Construction Guide:
Residential Basement Finishing

(Updated 4/2019)

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Building Permits

Building permits are required for finishing or partially finishing a basement. Homeowners, who occupy the dwelling, are allowed to do their own electrical, HVAC and plumbing work. Any contractors hired are required to hold the appropriate State licenses.

Inspection Required

All work shall be inspected prior to being concealed. Each component (i.e. plumbing, electrical, HVAC, framing) can be inspected individually, or all at the same time. Please call the Building & Zoning Office at 715-246-4268 to schedule an inspection.

General Code Criteria

Smoke/Carbon Monoxide Detectors

Smoke Detectors:

- 1 per floor level
- 1 per sleeping room
- 1 within 21' of sleeping room(s) door. (hallway or common area)

Carbon Monoxide Detectors:

- 1 per floor level
- 1 within 21' of sleeping room(s) door. (hallway or common area)
- Can be a combination smoke/CO detector

Egress windows are required in all basement rooms used for sleeping. Minimum clear opening shall be 20" x 24" (either direction) and shall be located with the lowest edge of the opening within 46" of the floor. Egress windows may be omitted in basements that contain both a stairway leading to the first floor AND an additional door leading to the exterior.

Natural light and ventilation shall be provided to all basement bedrooms. Natural light shall be provided by means of exterior glazed openings, and be equal to or greater than 8% of the net floor area of the room. Ventilation shall be provided by means of openable exterior doors or windows and shall be greater than or equal to 3.5% of the net floor area of the room.

Interior doors are required to be a minimum 32 inch door (2'-8") for common use areas, 50% of all bedrooms, and one bathroom. Common use areas include laundry rooms, family rooms, mechanical rooms, etc…
Vapor retarders/barriers are now prohibited by Wisconsin Uniform Dwelling Code in below grade walls. In existing installations where a plastic vapor retarder/barrier exists, it is strongly suggested that the vapor retarder/barrier be removed prior to finishing the wall.

Bathroom Exhaust is required in all rooms with toilets, showers or tubs. Fans are required to be directly connected with the exterior, and capable of 20 cfm continuous exhaust, or 50 cfm intermittent exhaust.

Heating/air conditioning supply and return ducts must be provided for each habitable room.

Toilet clearance shall be 15 inches from center to finished wall or cabinet, and 24 inches from front of bowl to any wall, fixtures or door.

Electrical

At the panel:

- Maintain a dedicated clear space of 30" wide and 36" deep around the panel.
- Panel cannot be located within a closet or bathroom.
- Any new circuits added must be AFCI protected with the exception of bathrooms, kitchens, storage, and mechanical rooms.

Lighting:

- All ceiling boxes for lights within habitable rooms must be "fan rated".
- Closet lighting is NOT required, but allowed by code under the following conditions:
    - Surface mounted incandescent fixtures shall be installed to provide a minimum of 12" horizontal clearance between the fixture and the nearest storage shelf.
    - Surface mounted fluorescent, recessed or recessed incandescent fixtures must be installed to provide a minimum of 6" clearance between the fixture and the nearest storage shelf.
    - All incandescent fixtures shall have the light bulb fully enclosed by a decorative globe.

Outlets/Receptacles:

- Spacing – at no point along a wall are you more than 6' from a receptacle. A wall space greater than 24" wide require a receptacle. Hallways greater than 10' in length require a receptacle.
- All receptacles are required to be tamper resistant.

Bathrooms:

- Receptacles must be on a 20 amp circuit with GFCI protection.
- This dedicated circuit can feed the receptacles only in this bathroom, and a second bathroom OR you may choose to feed the receptacles, bathroom light and exhaust fan in this bathroom only.
- Electric heaters and whirlpool tubs require separate circuits.