Alberta POWERLINE
An ATCO company

Important Project Information
Optical Repeater Sites

July 2015

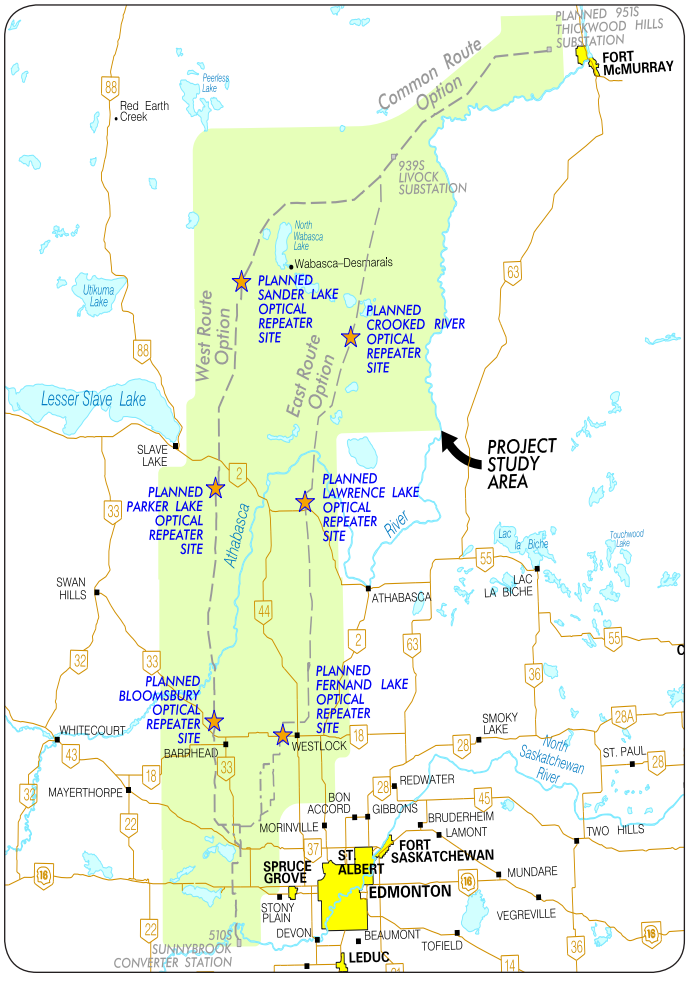
FORT MCMURRAY WEST 500-KV TRANSMISSION PROJECT

Alberta PowerLine is planning to build a 500 kilovolt (kV) transmission line that will connect the existing Sunnybrook converter station to the existing Livock substation site, and then extend northeast to the planned new Thickwood Hills substation.

A fibre optic cable is required to run along the top of the transmission line to allow the transmission facilities to communicate back to the control centre. Repeater sites are required in four locations along the approximately 500 kilometre line to boost the fibre optic cable communication signals.

The repeater sites are comprised of a small metal building located within a fenced enclosure. These buildings house telecommunications equipment that support the operation of Alberta PowerLine's internal communications and telecontrol system.

The map to the right shows six possible optical repeater site locations. Depending on which route is selected by the Alberta Utilities Commission, only three optical repeater sites will be built. In either case, the Livock substation site will serve as the fourth location.



Locations

The planned locations for these sites are:

West Route Option:

Bloomsbury - SE 26-60-4-W5

Parker Lake - SE 1-71-4-W5

Sander Lake - NE 4-80-2-W5

East Route Option:

Fernand Lake - S1/2 3-60-27-W4

Lawrence Lake - SW 16-70-25-W4

Crooked River - N1/2 20-77-22-W4

What will it look like?

The optical repeater site buildings, like the one shown below, are required to house the telecommunications equipment to support the operation of Alberta PowerLine's internal communications and telecontrol system.

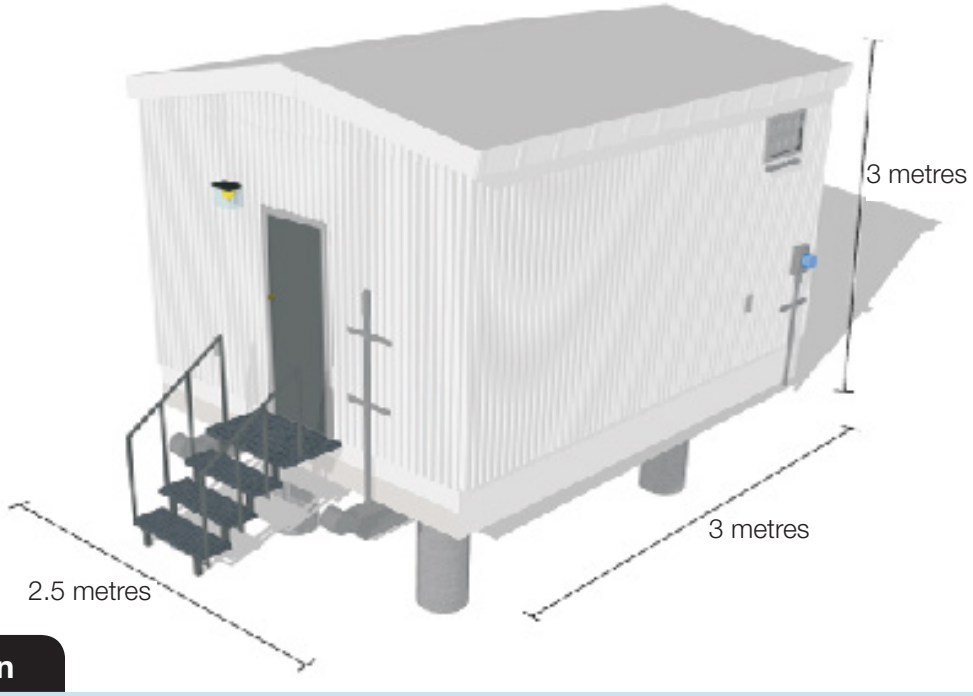
Each building will be built within the planned transmission line right-of-way, within close proximity to a transmission line structure. This allows the repeater equipment to easily connect to the fibre optic cable.

Each site will be located near a developed road for all weather access and, where possible, near a distribution line to provide power to the building.

The buildings are metal-clad, approximately 3 metres long by 2.5 metres wide and 3 metres high. Each site area will be about 11 by 13 metres and the buildings will be situated on a gravel pad surrounded by a fence.

**Details may change as the project develops and designs are finalized.*

Typical Optical Repeater Site Building



Consultation

We are committed to responsible development, and to conducting an open and transparent consultation process. We invite your feedback regarding this project information.

In addition, if an optical repeater site is planned on or immediately adjacent to your land interest, one of our representatives will contact you to discuss the project.

Following a review of the feedback received, designs will be finalized and the location of the optical repeater sites will be included in Alberta PowerLine's Facility Application to the Alberta Utilities Commission to obtain approval for the construction and operation of these facilities.

contactus@albertapowerline.com
1-844-420-7779 (toll free)

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