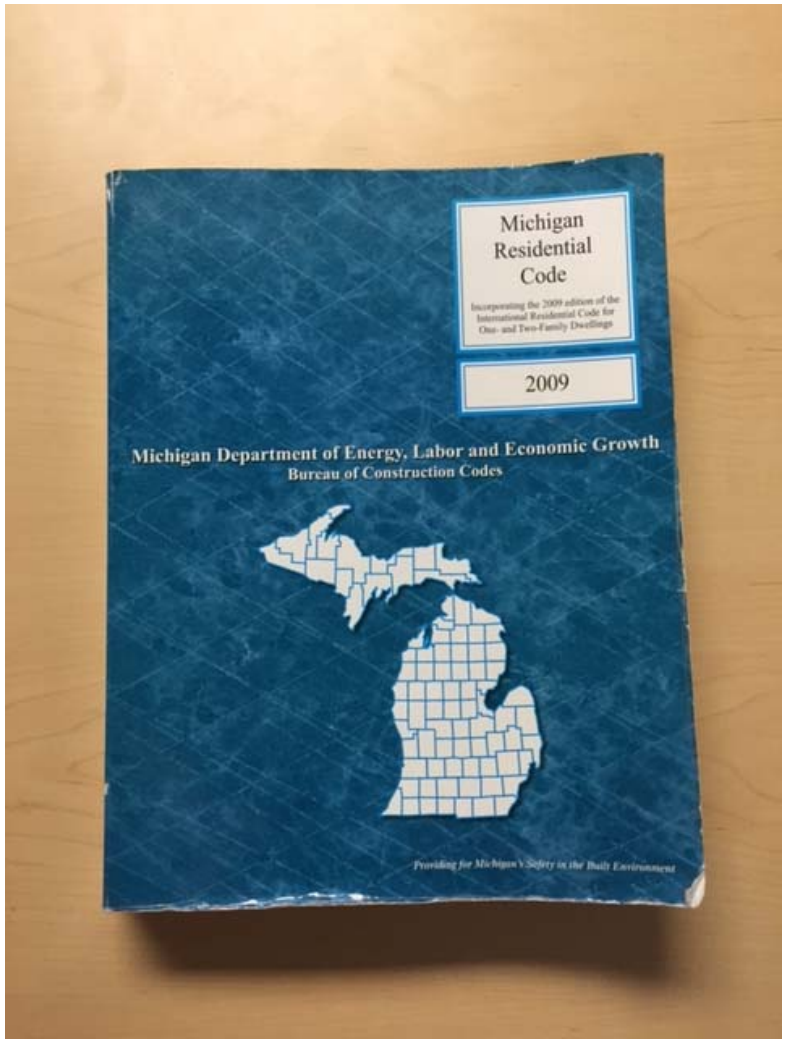
Common Residential Code Violations

2009 Michigan Residential Code

General

- Building code designed as a minimum standard of safety
- Statewide adoption per PA 230 "Construction Code Act"
- Codes modeled after International Residential Code from ICC
- 830 pages plus referenced standards
- Inspectors must be registered and complete continuing education per Act 54
- Our job is to protect the health and safety of building occupants through the enforcement of building codes

Code book


Michigan
Residential
Code
Incorporating the 2009 edition of the International Residential Code for One- and Two-Family Dwellings
2009
Michigan Department of Energy, Labor and Economic Growth
Bureau of Construction Codes
Providing for Michigan's Safety in the Built Environment

Work exempt from permit

- One story detached accessory structures 200 sqft or less
- Fences 6’ or less
- Sidewalks or driveways
- Painting, carpeting, tile
- Cabinets, countertop, trim and other finish work
- Swings and playground equipment
- Small normal repairs

R302.6 dwelling/ garage separation

- ½" gypsum on the garage side
- 5/8" gypsum (ceiling)when habitable room above

R302.7 under-stair protection

- Enclosed, accessible spaces require ½" gypsum

302.11 Fireblocking

- Concealed spaces
- Soffits and drop ceilings
- Openings around pipes and wires at floor and ceiling level

fireblocking

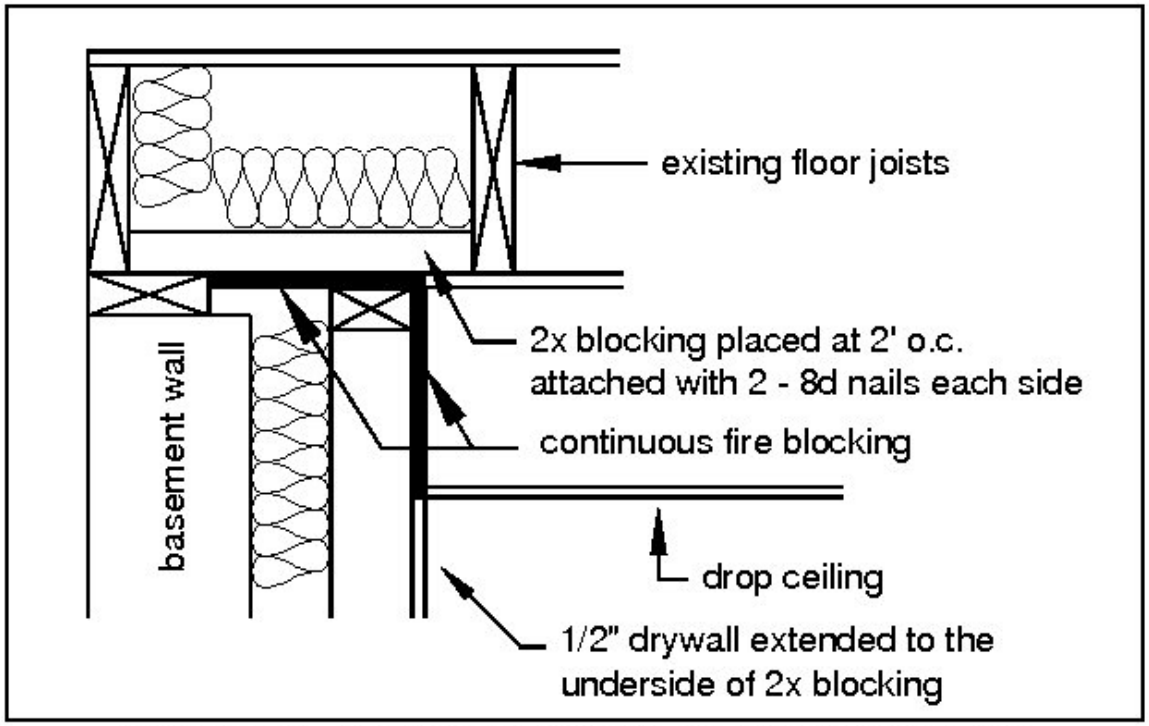


FIGURE 5: FIRE BLOCKING AT DROP CEILING

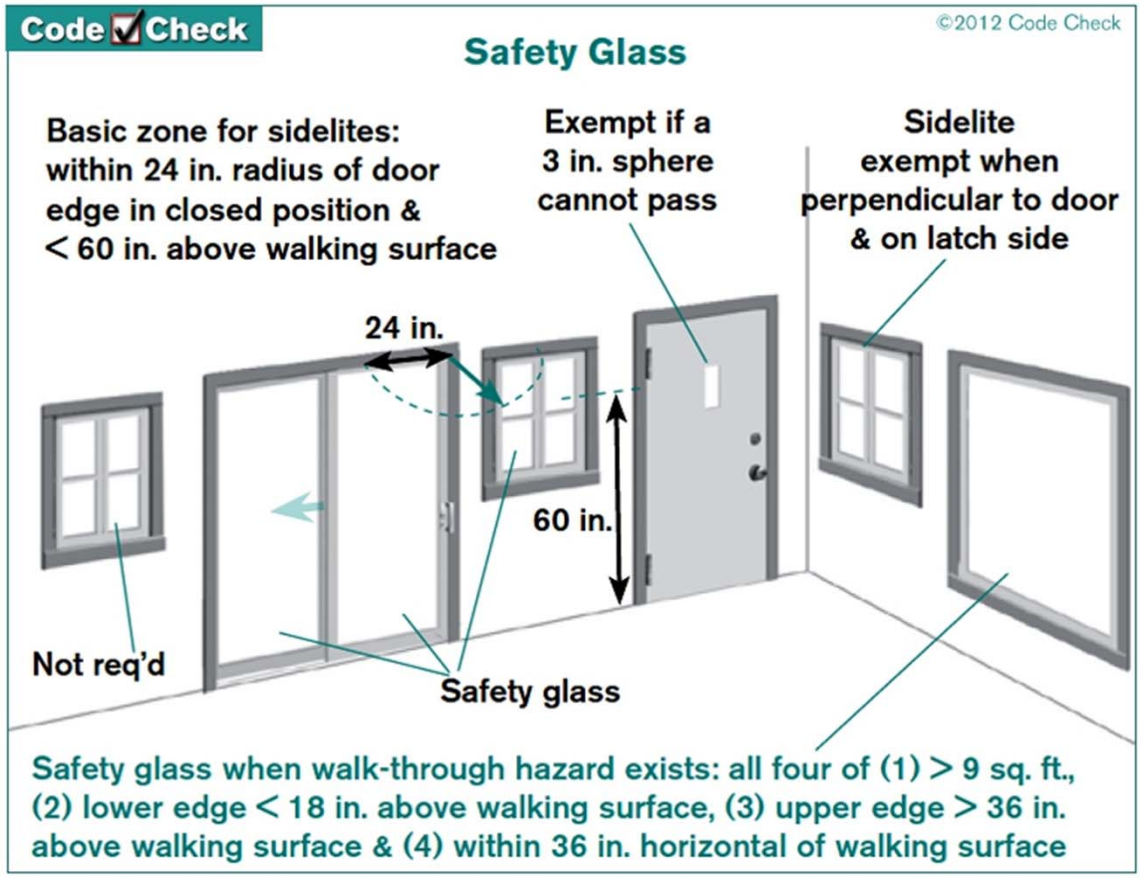
R305.1 ceiling height

- Habitable space min 7’
- Bathrooms min 6’8” at fixture clearance

R308 glazing

- Tempered glass
- Windows within 24" arc of door in closed position
- Windows less than 18" to floor and over 9 sqft
- Glazing in railings
- Windows in tub enclosures
- Windows adjacent or in stairways or within 60" of bottom tread

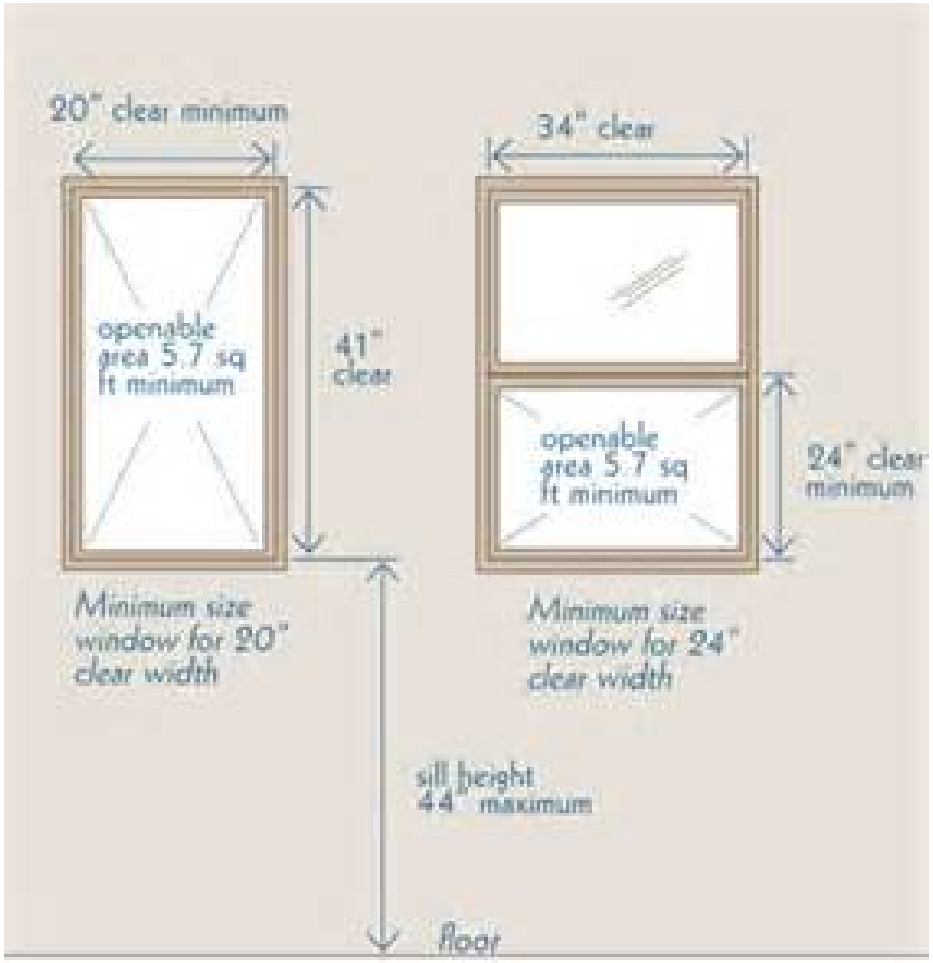
Safety glazing



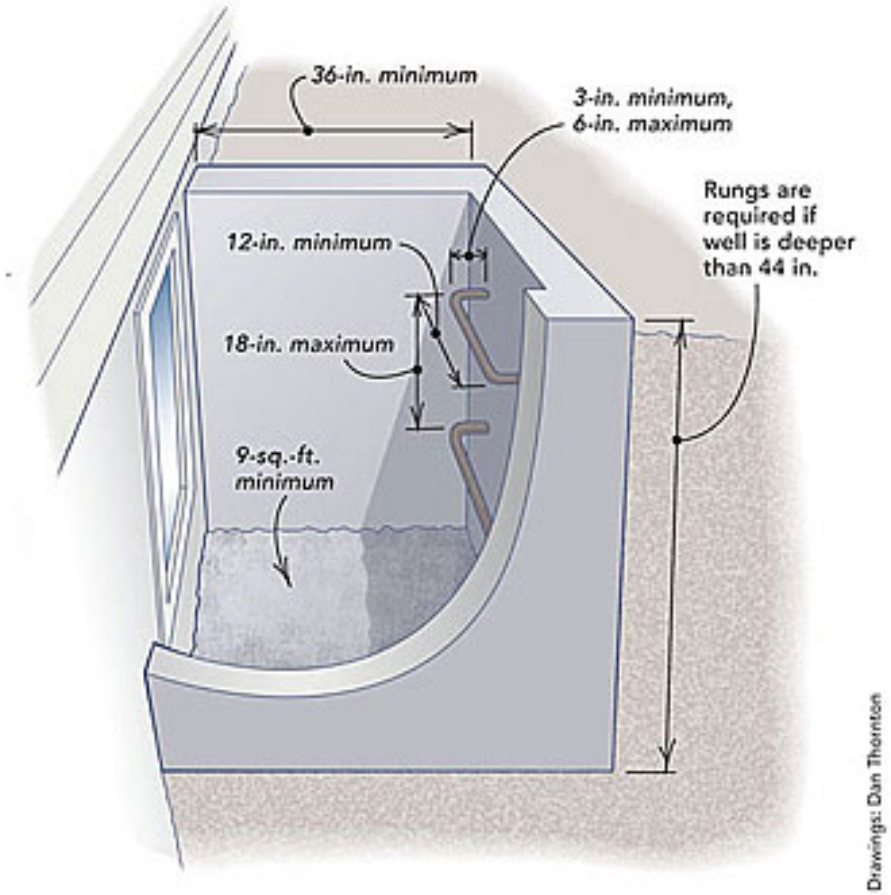
R310 emergency escape

- Egress required in all basements, habitable attics and sleeping rooms
- Min 5.7 sqft clear opening
- Min clear opening height 24" width 20"
- Sill height not more than 44"
- Window wells min 3' x 3'
- Ladder if over 44" deep

Egress window openings



Window well requirements



R311.3 floors and landings

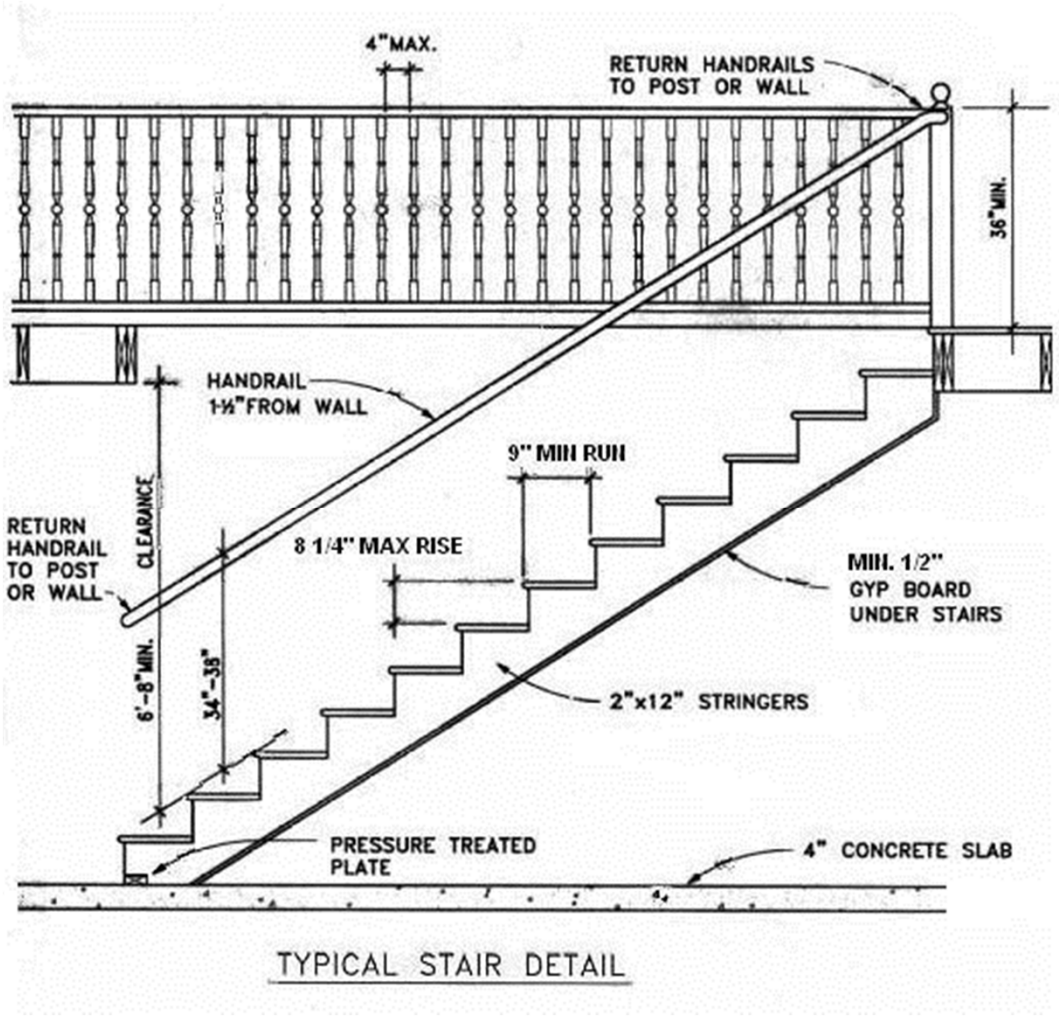
- Required on each side of exterior doors
- Except 2 or fewer risers on exterior door other than required egress door

3 rises – landing required on exterior door

R311.7 stairways

- Stairway headroom min 6'8" measured vertically from sloped line adjoining nose of treads
- Width 36" above the handrail
- Max riser 81/4"
- Min tread 9"
- Graspable handrail if 4 or more risers (continuous)

Typical stair detail



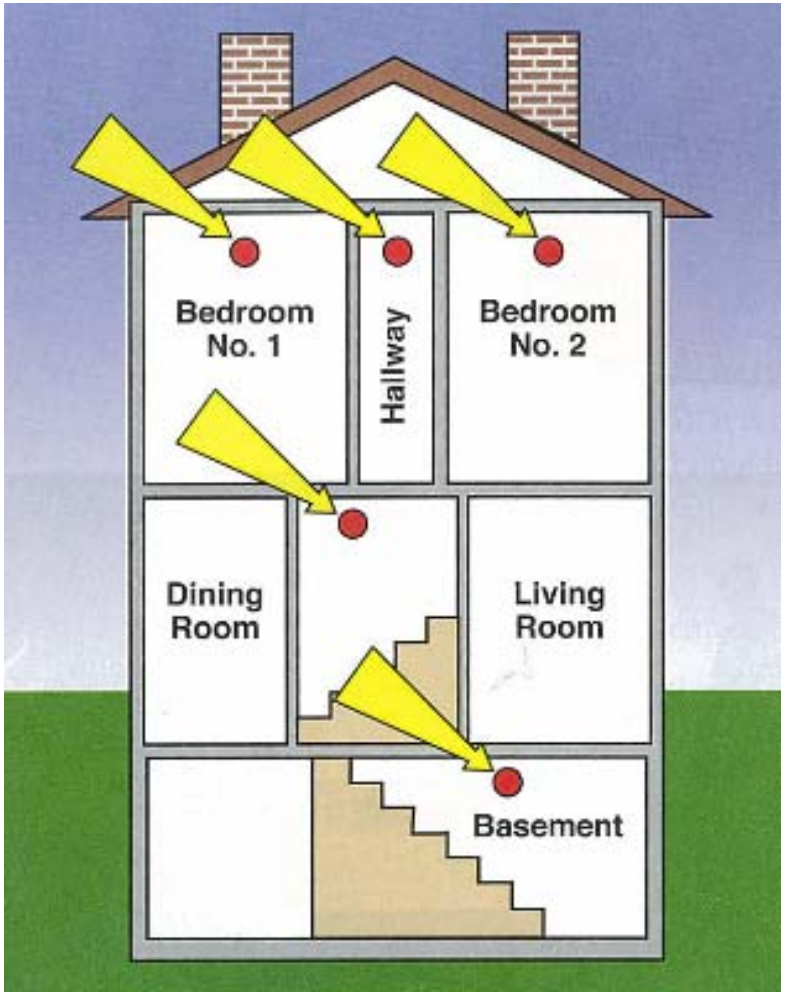
R312 guards

- Min 36" height
- Max opening 4"

R314
smoke alarms

- Required with any building permit (interior)
- Located inside and outside of each bedroom at least on each floor
- Hard wired with battery backup
- “rf” OK for remodel

SD locations



R315 carbon monoxide

- Required with any building permit
- Located in immediate vicinity of bedrooms

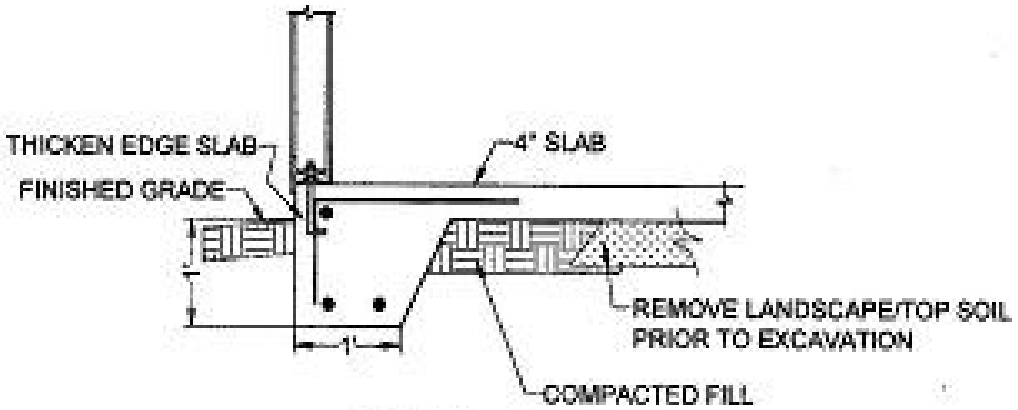
R319
site address

- Required on building, visible from street
- Additional number at public way if not visible from street

R403 footings

- Min frost depth 42”
- Accessory structures 600 sqft or less may be monolithic slab
- Decks not attached to home exempt

Monolithic slab detail

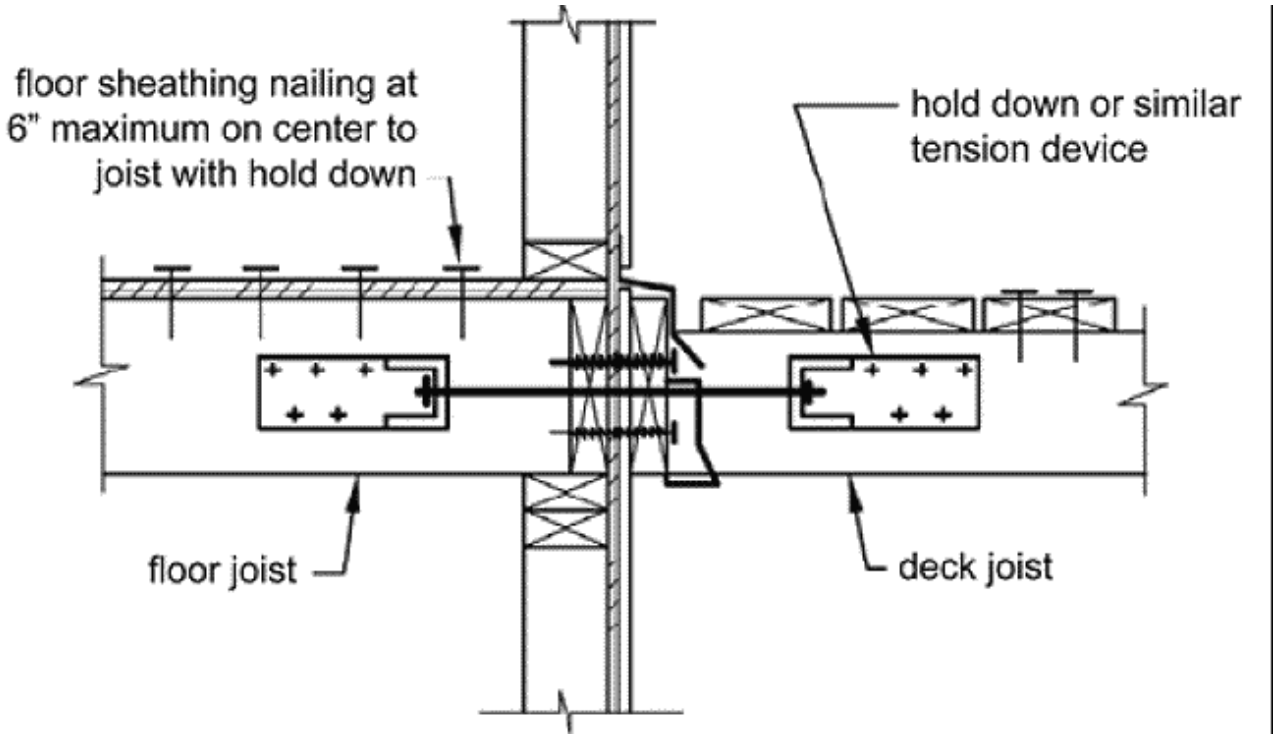


DETAIL 14

R502.2.2 decks

- Ledger attached with bolts or equivalent, staggered
- Lateral load connection each side
- No notched posts (guard must accept 200# load)

Lateral load device



Deck post – not notched extra blocking

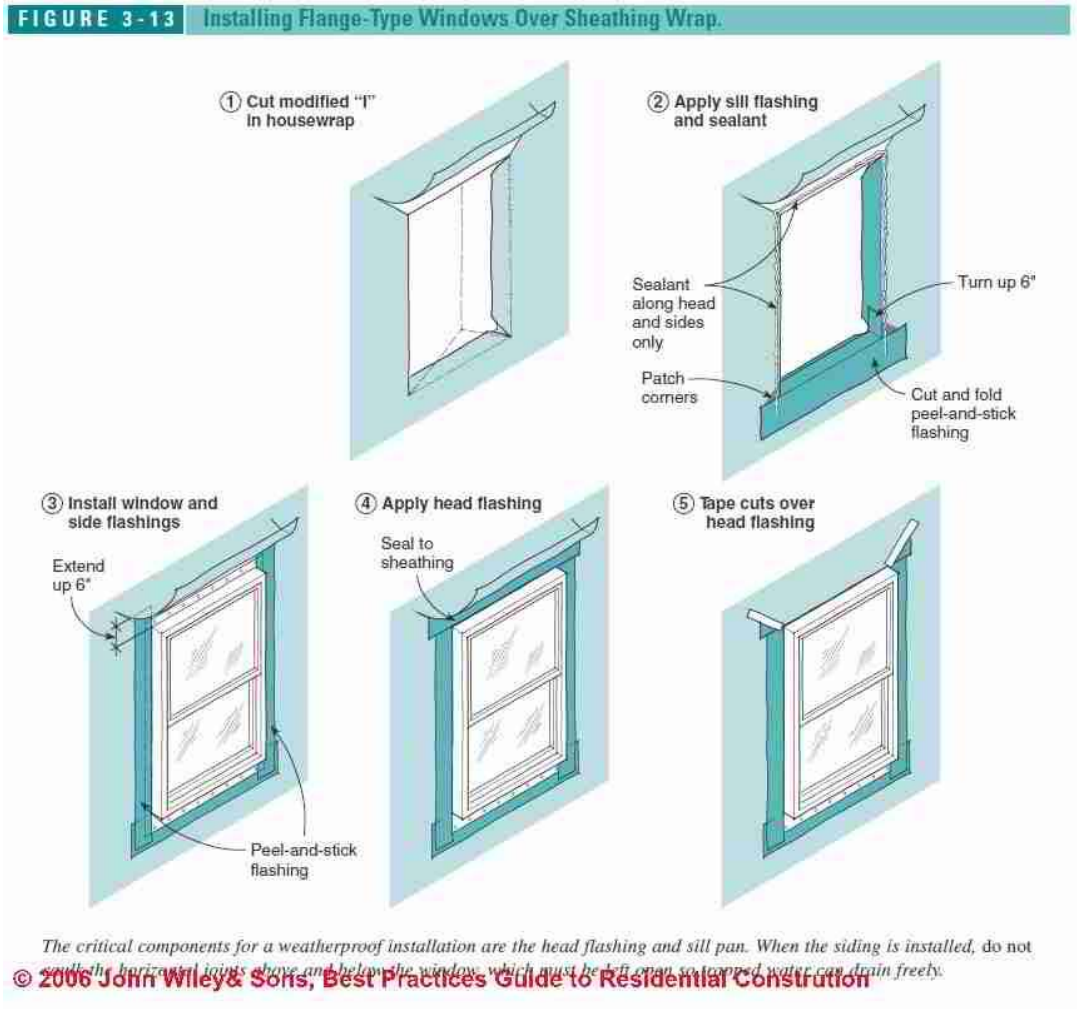
R703 exterior covering

- Water resistant barrier (housewrap) required

R703.8 flashing

- Windows and doors
- Chimneys
- Projecting wood trim
- At porches and decks
- Wall and roof intersections

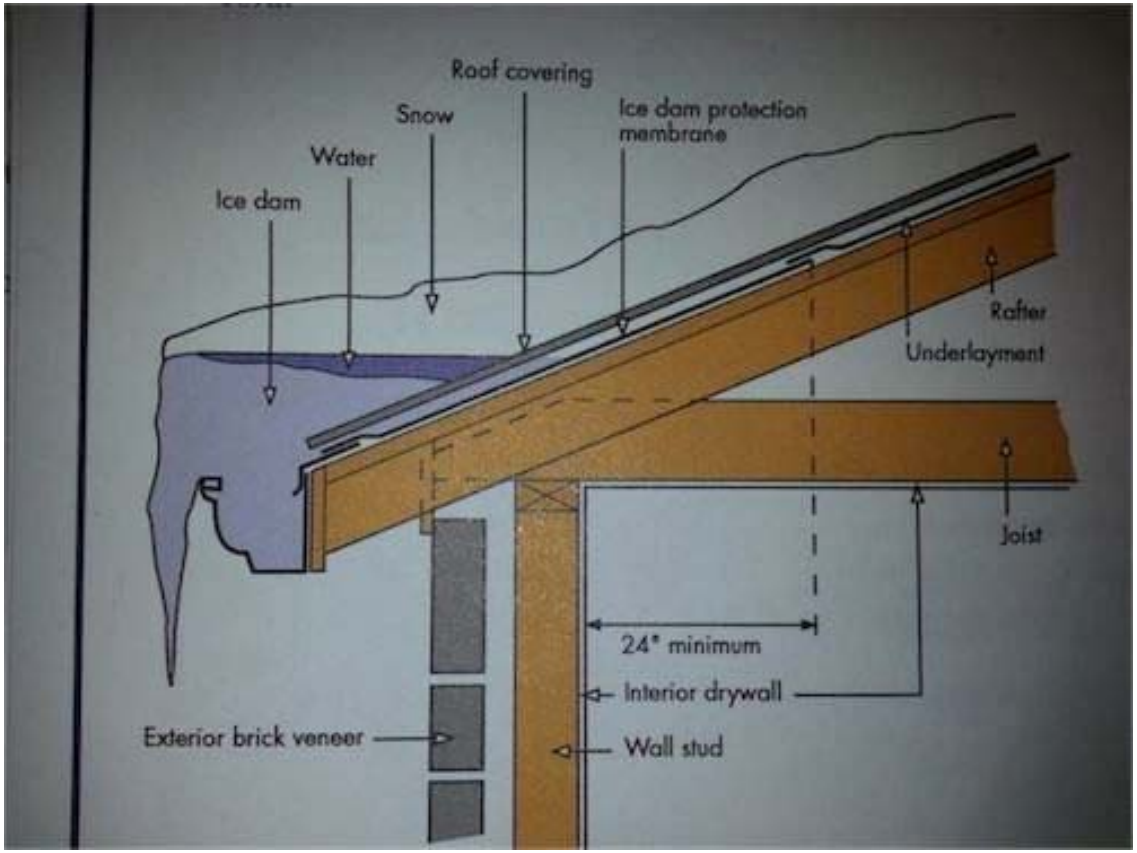
Window flashing



R905 roof coverings

- Ice barrier required min 24" horizontally inside the roof line

Ice and water shield

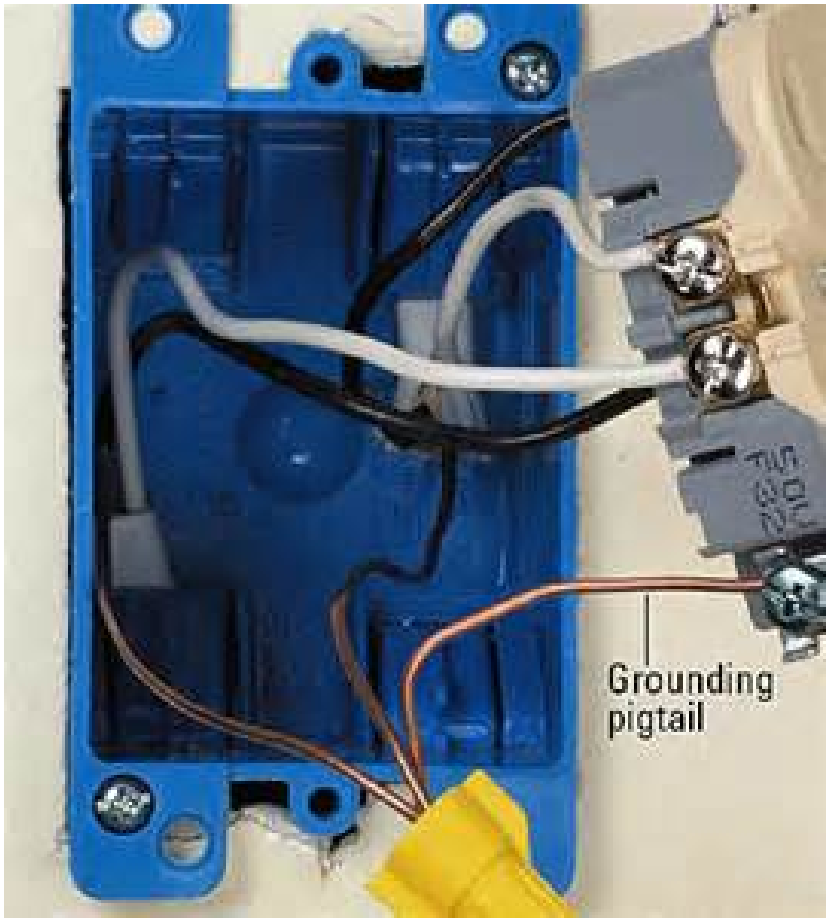


Electrical

- All receptacles must be **Tamper Resistant**
- At rough-in, all equipment grounds must be joined with an approved connector
- GFCI protection – bath, kitchen unfinished basements, garage, outdoor
- All receptacles in a damp location must be **Weather Resistant** and have an **In-use Cover**
- Bathroom basin receptacles must be on a 20 amp circuit
- Detached buildings must have a disconnecting means outside or at nearest inside entry
- Feeders to detached buildings must have equipment ground and a ground rod at the detached building

Tamper resistant labeling

Grounding connector

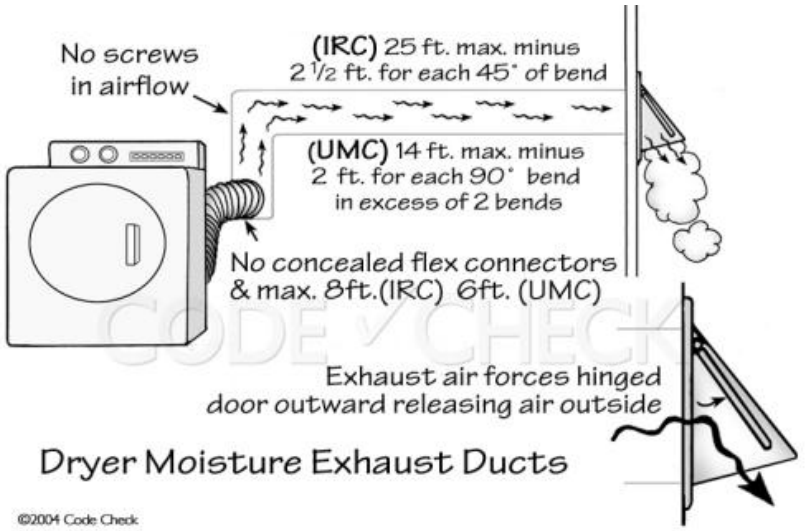


Weather resistant in-use cover

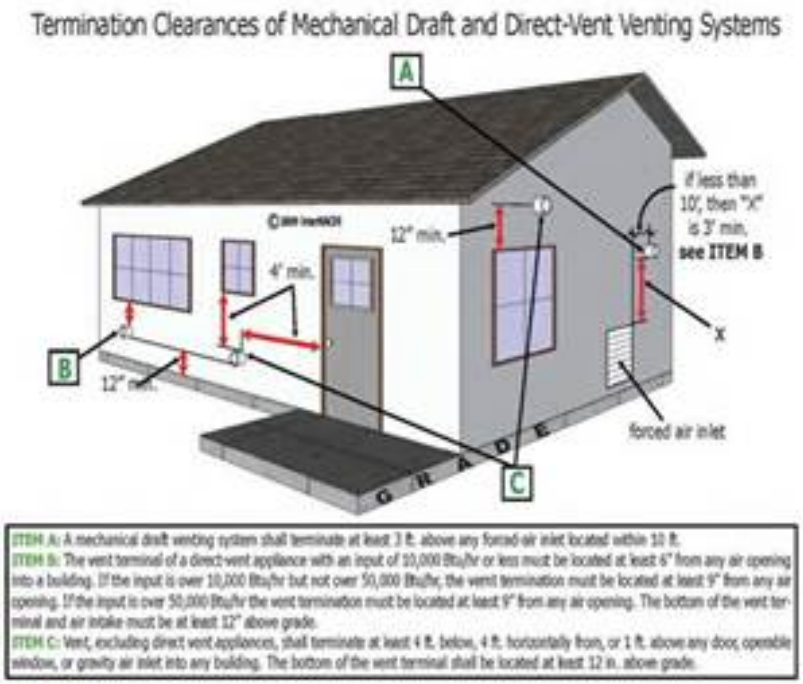
Mechanical

- Dryer vent exceeds max length
- Vent terminations in prohibited locations
- Seal ductwork and joints
- Provide outdoor combustion air
- Pressure test and inspection for gas lines
- Insulation shield where vent passes through insulation assemblies

Dryer vent - IRC



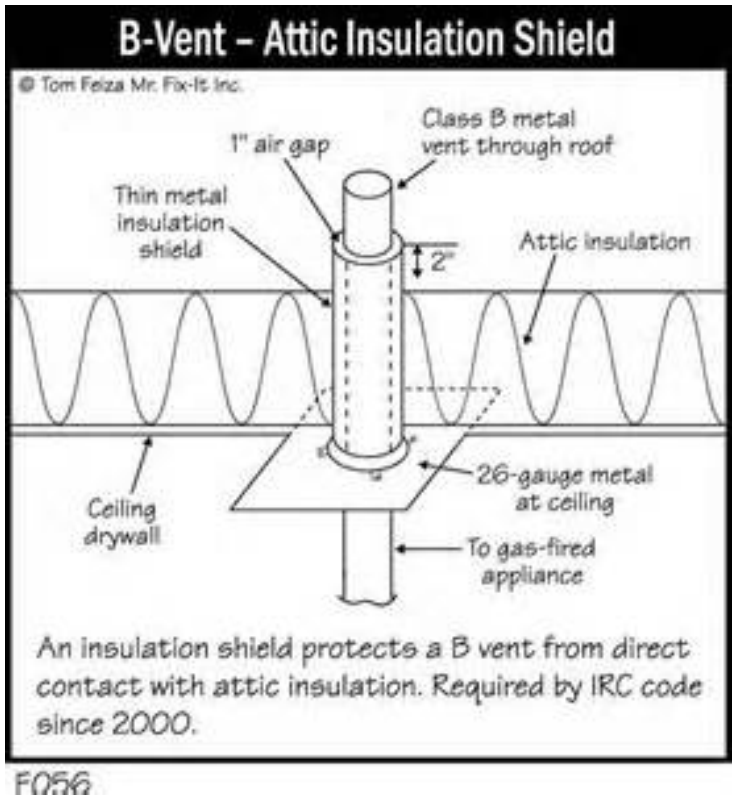
Vent termination



Duct sealing tape

Duct sealing paste

Insulation shield

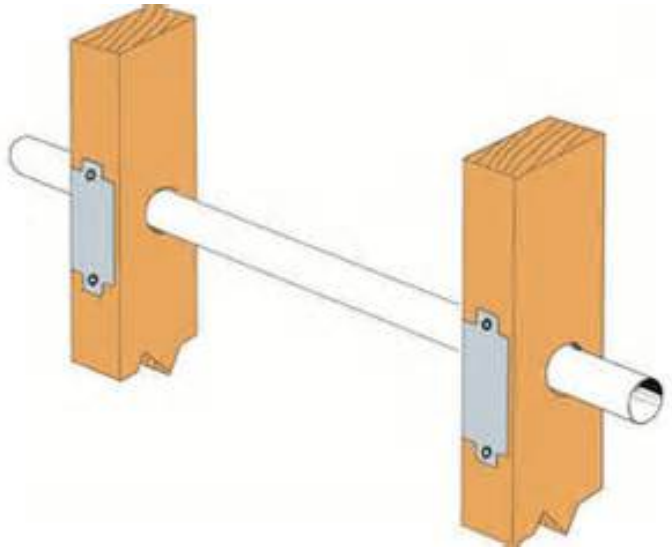


Plumbing

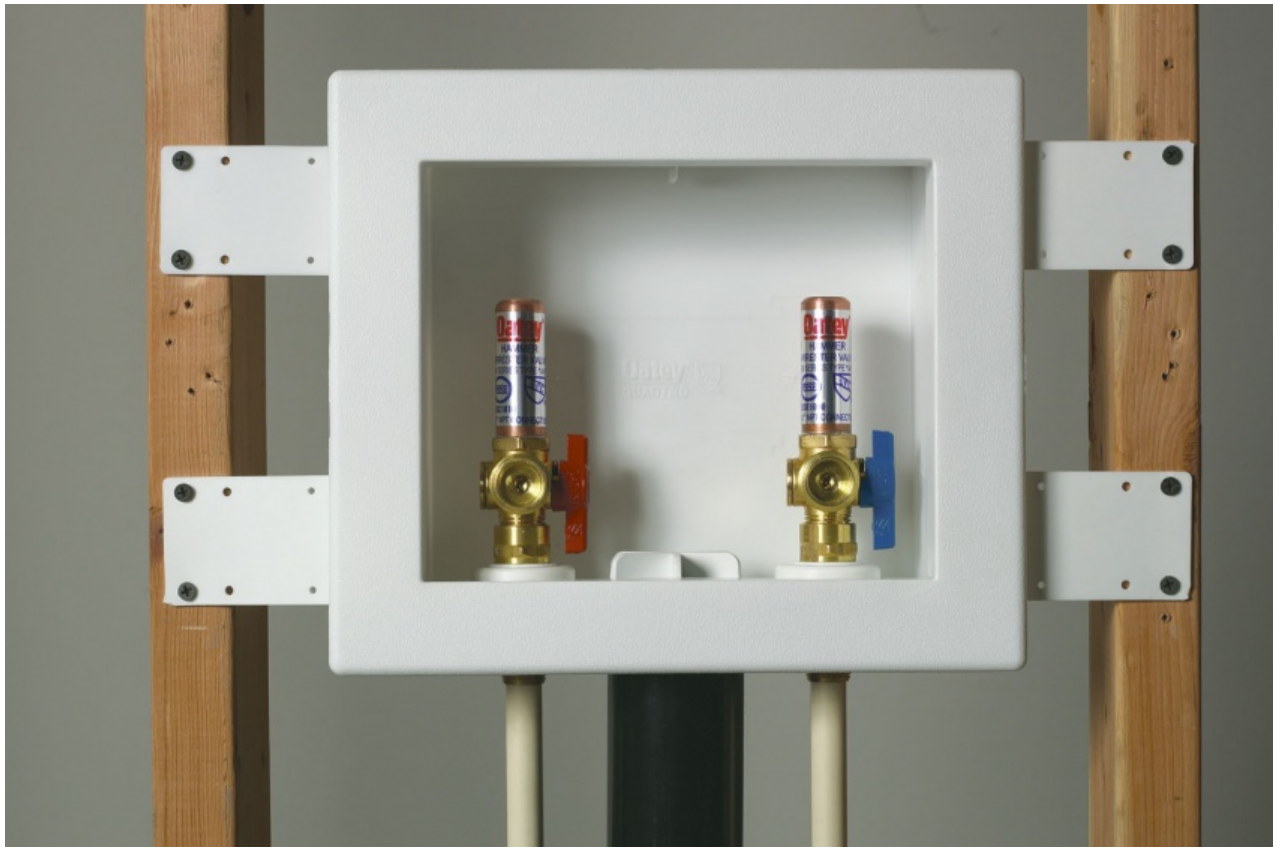
- Missing nail plates or "stud shoes"
- Max. cutting and notching limits exceeded
- Not using approved primer
- Install water heater pan where required
- Using sanitary tees where wyes are required
- Use of prohibited fittings like corrugated tail piece or saddle valves
- Use approved unions with backflow preventers for lawn sprinklers
- Missing water hammer arrestors
- Using prohibited "s-traps" instead of "p-traps"

Stud shoe

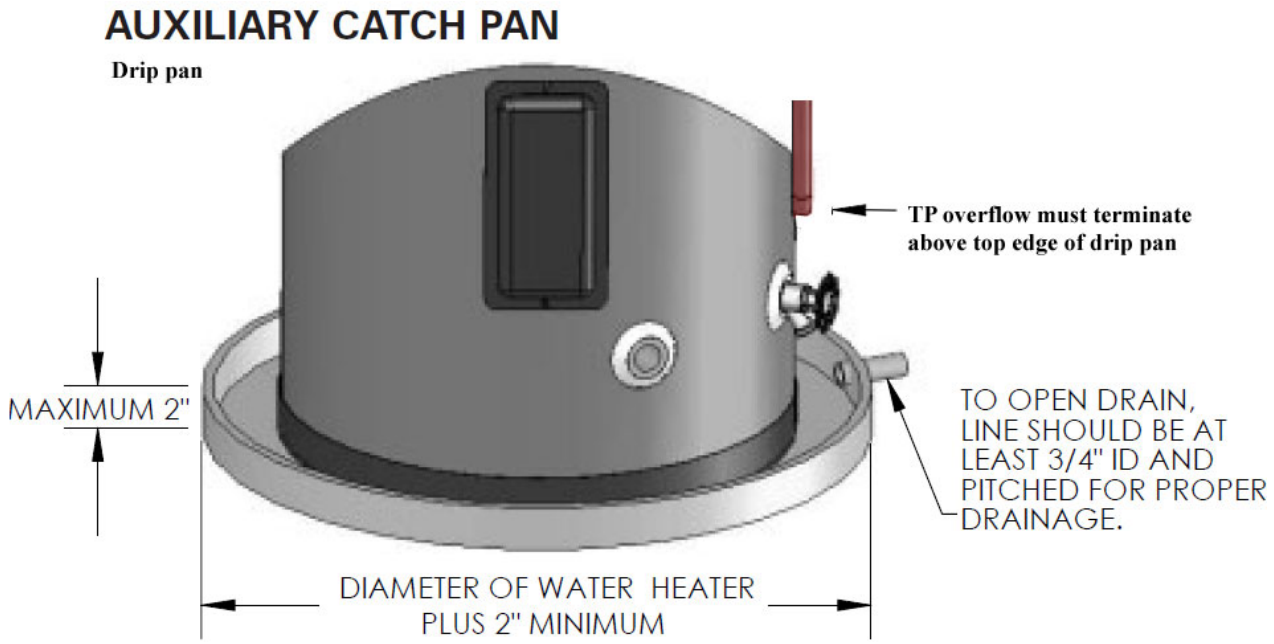
Nail plate



Water hammer arrestor



Water heater pan



Other building code

- Stone, tile and waterproofing before backfill
- Plan and truss drawings available for rough inspection
- Blocking of all point loads (beams, girder trusses)
- Drilling and notching framing material
- Truss bracing and mechanical fasteners
- Health department approval for well and septic
- Energy code compliance
- Energy label on the electrical panel
- Complete exterior covering
- Trade final approvals
- Fall protection – windows

Questions???

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