT Riders

There are implications if this ridership is not accommodated on public transit. Using Southwest BRT as an example, by 2029 there are anticipated to be 19,700 new jobs and 4,000 more students at the following activity centres: Rockyview Hospital, MRU, Lincoln Office Park, Currie Barracks (not including Downtown, West Village and the recently approved Providence Area Structure Plan).

The impact on the road network of this travel demand is equivalent to 1 to 2 additional lanes of traffic in the peak direction along the corridor. Without the road capacity traffic congestion will increase significantly. There are impacts to quality of life if trips aren't accommodated on public transit, including implications for the motoring public and goods movement:

- more traffic congestion;
- increased travel times for motorists and commercial vehicles; and
- growing duration of peak periods, and increasing susceptibility to congestion due to traffic incidents.

If an attempt is made to address travel demand pressures through additional automobile infrastructure, there are also significant impacts to adjacent communities and development projects.

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Engagement what we heard so far - As of April 6, 2016

UNRESTRICTED TT2016-0335 ATTACHMENT 4

What We Asked and What We Heard (so far)

A decision was made to focus the engagement for the BRT Program online. The new Engage Portal was used to: inform, gather feedback and answer questions Calgarians have about BRT.

Through the current BRT online engagement we have asked people to provide feedback on customer amenities.

Summary – BRT Program portal engagement (data to April 6, 2016)

The following is a high level overview of the comments and feedback received up until April 6, 2016. It is meant to provide a snapshot overview. Further information will be available as the portal engagement activities are completed.

Quick poll data is presented as it appears on the site, in percentages.

Engagement in numbers	How site was accessed
5,116 visitors 1,572 pieces of feedback collected	31% smartphone 51% desktop 18% other (tablets, etc.)

Participants provided Participants also had Participants were asked the ability to ask feedback on: 'quick poll' questions about: questions about: Getting to and from stations Station designs · Which station design they • Safety, crime & noise Transit oriented Station features • If they are finding the development (TOD) How important is it to have information they need • Routes & ridership shelter from the weather? If they are satisfied with Budget How important is it to have the opportunities for heated shelters? Anything else discussion How important is it to have bright and well-lit stations? • How important is it to have security features? How important is it to have ticket vending machines? • How important is it to have bike storage?

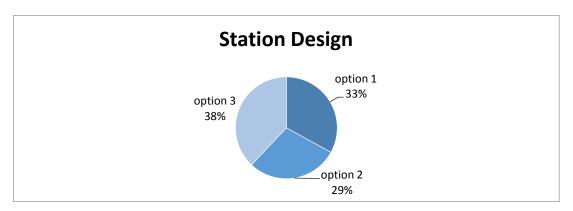
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Station Designs Quick Poll Results

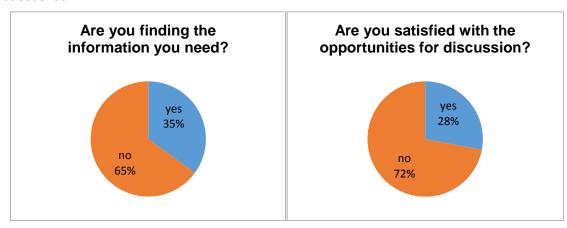
We asked Calgarians three quick poll questions on the Engage Portal. The first poll asked about station design preference.

As of April 6, 2016 the split between the three stations is relatively equal with option 3 seeing a slightly larger preference from the 66 participants who took the poll.



We asked two quick polls about the information posted. Of the 576 participants who took the poll about finding information, 65% said that they were not finding the information they needed.

Of the 614 participants who took the poll about opportunities for discussion, 72% said they were not satisfied.



Getting To and From Stations

Sixty six comments and questions were provided by Calgarians on the "Getting to and from stations" topic forum.

The table below summarizes the themed feedback as of April 6, 2016. The table below it is a visual representation of all of the feedback collected to date.

Getting to and from stations themes to date

Crosswalks/Walking/Accessibility to and From

- safer crossings
- longer pedestrian lights
- accessible stations
- good community connections
- good pedestrian access
- good sidewalks
- · lighting along sidewalks
- · better sidewalk clearing
- grade separated crossing at Glenmore landing

Parking

- residential parking
- reduce parking
- build dedicated parking
- concern about parking
- not enough parking
- proactive policing of parking infringements

Pedestrian Overpasses

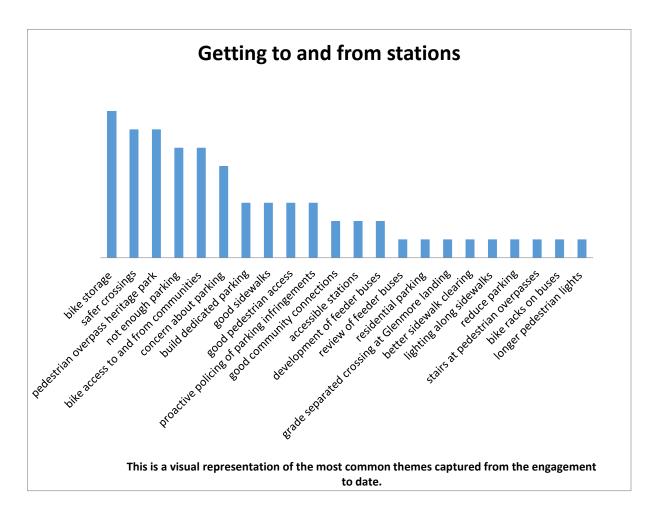
- pedestrian overpasses in general
- stairs at pedestrian overpasses
- pedestrian overpass at heritage park

Bikes

- bike storage
- bike access to and from communities
- racks on buses

Feeder Buses

- development of feeder buses
- review of feeder buses



Station Features

We asked eight questions about BRT station features. Participants indicated their level of preference on a range of 1-4 where:

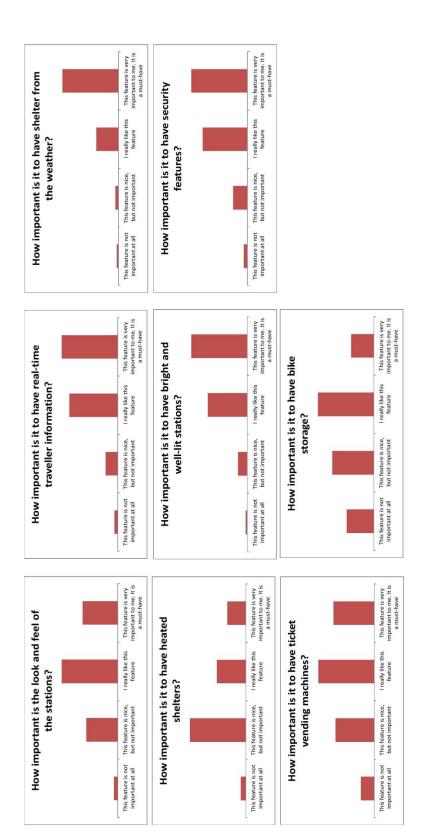
- 1 indicated this feature is not important at all
- 2 indicated this feature is nice, but not important
- 3 indicated I really like this feature
- 4 indicated it is a must-have

The following table shows the questions asked and the most common response.

Station features preferences to date		
Questions asked	Most common response	
How important is the look and feel of the stations?	3- I really like this feature	
How important is it to have real-time traveller information?	4- it is a must-have	
How important is it to have shelter from the weather?	4- it is a must-have	
How important is it to have heated shelters?	2- This feature is nice, but not important	
How important is it to have bright and well-lit stations?	4- it is a must-have	
How important is it to have security features?	4- it is a must-have	
How important is it to have ticket vending machines?	3- I really like this feature	
How important is it to have bike storage?	3- I really like this feature	

The table below it is a visual representation of all of the feedback collected to date.

Engagement what we heard so far - As of April 6, 2016



Summary of Question and Answer Topics

The following table summarizes the numbers of questions and comments shared by Calgarians for each topic and responses from staff.

Budget

- 44 comments/questions submitted
- 15 answers/comments provided by The City of Calgary

TOD

- 51 comments/questions submitted
- 3 answers/comments provided by The City of Calgary

Safety

- 47 comments/questions submitted
- 9 answers/comments provided by The City of Calgary

Route/Ridership

- 122 comments/questions submitted
- 30 answers/comments provided by The City of Calgary

Anything Else

- 204 comments/questions submitted
- 22 answers/comments provided by The City of Calgary

Promotion and marketing for engagement

The following table is a summary of the promotion and marketing done to date to support engagement.

Promotion and Marketing			
Social Media	Active from March 23 – April 4, targeted to all Calgarians 18+ People reached : 235,969		
	Website clicks: 3,436		
In-community promotion	Bold signs to promote online engagement. Located along BRT corridors along all four projects. Approximately 15 signs total.		
Traditional media	Relatively low pick-up on launch of BRT online engagement – two pieces of coverage.		
Direct marketing	Postcard advertising online engagement delivered to 110,000 Calgarians (approx. 57,000 delivered around SW BRT corridor, remaining delivered along other three corridors)		
E-mail marketing	E-mail advertising of online engagement was sent to Calgarians who had subscribed to distribution lists for each project. The following is a summary of people reached and clicks received through the e-blast.		
	People reached: 357 Website clicks: 128		

Next steps

We continue to seek feedback and answer questions on the Engage Portal. Once the process is complete a final engagement summary report will be compiled and posted on the portal and BRT Program website.

History of engagement and communication

17 Avenue SE BRT Project

Who's Provided Input (so far)

2010-2011

Land Use Planning & Policy and Transportation Planning got involved in a series of meetings with targeted stakeholder groups, which assisted the project team in making decisions and recommendations throughout the study process. Frequent meetings with and involvement of community association groups resulted in building a good rapport and relationship between The City and the stakeholders. Joint open houses were held in Forest Lawn to get the community involved in the study process. Approximately 90 people attended the first open house and almost a similar number were in attendance at the second open house. Planning Team members engaged the attendees and responded to their inquiries. General feedback was very positive and the preferred alternative received wide public acceptance.

2015-2016 Timeline Overview

GlobalFest booth to promo "What is a Transitway?" August 2015

and raise awareness that the 17 Ave SE Transitway

project is coming to the area

September-November 2015 Meetings with Community Associations, and Business

Revitalization Zone (BRZ) organization to introduce the

project and discuss concerns

November 2015 Presentations to Community Presidents with Cllr.

> Chabot, and formal presentation to Business Revitalization Zone organization members

November-December 2015 Public open house and storefront office

Event summary

Event	Date	Attendees	Number of Participants		
Drop-in Storefront at ArtBox	November 25-27	Residents and businesses	38		
Open House	December 2, 2015	Residents and businesses	25		
Drop-in Storefront at ArtBox	December 7-11, 2015	Residents and businesses	95		
GlobalFest	August 20, 25, 27, 29, 2015	Residents and businesses	~400 interactions		
Event	Date	Attendees	Number of Participants		
Community Association Presidents Meeting	November 24, 2015	Residents	20		
International Avenue BRZ AGM	November 24, 2015	Businesses	50		

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What We Asked

The purpose of these sessions was to share information about the process, to discuss tentative timelines, the long-term vision, and to share information about potential property impacts with residents and businesses in the area. Items open for engagement included:

- Discussion of additional parking locations to make up for potentially impacted parking lots
- Discussion of where to best locate pedestrian crossing locations
- Discussion of potential neighbourhood traffic impacts
- Discussions with directly impacted business owners regarding access and other direct impacts

What We Heard

From the events we heard comments and questions about the following themes:

- Participants expressed the desire for the route to connect to major shopping centres (Wal-Mart, Costco) and to Chestermere
- Individual properties and business shared concerns about parking for both businesses and residences, specifically: Tim Horton's
- Angled street parking on 42 St.
- Limit options for condo parking
- · Open up slip lanes at 34 St.
- Paving back alleys between 33 St. & 36 St.
- · Access to 17 Ave. from side streets
- Construction impacts
- Sidewalk widths
- Snow clearing and maintenance
- Pedestrian safety (one person spoke particularly about the 26 St. and 17 Ave. SE intersection)
- Loading zones (one person noted that some businesses do not have a back access, and thus loading zones will be important)
- Bus service, frequency
- Left turn lanes
- Light timing

SW BRT Project

Who's provided input (so far)

2010-2011 Functional Planning Study Engagement

- 4 public open houses
- 8 Stakeholder Meetings
- Online Information
- · Letters to community associations
- 50,000 brochures mailed out

2015-2016 Major Stakeholder Meeting

- Heritage Park 2 Meetings May 14 & August 27, 2015
- Riocan 4 Meetings March 26, April 23, July 22 & September 24, 2015

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- ATCO Lincoln Park 1 Meeting July 16, 2015
- CLC Currie Barracks 4 Meetings June 10, November 2, November 3, & December 16, 2015
- MRU 2 Meetings May 27, June 25, 2015
- Rockyview Hospital 4 Meetings May 20 & November 30, 2015, January 25 & February 2, 2016
- Carewest 1 Meeting December 3, 2015
- AHS 1 Meeting February 4, 2016
- Jewish Community Centre 1 Meeting November 13, 2015
- Community Association Meetings
 - Richmond / Knob Hill CA 1 Meeting March 9, 2016
 - Lakeview CA 2 Meetings December 7, 2015 & January 18, 2016
 - North Glenmore Park CA 2 Meetings December 7, 2015 & January 25, 2016
 - CKE / Ready 2 Engage 2 Meetings December 1, 2015 & February 2, 2016
 - Haysboro 1 Meeting March 10, 2016
 - PBP CA 1 Meeting October 8, 2015
 - Braeside CA Open House 1 Meeting May 8, 2015
 - Southwood Broader CA Meeting 1 Meeting October 15, 2015
 - Woodcreek CA 2 Meetings October 14, 2015 & January 19, 2016
 - Evergreen CA 1 Meeting March 3, 2016
 - Oakridge CA 1 Meeting February 11, 2016
 - Marda Loop CA 1 Meeting March 17, 2016
- Community Association Presidents Meetings
 - Ward 13 Presidents Meeting 1 Meeting January 20, 2016
 - Ward 11 Presidents Meeting 1 Meeting December 16, 2015
- Information Sessions
 - Public Information Sessions 3 Sessions October 27 & 29, 2015 & February 23, 2016
 - Ward 13 Open House 1 Session June 11, 2015
 - Rockyview Hospital Information Sessions 2 Sessions January 27 & 28, 2016
- Communication Pop-up Information Sessions
 - Woodbine Safeway Pop-up 2 January 14 & 16, 2016
 - Southland Leisure Centre Pop-up 1 January 14, 2016
 - Oakridge Co-Op Pop-up 1 February 4, 2016
 - MRU Pop-up 1 February 11, 2016
 - Heritage LRT Station 1 January 14, 2016
- Other Communication Efforts
 - Fact Sheet mail out 50,000 pieces
 - Report to Calgarians
 - Handed out information on Transit buses 5,400 FAQ handed out
 - Service Plan Survey

What we asked

October 2015 – February 2016 Community association meetings and public information sessions

 The project team shared updates and information about the project and asked for questions and comments about the information presented.

February 23, 2016 Public open house

- Three station design options were presented and participants were asked to tell us why
 they preferred one of the three options, and how the options could be improved.
- The themes from the community association meetings and information sessions were shared with participants. Participants were asked to provide comments and questions about the and to share anything not captured in those themes.

What we heard (so far)

The following is an overview of what we have heard so far:

October 2015 – February 2016 community association meetings and information sessions

During these sessions we heard comments and questions about the following themes:

- Construction timing and coordination
- Traffic
- Ridership
- Station locations
- Parking
- Safety
- Consideration for pedestrians
- Transit Oriented Development
- General questions and comments about the project

February 23, 2016 Public open house

- During the public open house we heard comments and preferences about each of the three station designs. For a visual of each of the three station design options visit the project page at www.calgary.ca/swtransitway
- We also heard comments and questions about the following themes:
 - Safety, noise and crime
 - Transit oriented development
 - Construction
 - The ring road
 - The ATCO line
 - Parking
 - · The budget and costs
 - Station locations
 - Pedestrians
 - Ridership
 - Traffic
 - The process
 - The flyover
 - Different alternatives for consideration
 - The LRT
 - · And other comments and questions

North Crosstown BRT

Who's Provided input (so far)

Introductory, one-on-one project meetings have been held with the following groups:

West Campus Development Trust – December 10, 2016

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- University of Calgary January 29, 2016
- Alberta Health Services February 2, 2016
- Calgary Cancer Centre February 2, 2016
- South Shaganappi Area Strategic Planning Group February 3, 2016
- North Hill Centre February 10, 2016
- North East Community Association Presidents Meeting (Cllr. Jones and Cllr. Stevenson)
 March 17, 2016

Project introduction meetings have been held with: Cllr. Stevenson, Cllr. Sutherland, Cllr. Farrell, Cllr. Chu and Cllr. Carra.

What We Asked

Participants were shown the route and provided with project information and were asked for initial feedback and thoughts about the project.

What We Heard (so far)

From the meetings so far the following questions and comments have been received:

- Participants asked about how the project will work with other area projects, including their Master Plan.
- Concerns about the size of the buses and scale of the service.
- Questions about connectivity and access to and from major centres.
- Discussions about parking.
- Discussion about area being served (16 Ave vs. east-west corridors further north)
- Discussion on transit priority measures.

South Crosstown BRT

Who's Provided Input (so far)

2016 Functional Planning Study Engagement

- Transit Rider Survey (on-going)
- Online Information (on-going)

What We Asked

Transit riders are being asked about their travel patterns, origins and destinations, and preferences for transit service in terms of directness of route, frequency, service hours, transfers and accessibility to stops. Through the current BRT online engagement we have asked people to provide feedback on customer amenities that are important at stops.

Infrastructure programs and projects follow the City of Calgary Project Management Framework, which uses the following five-stage process for estimating and establishing Program and project budgets:

Class 5 – Order of Magnitude—Generally prepared based on very limited information. They're often based on judgment and/or experience.

Expected accuracy range is -50% to +100%

Class 4 – Conceptual Design—Generally prepared based on conceptual or feasibility studies considering project options and known constraints.

Expected accuracy range is -40% to +75%

Class 3 – Preliminary Design—Generally prepared based on preliminary design information. Project assumptions and constraints have been defined.

Expected accuracy range is -30% to +50%

Class 2 – Detailed Design—Generally prepared on detailed design information. Project constraints have been resolved and detailed design is advanced.

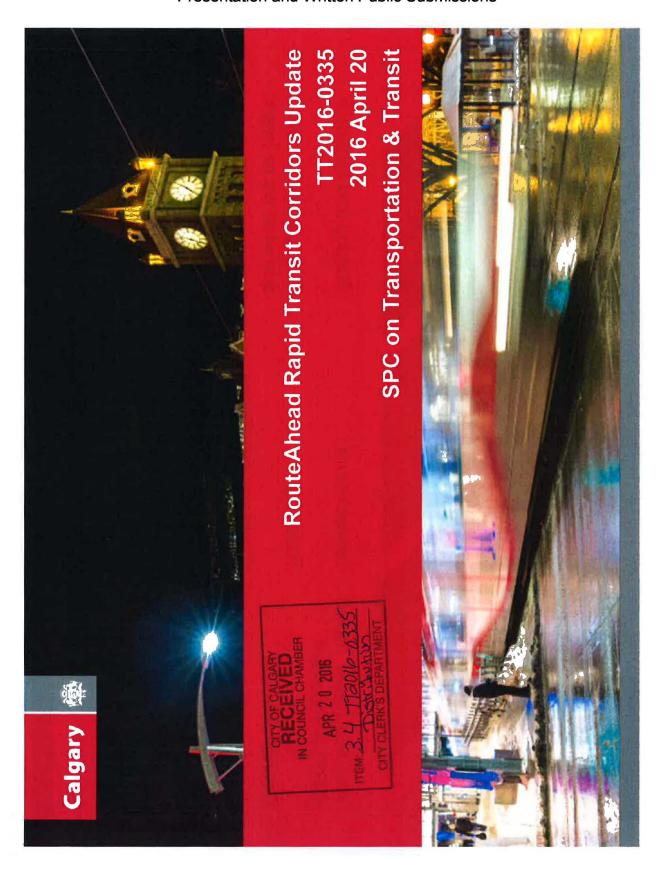
Expected accuracy range is -15% to +20%

Class 1 – Final Design/Pre-Tender—Generally prepared based on the final design information. At this stage the design is complete.

Expected accuracy range is -10% to +10%

The \$208M BRT Program budget was established based on project estimates at the Order of Magnitude and Conceptual Design stage. The Conceptual Design was based on having basic bus stops with limited features. In the years since the conceptual design was produced, we've heard from Calgarians through engagement as part of RouteAhead in 2012 that they'd like to see a higher level of service, with better features for an improved customer experience. This will have an impact on the cost of individual projects.

The City is currently in the design phase for all four of the new BRT projects. As design progresses, we know that the costs of some projects will decrease and others will increase.









Why the Bus Rapid Transit Network is Important



- RouteAhead
- Investing In Mobility
- Assessment of transportation needs for redevelopment
- projects
- developments, employment centres outside the downtown Policies driven by emerging land use trends (condo

Why the Bus Rapid Transit Network is important

Social benefits

- Help people who can't drive get around Calgary (age, income, disabilities)
- Respond to customers and make the most of public investments already being made (attract "choice" riders)
- Support healthy communities





Why the Bus Rapid Transit Network is important

Environmental benefits

- Preserve valuable land & support compact development
- Reduce energy demands& greenhouse gas emissions







Why the Bus Rapid Transit Network is important

Economic benefits

- Free up road capacity for drivers and goods movement
- economic development employee and student and diversification mobility to enable Provide low-cost
- Reduce travel costs in household budgets



Souncil Direction

- Calgary Transportation Plan land use and transit
- network approved in 2009
- Directed to develop BRT Network Plan in 2010
- Southwest BRT approved in 2011
- Directed to conduct further work on BRT Network Plan
- in 201
- Directed to develop long-term plan for transit in 2011

20/04/2016

Council Direction

- RouteAhead core principles and evaluation criteria for
 - capital projects approved in 2012
- RouteAhead 30-Year Strategic Plan approved in 2013
- GreenTRIP funding applications approved in 2014 Investing In Mobility Rapid Transit Corridors and
- Plan 2015-2018 (Province of Alberta approved GreenTRIP Program 566 matching funds approved in 2014 in Action application in September 2015)

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Council Direction: Turning Points

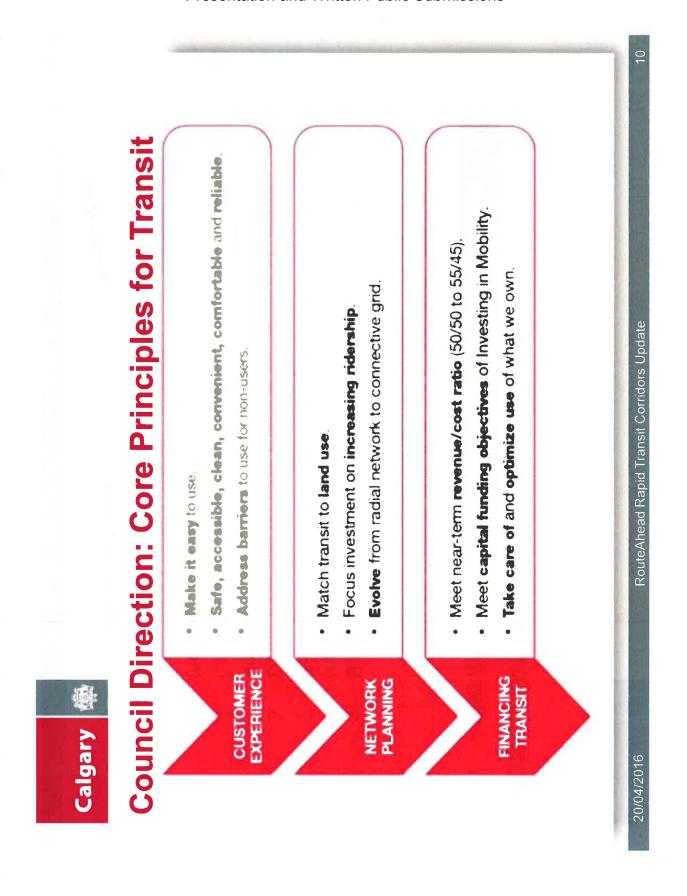
plan it calgary

Integrated Land Use and Mobility Plan

Key Directions for Land Use and Mobility

- Balance growth between established and greenfield (new) communities.
 - Provide more choice within complete communities.
- Direct land use change within a framework of nodes and corridors.
- ink land use decisions to transit
- Increase mobility choices. 5
- Develop a Primary Transit Network. 0
- Create complete streets.
- Optimize infrastructure.







Staging and schedule

RouteAhead Rapid Transit Corridors Update





Why Bus Rapid Transit

(BRT) is important

Council direction

Ridership

Customer experience

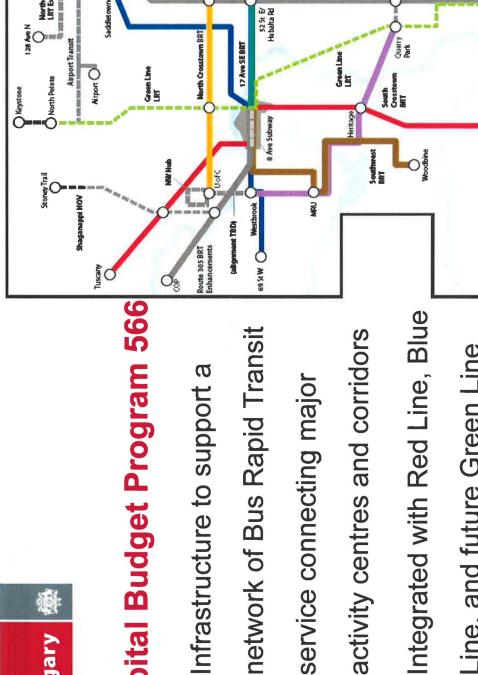
Budget

Comparable projects

Engagement: what's next and what we've heard

Value of investment

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Capital Budget Program 566

Infrastructure to support a

network of Bus Rapid Transit service connecting major Integrated with Red Line, Blue Line, and future Green Line

light rail transit (LRT)

RouteAhead Rapid Transit Corridors Update

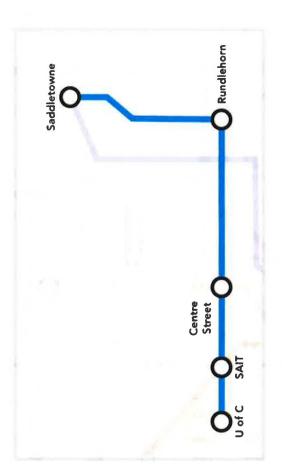


Program 566 – Infrastructure Projects

North Crosstown BRT

- Connects northeast and north-central communities with major destinations (U of C, SAIT, Hospitals)
- Serves 16 Avenue N Main Street corridor
- Key connection at Centre

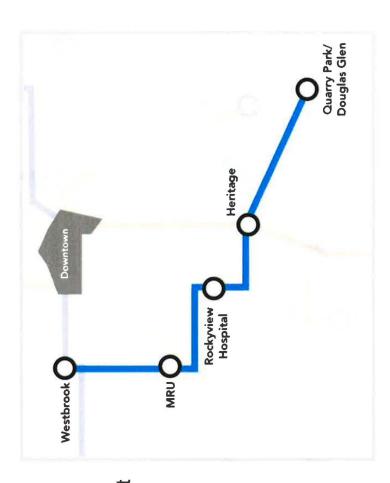
Street



Program 566 – Infrastructure Projects

South Crosstown BRT

- providing east-west rapid transit connection and tie to Red Line customers in south Calgary by Reduce travel time for transit at Heritage Station
- Southwest BRT on 14 Street Shares infrastructure with SW and Glenmore Trail
- new developments and serves Addresses travel demand from Rockyview Hospital and MRU

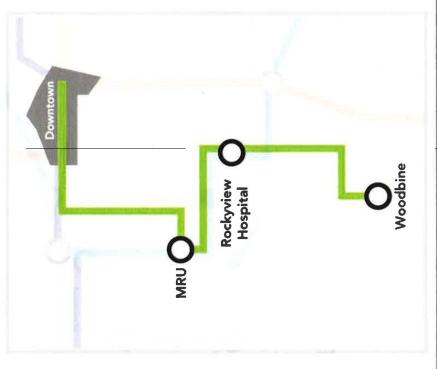


20/04/2016

Program 566 – Infrastructure Projects

Southwest BRT

- Provides direct connections to major destinations that are currently underserved by rapid transit
- Glenmore Landing, Heritage Park, Serves Southland Leisure Centre, Rockyview Hospital, Mount Royal University, Lincoln Park, Currie Barracks, and Marda Loop.
- Key connections to Red Line and Blue Line in the downtown





Program 566 – Infrastructure Projects



17 Avenue SE BRT

- Improves street and facilitates redevelopment
- Aligns with major road reconstruction required this decade
- Part of a phased approach to corridor

Population and Employment: Market for BRT

Strong market potential for customers

Improved access to employment, education and recreation

Employment*	86,400	106,400	33,600	28,400	254,800
Population*	33,000	23,400	45,700	25,900	128,000
	SW BRT	17th Ave SE BRT	North Crosstown BRT	South Crosstown BRT	Total

* - Within 600m of BRT Route rounded to nearest 100

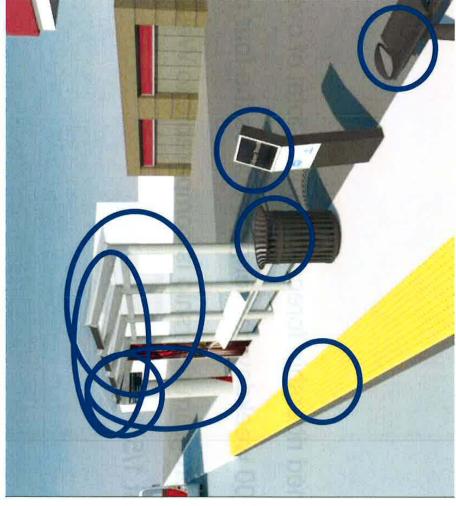


Ridership

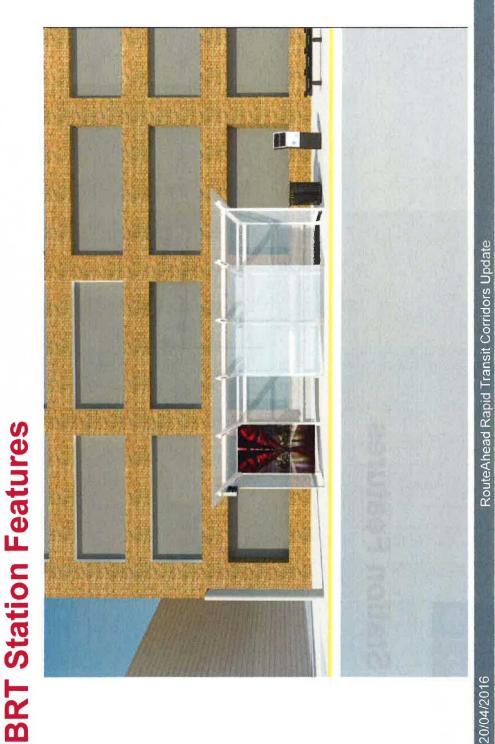
- Refined ridership forecasts show a total of over
- 30,000 weekday passengers across the four projects
- BRT program ridership is comparable to West LRT,

but at 1/5 the cost

BRT Station Features





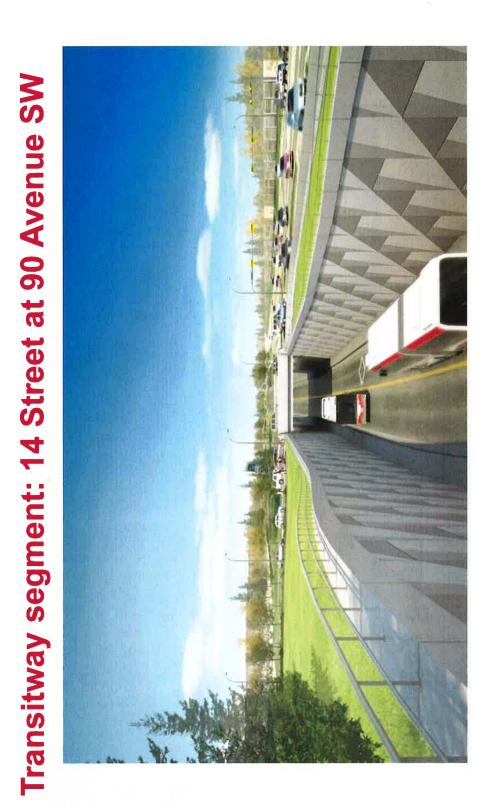






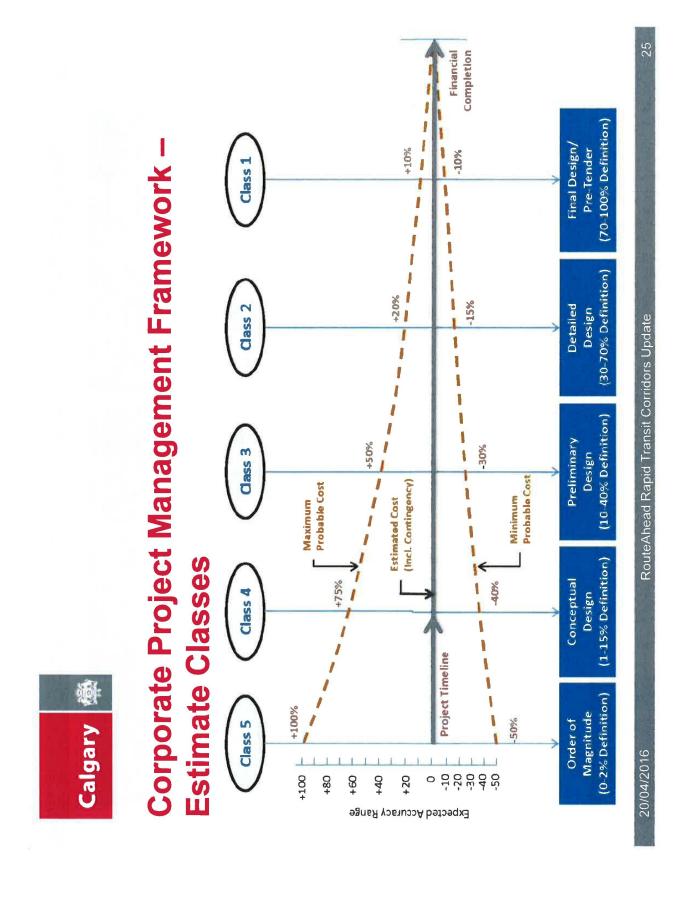


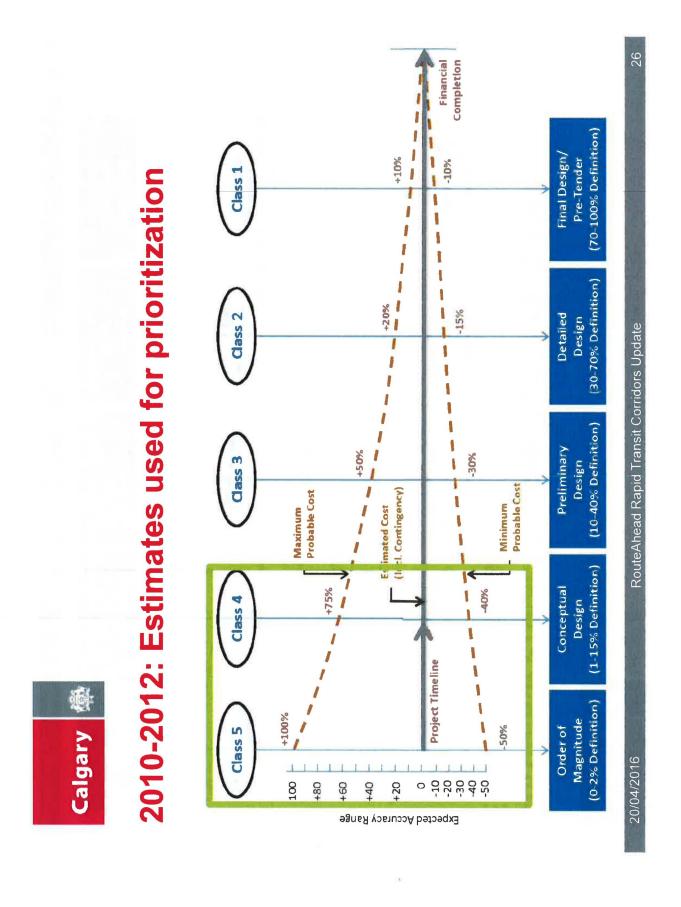








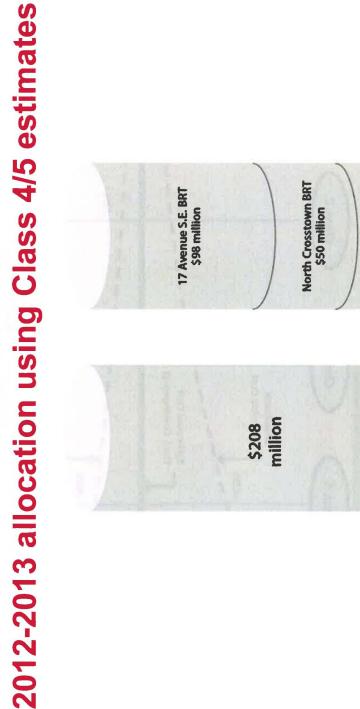


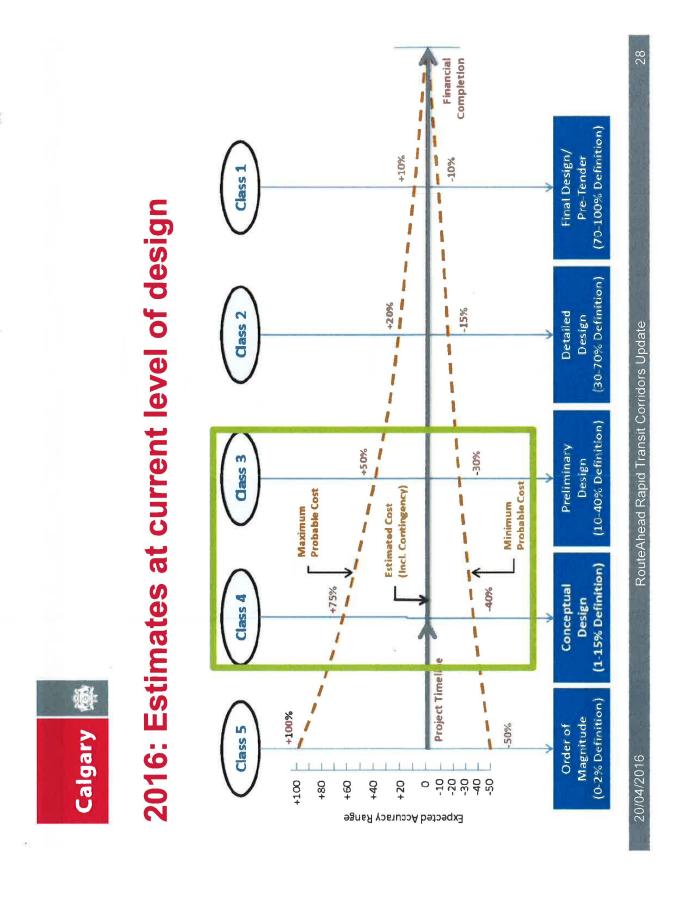


South Crosstown BRT \$20 million

Southwest BRT \$40 million









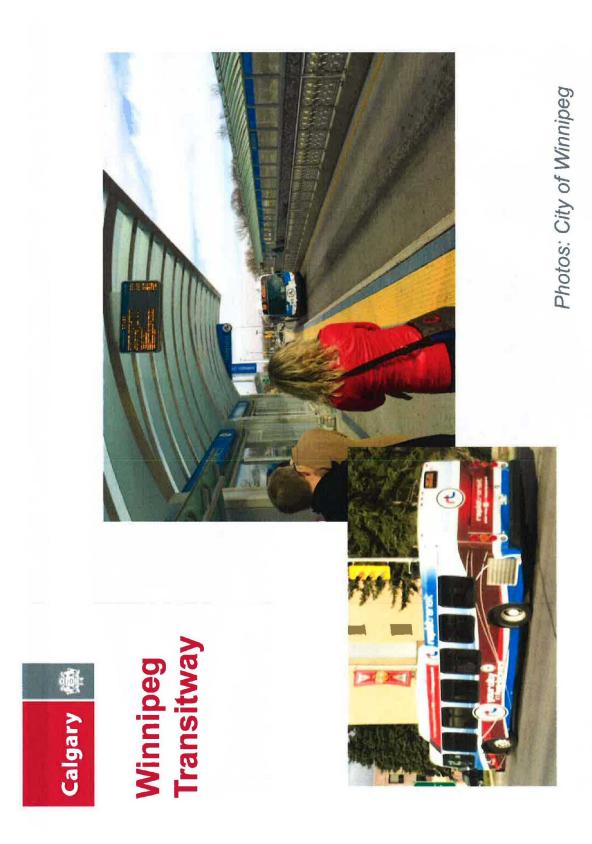
2016 allocation using Class 3/4 estimates North Crosstown BRT \$20.4-\$24.7 million South Crosstown BRT \$18.7-\$21.2 million 17 Avenue S.E. BRT \$88-\$96 million Southwest BRT \$57-\$65.6 million \$184.1 -\$207.5 million



- Program 566 covers approximately 70 km
- Cost estimate amounts to \$3 million per km
- Other BRT projects range from \$3 million per km to

over \$20 million per km













Presentation Outline



Staging and schedule

Engagement: what's next and what we've heard

Value of investment

Budget

Customer experience

Ridership

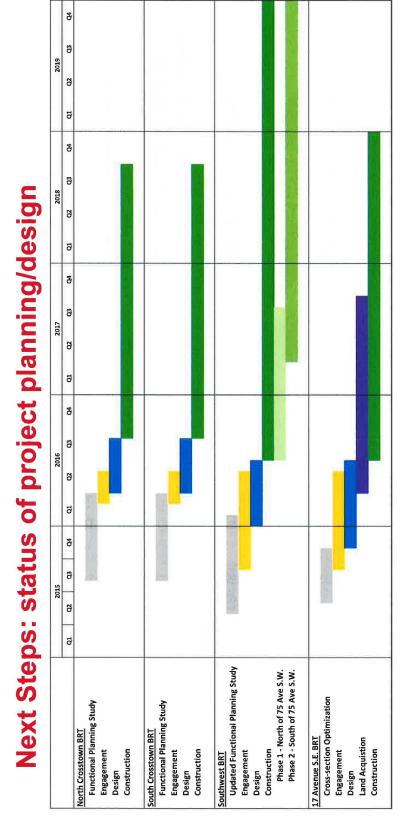
Why Bus Rapid Transit

(BRT) is important

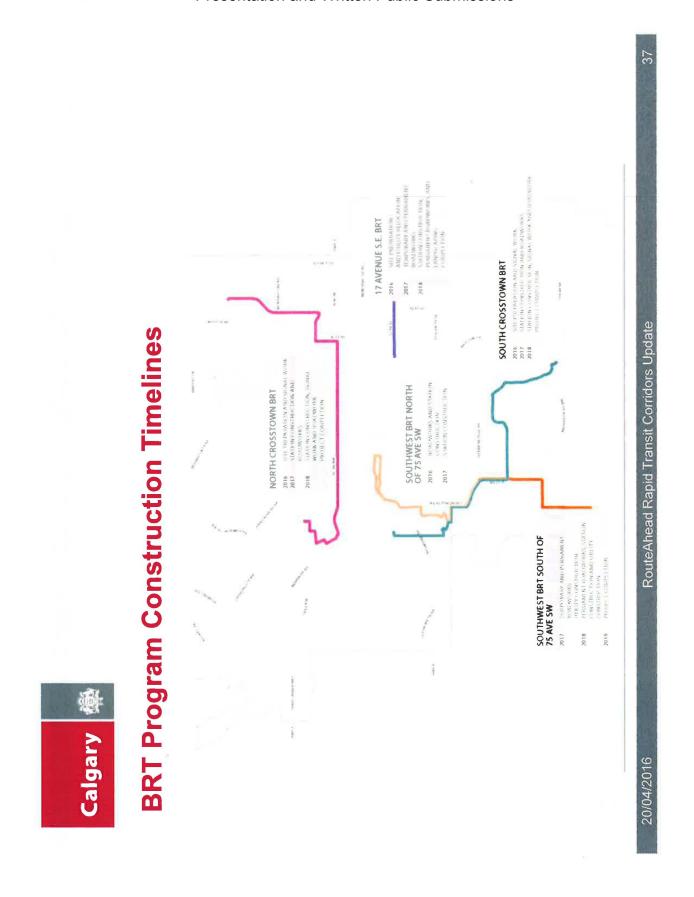
Council direction

Comparable projects

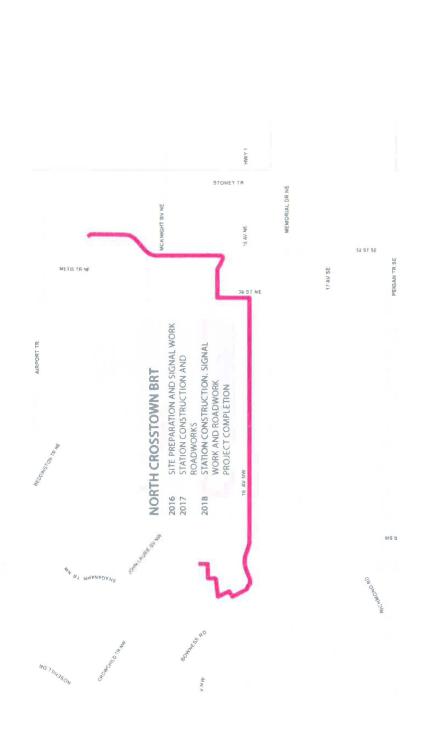




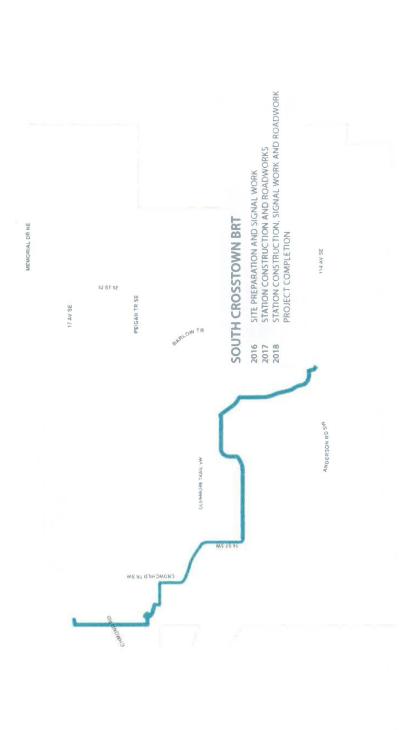
Note: Detailed procurement strategy to be developed in the summer of 2016 pending further design work. Above schedules may be revised depending on options for procurement and construction efficiencies.



















RouteAhead Rapid Transit Corridors Update

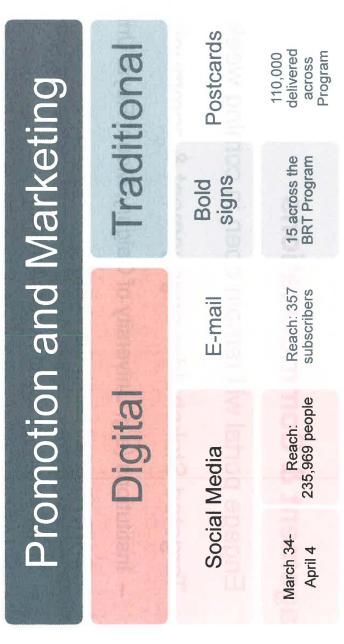


Engagement & Communications

- Engage portal will remain open in coming weeks
- Targeted Stakeholder engagement & communications
- Institutions (e.g. University of Calgary, Mount Royal University,
- SAIT, Alberta Health Services)
- Major employers/landowners/tenants
- Communities and individuals: transit service plans
- Utility companies

Online Engagement summary to date (April 5)

- 5,116 visitors and 1,572 pieces of feedback collected as of April 5, 2016
- Supported by a proactive promotion and marketing campaign to maximize reach





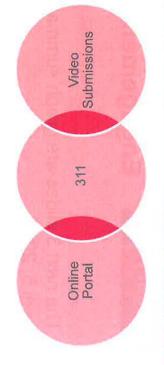
Online Engagement summary to date

- We asked for input about:
- getting to and from stations, 3 station designs and 8 station features.
- Citizens can provide comments and ask questions on topics of interest
- alternative formats for input and Q &A Video submissions and 311 are









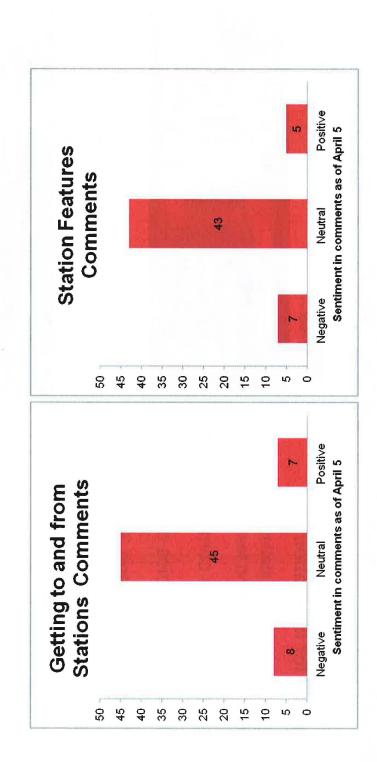
RouteAhead Rapid Transit Corridors Update

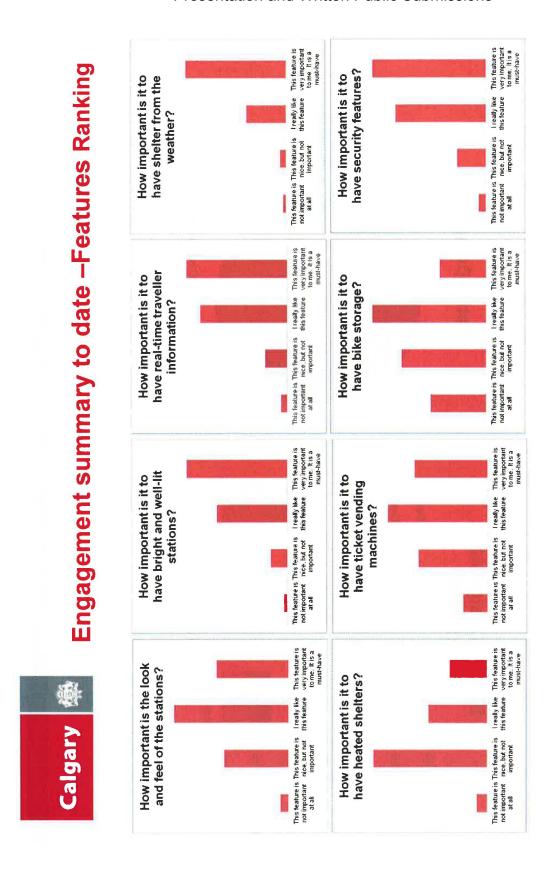
20/04/2016

Page 80 of 162

Engagement summary to date

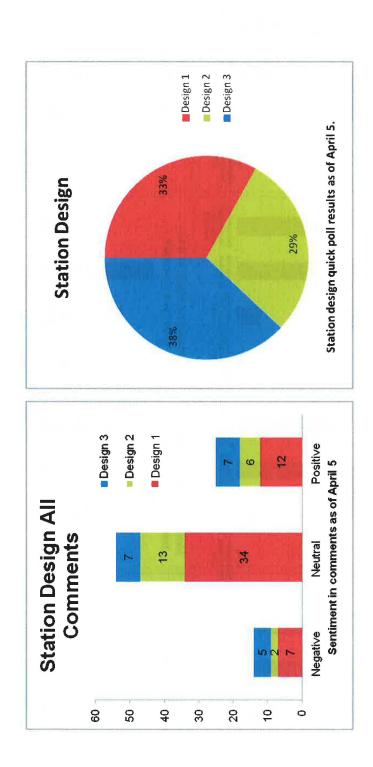
The next 3 slides are graph summaries of the comments and feedback as of

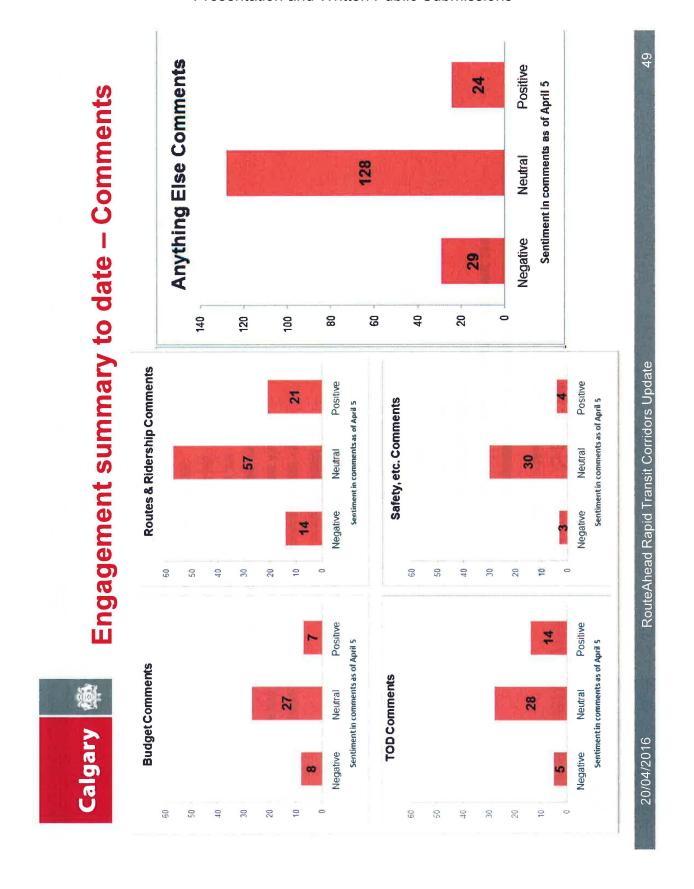




Engagement summary to date - Station Design

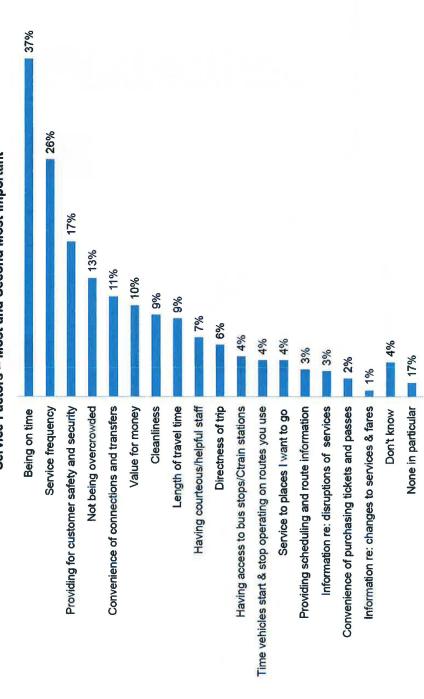






Base: Calgary Transit Users (n=400) Note: Does not include 'other'

Alignment with Customer Satisfaction Survey Service Factors - Most and Second Most Important



RouteAhead Rapid Transit Corridors Update



Why make these investments?

communities and ability goods are defined by to move people and Character of

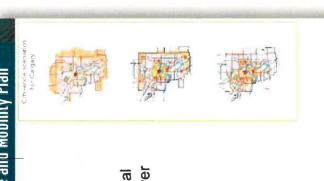
and economic growth of how we address travel The liveability, vitality Calgary depends on these investments demand

Integrated Land Use and Mobility Plan where do we grow plan it calgary

from here?

1.3 million people and 600,000 jobs over how can we accommodate an additional the next 50 - 60 years?

- where will they work? - where will they live?
- how will they travel?
- what are the implications?





Why make these investments?

satisfaction - and

how Calgarians

travel in the future

is directly tied to

transit investments





8 8 2019 8 5 8 8 2018 5 5 8 8 2017 8 各 各 8 2016 8 귱 8 8 2015 62 5 **Next Steps** Southwest BRT Updated Functional Planning Study Engagement Phase 1 - North of 75 Ave S.W. Phase 2 - South of 75 Ave S.W. Functional Planning Study Engagement Design Cross-section Optimization **Functional Planning Study** North Crosstown BRT South Crosstown BRT Land Acquistion Construction 17 Avenue S.E. BRT Design Construction Construction Construction Engagement Engagement

Note: Detailed procurement strategy to be developed in the summer of 2016 pending further design work. Above schedules may be revised depending on options for procurement and construction efficiencies.



Recommendation

That the SPC on Transportation & Transit

recommends that Council receive this report for

information

Councillor Brian Pincott Calgary City Hall 800 Macleod Trail S.E. Calgary, Alberta, T2P-2M5

Thursday, March 24, 2016

Dear Councillor Brian Pincott,

The intent for this letter is to communicate how important the southwest Bus Rapid Transit (BRT) route is to the students of Mount Royal University (MRU), as well as to the City of Calgary as an integrated community.

Currently, Mount Royal University students are the most disenfranchised from Calgary's largest post-secondary institutions with regards of accessible, fast, and reliable public transit. In contrast to the University of Calgary and the Southern Alberta Institute of Technology (SAIT), there is not a direct Calgary-Train (CTrain) station that allows direct access to MRU. The southwest BRT project would be a great way to help thousands of students reach their destination fast, and make Calgary's transit and post-secondary systems more just and egalitarian. This project would also help the city to become environmentally friendlier, as many Calgarians, not only MRU students, would have a fast and reliable form of public transportation, which could diminish the use of personal vehicles, as well as the city's overall traffic congestion and carbon footprint.

In an individual level, the southwest BRT would help Mount Royal University students in the following ways: (i) students that live in the areas benefited by the southwest BRT project would enjoy faster commuting times; (ii) a direct and busier transportation line would provide a safer commute for students; (iii) this could relate to a better financial reality for students, as they would most likely lower their gas, car maintenance, and taxi expenses; and (iv) the new route would provide a faster access to the city's downtown area, leading to better communication between the students, City Hall, and the core of several industries.

In summary, the southwest BRT project would relate not only to helping Calgary become more just, egalitarian and environmentally friendly, but also to the faster commuting, overall safety, cost reduction, and career development for MRU students. With this project, our students would benefit personally, academically and professionally. We believe that this project is not only a great idea, but a necessary one for the betterment of our MRU and overall community.

Thank you for your time and consideration,

Erik Queenan
President
Students' Association of Mount Royal University





April 20, 2016

The City of Calgary Calgary Transit 800 Macleod Trail South P.O. Box 2100, Station M Calgary, Alberta T2P 2M5

Attention: Mr. Dale Lynch, Senior Transportation Engineer

Dear Mr. Lynch

Re: SPT on Transportation and Transit - Program 566: RouteAhead Rapid Transit Corridors Update

RioCan is the owner and manager of the Glenmore Landing Shopping Centre, located at the corner of 14th Street and 90th Avenue SW. We are aware of the City's plans to provide Bus Rapid Transit (BRT) service along the SW BRT route which may have a proposed station on 14th Street adjacent to the shopping centre.

Please accept this letter as RioCan's full support of the planning and development of this leg of the RouteAhead initiative. We have participated in discussions with city administration about a complementary Transit Oriented Development (TOD) at Glenmore Landing, and look forward to continuing the planning of this project. We recognize that it will likely be several years away until the full development is realized, but are committed to participating in the ongoing planning process.

Sincerely,

P Stuart Craig, Vice President of Planning & Development RioCan Management Inc.

IN COUNCIL CHAMBER

APR 2 0 2016

ITEM: 3.4 172016 - 0335

CITY CLERK'S DEPARTMENT

RioCan Yonge Eglinton Centre, 2300 Yonge Street Suite 500, P.O. Box 2386, Toronto, Ontario M4P 1E4 Tel (416) 866-3033 • 1-800-465-2733 • Fax (416) 866-3020

Haysboro Neighbours' Group 147 Hallbrook Drive S.W. Calgary, Alberta T2V 3H8 March 31, 2016

Mac Logan
General Manager, Transportation
City of Calgary
PO Box 2100 Station M
Calgary, Alberta
T2P 2M5

CITY OF CALGARY
RECEIVED
IN COUNCIL CHAMBER

APR 2 0 2016
ITEM: 3.4 TT2016-0335
Distribution
CITY CLERK'S DEPARTMENT

Dear Mr. Logan:

Please find attached a copy of a letter and 72 signatures sent to Brian Pincott from 72 Haysboro residents who are opposed to the BRT project as it presently stands. We felt that you should be aware of the concerns expressed by us.

Yours truly,

72 Haysboro Residents

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Signatures continued from page	of the letter to Brian Pincott;
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Murray Hefferman.	1500
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CITY CLERK'S DEPARTMENT



February 18th, 2016

Ward 11 Councillor Brian Pincott Historic Calgary City Hall 2nd Floor, 800 Macleod Trail South Calgary, AB T2P 2M5

Sent via email: Brian Pincott brian.pincott@calgary.ca

cc: Howard Kai <u>howard.kai@calgary.ca</u> Emma Stevens emma.stevens@calgary.ca

Dear Councillor Pincott,

I am writing in follow up to our letter dated November 4th. At that time, we expressed concern over the amount of consultation with our community over the planned Southwest Transitway. We heard from our residents that there were numerous concerns with the project, as well as many questions that remained unanswered by the available information at the time.

Since then we have had several discussions and meetings with both your office as well as the Transitway team. We were glad to have the opportunity to participate in a dialogue directly with the transportation staff responsible for the project. We appreciate the City's increased efforts to share information with the public, and consult with them over design issues. However, given the amount of design issues still to be resolved, we reiterate our position that we do not feel the City should proceed with the project until the designs have been finalized and these issues addressed.

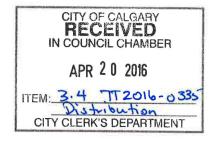
In particular, priority concerns for our residents continue to be; vehicle access in and out of Eagle Ridge, results of noise level assessments, progress on determining a safe approach to constructing in proximity to the utilities along the right of way, consideration for pedestrian safety and mobility with respect to both accessing the stations, and crossing the corridor. Given some of the changes from the design laid out in the original functional planning study, such as the 90th avenue underpass, we hope the City will be able to accurately determine a revised budget, which will permit the construction of transitway that addresses these concerns. We ask that the City continue to work hard to address these issues and keep our community informed as this work progresses.

1015 - 73 Avenue SW Calgary, AB T2V 0R9 www.ckecommunity.com



April 11, 2016

To Whom It May Concern:



Please accept this letter expressing our support of the southwest Bus Rapid Transit (BRT) line being proposed by the City of Calgary.

Our plan for Currie establishes a series of neighborhoods anchored by a new retail and mixed-use core located near the geographic centre of the site. These neighborhoods are complemented by a network of distinct park and greenway spaces connected by local streets and dedicated pedestrian and bike only corridors. A central feature incorporated into our plan that acts a backbone the larger mobility system is Quesnay Wood Drive. From the earliest stages of the planning of the community, Quesnay Wood Drive was envisioned and designed to support the south west BRT route. Further the routing of the south west BRT through Currie is fundamental to the success of the project.

In addition to the Currie plan accommodating this important transit connection, nearly two years of public engagement and thousands of surveys, clearly demonstrated the desire by local residents to see alternative forms of transportation being offered through the community.

At full build-out, Currie will be home to more than 12,000 residents. An emerging second city centre is beginning to develop around us and is supported by the adjacencies of Mount Royal University, the Westmount Corporate Campus, and the ATCO Office Lands currently under construction.

Transportation alternatives like the new BRT line will soon become necessary to enhance service connections for all Calgarians into the downtown core and to provide convenient and reliable service to our new "city within a city".

Please do not hesitate to be touch with our team if other opportunities exist to demonstrate the need for this critical service.

CANADA LANDS COMPANY CLC LIMITED

Yours truly,

Chris Elkey

Senior Director, Real Estate

CE:cl

Work: (403) 292-6508

Cell: (403) 681-1477

3951 Trasimene Crescent SW Calgary Alberta T3E 7J6 Tel. 403 292 6508 Fax 403 292 6246 E-mall celkey@clc.ca www.clc.ca 3951, croissant Trasimene S.O. Calgary (Alberta) T3E 7J6 Tél. 403 292 6508 Téléc. 403 292 6246 Courriel : celkey@clc.ca www.clc.ca

Canada

CITY OF CALGARY RECEIVED IN COUNCIL CHAMBER

APR 2 0 2016

Members of the Special Policy Committee on Transportation and Transit,

TransitCamp YYC is a civic action group dedicated to executing citizen solutions for Calgary stransit challenges. We support better transit in Calgary through educating, interming and S DEPARTMENT advocating members of the public, city administration and City Council about how to make a great transit city.

We are writing to you today in regards to the proposed southwest Bus Rapid Transit route from downtown to Woodbine. TransitCamp strongly supports the proposed routing of Southwest Bus Rapid Transit, and encourages the SPC to approve the proposed alignment and design for the route.

The proposed Bus Rapid Transit route will provide numerous benefits to Calgarians, including, but not limited to:

- Residents of southwest Calgary (both north and south of Glenmore Reservoir) will have improved access to downtown, providing relief to the existing south leg of the Red Line
- The route serves three major trip destinations/origins: Rockyview Hospital, Mount Royal University and the Currie development that currently do not have rapid transit access directly to downtown
- The proposed route better facilitates better access to the above destinations from the Red Line (north leg), Blue Line (northeast leg) and the future north central portion of the green line (the south, west and southeast legs will likely use the 306 BRT to access these destinations) by eliminating unnecessary transfers by facilitating a single transfer downtown
- The proposed dedicated transit lanes provide an additional benefit as they accommodate several other Calgary Transit routes, and especially the 306 Bus Rapid Transit Route for a crucial portion of its route, decreasing travel times, improving schedule reliability and potentially reducing headways along all routes

In addition to the generalized benefits of the route, we find that the particular route alignment detailed in the functional study conducted by Stantec, is well thought out and represents the optimal routing within the project scope and limitations. We find the decisions below to be particularly important to note:

- The proposal to maintain all existing travel lanes on 14th street is a reasonable comprise that provides additional transit service while not reducing vehicle capacity
- The location of the proposed transit lanes, on the westernmost boulevard of 14th street, is the most appropriate location for the transit lanes, given the station locations (Rockyview Hospital, Heritage Park and Glenmore Landing), all of which are located on the west side of 14th Street
- The general station design at Heritage Drive accommodates turns onto and off of Heritage Drive for the route 306 well, while facilitating transfers between routes by providing shared station platforms
- The use of shoulder lanes on the Glenmore causeway and along Crowchild Trail are, at this
 time, the best option to provide a right of way without impacting vehicle traffic. These right-ofway operations can be reviewed in the future when operations have been ongoing for several
 years
- The preferred option for the turnaround at Woodpark Blvd (option 4 in the functional study) is the best option presented as it has the least impact on existing traffic and properties

 The use of queue jumps at Anderson Road is a creative and effective way to improve transit times with minimal cost or impact to vehicle traffic

While we generally support the proposed alignment of the route, we do have some suggestions for minor improvements to the route. Our support for the project is not conditional upon any of the suggestions for improvement below, but we feel the project can benefit from the following changes:

Extend the downtown alignment of the route to 1st street SW. The currently alignment through the downtown ends several blocks short of the main concentration of office in the downtown. Extending the route to 1st street SW will bring downtown-bound riders closer to their destinations and will eliminate unnecessary transfers to the 7th avenue LRT

Improve pedestrian access at 90th avenue. Currently, pedestrian access across 14th street at 90th avenue is quite poor, with one cross-walk closed in order to facilitate a left turn from eastbound 90th avenue to northbound 14th street. While current volumes of pedestrians may be low, the addition of a BRT station will draw additional pedestrians from communities to the east of 14th street to the station at Glenmore Landing. Installing a pedestrian over pass in this location (across 14th street, north of 90th avenue) will better facilitate pedestrian crossings and reduce potential conflicts between pedestrians and vehicle traffic and provide better pedestrian access to the proposed BRT station.

Plan for dedicated transit lanes through Currie via Quesnay Wood Drive. The current proposal for the route through Currie Barracks is north/south along Quesnay Wood Drive. However, there seems to be no plan for dedicated transit lanes along this road and the route will operate in mixed traffic. While mixed traffic operations will be sufficient in the short term, as ridership increases and shorter headways and travel times are needed, dedicated transit lanes may be a better option. As the road is yet to be constructed, there is an opportunity now to ensure the right of way is of sufficient width to accommodate dedicated transit lanes in the future.

For the heritage park station design, option 2 is preferable. The station design for Heritage Park presents 2 options in the functional study, one with a northbound station north of Heritage Drive (option 1), the other with the station south of Heritage Drive (option 2). We feel option 2 is preferable as it allows for pedestrian transfers between the westbound 306 and the proposed southbound BRT with only a single road crossing. Option 1 requires 2 crossings. While option 1 decreases bus travel times, we feel facilitating the ease of transfers is more important in this case.

In summary, the southwest BRT project is a positive addition to the city of Calgary, providing improved mobility for many Calgarians

We would like to thank the policy committee for their consideration of our letter and the suggestions for improvement listed above.

Regards,

TransitCamp



TRANSIT FOR THE PEOPLE

Letter of Support for the Southwest BRT

Dear City Council,

I am writing this letter on behalf of a grassroots group of Calgarians working as the #iloveyyctransit team. We were brought together by a belief in the importance of accessible public transit for all Calgarians. We worried about the current negative and misleading public discourse about public transit.

We want to be a voice for people who need public transit to live their lives: seniors, students, low income, and the differently abled whose quality of life is drastically affected by public transit access.

Safe, accessible public transit is critical for cities to function. Calgary is a big city (over a million and growing according the last census) and we need to ensure all our citizens can commute and travel around their city.

Now is the time to invest in Calgary's infrastructure. This creates jobs and makes us ready for when the economy rebounds. Calgary is still growing and we need to be ready for the world-class city Calgary will become

We are strongly in support of the Southwest BRT and city-wide BRT projects in general. The Southwest BRT will bring public transit to an area of the city that is drastically underrepresented by access to public services. Neighbourhoods with high concentrations of students, seniors, and families will get the public transit access they need.

Since launching this project I have heard from Calgarians all over the city sharing their stories of how public transit affects their lives.

Saleem Muhammad takes the train across the city every day to work. As a newcomer to Calgary, the Public Transit system is a lifeline for his whole family to begin their lives here. He shared "I take [the] 32 to my job site. The bus driver is excellent and always on time [with a] lovely smile on their face."

Joanna Allard is a mother and a musician who was recently diagnosed with epilepsy. She told us "Without public transit I wouldn't be able to leave my home. The bus service in Woodbine is currently infrequent and unreliable, a BRT would make everyday life for my daughter and me so much easier."

Robert Dickinson takes his two sons on the train every day. He said they "Love taking #yyctransit! They take turns with bus bell ringing and opening the train door."

These are just a few of the voices from everyday Calgarians who need public transit to live their lives. We don't collect petitions or pledges because we know thousands of people support public transit- we know this because approximately 110 million riders use Calgary Transit each year. There is no doubt this service is needed. Any delay to Calgary Transit's current public transit projects will be a detriment to populations this Council has pledged to represent and advocate for.

Thank you for your time,

Jennifer Burgess #iloveyyctransit organizing committee chair ITEM: 3.4 TOOLS OF CITY CLERK'S DEPARTMENT

For more information: www.iloveyyctransit.ca

CITY OF CALGARY

RECEIVED

IN COUNCIL CHAMBER

APR 2 0 2016

Distribution

February 12, 2016

Councillor Brian Pincott, Ward 11 The City of Calgary Historic City Hall 2nd Floor, 700 Macleod Trail South Calgary, AB T2P 2M5

Dear Councillor Pincott,

RE: SW Transitway and Bus Rapid Transit (BRT) Project

This letter is to advise you that the Board of Directors of the Braeside Community Association has passed a Motion at our Annual General Meeting to ask that The City of Calgary put the SW Transitway and BRT project on hold until such time that proper and meaningful public engagement process on the project has been conducted and that a fully accountable engineering assessment has been undertaken.

The project, in its current design, poses several significant safety, environmental and pedestrian accessibility issues. It also does not address the bottleneck at the Glenmore Causeway and will undoubtedly increase traffic congestion. While we are in support of efficient and cost-effective public transit and transportation planning that benefits all Calgarians, we strongly feel that the City of Calgary has failed to consider alternate solutions, has based this project on insufficient transit ridership data and has not meaningfully informed or engaged the residents of Braeside or the Braeside Community Association.

Furthermore, this project was passed five years ago before the approval of the SW Ring Road, the introduction of 4-car LRT's and with no feedback from any Community Associations whatsoever.

We also believe that the current project budget is insufficient to complete the project and new project cost estimates have not been provided. The updated functional planning study (Stantec Report, January 2016) also does not address most of the concerns that we feel will negatively impact our community and our residents.

Thank you for your time and we look forward to hearing back from you.

Sincerely,

Braeside Community Association

C: His Worship Naheed Nenshi, Mayor

Mr. Jeff Fielding, City Manager & COO, The City of Calgary

Mr. Mac Logan, General Manager Transportation, The City of Calgary

Mr. Doug Morgan, General Manager Calgary Transit, The City of Calgary

Speech to Transit and Traffic Committee – R. W. Kooyman

20 April 2016

- 1) Good Morning
 - I am Bob Kooyman Petroleum Engineer 40 years experience Work skills include project planning and management.
 - Bought home in Woodlands in 1978 and lived there since purchase
 - Raised 3 children now grown and gone.
 - Used to work in downtown and rode transit for some time. Stopped using
 Transit when I needed car to transport kids, etc. Unable to use transit after
 2003 accident. Occasionally use it now to go to/from events
 downtown/Saddledome.
- 2) Unless otherwise noted, my comments on project are specifically intended to address the portion of SWBRT project south of the Rockyview hospital. I am strongly Opposed to this portion of the project
- 3) The SWBRT Project has seen massive and unprecedented opposition from residents of SW Calgary. Comments on SWBRT website are massively opposed to the project. An article on Saturday Herald reinforced resident comments about poor planning and inaccurate data being disseminated to community: \$40mm vs. \$65mm Cost Estimate, 2 yr vs. 4 yr construction timeline, etc.
- 4) My first objection is to the proposal to rebuild 14th Street SW.
 - It will bring traffic chaos to SW Calgary throughout construction period.
 - Current layoffs in downtown have relaxed traffic concerns. Jobs lost not likely to return for many years.
 - My wife, Brenda works as a Registered Psychologist in an office by SAIT.
 Used to be 45 minute commute. Now 30 minutes.
 - Last week, Calgary had daylighting crews working on 14th St. It took her 1 hour each way! Massive traffic jam on Glenmore/Crowchild during evening rush hour!
 - This is a small taste of issues that will occur once construction on 14th Street commences.
 - My opinion that no construction should proceed until SWCRR is completed and effects on traffic seen. SWCRR will at least provide residents of SW communities with a "backdoor" to escape traffic problems
- 5) Problems highlighted in Herald article on weekend begin with the planning document. It is a 2008/9 work, likely using 2006 data, updated and presented in 2010 and likely updated once again since then. It is a <u>feasibility study</u> and not an engineering/planning document. It has a number of flaws No examination of alternatives (e.g. HOV lanes instead of dedicated bus lanes, alternative routes, etc.). A

Speech to Transit and Traffic Committee – R. W. Kooyman

20 April 2016

deficient determination of Scope of Work resulted in an inaccurate cost estimate (90th Ave underpass, pipeline rework left out). No demographics were conducted. No ridership estimates were made. NO ECONOMICS. No critical review. Poor public consultation and review process.

Although the City predicts large numbers of students and workers now and in the future will be going to/from Rockyview and Mt. Royal, no demographic study had been made to determine number of SW residents who currently work at or might be headed to these destinations. There are no grounds to use this to justify these numbers to justify the SW portion of the project.

Repeatedly during public open house, residents stressed that ridership did not exist to support project but city officials brushed off the objections and seemed to take the attitude that "if we build it they will come".

Unfortunately, I don't think that the ridership will come. In Saturday's Herald was an article describing the "Doughnut of Decline" – areas of the City where population is stable or declining as families age and children move out. The SW communities are squarely in this situation. Further, with the decline of the oil patch, many families are now in or approaching retirement (voluntary or otherwise) further reducing ridership.

6) At behest of Councillor Colley-Urquhart, Mr. Andrew Sedor - Executive Assistant - General Manager's Office - Transportation wrote me two excellent e-mails answering a number of questions and explaining facets of the project. He also provided me with 2014 transit ridership statistics. Armed with that data, I decided to examine the current transit framework to see what ridership existed. (Economics!)

Because of the way the project is configured with no parking for vehicles from outside the community, I assumed that all traffic for the SW portion of the BRT has to come from within the communities and therefore that existing Transit ridership numbers reflect potential BRT usage.

There are three bus routes in the area, 16/84 Palliser, 56 Woodbine, and 79/80 Acadia/Oakridge. After adjusting the 79/80 ridership, average weekday usage from 05:00 to 22:00 is 5900 trips per day, a higher number than I anticipated. However, not all of these are going to be riding the SWBRT.

A large percentage of the riders are Junior High and High School Students. They are attending the schools in the area and along Elbow Dr. and will not be using the BRT.

Speech to Transit and Traffic Committee – R. W. Kooyman

20 April 2016

I thought back to my experiences riding the buses and trains and allocated ridership in the various time breakdown periods. Roughly 38% of the total ridership is going downtown, 42% are going to school, and 20% elsewhere – e.g. Chinook, Southland, Shaunassy, etc. The project will attract ~ 2200 fares per day with ~ 200-300 per hour at peak (5 min bus service is 1400 passengers/hr). Off-peak ridership is only 40 to 60 fares/hour. (15 min service is 480 passengers/hr)

Looking at ridership distribution, it is clear that the SW communities cannot support the promised 5 minute bus service outside of a few peak hours. Low off-peak ridership implies 15 minute service. Even with low off-peak service, the SW portion of BRT bus service will run a significant loss.

Further, the SW portion of the BRT is not going to reduce or eliminate existing bus service. The SWBRT essentially duplicates the 56 bus line. But since it does not service the Woodlands/Woodbine community nor tie into the LRT, you will need to run the existing 56 bus line on the existing frequency to meet community needs for access to the LRT. The same goes for the 16/84 Palliser and 79/80 Oakridge buses. In the end you will have cannibalized the existing bus lines without increasing overall ridership. You will have spent \$40-50mm in capital and added significant operating costs (\$30,000 to \$50,000/day) without increasing system revenue.

7) There has been no driving outcry for this project from the SW communities. Most people I spoke to are happy with the existing service and only wish for increased frequency. I would urge the Committee to pull back and reconsider this project. If it were reconfigured to run – for example from Chinook LRT to the Hospital, Mt. Royal and Downtown, - it would meet most of the Transportation Committees objectives and shave a BIG chunk off of operating costs and capital expenditures. A tie into LRT at Chinook would bring in riders from the NE and NW and a tie in with the E-W BRT would bring in riders from the South and East, who wish good service to the Hospital and Mt. Royal. This would be a BIG upgrade on current #20 bus line.

Time Option 14th St & 90th Ave flooding.

Natural Bowl

10 year thunderstorm dumps 6-8 inches rain and hail

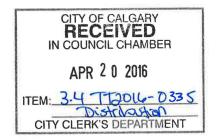
Existing intersection floods 1 meter deep. Twice I know of.

Proposed underpass will become swimming pool without big pumps and new storm water outflow. More \$\$\$\$

Speech to Transit and Traffic Committee - R. W. Kooyman

20 April 2016

There are a lot of other objections to the project that I am sure other speakers will illustrate. Thank you for listening to me today. Do you have any questions?



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An Overview of Land Acquisition for Federally Regulated Pipeline Projects

Gerry McAllister

ABSTRACT

The purpose of this paper is to provide an overview of the requirements of two of the most critical components of any oipeline construction project under the jurisdiction of the flational Energy Board Act, namely:

- (i) Public Consultation and
- (ii) Land Acquisition.

These two activities are inextricably connected. Public consultation paves the way for land acquisition and it is essential that the two be conducted in an integrated manner.

Introduction

Land acquisition is a critical component of pipeline projects because without access to land, facilities cannot be constructed. Un-acquired land rights can stall a project. Although most pipeline projects are constructed without delay as a result of acquired land rights, the complexity of the process and the efforts necessary to acquire these land rights are often not recognized. Companies that misunderstand the requirements of sublic Consultation and/or underestimate the importance of the land Acquisition process are often faced with delays and accreased overall project costs.

Nomenclature

CAPP – Canadian Association of Petroleum Producers EPN – Early Publication Notice GIC - Governor in Council NEB – National Energy Board NEBA – National Energy Board Act PM – Project Manager PPBoR - Plan, Profile and Books of References

art I: Regulatory Aspects of the National Energy Board

(NEB)

Background

Oil, natural gas and commodities pipelines in Canada are regulated under either provincial or federal jurisdiction. If a pipeline is situated wholly within one province, provincial jurisdiction applies, however, if it crosses a provincial or federal border it falls under federal jurisdiction.

This paper addresses only federally regulated pipeline projects under the National Energy Board (NEB). Part I and II of this document focus on the regulations governing land acquisition, which are enacted under the *National Energy Board Act* (NEBA). Part III addresses the vital aspects of an effective right-of-way acquisition program.

The NEBA and associated regulations and guidelines cover a wide range of complex issues that have significant potential impacts to all Canadians. It is the author's view that the National Energy Board does a very capable job of administering the NEBA. However, it must be emphasized that a pipeline proponent should obtain a thorough understanding of the NEBA and associated regulations before embarking on an application for approval to construct a pipeline under NEB jurisdiction.

The NEBA was proclaimed in 1957 and has been amended numerous times since that date. Of significance from a landowner and land acquisition perspective are the amendments under Bill C60 in 1983, many of which deal specifically with the land acquisition process. Included in these amendments are requirements for the proponent of a new pipeline to obtain approval for the detailed route of a proposed pipeline (sections 33 through 36), the terms of agreement to be included in easement documents prepared by the company (section 86), and the ability of a company to acquire land rights through expropriation or right of entry under the NEBA (section 104). Prior to these amendments, landowners affected by a pipeline had little opportunity to discuss the specific routing of the pipeline; had little or no control over the form of land acquisition documents a company chose to use; and had no protection under the NEBA in the case of expropriation. Clearly the intent of the amendments dealing with the land acquisition process was to insert a degree of balance in the

process and to provide access to the process by all affected parties.

Consultation Program

In 1990, the NEB issued a Memorandum of Guidance outlining its expectations that companies proposing new pipelines undertake an Early Public Notification Program to explain the proposal to all potentially affected stakeholders and to allow an opportunity for public feedback. In 1995, the NEB updated the Memorandum of Guidance and directed companies to demonstrate that meaningful public input take place at local and egional levels during the planning and design phases of a roject. At the same time, the EPN Guidelines were reinforced farough their incorporation into the Guidelines for Filing Requirements. In April 2004, the NEB issued an amended Guidelines for Filing Requirement that included increased expectations that an applicant conduct, depending on the project scope, extensive notification and public consultation with potentially affected persons, groups and authorities in advance of filing an application. The current requirements of the Consultation Program include a well-planned and executed public consultation program, utilizing a highly skilled multidisciplinary team.

The public consultation process must commence well in advance of a proponent filing an application. Within the application, the proponent must include information regarding the principles and goals, design details, and outcome of the consultation program. The proponent is required to demonstrate the NEB that it has not only informed the public and tentially impacted individuals of its proposed project, but that has consulted effectively with these groups in the planning and decision-making processes for the project. The company must demonstrate that public input is factored into project decisions. The NEB requires that the applicant file a detailed summary of its public consultation program, including a list of all concerns registered by the public that have both been resolved and not resolved. This entails identification of and consultation with elected representatives at all levels, Aboriginal groups, regulatory agencies, interest groups and the general public, and all potentially impacted landowners along the proposed route of the pipeline or in the vicinity of proposed facilities.

Acquisition of Land Rights

Section 87 of the NEBA states that before a company commences its acquisition of land or land rights required for the project, it "shall serve a notice on all owners of the lands, in the far as they can be ascertained".

When landowners are served with a *Section 87 Notice*, the company may commence negotiations to enter into an option or land acquisition agreement with the owners. Most companies choose to acquire options that can be exercised upon full regulatory approval of the application, which includes approval of the final, or "detailed route" of the pipeline. Failure to serve

a Section 87 Notice on owners before entering into a land acquisition agreement can render the agreement null and void.

Section 86 of the NEBA establishes specific terms and provisions, which must, as a minimum, be included in any land acquisition agreement used by the company.

Right-of-Entry

The acquisition of land rights required for a pipeline is typically carried out prior to or during the application and, if necessary, may continue during the *Detailed Route Approval* phase of the application. In most cases, however, a company will have acquired most, if not all, of the land and land rights required for its project by the time approval for the *Plan, Profile and Book of Reference* (PPBoR) is filed. In the event a company is unable to obtain a land acquisition agreement with a landowner through private negotiations even after approval of the detailed route is granted, the company may apply to the NEB for what is commonly referred to as "Right of Entry" under section 104 of the NEBA. A *Right of Entry Order*, when issued, gives the company immediate right to enter any lands that are subject to the application for the purpose of constructing a pipeline.

To obtain a *Right of Entry Order*, a company must serve the landowners with a notice, not less than thirty days and not more than sixty days prior to the date of the application to enter the land. The notice must set out: the date the company intends to make application to the NEB; the date the company wishes to enter the land; the address of the NEB to which any objection in writing that a landowner wishes to make concerning the issuance of the order can be sent; and a description of the landowner's right to advance compensation.

Part II: National Energy Board Act Two Stage Approval Process

Phase I: Application for a Certificate of Public Convenience and Necessity

An application to construct a pipeline greater than 40 km in length is referred to as a "Section 52 Application". The Section 52 Application process encompasses a wide spectrum of technical, socio-economic, environmental and land related issues, including the assessment of the initial route selection. To obtain approval to construct its proposed facilities, a pipeline applicant must first demonstrate to the NEB's satisfaction that the pipeline is and will be required by the present and future public convenience and necessity. In arriving at its decision, the NEB must have the following information:

- a) the availability of oil and gas to the pipeline;
- b) the existence of markets, actual or potential;
- c) the economic feasibility of the pipeline;
- d) the financial responsibility and financial structures of the applicant, including the methods of financing the pipeline and the extent to which Canadians will have

an opportunity of participating in the financing, engineering and construction of the pipeline; and any public interest that in the board's opinion may be affected by the granting or refusing of the application.

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If the NEB is satisfied that the application meets these requirements, it will conduct a Hearing and issue Reasons for Decision that is then forwarded to the House of Commons (Governor in Council) for review and approval. If the GIC approves the project, the NEB then issues a certificate which is subject to conditions, including approval of the PPBoR.

Phase II: Approval of the Plans, Profiles and Books of Reference

After a company has been issued a Certificate for its pipeline, it must obtain approval from the NEB for the "Detailed Route" of the pipeline, or portions thereof, before it will be allowed to start construction on a particular section of the pipeline. Approval of the Detailed Route starts with submission of a PPBoR under section 33 and proceeds through approval under sections 34 through 36. At the same time the company is required to serve a notice under Section 34 (1) (a) ("Section 34 Notice") on all owners of lands proposed to be acquired and to publish at least one notice in local publications as set out in section 34 (1) (b). Both the Section 34 Notice and proposed publication must be submitted to and approved by the NEB prior to service of the notices and/or publishing.

Where a landowner has been served with a Section 34 Notice, or for that matter any impacted individual or group, wishes to oppose the detailed route of a pipeline, he or she may file a written statement with the NEB within 30 days of being served or within 30 days of the last publication, setting out his or her nterest in those lands and the grounds of his or her opposition. f the NEB receives a valid written objection to the detailed route of a pipeline, it must order a public hearing, except in the case that the individual subsequently files a notice of withdrawal of his objection (for example through continued effective negotiations) or if the NEB determines the objection to be "frivolous or vexatious or is not made in good faith", or the objection relates solely to compensation. If the NEB does not receive any valid objections to the detailed route or if all objections are subsequently withdrawn, the NEB may issue approval for the detailed route without holding a public hearing.

Detailed Route Hearing

If the NEB receives a valid written statement opposing the detailed route of the pipeline, it must "forthwith order a public earing be conducted within the area in which the lands to which the statement relates are situated." The NEB permits ach person who files a written statement to make representations at the public hearing. Following the detailed

route hearing, the NEB makes a decision on the proposed route. The NEB is empowered to award reasonable costs to the party making representations at a detailed route hearing.

There are three possible outcomes of a detailed route hearing:

- i) the NEB finds that the proposed route is the best possible one and approves the detailed route;
- it may deny the proposed route; or
- iii) it may approve the route with conditions.

A prudent time forecast for completion of a detailed route hearing and issuance of a decision would be in the range of at least four months after issuance of the certificate. At worst, a decision denying the detailed route or requiring that the proponent meet onerous conditions could force the applicant to effectively start the land acquisition over in those areas where objections are still outstanding, resulting in delays to completion of land acquisition and potentially the start of construction.

Part III: Internal Management of the Land Acquisition **Process**

There are three phases in the land acquisition process for new pipeline projects. Within each phase the land group is involved in a number of activities that must be accomplished, either in a sequential or parallel scheduled process. The three phases of a pipeline construction program and the associated land acquisition activities are as follows:

Phase I. Pre-construction

- a. Planning
- b. Project Kick-off
- Consultation Program
- d. Title Search
- Survey e.
- Section 87 f.
- Acquisition of land rights g.
- Detailed Route Approval² h.
- Right of Entry
- Construction Line List j.

Phase II. Construction

- Attendance during construction to ensure that conditions of construction are understood and adhered to by the contractor;
- Liaison between landowners/regulatory agencies and the company/contractor; and
- Acquisition of any unforeseen land rights such as additional temporary workspace, dumpsites and/or storage sites required during construction.

Paragraph (e) includes Consultation, Land Acquisition and Landowner's

² These activities are completed within Phase I under optimum conditions, however, may continue into Phase II.

These activities are completed within Phase I under optimum conditions,

however, may continue into Phase II.

Phase III. Post Construction

- Coordination of clean up between landowner and contractor;
- Assistance in resolving land related concerns of regulators, agencies and other interested parties as a result of construction; and
- Settlement of construction damages with landowners.

lanning

It is important that the land acquisition group be involved starting in the early stages of planning (Consultation Program) and throughout the project. Many potential problems can be minimized or avoided by evaluating land concerns and incorporating this information into the project planning. For example, simple adjustments to a proposed route to avoid highly sensitive areas can save time and expense to both the land acquisition program and the overall project.

Project Kick-Off

Immediately after receiving internal corporate approval to proceed with a pipeline project, the Project Manager (PM) should prepare a Project Notification for circulation to all disciplines involved, including Land, Engineering, invironmental Affairs, Community Affairs, Public Relations, project Services and Legal Departments. The Project dotification explains the scope and timing of the project; requests departments to designate a representative to the project team; and advises of the time and location for the "kick-off" meeting.

The kick-off meeting is scheduled at the earliest possible time and should involve a representative from all disciplines on the project team. The PM provides information as to project scope, requirements and probable schedule, as well as issues that may potentially impact the project. The PM must then solicit input from all members of the project team to help him in a more detailed analysis of the project requirements.

From the perspective of land acquisition, it is important to ensure that the PM is aware of and understands the details and time requirements of the land acquisition process, including a preliminary cost estimate for the acquisition of land and land ghts as well as issues that may impact these factors. The reliminary schedule must document all major activities, with recial attention to the critical path activities, to ensure that bustruction proceeds in an orderly manner and that the contractual obligations of the company are met.

Upon receipt of the required information from each of the disciplines, the PM should review the findings with the team to define mitigation strategies and develop a preliminary project budget and schedule. Once this information has been established, the project team must ensure timely and accurate notification and consultation with the public and all individuals potentially impacted by the proposed facilities. This function is usually handled by the Consultation Team.

Develop and Implement the Consultation Program

The Consultation Team should be a multi-disciplined group consisting of experts in public and community affairs, engineering, environment, legal and land departments. This team reviews the routes under study and prepares a list of all stakeholders including aboriginal groups, interest groups, elected representatives and regulatory agencies having jurisdiction as well as landowners (including occupants) potentially impacted by the proposed routes.

The Consultation Program typically uses a multi-media approach to inform both public and private interests about the project and to seek comments and input for the planning phase. There is no prescribed formula for Consultation Programs because each must be designed to address the issues specific to the project at hand. However, the key to the eventual success of the project is to achieve public involvement and cooperation. The greater the sensitivity of public issues faced by a project, the greater the time and effort required to inform and consult with the public if an applicant is to gain public acceptance of its project.

A basic premise in public consultation is that "a company cannot over communicate". Consultation Programs may utilize newspaper publications, radio spots, letters, information bulletins, individual meetings, open houses, web sites, and a toll free 1-800 information line.

Open houses are perhaps the best method to present a wide range of information in both personal and illustrative forms to the public in specific areas along the proposed pipeline route. This format provides the public an opportunity to interact directly with company representatives and to obtain face-to-face information from professionals in a variety of disciplines. The attendance of land agents assigned to that specific area is imperative. Usually the agent has already met the landowners and can assist them in locating the appropriate sources of information. It is also beneficial for the landowner to become acquainted with the agent he/she will be dealing with as an integral part of the overall team representing the company.

News releases issued by the company are also effective means of informing a wide range of community members about the general aspects of the proposed project. They also ensure accurate information.

If the pipeline proponent does not have an office in the immediate area, the local community generally views establishing a temporary "store front office" in a prominent location as a positive step. This office should display maps, photos and information that of interest to the public and serve as a focal point for discussion. It should be staffed with knowledgeable individuals capable of receiving the public, providing information and responding to questions or concerns about the project, including follow-up responses.

Effective public consultation goes beyond simply informing the public to involving them in planning and decision-making. It must be open and credible while demonstrating integrity and commitment on the part of the company. Informed consultation

requires an open and comprehensive process that ensures the airing of genuine concerns and alternatives.

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The team must maintain detailed records of information both issued and received and direct all matters of concern and/or objection to the appropriate team member for immediate response and follow-up. To ensure credibility, it is important that once a company has requested input from a stakeholder an immediate effort is made to respond and act upon any concerns or objections that are voiced. However, in those areas where such concerns are unreasonable, a company must ensure complete documentation and reasons why such concerns are not reasonable, plus records on how they are dealt with.

There are many important stakeholders to consider in an Early bublic Notification/Consultation program but perhaps none are scritical as the directly affected landowners (lands required) along the route of the proposed pipeline. The support, or at very least, cooperation of affected landowners is key to the success of any right-of-way acquisition program. It is therefore strongly recommended that a great deal of effort be exerted in consulting with impacted landowners at an early stage and regularly throughout the project. Land agents should personally meet with all landowners potentially impacted along the proposed route as early as possible to provide information on the project, allow the owners to express any concerns that they may have, and to obtain permission to conduct a survey on their property.

Landowners who have been properly informed and consulted during the early stages of a project are more likely to feel they have some control over the impacts of the proposed project to their land. Very often landowners have legitimate objections to the initially proposed location of a pipeline on their land and, in many cases, land agents and landowners are able to arrive at a compromise. Joint resolution of a landowner's concern can help to establish a relationship of trust and cooperation. On the other hand, nothing will alienate a landowner faster than to be overlooked or to have his or her concerns ignored.

Through the public involvement process the company is able to determine areas of public and landowner concern and priorities regarding the project. Effective Consultation Programs recognize the legitimate rights of stakeholders to receive information and participate in decisions on issues that affect their lives. The process also provides early warnings to the company about important problems before they grow into major issues that can result in opposing and entrenched positions. During and after the completion of a Consultation Program, the company must evaluate options, develop contingencies, and narrow the selection of the final route of the pipeline. Ultimately, an effective public involvement program will result in a win-win situation for both the company and the public.

Initial Route Selection

The initial route selection should commence with a detailed evaluation of more than one possible route. Within the application process, the NEB will require a detailed explanation

of the criteria used in selecting the route. Each pipeline proposal will have its own criteria for comparison of alternate routes. Selection of the initial route must be defensible in the certificate application process and therefore the review must be thorough, including an analysis of criteria used and a comparison to alternate routes.

Once a company has chosen a preferred route, the process of determining where the pipeline will cross can commence. Refining the route generally starts with a "Study Area" that may be several kilometers in width. At this stage, contact and discussions with potentially impacted landowners should be well established. Land agents should seek the advice of landowners in locating the pipeline on their property. It is an important benefit to the project to ensure that the landowner is part of the decision-making process. For example, the landowner is aware of things about his property that may not be readily apparent, but may save construction costs. The final selection of the route is an iterative process that continues to involve the landowner as the route becomes more defined.

Engaging a Land Consulting Firm

A common practice of companies developing and executing large-scale pipeline construction projects is to use company personnel to manage the project. However, because most companies do not have sufficient numbers of appropriately skilled permanent staff to effectively handle the requirements of facility application and construction programs, they often utilize the services of external companies for more specialized work. In the case of land acquisition programs, companies often engage a land-consulting firm to provide the land agents necessary to complete this portion of the project. Selection of a professional land consulting firm capable of completing the land acquisition requirements on schedule and meeting the requirements of the company is key to the overall success of the project.

A company seeking to hire a land-consulting firm must first develop an understanding of the requirements of the project including those of public notification, community needs and issues, as well as the requirements for land acquisition under the NEBA. Once these criteria are established and understood internally, the company can commence its search for a land consulting firm capable of meeting the needs of the project and the requirements of the company. The importance of selecting a qualified consulting firm to represent the company cannot be overemphasized. A diligent company will undertake an extensive review, including reference checks on the capabilities and past performance of a firm, especially with respect to similar type of projects.

Once satisfied that the firm has the appropriate experience and expertise to perform the work, the company should then ensure that all agents assigned to the project have the qualifications and skills necessary to meet the needs of the company and the project. At a minimum, the company should require a copy of each proposed agent's curriculum vitae as well as conduct reference checks and personal interviews with each proposed agent prior to accepting them on the project.

n its "Guide for Effective Public Involvement", The Canadian Association of Petroleum Producers (CAPP) published a list of ttributes it believes are desirable in an effective public consultation specialist. Many of these same attributes are highly desirable in land agents who, to a significant extent, perform similar roles. A company wishing to establish a list of prerequisites for land agents would do well to consider the same criteria that CAPP recommends in selection of Consultation Specialists:

All land agents must "demonstrate integrity, instill trust, have good interpersonal skills, listen well, take good notes, communicate effectively, prove to be a good team player, retain a sense of humor, show patience and respect even when stressed, put people at ease, draw people out, use good body language, handle criticism well and use it constructively".

An effective land agent will have a thorough knowledge of the land business and regulations governing it, will demonstrate reativity and possess good problem solving skills, interpret liverse information effectively, notice trends and be able to hink on his feet.

The land agent is usually the first company representative to meet the landowners and he/she forms an immediate and lasting impression as a company representative. A skilled and qualified land agent is a highly valuable asset to a land acquisition program, however, an agent who is not competent or who is not acting in the best interest of the landowner or the company can cause severe damage to a company's proposed project in short order.

Direction to Land Agents

Prior to land agents commencing contact with landowners and the public, the company should meet with the consulting firm and its land agents to communicate full project details and sequirements, as well as areas of potential concern to the project. The company should further provide the consulting firm with copies of its policies and procedures with respect to ght-of-way acquisition, as well as reach agreement on all land acquisition documents and reports to be used in conjunction with the project.

It is crucial that agents present an honest, credible and consistent message with landowners when introducing the proposed project. To be credible, the agent must have a good understanding of pipeline construction and operational matters as well as in-depth knowledge of the project he is introducing. To assist in the introduction of the project to landowners and ensure consistency of information, the company and land-consulting firm should jointly develop a landowner information package, which might include some or all of the following:

- a) a letter of introduction from a senior official of the company including a bulletin/fact sheet explaining the purpose, timing and details of the project, and company values (such as its commitment to safety, the environment, landowners and the public);
- b) additional information about the company;

- a small-scale map of the proposed pipeline so that individual owners can determine the impact of the proposed route on their land;
- NEB publications that outline the process and the landowners' rights;
- the name, address and phone number of a company representative to whom they can call with inquiries;
 and
- f) the land agent's business card, including a phone number where they can be reached.

Through personal contact with landowners and other community members, land agents become aware of local project sensitivities and potential problems. This information must be efficiently and effectively communicated to the company to provide an opportunity to evaluate options and develop contingencies at the earliest possible time. Therefore, at the outset of the project, the company and consulting firm must agree on and establish a reporting structure as well as reporting procedures.

Projects and their associated requirements are often amended over time. It is therefore crucial to maintain effective two way communication at all times between the land agents and the management group. It is imperative that any change that impacts the land acquisition program is quickly and accurately communicated to the land acquisition group. Likewise, it is imperative that issues which may potentially impact the cost or timing of the land acquisition be efficiently communicated to the Project Manager.

Preliminary Line List

The preliminary line list should be used as a tool to properly manage the program. Initially it will include owners and occupants of all lands, including private and crown lands, potentially impacted by the proposed route of the pipeline within the study area. As the route becomes more refined, the preliminary line list will be amended to include roads, water bodies and utility companies, as well as owners and occupants of lands proposed to be crossed by the pipeline. The preliminary line list is a living document and must be regularly updated to document issues encountered in attempting to narrow the selection of lands to a defined right-of-way.

Title Searches and Survey

Title searches are required to identify landowners upon whose property the proposed pipeline will cross and to ensure that good title can be acquired for an easement.

Once a preferred route(s) has been identified, the pipeline must be surveyed to establish the precise location of the pipeline route and to allow for other detailed studies such as environmental and geo-technical studies. While the NEBA contains provisions that allow surveyors to enter onto private property for the purpose of conducting surveys, it is strongly recommended that a company planning to conduct a survey first meet with and obtain permission from private landowners and occupants before surveyors are allowed to enter the

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property. This is most effectively accomplished by the land agent making a personal visit with landowners and obtaining a written consent from the landowner for the survey to take place on his property. A copy of the written consent along with the landowner with a record of who to contact in the event of problems as well as assurance that the company will compensate him for any damages suffered as a result of the survey activities on his land. Some companies offer to pay a small sum to the landowner simply for allowing the surveyors to enter their property.

Surface Rights Groups

Faced with unwanted pipelines, landowners occasionally organize "surface rights groups" to mount opposition to the proposed pipeline or to be used as a vehicle for collective bargaining. These groups are often formed because landowners feel either overpowered or ignored by the company. Surface rights groups can present significant problems to the right-of-way acquisition program since members of these groups are often influenced by more radical or unreasonable members, making negotiations difficult and, at times, impossible. The most effective means of avoiding the formation of surface ghts groups is to fully inform landowners as early as possible and to provide them genuine opportunities to be involved in the planning and decision-making process.

In some cases, surface rights groups exist prior to a pipeline proposal being introduced into an area as a result of previous construction. Under these circumstances, a company has little option but to attempt to work through the group to gain project acceptance and to eventually negotiate right-of-way agreements with its members. In such cases, the skill and professionalism of the land agent becomes even more paramount to successful negotiations. The skilled agent will recognize the informal leaders and/or more highly respected members of the group and will attempt to gain the cooperation of one or more of these individuals. It is also helpful to have the support and cooperation of other leaders and members of the community at large. This serves to emphasize the importance of an effective Public Notification/Consultation program. Eventually, as the ormal and informal leaders in an area accept the project and come confident that their concerns will be fairly addressed, e group will become more reasonable to deal with. While this hay seem to some to be a risky and time consuming approach to obtaining the approval of the members of such a group, the alternative of attempting to obtain forced entry through legislated means can create even greater risk, delay (including re-routes) and cost to the project.

Land Acquisition

On a logical continuum, the land acquisition program commences with the Consultation Program and continues throughout the project until the construction and clean up of the impacted lands is complete and construction damages have been settled with all landowners. For consistency, it is highly preferable to have the same land agent represent the company throughout negotiations with landowners, including acquisitions, construction, clean-up and any final settlement.

There are significant advantages to involving the agent during the early Consultation Program stage of the project. He/she will be aware of and responsive to landowner concerns, which provides an opportunity to build a relationship through shared solutions. As the agent develops a relationship with the landowner based on familiarity and trust, communication and resolution of problems are made easier.

Establishing relationships requires time, effort and commitment. The land agent must be accessible and must follow through on all commitments he makes to the landowner if he is to be successful in nurturing the relationship. An agent who lives in the area, or who is known to the area residents, often provides a head start on the building of such a relationship. Allocation of sufficient numbers of land agents to a project is an important consideration for the company. In order to allow the land agent enough time to develop familiarity and earn the trust of landowners, land agents should be assigned to work with no greater than about 60 individual landowners on a project.

The schedule for acquisition of land rights may span several months to several years depending on the size of the project and the complexity of land related issues. A typical land acquisition progression will follow the standard "S Curve" where progress may be rapid in the middle phase but slow to a near standstill as acquisition approaches completion. Companies should not be lulled into a false sense of security regarding the success of its land acquisition program simply because significant progress has been made in the middle stages of the program. As a rule of thumb, most experienced land agents recognize that approximately 10% of all landowners consume the vast majority of their time and effort to finalize the acquisition of land rights on their properties. Often, a portion of this small group of landowners will take an adversarial position to the project that, if unresolved, will result in the need for lengthy public hearings and/or forced entry onto their land through right of entry provisions of the NEBA. It is therefore important that land agents focus considerable attention on potentially difficult landowners early in the process and that the project schedule allows sufficient time for land agents to deal effectively with these owners.

As indicated above, for consistency and for familiarity with issues and commitments, it is preferable to have the same land agent work with a particular landowner throughout the project. A possible exception to this is when a land agent fails to perform to expectations or when complaints are received regarding the conduct of the agent. The supervisor must continually monitor progress of the land acquisition program both through acquisition of land rights relative to the schedule and through regular communication with the agents and review of their daily reports. If the supervisor becomes aware of problems associated with a particular agent's competence or ability to work effectively with the landowners in an area, he must take action to investigate and address the problems immediately. In some cases the supervisor may discover that the agent simply requires coaching or additional support to improve his performance. In other cases, the supervisor may determine that the agent is either incompetent or has done something to undermine his credibility or acceptance by landowners in the area. In these circumstances, it may be

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necessary to remove the land agent from the job and to reassign his duties to another agent capable of re-establishing positive relations with the landowners.

The company must be made aware of problems as soon as they become evident. It is also important to establish lines of communication and a working relationship with the NEB on land related issues at an early stage and throughout the project. Many problems can be resolved in the field by demonstrating flexibility and creativity in negotiations. More significant or less easily resolved problems, however, may require the involvement of the PM/project team to review the issue and to develop options for resolution. There is a clear need to act suickly and decisively to address problems as they arise. Timely and effective two-way communication between the land gent and the company management is critical at this stage. Options for resolution might range from continued negotiations to amendments to the proposed route, with many options between these two extremes.

Examples of options that a company might consider include: changing the land agent if incompetence is the problem; arranging a meeting(s) between the landowner(s) and a company expert or senior executive if the concern is outside matters typically handled by the land group; or amending the compensation offer to make it more attractive to the land owner. As a final resort, if all reasonable negotiations are unsuccessful, the company must be prepared to obtain access to the land through the right-of-entry provisions under the NEBA.

Right-of-Entry

ight-of-Entry must be considered as an available option for braining access to private lands; however, it should not be ditiated until all reasonable efforts to negotiate a right-of-way greement have been exhausted. Use of right-of-entry often creates long lasting animosity between the landowner and company and can result in unanticipated delays resulting from the regulatory process. For these reasons, it should be considered the last and least desirable option for obtaining access to lands.

On the other hand, a company must be mindful of the requirements of its project for access to all lands to facilitate timely and efficient construction of its pipeline. It must therefore evaluate the risks to the project of not acquiring the lands through private negotiations. If a decision is made to commence the application process for right-of-entry on a particular property, the company must initiate the required activities early enough to provide for potential regulatory delays and still ensure access to the land. It goes without maying that failure to complete acquisition of all required land eights in time for construction, whether by private negotiations through legal action (right-of-entry) will impact negatively in the construction activities of the pipeline.

Under optimal conditions, construction of a pipeline does not commence until all land has been acquired, either by private negotiation or legal action. The company's reality, however, is determined not only by the legislative, administrative and landowner's realities, but by the realities of business and the

accompanying time pressures. In certain cases, it may become necessary for a company to start construction on portions of the right-of-way that have received full approval for construction while awaiting access to un-acquired lands and/or final approval to construct on others. This is clearly a high-risk situation and the company must be prepared to implement contingency plans, with clear thought as to how it will deal with the possibility of not having access to certain properties for continuous construction.

Acquisition of Permits

Acquisition of land rights for a pipeline extends well beyond right-of-way agreements with landowners to acquisition of land rights on properties where easements are not issued. Properties where easements are not issued include such lands as public roads, highways, waterways and railroads. To ensure that the company has good and continuous title for its pipeline where it crosses these types of lands, it must obtain an agreement, or crossing permit, from the appropriate authority. The crossing permit/authorization recognizes the right of the pipeline company to construct, operate and maintain its pipeline within the boundaries of those facilities. The company must also obtain permission in the form of crossing permits from other pipelines or utilities prior to constructing its pipeline within or across easements registered in their names.

Another example of land rights that are obtained through permits are the temporary rights required in support of construction of the pipeline. In many cases, a company or its contractor may require additional land adjacent to its right-ofway for construction related activities or access to its right of way across private lands or via private roads. In such cases, the land group secures a temporary workspace agreement or an access/road use permit from the owner or appropriate authority for the term of the construction. Other such temporary rights might include the use of a portion of a landowner's property to dump or store construction material or to use fill from the owners' land for construction purposes. In all cases where land rights are acquired through permits, the land group is responsible for securing these rights and ensuring any terms or conditions that may impact on construction activities are included in the construction line list.

Conclusion

Effective land acquisition requires that certain activities be executed in a timely manner, starting with proper planning and consultation with the persons or groups potentially affected by the proposed pipeline.

The company that:

- develops a comprehensive understanding of its project and regulatory requirements;
- provides the appropriate time, skills and resources;
- obtains acceptance of its project by landowners and interested parties;
- undertakes project activities in the appropriate time frame; and
- responds in an effective manner to resolve problems

will have an effective land acquisition program.

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ACKNOWLEDGMENTS

Bill Ostafichuk (deceased) NEB David Speer Paul Jeffrey (Blake, Cassels & Graydon)

REFERENCES

"The National Energy Board Act"
Notional Energy Board Filing Manual
"A Guide for Effective Public Involvement" CAPP

Slides Outline

Homework Expected for Major Projects, Publicly Funded

Bruce Morin, P.Eng. (retired)

Demonstrated Need for SWBRT?

- · Was an Independent Study Report done by Competent Professionals?
- · Who supplied the data for the study?
- · Was the data verified/confirmed?

Alternatives for SWBRT

- · Any identified?
- · Who identified alternatives?
- · Evaluated by an independent study?

Cost Estimating at The City of Calgary

- ①Expertise of City staff for reliable estimates?
- ②Cost over runs handled by politics not sound business practice?
- ③Qualified Quantity Surveyors not used?



A quantity surveyor (QS) is a professional working within the construction industry concerned with construction costs and contracts. Services provided by a QS may include: Cost planning and commercial management throughout the entire life cycle of the project from inception to post-completion.

Process for Major Projects

- **(1) Consultation & Participation**
- (2) Consultants Selection
- (3) Submission of reports to Council/ Public Hearings/ Approval by Council/ senior governments-timing, funding, etc.

Public Funds & Responsible Gov't Must haves...

Must naves...

- Clearly defined project
- ② Project funding- sources?
- ③ Project need- priority ranking?
- ④ Project cost- accurate estimate?
- ⑤ Public process- open & reliable?

Public Funds = Public Tenders

- ① Engineering drawings/ specs
- Pre-work: utility relocation to prevent costly, avoidable delays.
- ⑤ Design & Build Sole Source option: more costly since homework not done (no plans, no final design)

Public Funds ?

- · Other People's Money
- · Our Money!
- · Yours and Mine!

10 A properly engineered project..



$\sim 1 \sim$ Presentation to Council	CITY OF CALGARY RECEIVED IN COLINCIL CHAMBER
April 20, 2016	APR 2 0 2016
Good Morning, My name is Donald Young.	CITY CLERK'S DEPARTMENT

Thank you Mr. Mayor and Council for the opportunity to voice my concerns about BRT and TOD.

I am a retired Chartered Accountant and have lived in Oakridge for 24 years since it offers green eopardize this. I am not against public transit as long as it is economical, efficient and effective space and serenity. Increased density through TOD and BRT planned in the Route Ahead, will However I am against TOD in residential areas because of negative impacts of high density.

should have the opportunity to fully consider and debate BRT, TOD and the Route Ahead and the In early 2011, Council approved the SW BRT in an omnibus bill without debate. Four years passed before the project was suddenly brought forward in September, 2015. Still no debate. Council SWBRT. This debate should be transparent and citizens kept informed.

Transportation Planning Audit - Project Prioritization". This refers to the setting of priorities for On July 16, 2015 the City Auditor submitted a report to the Audit Committee entitled "The projects in Transportation's 10 year infrastructure plan - called Investing In Mobility or IIM

with no cost/benefit analysis! No commitment to do such an analysis has been made until July 17, Fransportation presented the SW Transitway Project (or SW BRT) to Council as a priority under IIM 2017. Council has therefore approved the SW Transitway Project without knowing its true costs, benefits, or payback. The Administration has led us astray.

- 3 ~Presentation to Council

3.Expand regular bus service to serve mobility needs to Heritage Park and Rockyview Hospital

4. Eliminate the SW BRT and South Cross Town BRT in favor of a South Crowchild LRT terminating at Currie Barracks.

Cost savings of \$85 million to \$100 million could be applied to South Crowchild LRT.

Council has completed its debate. To further protect citizens and taxpayers I recommend two tools recommend that a referendum be conducted after a full cost/benefit analysis has been done and input as to whether SW BRT should be built or not or whether the plan can be modified with less Finally, taxpayers do not want input merely into design and lighting of bus stations. They want impact on them. In order for the citizens of Southwest Calgary to have their say I would to improve accountability in the attached addendum

submit a copy of this presentation, the addendum and 2 letters I addressed to the Mayor to the City Clerk and this Council.

thank you for your time and this opportunity.

Donald Young 251-6549

Addendum to Presentation of Donald Young - April 20, 2016

To Improve Accountability to Taxpayers in the City of Calgary

The City of Calgary is facing \$Billions of expenditures over the coming years, increased complexity of operations and a trend of higher and higher taxes.

In this environment it is important that the citizens be protected from waste and extravagance through an effective, independent system of accountability. Accountability is defined as answering for a responsibility which has been conferred. Such a system would take the form of:

- 1. A Citizen Advisory Board (CAB) of 4 people, one from each quadrant of the city. This paid independent Board would receive executive summaries of key issues from the City Auditor and a new Budget Officer (see 2 below) with comments from the Administration when requested. The CAB would report to Council and to Calgary Taxpayers in an Annual Report.
- 2. Parliament has a Parliamentary Budget Officer reporting to it. He or she analyzes the Federal Budget and comments on potential waste and extravagance built into it. Calgary needs a similar Budget Officer reporting to the CAB if accountability is to be enhanced.

The proposed CAB and Budget Officer are the only tools the citizens have to hold the Administration and politicians to account for their actions. Aside from an independent Auditor General reporting to Council and the public (not management), an investigative and perceptive media, and the ballot box every four years, there is no mechanism to assure the public of accountability. The first method does not exist in Calgary. The second is not up to the task. The third has proven to be ineffective on its own.

Donald Young

230 Oakwood Place SW

Calgary, 251-6549

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Southwest Transitway Glenmore Tr to Woodbine Section Densification Southland Drive SW — 24 Street SW It is Redevelopment & Lanes – 14 Street SW -Just Bus Not

Presentation to City of Calgary

April 20, 2016

Michael LaBerge



Southwest Transitway Glenmore Tr to Woodbine Section Densification Southland Drive SW – 24 Street SW Redevelopment & It is 1 Lanes 14 Street SW Not Just Bus

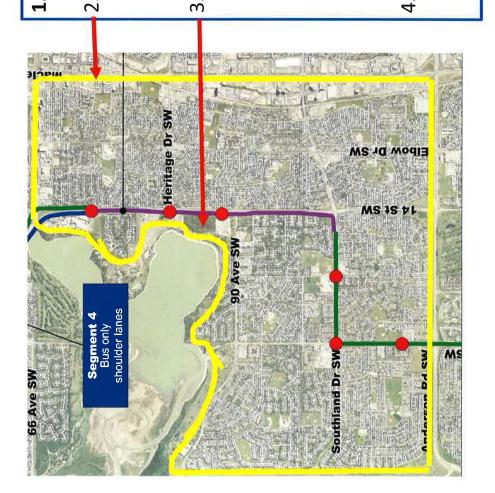
 Is the BRT south of Glenmore Trail to Woodbine necessary?

Eleven (11) SW Communities are affected by the BRT proposal between Glenmore Trail and

Anderson Rd.

TOD plans for redevelopment of Glenmore Landing, to intensify land use, potentially sell City land for housing have not been communicated nor consulted with SW community residents for the most congested section of 14 Street SW.

Neither ridership nor population densification have been defined to justify BRT.



Profile of Successful City of Calgary Quadrant

Characteristics of 11 SW Calgary Communities

1. Aggregate community design in SW quadrant has demonstrated natural population rejuvenation and residency over 30-50 years.

SW Calgary Community consists of 11 Communities with an aggregate population of 42130 people and 17395 dwellings.

S

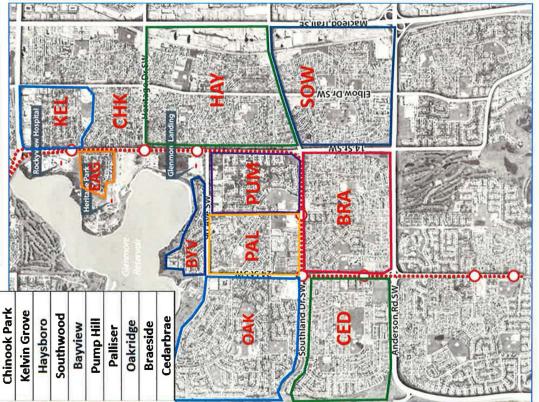
Diversity of residential styles including single-family, multi-family, estate, gated, condos, townhouses, apartments, seniors.
 Balanced mixture of amenities including

schools, shopping, medical, pharmacy, grocery, parks and recreation.

S. Consistent population renewal rates over

 2.5 generations.
 Only -2.8% decline between 2000 – 2014; mostly due to economic downturn in

7. +136.2% population increase between 2009 – 2014.



% Multi **Dwellings** 61% 47% 14% 72% 25% 45% 49% 16% 50% red = City of Calgary average 2014 Dwelling Statistics % Single **Dwellings** Family 84% 39% 53% 75% 51% 20% %98 %89 55% 28% 28% % Owner occupied Profile of Successful City of Calgary Quadrant Dwelling Statistics of 11 SW Calgary Communities 87% 53% 58% 97% %91 62% %88 %91 73% 28% %69 Dwellings Total 3535 2560 2505 2572 878 243 1662 2231 541 571 97 Chinook Park Kelvin Grove Eagle Ridge Southwood Communities Oakridge Cedarbrae Haysboro SW Calgary Bayview Braeside Pump Hil Palliser Chinook Park Kelvin Grove Southwood Cedarbrae Haysboro Pump Hill Oakridge Braeside Bayview Palliser

SW Calgary Community Profiles: Population, Dwellings, Growth Profile of Successful City of Calgary Quadrant

SW Calgary Communities Population Pr	ties Po	pulation	n Profile	rofile Summary	nary				2	2014 Dwelling Statistics	ing Statistic	S	Projecte	Projected Growth
			change			%		%					%	People
			2000		change	change	0	change		9	% Single	% Multi	People	from
	2000	2009	to 2009	2014	since 2000	2000 to 2014	since 2009	2009 to 2014	Total Dwellings	% Owner occupied	Family Dwellings	Family Dwellings	from 2014	2014 to 2042
Eagle Ridge	455	256	-199	534	79	17.4%	278	108.6%	26	826	%68	11%	%8-	-40
Chinook Park	2227	7777	50	2234	7	0.3%	-43	-1.9%	571	82%	84%	16%	7%	120
Kelvin Grove	1728	1725	-3	1702	-26	-1.5%	-23	-1.3%	878	53%	39%	61%	11%	238
Haysboro	6080	6435	355	7255	1175	19.3%	820	12.7%	3535	28%	20%	20%	32%	2317
Southwood	6540	6123	-417	6420	-120	-1.8%	297	4.9%	2560	28%	23%	47%	44%	2797
Bayview	702	647	-55	648	-54	-7.7%	1	0.2%	243	%26	86%	14%	12%	80
Pump Hill	1917	1619	-298	1705	-212	-11.1%	98	5.3%	541	%9 L	%89	32%	1%	17
Palliser	3233	3220	-13	3516	283	8.8%	296	9.7%	1662	62%	78%	72%	7%	69
Oakridge	6545	5823	-722	5759	-786	-12.0%	-64	-1.1%	2231	88%	75%	25%	8%	452
Braeside	6581	6012	-569	6049	-532	-8.1%	37	%9.0	2505	%9/	55%	45%	8%	477
Cedarbrae	6737	9989	-371	6308	-429	-6.4%	-58	-0.9%	2572	73%	51%	49%	8%	502
	42745	42745 <mark>40503 -22</mark>	42	42130	-615	-2.8%	1627	136.2%	453,626	%69	28%	51%	17%	7029
		Econ	Economic								U U			
		downtur	turn in						red =	red = City of Calgary average	algary ave	erage		
		20	5005											

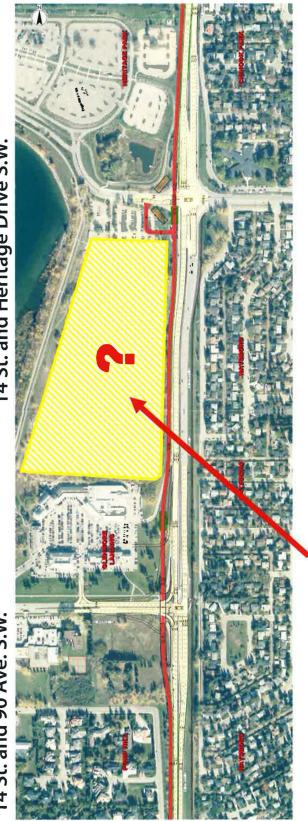
- Population rejuvenation and consistent residency over 2 generations
- Consistent renewal rates. Only -2.8% change since 2000, mostly due to economic downturn in 2009. 3.5
- City projects area increase of 7029 people by 2042. This is equivalent to Haysboro. Where are these people going to reside?

TOD Redevelopment Plans for 14 Street SW Heritage Drive and 90th Avenue SW

Highlights from the 2016 Functional Study (page 11

14 St. and 90 Ave. S.W.

4 St. and Heritage Drive S.W.



Redevelopment plans for 14 ST SW between Heritage Dr and 90 Ave SW, one of the most congested sections of road in Calgary

City must define the use, size, density, design and consult with affected andowners and communities in a proper manner

TOD Redevelopment Plans for 14 Street SW Heritage Drive and 90th Avenue SW

City of Calgary – February 16 Open House Boards Southwest Transitway FAQ (page 7)

development or transit oriented development (TOD) to my Q: Will the Southwest Transitway bring new high density neighbourhood?

already exist, such as Glenmore Landing, the hospital, Currie Barracks project. The Southwest Transitway aims to serve developments that A: There are no plans for TOD associated with the SW Transitway (currently under development) and Mount Royal University Notice of Motion by City Council, February 9, 2015: Plans to redevelop and densify land, housing and population on 14 Street SW between 2 congested intersections have not been communicated to affected landowners and residents who utilize this area (which includes 11 SW Calgary Communities)

TOD Redevelopment Plans for 14 Street SW Heritage Drive and 90th Avenue SW.

Stantec Functional Study Report: January 25, 2016 ES4.3.6 14 St SW / 90 Ave SW (pg xi)

motion directed Administration to "work collaboratively with the owner of the Glenmore Landing included in the overall comprehensive redevelopment, including opportunities for the provision A notice of motion was put forth by City Council on February 9, 2015, which acknowledges The Shopping Centre to develop a comprehensive plan that takes into account the SW Transitway, Land and Asset Strategy Committee for approval of any resulting terms and conditions of sale" owned lands". A second directive of the motion included working "directly with the Glenmore of non-market housing within the future development and report back to Council through the comprehensive TOD in proximity to transit stations, RioCan's (the owner of Glenmore Landing) intentions to proceed with redevelopment to intensify and broaden the land uses to include Landing Shopping Centre owner to explore the disposition of surplus City owned lands to be shopping centre, which could potentially limit the redevelopment potential. The notice of residential zoning, and the fact that The City owns land to the south and east sides of the City's plan for a station in the area of 14 Street SW north of 90 Avenue SW, their desires for the Municipal Development Plan, the Calgary Transportation Plan, and the adjoining City Opportunities for redevelopment will be brought forward to City Council by RioCan and Administration when determined to be practicable.

meetings were held between RioCan and the City to discuss the integration of the transitway In support of this notice of motion, during the Functional Planning study process, numerous and the stations at this location into the proposed development

Ms. Rebecca Aizenman 1035 Kildonan Cres SW Calgary AB T2V_2M5

Submission to the Transportation and Transit Committee City of Calgary Wednesday April 20, 2016

INTRODUCTION

My name is Rebecca Aizenman. I live in Kelvin Grove. I am the other one... Mr. Logan!

the Maxor

By cancelling face- face- public information and dialogue sessions, you have deprived hundreds of SW Calgary residents of "(c) freedom of peaceful assembly, and (d) freedom of association" as stated in the Canadian Charter of Rights & Freedoms.

IMMEDIATE CONSIDERATIONS

COST BENEFIT STUDY

Has anyone in the Transportation and Engineering department performed a "cost benefit analysis" or "study"? Is it worth "x million dollars" to run those buses only between (I assume 7:00am-9:00am and 4:00pm-6:00pm), 5 days a week every 10 minutes and during the rest of the day/week every 20 minutes?

COST INCREMENT STUDY

Has a cost increment study been carried out? Has a line by line assessment been made? Make it public. What are the future projected incremental costs of the project? Has the detailed line by line analysis been undertaken between the original projected amounts and the newly revised figures? Why has a line by line analysis not foreseen the increased costs as recently as 3 ½ months ago? Explain the variations.

EFFECTS OF THE PROPOSED ... SW TRANSIT WAY

- The communities most negatively affected by this Transitway are Eagle Ridge, Chinook Park and Kelvin Grove. My community will serve as the shortcut to reach an already very congested Elbow Drive during peak rush hours of traffic. Unless there is "a permanent no right turn at 75th Avenue and 14 Street SW", vehicles in congested lanes on 14th Street SW will find their way down 73rd Avenue SW, east on 75th Avenue SW and north on Kew Street and east on 70th Avenue SW to Elbow Drive SW. And accessing I Ally a Elbow Drive during peak rush hour traffic is already a very serious problem.
- Eagle Ridge, for all practical purposes will be cut off from their neighboring communities immediately east of 14th Street SW, and worst of all, the community of Chinook Park where four highly congested traffic lanes will operate immediately adjacent to the berm. Are you going to build the berm higher to dampen additional, intensive traffic noise? And what about CO2 emissions? The berm at two places is 6 feet 4 inches from the edge of two residential properties, I measured the space myself using an "imperial yardstick!"

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TEM: 34 TT2016-0335

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ADDITIONAL CONCERNS

Back to the SW Transitway... what will be the BRT schedule on weekends?? How often will these buses operate and what are the costs involved??

The cost compared to your original project, would only be painted lines on the pavement signage and labor costs...

And if you need a BRT bus to the newly developing Currie residential site, simply run extra 20B Buses if we can afford them, given current costing figures and now the carbon tax!

OTHER ISSUES

And just how long will it take to travel from Woodbine, Cedarbrae to the core to the city via 14th Street, Glenmore Trail, Crowchild Trail to Bow Trail and to the Core—downtown?

Has anyone actually and objectively measured the time involved and the actual numbers of transit riders who would use the SW Transitway? If so, publish this information.

And unemployment in the Core has substantially increased... less cars to the Core, less time to travel...

DECREASED RIDERSHIP

Transit officials are already reporting that they cannot meet the need for "baseline time bus service" and at the same time, ridership has decreased to the downtown Core given the present economy. If so, why the sudden need for an expensive, very expensive 14th Street SW Transitway?

EXPENDITURES INVOLVED??

Instead of spending a projected \$65,000,000 dollars on this project, use some of this money to buy extra buses and maybe an extra LRT car or two but also use some of that \$86,000,000 dollar surplus. As of today (Apr 20/16) I would not be surprised if this latter fund will have to be used to pay the city's carbon tax!

EFFECT OF CARBON TAX

The announcement of the carbon tax on city vehicles especially transit buses... CHANGES EVERYTHING! Accordingly, the entire issue must be reexamined, restructured and redesigned. Stick to rush hour only rapid transit buses.

EFFECT OF THE SW RING ROAD

Before your 2011 report was issued, how many people were aware of its "implications?" Public consultation was probably at a bare minimum. And only in the late fall, 2015, were open houses actually

IN COUNCIL CHAMBER

APR 2 0 2016

GOOD MEDITIES AFTERNOON, LADIES AND GENTLEMEN OF THE TRANSIT & TRANSPORTATION

COMMITTEE. MY NAME IS JORDANNA LANGFORD - 1 OR DANNA LANGFORD - 1 OR DANNA TANGET OF THE OPPORTUNITY TO ADDRESS THIS COMMITTEE, REGARDING THE SOUTH WEST BUS RAPID

TRANSIT PROJECT.

I LIVE IN WOODBINE. MY HOME IS NEXT TO THE GREEN SPACE NORTH OF WOODPARK BOULEVARD AND ABOUT A BLOCK WEST OF THE PROPOSED TRAFFIC CIRCLE AT THE SOUTH END OF 24TH STREET, AT THE BEBO GROVE ENTRANCE TO FISH CREEK PARK.

I WOULD LIKE TO ADDRESS HOW THIS PROJECT WILL AFFECT MY COMMUNITY, MY HOME AND MY NEIGHBOURS.

PAUSE(RIDERSHIP)

I HAVE SEEN THAT VERY FEW PEOPLE RIDE THE EXISTING BUS SERVICE IN WOODBINE, EXCEPT FOR THE DEDICATED HIGH SCHOOL BUSES WHICH RUN IN THE MORNING AND AFTERNOON. THE "REGULAR" BUS, THE NUMBER 56 ROUTE, WHICH TRAVELS THROUGH WOODBINE TO THE SOUTHLAND LRT STATION, RARELY HAS MORE THAN 8 TO 10 PEOPLE ON IT, AT ANY TIME OF THE DAY OR NIGHT.

COUNCILLOR COLLEY-URQUHART ACKNOWLEDGED THIS LACK OF RIDERSHIP WHEN SHE ATTENDED THE WOODCREEK COMMUNITY ASSOCIATION PUBLIC FORUM ON FEBRUARY 23, 2016, AND WAS QUOTED ON THE EVENING NEWS THAT NIGHT AS SAYING "THERE IS NO RIDERSHIP HERE" AND SHE WOULD ALSO TAKE OUR CONCERNS BACK TO COUNCIL FOR A FURTHER EVALUATION. WHERE DOES THE TRANSIT COMMITTEE, OR CITY COUNCIL, EXPECT NEW RIDERS TO COME FROM, TO ACCESS THE PROPOSED STATION AT THE SOUTH END OF 24TH STREET?

THE ONLY POOL OF NEW RIDERS WILL COME FROM COMMUNITIES SOUTH OF FISH CREEK PARK; EVERGREEN, SHAWNESSEY, BRIDLEWOOD, SOMERSET, MILLRISE, AND OTHERS.

PAUSE(PARKING)

THIS LEADS TO MY NEXT CONCERN: PARKING AND ACCESS TO THE BUS RAPID TRANSIT IN WOODBINE.

ALL OF THE INFORMATION PROVIDED BY THE CITY, ON THEIR PUBLIC INFORMATION SITES AND PUBLISHED STUDIES, CONFIRMS THAT THERE WILL BE NO USE OF COMMUNITY OR CITY FACILITIES, SUCH AS PARKS OR SPORTS FIELDS, FOR TRANSIT PARKING. HOW, THEN, DO COMMUTERS ACCESS THE SOUTH END OF THIS BUS RAPID TRANSIT ROUTE? THEY WILL HAVE TO DRIVE THEIR CARS TO THE

1

WOODBINE STATIONS, PARK ON THE ADJACENT ROADS OR SHOPPING CENTRES AND WALK TO THE BUS STOPS. THIS WILL CAUSE SIGNIFICANT PARKING STRESS IN WOODBINE, AS MANY HOMES ON THE MAIN ROADS AROUND THESE STATIONS DO NOT HAVE BACK ALLEY ACCESS TO THEIR PROPERTY; THEY HAVE TO PARK SECOND, OR THIRD, VEHICLES ON THE STREET.

COMMUTERS FROM OTHER NEIGHBOURHOODS WILL BE FORCED TO PARK ON THE STREETS OR LIMITED PUBLIC PARKING AREAS TO ACCESS THIS BRT. IT IS NOT ENOUGH TO SAY THAT THE CITY WILL ISSUE PARKING PASSES TO LOCAL RESIDENTS; IT WILL BE UP TO THE INDIVIDUAL HOME OWNERS OF WOODBINE AND WOODLANDS TO ENFORCE THE PARKING RESTRICTIONS, ADDING EXTRA COSTS TO THE CITY TO ENFORCE THEM.

I UNDERSTAND THAT THE PROPOSAL FOR THE SW RING ROAD WILL NOT ALLOW PRIVATE VEHICLE ACCESS TO WOODBINE FROM 37TH STREET NORTHBOUND. ANY COMMUTERS SOUTH OF FISH CREEK PARK WILL THEN HAVE TO RIDE A BUS TO THE WOODBINE TERMINALS, OR ACCESS WOODBINE FROM 24TH STREET SW.

I WAS ASSURED BY COUNCILOR COLLEY-URQUHART AT THE FEBRUARY 23 COMMUNITY MEETING THAT THERE WOULD BE NO FEEDER BUSES INTO WOODBINE FOR THE PURPOSE OF CONNECTING WITH THE BRT. THIS THEN LIMITS THE NUMBER OF POTENTIAL RIDERS OF THIS SERVICE FROM WOODBINE, AND MAKES THE SOUTHERN TERMINUS OF THIS ROUTE, IN OUR NEIGHBOURHOOD, UNNECESSARY. AS THE FEW RIDERS ON THE CURRENT ROUTE ARE DESTINED FOR THE SOUTHLAND LRT STATION OR TO THE HIGH SCHOOLS SERVICED BY THE CURRENT LOCAL BUS ROUTES, THERE IS NO DEMAND, OR NEED, FOR THIS BRT LINE IN OUR COMMUNITY.

PAUSE (WILDLIFE CORRIDOR)

24TH STREET FROM THE BEBO GROVE PARKING AREA IS A CORRIDOR FOR WILDLIFE FROM FISH CREEK PARK, ESPECIALLY DEER, WHO GRAZE ON THE GRASS IN THE PARK SPACE NEXT TO 24TH STREET. THERE ARE DEER, OWLS, RABBITS AND SKUNKS WHO REGULARLY TRAVEL BETWEEN FISH CREEK PARK AND THE COMMUNITY PARKS NEXT TO 24TH STREET TO GRAZE OR HUNT. THE ADDITION OF A MAJOR TURNING CIRCLE AND OTHER CONSTRUCTION ON 24TH STREET WILL RESULT IN MANY COLLISIONS BETWEEN WILDLIFE AND THE INCREASED BUS TRAFFIC IN THE CIRCLE, CAUSING DELAYS IN THIS SYSTEM AND A LOSS OF ENJOYMENT OF THIS FEATURE OF OUR NEIGHBOURHOOD.

PAUSE (PARK SPACE)

FINALLY, THE PROPOSED PLAN FOR THIS BUS RAPID TRANSIT LINE CALLS FOR A NORTHBOUND BUS STATION NEXT TO THE PARK ON THE EAST SIDE OF 24^{TH} STREET, ALONG WITH WASHROOM FACILITIES FOR THE DRIVERS, AS WELL AS A SOUTHBOUND BUS STATION NEAR THE SHOPPING CENTRE AT WOODVIEW DRIVE.

IF, AS SUGGESTED, THE MAJORITY OF RIDERS WILL ACCESS THE BRT AT THESE LOCATIONS, THERE WILL BE ADDITIONAL PROBLEMS OF VANDALISM AND GARBAGE, NO MATTER WHAT STATION DESIGN IS CHOSEN. WITHOUT DAILY MAINTENANCE OF THESE PROPOSED STATIONS, AT ADDITIONAL OPERATING COSTS, THE GARBAGE AND LITTER GENERATED WILL HAVE A NEGATIVE IMPACT ON THE USE OF THE ADJACENT PARKS AND SOCCER FIELDS.

THOSE ARE MY SUBMISSIONS. I WELCOME ANY QUESTIONS YOU MAY HAVE.

May 1116.

Good Morning, my name is Marina Mason. I am the mother of two young children, a small

business owner, and a former city employee who's had the privilege to work in the Mayor's

office under two different administrations.

Both of those Mayors had a strong passion for our city. Both were respectful towards

citizens.

I am for well planned, efficient, and cost effective public transport. The SW Transitway and

BRT is none of these.

I live in the community of Eagle Ridge and 14th Street runs behind my yard. It is less than

70 feet from my back door. When the plan is finished, 14 Street will be an 8 lane highway

with thousands of vehicles travelling both directions just steps from my home.

Between 75 Ave SW and Heritage Drive this highway will be wall to wall asphalt, no trees,

no medians, no sidewalks and virtually no buffers from sound, pollution, and debris thrown

from the vehicles travelling at high rates of speed.

This projects runs completely counter to the City's Complete Streets Policy which the City is

supposed to follow. It does not comply with the Triple Bottom Line Policy either that this

Council always says is the guiding policy document for its decision-making.

This is what Council approved. (show slide)

This is what Administration is moving ahead with (show slide)

CITY OF CALGARY RECEIVED IN COUNCIL CHAMBER

APR 2 0 2016

HEM: 3.4 TT2016 - 0335

Kecline for Record

CITY CLERK'S DEPARTMENT

Nowhere else in the City, and the Province, is this allowed. The only other places where

you have 8 lanes of traffic travelling at those speeds in Calgary are major thoroughfares

like Glenmore Trail, Deerfoot Trail and Stoney Trail.

On all of these massive freeways you will find large buffers of distance and heights created

by large green space berms, coupled with very large sound attenuation measures. This

project would provide none of that.

I was working in the Mayor's Office when the engage! policy was created. I know the policy

very well. I can state with absolute certainty that the City has not followed its own policy of

engagement on this project.

As one of the residents who will be disproportionately, and adversely, affected by this

project, I would like to share with you the experience I have had with the City on the

SWBRT.

The first I had heard about this project was in October 2015 despite the fact that the City

wanted shovels in the ground only a few months later.

I told one City representative that I was very concerned with having to live next to 8 lanes of

heavy traffic and his response was "there are already 6 lanes there what's the problem with

2 more?"

I asked another representative if there would be an environmental assessment done but I

was told that there wasn't one and it might happen after the project was completed!

I was also told by City representatives that my comments would be "taken" but that "nothing

will change because the project is done." I find this to be incredibly insulting.

More importantly, no one from the City, neither administration nor our elected

representative, bothered to tell us. The City has been telling anyone who will listen that

they have been consulting the community for over 6 years on this project. That is wrong. I

certainly don't consider Imagine Calgary and Route Ahead part of the consultation of this

project.

Asking people if they want better transit in general is hardly consultation on a specific

project. That's like asking a person to look at the map of Calgary for suggestions on where

to develop property and then using that information to say that you have consulted with

Calgarians about property development in their own community.

I also would like to express my incredible disappointment by some members of City Council

and Administration for their disrespectful behaviour towards Calgarians.

My elected representative Brian Pincott (show slide).

As a mother whose childrens' bedrooms back onto 14 Street, and someone who is

concerned about the issue of the City wanting to build roadways over an aging gas pipeline

that has never been tested. This is not funny.

My husband and I have both asked Brian Pincott for an apology and he has refused to

speak to us and subsequently cancelled a meeting my husband had set with him.

Page 132 of 162

Mac Logan's comments of the project not being immune to Godzilla and the Zombie

Apocalypse were also insulting and disrespectful.

I was equally horrified to then see the Mayor, and Councillors such as Druh Farrell, Brian

Pincott and Tom Sampson, head of Calgary's emergency centre, think this was funny and

tweet about it. (show slides)

Is it still funny now that you've finally realized that the ATCO gas pipeline is indeed a

serious issue that has not been addressed? Shame on you.

Does this comply with City Manager Jeff Fielding's recent efforts to bring a higher level of

discourse and respect within City Hall and towards citizens? How am I ever supposed to

have faith that these public servants will want to serve the public for whom they have

shown such utter contempt.

Since November my family has worked to try and find out answers on this project that will

utterly transform our home and community, and at every turn we have been met with

outright hostility, disrespect and stonewalling.

I spoke to Brian Pincott at the now infamous Public Meeting in February. I asked him

several hard questions about the project such as the ATCO pipeline issue, access to the

Hospital and why he had never contacted us about the project. He was either unable or

unwilling to answer any of those questions.

His direct quote to me was "you worked in a political office Marina, this is political."

Page 133 of 162

I am not a thug and I do not condone any type of intimidation or disrespectful behaviour. I

was there for the entire meeting in February and I saw nothing that could be construed as

bullying.

The Mayor has attacked Calgarians at every turn. Yet the joint statement he issued, with

Mr. Pincott and Councillor Colley-Urguhart, allegedly seeks answers to 4 issues that the

citizens have been raising for months.

The Mayor professes that he wants ordinary citizens to engage the City but I have been

trying that for months only to be met with insults, smear tactics and disrespect.

I guess what the Mayor wants is people to engage with the City only if they agree with him

and his policies.

I am imploring the rest of Council to be my voice because the people who have been

elected to do that on my behalf, the Mayor and Mr. Pincott, have failed to act in good faith

and according to their oath of office, and discharge their responsibility to be my

representative.

I am asking that you send this project back to square one and that this entire process

commence again. Thank you

hank you for listening

You are the first ones to do so.



What Council approved on February 7, 2011 (Note the green space and trees and multi-user pathway)

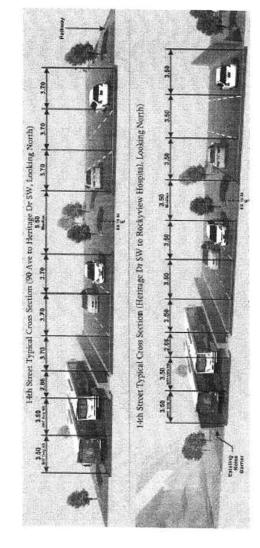
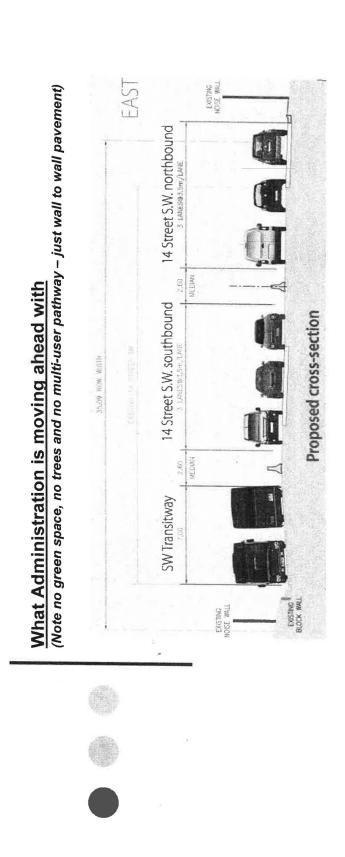
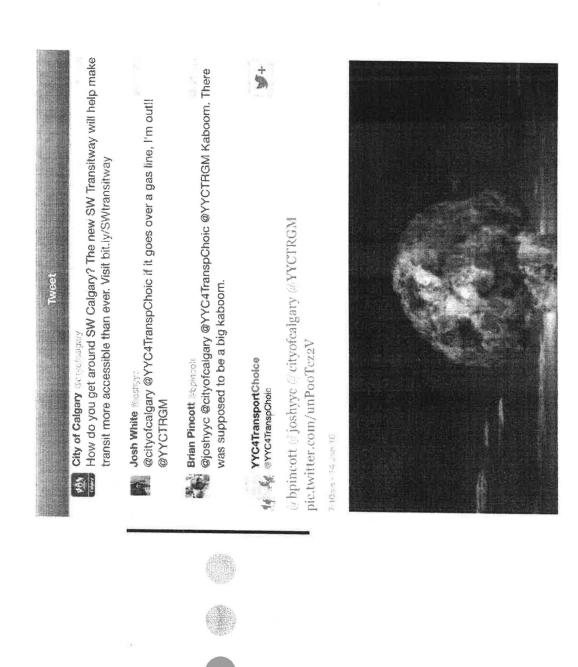
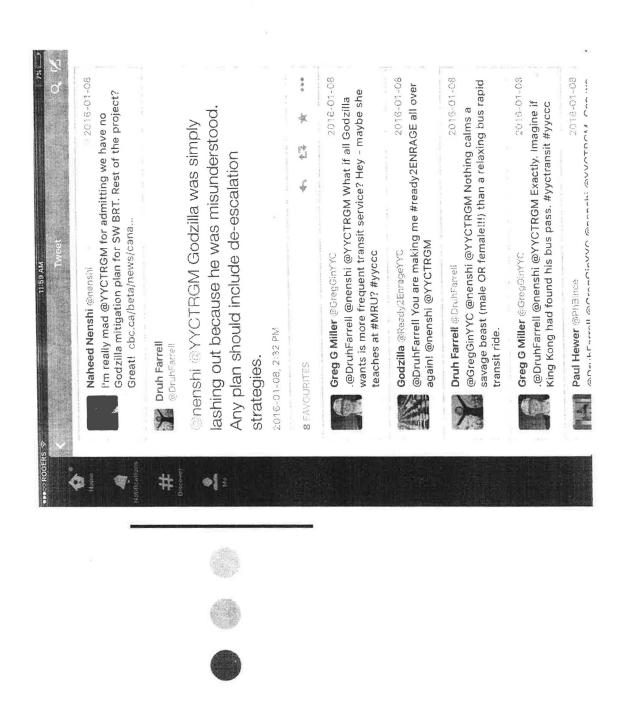
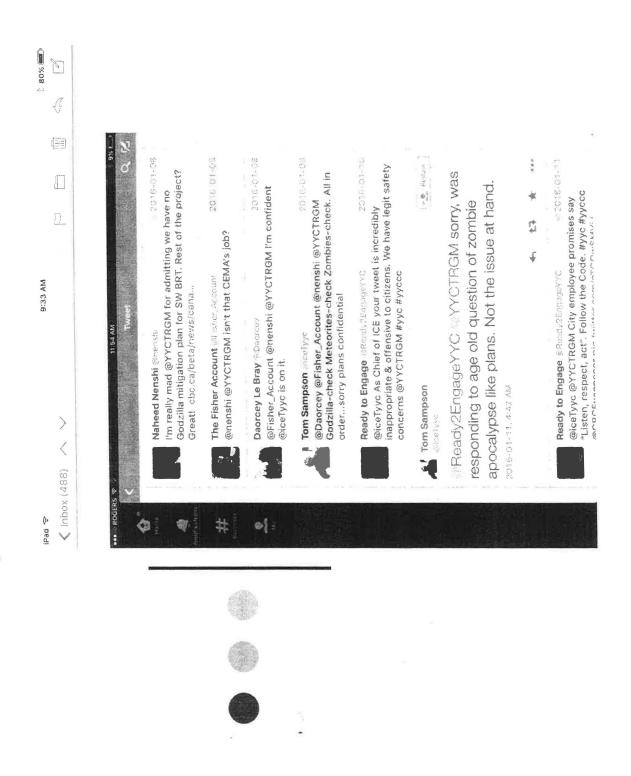


Figure 8: 14 Street W Cross Sections









My name is Roberta Wasylishen and I have been a Ward 11 resident since moving to Calgary in 2008. Despite frequenting MRU on a regular basis or living within Altador, Lincoln Park, and now Eagle Ridge, I only just became aware of this project in October of 2015. As a homeowner backing onto the West side of 14th Street SW, I am about as directly impacted as one can get with this project. As a professional, my job focuses exclusively on process optimization. Within this profession, I identify process deficiencies while striving to find cost effective opportunities for process improvement. I have tried to apply the same approach to understanding the SW BRT project as it is currently proposed and have made the following observations. Overall, my findings have revealed a lack of visibility to the Design Basis Memoranda (DBM) for this project. Information disclosure that is lacking includes:

- Maximum Number of Routes
- Maximum Number of Buses per Hour
- Definition of Peak Hours vs. Non-Peak Hours
- Clarification if Operations are 24/7
- · Examples of Traffic Sequencing with Time Intervals Incorporating Bus Priority Signals
- · Ridership Study: Today vs. Long Term
- Community Development Plans
- TOD Project Visibility & Timelines
- Complete Street Retrofit Design Process
- Noise & Environmental Impact Assessment
- Diesel vs. LNG Bus Noise Disclosure: Accelerating, Decelerating, Idling Conditions

The intent by the City of Calgary is to attract more Calgarians to utilize public transit to alleviate the infrastructure strain that comes with a driving centric city. Benefits of converting drivers to transit passengers appear quite obvious when looking exclusively at footprint reduction. With effective ridership conversion, the total number of vehicles expected to utilize the roadway should theoretically decline. It is perplexing as to why the proposed SW BRT design concept requires a 33% roadway expansion to accommodate these buses along 14th Street SW? Should effective ridership conversion be predicted, an obvious cost savings opportunity would look at incorporating a transit strategy utilizing the existing roadway infrastructure. Depending upon the design basis for this project, the total number of buses per hour will drive the impact this project will have upon residents, other commuters, and individuals wishing to access facilities such as the Rockyview Hospital or Carewest facilities. To date, the number of routes planned for this transitway project has ranged from 3-10, suggesting that during peak hours 36-120 buses per hour can be expected. Assuming a maximum of only 3 routes being implemented, we can expect an impact of 9 buses every 15 minutes during peak hours of services. Depending upon the definition of Peak Hours of Operation by the Transportation

ITEM: 3.4 172016-0335

Rective For Record

CITY CLERK'S DEPARTMENT

rporating Bus Priority Signals

#400,000 - \$450,000 CIJO

IN COUNCIL CHAMBER

APR 2 0 2016

Department, this level of transit activity falls within the category of continuous sound resulting in sporadically occurring sound levels exceeding the Night-time limit of 50 dB for a total of 3 minutes in any continuous 15 minute time period measured over a one hour period within 150 meters of a residential development between 10 pm and 7 am during weekdays. From the publically available information from other municipalities, both diesel and LNG buses are measured to produce approximately 80 dB of noise during acceleration, deceleration, and idling conditions. The Surface Transpiration Noise Policy indicates that when upgrading of a roadway adjacent to existing residential developments, the City of Calgary is responsible for providing noise attenuation necessary to achieve the Design Noise Level of 60 dB for 24 hours. The policy also states that the earlier in the planning process that noise is considered, the greater the flexibility in providing acceptable acoustical environments in residential areas. Although council passed this project in 2011, we are still awaiting the results for this evaluation. The greater concern I observed is that 14th Street SW is classified by the Transportation Department as a skeletal road; the same classification as both Deerfoot Trail and the Glenmore Trail Causeway. Based upon the definitions of this policy, 14th Street SW is actually an arterial street. As such, the SW BRT is expected to comply with the Complete Streets Retrofit Design requirements, including incorporation of Green Infrastructure along with bike and pedestrian access. Lastly, my final concern pertains to the initial feasibility study conducted back in 2010. The study, which was the basis in which the SW BRT project was passed, only evaluated the traffic impact effects of 2 routes. In addition to under evaluating the total number of routes associated with this project, due to software limitations, the study was unable to effectively analyze the traffic impacts at the 75th Avenue intersection with traffic coming from the Rockyview Hospital and Eagle Ridge. It was noted that during shift changes at the hospital this could create an issue if the left turn lane to get onto 14 Street northbound is queued up to Eagle Ridge Drive; this is particularly true in the PM peak when volumes coming out of the hospital are almost double that in the AM peak. My ask as a directly impacted, tax paying citizen is that the Transportation Department pilot the removal of the merge lanes at this intersection, comply with your own requirements of the Complete Streets Policy, and provide us with the full disclosure of the DBM for this project. As homeowners, we are financially invested in these communities and wish to have a voice in how they are developed. I have participated in the information sessions, accessed online data through the engage portal and signed the petition submitted to the City of Calgary. To date, our input has not been of priority and I do hope to see more engagement with the affected communities moving forward. Thank you.

Chair Keating

CITY OF CALGARY **RECEIVED** IN COUNCIL CHAMBER

APR 2 0 2016

My name is Leslie Newton and I live in Eagle Ridge. My nusband and I Rock for Gop Booth occasionally use transit and my children regularly use it to get to school and work. My daughter is one of those millennials who does not have a driver's license and uses transit exclusively.

I wholeheartedly support an effective and efficient Transit system in Calgary.

The SW Transitway will run right behind my backyard. With one entry point to Eagle Ridge and the Hospital, I expect many challenges entering and exiting both during construction and after. I have no idea what the additional noise and vibration impacts will be. If there is a problem building over the pipelines, I fear the City may decide to come into my backyard. All of these unknowns give rise to increasing anxiety.

Over the years, I have been to Open Houses that have placed a big X over my home; drawn access roads through my property; expanded road ways to my back door, thrown out the prospect of stacked lanes on 14th Street, and placed a looming interchange out my kitchen window.

In 2010, I attended a SWBRT Open House. City Representatives told me the information was very high level. I perceived that there was nothing yet concrete leading me to ask a lot of questions. I filled out one of the feedback forms and remember quite clearly stating that it was critical that the communities impacted needed to be closely engaged and directly contacted. I trusted there would be an opportunity for meaningful engagement in the next steps. I had no idea the project would be passed in an omnibus motion only a few months later.

FF five years, I attended an open house in late October and to my dismay, they intended to put a shovel in the ground in a mere eight months.

I composed an email to Councillor Pincott asking him, among other things, what his role was in this process. I received a response from his assistant that I found deeply troubling. The question regarding his role has yet to be answered. I was on my own and reached out to my neighbours to find answers to questions that concerned us. What I have learned from that exercise has implications for all.

I have been told consultation had been ongoing. I heard a lot about transit in the last civic election. How did I miss all this talk about the SWBRT? Was I that clueless? I went back through emails and old newsletters - nothing. However, as I asked around, it became obvious, quite quickly, that I had lots of company. Citizens want to be engaged in the decisions that impact our communities.

Last week, in a bittersweet moment of irony, I was sitting in on my Community Association's meeting when one of the board members talked about the upcoming Jane's Walk in May. Community Engagement was the foundation of Jane Jacob's vision for urban planning. Local knowledge can and does inform planning and can even improve it. Involving the community from the beginning in meaningful engagement and listening to them can break down barriers rather than creating resistance by imposing a plan. We hear this theme taken up again and again as we watch Council meetings where councillors talk about one of the important learnings from their trip to Portland - "community consultation is key."

I read through the City's Engage Framework and was particularly interested in the feedback loops. As a participant in the 2010 engagement process, I would like to see the participant feedback, not the summary document. This assures me that my voice was heard. How did public input influence the decision? If it did not have any influence - why not? Some of the concerns from those meetings are the very same ones we have now, raising a number of questions in my mind. Were they really listening? Was our time and effort even recognized?

It appears to me that in the rush to get the shovel in the ground some steps in the process were less fulsome than they should have been.

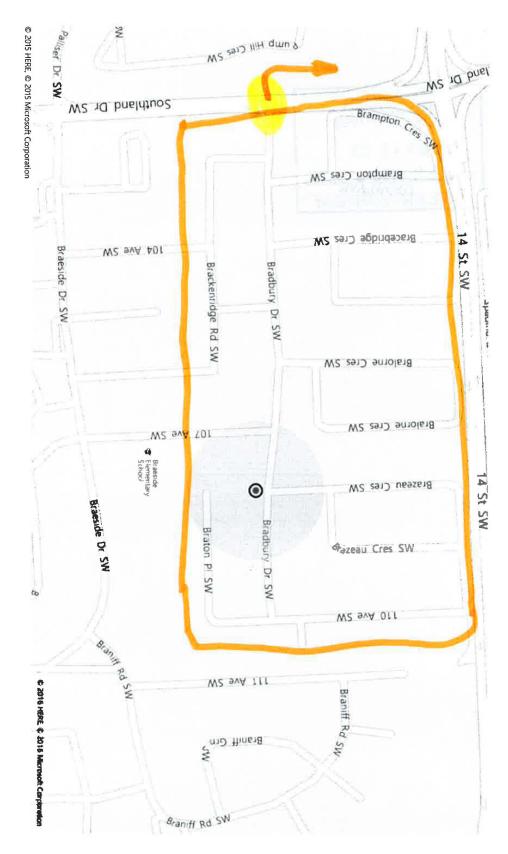
The third step, where the City tells its story in order to help us understand the project and from there provide meaningful input seems to have been folded into step five where the parties connect. The only item on the website prior to the open houses was the five-year-old Delcan Report. The fourth step where the City raises awareness around engagement opportunities seems to have gotten short shrift as well.

I believe Jane Jacobs' vision did not mean token meetings, posted signage, limited feedback, or discounting the emotional impact on those directly impacted by the change. I ask, Is there not a meaningful role for community engagement in this project - a way to truly engage those whose interests are for a shared approach to improving our city?

Re: Intersection of Southland Drive and Bradbury Dr. S.W. Calgary

Members of the Transportation and Transit committee, my name is karel Vanderkley and I have lived on Bradbury Dr. S.W. for the last 39 years. Our community is in north east Breaside consist of roughly 380 houses, about 1000 residence and has in excess of 750 vehicles. It represent Brampton ,Bracebridge, Bralorne and Brazeau Crescents as well as 110 Ave, Braton place, Bradbury Drive and parts of 107 Ave, Bradley Ave and Brackenridge Rd. . You have chosen the intersection of Southland and Bradbury Dr. for the start of the BRT double bus lane, which will very much negatively impact our community. Al of us use the intersection of Southland Dr. and Bradbury Dr. each and every day to get in and out of our community. Because of the very heavy volume of traffic on Southland going west to east in the morning, we are now at the mercy of drivers to let us in into the traffic. During the day when traffic is not as heavy we depend on the traffic lights at Breaside Drive for an opening. With an increase of traffic estimated at 5000 cars daily during road closure for the construction of the proposed tunnel and relay of storm sewers at 90 Ave and 14 Street, it will be almost impossible to get out of our community. What concerns me more is the re entry in to Bradbury Drive from Southland Dr. If we drive on Southland east to west we go through the lights on 14 Street and the proposed traffic light on Bradbury Dr.. Since there will be a very short distance of less than 200 m. between traffic lights, you are creating a condition for a huge traffic tie up near 14 street and Southland every time a bus turns on the bus lane. Most of us travel on 14 street going from north to south to go home. As it stand now when we turn right from 14 street through the bi-pass onto Southland and with the traffic flowing through the light on 14 street we normally can find enough space to cross two traffic lanes in the less than 90 meter space available to us to get to the Bradbury turn off. With the increase of traffic and a traffic light on Bradbury Dr. It will be impossible to turn into our community. We will tie up traffic if we wait for an opening. If we merge on Southland with the east to west traffic, we have to cross two traffic lanes in a relative short distance to get to the left turn lane on Breaside Dr. From there we have two choices to get to our homes. Either we use 104 Ave, onto Brackenridge, through a play ground zone





Page

2016-04-20 Transit Committee

Thank you, members of the Transit Committee and the City Planning, for your hard work on enhancing public transit.

Unfortunately you were severely handicapped by **three constraints** in the project scope from the 2010 SW BRT Functional Planning Study:

- Determine if a simple, cost-effective solution could be developed which inferred an easy, low cost fix.
- 2. Ignore the issues at the 14 St SW and Crowchild interchanges with Glenmore Trail both of which are the main bottlenecks to SW Calgary traffic.
- 3. ORDER OF MAGNITUDE COST ESTIMATE too large a range.

Firstly, design and construction in any city is never simple and accordingly never that low-cost. Without being thorough we would miss the 32 inch pipeline crossing at 90th Avenue, coincidently where a bridge is being proposed. So we come up with 3.5 meter lanes for all vehicles when buses are 3.2 meters wide – that's gives 6 inches on each side.

Secondly when **the study did not look at** the only bottlenecks on the route, it seriously jeopardized the project chance of success. A recent fix option at Crowchild and Glenmore has disappointed the residents with whom I talked. I made a suggestion to re-line two dedicated lanes from 14th Street, along Glenmore, through to Crowchild. One of the city personnel helped me get this message out using the **2" Post-its** provided by the City.

Thirdly the costing using the **Order-of-Magnitude** approach will result in a successful estimate that could increase by almost TEN TIMES. This is not good budgeting.

Over the FIVE YEARS - Questions arose as communities began to appreciate the weaknesses of vague design from the 2010 work. When the thorough study and detailed design progressed FIVE YEARS LATER things changed – A Ring Road; the Government and the Economy. Subsequent efforts to modify components of the design pushed the limits of good practice on ENGAGEMENT and BUDGETING; thus adding to the notification challenges and the perception of backroom planning.

Everyone works hard. Let us use this hard work and ensure it progresses to the improved transit system we all want.



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IN COUNCIL CHAMBER

APR 2 0 2016

TEM: 3.4 TT2016-0335

Rec'd for Corp Record

CITY CLERK'S DEPARTMENT

Good Afternoon Council, my name is Iris Kikkert I was born and raised in Calgary and currently reside in Woodbine. I have many concerns about the SW BRT project but today will focus on the increase of traffic congestion within Woodbine and Woodlands area. Currently there are over 15 thousand residents residing in these two communities there are 3 sufficient intersections to enter and exit the communities. But when the SW ring road is developed, 130th avenue is only to be a partial interchange we lose the access heading to, or coming from the North. West bound access from Woodcreek Blvd to Anderson Rd will be cut off and it has not yet been finalized by the city as to whether we will have access to Woodpark Blvd when traveling West bound on Anderson Rd or not. So upon completion of the Ring road a high percentage of that 15,000 people and emergency vehicles will have to commute via 24th street.

Currently, as was recognized by our Councilor, we do not have transit ridership in Woodbine/Woodlands. Route 56 only has about 8-10 people on each bus at the best of times running throughout the day. But if you put the BRT into Woodbine it is not just concerning that community member's park throughout the surrounding area of the platform. It is that Woodbine is going to have a hugh influx of traffic from southern residents in the communities such as Evergreen, Bridlewood, and Somerset that can access the BRT platform by taking 130th Ave, Woodfield Road, Woodpark Blvd.

Then there is the community of Providence which was approved by council Dec 2015. With an expected residency of over 32 thousand people the community will have 4 BRT platforms on 162 Ave traveling directly to the C-train. When the city is so concerned about the residents of Woodbine having a BRT to MRC etc. what about them, is it in the future development plans that the BRT from Providence will connect to Woodbine as the next stop? Is that a future development plans that is not being disclosed? Because wether it is cars or articulated buses that again will bring in more traffic to the Woodbine BRT.

Anderson Station TOD site has approved 20 acres for development which will be lost transit parking there will only be a remainder of 500 stalls. I know from experience that Anderson station is the last lot to fill up. This will result in even

more people seeking ways to get to their destination which will result in more traffic from the SW communities coming into Woodbine to park in residential areas to take the bus instead of the C-Train.

As per city of Calgary management on CBC radio, not immediately but eventually around the BRT platforms there will be intensification. By the 100's by the 1000's I don't know, but even if all of those residents take advantage of the BRT during the week they will have cars so will be adding 100's or 1000's of cars to the traffic congestion in Woodbine especially along 24thst. When the area is intensified their will be more children and as our schools are already at full capacity, so there again we will add more School buses to transport the children.

To conclude Woodbine and Woodlands will have enough traffic congestion within the community without a BRT. But a BRT will bring chaos to the roadway!!

I request that Council should re-think this design and not just focus on the riders of the service.

Respect tax paying residents that took elements such as transit service and quite residential living into account before they invested their hard earned money in a home.

RECEIVED
IN COUNCIL CHAMBER

APR 2 0 2016

Wednesday, April 20, 2016

Thank you, Councillor Keating, and members of the Transportation and Telist Complice for this complication and Telist Complica

Notwithstanding meetings with Major Stakeholders in the past, or the apparent 5-year consultation period that has been mentioned time and time again, R2E volunteers encountered no one in the various SW communities who know anything about the Bus Rapid Transit project...not one.

On attending the Information Meeting hosted by the City at the Southland Leisure Centre in October, and hearing that this project was starting this summer, I was as surprised as everyone else there. Then again later, at a meeting at the Chinook/Kelvin Grove/Eagle Ridge Community Centre, regardless of questions and concerns about safe intersections, budget over-runs or ATCO pipelines, City officials around the table reiterated, in no uncertain terms, that this was a shovel ready project for 2016 construction season.

Why would you do that? It made no sense that this project should proceed.... when so many legitimate questions remained unanswered.

The Ready to Engage evening at the Jewish Community Centre in January proved to me that <u>way too many</u> residents were hungry for information on this project. That evening, the petition process got underway when 1,100 people flocked to the Centre and 800 signed the petition. On the heels of that event, did no one here think, "Oops, we've got a problem?"

City council recently hired an outside firm to draw attention on how to engage with the public. One glaring comment that I saw was that if after several meetings someone still doesn't understand the issue, then another meeting is required. Not an information session, or an open house, councilors, but a true consultation. The wording is so very important. No one likes to be told what they're thinking, they would prefer that you ask and listen.

Over the past several months, Petition Signing Sites were organized in various SW community centres making it easier for citizens to come and register their names. Overall, we collected 3,500 signatures in person. Then, with approximately 900 on-line signatures, we submitted the package to the Office of the Registrar on March 21st.

We knew, <u>full well</u>, that because of a problem with petition wording, the on-line signatures would be dismissed. However, those citizens of SW Calgary signed on-line in good faith and we felt compelled to include them within the official submission.

At this point, I wish to state that, regardless of the final tally, I stand before this table and swear with total conviction that, at no time did Ready to Engage volunteers knowingly coerce, force or trick anyone into signing our petition.

Mayor Nenshi, my name is Kathy Hays and I am proud to say that I am the petition coordinator for Ready to Engage. Following the *now infamous* Woodcreek evening, outrageous comments were carelessly and needlessly hurled at us. Where is the professionalism in this "Name and Shame" game? I don't get it....

On a final note, councillors, know that it is never too late to do the right thing...ever! Please re-open thoughtful engagement with SW community residents — not information sessions. Writing comments on a 3x3 sticky note doesn't cut it. Actually listen and take note of incredible budget-friendly options and thought-provoking ideas for the SW BRT. I think that you will be surprised by what you learn. Do the right thing...your constituents are waiting for you.

Thank you for your time.

Transportation Committee Speech April 20 2016

Good afternoon, my name is Ronalee Cunningham, I am a ward 11 resident, health care worker and mother of 3. I'd like to thank the committee for this opportunity to speak. MONTHAN 4

tool I fully support transit improvements, but have sufficient concerns with the proposed design of the SWBRT along 14th St SW from Southland Drive to 75th Ave SW that I am coming to City Hall for the first time.

When I have read the Delcan report, Stantec report and City information looking at the detailed SWBRT plans for this stretch of roadway I feel some of the intersections will be confusing for road users, and wonder why isn't the city putting lanes on either side of the street, more similar to Crowchild trail? This could still be done in designated transit lanes where possible, were preparative at intersections.

In Feb 2016 I had a chance to ask Howard Kai why they were not putting the lanes on either side of 14th St SW. He let me know that it was not being done, as it had not even been looked at as one of the design options in 2010. This was surprising as it appears like it would be a much simpler, straightforward design, and surely be cheaper without the need for tunneling. He shared similar feedback on the design had been heard from others, and putting lanes on both sides of the roadway was now being considered.

I was really pleased after talking to Mr. Kai, and hopeful, but later disappointed to read through the city engagement portal that this did not appear to be moving forward.

Since 2010 more information on safety has been published that I feel should be considered. In particular in 2015 The World Resources Institute for Sustainable Track and the considered of the consider Cities' Embarg urban mobility group released new design guidelines. These are to provide a strong foundation for city leaders to take action on traffic safety and save lives in their cities.

Their work contributes to a growing body of research on creating cities that are safer by design. In contrast to traditional approaches to road safety that emphasize education and behavioral change, this approach seeks to account for human error in the planning and design of transport systems to reduce the risk of traffic crashes and injuries.

They have found **pedestrians** are the group most vulnerable to the safety impacts of poor street design, and usually represent over half of the fatalities on a bus corridor. CITY OF CALGARY

RECEIVED In particular Embarq has found **counterflow** lanes to be a **dangerous** COUNCIL CHAMBER **configuration** for bus systems and strongly recommends avoiding counterflow

APR 2 0 2016

Distribution CITY CLERK'S DEPARTMENT

Signific :

Good evening, my name is Janice Biblow and I live in Cedarbrae in SW.

I would like to thank you for this opportunity to speak about the SW BRT and how it is going to affect my community.

Firstly, I would like to say, I was very disappointed when the public consultation process was cancelled by Mayor Nenshi regarding the SW BRT. I have a voice and my voice matters. Face to face consultation allows for a collaborative discussion and planning process which is what I consider to be respectful engagement.

I didn't know about this project until January of this year when it was brought to my attention by one of my neighbors. I don't feel engage by City Council; I don't feel as if my voice counts and I don't feel respected by my elected officials regarding the SW BRT project.

Again thank you for this brief opportunity to talk about my concerns.

I'm concerned about the negative impact of the SW BRT on Rockyview General Hospital. I work at the hospital as a social worker. I'm involved in discharge planning with patients and families. I'm concerned about access into and out of Rockyview hospital for patients, families, staff and emergency services.

There is only one entrance and exit to access the hospital. The hospital sits on a water way so there is no other available alternate route to access the hospital.

The proposed changes to the intersection of 75 Avenue and 14 Street, I believe, will significantly impact the flow of traffic and cause delays for traffic entering and existing the hospital, especially during peak times such as rush hour and shift change at the hospital. (7:15am – 3:30pm; 3:15 – 11:30pm; 11:15pm – 7:30am: some 12 hr shifts until May then all 8 hour)

There are still some 12 hour nursing shifts but as of May all nursing shifts at the hospital will be 8 hours. Therefore, there will be 3 shift changes a day. Notably, the 7:30am & 3:15pm shift changes will impact the traffic flow the most as these are during rush peak hours and when large numbers of people are arriving and departing the hospital.

My questions are:

>

- 1) How will city council ensure that emergency services (EMS, Police, Fire) have uninterrupted access to one of Calgary's major hospitals on the proposed SW BRT route?
- 2) And secondly, how will city council assure the public that they will have easy and reliable access to medical services at Rockyview hospital both during the construction phases of the SW BRT and after the permanent changes to the one and single roadway leading to and from Rockyview hospital?

iank you for your time?
Thirdly,
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3) Will there still be but stops outside the tosp. doors or a feder bus?
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4) heatily, I believe the BRT / ine will impact staff perking a heating parkentere staff and bussed on the shutter be s. In there an atternet plan for oblisher staff parking?
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on the shorthe by s as there on atternate along for affects staff parling?

Further, most people going to the Lospital, whether it's pts, pts Lambies or Staff doing their cars; harvener, there are few who do take public transit. County, the bus Stops are outside the Lospital doors The proposed BRT bus stops are will be on 14 St., a 5 Mstandial distance from the hospital exits this will and a Significant Lardship for pto + Sant Parkinder there is health problems that found them

\$120 m/year

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What would you do with an extra three days of your life back every year? Calgarians spend an estimated 80 hours in traffic gridlock each year, according to the TomTom Traffic Index. These numbers become even more troubling when you consider Calgary's future growth. Even with the stalled economy, it's likely that our population will double within 25 years.

As tempting as it may be, the answer is not always more and bigger roads to try and combat the problem. Nor is it to give large but well-intentioned transit projects a free pass. Infrastructure investment is important, but we then idealogy - collision, have to - think and build smarter as we grow.

That means better data. Policy driven by data rather - than ideology means faster, cheaper, safer, and more reliable travel for all Calgarians, regardless of how they need to get around.

I'm here talking about data because I think it's the piece that's been solidly missing from the conversation. Something I want to emphasize load and clear is that open data is not just a tool for the public to critique government or politicians. It's also a tool to help you, as politicians, strengthen the delivery of services at a cost effective level.

First, data driven decisions are more precise, because they are more informed. Some of you have been councillors for many years, and I trust that you know your communities well. But with data, I'm positive that there are things about even your own neighbourhoods that you've never realized. Without data, you're just fumbling around in the dark.

Here's an example: Dustin Jones made headlines when he obtained past police data and made a map demonstrating the most dangerous intersections for pedestrians. Such data should be public for free, and used to design safer intersections that also allow for better traffic flow. The city must stop acting like gatekeepers of information, and work harder to get it to whom it belongs: the people.

Second, data driven decisions serve citizens better, because they include citizens. You can hear from Calgarians now, before decisions are made, instead of after the policies have been implemented. It even allows for corrections mid-course. There's a perception, rightly or wrongly, that consultation only happens after an outcome has been decided – but there's real potential in taking input in real-time. So in a sense, open data means

giving up a little of the spotlight, and giving credit where credit's due. An example is being able to point to a project and being able to list the specific changes recommended by specific people on specific dates.

Third and lastly, data driven decisions build a better city because they build better trust. Taking a data-driven approach to policy making means looking at all the facts, and this is inseparable from good leadership. It doesn't mean that we'll always agree. But it does mean that when differences happen, you owe them the data that's informed your position. You also owe them an open mind when they bring new evidence to you.

For example, making the data influencing your policy decisions readily available to the public means you can have discussions with citizens at a higher level. Citizens will be able to understand the actions of their governments, and this transparency will encourage more trust. This trust, in turn, will encourage more citizens to provide feedback and other data to governments. It's a positive feedback, transparency loop which can only lead to smarter and more informed policy decisions.

We'll not always agree, but this can be incredibly useful for transparency, especially if you're sharing these facts with the community at large.

I'm available to you for questions. Let's consider Calgary's ranking as a warning, and think smarter about mobility.

While getting better, the city's lack of good data has unfortunately undermined support for cycling and public transit — great transportation options for many, but not all, of us. Questionable practices, such as sending staff to street corners to count bikes with a clipboard, have needlessly set businesses and cyclists against each other.

In fairness, transportation planning is challenging because there is no one way of moving people that accommodates all needs perfectly. But competing directions from council have counterproductively led city hall to restrict the mobility choices of Calgarians, rather than expand them. That means our time and money costs have gone up, while our overall competitiveness and affordability have gone down.

Data from TomTom Traffic Index, which uses GPS data from millions of users to rank cities worldwide, can also be used to measure Calgary's road where network and pinpoint other areas where traffic flow can be improved. More this objective criteria should be used to judge if we're getting the best return on the shortest bike lane to the biggest interchange.

Lessons lourned ...



Presentation on Existin

Background

 Most of the Atco Pipelines' urban pipelines were constructed prior to 1970

 These pipelines were originally installed in "non high consequence areas"

The pipeline along 14th Street is the Turner Valley No. 2 Pipeline

Built in 1925 and 2004

 Much of the original pipeline has been upgrade to ERW longitudinal weld pipe

One leak has been documented over the life of the pipeline

Concerns

- Pipeline is being relocated to the new ring road right of way so why are we rushing to begin construction until this is in complete?
- projected traffic will impact the length of the pipeline that is along The pipeline runs parallel to 14th street not perpendicular so the the $14^{
 m th}$ street with the additional lane.
- When roads pass under a roadway, and are high pressure mainlines, they are normally cased to protect the integrity of the pipeline
- The amount of cover for a mainline pipeline is 36" minimum and this pipeline with the burm removal and road bead preparation will be down to approximately 18"

Concerns continued

 As in San Bernadino California, this pipeline was of similar age, similar location to residential neighbourhoods, running along side a road

lower pressure distribution line when the new main line replacement 14th Street section of the line is designated to be repurposed as a is in place on the right away of the new ring road Less traffic is better Split the bus lanes to both East and West side of 14th Street

California Pipeline failure in a similar situation

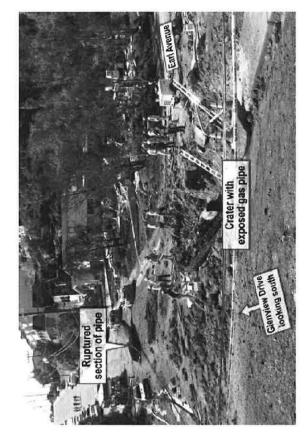


Figure 2. Picture of ejected pipe section.

California Pipeline failure in a similar situation

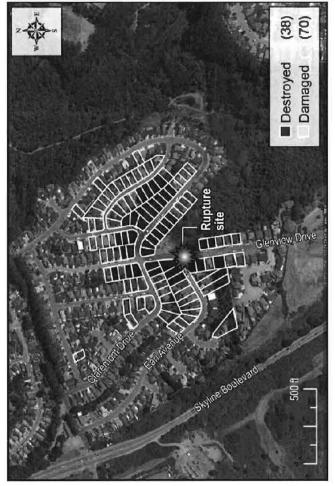


Figure 11. Picture showing area of damage from blast and fire.