



Providing Microduct
Distributed Split Fibre
Solution in Shelter
Valley Area

Project Problem Statement

A technology solution required to provide a high-resilience and high-performance solution to rural Ontario communities located in a valley making access to residential broadband or high-speed internet access difficult.

Selected Service Provider



Algonquin Fiber is committed to providing fast, reliable and affordable internet to rural communities using FTTH technology.



Headquartered in
Dwight, Ontario



Consortium of strong
technology partners



Extensive experience in
residential and
commercial broadband
deployment in Ontario



Innovative approach to
fibre installation and
material cost reduction



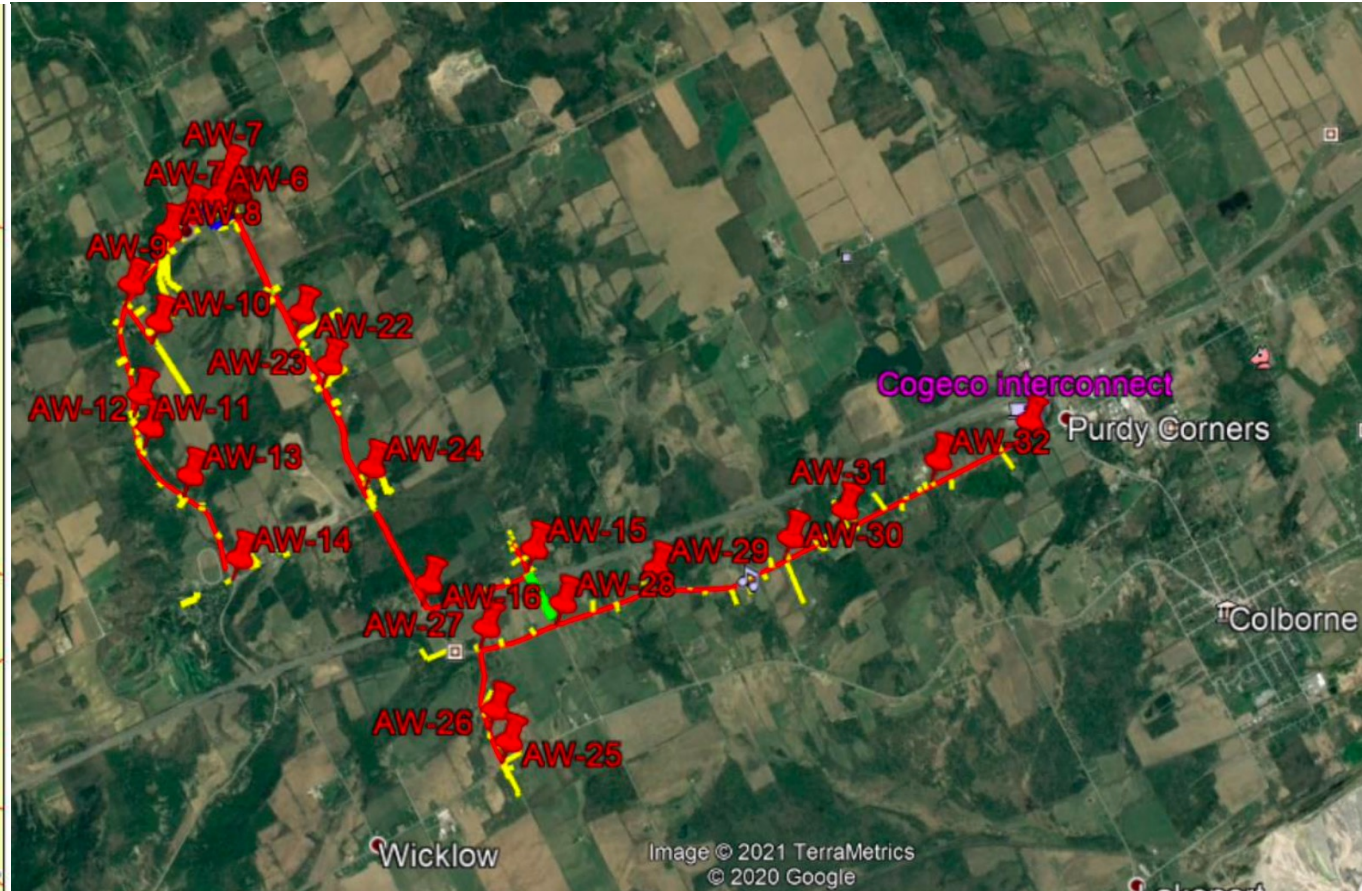
Great customer
support and service

Township of Alnwick/Haldimand (Shelter Valley Road)



- ✓ Traverses HWY 401
- ✓ Steep & narrow valley
- ✓ Winding road in valley bottom with rolling hills
- ✓ Sparse houses
- ✓ Heavily treed
- ✓ Radio Shadow Challenges

Micro-Duct Optical Design



Micro-duct Distributed Split Fibre Solution

Technology Innovation

- ✓ **Buried fibre eliminates need for pole access engineering and leasing costs**
- ✓ **Buried fibre eliminates radio shadow issues in deep narrow valley**
- ✓ **Higher reliability since fibre is not subject to freezing rain, falling trees, snow, or wind loads**
- ✓ **Innovative approach to fibre installation and material cost reduction**
 - Smaller in size (lower cost)
 - Enables future proofing (unlimited future data capacity)
 - Blowing solution is cost effective (lower cost than pulling fibre through conduit)
 - Distributed split allows smaller fibre count per mini-ducts

Community Benefits of Project



High-speed reliable and futureproof broadband internet services to underserved residents in a difficult terrain



Multiple options for access to residents (50/50Mbps and 100/100 Mbps)

- Choice of technology depending on speed of access desired



This technology solution could be extended to the other nearby communities easily

- Significantly reduced incremental cost per community



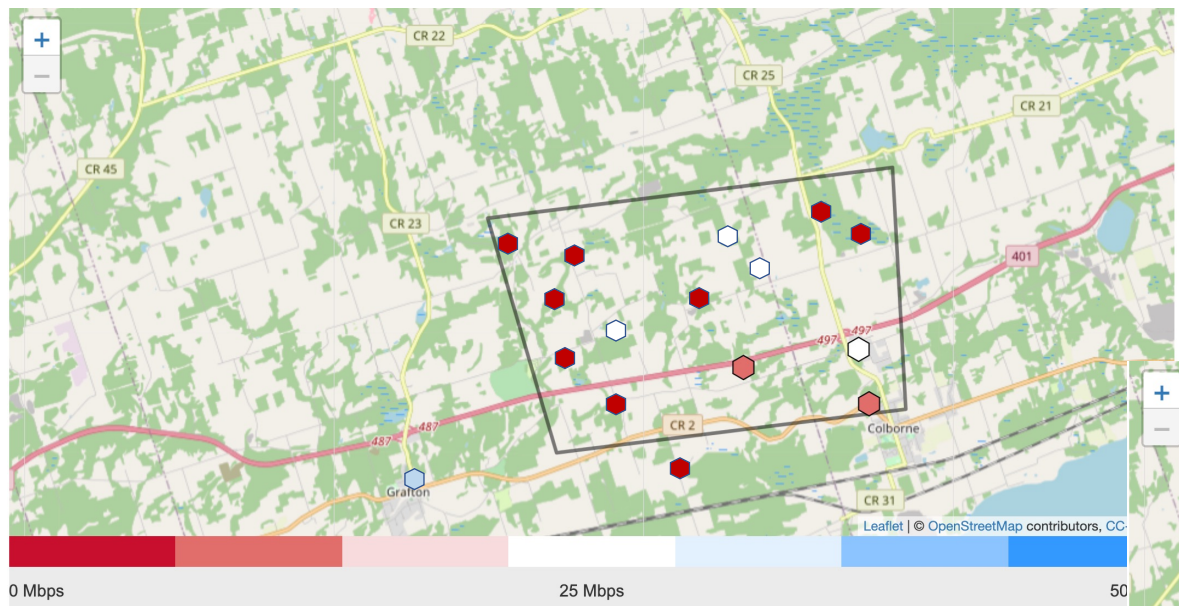
Affordably priced to encourage service take up



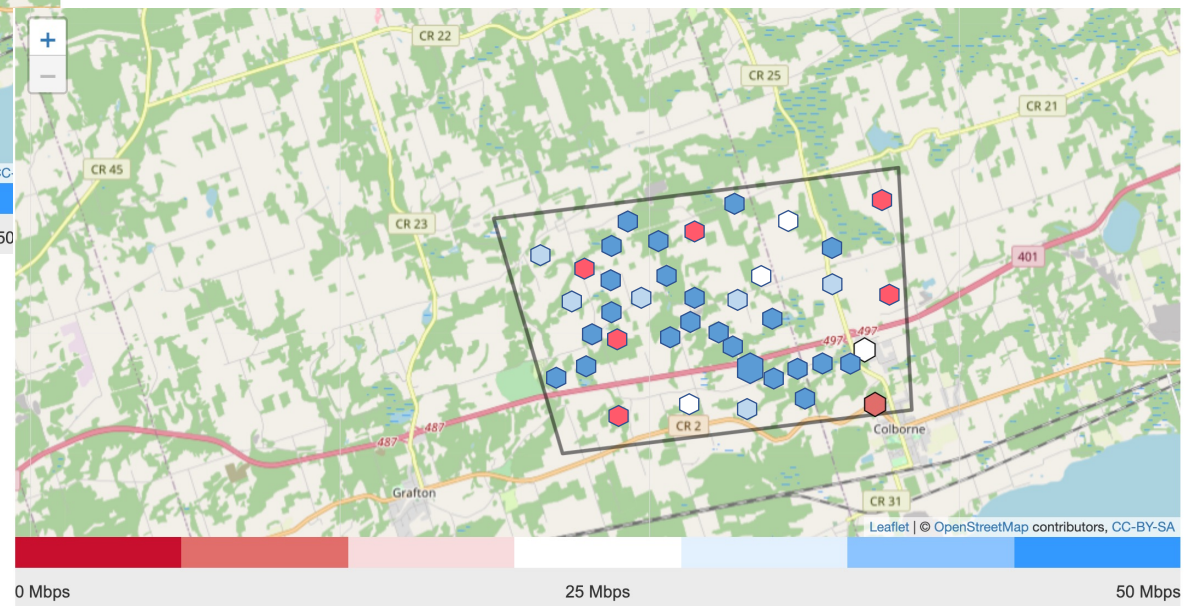
No data cap, no overages

Visualizing Proposed Internet Access Performance Improvements

Before



After





THANK YOU!