

## BE PROJECT SUMMARY

# George Cromley Emergency Services Building

New wood framed and structural steel framed superstructure

George Cromley Emergency Services Building



PHOTO TAKEN OF THE TRUCK BAY BUILDING ELEVATION.

Hiawatha emergency services building is a 2 story building with 4 truck bays, offices, and an upper floor meeting room. This building is a designed in accordance with the Ontario Building Code as a Post-Disaster structure. Bradley Engineering contacted structural engineering services to Ronald Awde Architect, Bethany, Ontario.

**6,300 SF. \$1.2M**

### Foundations:

The interior and perimeter foundation walls and footings are typical reinforced concrete foundations set below the depth of frost. The truck bay was designed with a heavy duty interior slab on grade and each bay has a centered trench drain.

### Superstructure:

The superstructure was designed with wood framed exterior bearing walls which incorporated wood panel shear walls with discrete hold-down anchors, and structural steel moment frames and interior beam lines.

### Highlights:

High stud wall framing (16 ft) created conditions where combined compression and bending stresses required close analysis to provide an economical structure; partial second floor area created floor diaphragm discontinuities and special load transfer detailing requirements; ceiling profile varied requiring multiple end-wall framing solutions; significant openings in the truck door endwall required special detailing to transfer lateral loads between wood shearwalls and steel moment frame; Ontario Building Code post disaster designation.

**BRADLEY  
ENGINEERING**  
[STRUCTURAL DESIGN SERVICES]



2361E CR 45 Box 446  
KOL 2V0, (705) 639-8928  
[www.bradleystructuraleng.com](http://www.bradleystructuraleng.com)