

1307 West Lehigh Street
Bethlehem, PA 18018
610-866-9663 Office
info@keycodes.net
www.keycodes.net

CODE SPECIFICATIONS FOR RESIDENTIAL BASEMENT FINISHING

Plans: The plans should show the type of room (bedroom, family room, etc.) to be finished, including the dimension of each room, the location of doors & windows, smoke detectors, lights, and receptacles. Please read through all of the following items carefully. The following items are **minimum code requirements** that you will need to be aware of for proper compliance. **This list is not all inclusive and other code requirements may apply. Owner and/or contractor are responsible for compliance with all minimum codes and municipal ordinances.** (Adopted Codes are: 2015 IRC)

Minimum room and space sizes

- Bedrooms: min. 70 sq. ft. with a min. 7' dimension.
- Ceiling height: 7'-0" min./ 6'-8" bathrooms and laundry rooms
- Hallways: 36" min. finished width.

Stairway Minimums

- 36" min. finished width at all points above the handrail to the required headroom clearance above.
- 6'-8" min. finished headroom (measured from tread nosing straight up to ceiling or fixture).
- Minimum tread length measured from nose to nose is 9".
- Maximum riser height is 8.25"
- Maximum variation allowed on rise and run shall not exceed 3/8".
- Handrails shall be installed on at least one side of stairs with 4 or more risers.
- Height of railing shall be 34"- 38" measured from the nose of the treads.
- Guardrails required shall be 36" min. height with spindle design set such that a 4" sphere cannot pass through at any point along the rail. Elevations more than 30" in height require a guardrail.
- Enclosed, usable space under stairways are to have 1/2" sheetrock for the full inside walls and ceiling of the enclosed usable space.

Construction Materials

- All sole plates resting on concrete slabs must be pressure treated or naturally decay resistant wood.
- All beams to be properly sized and supported for loads carried. (new/added beams - calculations must be submitted)
- Insulation shall be at least R-15 with vapor barrier on warm side of exterior walls.
- Maximum stud spacing is 24" on center for non-bearing walls.
- Fire blocking/Draft stopping ;
 - o Every 10' vertically and horizontally
 - o Top plate between floors (gap between wall and foundation)
 - o Top plate holes for wires, piping, etc.

Window Requirements

- Size of windows must be 8% of room area for natural light unless specifically approved otherwise.
- Each bedroom window must have a minimum net opening of 5.7 sq. ft. The sill height shall not be more than 44" off the floor.
- Bedroom window wells must extend a minimum of 36" out from the building.
- A secondary means of egress from the basement may be required.

Plumbing

- All fixtures must be plumbed to meet the current International Plumbing Code (2015).
- Water closet: 21" clear space in front and 15" to each side from center of toilet
- Showers: 900 sq. inch shower floor area, 30" least min. dimension, temp. glass, door shall swing out

Gas Furnaces and Water Heaters

- Furnaces or water heaters shall not be located in bedrooms, bathrooms or similar confined rooms.
- Access to furnace and water heater shall not be through bedrooms or bathrooms.
- The furnace or water heater must be removable without moving the other.
- The furnace must have 30" of clearing working space in front, 6" to combustibles from the front and as per attached specifications plate for side and back clearances to combustibles.
- Mechanical equipment must be provided with outside combustion air. Size all ducting per current International Mechanical Code (2015).

Wood Stoves and Fireplaces

- Must be installed with clearances to combustibles as specified in the manufacturer's installation instructions.
- All wood stoves and fireplaces must be listed and labeled units. Consult with building inspector for special circumstances or requirements.
- A carbon monoxide detector must be installed outside all sleeping areas when a wood stove or fuel burning appliance is installed in the dwelling and also if there is an attached garage to the dwelling.

Electrical

- Receptacle outlets must be provided so that any point along a wall is not over 12' in distance measured from one outlet to another. A receptacle must be installed within 6' of any opening such as a door.
- Wall sections 2' and wider (i.e. between doors) require a receptacle.
- Basement shall have GFCI protection in bathrooms, on kitchen countertops, for jetted tubs, within six feet of any sink and for all receptacles in unfinished rooms in basement.
- Label all circuits in panel box.
- Panel box shall not be located in clothes closets or similar spaces where easily ignitable materials may be present. Workspace must be 30" wide X 36" deep in front of all electrical panels.
- Arc fault protection is required for **all** new wiring for outlets (lights, receptacles, etc.) in all areas **except** bathrooms, unfinished areas of the basement and garages.
- A switch controlled lighting outlet must be provided at hallways, stairways, exits, and in each room.
- Tamper resistant receptacles are required.

- Provide a smoke detector for each bedroom, guest room, in access area to all bedrooms, and at least one smoke detector on each floor. Detectors shall be placed in existing bedrooms when any work is being done that requires a permit for the remodel. Smoke detectors shall be hard wired with battery back. Exception: If finish wall or ceiling materials would have to be removed to install wiring for smoke detectors, a battery detector will be allowed.
- Provide GFCI outlet on kitchen countertops 12" or wider. There must be at least two (2) dedicated 20 amp countertop outlets (min.) in any kitchen.
- Carbon Monoxide Detector shall be outside of sleeping rooms if there are any fuel fired equipment, appliances or attached garages.

If an EGRESS WINDOW or Bilco Door is being added Please note this on the plans and submit all documents for the window(s) or bilco door.

Inspections

- 1 Framing**
- 2 Rough Electrical**
- 3 Rough Plumbing (if needed)**
- 4 Rough Mechanical (if needed)**
- 5 Insulation**
- 6 Wallboard (before tape and spackle)**
- 7 Final Electrical**
- 8 Final Plumbing / Mechanical**
- 9 Final Building**