SSRIA
SMART SUSTAINABLE RESILIENT INFRASTRUCTURE ASSOCIATION

GREEN BUILDING TECHNOLOGY NETWORK

T5M Connect North Glenora Infill

Project Lead: T5M Connect Ltd.

Project Partners: Alterna Energy, Flechas Architecture, ReNu Engineering

Building Owner: T5M Connect Ltd.

This project aims to be the first multi-family Passive House in Alberta and intentionally aligns with environmental goals of the Edmonton Declaration, Green Building Technology Network (GBTN), and the City of Edmonton by developing a replicable model for multi-family infill housing. To ensure that our model is replicable in other areas, we aim to undertake a pilot project in one of Edmonton's mature communities as these neighborhoods are plentiful and are in need of densification. We will replace two existing 1950's style residential homes with a multi-family rental complex consisting of 8 units plus 8 secondary suites structured in a courtyard style design.

We are actively reaching out to environmental leaders in this project to ensure that it is a truly integrated and collaborative initiative. From the architect to the building's foundation, we have assembled a team of high-quality leaders who will help push the construction field to new environmental standards.

Location
Edmonton

Project Dates
11.20 – 04.22

Sector
Residential

New
Construction

GHG Emission Reduction
TBA

Energy Use Reduction
Up to 90%

ABOUT SSRIA

The Smart Sustainable Resilient Infrastructure Association (SSRIA) is fostering collaborative partnerships across the Architecture, Engineering, Construction (AEC) industry that apply innovation to reduce energy consumption and greenhouse gas (GHG) emissions in the built environment while positioning Canada as a global leader in innovative design and construction.

The Green Building Technology Network is jointly funded by the Alberta Innovates Clean Resources - Clean Technology Program and Western Economic Diversification Canada.

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PROJECT SUMMARY

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To achieve Passive House standards, our project is utilizing a number of new innovations not commonly used in the local construction industry. First, the design is multi-family to maximize the use of shared walls. The design further promotes social interaction by an innovative courtyard structure. With respect to the construction, we are working together with a leading mechanical engineer and mechanical contractor who are working in the Passive House sector to use energy modeling to ensure that we achieve an extremely insulated building with minimal need for an active HVAC system. We are also collaborating with companies to demonstrate that new technologies not only work in our climate but will also have a demonstrable impact on energy savings. These include air source heat pumps, upgraded ventilation duct systems, window design and features, and a home automation system. Additionally, we expect to use the latest technologies in building envelopes (fully adhered water and air barrier plus a self-sealing envelope product).

PROJECT TEAM

ALTERNA

FLECHAS | architecture

ReNü ENGINEERING

T5M Connect