

**ADVISORY
FROST CHECK REPORTS**

BUILDING CODE SERVICES

**FROST CHECK REPORTS**

This Advisory relates to frost check reports confirming adequate provision to provide and maintain measures to prevent frost penetration of foundation excavations during periods of cold weather.

During cold weather construction measures must be undertaken by the builder to provide and maintain protection from frost penetration of soils during construction.

Ottawa Soils Conditions

The City of Ottawa has diverse soil conditions influenced by variations in geology and topography. A detailed assessment of soils within Ottawa was jointly conducted by the provincial and federal governments in 1987. Assessment of subsurface soils is necessary during construction to confirm local soil conditions are adequate to support building and foundation design values. Sustained air temperatures below freezing can significantly influence soil performance directly impacting building construction and structural integrity.

Cold Weather Protection

During periods of sustained temperatures below freezing, measures are required to be taken to provide and maintain protection of the foundation bearing medium and subsurface soils from frost until such time as the structure is heated and adequate soil coverage (backfill) is complete. Historic temperature data produced by Environment Canada indicates daytime temperature in the City of Ottawa and surrounding area remains below freezing commencing the first week of December. The specific implementation dates may vary marginally from year to year subject to prevailing weather conditions.

Frost Check Reports

In addition to confirmation of suitable soil bearing capacity through a geotechnical review, where a building inspector determines adequate measures to protect the excavation from frost have not been provided, a frost check report is required within 48 hours of the foundation inspection. The frost check assessment report is required to be prepared by a geotechnical consultant. Where there is evidence of foundation damage following construction of foundation components, a structural engineer is required to prepare a report citing remedial measures to remedy the site condition.