

RESIDENTIAL PLAN REVIEW CHECKLIST

The Residential Plan Review checklist is a <u>general guide</u> of plan review items checked for compliance. All projects are unique and subject to their own specific requirements.

General Items / Site / Zoning Review

General Items

• Applicable codes listed

Project Data

- Owner of Project
- Address / Legal Description / Assessor's Parcel Number
- Project Description (Scope of Work)
- Floor square footage areas

Site Plan

- Zoning District
- Property line dimensions
- Recorded easements & letters of encroachment (if required)
- Location on property per zoning ordinance (setbacks; legal non-conforming?)
- Lot coverage calculations (if applicable)
- Location on property per building code (Fire-resistant construction)
- Parking required spaces; parking surface; driveway width (zoning)
- Fences maximum height (zoning)
- Finish floor elevation & grading
- Location of ground-mounted HVAC equipment (vs. exit path)
- Check special zoning stipulations
- Typical site plan for master plans showing minimum setbacks

Architectural / Life Safety Review (2009 IRC)

Floor Plan

- Overall dimensions match site plan
- Room names declare room use (declare existing room areas adjacent to additions identify emergency escape and rescue locations)



- Room sizes / dimensions / minimums
- Ceiling heights
- Show landings at exterior door locations; dimensions
- Exterior door minimum one 3'0" x 6'8"
- Hallways minimum 3'0" clear width
- Natural light & ventilation in habitable rooms
- Artificial light & ventilation substitution
- Safety glazing locations
- Guardrails 36" minimum height; 4" sphere rule
- Fireplaces type/fuel
- Slope patio slabs to drain away from house (direction arrow on plans)

Bedrooms

- Emergency escape and rescue openings
- Egress shall not lead through other bedrooms, bathrooms, or travel through a garage
- Exterior window fall prevention requirements on multi-story buildings

Bathrooms

- Safety glazing windows & shower enclosures
- Natural light & ventilation or exhaust fan

Laundry Room

- Appliances labeled (energy source)
- Clothes dryer exhaust vent

Garage

- Dwelling/Garage fire separation walls & ceiling
- Platform for appliances with ignition source
- Appliance protection against impact

Stairway

- Minimum width
- Headroom
- Tread / Riser dimensions
- Landings
- Handrails; continuity, height, profile
- Winder tread dimensions (if applicable)



Basements

- Rescue openings
- Window wells / ladders / grates
- Window wells shall not be located below emergency escape and rescue openings above.

Exterior Elevations

- Do they match the floor plan and roof plan configurations?
- Heights of buildings (zoning/structural)
- Roof slope
- Roof materials specified
- Wall finishes specified / weather barrier
- Attic vents & attic ventilation calculations
- Roof / wall flashing detail (Pan flashing, Step flashing, L-flashing, etc.) dependent on roof covering type used

Structural Review (2009 IRC)

Roof & Floor Framing Plans

- Does roof framing plan match (coincide) with floor plan, roof plan, & elevations?
- Roof slopes / directions to edges, drains or scuppers
- Roof slopes proper for type of roofing materials
- Roof & floor sheathing
- Framing members specified trusses, rafters, beams, headers, posts?
- Do openings match (coincide) with floor plan doors, windows, etc.?
- Provide a header schedule
- Check roof rafter sizes
- Check ceiling joists sizes
- Check floor joists sizes
- Check beam sizes
- Posts provided at beam & girder truss bearing locations
- Beam/header/girder truss-to-post connections (when deemed necessary)

Roof & Floor Truss Diagrams

- Do truss plans match (coincide) with roof & floor framing plans?
- Truss diagrams: sealed by structural engineer
- Check loads, truss length, roof slope



- Check bearing points & locations (Reactions)
- Check bearing width required
- Special load cases (concentrated loads such as AC Air-handler)
- Space for attic HVAC unit & access walkway

Wall Details

- Stud size/spacing/height
- Interior finish
- Exterior finish / Weather barrier
- Stucco system
- Weep screed
- Veneer stone, brick
- Insulation (2009 IECC)

Lateral Design / Shear Wall Plan

- Empirical design per 2009 IRC or provide engineering
- Exterior braced wall lines & panels
- Portal framing
- Continuous sheathing

Foundation Plan

- Concrete strength specified
- Does foundation plan match (coincide) with floor plan & dimensions?
- Special conditions shown (i.e. steps, recessed areas, etc.)
- Footings shown at all exterior walls
- Footings shown at interior bearing walls
- Spot footings at post locations
- Minimum footing depth shall be 20" (12" below grade plus 8" finish floor to finish grade)
- Shear wall locations anchors hold-downs (at garage wing walls if applicable)
- Slab thickness specified
- Are details keyed for all critical conditions?

Foundation Details

- Foundation types T-Footing vs. monolithic
- Minimum width required
- Minimum depth required



- Minimum reinforcement
- Spot footing sizes (if applicable)
- Foundation ventilation (if applicable)
- Sole plates height above natural grade, anchorage, and treatment
- Anchor bolts minimum ½" diameter by 10" long with 7" embedment and maximum 6'0" o.c. spacing
- When connecting slabs, provide $\frac{1}{2}$ " dowels, 18" long, spaced 24" o.c. into existing slab and embed 6" minimum *or* continuous turndown footing.
- Post-tension foundations must be designed by an engineer registered in the state of Texas. Post-tension foundations shall be provided as per soils report.

Mechanical Review (2009 IRC)

Mechanical Plan

- Location of HVAC equipment shown
- Attic HVAC unit access opening / access walkway / working platform
- Space in trusses for attic HVAC unit & access walkway
- Attic appliance access Minimum 22"x30"
- Return air locations
- Exhaust fans at bathrooms
- Provide Manual D, J, & S load calculations

Plumbing Review (2009 IRC)

Plumbing Plan

- Location of fixtures / clearances
- List of plumbing materials shall comply with the freeze ordinance (reference the City of El Paso Municipal Code)
- Installation of cellular-core pipe and asbestos-cement pipe prohibited (reference the City of El Paso Municipal Code)
- Raised platform in garage & protection

Electrical Review (2008 NEC)

Electrical Plan

- Tamper proof receptacles
- Arc-fault protected receptacles
- Receptacles at kitchen island and peninsula countertops
- Receptacle within 3 feet of each bath lavatory



- Exterior receptacles at front & rear of house (weatherproof & GFCI)
- Receptacles in garage minimum (1) (GFCI)
- Receptacle within 25 feet of outdoor HVAC equipment (weatherproof & GFCI)
- Switch-controlled light (or receptacle) in every habitable room
- Switch-controlled light in basements, utility rooms and garage
- Light fixture at stairs and switches at both levels
- Switch-controlled light at each exterior door at grade
- Clearances to light fixtures in clothes closets
- Switched light at attic HVAC equipment
- Smoke alarms in bedrooms, halls & basements
- Carbon-monoxide detectors immediately outside bedroom areas
- GFCI for whirlpool tub with access panel

For projects exceeding 2500 square feet of livable area

Service Load Calculations

- Calculations for main panel & all sub-panels
- Include all appliances
- Include all HVAC loads
- Include special use loads (i.e. swimming pools, sewage ejectors, etc.)

Electrical Riser Diagram

- Rating of main panel & sub-panels
- Grounding electrode
- Bonding to water pipes
- Feeder wire sizes & types, conduit sizes & types
- Service feeder sizes & types

Energy Efficiency

• 2009 IECC (Energy Compliance Report) documentation