



Building and Zoning Department

75 E Main Street
PO Box 417
Castle Dale, Utah 84513

Phone: 435.381.3555
Fax: 435.381.5644

RESIDENTIAL REMODEL REQUIREMENTS

This basic information sheet has been prepared by the Emery County Building and Zoning Department as a guide for anyone doing residential remodeling, additions, or basement finishes. While it obviously does not contain all the code information necessary for every job, it does cover the main requirements for most small residential projects and should be particularly useful in the planning of those projects. Homeowners may legally work on their own home, but the hiring of competent, licensed contractors is strongly recommended. All work not performed by the homeowner must be done by properly licensed contractors.

GENERAL BUILDING REQUIREMENTS:

Permits are required for all remodels, additions, basement finishes, carport-to-garage conversions, and garage-to-living area conversions. In addition, any free-standing sheds, playhouses, garages or similar structures over 200 square feet or fences over six feet high need building permits.

Required dimensions:

- 1) 7'-0" minimum **ceiling height** for habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms and habitable basements.
- 2) 36" minimum width (finished) for **hallways** and stairways
- 3) **Stairs** must meet a number of required dimensions or clearances, including:
 - a. 8" maximum **riser height** with 9" minimum **tread depth** (measured from nose of one step to the nose of the next)
 - b. 34" - 38" height above nose of each step for the **handrail**, required where there are four or more risers, on one side only. Handrail must be continuous for the run of the stairs, excluding code-compliant landings.
 - c. 6'-8" minimum head **clearance height**, measured from the nose of each tread.

Guardrails (required where elevation of floor, landing, or stair tread exceeds 30" above floor, landing or stair tread below). Spacing between guardrail spindles must be less than 4".

Basements with habitable space and each sleeping room shall have an exterior **door or window** that meets the following: finished sill height maximum 44" off the floor, minimum net clear openable area of 5.7 square feet. Minimum width of opening is 20", and minimum height of opening is 24". Grade floor openings may have a minimum net clear opening of 5 square feet. (Grade is defined as window sill opening not being more than 44" above or below the adjacent finished ground surface.)

Basement required **egress window wells** must extend out 3' from the basement wall, and have minimum inside ground area of 9 square feet.

Redwood or pressure-treated **bottom plates** are required for all basement walls.

Minimum required **insulation**: exterior walls: R-19 or 13 + 5, ceilings (to exterior): R-38, basement walls R-10/13

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All door openings in bearing walls must have **headers** supported by trimmers.

Under-Stair ceilings and supporting walls must be covered with 1/2" sheetrock when space is accessible.

There are several requirements relating to **attached garages**, including:

- 1) Minimum 1/2" type X sheetrock, taped and mudded, attached to **walls, 5/8" type X on ceilings** which are shared with the residence. Walls supporting living space above garages must also meet this requirement.
- 2) Garage-to-house **doors** must be a minimum 20-minute rated or 1-3/8" solid core or metal.
- 3) **Attic access** openings must be latched and be supported by a minimum 1" nominal lumber.
- 4) No **fireplace cleanouts** are allowed in garages.
- 5) **No openings** between garages and rooms used for sleeping are allowed.

Fire blocking is required in walls at all soffits, dropped ceilings, cove ceilings, openings around vents, pipes and ducts, in line with stairs when underside is unfinished, and at the floor and ceiling levels of all shafts and chases. Furred-out walls require this blocking at the top plate and in a vertical direction every 10' horizontally. Fire blocking shall consist of 2" nominal lumber; two thicknesses of 1" lumber with joints lapped; or one thickness of 23/32" wood structural panel with joints backed by same, lapped; one thickness of 3/4" type 2-M particleboard with joints backed with the same, lapped; gypsum board; cement fiber board; or batts or blankets of mineral or glass fiber.

PLUMBING

All fixtures must be properly trapped and vented.

Solid brass **closet bolts** and **closet flange screws** are required for toilets.

All fixtures, faucets and fixture fittings must be approved and conform to standards cited in the International Plumbing code.

Nail plate protection is required for all copper or plastic piping if closer than 1-1/4" of the face of the nailing surface.

No lead or acid-bearing **solders** are allowed for water piping systems.

Laundry standpipes must be firmly secured, must terminate outside of walls, and make a watertight joint with the finished wall.

Horizontal copper **piping** must be secured every 6' maximum, ABS piping every 4', PB and PEX 3/2", and CPVC 3'.

No slip joint type **traps** are allowed in concealed locations.

All **cleanout plugs** must remain accessible.

All **water heaters** must have full way shut-off valves, unions, and a T & P safety valve piped full size, downward to a drain.

Shower compartments shall have a minimum of 900 square inches of interior cross-sectional area, and shall not be less than 30" minimum finished interior dimension.

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Water closets must have a minimum of 21" clearance in front, and be centered in a space not less than 30" wide.

ELECTRICAL

GFCI protection is required on all outlets located in bathrooms, kitchen countertops, exterior locations, unfinished basements and garages.

All branch circuits that supply 125-volt, single-phase, 15-and 20-ampere outlets installed in dwelling unit bedrooms shall be protected by an **arc-fault circuit interrupter** listed to provide protection of the entire branch circuit.

Rough **wiring** must extend a minimum of 6" out of boxes.

Staples are required every 4-1/2" maximum and within 12" of all metal boxes and 8" of plastic boxes.

Nail plate protection is required for all wiring closer than 1-1/4" from the face of the nailing surface.

Wall receptacles shall be spaced so that at no point along the floor-wall line shall the distance to a receptacle be greater than 6 feet. Walls two feet or more in width shall have a receptacle. No space along the kitchen counter can be more than 24" from an outlet (4' on center). All receptacles shall be of the tamper proof type including GFCI's.

110v Smoke detectors as for new dwellings are required for all additions, alterations, or repairs to dwellings, or if a bedroom is added. Existing areas shall be interconnected to all smoke alarms except when destruction of existing finish would be required and then battery-operated smoke detectors are allowed.

Carbon Monoxide detectors must be provided on each habitable level if there are gas-burning appliances in the house. All new areas and existing areas shall be interconnected except when removal of existing finish materials would be required and then battery-operated smoke detectors are allowed.

Basement electrical must be served by **separate breakers** (no piggy-backing).

Switched lights are required for all storage areas.

All **wire splicing** must be done inside permanently accessible boxes.

All incandescent lighting must be a minimum of 12" from shelving, fluorescent lights are to be 6" from **shelving in closets**.

A 3-way-switched light is required at the top and bottom of **stairs** with six or more risers.

HEATING AND MECHANICAL

Outside combustion air sources are required for all fuel-burning furnaces and water heaters.

Flue clearances from combustibles must be maintained (single wall: 6", double wall: 1").

Equipment manufacturers' listed **clearances** to combustibles must be maintained.

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All flue and plumbing **vent terminations** must be separated a minimum of 10' horizontally or 3' vertically from evaporative cooler air intakes.

All **wood stove and flue** clearances must be according to manufacturer's listings.

Fireplace hearth extensions must be a minimum of 16" front with 8" sides for openings less than 6 sq. ft., and 20" front with 12" sides for openings larger than 6 sq. ft.

Clothes dryers must be vented to the exterior with smooth metal piping using no screws. No plastic or metal flex piping is permitted except for an exposed dryer connector of 8' in length or less. Exhaust ducts shall not exceed 25 feet, with a reduction of 2.5' for each 45-degree bend and 5' for 90-degree bend.

Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet, on-half of which must be operable. The glazed area shall not be required where artificial light and mechanical ventilation at .35 air changes per hour are provided. Mechanical ventilation must be vented to the exterior.

All gas-burning appliance **vent connectors** must have three sheet-metal screws equally spaced around the joints.

Gas-burning equipment shall not be installed in bedrooms, bathrooms, toilet rooms, or storage closets, or get combustion air from such rooms.