

A composite metal panel can be a “rain screen pressure equalized dry-joint system” meaning it serves to keep water out from penetrating into the building. It allows minimal water penetration where water that enters into the wall system is drained through weep holes. This wall system begins with typical wall of CMU or concrete with sheathing like cement board, a weather resistant barrier and insulation with a water barrier in front of it. The metal panel system is attached to the CMU or concrete wall by a attachment grit like an EC-203 with a fastener attached through the CMU or concrete. This piece spans along the CMU or concrete wall to attach the panels on it. The EC-203 is locked in with a EC-202, held together with a smaller fastener on both sides. The EC-202 wraps around the metal panels where two panels ends meet, each with a weep hole and weep baffle to drain out any water penetrated through the wall system. Another wall to keep water out is the use of backing rod and sealant in the wall system of about ½”. The metal panel is around 1-15/16” thick from water barrier to the exterior of the metal panel.

From interior to exterior a precast concrete wall begins with a group of layers consisting of a ½” of gypsum wall board, a 2x4 stud wall and 2” of rigid insulation for thermal protection. This connects to a precast concrete panel through an anchor plate, bolted into the precast panel. At this point of connection two precast panels meet with backer rod and inner sealant and outer sealant for waterproofing. A concrete slab connects to precast panel by a two layers of shear connection cast into the precast panel filled with spray insulation fill. This anchored into the slab and shelf angle on the corner of the slab. Between the shelf angle and precast panel is a space for the fire safing and smoke seal to protect against fires.