

Soils

- Q. How deep must I excavate?
- A. The bottom of the footing must be founded 42” below grade. If the soils at this level are gravels, no further excavation is required. If the soils at this level are silts, an additional 18” of excavation is required. Following a soils inspection, this 18” additional excavation must be back-filled and compacted with structural fill.
- Q. When do I call for a soils inspection?
- A. A soils inspection is required prior to placing any back-fill
- Q. What are the requirements for site drainage?
- A. Landscaping must slope away from the structure and runoff must not run onto adjacent property.
→ See **Foundation Elevation**.

Footings

- Q. Do I need a grounding electrode?
- A. Yes, 20’-0” of #4 bare copper wire must be tied or wrapped around the footing reinforcing with enough conductor length to reach service panel without splice. This also pertains to additions to existing structures.
- Q. What footing size do I need?
- A. The typical residential footing is a minimum of 8” deep and 16” wide however the requirements for footing size can vary greatly depending on the number of stories supported, unusual loading conditions or poor soil properties.
- Q. How deep does my footing need to be?
- A. The bottom of the footing shall be a minimum of 42” below finished grade unless a stamped engineers design is submitted.
- Q. Can I use a thickened edge slab on grade foundation?
- A. Yes, however a stamped engineered design is required and the engineer must follow the insulation requirements set forth in the current building codes.

- Q. How much reinforcing does my footing need?
- A. A minimum of two #4 horizontal bars are required for a typical residential footing. This may increase depending on the need for a larger footing.
- Q. Can I “wet set” my vertical reinforcing?
- A. No. Vertical reinforcing must be securely tied in place prior to approval to place footing concrete. Reinforcing must not be in contact with the forms or the soil and must have the code required 8” “hook” at the end.

→ See [City Of Fairbanks Standard Foundation Details 1-8 \(SFD\)](#)

Foundation Wall

- Q. How much reinforcing does my CMU foundation need.
- A. A typical 5 course CMU wall requires #4 vertical bars @ 32” o.c. OR #5 bars @ 4’-0” o.c. Also, two #4 bars are required in the top bond beam. Taller foundation walls or special cases may require additional reinforcing.
- Q. Can I use insulated concrete form blocks (ICF)?
- A. Yes, due to the vast variety of ICF on the market it is impossible to list any additional requirements. Please indicate the brand and size of ICF on your plans so that we may determine any additional requirements.

→ See [City Of Fairbanks Standard Foundation Details 1-8 \(SFD\)](#)

Framing

- Q. When do I call for a framing inspection?
- A. A framing inspection must be performed after the plumbing, mechanical and electrical systems have been inspected and approved.
- Q. Where are double trimmer studs required?
- A. Any wall opening greater than 4’
- Q. Where are egress windows required?
- A. All full basements and all bedrooms. See [Egress Windows](#)
- Q. What are the proper dimensions for stair and handrail construction?

- A. See [Stairs and Rail Details](#)
- Q. What are the requirements for site drainage?
- A. Landscaping must slope away from the structure and runoff must not run onto adjacent property.
→ See [Foundation Elevation](#).
- Q. Do I need my truss sheets at the framing inspection?
- A. Yes, stamped truss sheets are required in order to receive an approved framing inspection. The truss manufacture must supply you with these stamped design sheets.
- Q. Can I use twist straps for truss hurricane ties?
- A. No. Local amendment requires the use of a truss hurricane tie such as a Simpson H1.
- Q. Is blocking required between the trusses at the bearing walls?
- A. Yes, at a minimum, this blocking shall extend up to the centerline of the truss top chord. This blocking shall also be attached to the wall top plate with nails or metal “L” brackets.
- Q. Are seismic hold-downs required on my walls?
- A. In some cases, yes. A residence typically requires hold-downs on the short walls on either side of the garage doors. As the complexity of the floor plan increases, the number of windows and doors increases and/or the number of floors increases as will the likelihood of additional hold-downs. The Code requires an engineered design for elements of buildings falling outside the definition of Conventional Light Framed Construction.
- Q. What are the requirements for roof and wall sheathing?
- A. Wall sheathing must be a min of 7/16” OSB and roof sheathing a min of 5/8” OSB or 1/2” plywood with H-clips.
- Q. Can I get a wall and or roof sheathing inspection before my framing inspection?
- A. Yes. We fully understand the need to get buildings enclosed and weather tight as soon as possible.

- Q. Can I use adjustable pier blocks for my stairs/deck/patio?
- A. This depends on site conditions; if a large amount of frost heave is suspected due to soils present sona tubes may be required. Any stairs/deck/patio with a roof is prohibited from using pier blocks.

Insulation and Vapor Barrier

- Q. What are the insulation R-values that I need for my home?
- A. At a minimum, the walls require an R-value of 21, the ceiling must be R-38 and the foundation and rim boards must be a minimum of R-10.
- Q. How thick should my vapor barrier be? Should it be hung tight? Do I need to use tape and/or acoustic sealant?
- A. The vapor barrier must be at least 6 mils in thickness. It should be hung neatly with some slack in the corners. Tight corners could tear when the sheet rock is hung and/or is the vapor barrier shrinks. The use of tape is required when there is a seam that is not backed by framing. This typically happens when the seam is placed at right angles to the framing. Acoustic sealant is not required but is recommended.
- Q. Can I use spray foam in the crawl space and attic?
- A. Yes, however any exposed spray foam or some brands of rigid insulation must be protected with a fire barrier such as fiberglass insulation, sheet rock or sheet metal.

Sheet rock

- Q. What thickness of sheet rock do I need to use?
- A. Typically 1/2" sheet rock is used for the walls when studs are spaced no more than 24" o.c. and 5/8" sheet rock is used for the ceilings. Please note that moisture resistive sheet rock is required 4'-0" up from the floor within 2'-0" of toilet and lavatory fixtures. Moisture resistive sheetrock cannot be used on the lid.
→ See [Water Resistive Gyp Wallboard RQMTS](#)
- Q. What is required between dwelling units?
- A. 5/8" type X sheetrock on both sides of shared wall along with sound channel and min R-19 insulation.

Permitting

- Q. What do I need to submit in order to get a Building Permit?
- A. You will need to submit the following: A completed building permit application, an approved zoning permit from the Borough, a driveway permit (if applicable), two sets of complete and legible plans (three sets for commercial structures) that follow the “Plan Requirements” guidelines found elsewhere on this site.
- Q. How long does it take to get a permit?
- A. If the submittal is complete, accurate and code compliant, we try to have a residential permit issued within three days. Incomplete, inaccurate, illegible and/or non-code compliant submittals will take longer. It is to everyone’s benefit to make the first submittal a good submittal.
- Q. Who needs to call for inspections?
- A. The person doing the work needs to call for each required inspection. This way there is doubt that the work is ready to be inspected.
- Q. Do I need any other Permits?
- A. In most typical cases, yes. When the project includes electrical, plumbing and/or mechanical work, permits are also required for these trades.
- Q. What do I do when the project is done?
- A. Be certain to call for a Final Inspection. This way we can assure the final product is code compliant and we can close out our files. Also, a certificate of occupancy cannot be issued until a final inspection has been performed and approved.

Electrical

- Q. Do I need a permit to change a switch or receptacle?
- A. No, if the device is broken and will be replaced no permit is required. If a switch or receptacle is relocated then a permit is required.
- Q. Who can get an electrical permit?
- A. A homeowner can get a electrical permit to do work on the home he lives in. After that an electrical contractor is required.

- Q. Where do receptacles have to be installed?
- A. Within 6 feet of a door and every 12 feet thereafter. In the kitchen, within 2 feet of the end of the countertop and every 4 feet thereafter
- Q. .Is a receptacle required outside?
- A. Yes, at least one in the front of the house and one in the back of the house. A separate 20 ampere branch circuit is required to supply a receptacle to plug in an automobile located adjacent to the parking area. This is a City Of Fairbanks requirement.

Plumbing and Mechanical

- Q. Do I need to get a permit to replace my boiler?
- A. Yes. Replacement is one of the actions listed as requiring a permit (*03IMC* 106.1) and replacing a piece of equipment (boiler, furnace, condenser unit, HRV, etc.) is not a “minor part,” so not included in the list of exceptions to this requirement (*03IMC* 106.2).
- Q. What are some of the things you look for on a boiler replacement?
- A. Some of the more important things checked are tight fuel connections with appropriate materials (*03IMC* Chap. 13, *03IFGC* Chap. 4), adequate clearances for the boiler (*03IMC*1004) and the chimney connector (*03IMC* 803.10.6) or vent connector (*03IFGC* 503.7.7), the auxiliary safety high limit control (*03IMC* 1006.7), the relief valve properly installed and piped toward the floor (*03IMC* 1006.5 & 1006.6), the required backflow preventer on the water makeup connection (*03UPC* 603.4.11), and adequate provision of combustion air (*03IMC* Chap. 7).
- Q. Do I need a (City of Fairbanks) Master Plumber’s license to replace my boiler?
- A. No. A Master Plumber’s license is required only for work regulated by the plumbing code (*03UPC* 103.1.3) and boilers are regulated by the mechanical code (*03IMC* 101.2) and if gas-fired, also by the gas code (*03IFGC* 631.2).
- Q. Do I need a Mechanical Administrator’s license to replace my boiler?
- A. Yes, and No.
-Yes, when performing mechanical work for which the State of Alaska requires a Mechanical Administrator license then the Mechanical Permit must be issued to the Mechanical Administrator (*03IMC* & *03IFGC* 106.4). This

includes boilers in any commercial structure and any residential structure with more than two dwelling units (*AS 08.40.260*).

-No, when performing mechanical work for which the State of Alaska does not require a Mechanical Administrator license, then the Permit may be issued to whoever is doing the work (*03IMC 106.4*). This includes boilers in single-family homes and duplexes, not for sale at the time of the boiler replacement (*AS 08.40.390*).