

Glass in Guardrail Requirements

The following information is to provide direction to ensure that glass in guards and guards that contain glass but do not incorporate structural top rails are designed to the requirements of the 2024 BCBC.

Glass in Guards Structural Standards

9.6.1.3. Structural Sufficiency of Glass

- 1) Glass used in buildings shall be designed in conformance with
 - a) CAN/CGSB-12.20-M, "Structural Design of Glass for Buildings," or
 - b) ASTM E1300, "Standard Practice for Determining Load Resistance of Glass in Buildings."

Glass in Guards Standards

9.8.8.7. Glass in Guards

- 1) Glass in guards shall be
 - a) safety glazing of the laminated or tempered type conforming to CAN/CGSB-12.1, "Safety Glazing," or
 - b) wired glass conforming to CAN/CGSB-12.11-M, "Wired Safety Glass."

Loads on Glass in Guards

Guard design that incorporate glass are required to be designed to resist the specified loads prescribed in BCBC 4.1.5.14. or 9.8.8.2. Glass guards that incorporate a top rail and have historically demonstrated effective performance are not required to provide confirmation of meeting the specified loads.

Glass in Guards without Top Rail

Glass in guards that do not incorporate structural top rails are required to be designed and approved by a professional engineer and should follow the recommendations of the Engineers and Geoscientists BC (EGBC) publication "Professional Practice Guidelines Designing Guards for Buildings, CAN/CGSB-12-20M and CSA A500-16.

The following documents are required:

- Sealed drawings submitted to the building department for review prior to installation. Drawing must be site specific, dimensioned with all components detailed, including posts, connectors, fasteners, rails, glass panels and connection to the structure.
- BCBC Letters of Assurance and supporting documents:
 - Schedule B - Must include items: # 1.5, 1.6, 1.15
 - Professional engineers field review
 - Schedule C-B at time of completion

Please refer to the Engineers & Geoscientists of British Columbia (www.egbc.ca) professional practice guidelines; Designing Guards for Buildings CAN/CGSB-12.20-M Structural Design of Glass for Buildings/ CSA A500-16 Building Guards