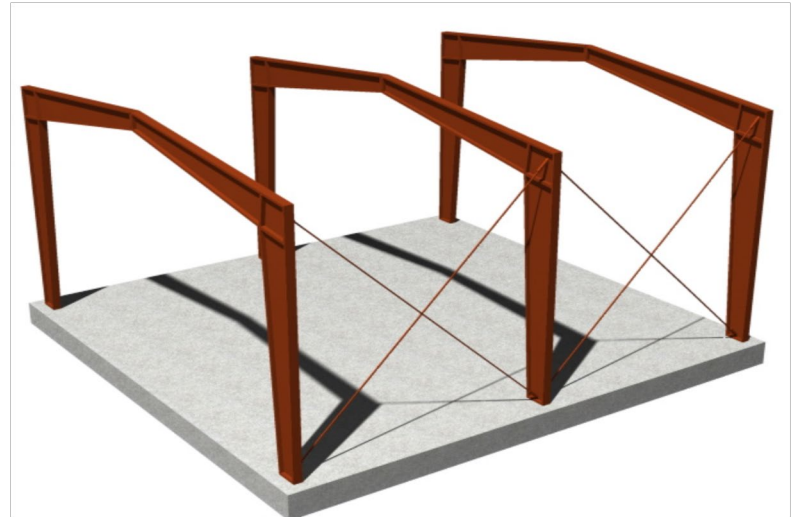


Torsional Bracing

When designing a building, the applied wind loads perpendicular to the end walls must be resisted by a structural bracing system. In situations where diagonal X-Bracing, Portal frames or Fixed-Base columns cannot be used on a sidewall, torsional bracing is an alternative longitudinal bracing solution.

For buildings with torsional bracing, the total longitudinal loads are resisted by the bracing system in one sidewall only. The greatest benefit of using this system is to allow for additional framed openings or horizontal clearances that cannot be achieved with other bracing systems.



Due to forces added to the remaining sidewall braces and introduced into the adjacent rigid frames, torsional bracing is a more expensive and flexible bracing option when compared to having bracing systems in both sidewalls. Due to the flexibility of a torsional bracing system, care should be taken for buildings having a brittle finish and/or large seismic loads. Additionally, torsional bracing systems utilizing portal frames or fixed-base columns are extremely flexible and are not recommended for use with buildings having hard wall systems.

The following guidelines are intended to be used at the division's engineering team discretion and buildings are not to be priced without estimating guidance, unless the parameters are within these guidelines below.

- Maximum roof slope of 1:12
- Maximum Eave height of 24'-0"
- Maximum Building Width of 70'-0"
- Site class E and F not permitted
- Mezzanines not permitted
- No special drift conditions permitted
- No brittle material allowed on the unbraced sidewall (Glass, EIFS, Brick Veneer, etc.)
- Occupancy Category I and II only
- No Buildings containing top running or underhung cranes

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