

Preliminary Design for
Valley Line (SE to West) Light Rail Transit

June 5, 2013 - Areas 1 and 2: Mill Woods to Argyll Road



Welcome

The City has undertaken a naming exercise for the existing and future LRT lines. The SE to West LRT, as the project has been called to date, is now called the Valley Line.

We are here to present the final recommended preliminary design of the Valley Line to you and answer any questions you may have.



Meeting Purpose

- To provide an update on project progress
- To present the **recommended preliminary design** and other key components, built upon previous public input
- To receive feedback on the **recommended preliminary design**
- To respond to your questions

There are number of things we plan to achieve at this meeting – all of it in support of determining how best to fit the LRT into your neighbourhood. We have taken the information provided to us in 2012, have incorporated this information where possible and now present to you the recommended preliminary design. There will be a Capstone Meeting in November 2013, displaying highlights of the entire 27 km project.

Tonight's Agenda

- Valley Line Overview
- Project Schedule
- Public Involvement
- Preliminary Design—Areas 1 and 2
- Next Steps
- Question and Answer



The logo for the City of Edmonton, featuring a stylized 'E' and the word 'Edmonton'.

Our agenda will include these items – some as background information for any new attendees and some as new information to update you as to where we are and what we have undertaken since we last met in 2012.

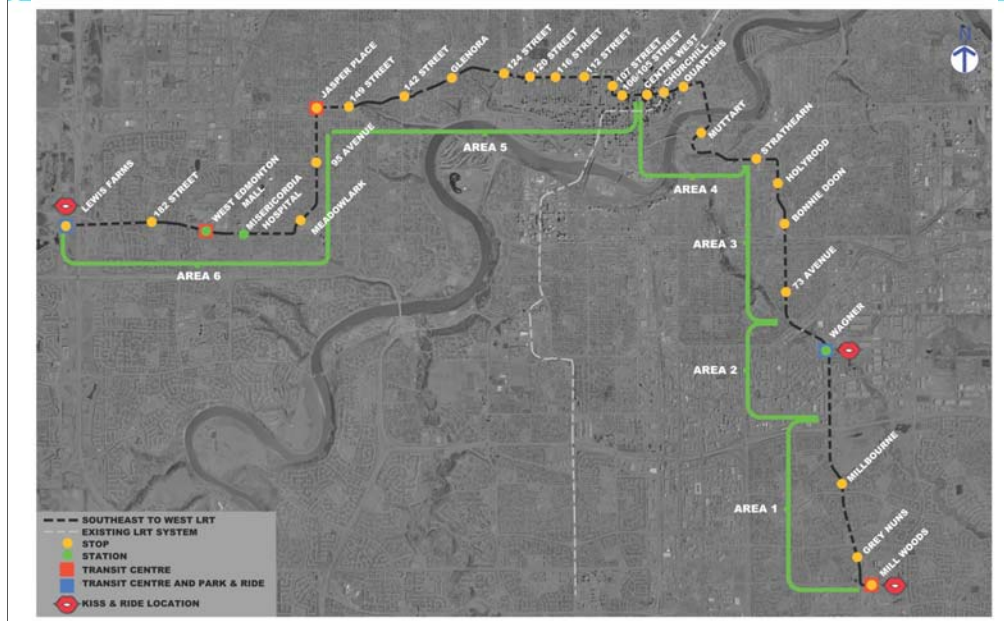
We will bring to your attention some items that we would like you to comment on and what the next steps are.

There will be an opportunity for questions and answers at the end of the presentation.



VALLEY LINE OVERVIEW

Approved Corridor



This is the Council approved Corridor.

Fixed elements include:

- Corridor and Alignment
- Low floor urban style
- Stop and Station locations

These elements are not up for discussion in our meeting. Decisions around these have already been made. What we can take away from you tonight is have we provided information to you showing how the LRT will be integrated into your neighbourhood.

Valley Line Facts

- 27 km route – Mill Woods to Lewis Farms
 - 3 stations – elevated
 - 25 stops – at street level
 - Integrated with 5 transit centres
 - 2 Park 'N' Ride sites (Wagner, Lewis Farms)
 - Kiss 'N' Ride drop-off sites



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These are some of the basic facts of the Valley Line.

Stops are at the similar level or grade as the sidewalk – the platform is not raised as it is on the existing system in Edmonton.

Stations are elevated above the road where major conflict points exist, like the CP and CN rail lines.

Transit Centres in the south east include: Mill Woods Stop and Wagner Station.

Kiss'N'Ride drop off sites, usually two or three parallel parking stalls near a stop, are used to drop off or pick up passengers. We have located these wherever possible along the line.

Valley Line Facts

- Vertical connection to existing LRT at Churchill Station
- Low floor technology – curb access, less intrusive
- “Edmonton” urban style
- Trains run on 5 minute intervals in peak hours
- Trains share traffic signals



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Here are some more facts about the Valley Line (SE to West LRT) that describe the project.

A **vertical connection** is made with stairs, elevators and/or escalators – this will occur at Churchill, West Edmonton Mall Station, Misericordia Station and Wagner Station.

Low floor technology is where the floor of the LRT vehicle is approximately 1 foot (300mm) above the road. This is made possible by choosing vehicles that the mechanical components on top of the vehicle rather than underneath as we have in our current LRT system.

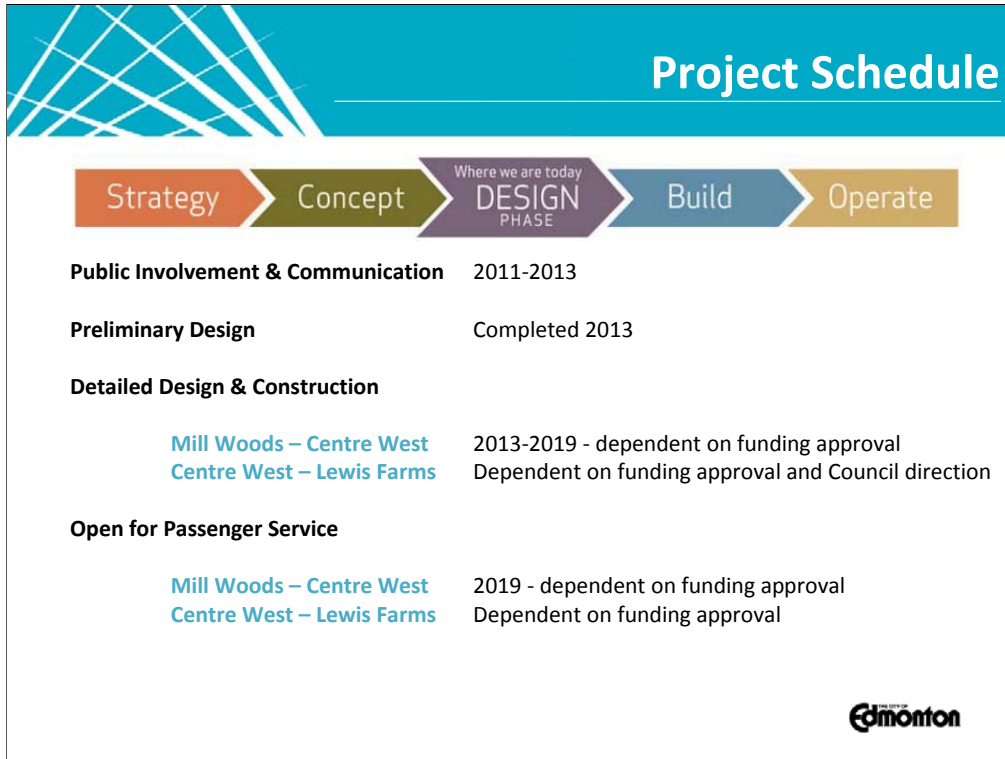
Edmonton is developing an **urban style** system that is unique to our City and considers elements like snow and ice and existing and future land use planning.

The anticipated **peak hours** timing between trains will be 5 minutes.

Trains will share the **same traffic signals** as other road vehicles, but it operates within its own right-of-way so that it does not compete for space with car traffic.



PROJECT SCHEDULE



We are at preliminary design stage of the Valley Line (SE to West) LRT project - This includes confirming and building on the approved concept plan as well as fine tuning the approved concept plan to prepare for construction.

We are also at **Stage 5** of Public Involvement – we have received lots of great input to date and thank you for that.

Public input is one of many sources of information we use to develop the design – and therefore it is important to note that not all of what we heard has been incorporated – your input is considered along with other elements.

Tonight you will see the **recommended** preliminary engineering design. This design will provide the direction required to move forward with this project.

These other dates are estimates and are dependent on funding approval and Council direction.



PUBLIC INVOLVEMENT

Public Involvement Process

Preliminary Design:

Stage 1 – Pre-Consultation – February 2012

Stage 2 – Initiation – March – May 2012

Stage 3 – Consultation – May – November 2012

Stage 4 – Refinement – September 2012 – June 2013

Stage 5 – Conclusion – January – December 2013

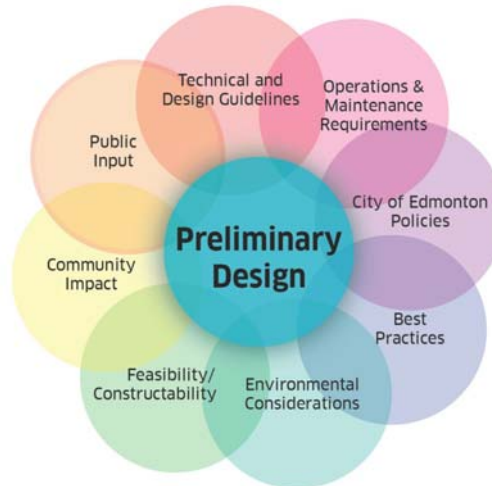


WE ARE HERE



Just a reminder that five stages of public involvement have been designed into the process. We are now at **Stage 5** for the west leg of the Valley Line. This is where we show you the refinements in the design incorporated from your Stage 4 comments and from further technical investigations.

How Your Input is Used



Your public input is valuable to us and, as we mentioned earlier, is considered in the preliminary design development along with other areas of influence or consideration. As an example, in some parts of the design, your input will have priority, and in others the environment, or constructability will have a stronger influence in how an element is designed. Your information, where feasible, has been incorporated into the materials presented tonight.

What We Heard – Stage 4

What We Heard

- Confirmation of stop themes
- Value for pedestrian realm and LRT access
- Bicycle parking at stops and stations, and connections to the existing and planned bike network are priorities
- Concerns about vehicular movements and accesses
- Concerns about loss of parking
- Concerns about noise from LRT during operation

Actions Taken

- Stop themes presented tonight
- Pedestrian access is priority—new and retained crossings on corridor plans
- Bicycle parking located at all stops/stations; bicycle lanes included as per Concept Plan
- New, retained and relocated vehicle accesses on corridor plans
- New and retained vehicle parking on corridor plans
- Noise studies completed. Proposed noise barriers noted on plans.

We have identified from your Stage 4 comments several major themes from your Stage 4 comments and other input you have provided to date. These ideas or themes were given to the design team and we can report tonight that many of your ideas have been incorporated into the design. Some of these are part of a continuing discussion from Stages 1 through 4 – providing a refinement of the preliminary design and assisting the team in developing the recommended preliminary design.

What We Heard – Stage 3

(continued)

What We Heard

- Concerns about vibration during construction and operation
- Alternative road design for Connors Road/95 Avenue preferred
- Concerns about LRT users parking and shortcutting in residential neighbourhoods
- Desire for larger or additional Park 'N' Rides

Actions Taken

- Vibration studies completed and pre-construction assessments will be conducted of structures along route
- Alternate design now recommended
- City will review and determine strategy once LRT is operational
- Park 'N' Ride options under review

Here is a second slide to cover off on what we heard from Stage 4 public meetings. A more detailed board is presented in the room for your review.

Stage 5 - What We Need From You

- Your feedback on **recommended** preliminary design presented tonight
- Your feedback on the public engage process throughout the preliminary design stage



At the past meetings, we called the design the **preferred** design – however we now refer to what you will see tonight as the **recommended** preliminary design, to be used to move forward through detailed design and construction.



**PRELIMINARY DESIGN
AREAS 1 AND 2**

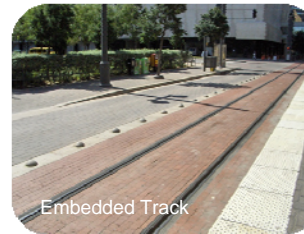
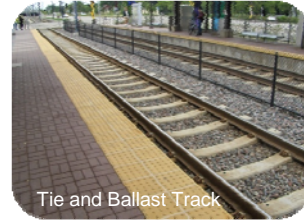
Basic Principles

- Stops/stations
 - Good connections with bus network
 - Kiss 'N' Ride where possible
 - Bicycle parking at, or near, each stop/station
 - Scale of infrastructure based on ridership projections
- Community and business accesses are priority
- Vehicle
- Pedestrian
- Bicycle
- Limit property impacts
- Keep it green



At a high level, these are the principles that we have gathered from the public involvement meetings. These have been provided by the stakeholders, i.e the residents of Edmonton.

- Locations of Traction Power Sub Stations (TPSS)
- Vehicle selection
- Track types
- Land requirements
- Noise/vibration studies
- Gates on 75 Street
- 28 Avenue



TPSS – Preliminary requirements have been determined and locations have been added to Corridor and Access plans.

Vehicles Selection – This process is still ongoing with the final selection to happen in Detailed Design. They will be low floor vehicles.

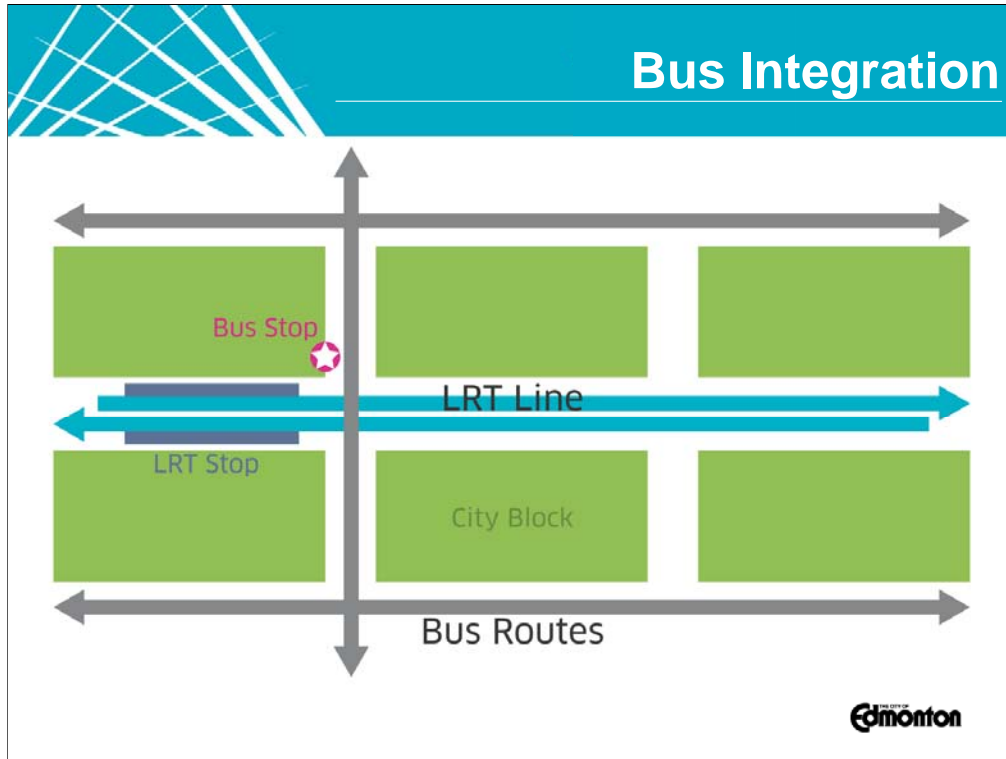
Track types – Two types will be used: embedded in most urban situations and tie and ballast in industrial and some suburban locations.

Land requirements – The preliminary land requirements are shown as purple on the Corridor and Access Plans. This information shows the requirements to provide the preliminary design.

Noise and Vibration – Preliminary studies are now completed. The Urban Traffic Noise Policy was recently updated and has been considered in the noise modeling for this project. Mitigation of noise will meet the new policy, and property owners who are eligible for noise attenuation will be consulted regarding aesthetic elements. Noise walls have been indicated on the plans.

Gates on 75 Street – there has been some discussion about increasing the speed of the LRT in the industrial area along 75 Street. This may result in the use of gates, similar to the existing LRT system.

28 Avenue – this roadway layout for this area, adjacent to the Mill Woods stop is still ongoing.



– A number of comments and questions have come up about the integration of the LRT and bus services. Here is a conceptual drawing that we hope will clarify how these will work together. The green represents city blocks. The space in between the blocks are the roads. The turquoise lines represent the LRT. The grey lines represent the bus routes. The bus routes, in most cases, will intersect the LRT line near stops and stations. This is how transfer will occur between the two types of transit. The bus routes will not run along the same corridor as the LRT for any great distance. The design of the routes is now ongoing to ensure the best integration between the two types of transit. Remember, the same ticket system is used for both and transfers can occur.

Preferred Stop Canopy – Organic

- Steel Structure
- Metal and wood canopy
- Glass shelters
- Unique concrete finishing



The large image is the preferred canopy for most stops - the organic canopy. However, in the downtown, the flat roof was preferred (shown in the inset).

North Saskatchewan River Bridge



City of Edmonton

This bridge was approved by Council on February 20, 2013.

Environmental Impact Assessment

- Required to meet the City of Edmonton's North Saskatchewan River Valley Area Redevelopment Plan (Bylaw 7188)
- This document will
 - Describe existing environmental conditions
 - Assess potential impacts
 - Describe mitigation measures intended to eliminate or reduce impacts to each Valued Environmental Component (VEC)

WE NEED YOUR INPUT!



A part of this project is planned for the river valley, where the new bridge will be located and the development of the Muttart stop. With construction planned to occur in the river valley, there is a requirement for an environmental impact assessment. We have some maps and boards available that outline the proposed construction area and activities and how these may be mitigated after construction. We would really appreciate your comments in your preferred method: stickies on the maps, the comment form at the meeting, or the web survey.

Millbourne Stop

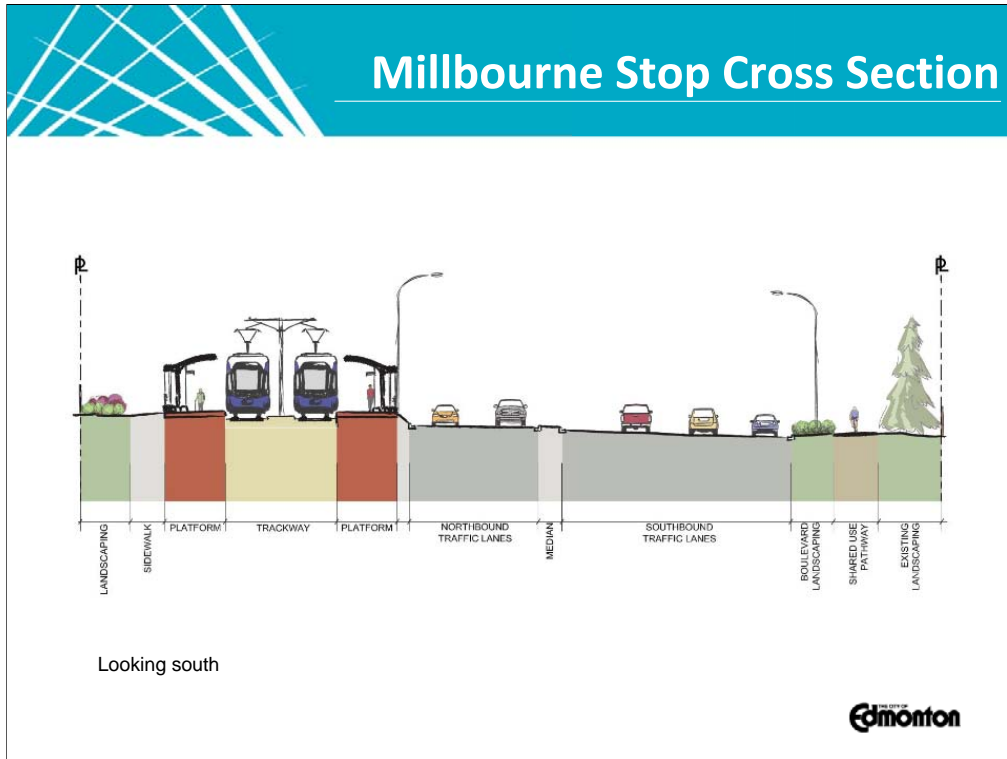


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The Corridor and Access Plan show a number of pieces of information about each stop or station on the plan, plus other elements such as bridges.

This is a snapshot of Millbourne stop – showing a number of things for you to look for on the roll plans: Tractions power sub stations (Star), land acquisition – from concept plan (purple colour), traffic movements (yellow arrows), traffic lights, stop location (red long rectangular blocks), bike parking (B in blue circle) and landscape (green).

Here the letter 'A' shows where the cross section is taken and **View 3** indicates the view direction for a photo of the existing site and sketch of proposed stop.



This is the cross section identified as 'A' on the last slide. This shows the relationship of the LRT with the stop, adjacent traffic and pedestrian areas.

Millbourne Stop Theme



Existing Conditions



Concept Rendering



Bench



Recycling Bin



Paving



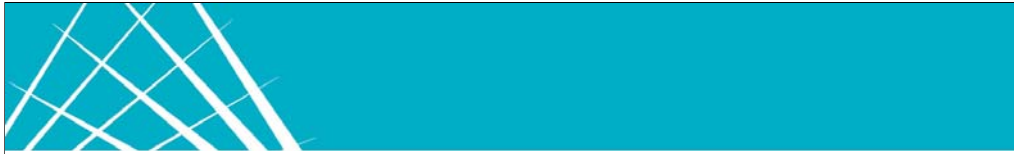
Column Wrap



Railing

Stop Design Elements (Based on your feedback, elements selected for project will be similar to images above.)

This slide shows **View 3** identified on the stop plan as well as our understanding of the type of elements you are looking for at this stop. Note: these are not the exact elements but provide direction to the designers for final selection.



NEXT STEPS

Next Steps

- Present final preliminary design for the entire Valley Line to you – November 2013
- Utility relocations starting in summer of 2013 through to end of 2014
- Construction beginning as early as 2015, dependent upon funding



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We are at the end of the preliminary design and have provided the recommended preliminary design to you tonight. This plan will provide the direction for the detailed design and construction of the Valley Line.

P3 Approach

- P3 = Public-Private-Partnership
- P3 delivery method is being used for Stage 1 (Mill Woods to Centre West)
- Design, construction, operation, maintenance and partial financing
- Offers best value-for-money to City & tax payers
- Risks shared between City and private partners
- City will own the infrastructure and control service levels and fares
 - Fares standardized (bus and LRT)
 - Same transit pass (bus and LRT)



P3 (Private/Public Partnership) is the approved delivery method for Stage 1 of the Valley Line. It includes the design, construction, operation, maintenance and financing for the project and offers the best value for the money for this project. Risks are shared between the City and the private partners but the onus will be placed upon the private partners in a detailed description of the services and operations required for the LRT. The Valley Line LRT will be fully integrated into Edmonton's transit system and will have the same fare structure and use the same transit pass, with seamless passenger movement from one type of transit to the other.

The City will ensure that the feedback you have given to shape the design of the stops and stations and how the LRT will integrate into your community, will be used by the P3 team during detailed design and construction.



www.edmonton.ca/setowestlrt
780.496.4874

For more information, please contact the City.



QUESTIONS