

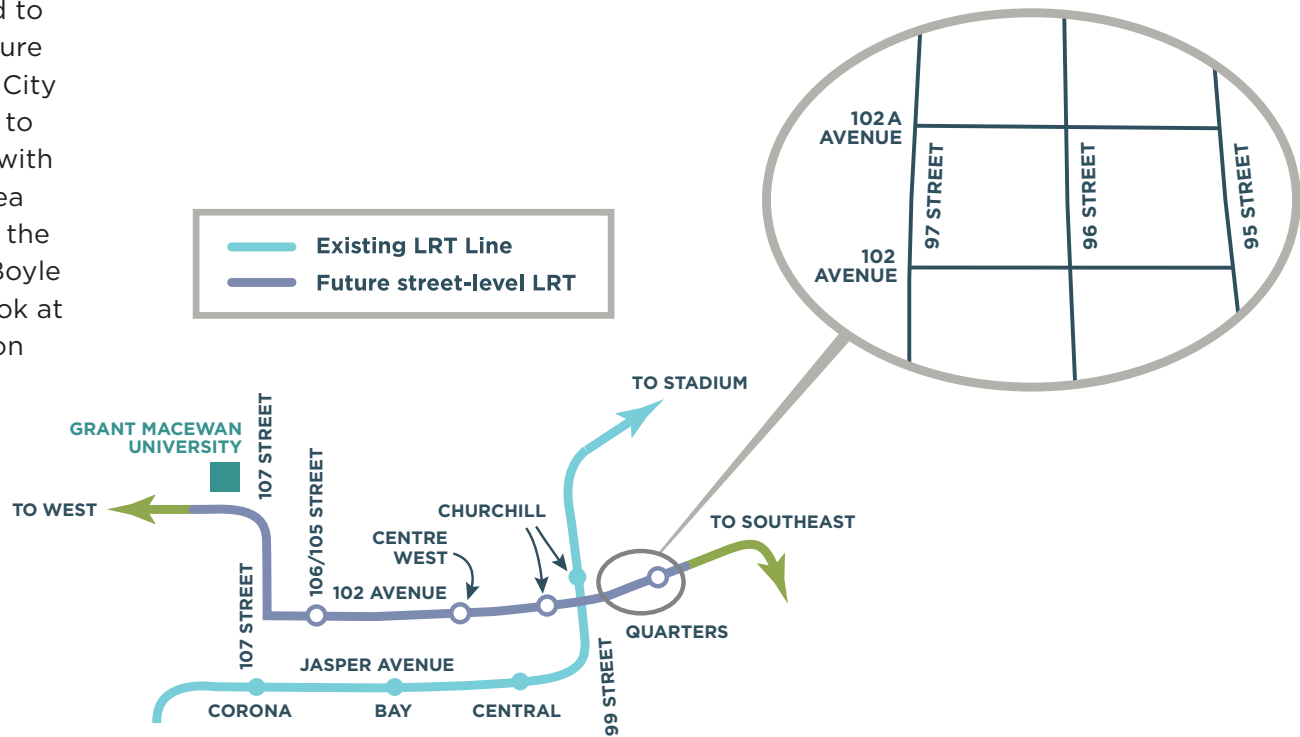
Downtown LRT

Revised Recommendation: 102 & 102A Avenue - 95 to 97 Street

October 2011

Project Background

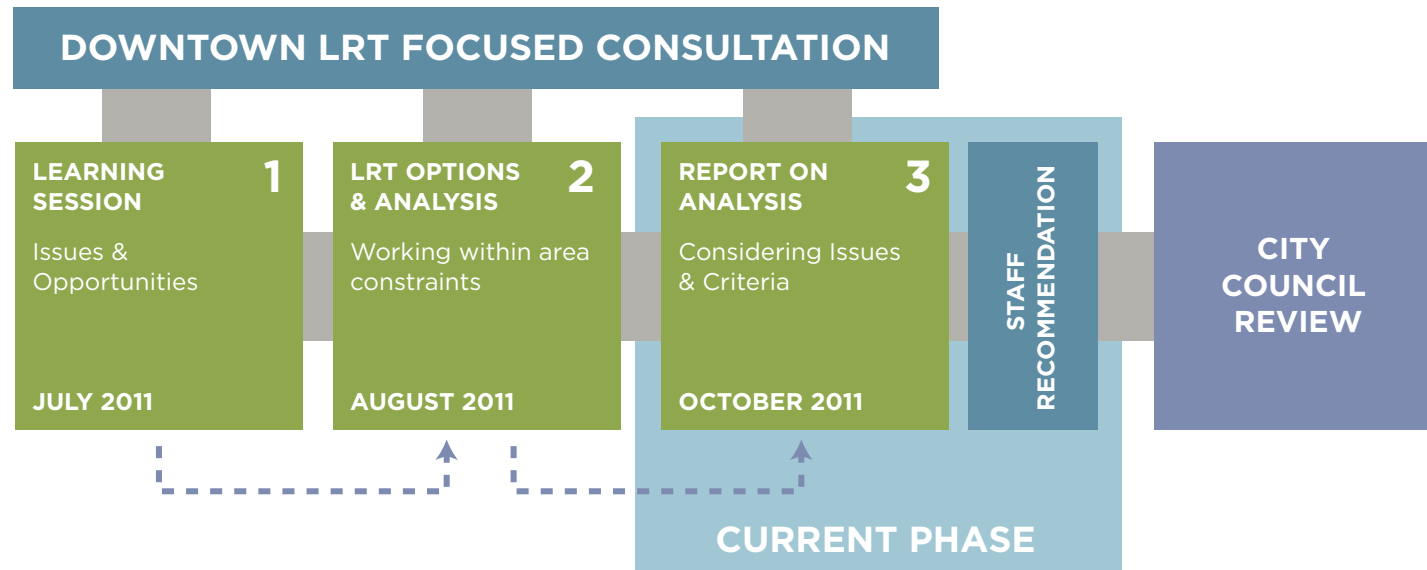
On May 25, 2011, a concept plan for the Downtown LRT was presented to the Transportation and Infrastructure Committee. On June 1, Edmonton City Council directed the project team to complete additional consultation with the community in the Quarters area (97 Street to 95 Street), including the Chinese Benevolent Society and Boyle Street Community League, and look at possibilities for the LRT to travel on 102 or 102A Avenue.



Consulting with the Community

Over the summer and fall of 2011, residents, business and property owners, and other interested parties participated in two workshops to provide input on the LRT alignment through this area.

Focused Consultation Process



Workshop #1 – Issues and Opportunities (July 24, 2011)

The first meeting focused on the important aspects of this area for the community. Participants identified significant locations and emphasized the retention of cultural amenities, in particular the Chinatown Gate. They also mentioned the importance of maintaining parking and access for vehicles, and providing adequate pedestrian facilities.

Workshop #2 – LRT Design Options (August 21, 2011)

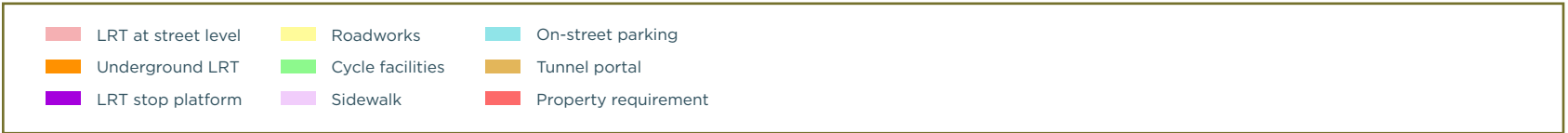
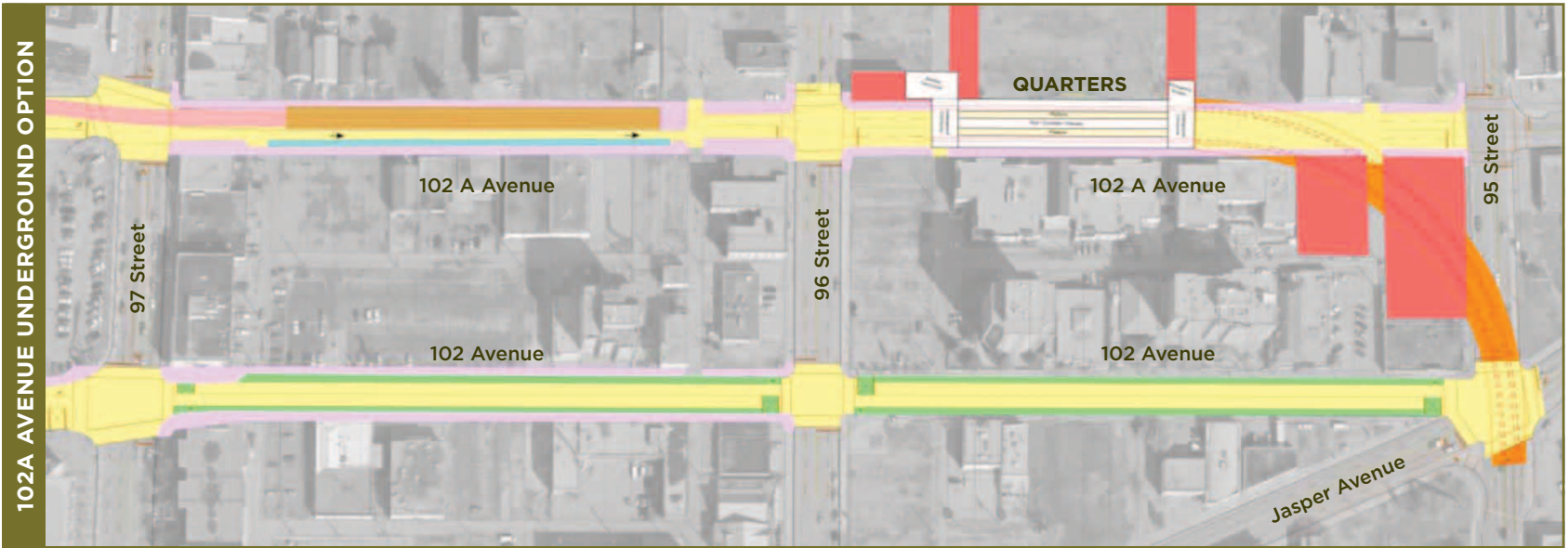
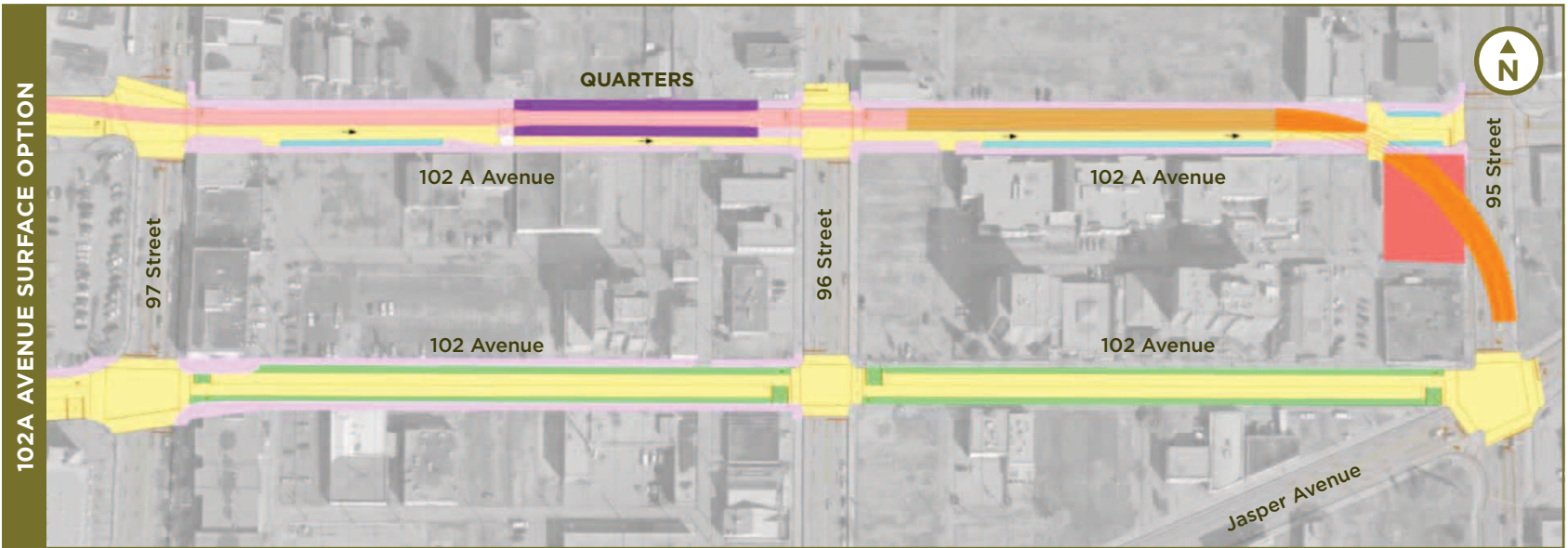
Participants took an active part and developed LRT alternatives to be analyzed using the LRT evaluation criteria. Participants worked in groups to design surface and underground options for LRT on 102 Avenue and 102A Avenue using puzzle pieces.

When developing the designs, the teams had to consider a number of impacts and mitigation measures, including access to properties for pedestrians and vehicles, pedestrian movements and crossings, street furniture placement, and the ability to provide public space and parking.

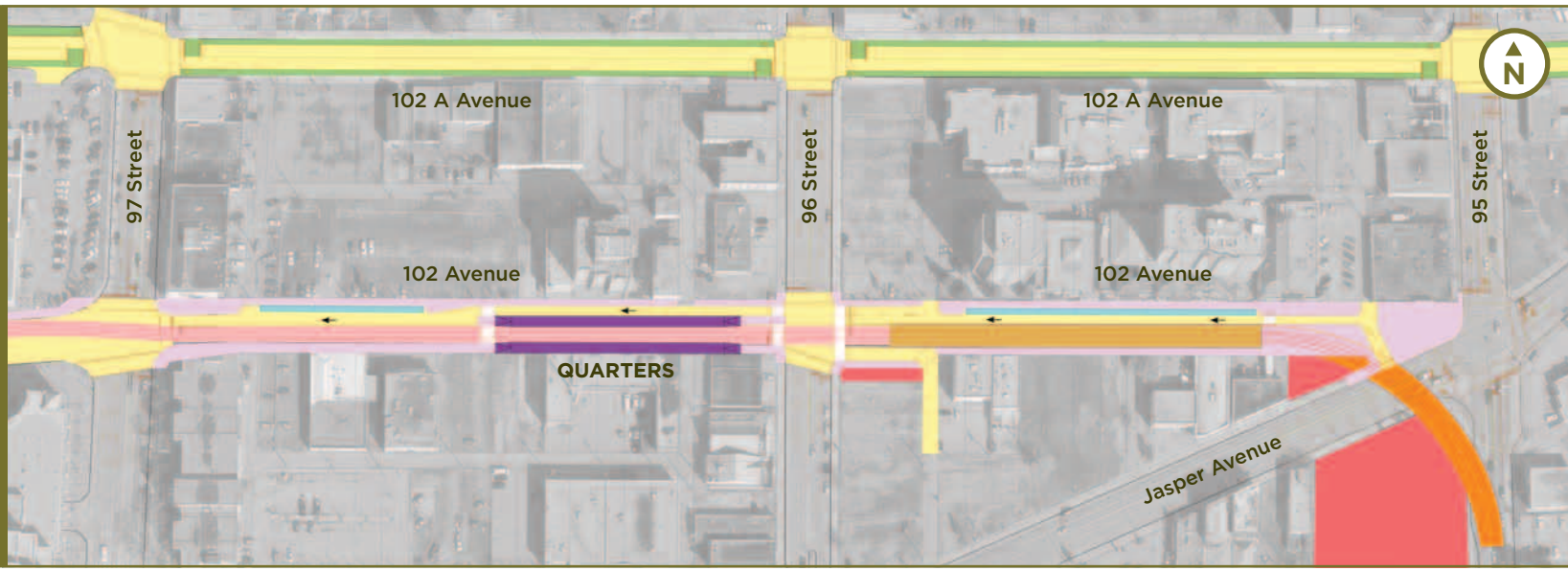
Key themes included reinforcing the cultural character of the street, avoiding impacts to buildings, parking and access, and ensuring a stop in the area. Some groups preferred the LRT to run along 102A Avenue and were reluctant to develop options for 102 Avenue.

Developing LRT Options

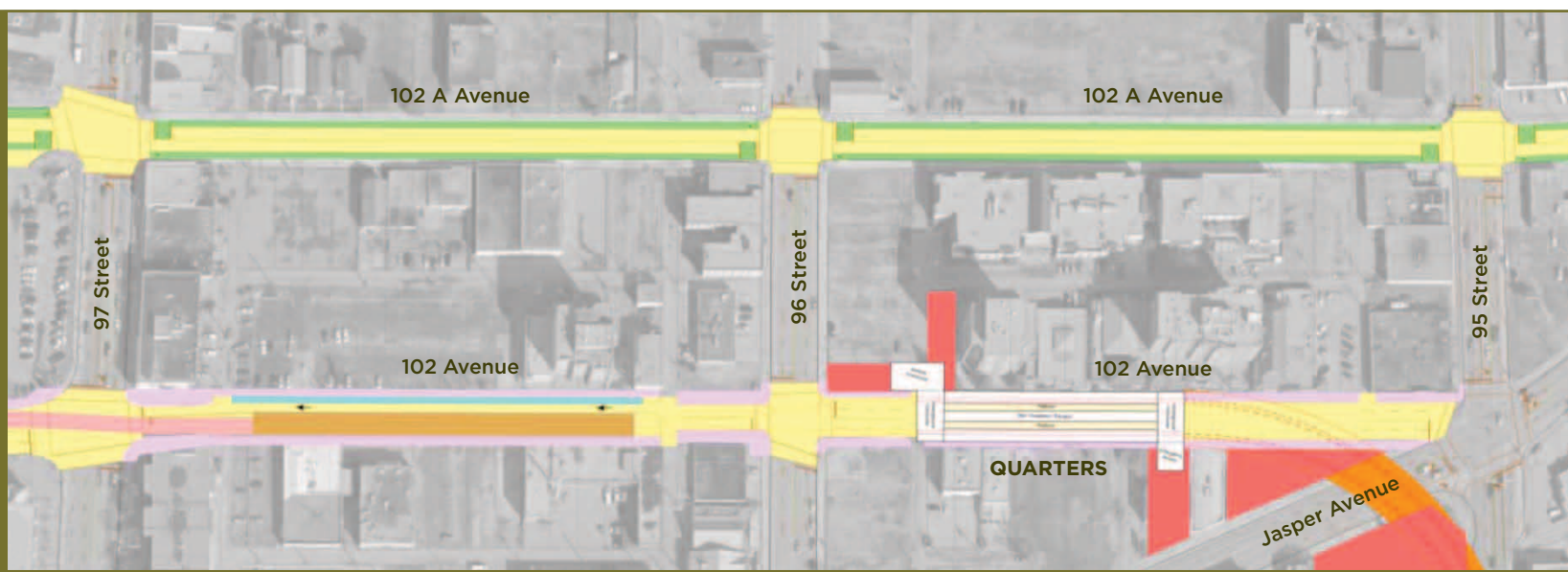
Following the two workshops, the project team took the designs from all of the tables and combined them into four LRT options that represent the design features from the majority of the participants. These options were then screened using the LRT evaluation criteria.



102 AVENUE SURFACE OPTION



102 AVENUE UNDERGROUND OPTION



	LRT at street level		Roadworks		On-street parking
	Underground LRT		Cycle facilities		Tunnel portal
	LRT stop platform		Sidewalk		Property requirement

Evaluation

In December 2008, City Council approved a set of decision-making criteria for the selection of new LRT routes. All potential routes have to be rated and ranked using these criteria.

Some criteria may not apply to sections of the route under consideration based on site specific conditions. For example, the downtown section of the LRT does not have direct impact on the Natural Environment criteria.

LRT CRITERIA	OBJECTIVES
Feasibility/ Constructability	<ul style="list-style-type: none"> • Does the location meet the project's purpose? • Can it be built? • What are the capital and operating costs? • Is it cost effective? • Does the route primarily use existing transportation corridors? • Does the route minimize conflict with goods movement? • Can route be integrated with existing transit system? • Will the route impact bus services? • Is there potential for future extension? • Is the route primarily at street-level? • How many street-level crossings will there be?
Land-use Promoting Compact Urban Form	<ul style="list-style-type: none"> • Can route be integrated with existing transit system? • Is there dense population within 400 metres? • Is there high employment within 400 metres? • Is there a significant student population within 400 metres? • Is there potential for future population growth in the area? • Is it consistent with the Transportation Master Plan, Capital City Downtown Plan and Municipal Development Plan? • Does it connect to a number of activity centres (employment, theatres, colleges, residences, shopping, etc.)? • Are there opportunities for improved beautification of the area (landscape and streetscape)? • Will the option provide improved connection with the rest of the city? • Does the route facilitate transit oriented development and downtown revitalization? • Do the existing land-use plans support redevelopment?
Movement of People/Goods	<ul style="list-style-type: none"> • Does it impact existing transportation? • What is the projected ridership and travel time? • Can route be integrated with existing transit system? • Does it impact the transit network? • Can route be integrated with other modes of transportation?
Parks, River Valley and Ravine System	<ul style="list-style-type: none"> • Are there opportunities for improved beautification of the area (landscape and streetscape)? • Will there be impacts on parks and open space?
Natural Environment (Not Applicable)	<ul style="list-style-type: none"> • Will it impact riparian habitat? • Will it cross streams/rivers? • Is it consistent with regulations governing natural areas? • Will it impact natural areas during construction?
Social Environment	<ul style="list-style-type: none"> • Will the route impact properties? • Will the route impact property and land values? • Will the route impact heritage buildings? • Will the route impact cultural sites? • Can impacts to neighbourhood be avoided, minimized, or mitigated, or are they irresolvable? • Is the station near areas of high employment? • Is there a student population within 400 metres of station? • Does the station support employment and transit dependent users (lower income, no car, students, seniors)?

102 & 102A Avenue Evaluation

● The 102 Avenue surface option received the top score in the evaluation process because of its economic feasibility, ability to integrate with present and future land use, accessibility to seniors' and lower income housing, and proximity to current and future ridership.

● The 102 Avenue underground option scored lower due to the high costs of an underground station, overall higher construction costs, and more significant property impacts.

● The 102A Avenue surface option scored lower due to the higher costs caused by the longer route, and lower present and future populations living adjacent to the route.

● The 102A Avenue underground option scored the lowest as it would involve the greatest cost due to an underground station and the longer route and tunnel length.

	102 AVENUE		102A AVENUE	
	Surface	Underground	Surface	Underground
Feasibility/Constructability	●	●	●	●
Land Use/Promoting Compact Urban Form	●	●	●	●
Movement of People/Goods	●	●	●	●
Natural Environment	NOT APPLICABLE TO DOWNTOWN LRT			
Parks, River Valley and Ravine System	●	●	●	●
Social Environment	●	●	●	●
OVERALL EVALUATION	●	●	●	●

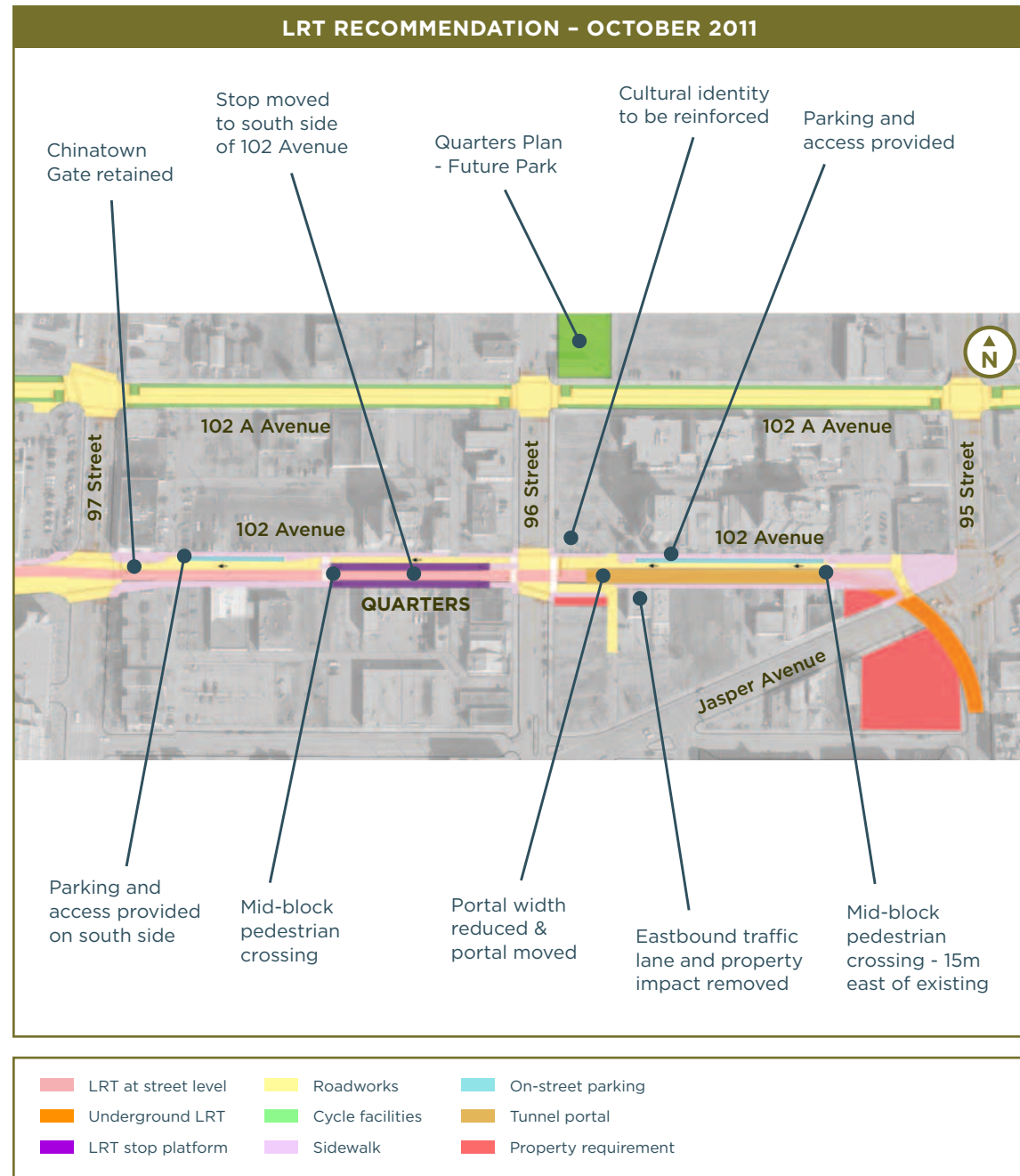
Note: All four options included a tunnel portal and the associated impacts were considered during the evaluation.

Recommendation

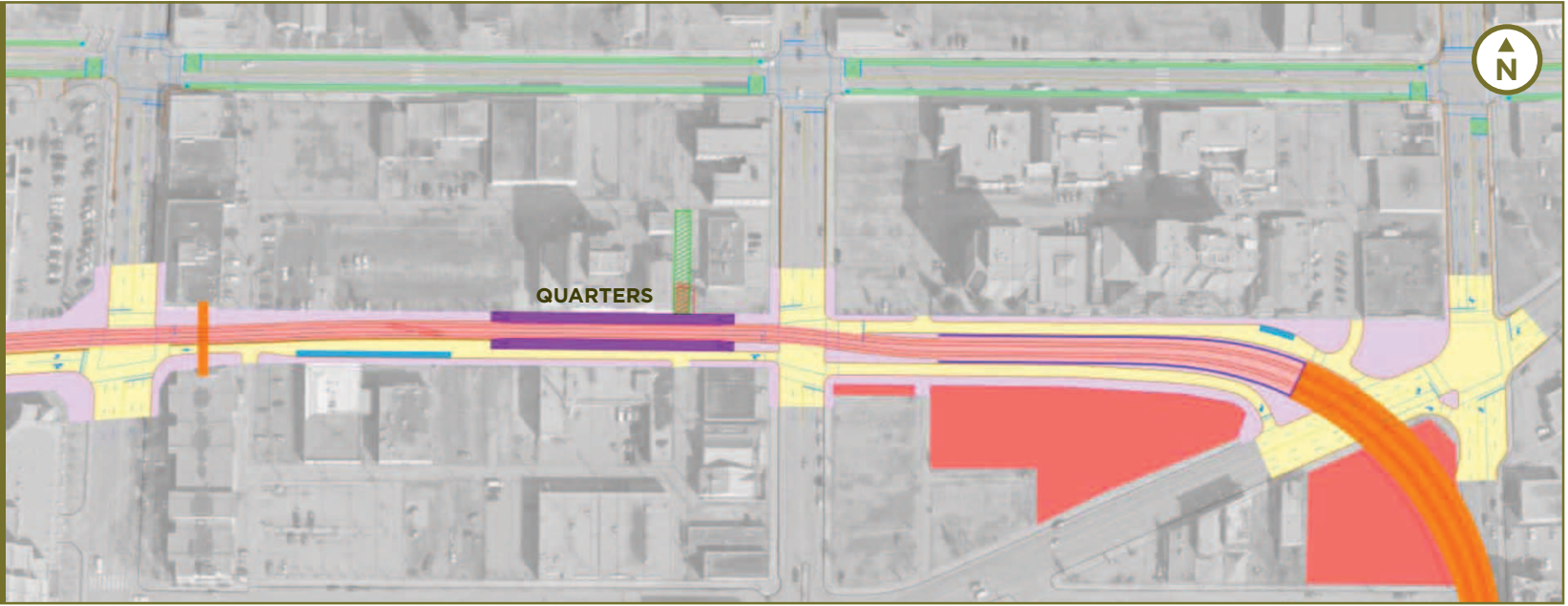
The project team developed a recommendation using the results of the evaluation, along with feedback from the consultation sessions.

As shown below, a number of changes were made to the concept plan presented in April 2011 to reflect the input of the community and the results of these workshops. This includes:

- Portal width reduced and moved to the west
- Improved access to adjacent sites and retention of on-street parking
- Addition of two mid-block pedestrian crossings
- Stop moved to the south side of 102 Avenue
- Reduced property impacts



PREVIOUS RECOMMENDATION (APRIL 2011)



- | | | |
|---------------------|------------------|----------------------|
| LRT at street level | Roadworks | On-street parking |
| Underground LRT | Cycle facilities | Tunnel portal |
| LRT stop platform | Sidewalk | Property requirement |

Low-Floor LRT

The Downtown LRT will link the future West and Southeast LRT lines together. It will be a low-floor, urban style LRT system, so doors can be provided at street-level for step-free boarding onto the vehicle.

The biggest advantage to low-floor LRT is that the stops can be smaller and require minimal infrastructure - a stop can be as simple as a raised curb and sidewalk. This makes it easier to integrate stops into their environment.

Since ramps and steps are not needed, low-floor LRT is easier to access for pedestrians, as well as for people with mobility challenges.



LRT Network Plan

In June 2009, City Council adopted a long-term LRT Network Plan that defines the future size, scale, and operation of the regional LRT system. Eventually, the LRT network will have six lines extending to the Northwest, Northeast, East, Southeast, South, and West. The LRT Network Plan supports overarching policy direction by making downtown Edmonton the focal point of the LRT system. In reviewing the overall system operation, it was determined that future expansions would need to operate on a separate LRT line due to limited tunnel capacity on the existing system.

As part of the LRT Network Plan, a vehicle technology review was completed to help choose the style of LRT vehicles most appropriate to meet long-term transportation objectives. The review recommended new, low-floor LRT vehicles be used for new lines that do not directly connect to the existing LRT line. The Downtown LRT will be part of the new low-floor LRT network. Opportunities for efficient transfers are proposed where the existing LRT line and the future low-floor LRT lines intersect, such as at Churchill Square.





What Happens Next?

On October 5, feedback from the participants will be gathered. This input will be reported along with the recommendation to the Transportation and Infrastructure Committee of Council on November 15. As a result, City Council will have the necessary information to decide whether to approve the Downtown LRT concept plan, including the recommendation for the study area.

Public Hearing

Tuesday, November 15, 2011

Transportation and Infrastructure Committee
River Valley Room
City Hall
1 Sir Winston Churchill Square

Register to speak on www.edmonton.ca/meetings, or call the City Clerk's office at **780-496-8178**.

To find more about the Downtown LRT project

Visit www.edmonton.ca/LRTprojects

Call the LRT projects info line at 780-496-4874

E-mail LRTprojects@edmonton.ca

Join our e-mail update list! E-mail LRTprojects@edmonton.ca and type "subscribe to Downtown LRT" in the subject box.