



1. Building Structural Movement

- a. 95% of contract documents reviewed require accommodation of vertical structural movement.
- b. Show where and how much building structural movement to be accommodated.
- c. L/360 does not work vs. glazed system manufacturer limitations.
- d. Manufacturer's standard details allow for less than ¼" structural movement.
- e. Sealant joint formula = double (movement + thermal) minimum.
- f. Who is responsible for the design of sealant joint for movement?

2. Storefront

- a. Storefront vertical span range 9'-12'. More horizontals = better span length.
- b. Architectural details are typically deficient showing shimmed head joints allowing for zero "0" structural movement.
- c. Make sure details show a receptor head. (95% require building structural movement).
- d. Receptors only accommodate about ½" maximum vertical structural movement – actual structural movement may be more, requiring a curtain wall system.
- e. Anchors are typically through glazing pocket and usually require straps back to structure.

3. Curtain Wall

- a. Spans 10' to 25' with deep systems.
- b. Taller spans at stairs require deeper systems or wind girts to support.
- c. Two-part open shapes require more steel reinforcement vs. tube shape mullions.
- d. manufacturer stock lengths (~ 22-24 feet) requiring ugly/expensive structural splice joints if not planned well. Longer stock lengths may require longer lead times.
- e. Watch for thermal bridging at floor connections. Utilize anchor systems with thermal breaks.
- f. Sealant joints at head details typically must be designed for building structural movement.
- g. Long-span jamb mullions may require movement joints > ½".

4. Glass Railing and Wind Screens:

- a. Windscreen applications are typically too much load for standard railing shoes.
- b. Glass guard under 2018 IBC requires a cap. ½" monolithic glass is usually not acceptable.
- c. Laminated glass is required except over non-walk areas.
- d. ICC AC439 testing is acceptable.
- e. Windscreens and glass guards for roofs cannot be installed over roofing membrane.
- f. Too many shims = much wobble in the railing.
- g. Ensure sufficient concrete curbs for anchoring (6" does not work for winds).

5. Corner Modeling – 3d structural modeling should be performed:

- a. Short return curtain wall and storefront sections may get pulled out by wind loads and require additional steel reinforcing to help with the joint between glazing systems and structure.
- b. Minimum bite requirements at corner mullions do require checking by specifications for in-plane movement created by wind load at corners. Maximum bite loss in plane is 1/4"

6. Vertical Sunshades:

- a. Deep cap extensions (12" or more) will add in-plane wind loads to glazing systems.
- b. Specs typically limit in-plane movement to 1/8" – Deep caps may require structural girt.
- c. Manufacturers have not designed systems to handle these in plane loads.
- d. Storefront systems with fill plates not usually capable of sunshade support.