



## Basement Finish Requirements Village of Gurnee Building & Safety Division

1. Complete a Building Permit Application.
2. Include all pertinent contractors (i.e. general contractor, electrician, plumber, HVAC, etc.). Verify that electrician, plumber and HVAC contractors are registered to perform work within the Village. **These three contractors must be registered prior to the release of the permit.**  
**Electrician** - copy of current electrical license with a reciprocating municipality and a certificate of insurance with minimum general liability of \$500,000, listing the Village as Certificate Holder. The name on the license and insurance must match.  
**Plumber** - copy of current plumbing license with either City of Chicago or State of Illinois; and a copy of the current IDPH Plumbing Contractor's Registration. A letter of intent on plumbing contractor's letterhead.  
**HVAC** - copy of registration/license with any municipality and a certificate of insurance with minimum general liability of \$500,000, listing the Village as Certificate Holder.
3. Include: Two sets of layout of entire basement – include existing layout and proposed layout. Show location of stairs, existing windows, electric panel, and furnace/mechanicals. Include location of electrical (show outlets and switches); supplies, returns, and exhaust for HVAC; any new walls, doors, and windows; and plumbing fixtures. Include sizes of all lumber being used; type of insulation being used; window specs if any new windows are being added; mechanical specs for new equipment; and WSFU for plumbing fixtures, for the entire home, including new fixtures. Label the proposed use of each of the rooms being created. Provide dimensions for all of the new and existing rooms. See following notes for details of information to provide on plan.
4. Include proposals/contracts of all sub contractors (i.e. electrician, plumbing, HVAC, etc.)
5. Inspections required:
  - a. Underground plumbing
  - b. Rough - framing, electric, heating, and plumbing
  - c. Insulation (for exterior walls), including draft stopping/fire blocking
  - d. Final

### **GENERAL:**

1. Provide proper clearances to appliances for safe operation and working clearances for servicing. (These clearances can be found marked on the appliance or in the installation instructions).
2. Appliances shall be capable of replacement without the removal of permanent piping, plumbing, or framing.
3. Access and access panels shall be provided for gas valves, water valves, cleanouts, and electric junction boxes. These panels need to be large enough to provide for proper servicing.

4. Access to ejector pumps, sump pumps, and water meters need to be provided to provide for servicing and replacement.
5. All bedrooms shall be provided with secondary means of egress (escape window or exterior door). The maximum sill height shall be 42 inches above the floor, at a minimum of 5.7 square feet with a minimum net clear opening height of 24 inches and minimum net clear opening width of 20 inches. The window well must be 3-feet x 3-feet minimum with a ladder. The units shall be operable from the inside without the need for separate tools or special knowledge.
6. Install minimum R-19 cavity or R-15 continuous insulation at all currently unfinished exterior walls, in compliance with the 2018 International Energy Conservation Code and the 2012 International Residential Code R-19 cavity insulation requires use of minimum 2 x 6 studs. This includes the existing "finished" space if walls are uninsulated.

**CARPENTRY:**

1. Stud spacing shall not exceed 16 inches on center.
2. All wood in contact with concrete shall be treated or naturally durable.
3. Drilling of framing members shall only be done in strict conformance with the building codes.
4. If wood stud walls are set out from the foundation walls, a firestop must be installed at the intersection of the wall and ceiling joists. All openings in the top plate made for conduit, piping, etc., must be sealed with an approved caulk material. Firestop is not required with steel stud wall construction.

**PLUMBING:**

1. All work shall meet IDPH Plumbing Code 2014.
2. According to Public Act 094 0132 Sec. 37 – A letter of intent shall be included with all permit applications. The letter shall be written on the licensed plumber of record's business stationery and shall include the license holder's signature, and if the license holder is incorporated, the license holder's corporate seal. If the license holder is not incorporated, the letter must be notarized.
3. The licensed plumber shall be present on all plumbing inspections.
4. Provide plan review at all inspections.
5. Basement plumbing shall go to an approved ejector pit. All ejector pits shall be a minimum of 30-inches in depth.
6. There shall be no more than two toilets on a 3-inch horizontal waste (a toilet on an ejector counts as one toilet).
7. All horizontal "dry" vents shall comply with 890.1450.
8. Tub and shower valves shall be stamped with an ASSE 1016 approval.
9. Domestic water, as well as sanitary waste, shall be tested using a test method described in 890.1930 a). – e).

10. If applicable, shower safe pan membrane shall be installed by licensed plumber and be inspected by Village Plumbing Inspector prior to pouring base on top.
11. Walls in shower and tub areas shall be sheeted with an approved material before the tub or shower (with or without an enclosure) is set.
12. A water riser diagram for the supply piping must be included. It must indicate the pipe size and fixtures served.
13. A drawing of the water and vent piping must be included. It must indicate the type of piping, pipe size, and fixtures served.
14. Provide WSFU count for entire home, including new fixtures.

**ELECTRICAL:**

1. Homeowners wishing to install their own electrical work shall schedule with the Village of Gurnee Building Department, an appointment to take an electrical exam. The homeowner shall bring with him/her a detailed drawing of the basement finish electrical work, including: raceway material and size; wire size; breaker size; circuits separately labeled; and list of what each circuit controls.
2. Provide a 110 volt, battery back-up, interconnected smoke detector in the main room, furnace room, and within 15-feet of any bedroom door. Must have smoke detector within 15-feet of all sleeping areas.
  - 2a. Install smoke detectors in all existing sleeping areas throughout entire home, they must be hard-wired, battery back-up, interconnected per Article 314 of IRC 2012.
  - 2b. Install smoke detectors and CO detectors on every level of the dwelling unit. They must be hard wired, battery back-up, interconnected per Article 314 of the IRC 2012 and Village of Gurnee Ord. 2203-79.
3. Receptacles shall be placed on any wall that is at least two feet in length, with spacing not to exceed six feet from any opening or interruption in a wall, and is more than twelve feet from receptacle to receptacle.
4. Stairs, halls, and rooms of any shape or size with more than one entry/exit must have the lighting for that area switched at all entries/exits and the path of travel. When entering one room and leaving another, you must be able to turn on the light at that point. The switch shall be located at the latch side of the door and not at a point further than 3-feet in the path of travel. All doors that provide access to grade level must provide exterior illumination by a light on the building.
5. Provide closet lights in all closets 8 square feet or larger. All closet lights shall be recessed or florescent with a solid lens covering the bulb, or LED.
6. Electric panels shall not be installed in a clothes closet or bathrooms, and shall be provided with a clear working space of 30-inches wide and 36-inches in front of the panel.
7. All bedroom receptacles shall be protected by an arc-fault protected branch circuit.
8. Provide fan-rated boxes for all ceiling boxes more than 2 feet from walls.


9. No more than 9 openings on 15 amp circuit; 11 openings on 20 amp circuits are allowed.
10. Receptacles must be rated at branch circuit ampacity.
11. Bathrooms must have a 20 amp protected branch circuit (GFI) receptacle outlet installed adjacent to each sink.
12. Unfinished parts of the basement must have a GFCI protected receptacle installed.
13. Provide a light in every enclosure that houses equipment (i.e. sump closet, etc.).
14. If a combination fan/light fixture is used, the fan and light must be switched independently.

**H.V.A.C.**

1. Provide equal supply and return air ducts to each room, except where prohibited. Each habitable room must contain at least one supply air duct and register and at least one return air duct and register, or electric heat.
2. Combustion air shall be provided to all rooms containing gas appliances to ensure safe operation. Combustion air shall not be taken from bathrooms or bedrooms. If enclosed, sufficient combustion air must be provided through a grilled opening within 12 inches of the floor and another within 12 inches of the ceiling. A louvered door may be acceptable.
3. Bathroom exhaust fan must be vented to the outside atmosphere. All ducts running through unconditioned spaces shall be insulated. Show exhaust fan and path of exhaust duct to the outdoors.
4. Flexible ducts are limited to 14-foot maximum length and shall only be used in accessible areas.
5. Access to mechanical rooms shall not be through a bedroom or bathroom.
6. Show on drawings H.V.A.C. - mark as shown:

Supply 

Return 

Exhaust 

**FIRE**

1. For homes with an installed NPFA 13D Fire Sprinkler System a fire sprinkler company shall be contacted to ensure proper fire sprinkler coverage of basement alteration/finish. Fire sprinkler company must submit plans of work to be performed, if needed.