

Finishing Basements

These guidelines are intended to provide the homeowner/contractor with basic information needed to finish or partially finish most residential basements.

Insulation:

- Concrete Foundation walls shall be furred out and insulated. On walls less than 50% above grade a minimum of R-9 insulation must be extended down to the basement floor slab. On walls more than 50% above grade R-13 insulation is the minimum

Ventilation and Natural Light:

- Glass area in habitable rooms shall not be less than 8% of the floor area served
- ½ of this area must be available to unobstructed ventilation with screens included
- Artificial lights and/or mechanical ventilation may be used as an alternative if the existing windows are of inadequate size

Ventilation, Heating and Air Conditioning, and General Mechanical:

- Combustion Air-Gas appliances located in closets or utility room spaces whose volume is less than 40 cubic feet/1000BTU/hr input rating shall have combustion and ventilation air provided
 - Minimum clearance from combustibles is 18 inches, or per manufacturer's specifications.
- Finished rooms, without adequate windows, require artificial ventilation to be supplied at a rate of 0.35 air changes per hour or 15 cubic feet per minute per person, whichever is greater.
- Forced air and returns are required in habitable rooms.
- Inside air- 1 sq. in. shall be provided/1000BTU/hr each opening.
 - Opening shall not be less than 100 sq.in.
 - One opening shall be provided within 12" of the ceiling and within 12" above finished floor.
- **Clothes dryers** shall be independent of all other systems and exhaust to the exterior
- **Bathrooms**, without windows, shall exhaust 50 CFM minimum to the exterior

Safety Glazing:

- Fully tempered, laminated safety approved wired glass or approved shatter-resistant plastic must be used in doors intended for human passage, patio doors, windows within 24" of a door, and shower/bathtub enclosure walls

Ceiling/Floor Draftstopping:

- Dropped ceilings below wood joists or attached directly to wood floor trusses shall be draftstopped with ½" drywall or 3/8" plywood at 1000 sq feet intervals and parallel to framing members

Stairs Serving Finished Basements:

- Stairs serving finished basements must be protected from the underside by means of enclosing the area with drywall. If the area under the stairs is to be used for storage, protect the bottom of the risers with drywall (no exposed wood).

Firestopping:

- Firestopping consisting of 2" lumber, minimum 23/32" structural paneling, or approved non-combustible materials shall be provided at the ceiling line in concealed spaces of stud walls/partitions, including furred or studded-off spaces of concrete foundation walls and at soffits, openings around pipes, dropped ceilings and similar spaces

Electrical:

- **GFCI's** are required for receptacles and/or circuits installed in the following locations: Receptacles to serve counter top surfaces, bathrooms, and unfinished basement spaces (except laundry circuit and single sump pump receptacles). **Receptacles** are required in following area: All habitable rooms so that no space along a wall is more than 6' from a receptacle (all wall areas at least 2' wide), hallways of 10' or more in length, adjacent to the basin in bathrooms, and at least 1 in laundry area and one in basement unfinished area (in addition to the laundry receptacle)
- **Lighting** is required in the following areas: at least 1 wall lighting switch in every habitable room (bathroom, hallway, stairway, and exterior doors), interior stairways at each floor level that are separated by 6 or more steps, and at least 1 lighting outlet in each unfinished basement space (located at point of entry)
 - **Lighting in closets:** incandescent fixtures not completely enclosed in lamps and the use of pendant fixtures is prohibited without proper clearance
 - Fixtures must be surface mounted and incandescent fixtures need a 12" minimum clearance and florescent or recessed fixtures need a 6" minimum clearance from edge of closet shelving
- **Electrical Panels:** Circuit breaker panels shall not be concealed and electrical panels are not permitted in bathrooms or clothes closets. Lighting is required in the vicinity of the electrical panel. A minimum of 3' clearance is required in front of existing electrical panels.

PLEASE NOTE: These requirements apply to most simple residential basement finishing projects. However, there are sometimes unusual circumstances that dictate the need for additional information on any particular project. It should also be emphasized that especially on interior renovation project many Code requirements are verified through the inspection process and are not necessarily reflected within the approved plan documents.

If you have questions or concerns please contact the O'Fallon Planning and Zoning Department at (618) 624-4500 ext. 4