

# METRO LINE UPDATE

SPRING 2014

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CONSTRUCTION ON KINGSWAY/ROYAL ALEX LRT STATION WAS COMPLETED ON TIME, ALONG WITH THE REST OF THE METRO LINE, BUT THE LINE CAN'T OPEN UNTIL THE SIGNALLING SYSTEM IS READY.

## METRO LINE TO OPEN BY END OF 2014

### SIGNALLING SYSTEM TAKING LONGER THAN ANTICIPATED

Edmontonians will have to wait a few months longer to ride the Metro Line. Although construction was completed on time, the opening of the LRT extension to NAIT is now expected by the end of 2014, according to the latest schedule from the City's signalling contractor.

"It's taking longer than anticipated for our contractor to complete the new signalling system, but it's complex and it has to be done right so the LRT can operate safely," said Wayne Mandryk, manager for the City's LRT Design and Construction Branch.

The signalling system is critical to the safe operation of the LRT because it will allow Metro Line trains to share the same tracks with Capital Line trains between the University of Alberta and NAIT. The City's signalling contractor is installing a cutting-edge Communication-Based Train Control (CBTC) signalling system. It uses computers on trains that report in to a central controller to pinpoint the exact location of each train and constantly adjust the speed, spacing and routing of trains.

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# FREQUENTLY ASKED QUESTIONS

## SIGNALLING SYSTEM

### What does a signalling system do?

It controls train traffic. Signalling systems track train movements to keep trains safe and on schedule.

These systems also manage intersections by triggering traffic signals and crossing warning systems (warning bells, flashing lights and gates) at exactly the right time so that trains, motorists and pedestrians can move through each intersection as quickly and safely as possible.

### Why is the City installing a new signalling system?

As Edmonton grows, so does the need for mass transit like LRT. Signalling systems need to evolve and adapt to safely meet this increase in demand.

The City's current system controls trains using sections of track called blocks. Each block is protected by signals that prevent a train from entering an occupied block.

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When it's fully operational, the CBTC will allow Edmonton Transit to safely run peak-time trains every 2 1/2 minutes through downtown.

"The City of Edmonton regrets any inconvenience this delay might cause Edmontonians; we are working diligently with our contractor to complete it as soon as possible," said Mandryk. "Thank you for your patience and understanding during the five years it has taken to build the Metro Line, and for continuing to bear with us during this delay. It's going to take longer than initially planned, but the Metro Line will soon be up and running, and supporting Edmonton's growing transit needs for decades to come."

The City is replacing this traditional system with a modern Communication-Based Train Control (CBTC) system. This system safely tightens up the spacing between trains so that Metro Line and Capital Line trains can share the same tracks between Health Sciences/Jubilee Station and Churchill Station. Edmonton Transit currently runs peak-time trains every 5 minutes through downtown, but this will have to be tightened up to every 2 1/2 minutes when the Metro Line is fully operational.

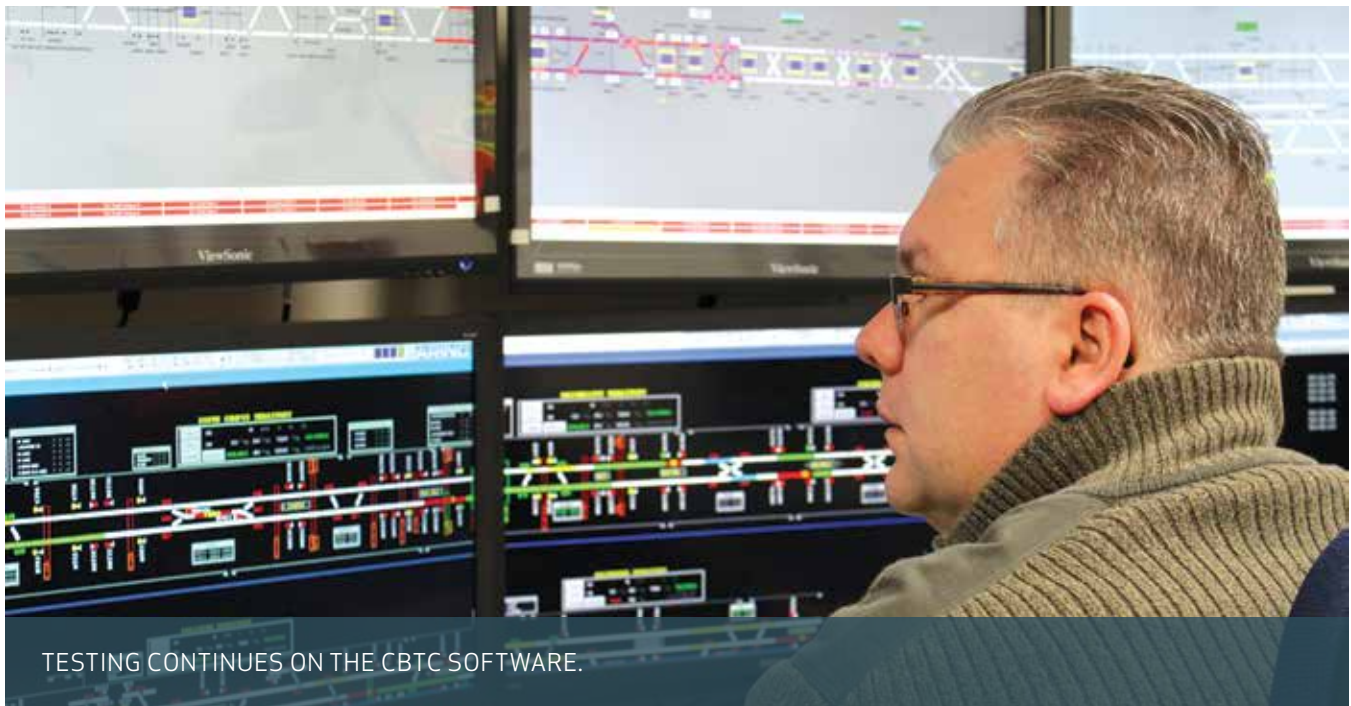
### Why has the opening date changed?

In September 2013, the latest schedule from the contractor had the Metro Line on track for an April 2014 opening date with reduced service. By December 2013, the contractor had updated their schedule for a June 2014 opening. Since then, it has become clear that this timeline isn't workable.

The City is now aiming to open the Metro Line by the end of 2014 with reduced service. City staff are doing everything they can to help the contractor complete the signalling system on time. However, the City's priority is to make sure the CBTC can safely manage the flow of trains and traffic. The City won't open the Metro Line until it's safe.



AN ETS INSPECTOR PRACTICES USING THE NEW CBTC ON A SIMULATOR.



TESTING CONTINUES ON THE CBTC SOFTWARE.

**Why is it taking the contractor longer than expected to complete the CBTC?**

The CBTC has proven to be particularly complex. It's computer-based, so the contractor has to upgrade hardware (the 'muscle' of the CBTC) in the tracks and the trains. There have been logistical challenges because any upgrades or testing on the tracks have to happen late at night after LRT service has stopped. Upgrading the trains has also taken longer than expected because Edmonton has a mixed fleet that was not designed for a CBTC. Some of the trains are more than 30 years old and have been upgraded many times already, while other trains are new, so the contractor has to treat each train as an individual case. In spite of these complexities, the hardware upgrades are on track for a spring 2014 opening.

The critical piece that has pushed the Metro Line opening to year's end is the software (the 'brains' of the CBTC). The software hasn't been performing as expected in simulation tests. The City won't test the software on the actual system until it passes the simulation tests.

**Will the delay affect the project's budget?**

No. The Metro Line is actually \$90 million under its \$755-million budget.



CONTRACTORS INSTALL NEW CBTC HARDWARE ON AN ETS TRAIN.

**What happens to ETS service in the meantime?**

ETS will continue to serve northwest Edmonton with buses until it can enhance service to the area with LRT at the end of 2014. In the summer, the City will close the transit centre located next to Kingsway Mall and open the Kingsway/Royal Alex Transit Centre across the street. There will be some changes to bus schedules, which will be available at [www.takeets.com](http://www.takeets.com) closer to the transit centre opening.

For a more detailed FAQ, visit [www.edmonton.ca/metroline](http://www.edmonton.ca/metroline).



# NEXT STEPS

## TESTING AND COMMISSIONING CONTINUES



ONE OF THE FIRST TRAINS IS TOWED ALONG THE METRO LINE TO TEST WHETHER IT WILL CLEAR ALL STRUCTURES ALONG THE 3.3 KILOMETRES OF NEW TRACKS.

Construction on the Metro Line is complete, except for some minor close-out work. This work includes landscaping and some minor roadwork, both of which will resume when warmer weather allows this spring. Edmontonians can expect some minor lane closures while contractors complete the work.

Now that construction is over, the City is focused on testing and commissioning. This process involves checking, inspecting and testing each component and system on the Metro Line. This is the final step before the contractor that built the Metro Line hands the new infrastructure over to the City to operate. The signalling system is being installed by a separate

contractor, which will have to test and commission the system with the City towards the end of 2014.

Night owls may have spotted City staff and contractors running test trains along the Metro Line as part of the testing and commissioning process. Although the majority of testing will happen overnight to minimize impacts on the public, pedestrians and motorists should be on the alert for trains at any time. Please stay safe and remember:

- obey all signs and signals
- use designated crossings only
- never stop on the tracks

## FIND OUT MORE ABOUT LRT PROJECTS

This newsletter is available online. In addition to quarterly newsletters about the Metro Line, LRT Projects posts monthly updates and construction bulletins online, and sends digital copies to an email distribution list. If you wish to be added to the distribution list please send an email to [lrtprojects@edmonton.ca](mailto:lrtprojects@edmonton.ca) with "Subscribe to Metro Line" in the subject line.

We welcome your comments and questions about Edmonton's LRT Projects. Please check the LRT Projects web pages for updates.

For further information or to comment, please contact:

LRT Projects Information Line:  
**780.496.4874**

LRT Projects Email:  
**[lrtprojects@edmonton.ca](mailto:lrtprojects@edmonton.ca)**

LRT Projects Website:  
**[www.edmonton.ca/lrtprojects](http://www.edmonton.ca/lrtprojects)**