

2025 to 2034 Growth Plan Additions to 10 Year Plan

[illegible]

Year: 2025

Charter Number: If a new capital project Finance will assign the charter number.

Charter Name: Municipal Area Fiber Network Expansion - Northeast

Lead Department: Information Technology

Scope Statement: Extend the City's municipal area fibre network (MAN) to create secondary redundant fiber network connections for Fire Hall 4 and to provide primary and secondary fiber network connections to City Utilities facilities in the northeast servicing area.

Although the alignment needs to be confirmed in design, the fiber network path from Kingswood Park to future Fire Hall 4 could be similar to the one shown in figure 1 using mostly road right-of-way and aligning with the northeast servicing construction. The alignment shown considers the least impact to established neighbourhoods and area to avoid underground conflicts.



Figure 1

Project Charter Justification

The City's Municipal Area Network has enabled improved connectivity and reliability for the City's IT systems. Specifically, this extension provides a secondary fiber connection to ensure a reliable network connection for Fire Services operations in the new Fire Hall 4 in the event that the direct line fiber connection is damaged or severed and both primary and secondary fiber connections for the management and security of Utilities facilities and operations in the northeast.

The costs included in this charter are class D estimates for the fiber network installation along the entire path from Kingswood Park to the future site of Fire Hall 4.

The southern portion of the proposed path from Kingswood Park to the corner of Coal Mine Rd and RR 253 follows the alignment for the Northeast Servicing project. Should the Northeast Servicing project proceed, the capital funding requirement for this charter would decrease. Depending on direction from Executive Leadership, the cost for fiber installation along this portion could be borne by Utilities or it could be included in cost recovery fees from Utilities to Municipal operations.

Similarly, depending on Executive direction, the cost of the redundant fiber installation to Fire Hall 4 could be included in the capital project for construction of this facility.

Current State – The City has been investing in the Municipal Area Network incrementally since 2015. In the past 2 years, fiber installation has proceeded to construct redundant fiber rings to provide secondary connections for City facilities. Although the extent of 2024 construction will depend on the results of the tendering process, the plan for 2024 includes providing a secondary fiber connection for Fire Hall 3, fiber connection to Lacombe Reservoir and, pending costs, a secondary connection for Fountain Park Recreation Centre.

Issue – The MAN provides secure and unlimited communications between City facilities and for every line of business. To build resiliency, redundant paths are required so that if one side of the ring is broken, network traffic can continue uninterrupted on the other side. Although construction projects for new facilities include a primary MAN connection to the nearest point within the network, this project charter provides secondary redundant fiber connections for Fire Hall 4 and both primary and secondary fiber network connections to City Utilities facilities in the northeast servicing area.

Opportunities - The MAN saves operating funds that would otherwise be expended for leased telecommunication services, ensures consistent network security, bandwidth and performance and enables cost avoidance as the volume of data increases across the network.

Impacts - This project provides the essential network connectivity required for all City initiatives and operations involving information technology. The fibre optic cable and conduit is expected to last at least 25 years and routine maintenance costs are low involving primarily inspection activities.

Risks - This capital charter will reduce business continuity risks in many areas, including the monitoring and control of public safety systems such as Fire and Utilities. This project creates redundant fiber connections to municipal and utilities facilities in the east and north of St. Albert in order to provide uninterrupted network connection and to reduce the risk to city operations and business continuity in the event one of the fiber connections is severed or damaged.

Strategic Plan & Corporate Business Plan Alignment

Council Strategic Priority: N/A

Initiatives: N / A

Operational Excellence Priority Area: 3. Digital Transformation

Initiatives: N / A

Timeline: The timeline for this project must be synchronized with the Northeast Service Project and the Firehall 4 Construction Project and includes the following milestones.

- Q1: Invitation to Tender, contract award, design
- Q2, Q3: Installation of conduit during frost free months
- Q4: Installation of fiber optic cable, splicing, documentation

Depending upon the time required for design, installation may extend to Q2 and Q3 of the following year.

Financial estimates are class D, +/- 50%.

FINANCIAL INFORMATION:	Investment Year	2025	\$	1,400,000
		2026		-
		2027		-
		2028		-
		2029		-
		2030		-
		2031		-
		2032		-
		2033		-
		2034		-
	Total		\$	1,400,000

Revenue Impacts: Yes Potential revenue or grants excluding MSI, Federal Gas Tax or Green Trip.

Operational Impacts: Moderate

Associated Operating Business Case: n/a.