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OVERVIEW

CONSTRUCTION / STRUCTURE

- CONSTRUCTION ASSEMBLIES
- STRUCTURE LOAD PATHS
CITY-COUNTY BLDG.  SALT LAKE CITY
Wood Braced Frame (Mortise & Tenon Joints)

Wood Balloon Frame (Eastern Style)
* Also check gas water heater, furnace, and service entry for ruptured gas lines.

* Inspection points for older wood frame dwellings.
Corner cracking at windows

Roof truss separation from vertical support

Roof Deck

Floor Deck

Floor framing separation from wall

Floor Joists

Parapet damage

Partial collapse of wall

Shear cracking in piers

Falling hazards associated with badly cracked masonry

Bearing Wall

Cracked walls

*Inspection points for low unreinforced masonry bearing wall buildings.*
Inspection points for tall unreinforced masonry bearing wall buildings.
* Also check for in-plane warping of diaphragm

Roof Truss

Separation of framing in diaphragm

Roof framing separation from vertical support

Spreading of plywood sheets

Diaphragm chord failure in tension

Beams

Failure at tie between panels

Columns

Non Bearing

Tilt-up Walls

Damage to concrete closure strips

Outward leaning panel

Corner cracking at openings

Wall panel separation from diaphragm

Inspection points for tilt-up buildings.

Inspection of Tilt-up Structures
Inspect the diaphragm to wall tie for signs of separation. The type of wall panel anchorage shown above is prone to failure through cross grain bending in ledger or nail pull.
Inspection points for reinforced concrete shear wall buildings.
Inspection points for concrete frame buildings.

Inspection of Concrete Structures
Flat-slab floor system without drop panels or column capitals.

Shear Head
(Internal vs Column Capital)

Punching shear failure mode of flat-slab system. This can lead to pancaking of an entire building.
Inspection points for precast concrete buildings.
Inspection points for lift slab construction. This figure can also be used for flat slab structures.
Inspection points for light braced steel frame buildings.
Inspection points for older steel frame buildings. Newer steel frame buildings generally have cladding instead of solid masonry or concrete walls as shown above.