



Project Title: Street Reconstruction

Client: City of Fredericton

Project Description:

GEMTEC Limited has designed and supervised the reconstruction of 12 different streets for the City of Fredericton over the past 10 years.

These street reconstructions are unique in that the underlying native soils are very frost susceptible clayey silts. Conventional reconstruction (i.e. rebuilding with base, subbase and asphalt) proved to be unsuccessful and frost heaving continued to occur. To excavate the silty soils and replace with non-frost susceptible granulars would have been very costly (up to 2 metres of sub-excavation) and would have involved

replacing all service lines. The design arrived at by GEMTEC involved placing high strength insulation below the 0.45 metres of granular material. The insulation served to prevent frost penetration into the underlying silts.

This unique design has proven to be very successful with the oldest reconstructed street (13 years old) still providing an excellent riding comfort index and showing no signs of frost damage.

