# Century Park to Ellerslie Road Preliminary Engineering

**South LRT Extension** 

**Stakeholder Information Panel Brochure** 



LRT Station (left) and Transit Centre Architectural Rendering (right).

Landscaping has not been included in this rendering so that the LRT Station and Transit Centre can be seen clearly. Landscaping is shown in the rendering on page 8.

## **Thank You for Your Contribution**

Edmonton's South Light Rail Transit (LRT) extension between Century Park and Ellerslie Road is an integral part of the City's growing public transportation system. LRT provides citizens with choice of mobility and is a safe, efficient, affordable, accessible and environmentally friendly transportation method. You've taken an important role in shaping the South LRT's future. The City of Edmonton and the project team would like to thank you for participating in the Stakeholder Information Panel. Your perspectives about many topics, including landscaping, architecture, noise and visual screening and safety, provided guidance in developing the preliminary design for the South LRT extension. You've made a real contribution to your neighbourhoods, and to all residents of Edmonton and area.



# You Have Made a Difference

You will see many of the ideas and suggestions you provided in the final preliminary design. For example, many of you expressed a desire for a nature-related suburban theme. This was part of the decision to incorporate natural and suburban landscaping and aesthetic features into the final preliminary design. This is just one example of the ways in which your ideas have had an impact on this project.

Overall, you told us that these considerations were priorities for you:

- A nature-related suburban theme
- Making any retaining walls, noise walls/visual screening, or fences aesthetically pleasing
- Considering and managing any maintenance issues related to any of the structures, station, retaining walls, noise walls/visual screening and landscaping. Ensuring that materials and designs

look attractive 5 and 10 years from now and that they can be easily maintained.

- Using energy-efficient lighting
- Developing adequate protection from the elements at LRT shelters
- Providing adequate space in LRT shelters
- Providing cost-effective and easily maintained LRT facilities

We listened, to all your ideas and suggestions, and we hope you'll be pleased with the results. Though stakeholder input has to be balanced with budgetary and technical considerations, knowing what residents would prefer makes it easier for the City and project team to develop a "best fit" for the surrounding areas.

# **Proposed Themes Along South LRT Extension**



# South LRT Extension Concept Renderings

Enclosed in this brochure are concept renderings of the South LRT Extension that include landscape and architectural elements preferred by SIP members. Please note that these renderings are conceptual and that the final designs may slightly differ than shown.



(see entire image featured on cover)





#### **LRT Station & Transit Centre Design**

The design concepts for the LRT Station and Transit Centre at Ellerslie Road have been focused around increasing the human connection to the natural environment. In this suburban context, the natural theme has allowed the station to become a unique destination within Edmonton's transit network. The LRT platform is semi-enclosed by a curved, free-formed canopy. The transit station has a continuous curved canopy covering a large portion of the bus island. Both canopies will provide a high degree of shelter while maintaining natural ventilation, clear views to and from the station, and more than adequate access to natural light. In an attempt to maximize comfort, the LRT platform and bus island will offer riders options of waiting areas from heated and fully enclosed to open sheltered areas. Although both steel and wood roof materials were considered, a steel roof is recommended for ease of maintenance. The roof will have a natural colour appropriate to the overall theme.

The interior concept for the Ellerslie LRT platform revolves around the use of natural materials and a connection to the landscape, including stone gabion planters. A smooth, curved, wood ceiling creates a strong natural statement while adding a rich colour to the station.



#### 23 Avenue/111 Street Southbound Rendering

The image above of the 23 Avenue underpass illustrates the urban transition theme and SIP member preferences. Landscape elements complement and integrate the Ellerslie Road extension of the LRT with the LRT extension north of Century Park and with the surrounding community, shifting to a more natural theme as the LRT extends southward. The rendering also portrays several natural features, such as portal wall patterning, grass, trees and other plantings, that complement the natural landscape theme of the communities south of 23 Avenue. The design elements for the urban transition theme will extend along 111 Street to 9 Avenue.



111 Street/23 Avenue Northbound Rendering

#### 111 Street/23 Avenue Northbound Rendering

The image above illustrates the multi-use trail and LRT along the west side of 111 Street, south of 23 Avenue, and elements preferred by SIP members. The rendering incorporates several natural features such as an alternating wood-styled concrete and gabion basket visual screen wall, grass, trees and other plantings along the multi-use trail and the LRT track to add visual interest and compliment the natural theme of the community. Also illustrated are security fencing and stylized lighting features. The final placement and alignment of landscaping and pedestrian level lighting may vary slightly depending on the location of other utilities within the right-of-way. The design elements for the urban transition theme will extend along 111 Street to 9 Avenue.



#### Blackmud Creek Bridge Rendering

This rendering illustrates design elements from the vegetation theme that were preferred by SIP members. Abstracted images of tall grass, leaves, rolling hills and accents of birds on the bridge structure complement the existing natural elements including the creek, trees, plantings and animals in the surrounding Blackmud Creek area. Lighting is to be incorporated along the LRT bridge to increase visibility and safety.



111 Street between 9th and 12th Avenue (Twin Brooks)

#### 111 Street between 9th and 12th Avenue (Twin Brooks)

The rendering above illustrates urban transition theme elements that have been continued south of Blackmud Creek, such as the trees and plantings along both sides of 111 Street. These complement the natural look of the community and provide visual screening between residences and the LRT. Continuation of the alternating wood-styled concrete and gabion basket visual screen fence has also been incorporated along the east and west sides of 111 Street, in locations where residences back onto 111 Street, adding visual interest and enhancing the natural setting.





111 Street between Anthony Henday Drive and 9 Avenue (Twin Brooks)



111 Street between 9 Avenue NW and Anthony Henday Drive (Twin Brooks Condos)

#### 111 Street between Anthony Henday Drive and 9 Avenue (Twin Brooks)

The renderings above illustrate the extension of the urban transition theme to the north border of Anthony Henday Drive, along 111 Street. In the top rendering, you can see in more detail the additional plantings, trees and the alternating wood-styled concrete and gabion basket visual screen fence along the east and west sides of 111 Street.

Trees and other plantings have been added to enhance the natural look of the community and to act as visual screening. Plants selected for this zone typically grow in the Blackmud Creek ravine. Curving naturalized beds of trembling aspen, white spruce and lodgepole pine are accented with flowering pin cherry and hawthorn trees to create seasonal interest for pedestrians traveling along the multi-use trail. Large groupings of low shrubs may include prickly rose, snowberry, juniper, and low bush cranberry. Columnar aspen and low shrubs along the east side of the LRT tracks evoke a sense of continuity along the 111 Street corridor, finishing the urban transition theme.



Anthony Henday Drive Bridge



Aerial of Anthony Henday Drive LRT Bridge between Twin Brooks and MacEwan

#### Anthony Henday Drive LRT Bridge between Twin Brooks and MacEwan

The renderings above illustrate one potential concept of how the LRT may cross over Anthony Henday Drive, between Twin Brooks and MacEwan. With this option, nature theme elements from the animal variation are integrated by including mounted steel bridge ornamentation, suggesting geese in flight, across the bridge girder.

The final alignment and bridge structure is currently being evaluated, based on technical considerations around the power lines, protection for other utilities within the Transportation and Utility Corridor (TUC), and future roadway expansion. Constructability of the Anthony Henday Drive LRT Bridge Crossing will be a key consideration in final design, and may result in a different type of bridge structure than shown above. However, nature theme elements will be carried forward into the design of the structure. In addition, the project team will continue to work with the Provincial government on a potential multi-use trail connection through the MacEwan neighbourhood, between 111 Street and the LRT Station"



#### **LRT Station**

The station landscape design evokes both the natural and wetland themes. SIP preferences are incorporated into the station area design through vegetated landscape swales, organicstyled lighting, walkway features, and introduction of artistic elements. In this image, a steel art piece (concept only) forms the focal point and a way-finding element, identifying LRT station entry areas to park and ride patrons. Stone and gabion wire mesh is incorporated throughout the design, providing a contemporary edge to the natural theme. Gabion walls provide protective barriers at the track edge. At the station access location, gabion walls reduce in height and are capped with secure and unobtrusive fencing, providing clear sightlines for both transit drivers and pedestrians. Transit directional signage has been placed onto the gabion baskets at station entry locations. Circular gabion baskets surround selected trees and are covered with concrete seats, providing shaded waiting areas for transit patrons. Please see the LRT Station rendering (as featured on the cover and page 3 of this brochure) for more detail on the station itself.

Note that the steel art piece shown above is only a concept. Actual art elements for the project will be part of the City's "Percent for Art" Policy, administered by the Edmonton Art Council (EAC). Typically, proposals are solicited and art elements are selected by a jury.









#### **LRT Station & Transit Centre**

The LRT Station and Transit Centre again bring in features from the natural and wetland themes and elements preferred by SIP members. In this rendering, stone and gabion materials are used as contemporary natural landscape forms throughout the transit center facility. Gabion walls provide protective barriers and direct pedestrian movements throughout the transit center and the park and ride facility. Circular gabion baskets surround specimen trees (featured at bottom of page 8), providing an architectural element that leads transit patrons through the site.



#### **Ellerslie Park & Ride**

The renderings above of the Ellerslie Park and Ride and LRT Station illustrate how aspects of the natural theme and SIP member preferences have been incorporated into the design. Regular paving patterns of alternating sawcut and sandblasted concrete are interrupted by a meandering river of paving stone, providing a sense of fluid movement and ground level way-finding through the site. The slightly darker "river" can be seen flowing though the pale squares in the rendering (featured at bottom of page 8).

Large high-headed trees provide shade for transit users during the hot summer months, while allowing sunshine to warm transit patrons during the winter months. Low level vegetation helps soften the hard surfaces of the transit center and park and ride facility, providing seasonal interest and a visual screen. The screen connects the transit center with the natural elements of the surrounding community.





#### LRT Station, Transit Centre, and Park & Ride

The renderings of the Transit Centre and LRT Station in the Ellerslie Park and Ride illustrate how the natural theme and SIP member preferences have been incorporated into the area. Vegetated swales throughout the park and ride facility provide landscape enhancement and collect, retain and improve the quality of storm water that is eventually discharged from the site. Safe, centralized walkways connect parking facilities to both the transit center and the LRT station. Organic-styled lighting reinforces the natural design theme for the facility (featured at bottom of page 8).

## **Noise Measurements**



During the Public Consultation process, noise attenuation (mitigation) was raised as a key concern of this project. As a means to address this, a noise model was developed along the length of the South LRT Extension alignment.

As illustrated to the left, existing noise levels were measured throughout September 2009 in the rear outdoor amenity areas of residences adjacent to 111 Street. Subsequently, a 3D Model was developed using noise monitoring data, survey data (existing topography), and existing and future traffic projects volumes. The resulting projected noise levels are summarized on the aerial photo.

The City of Edmonton bases noise decisions on the City Council approved Urban Traffic Noise Policy. This policy states that attenuation will be provided where projected noise levels exceed 65 dBA Leq (24). As noise projections along the 111 Street corridor did not exceed 65 dBA Leq (24), noise walls are not warranted.

You may have noted in the renderings that visual screening will be implemented along 111 Street as part of the project, similar to what was provided as part of the South LRT Extension to Century Park. Again, in keeping with the natural theme, visual screening has been designed as an alternating wood-styled concrete and gabion basket wall. In addition to the primary purpose of providing aesthetic and visual screening benefits, these walls will provide some ancillary noise mitigation. In some locations a reduction of approximately 2-3 dBA from projected noise levels will occur.

### **Toward the Future**

No further meetings are required for your contribution to the Stakeholder Information Panel. Your input will be reflected in the final preliminary design report of the South LRT. The final preliminary design will be presented to the public at the Information Session on April 7, 2010. For more information on the upcoming information session, please see the advertisement below.

Your thoughts and feedback are always welcome, and we look forward to seeing you at the Information Session.

Thanks again for your hard work and dedication throughout the past several months as a Stakeholder Information Panel member.





