



KITIMAT

A Marvel of Nature and Industry

RESIDENTIAL INSPECTION STAGES GUIDE



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1 GENERAL REQUIREMENTS

1.1 PERMIT INSPECTIONS

Inspections help ensure that renovation or construction work complies with the appropriate by-laws, and matches the work authorized by the permit, the latest revision of the BC Building Code (BCBC) and the Kitimat Municipal Code. Inspections also help the District advance its goals concerning life safety, accessibility, green buildings, and more. The complexity of modern buildings and technologies often means that several inspections of a building are required. The District is responsible for inspections related to: plumbing, mechanical, sewer, water, drainage, structural, health and safety.

1.2 PURPOSE STATEMENT

The following procedure is meant as a guideline to aid builders in the proper preparation for calling in for inspections. The objective is to avoid delays and additional fees by providing upfront information that prepares the builder in advance.

1.3 BOOK YOUR BUILDING OR TRADES INSPECTION

If your permitted construction or improvements are ready for a required building or trades inspection, booking arrangements must be made with a District Building Official by calling 250-632-8900. Requests must be submitted a minimum of one business day before the requested inspection by 2:00 PM.

When you phone to arrange for an inspection, be ready to provide:

- Permit number
- Address of the site
- Type of inspection required
- Date of requested inspection

If you need to cancel or re-schedule an inspection, please call 250-632-8900 before the 2:00 PM scheduling deadline. Inspections cancelled after this deadline may be subject to a re-inspection fee.

1.4 RE-INSPECTION FEE POLICY

The intent of the Building Department is to work together with our customers and support them through the building process. The District has developed this procedure to enable customers to educate themselves and be prepared for required inspections. This document is meant to remind contractors that they have a responsibility to ensure construction is carried out accordingly and to resolve deficiencies noted by the Official.

A re-inspection fee may apply for the following reasons:

- Failure to fully correct any previous noted deficiencies recorded on the inspection report;
- A contractor or person requesting an inspection and work is not ready for the requested inspection;
- If the work has progressed further than it allows an Official to do the required inspection, work will need to be uncovered in order to verify the compliance of the work;
- If the contractor or person fails to request a required inspection;
- If the inspection is cancelled after the scheduling deadline;
- Failure of the contractor/owner to ensure a safe and accessible site;
- If the plans or representative is not onsite during requested inspection; or,
- Any other reasonable reason similar to those noted above.

1.5 REQUIRED INSPECTIONS FOR RESIDENTIAL DWELLINGS

The Building Official and Plumbing Official will need to inspect your project at several stages during construction. The following stages apply to a new Residential Dwelling and sub-sections of the procedure would also apply to renovations and additions.

It is important to note that at every inspection stage Officials shall refuse an inspection if the site is in an unsafe or untidy condition.

Depending on the planned construction, there are 14 inspection stages that must be done for the completion of the permit. If the items are not completed, then the inspection is deemed not ready and a re-inspection fee will be assessed.

If an inspection is failed, the items are to be addressed prior to construction continuing.

1.6 OTHER MUNICIPAL CODE REQUIREMENTS

Further details upon request. Highlight lighted items to consider are:

1. Road debris clean-up
2. Erosion and sediment management
3. No surface water or groundwater to be directed to sanitary services

DISCLAIMER: This document is an advisory only. Following the procedures set out here does not relieve any person from complying with all other relevant laws, including Federal

or Provincial statutes, District of Kitimat by-laws, WorkSafeBC requirements, or any requirement of any permit, order or license. It is the sole responsibility of the user to ensure they have the most current version of this document available.

Updates and changes to this document will occur as they are needed by the District of Kitimat.

1.7 LEGEND FOR INSPECTION GROUP



Building Inspection Group



Plumbing Inspection Group

2 REQUIRED INSPECTION STAGES

2.1 Demolition/Deconstruction Inspection



Demolition contractors are required to notify the District (250-632-8900) before noon one business day prior to the commencement of

demolition. The contractor may begin work prior to the Building Officials arrival, but must meet this requirement for advance notice.

The demolition contractor shall:

- Provide documentation showing the hazardous materials have been removed and disposed of according to all applicable rules and regulations, if required;
- Adhere to the demolition plan, if required;
- Adhere to the traffic control plan, if required;
- Clean road of debris if required;
- Control dust from the site.

2.2 Excavation Inspection



After excavation is completed, inspection is required, prior to footing form work being installed.

EXCAVATION

- Excavation meets WCB guidelines or a valid P.Eng excavation letter has been provided.
- Poly is covering excavation bank if required.
- Dewatering filter is on the street catch basin or screening is installed upstream.
- Excavated ground condition meeting BCBC requirements: undisturbed soil, no organics, not different soil types, and soil firmness meet minimum requirements.

Required documents:

- Provide Structural Engineer letter where required.
- Provide WCB excavation letter where required.
- Provide Geotechnical soil bearing letter where required.

2.3 Footings and Forms Inspection



The footings and forms inspection is to be performed after completion of form work, but prior to pouring of any concrete.

FOOTINGS

- Location and configuration of footing forms matches approved plans.
- Minimum frost protection of 120cm (48 in.) is maintained in all areas including any sunken patio well area.

FORMS

- Depth and width of foundation forms matches approved plans.
- Foundation wall height will facilitate approved grades and accommodate concrete stair height.

Required documents:

- Provide Structural Engineer letter where required.

2.4 Building Location Certificate (BLC) and Field Plan Review Inspection from a Certified Surveyor



The BLC is to be performed before framing begins. The BLC must confirm that the foundation is in the location shown on the approved plans.

The approved building plans need to be onsite for the Building Official may request to review with the Builder. This is an opportunity for the Builder and Building Official to identify and discuss construction concerns prior to the commencement of major construction.

Required document:

- Provide Building Location Certificate

2.5 Drain Tile Inspection



The Drain Tile Inspection includes Drain Tile, Damp Proofing, Rainwater Leaders and Water Service. This inspection is performed after the

footings and forms inspection and before backfilling of the Drain Tile.

All underground trenching must remain open for inspection and all piping, weep holes, bedding, gravel, sleeves, etc. shall be in place. Gravel is placed around the Drain Tile to a minimum 15cm (6 in.) of cover above the Drainage pipe. See Bulletin-97-03

DRAIN TILE/DAMP PROOFING

- Separate Drain tile and Rain Water Leader (RWL) piping connect independently to sump(s).
- Drain tile piping using recommended perforated PVC installed with weep holes facing down, lettering at top of pipe.

- The top and sides of drain pipe or tile shall be covered with not less than 15cm (6 in.) of crushed stone or other coarse clean granular material containing not more than 10% of material that will pass a 4mm (0.158 in.) sieve.
- Proper pipe location and slope relative to finish floor and footings elevations. Where unclear, mark finished floor elevation on foundation wall.
- Proper application of damp proofing. Walls to be parged before applying damp proofing where excessive honeycombing occurs.

RAINWATER LEADERS

- Rainwater leaders discharging as permit requirements
- Provide acceptable pipe i.e. solid PVC sewer grade.
- Properly glued and sloped.
- Proper support of piping. Hangers or metal strapping fastened to foundation wall or other acceptable means.

2.6 Utility Inspection



The Utility Inspection will include the sanitary and storm sewer installation to the property line. After a passed Utility Inspection, the contractor will

contact the District of Kitimat to schedule the service connection. This inspection is to be done after utilities are installed and prior to backfilling. Contractor to be onsite to start backfilling with 300mm of sand material.

GRAVITY-DRAINED STORM SERVICES

- Size, depth, diameter and location as per BCBC.

PUMPED STORM SUMPS

- Only those portions of the drainage system which cannot drain by gravity or are at or below the District's sewer service elevation are permitted to be pumped.

SANITARY SEWER

- The new public sanitary sewer and water connections shall be utilized.
- Sanitary sewer restrictions, conditions, locations, and elevations are as per site plan. Floor slab elevations, sump locations, and sewer locations and elevations at the property line are shown on the building permit drawings.
- Minimum size of sanitary sewer on private property as per BCBC.
- Minimum size of drainage piping on private property as per latest BCBC edition.
- Install sewer piping on firm undisturbed soil. Remediation as directed by a geo technical engineer is required where soil is unstable.
- Acceptable backfilling bedding materials.

SEWER BACKFLOW PREVENTION

- Where conditions are favourable for the sanitary sewer to flow by gravity to the District sewer connection an accessible backwater valve shall be permitted.
- Only those portions of the sanitary drainage system which can flow by gravity are permitted to be protected from surcharge or backflow with an accessible normally open backwater valve.

WATER SERVICE

- Type of pipe and approvals per latest BCBC edition.
- Soil conditions and bury at 120cm (4 ft.) below grade (depth of bury).
- Location of city connection relative to other services i.e. gas electric etc.
- Proper fittings and joints, leak tight installation.

2.7 Below Slab Plumbing Inspection (inside building)



The Underslab Plumbing Inspection is to be performed after the footings and forms inspection but before the basement slab can be poured.

UNDERSLAB PLUMBING

- Piping to be laid on undisturbed soil and free of debris.
- Approved pipe, bedding and fittings to be used.
- Grade of pipe meets the minimum 6.4mm (0.25 in.) per foot.
- Piping to be glued.
- Where a fixture is below the adjoining street a backwater valve shall be installed on a building drain or branch where pumping is not required.
- Location of District connection to meet the approved drawings.
- Water service piping shall be installed.
- Radon gas provisions shall be installed

Required documents:

- At the discretion of the Building Official, written confirmation from the plumber that the pressure test passed.

2.8 Underslab Damp Proofing and Insulation Inspection



The Underslab Damp proofing Inspection is to be performed after the installation of the sub-base material, vapour barrier, underslab insulation.

POLY UNDERSLAB

- Poly is installed for underslab and sealed around perimeter for vapour barrier.

UNDERSLAB INSULATION

- R11 rigid insulation is installed under the entire slab and between the slab and all exterior foundation walls.

UTILITIES

- Utility sleeves installed for the water service

2.9 Plumbing, Mechanical, and Rough-in Inspections (above ground)



The Plumbing, Mechanical, and Rough-in Inspection is to be performed after the framing but prior to insulation installation.

The homeowner /builder (contractor) is responsible for coordinating the inspections with Technical Safety BC Permits (electrical and gas).

WATER SERVICE

- Size and type of piping rough-in match the approved plans.
- Pipe size as per drawings.
- Fittings to be CSA approved.
- Ensure piping joints are watertight.

HYDRONIC ROUGH-IN

- Leak testing in progress during site visit.

DRAINAGE WASTE VENT SYSTEM PIPING

- Piping installation practice to comply with latest BCBC edition.
- Location of plumbing fixtures installed as per the approved plans.
- Grade to be a minimum of 6.4mm (0.25 in.) per foot.
- System under test with either water or air during inspection.
- Piping support, hangers and expansion joints to meet latest BCBC edition.
- Provide backflow prevention only for portions of the drainage system that are subject to backflow.

2.10 Framing Inspection



The Framing Inspection is to be performed before insulation is installed, after: the sheathing, and all rough-in work for plumbing, gas, electrical, and mechanical systems is completed.

STRUCTURAL FRAMING

- Building structure matches the designers' drawings and specifications.
- Floor to ceiling height and floor system thickness matches approved plans to verify overall height.

SHEATHING

- Sheathing has appropriate spacing and the joints in the sheathing are staggered.
- All mechanical and electrical wall penetrations are sealed as per the details on the approved plans.

INSULATION PREPARATION

- Vapour barrier continuity provisions have been made at intersections of interior and exterior walls and top plates at the roof level.

- Electrical outlet boxes and non IC pot lights have air-tight device boxes with gaskets.
- Duct joints are sealed and ductwork is insulated where necessary including metal joints.
- Insulation is installed on required utilities and cooling and heating piping.

INTERIOR STAIRS/RAMPS

- Stair rise, run, tread and headroom, etc. are in compliance with the approved plans and the latest BCBC edition.

VENTILATION SYSTEM

- Mechanical ventilation system installed matches mechanical ventilation checklist.

FIRE STOP

- Fire blocks, drops and chases are completed.
- Firestopping of plumbing and electrical penetrations is completed at fire separations (side by side duplex).

FIRE SEPARATION

- Vertical fire separation is continuous from roof sheathing to foundation (duplex).

WINDOWS, DOORS AND SKYLIGHTS

- Window mock-up is completed (exterior trim, flashings, end dams) and matches approved plans.
- Size, location of doors and windows is in accordance to plans.
- Windows, Doors and Skylights conform to latest BCBC edition.
- Window type matches approved plans (material and configuration).

Required documents:

- Provide P.Eng. Schedule C-B for framing, for tall walls and truss spans greater than 12.2m (40 feet).
- Provide P.Eng. stamped roof trusses.

- Provide TECA (mechanical ventilation checklist).

2.11 Rain Screen Inspection



The Rain Screen Inspection is to be performed before the scratch coat is installed and after the sheathing and flashing has been accepted.

Inspections occur during various stages of construction, including, during the framing inspection. Mechanical penetrations should be sealed to the extent possible prior to calling for an inspection.

RAIN SCREEN

- Exterior sheathing paper is installed.
- Roofing and skylights are installed.
- Strapping or drainage cavity material is installed.
- Stops are installed, if applicable.

2.12 Insulation and Vapour Barrier Inspection



The Insulation Vapour Barrier Inspection is to be performed after the Framing Inspection has been passed and insulation and vapour barrier has been entirely installed. The application of interior wall finishes to walls and ceiling should not be started until this inspection has been completed and Building Official has given approval to begin.

INSULATION/VAPOUR BARRIER

- Insulation and vapour barrier is installed.
- Crawl space/foundation walls below grade are properly insulated.
- Spray foam to be installed as per manufacture specifications by a trained installer.
- Blown-in insulation to be installed as per manufacture specifications by a trained installer.

- Pot lights are compatible with insulation
- IC fixture and the fixture are airtight unless a poly pan is provided around the fixture.

Required document:

- Energy checklist completed by Certified Energy Advisor approving the installation of interior wall and ceiling finishes.
- Spray foam or Blown-in Insulation document (invoice) showing material specifications and quantity of material installed

2.13 Final Plumbing, and Mechanical Inspections



The Final Plumbing, Mechanical Inspection is to be performed after the Rough-in inspection and during the Final Building Inspection. All of the plumbing fixtures, heating equipment, gas appliances, and piping needs to be installed and the plumbing system needs to be completed and tested prior to requesting the inspection. This inspection needs to be consolidated so that all plumbing and mechanical work are inspected on the same day. The homeowner/builder (contractor) is responsible for coordinating the Technical Safety BC Permits.

PLUMBING

- Fixtures to have CSA certifications. Fixture connections and clean-out locations (trap arms and water piping connection) to meet latest BCBC edition.
- Ensure hot and cold water supply to fixtures are appropriate and do not have leaks.
- Pressure reducing valves installed.
- Backflow prevention provided for hose bibs and boiler make-up water.
- Provide a thermal expansion valve and temperature and pressure (T&P) valve at the

hot water heater. Valves to be properly piped to a drain.

- Water main shut-off valve to be accessible and free of obstructions.

MECHANICAL

- Equipment is installed in the approved location.
- Equipment is adequately secured as per manufacturer.
- All equipment installed has been commissioned.
- Exterior lines are adequately protected from damage and freezing.

RAIN LEADERS

- Gutters and downspouts to be connected to underground storm drainage piping.

Required documents:

- Notification of Completion certificate from Technical Safety (gas, electrical and mechanical systems).
- Passed plumbing system pressure test documentation.

2.14 Final Building Inspection



The Final Building Inspection is to be performed after all sub-trade permits (Plumbing Permit(s), and Technical Safety BC Permits) pertaining to the building permit issued are completed. After acceptance of the Final Building Inspection, permission to occupy the building will be granted.

FINISHED GRADE

- 2% slope away from house to swales located on property line.
- Retaining walls and grades match approved plans.
- Egress pathway/fire department access path is completed.
- Finished flooring is completed.



STAIRS/RAMPS

- Stairs conform to latest BCBC edition.
- Sufficient head room is provided.

HANDRAIL/GUARD

- Guards conform to latest BCBC edition.
- Handrails are completed and graspable.

DRAINAGE

- Rainwater leads and gutters are installed.
- Groundwater is contained within site / intercepted with sub-grade drains and directed to storm service.
- Surface water is contained within the property and directed to approved discharge locations.

MISCELLANEOUS FINISHING

- All flashing and caulking is installed where required.
- Detached garage is completed.

CLADDING

- All cladding is installed.
- All flashing is installed where required.
- Appropriate clearance is provided from grade to siding.

ADDRESS

- Address has been placed on house.

PLUMBING FIXTURES

- Accessible shut off valves are required for the valves as identified in the latest BCBC edition.
- Type of fixtures to be CSA approved.

ELECTRICAL DEVICES

- Ground fault protection installed (GFCI where required).

SMOKE/CARBON MONOXIDE DETECTORS

- Smoke detectors are to be inter-connected with all other detectors with no disconnect switch between the overcurrent device and the smoke detector and must be fully operational.

- Carbon monoxide (CO) detectors to have no disconnect switch between the overcurrent device and the carbon monoxide alarm, where the alarm is powered by the dwelling unit's electrical system.

Required documents:

- Provide final letters of assurance (Schedule C-B).
- Provide Final Certified Energy Advisor Report.
- Provide photo measurement of attic insulation thickness and access cover "R" value.