Installation: Freestanding

Depending on the construction schedule, wall panels can be erected prior to the structural steel system in a method called freestanding. Since the structural steel and deck are not in place to take the diaphragm load from the building, a temporary wall brace is installed diagonally from the wall panel (to either the exterior or interior of the building) to a “deadman” anchor to take the construction loads until the steel structure and deck are completed. Bearing steel is installed to act as a ledge angle for the bar joist and to transfer the loads into the wall panels. Where the wall is parallel to the bar joist, a starter joist adjacent to the wall acts as a deck-bearing angle.

Temporary braces and helical anchors hold the panels in place until structural steel arrives.

Installation: Temporary Shore

Temporary shores are steel columns of various lengths furnished by the panel manufacturer to the job site prior to the arrival of the structural steel. The temporary shores support a ledger beam by the use of a friction connection along the bearing walls on which the bar joists are set. Use of the temporary shores allows for the installation of the structural steel system prior to setting the wall panels. The wall panels are installed by making the welded connections to the ledger beam and/or starter joist. The temporary columns are then removed and returned to the yard to be reused on the next project.

Installation: Perm Steel

In a permanent steel structure, Fabcon’s panels are erected up against the steel frame and attached using connections allowing for vertical deflection of the steel members. Fabcon’s non-load bearing panels can still be used to resist in-plane shear from wind or seismic forces. The steel structure must be sufficiently braced to avoid shifting during precast erection.