

City of Belvidere
BUILDING DEPARTMENT
401 Whitney Blvd. Suite 300 Belvidere, IL 61008 (815)-547-7177

Basements in Residential Districts

These are some helpful tips for the process of finishing a basement. This is not the entire code book and not all of the code sections are covered. These are some of the more important points. Please feel free to contact the City of Belvidere Building Department at 815-547-7177 if you have any questions.

Requirements for Basement permits

1. Construction drawings detailing the following:
 - Dimensions of proposed basement remodel with room layout, sizes, door location and sizes, total area etc.
 - Number of bedrooms
 - Number of bathrooms being added (if any)
2. Owner's Name, Address, and Phone Number
3. Contractor(s) Name, Address, contractor licenses, and Phone Number
4. Value of Construction

Required Inspections for Basement Remodel (Some may not apply for your specific project)

1. Rough Electrical inspection (for any added electrical)
2. Rough Plumbing inspection (for any added plumbing)
3. Rough Framing inspection (once all other rough inspections are performed, Rough HVAC is inspected at this time)
4. Insulation inspection (verifying that insulation is compliant with current energy code 2015 IECC)
5. Final Electrical inspection
6. Final Plumbing inspection
7. Final Building inspection (when all construction is finished)



Minimum Requirements

All construction must comply with the adopted building codes which are as follows:

2015 International Residential Code for one and two family dwellings
2014 National Electrical Code
2014 Illinois Plumbing Code
2015 International Energy Conservation Code

Any basement containing habitable space requires at least one emergency escape and rescue opening. Habitable space is any space for living, sleeping, eating, or cooking. Bathrooms, closets, halls, storage, or utility spaces are not considered living spaces.

Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Emergency egress can be provided by a door or a window if it meets the requirements of the 2015 IRC for emergency egress.

All walls must be built upon pressure treated or redwood bottom plates.

Storage area underneath stairs must be protected with ½ in. gypsum board (drywall)

Minimum habitable room size is 70 square ft. with a minimum width of 7 feet.

Minimum ceiling height is 7 ft. A ceiling height of 6 ft.4 in. is allowed beneath beams, ducts, and other ceiling projections.

Supply and return air is required for all habitable rooms

Electrical outlets are required every 12 ft. along walls and 6 ft. from any door openings. All bedroom wiring must be protected by arc-fault circuit breakers (AFCB)

A bathroom fan is required unless there is an openable window to the exterior. The fan duct must be insulated a minimum of 4 ft. from the outside of the house.

Exterior walls shall be insulated in compliance with the current energy code.

Carbon Monoxide detectors shall be within 15 feet of any sleeping area

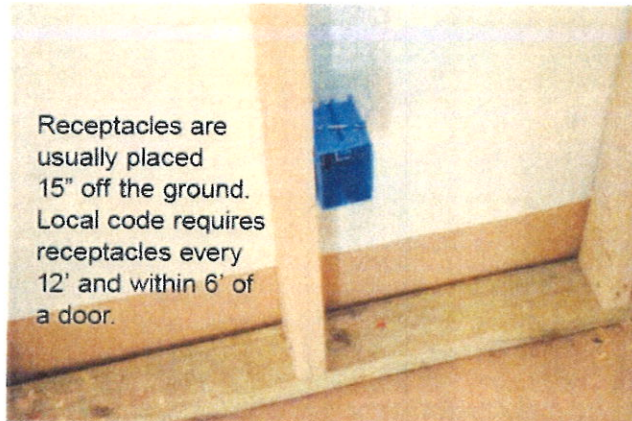
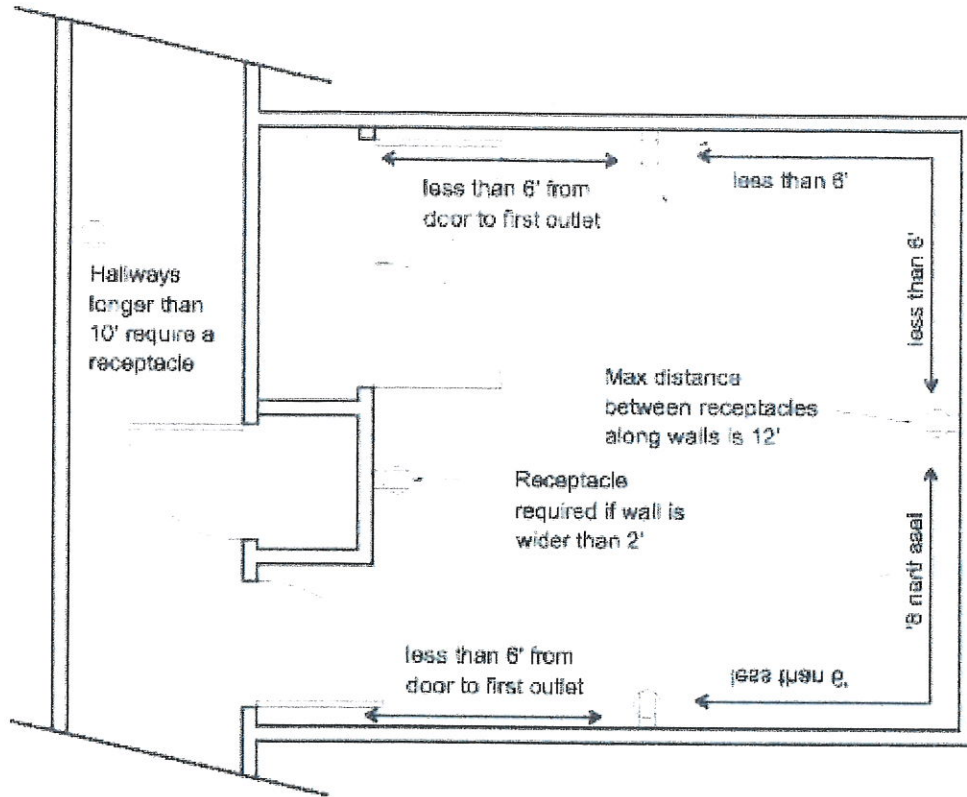
Smoke alarms shall be installed in every bedroom and on every floor level

Gas fired furnace or water heater cannot be in a bedroom, bathroom, or closet



Electrical

All electrical work must comply with the 2014 National Electrical Code
Electrical outlets are required every 12 ft. along walls and 6 ft. from any door openings.
All bedroom wiring must be protected by arc-fault circuit breakers (AFCB)
Electrical boxes/panels are not allowed in bathrooms or closets.

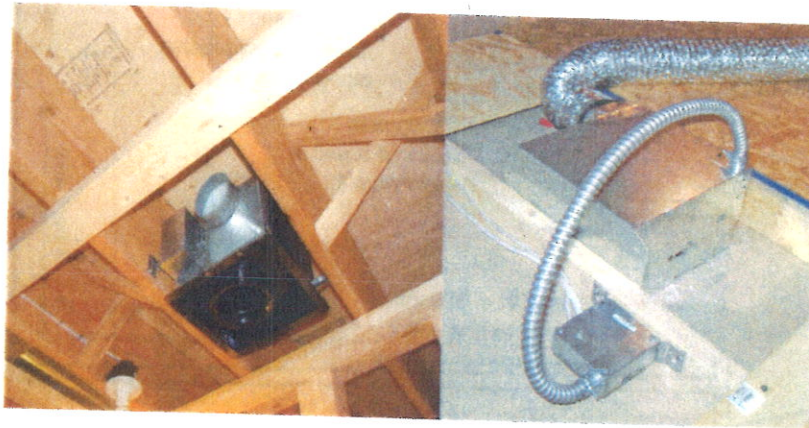


HVAC

All HVAC work must comply with the 2015 edition International Residential Building Code for one and two family dwellings.

Furnaces must be a minimum of 3 in. from any wall on all sides and provide a 30"x30" clear area in front of the control side allowing for maintenance. Furnaces having a firebox open to the atmosphere shall have not less than a 6 in. working space along the front combustion chamber side. Furnaces or hot water heaters installed in a compartment, alcove, basement, or similar space shall be accessed by an opening or door and an unobstructed passageway of minimum 24 in. width and large enough to allow removal of the largest appliance.

A bathroom fan is required unless there is an openable window to the exterior. The fan duct must be insulated a minimum of 4 ft. from the outside of the house.



Supply and return air is required for all habitable rooms



Plumbing

All Plumbing work must comply with the 2014 Illinois Plumbing Code

1. The underground rough plumbing inspection



2. The rough plumbing inspection



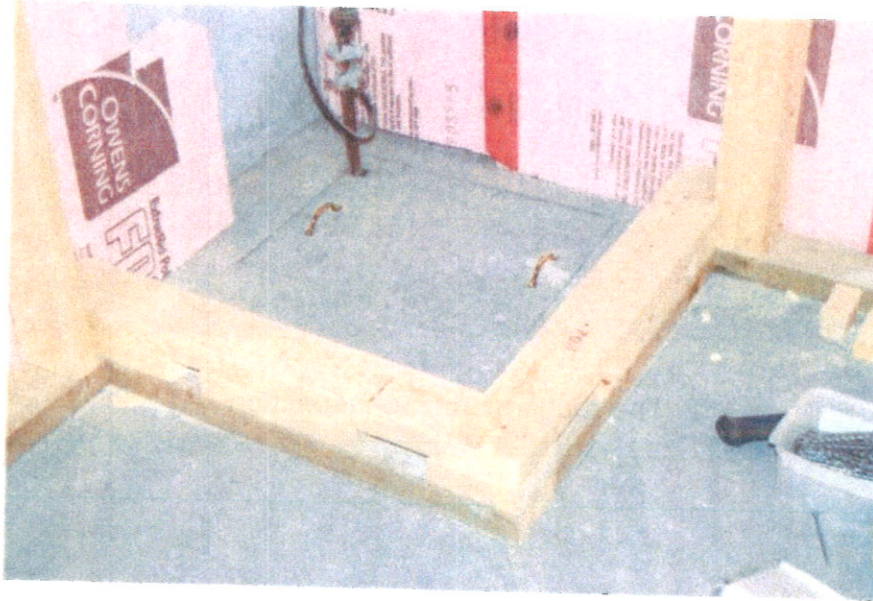
3. Final plumbing inspection



Building

All framing and shall comply with the 2015 International Residential Building Code for one and two family dwellings.

All walls must be built upon pressure treated or redwood bottom plates.



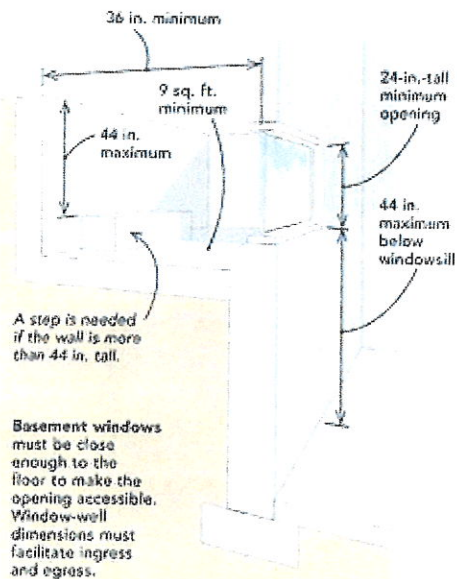
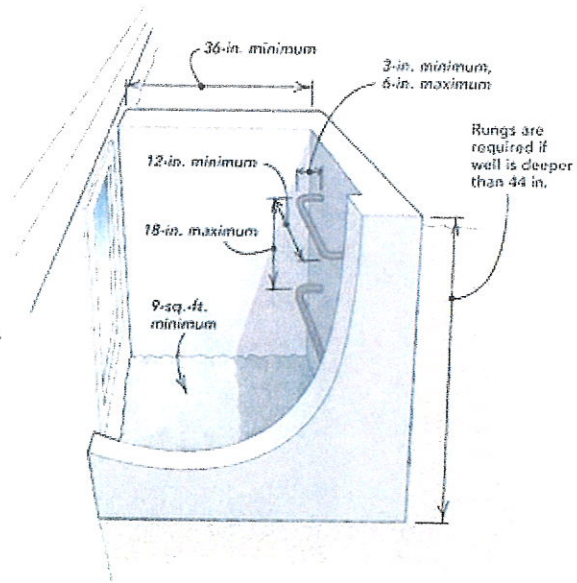
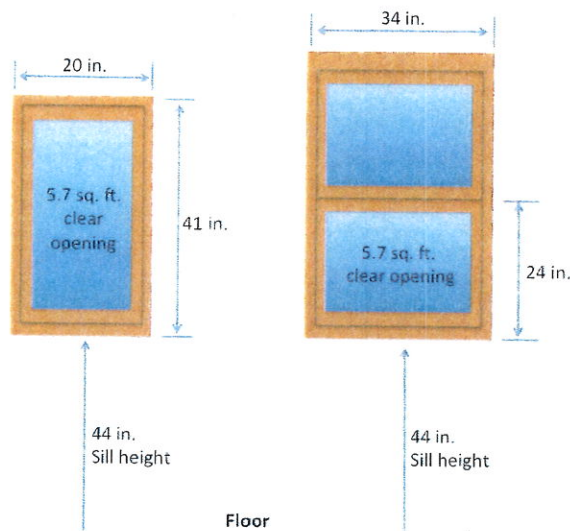
Exterior walls shall be insulated in compliance with the current energy code. Minimum of R value of 19



Emergency Escape Opening

Any basement containing habitable space requires at least one emergency escape and rescue opening. Emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Minimum opening size is 5.7 square feet. The minimum opening height is 24 inches and minimum opening width 20 inches. Window wells with a vertical depth over 44 inches requires a ladder.

Egress Code: Minimum Size Requirements



Smoke Alarms/ Carbon Monoxide Detectors

The Safety of the public is of paramount importance to the City of Belvidere. Finished basements required the following life safety devices:

Carbon Monoxide Detectors (within 15 feet of any sleeping area)

Smoke alarms (installed in every bedroom and on every floor level)

