

## REQUIRED INSPECTIONS

**TYPES OF INSPECTIONS:** For on-site construction, from time to time, the Building Official, upon notification from the permit holder or his agent, shall make or cause to be made any necessary inspections and shall either approve that portion of the construction as completed or shall notify the permit holder or his agent wherein the same fails to comply with this code.

**Approved Construction Drawings**, including any roof truss shop drawings, shall be on the job and made available to the inspector for all inspections. The inspector may not be able to perform the inspection if the necessary drawings are not available to him, and valuable time will be lost in waiting to access them.

Permits must be posted in a conspicuous location along with the address of the property if an address is not already present. Not properly displaying the permit is the same as not having the permit.

The Bedford Building Department will, upon request, perform several periodic rough inspections of portions of framing and electrical or plumbing systems in the effort of expediting the progress of the project. The owner or the owner's agent is responsible for meeting the inspector and for having the given portion of work ready for inspection.

Bedford inspectors want to cooperate with our customers and clients to give the best service possible. We are prevented from doing that when we are called to perform inspections on work that is not ready to inspect, or when we have not been informed of other issues that have caused the work to be postponed. There are never any additional charges for inspections, pass or fail, that are legitimately scheduled, but appointments for inspections on work that has been cancelled or postponed due to weather or other factors, or inspections at which the contractor or owner fail to meet the inspector as scheduled may result in additional charges. Please have the courtesy to call the Building Department and reschedule appointments when necessary.

To schedule an inspection, the permit holder or his agent shall notify the building department at least 24 hours in advance of the time when the work will be ready for inspection.

**Remember that approved drawings** must be on site for all inspections.

**1. BUILDING LOCATION & SETBACK INSPECTION:** Made to determine that the location of the structure on the lot is in compliance with the required setbacks per the Zoning requirements and in conformance with the approved site plan. The property corners and side-lines and the structure outside corners and major off-sets must be staked and visible. This inspection should occur before footing excavation. The lot address must be posted and a copy of the approved site plan on the job site for this inspection.

**2. FOOTER/FOUNDATION INSPECTION:** Made before poles or piers are set and after trenches or basement areas are excavated, forms erected, grade stakes in place and any required reinforcing steel is in place and **PRIOR TO THE PLACING OF CONCRETE**. The foundation inspection shall include excavations for thickened slabs intended for the support of bearing walls, partitions, structural supports or equipment, and special requirements for wood foundations. For wood poles or posts, foundation holes should be inspected prior to the insertion of wood posts into the holes. Foundations may NOT be placed on any type of fill material unless pre-approved by the Building Official. **All standing water must be removed from holes or trenches prior to inspection.**

**3. FOUNDATION WATERPROOFING AND DRAIN TILE:** Foundation waterproofing or damp-proofing of new foundations and the installation of related drain tile are inspected. Drain tile shall be visible and run to a point approximately 6-feet away from foundation.

**4. ELECTRICAL AND PLUMBING UNDERGROUND INSPECTION:** All electrical and plumbing piping should be installed and left exposed for this inspection. A portion of the backfilling of piping may be completed with the prior permission of the inspector. Plumbing and electrical risers should be staked or otherwise secured so that concrete or other related work can proceed without displacing the electrical or mechanical piping. Underground sewerage piping shall be air tested prior to backfilling.

**5. SLAB INSPECTION:** Slab inspections are required for basement and garage floors or other slabs on grade and raised slabs as well as for sidewalks, porches and steps, driveways and drive aprons. They are made before the slab is poured but after installation of the formwork, wire reinforcing and/or vapor barrier has been placed.

**6. ROUGH FRAMING, PLUMBING, ELECTRICAL, MECHANICAL INSPECTIONS:**

**a. FLOOR FRAMING INSPECTION OVER CRAWL SPACE:** Prior to sub floor being applied.

**b. Wall/Stud, Floor and Roof FRAMING:** Studs should be complete with all windows, doors and other features and rough openings in place and headers securely fastened. Floors and/or roofs should be complete with all joist hangers, hurricane clips, bridging, bracing or other features in place and securely nailed. Roof and wall sheathing materials shall be inspected before covering those materials with building wrap or felt paper. The rough framing inspection **shall follow** the electrical, mechanical and plumbing rough-in inspections so that any damage to wall or floor framing done by those trades has already been repaired. All masonry, including fireplaces, chimneys and other features – but not including face brick - should be in place prior to the rough framing inspection. The rough framing inspection shall be performed **before any wall or roof insulation is installed.**

**c. MECHANICAL, PLUMBING AND ELECTRICAL ROUGH INSPECTION:** Made prior to concealment, including the installation of any wall or ceiling insulation. All rough wiring and boxes must be installed and properly secured. All circuits must be made up, i.e., the grounds, neutrals, and hots must be tied together. Inspections will be made before devices and fixtures are installed or set. The panel inspection may be a separate inspection if requested. The electrical contractor/installer must be present for the rough electric inspection. All ductwork, pre-charged lines, register boots and plenums must be installed. All electrical, mechanical or plumbing work above an acoustical ceiling must be inspected prior to the installation of any ceiling tile. Rough plumbing should be in place and already tested and, if necessary, insulated with pipe wrap.

**d. ROUGH PLUMBING:** All water and sewer piping should be visible and ready for the applicable pressure test. The plumbing schematic should be available during the inspection. Piping insulation shall be installed after the pressure test. The plumbing contractor must be present for the inspection.

**NOTE:** Several types of rough inspections can be performed simultaneously if pre-arranged with the Building Department.

**7. INSULATION AND VAPOR BARRIER:** This inspection is performed after the insulation and vapor barriers have been completely installed. The following items (among others) are included in this inspection;

- a. Openings and penetrations in the envelope, including recessed lights and other details, must be caulked, gasketed, or otherwise sealed. Air-barriers and thermal barriers must be in place and adequately patched.
- b. Access doors separating conditioned and unconditioned space must be insulated;
- c. Combustion air openings for wood-burning stoves or fireplaces must be installed;
- d. Batt insulation must be in between outside wall and pipes. Insulation must be cut and fit tightly in stud space and around electrical boxes. Insulation must be placed behind boxes and pipes.
- e. Corners, headers, rim joists and narrow areas around framing (windows and doors) are properly insulated.
- f. Insulation is installed in a manner that achieves the intended R-value.
- g. R-factors or U-factors of various materials are clearly marked so that compliance can be determined;
- h. Joints in air ducts and plenums are adequately sealed with approved materials;
- i. A permanent certificate is provided on or in the electrical panel listing the predominant insulation values and window U-factors.

**8. MASONRY INSPECTIONS:** Fireplaces, chimneys and other masonry features shall be inspected when completed to ascertain compliance with applicable codes and standards.

**9. ELECTRICAL SERVICE INSPECTION:** Service mast and meter base must be installed along with service entrance cable into the service panel. Grounding and bonding must be connected. Both an exterior ground rod and a ground to the water line must be installed. There must be one circuit (GFCI Protected) with a receptacle installed. (May be made with rough inspections.)

**10. ELECTRICAL PANEL REPLACEMENT:** A final inspection with the panel cover removed is required. The electrical installer must be present for the inspection.

**11. ROOF INSTALLATION INSPECTION;** All roof installations shall be inspected at the appropriate time to observe the condition of sheathing materials and to verify the proper installation of ice and water shield. No more than 2 layers of roofing shall be installed on any roof.

**12. WATER AND/OR SEWER LATERALS TO CITY RIGHT-OF-WAY:** Piping must be inspected prior to backfilling. Any taps into City sewer or water main are inspected individually, and the entire tapping operation may be monitored. Backfill materials should be on the job when piping inspection is arranged.

**13. STREET OPENINGS:** the backfilling and the patching of all street openings are inspected. Pre-pour inspection of City curb or right-of-way paving is required after all preparation work is completed and prior to the actual concrete installation.

**14. OTHER INSPECTIONS:** In addition to the inspections listed above, the Building Department may make or require any other inspections to ascertain compliance with the code and other laws enforced by the Building Department. These inspections may include but are not limited to fire safing or caulking, EIFS Insulation systems, flood Insurance requirements, Fire Alarm installations or Automatic Sprinkler Systems inspections.

- 15. FINAL INSPECTIONS:** Made after building is completed and ready for occupancy.
- a. Final Electrical Inspection; All wiring, devices and lighting fixtures are complete; panels have already been inspected and the panel covers installed; panel indexes have been filled out and installed in each panel; Emergency systems have been tested and approved;
  - b. Final Plumbing Inspection; Final air test on all fixtures is required. Inspection of water temperatures is performed where applicable; Insulation has been installed where specified; manufacturer's information has been made available where applicable.
  - c. Final Mechanical Inspection; Final inspection of ductwork and registers. Manufacturer's information available on Heating and A/C equipment and wherever else applicable; Filters have been changed and filters used during construction discarded; All penetrations through building envelope have been caulked and sealed.
  - d. Final Inspection; All smoke detectors and other alarm devices inspected; Final cleanup performed; Site features completed and cleaned up; Accessibility requirements adequately met; Exit and Egress features in place and operating smoothly and properly; Fire Extinguishers in place if applicable;

**NOTE:** In the event that an item is found to be unacceptable by the inspector, that item shall be re-inspected prior to moving forward with other work in that location or concealing in any way the work that was found to be unacceptable. Contact the appropriate inspector if necessary for questions about the correction of work found to be in violation of the code.

**PATCHING:** Section 1913.07 of the Codified Ordinance of Bedford requires that all materials used to patch existing surfaces or features be equal to or the same as the material being patched in quality, strength, texture and color and that all building lines be preserved level and plumb, flat and true. Patching shall be inspected during the **Final Inspection** to insure compliance.

**16. DECK INSTALLATIONS:** Post holes for deck foundations shall be inspected prior to the insertion of wood posts into the holes. Floor framing shall be inspected prior to the installation of flooring. A final inspection of the entire completed structure is required.

**17. FENCE INSTALLATION INSPECTIONS:** Prior to starting the installation, property pins shall be installed or uncovered and the proposed fence location inspected/verified as properly located. A final inspection is required after the installation has been completed.

**18. HOT WATER TANK INSTALLATION:** A final inspection is required after the installation has been completed.

**19. NEW AND REPLACEMENT FURNACE INSTALLATIONS:** A final inspection is required after the installation has been completed.

**20. FIRE ALARM INSTALLATIONS:** Drawings and specifications are required for review and approval prior to the installation. Rough electric/wiring inspection and final inspection/acceptance testing are both required.

**21. FIRE SUPPRESSION SYSTEMS INSPECTIONS:** Drawings and specifications are required for review and approval prior to the installation. Rough piping inspection prior to any concealment and final inspection/hydrostatic testing are required.

**22. INTERIOR OR EXTERIOR WATERPROOFING:** Inspection of waterproofing and piping prior to backfilling and final inspections are required.

**23. DEMOLITION INSPECTIONS:** Contractors are required to properly terminate and cap the sewer and water laterals and to have the capping inspected. A final inspection following the cleanup and seeding of the area is required.

**24. LAWN STORAGE SHEDS:** A final inspection of the placement and installation of the shed is necessary to demonstrate compliance with the zoning setback requirements and to insure that the shed is secured in place.