



## Park and Ride

### *South LRT Extension*

### No Park and Ride at Southgate

On November 14, 2006, City Council voted to complete the South LRT Extension without park and ride facilities for the Southgate LRT Station.

This was a difficult and significant decision for the City because long-term strategic plans for LRT have historically included park and ride at the Southgate Station. However, once concept planning began examining the details, it became clear this location was not appropriate for park and ride. Factors included:

- *Cost/financial implications.* With costs ranging in excess of \$40,000/stall, the benefits of building a park and ride facility could not justify the high financial and community costs associated with the facility.
- *Availability of land.* The Southgate Transit Centre is surrounded by established neighbourhoods and successful businesses. There is not sufficient land available to build a facility large enough to accommodate potential users without building a large parking structure or acquiring residential property.
- *Ability to use different means to meet ridership goals.* There are many other ways to increase ridership that have lower capital and operating costs. These can be put in place with fewer impacts on the community and surrounding businesses.

### **No Park and Ride is better than “some” Park and Ride**

By not providing park and ride, the City is sending a clear message to potential users who would get frustrated trying to use a park and ride facility that is not large enough to accommodate demand. The City will work with local communities to explore ways to keep commuters from using neighbourhoods for parking. A public education campaign will promote the Southgate LRT Station as a “transit-transfer” destination - not a park and ride site.

### **The LRT will still meet ridership goals**

Council has also directed administration to prepare a strategy that outlines:

- *Park and ride options for South LRT from Southgate Station to the south edge of the city.*
- *Enhanced transit connection options to the South LRT Extension for south side and west end residents*





## Park and Ride – The basics

### *Who uses park and ride?*

Park and ride can encourage car pooling and attract new riders that would not ordinarily use transit. It can also reduce traffic congestion by taking more cars off the road.

Each system has unique characteristics that are influenced by changes in the transportation system. However, general trends indicate that each park and ride stall will attract 1.2 transit users per day. Of these users, generally 50 per cent are new transit riders and the other 50 per cent would otherwise use transit to access the LRT.

### *Why is it important to keep the LRT station and bus terminal at Southgate?*

With or without park and ride, the vast majority of anticipated ridership on the LRT will come from transit transfers. It is important to keep the LRT station and the bus terminal close together.

Options to move the bus terminal, LRT station and park and ride to another location were reviewed, but costs to rebuild the bus terminal (including the building and the bus bays) would add \$5 million to station costs. Functionally, moving the bus terminal brings many of the same issues as building a park and ride facility, including finding available land and fitting it in with existing land use and traffic patterns.

While people using the Southgate Station will have many end destinations, Southgate Mall will always be the most common destination for area transit users. It is also the most centrally located major activity centre in the area.

### *How close should Park and Ride be to the LRT station?*

General industry trends suggest parking spaces should be within 250 metres of the LRT platform.

### *How did you estimate how big the Southgate Park and Ride facility should be?*

The Southgate LRT catchment area includes 61 Avenue in the north, Saddleback Road in the south, Whitemud/Terwillegar Drive in the west, and 66 Street in the east. When reviewing the housing density, anticipated transit ridership, park and ride turnover rates, and typical auto occupancy, analysis indicates that approximately 1,000 stalls would be needed to accommodate park and ride demand at Southgate.

### *How does Edmonton's park and ride capacity compare to other jurisdictions?*

City	Weekday riders	Length of LRT	# of stalls	# of stalls per km
Edmonton (existing)	43,111	12.9 km	2,466	191
Edmonton (planned)	80,000	20.5 km	3,666	179
Calgary	189,000	42.1 km	11,203	266
Ottawa (planned)	46,200	29 km	4,600	159
Sacramento	50,600	48.7 km	6,042	124
Portland	96,200	70.8 km	7,438	105
Dallas	61,900	72.4 km	11,587	160



## What options were considered?

### *Southgate-Integrated Parkade*

The City explored leasing space in a parkade that would be built as part of a planned expansion of Southgate Mall. These included:

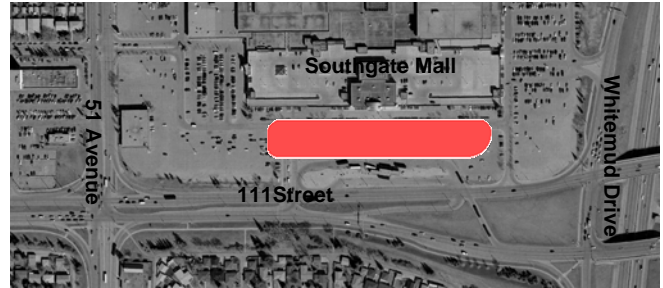
- 900 stalls on the third and fourth levels
- 450 stalls on the fourth level

#### *Costs:*

- Ranged from \$40,000/stall to \$60,000/stall.

#### *Considerations*

- The facility would have provided the best pedestrian connections from the park and ride to the LRT station and bus terminal, and would have kept the facility isolated from surrounding residential communities.
- However, high costs for construction and ongoing maintenance would be incurred without the benefit of creating a long-term asset for the City.
- Traffic studies suggested users may experience delays when leaving the parking facility



### *Other Southgate options*

The City considered acquiring land on the Southgate site to accommodate a 900-stall underground parkade.

#### *Costs:*

- Estimated at over \$70,000/stall.

#### *Considerations*

- The park and ride would be close to the LRT station and the bus terminal.
- An underground facility would be built to reduce the impact on the mall (i.e. visibility).
- Traffic studies indicated users would experience delays when leaving the facility.





### ***Pleasantview***

The City considered acquiring the existing Sobeys's and Tim Hortons site to build a parking facility. Options included relocating the bus terminal and LRT station to the new site, or keeping the bus terminal and LRT station at Southgate Mall with park and ride only at Pleasantview.

#### **Costs:**

- Ranged from \$65,000/stall to over \$75,000/stall

#### **Considerations**

- Station relocation would delay the project, exposing the entire project to construction escalation costs.
- Leaving the station at Southgate and building the park and ride at Pleasantview would put all parking stalls more than 250 metres from the station.
- Would require the relocation of many area businesses and the potential loss of businesses.
- Relocating the station away from a major activity centre and further away from Harry Ainlay High School.



### ***Harry Ainlay***

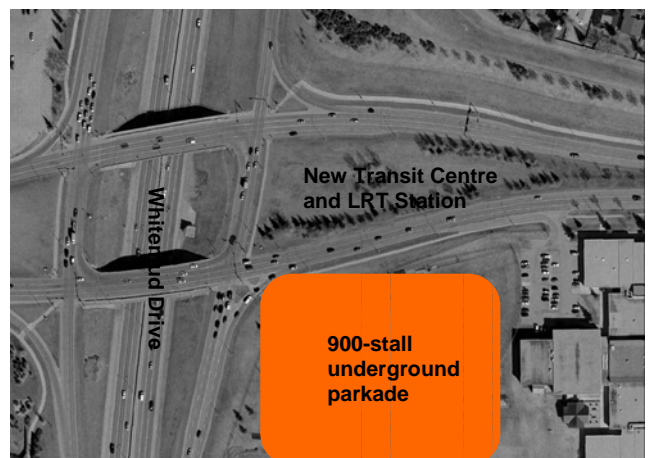
Options in the Harry Ainlay area considered moving the bus terminal and LRT station to this location, and options to leave the bus terminal and LRT station at Southgate, with the construction of a new station and one-level 900-stall underground parkade.

#### **Costs:**

- Over \$65,000/stall

#### **Considerations**

- Existing sports fields would be re-built on top of the underground parkade.
- Traffic studies indicated park and ride users would have difficulty entering and leaving the facility.
- The option to move all transit operations from Southgate to Harry Ainlay would have brought even higher costs because it would delay the LRT project and expose it to higher costs from construction inflation.





### 111 Street median

Several options to place the facility in the median of 111 Street were reviewed, including an option to build an underground parkade, a one-level above ground parkade, and an option to build a four-storey parkade and raise the LRT station to the third level.

#### Costs:

- Over \$150,000/stall

#### Considerations

- All options require more extensive construction and design, as well as the reconfiguration of 111 Street. These would add at least two years delay to the LRT project, exposing the project to significant cost escalations.
- Access in and out of these facilities would be difficult.
- A large parkade built within the median and above ground would have a very significant visual impact on area residents and motorists on 111 Street.



### Above Whitemud Drive Interchange

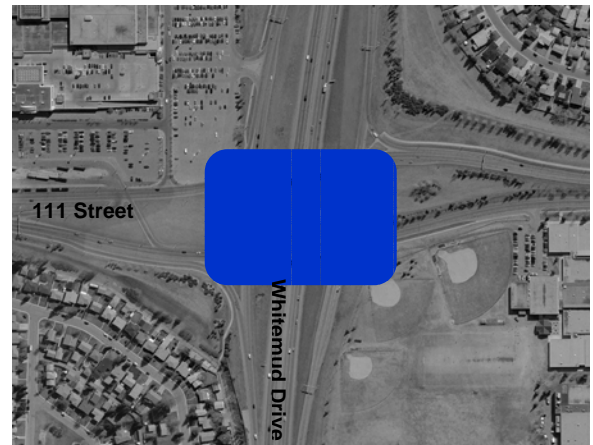
An option to build a structure with 900 stalls over the Whitemud Drive/111 Street interchange was considered. The LRT station and bus terminal could be integrated into the structure.

#### Costs:

- Over \$150,000/stall

#### Considerations:

- Significantly over budget and difficult to construct.
- It would be extremely difficult to enter and leave the facility, which would cause other traffic problems in the area.
- Significant visual impact for area residents and motorists on 111 Street and Whitemud Drive.





### ***Additional station at 57 Avenue***

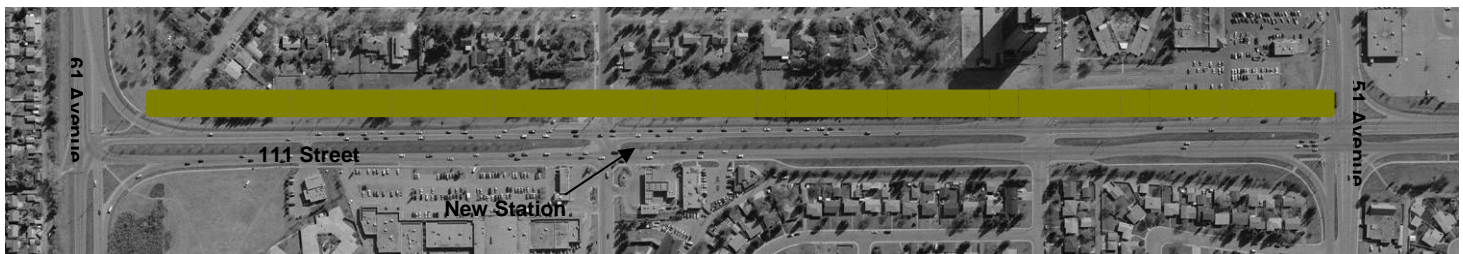
The City reviewed opportunities to build a large surface parking lot with 600 stalls on the east side of 111 Street (from 61 Avenue to 51 Avenue). A new station would be built near 57 Avenue to serve parking patrons.

#### *Costs:*

- Over \$100,000/stall

#### *Considerations:*

- This option would delay the entire LRT extension by approximately two years. The delay would add significant costs to the LRT project because time would be needed to accommodate additional consultation on the approved Concept Plan to 54 Avenue, re-engineer the LRT underpass near 61 Avenue, and complete further study on drainage issues.
- The new station would be located within 450 metres of the Southgate LRT Station. It could not be located any further north because the LRT does not fully come to surface until approximately 57 Avenue. This would impact LRT travel time and add ongoing operating and maintenance costs.
- Over 300 stalls would be further than 250 metres from an LRT station.





### Century Park Expansion

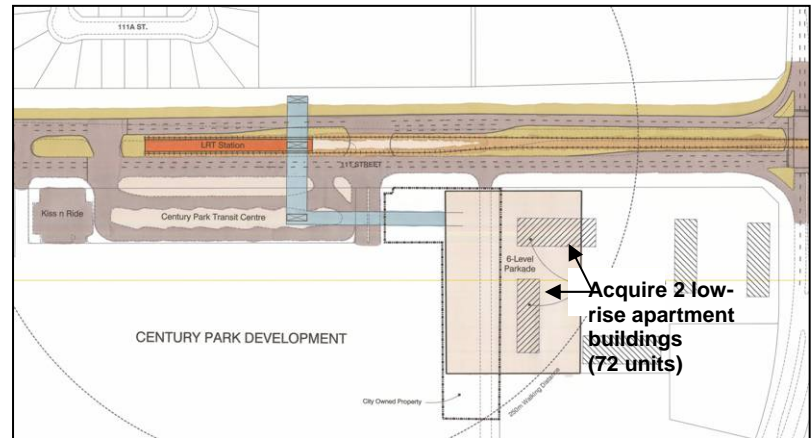
Currently, a 1,200 stall parkade is planned on city-owned land by the future Century Park Station. An option to expand this facility by adding 250 to 300 stalls was considered to replace park and ride at Southgate, and/or in combination with other options with reduced stalls in the Southgate area. This option would have required the acquisition of two low-rise rental apartment buildings (36 units in each building).

#### Costs:

- Approximately \$60,000/stall

#### Considerations:

- Studies typically show the maximum size for a park and ride facility is around 1,400 stalls. It would be difficult to address difficulties vehicles would experience entering and leaving with a facility of this size.
- Adding space at Century Park can accommodate some users that would have used park and ride at Southgate; however, it would not accommodate the majority of Southgate users because people will not generally travel south if their end destination is north.
- This option entailed the greatest amount of residential displacement.



### City-owned land

Options to build surface parking on City-owned land in the median of 111 Street were considered. A maximum of 300 stalls could fit on the two parcels of land.

#### Costs:

- Approximately \$10,000/stall to \$20,000/stall

#### Considerations:

- There is no single parcel of land that is large enough to accommodate large-scale parking on city-owned land.
- Most stalls would be built north of 51 Avenue (Pleasantview site). This area is currently leased to businesses and these stalls would be more than 250 metres from the LRT station.
- Access into and out of the median site near Whitemud Drive would be very difficult, and would cause other traffic and pedestrian safety problems in the area.
- The amount of parking available would not meet demand, and would send a confusing message to potential users who would arrive to find the lots full.





### ***Malmo (surface)***

Several options requiring residential property acquisition in Malmo were reviewed. The number of properties that would be acquired ranged from 13 houses to 38 houses, plus the acquisition of the McLaurin Memorial Baptist Church. Fewer houses were required for options that combined parking in this location with other City-owned property or expansion at Century Park, or with an option to use space currently occupied by the berm northwest of Whitemud Drive and 111 Street.

#### **Costs:**

- Ranged from \$17,000/stall to \$30,000/stall

#### **Considerations:**

- These options offered the best functional operation, with good access to both 51 Avenue and 111 Street. Also, these facilities were located close to the LRT Station and transit centre with convenient pedestrian connections.
- The community impacts for these options were the most significant. A major challenge was balancing the need to provide effective community buffer space while minimizing the number of houses that would be required. Options that offered the most potential buffer space required the greatest amount of residential property acquisition.
- While the City of Edmonton has previously acquired residential properties for road expansions and LRT, residential property has not been acquired for park and ride facilities.



### ***Malmo (parkades)***

To reduce the number of residential properties affected, options to build a parkade in the Malmo community were also reviewed (requiring 13 to 18 properties). These facilities would range in size from 700 stalls to 900 stalls, with options to combine the facility with surface parking on city-owned land in Pleasantview, and options to reduce the height of the parkade by slightly depressing the lower level.

#### **Costs:**

- Ranged from \$35,000/stall to \$40,000/stall

#### **Considerations:**

- Good functional operation, including good access and pedestrian connections.
- Significant community impacts including height, aesthetics and residential property acquisition.

