1&2 Family Dwelling Inspection Stages

Permit Inspections

Inspections help ensure that renovations or construction work complies with the appropriate by-laws, and matches the work authorized by the permit. Inspections also help the City 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, including inspections of the plumbing, gas, electrical, structural, health, safety, and environmental systems.

Purpose Statement

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

Book your Building or Trades Inspection

If your permitted construction or improvements are ready for a required building or trades inspection you must arrange to have a City inspector to inspect the work. Inspections must be booked before 2:00pm on the business day before the required inspection to be inspected the next business day.

Inspections should not be cancelled after the 2:00pm scheduling deadline. Inspections cancelled after this deadline may be subject to a re-inspection fee.

DISCLAIMER: This document is 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, Vancouver by-laws, 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 City of Vancouver, Inspections Division.
Required Inspections for 1&2 Family Dwellings and Garages

The Building, Electrical, and Plumbing & Gas Inspectors will need to inspect your project at several stages during construction. The following stages apply to a new 1&2 Family Dwelling or garage, and sub-sections of the procedure would also apply to renovations and additions.

It is important to note that at every inspection stage Inspectors shall refuse an inspection if the site is in an un-safe or untidy condition.

THE FOLLOWING LIST OF INSPECTIONS STAGES AND ITEMS MUST BE READY AS A MINIMUM FOR YOUR INSPECTION. IF THE ITEMS ARE NOT COMPLETED THEN THE INSPECTION IS DEEMED NOT READY AND A RE-INSPECTION FEE WILL BE ASSESSED.

### Required Inspection Stages

<table>
<thead>
<tr>
<th></th>
<th>Building</th>
<th>Gas</th>
<th>Plumbing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Pre-demolition, Tree Barrier &amp; Construction Safety Plan (CSP) Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>Demolition / Deconstruction Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><strong>Temporary Power Construction Service Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Footings &amp; Forms Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><strong>Damproofing &amp; Drain Tile Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td><strong>Non-Encroachment Certificate (NEC) and Field Plan Review Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td><strong>Underground Electrical Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td><strong>Below Slab Plumbing Inspection (Inside of Building)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 1&2 Family Dwelling Inspection Stages

<table>
<thead>
<tr>
<th></th>
<th>Inspection Stage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Underslab Poly and Insulation Inspection</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Plumbing, Sprinkler &amp; Gas Rough-in Inspection (above ground)</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Electrical Service &amp; Rough-wire Inspection</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Sheathing Inspection</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Framing Inspection</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Rain Screen Inspection</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Insulation and Vapour Barrier Inspection</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Final Plumbing, Sprinkler &amp; Gas Inspection</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Final Electrical Inspection</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Final Building Inspection</td>
<td></td>
</tr>
</tbody>
</table>

### Detached Garage Inspection Stages

<table>
<thead>
<tr>
<th></th>
<th>Inspection Stage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Footings &amp; Forms Inspection</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Underground Rain Water Leader Inspection (sumps)</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Rockpit Inspection – (if rockpit is permitted)</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Footings &amp; Forms Inspection</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Final Building Inspection</td>
<td></td>
</tr>
</tbody>
</table>
1. Pre-demolition, Tree Barrier & Construction Safety Plan (CSP) Inspection

This inspection is required prior to demolition. When calling for an inspection please have the address of the construction project available to book the inspection. Prior to calling for the inspection ensure tree barriers are built as per the Engineering specification for Tree Barriers and a construction safety plan (CSP) is visible on site as per 8.1.3 of the Building By-law.

2. Demolition / Deconstruction Inspection

Demolition contractors are required to notify the City (311) before 2:00 pm one business day prior to the commencement of demolition. The contractor may begin work prior to the Inspectors 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;
- Adhere to the demolition plan (if required);
- Adhere to the traffic control plan (if required);
- Maintain the tree barriers; and,
- Control dust from the site.
- Have the contractor’s emergency contact name and number posted on the construction safety plan in accordance with 8.1.3. of the Building By-law.

3. Temporary Construction Service Inspection

The temporary construction service inspection is to be performed after the demolition of the building but prior to the use of the service.

- Temporary Pole Service
  - Pole location to be within 3.3m (10ft) of the property line
  - Type of electrode used is either plate or rods
  - Provide grounding at a minimum of 0.6m (2ft) depth
  - Bracing support adequate (minimum 3 braces)
  - Approved equipment used: CSA or equivalent / service rated
  - Proper clearances across roads, alleys and sidewalks
  - Overhead service conductors properly supported
  - Overcurrent protection installed
  - Meter height to be a minimum of 1.5m to a maximum of 1.7m as per BC Hydro meter requirements
  - Meter location to be accessible for servicing
  - The identified conductor is required to be white or grey
  - Minimum drip loop out of the weather head is to be 0.75m (30”)
  - Service conductors are UV resistant
  - Point of attachment location is located at a minimum of 0.15-0.3m (6-12”) below the weather head
  - Temporary service enclosure shall be weatherproof and lockable
- Permit copy is to be posted
- Ground fault receptacles installed and covered with approved in-use covers where required.

4. Footings & Forms Inspection

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

- **Excavation**
  - Excavation meets WCB guidelines or a P.Eng excavation letter has been provided.
  - Fencing is installed around excavation site (if required in Division B Part 8 of the Building By-law)
  - Poly is covering excavation bank if required
  - Dewatering filter is on the street catch basin or screening is installed upstream

- **Footings**
  - Location and configuration of footing forms matches approved plans
  - Minimum frost protection of 18" 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
- Provide WCB excavation letter where required
- Provide Geotechnical soil bearing letter where required

5. Drain Tile Inspection

The Drain Tile Inspection includes Drain Tile, Damp Proofing, Rain Water 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 6" (150mm) of cover above the Drainage pipe. See [Bulletin 2000-058-PL](http://example.com).

- **Drain Tile / Dampproofing**
  - Separate Drain tile and RWL piping connect independently to sump(s).
  - Drain tile piping using recommended perforated PVC installed with Pipe wording facing upwards
  - The top and sides of drain pipe or tile shall be covered with not less than 150 mm of crushed stone or other coarse clean granular material containing not more than 10% of material that will pass a 4 mm 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 dampproofing. Walls to be parged before applying dampproofing where excessive honeycombing occurs.
- Piping on unstable soil conditions is required to be designed by a Professional Engineer
- Dampproofing membrane installer’s letter where required

**Rain Water Leaders**
- Provide acceptable pipe i.e. solid PVC sewer grade
- Properly glued and sloped ¼" to 1 ft. (2%)  
- Proper support of piping. Hangers or metal strapping fastened to foundation wall or other acceptable means.

**Sump & Area Drains - General**
- Proper soil conditions or, if soil is unstable, remediate as per the directions of a GeoTechnical Engineer

**Gravity-drained Storm Sumps**
- Size, depth, diameter and location as per Bulletin 2000-058-PL  
- Back water valve installed complete with 90 degree elbow on sump outlet minimum 18" trap seal – install short piece on elbow inlet
- Sump grouted and sealed water tight below outlet elevation. Minimum 17" depth below outlet to retain sediment.

**Pumped Storm Sumps**
- A Professional Engineer’s letter certifying the installation complies with Bulletin 2000-008-PL/EL is required when applying for the sump permit  
- Pump discharge pipes are to have to have a union, check valve and gate valve installed in the direction of flow.  
- Only those portions of the drainage system which cannot drain by gravity or are at or below the City Sewers Engineering’s sewer fixture restriction elevation are permitted to be pumped. See the Sewer Installation Connection Permit (SE permit) for details of restrictions or other conditions.

**Sewer**
- Sewer restrictions, conditions, locations, and elevations are as per Engineering Sewer & Water Connection Permit.  
- Contractor to provide written sewer information on a Sewer Placard and be posted for Sewer Inspections.  
- Floor slab elevations, sump locations, and sewer locations and elevations at the property line are shown on the building permit drawings.  
- Minimum size of sewer and drainage piping on private property is 4" with a minimum slope of ¼" per foot (2%).  
- Install sewer piping on firm undisturbed soil. Remediation as directed by a geo technical engineer is required where soil is unstable  
- Install sewer piping to the property line with being “Capped-Off”, and Sanitary / Storm Sewer piping must be 18" apart and perpendicular to the property line.
Water Service
- Size of pipe per sprinkler permit drawings (1 ½” minimum) or 40 mm
- Soil conditions and bury at 24 inches below (depth of bury)
- Location of city connection relative to other services i.e. gas electric etc.
- Connection to city water service with proper piping and fittings.

Required documents
- Provide P.Eng. letter for pumped storm sumps (where required)
- Dampproofing membrane installer’s letter where required

6. Non-Encroachment Certificate (NEC) and Field Plan Review Inspection
The NEC/Field Plan Review Inspection is to be performed before framing begins. The NEC must confirm that the foundation is in the location shown on the approved plans.

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

Required documents
- Provide Non-Encroachment Certificate

7. Underground Electrical Inspection
The Underground Electrical Inspection is to be performed after the footings and forms inspection, but before backfill.

- Trench to be open and conduit or cable approved for use to be laid on sand or screened soil free of debris
- Approved marking tape to be installed approximately 0.3m (1’) below finished grade
- Backfill material (sand or screened earth) shall be available onsite
- Basement slab cable installation is to have no crushed gravel around the cable. Provide sand
- Marking tape to be installed on the underside of basement slab
8. 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 piping, and fittings to be used
  - Grade of pipe meets the minimum ¼” per foot or 2%
  - Depth of pipe to be installed below the underside of the slab
  - Drainage Waste Vent (DWV) System Piping shall be under test for the inspection with a minimum of ‘1.5m head pressure
  - Piping to be glued
  - Water service piping shall be installed

9. Underslab Damproofing and Insulation Inspection

The Underslab Damproofing Inspection is to be performed after the installation of the sub-base material, vapour barrier, underslab insulation, any in slab heating piping and prior to pouring of the slab.

- Poly Under Slab
  - Poly is installed for underslab and sealed around perimeter for moisture barrier
- Underslab Insulation
  - R12 rigid insulation is installed under the entire slab and between the slab and all exterior foundation walls
- In Slab Heating System
  - Appropriate piping is in place.

Required documents

- Provide P.Eng. soil compaction or slab reinforcement letter where required

10. Plumbing, Sprinkler and Gas Rough-in Inspection (above ground)

The Plumbing, Sprinkler, and Gas Rough-in Inspection is to be performed before the initial framing inspection.

This inspection needs to be coordinated so that all Plumbing, Sprinkler, and Gas work are inspected on the same day. The homeowner/builder (contractor) is responsible for coordinating the Plumbing, Sprinkler, and Gas permits. Uncoordinated inspection requests may result in a re-inspection fee.

- Water Service
  - Size and type of piping rough-in match the approved plans
  - Pipe size as per sprinkler drawings
  - Location of city connection to meet the approved drawings
  - Fittings to be CSA approved or certified
- Ensure piping joints are water tight

**Sprinkler Piping**
- Includes installation of insulation/boxing (frost protection)
- Review of drawings and permit information, seal and signed by P.Eng.
- Type of piping, fittings and approvals
- Type of sprinklers specified and installation criteria to meet the design drawings and NFPA 13D
- Booster pump installed if required
- Back flow protection installed
- Proper clearances and support for piping as per NFPA 13D
- Piping to be under pressure test as per NFPA 13D for inspection

**Drainage Waste Vent System Piping**
- Piping installation practice to comply with Vancouver Building By-law Div. B – Part 2
- Location of plumbing fixtures installed as per the approved plans
- Hydraulic loads and pipe sizes as per the Vancouver Building By-law Div. B – Part 2
- Grade to be a minimum of ¼" per foot (2%)
- System under test with either water or air during inspection
- Piping support, hangers and expansion joints to meet Vancouver Building By-law Div. B – Part 2
- Pumped sanitary fixtures as per the sewer permit requirements

**Gas Piping**
- Approved piping and fitting materials (steel, copper, CSST, and plastic pipe)
- Adequate pipe sizing for proposed load
- Gas piping and fittings as per CSA B149.1 and regulations
- Underground piping to be installed with a minimum of 15" depth of bury and under air test for inspection
- Provide proper vent connector and sizing
- Provide clearances from combustion and venting air
- Location and termination of vents and air supply to meet CSA B149.1 and regulations
- Appliances with loads are to be consistent with permit
- All piping identification labeled
- Location of gas regulators to meet CSA B149.1 and regulations
- Delivery pressure is appropriate for the piping size

**Water Test / Tub & Showers**
- Accessible shut off valves are required for every fixture
- Type of fixtures to CSA approved or certified
- Standing water test for tub and shower
- Custom shower liners and membrane material to meet Vancouver Building By-law. Installation to have a minimum of 6" of liner or membrane material above flood level rim. Provide a water test to flood level rim for inspection.
11. **Electrical Service & Rough-Wire Inspection**

The Electrical Service & Rough-wire Inspection is to be performed after Underground Electrical Inspection and before the Insulation and Vapour Barrier Inspection.

This inspection needs to be consolidated so that the Main Electrical, Low Voltage Electrical, and Garage work are inspected on the same day. The homeowner/builder (contactor) is responsible for coordinating the Main Electrical, and Low Voltage Electrical permits. Uncoordinated inspection requests may result in a re-inspection fee.

- **Rough Wire**
  - Ensure correct project description on permit
  - Protection plate and vapour barriers installed
  - Circuit loading does not exceed maximum allowed
  - Proper layout of outlet boxes
  - Dedicated circuits for all heating loads (i.e. baseboard, boiler, furnace, etc)
  - Proper type of recessed insulation contact fixtures (i.e. pot lights). If non insulation contact fixtures used, a minimum of ½ inch clearance needs to be provided from combustibles
  - Check for proper support of all wiring line and low voltage
  - Clearance for equipment from pools, bathtubs, spa’s etc.
  - Ensure box fill limit is not exceeded.
  - Bonding required for metal sectional boxes, gas line, communication utilities, panelboards, and metal piping exceeding 3 meters in length.
  - Conductors have proper stapling support.
  - Provide proper clearances to hot water lines, hot air ducts and “B” venting.
  - All equipment used is approved by CSA or equivalent
  - Garage wiring and raceway for future EV charger is ready for inspection

- **Service**
  - Grounding completed using copper wire and #6AWG minimum.
  - Service location as per COV Inspection Authority/BC Hydro Supply Authority
  - Meter height and location installed to BC Hydro standards.
  - Confirm meter rating (amperage rating)
  - Appropriate conductor size and type used
  - Appropriate mast height, guy wire (if required), and approved mast kit.
  - Provide the main service load, load calculation, and main disconnect rating
  - Connectors approved for use, raceway/cables, and rain tight
  - The service is lockable
  - All equipment used is approved by CSA or equivalent
12. Sheathing Inspection

The Sheathing Inspection is to be performed after the sheathing, flashings, roofing, deck membranes, doors and windows are installed but before papering of the exterior. Mechanical penetrations should be sealed to the extent possible prior to calling for an inspection.

A window “mock-up” should also be provided at this inspection reflective of details provided on the City of Vancouver approved building plans.

Please review the SHEATHING INSPECTIONS (NEW RAINSCREEN MOCK-UP INSPECTIONS) FOR ONE AND TWO FAMILY BUILDINGS Bulletin 2009-08-BU for a detailed explanation of the requirements

- **Sheathing**
  - Sheathing has appropriate spacing and the joints in the sheathing are staggered
  - Nailing patterns on sheathing conform to approved plans
  - All mechanical and electrical wall penetrations are sealed as per the penetration details on the approved plans

- **Windows, Doors and Skylights**
  - Window mock-up is completed (exterior trim, flashings, end dam’s) and matches approved plans
  - Size, location of doors and windows is in accordance to plans
  - Windows, Doors and Skylights conform to 9.7. of the Building By-law
  - Window type matches approved plans (material and configuration)

- **Mechanical & Electrical System**
  - Deck ventilation over living space completed
  - Location of HRV meets serviceability requirements

- **Zoning Compliance**
  - Floor to ceiling height and floor system thickness matches approved plans to verify overall height matches approved plans
  - Truss slope must match approved plans to verify overall height matches approved plans
  - Roof material matches drawings

---

**Required documents**

- Provide P.Eng. letter for seismic (sheathing letter)
- Provide P.Eng. deck membrane letter if required
### 13. Framing Inspection

The Framing Inspection is to be performed before insulation is installed, after the sheathing membrane (building paper, Tyvek®, Typar®, house wrap etc.) is installed, and after all rough-in work for plumbing, gas, electrical, and mechanical systems is completed.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Framing</td>
<td>- Seismic provisions and building structure matches the engineers drawings and specifications</td>
</tr>
<tr>
<td>Insulation Preparation</td>
<td>- Vapour barrier continuity provisions have been made at intersections of interior and exterior walls and top plates at the roof level</td>
</tr>
<tr>
<td></td>
<td>- Poly boots are installed around non-airtight electrical outlet boxes and non IC pot lights.</td>
</tr>
<tr>
<td></td>
<td>- Duct joints are sealed and ductwork is insulated where necessary including metal joints</td>
</tr>
<tr>
<td></td>
<td>- Solar pre-piping pathway is installed from roof from mechanical room</td>
</tr>
<tr>
<td></td>
<td>- Insulation is installed for sprinkler piping</td>
</tr>
<tr>
<td>Zoning Compliance</td>
<td>- Crawlspace areas are in compliance with approved plans</td>
</tr>
<tr>
<td>Stairs/Ramps</td>
<td>- Stair rise, run, tread and headroom etc. are in compliance with the approved plans and the Building By-law</td>
</tr>
<tr>
<td>Ventilation System</td>
<td>- Mechanical ventilation system installed matches mechanical ventilation checklist</td>
</tr>
<tr>
<td>Smoke Alarms</td>
<td>- Smoke alarms rough-in is completed</td>
</tr>
<tr>
<td>Fire Stop</td>
<td>- Fire blocks, drops and chases are completed</td>
</tr>
<tr>
<td></td>
<td>- Firestopping of plumbing and electrical penetrations is completed at fire separations (Side by side duplex)</td>
</tr>
<tr>
<td>Fire Separation</td>
<td>- Vertical fire separation is continuous from roof sheathing to foundation (Duplex)</td>
</tr>
</tbody>
</table>

**Required documents**

- Provide P.Eng. letter for framing
- Provide P.Eng. letter for roof trusses
- Provide an Engineer’s field memo for any poured stairs
- Provide TECA (mechanical ventilation checklist)
14. **Rain Screen Inspection**

The Rain Screen Inspection is to be performed before the scratch coat is installed and after the sheathing has been accepted. Ideally, the Rain Screen Inspection should happen at the same time as the Framing Inspection.

Please review the RAINSCREEN DESIGN AND INSPECTION FOR ONE AND TWO FAMILY DWELLINGS Bulletin 2009-009-BU for a detailed explanation of the requirements.

- Rain Screen
  - Exterior sheathing paper is installed
  - Roofing and skylights are installed
  - Strapping or drainage cavity material is installed
  - Stops are installed (if applicable)

---

15. **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 Inspector 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 specified on the drawings if being used.
    Only City approved products and assemblies will be accepted.
  - Pot lights are compatible with insulation (IC fixture) and the fixture are airtight unless a poly pan is provided around the fixture

---

**Required Documents**

Energy checklist completed by Certified Energy Advisor approving the installation of interior wall and ceiling finishes.

---

16. **Final Plumbing, Drain Tile, Sprinkler, & Gas Inspection**

The Final Plumbing, Drain Tile, Sprinkler, and Gas Inspection is to be performed after the Rough-in inspection and before the Final Building Inspection. All of the plumbing fixtures, gas appliances, sprinkler heads 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, Sprinkler, Drain Tile and Gas work are inspected on the same day. The homeowner/builder (contractor) is responsible for coordinating the Plumbing, Drain Tile, Sprinkler, and Gas permits. Uncoordinated inspection requests may result in a re-inspection fee.
- Fixtures to have the proper approvals or certifications
- Fixture connections (trap arms and water piping connection) to meet Vancouver Building By-law Div. B – Part 2
- Ensure backwater valve, 90 degree elbow, and grouting complete for the storm sump
- Ensure hot & cold water supply to fixtures are appropriate and does 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
- Clean-Outs to be Accessible

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

- The gas contractor must request the final gas inspection
- Gas appliances to be CGA approved or have acceptable certification
- Gas appliance locations as per the approved plans
- Gas appliance installation and clearances as per the installation guide and CSA B149.1 and regulations
- Bug screens installed on gas regulators and vents
- Appliance manuals to be available on-site
- Ensure all appliances are operating normally
- Shut offs, valves, and regulators to be accessible
- Vent terminations to meet CSA B149.1 and regulations
- Ensure gas meter gas pipe connection and vent clearances comply with CSA B149.1 and regulations

- Sprinkler locations to reflect the sprinkler design drawings and site conditions
- Contractor to be on-site to perform flow and alarm test
- Sprinkler pump to be operating, if required, and bypass with check valve is installed
- Ensure Inspector's test pipe, drain and orifice is installed
- Provide fire protection around plastic water service piping

- Fittings for water connection to be CSA approved or certified
- Back flow preventer and Pressure Reducing Valve to be installed and tested
- Irrigation box to be protected from frost

**Required documents**

- Provide a P.Eng. sealed flow verification test letter for the sprinkler system
- Provide a P.Eng. sealed letter for storm sump pump if required
17. **Final Electrical Inspection**

The Final Electrical Inspection is to be performed after the Framing Inspection and before the Final Building Inspection. This inspection needs to be consolidated so that the Main Electrical, Low Voltage Electrical, and Garage work are inspected on the same day. The homeowner/builder (contractor) is responsible for coordinating the Main Electrical, and Low Voltage Electrical permits. Uncoordinated inspection requests may result in a re-inspection fee.

- **Electrical Devices**
  - Installed and all by-law related electrical work completed (lighting, receptacles, switches, cover plates, etc.)
  - Equipment used is CSA approved or equivalent
  - Receptacles tested for polarity
  - Cover plates and ground fault protection installed (GFCI where required)
  - All light switches (single, 3-way, or 4-way) functional
  - Garage is ready for inspection

- **Low Voltage**
  - Doorbell operational
  - Security System completed. The transformer and power feed has approved ratings.
  - Lighting installed where required

- **Smoke/CO Detectors**
  - Smoke detectors are to be interconnected with all other detectors and are 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. A CO detector can be battery powered as long as they are fastened in place to the manufacturer’s specified height.

- **Booster Pump**
  - Booster Pump flow switch installed with disconnect means locked in the “on” position
  - Supply completed Attachment A form (Bulletin 2000-31-EL) related to Sprinkler Booster pump

- **Electrical Panel**
  - Panel directory to be completed
  - Arc fault circuit breakers installed for bedroom circuits
  - Cover installed and flush with machine screws
  - Overcurrent sizing (circuit breakers) protection provided
  - Boiler/Furnace disconnect switch to be labelled on/off

- **Gas Bond**
  - Gas bond has been installed and accessible

**Required documents**
- Provide Booster Pump transmittal form where required
18. Final Building Inspection

The Final Building Inspection is to be performed after all sub-trade permits (Electrical Permit(s), Plumbing Permit(s), and Gas Permit) pertaining to the building permit issued are completed. All Vancouver Building By-law items for the building interior and exterior must be completed.

After acceptance of the Final Building Inspection, permission to occupy the building will be granted.

- **Finished Grade**
  - Retaining walls and grades match approved plans
  - Egress pathway / fire department access path is completed
  - Finished flooring is completed
  - Landscaping is completed (only laneway houses)

- **Stairs/Ramps**
  - Stairs conform to by-law requirements
  - Sufficient head room is provided
  - Exterior stair treads are slip resistant

- **Handrail/Guard**
  - Guards are completed and are non-climbable
  - Handrails are completed and are continuous and graspable

- **Fire Alarm**
  - Smoke alarm and carbon monoxide alarms are installed

- **Drainage**
  - Rain water leads and gutters are installed
  - groundwater is contained within site

- **Miscellaneous**
  - All flashing are installed where required
  - All caulking are installed where required
  - Hot-water tank seismic strapping is installed
  - Detached garage is completed

- **Tree Placement**
  - Appropriate size and location of trees installed if required

- **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

**Required documents**
- Provide final letters of assurance
- Provide Hot2000 Energy Report
- Provide Final CEA Report
Required Detached Garage Inspection Stages

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

- Excavation: Excavation meets WCB guidelines or a P.Eng excavation letter has been provided.
- Fencing is installed around excavation site (if required in Division B Part 8 of the Building By-law)
- Poly is covering excavation bank if required
- Dewatering filter is on the street catch basin or screening is installed upstream

- Footings: Location and configuration of footing forms matches approved plans
- Minimum frost protection of 18” 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
- Provide WCB excavation letter where required
- Provide Geotechnical soil bearing letter where required

2. Rain Water Leader Inspection
Rain Water Leader Inspection is to be performed after the footings and forms inspection but before the backfill. Drain tile may not be required if the slab of the garage is higher than the exterior grade all around the building. Rain water leaders are required in all instances.

- Provide acceptable pipe
- Proper grade required
- Proper support of pipe

3. Rockpit Inspection
The Rockpit Inspection is to be performed after the Drain tile / Rain Water Leader Inspection but prior to the Final Inspection. Rockpits are an alternate roof drainage system for detached accessory buildings added to developed S.F.D. properties (i.e. new garage, existing house) in lieu of normal requirements for a direct connection to the storm sewer

Please review the ROOF DRAINAGE SYSTEM FOR DETACHED ACCESSORY BUILDINGS 2000-006-BU/PL Bulletin 2009-009-BU for a detailed explanation of the requirements.
4. **Framing Inspection**

The Framing Inspection is to be performed before any insulation is installed, after the sheathing membrane (building paper, Tyvek®, Typar®, house wrap etc.) is installed, and after all rough-in work for plumbing, gas, electrical, and mechanical systems is completed.

- **Structural Framing**
  - Building Structure matches approved plans and is in compliance with the Vancouver Building By-law

- **Zoning Compliance**
  - Floor to ceiling height, garage slab elevation and finished grading matches approved plans
  - Truss slope must match approved plans to verify overall height matches approved plans

**Required documents**

- Provide P.Eng. letter for framing if applicable
- Provide P.Eng. letter for roof trusses if applicable

5. **Final Inspection**

The Final Building Inspection is to be performed after all sub-trade permits pertaining to the building permit issued are completed. All Vancouver Building By-law items for the building interior and exterior must be completed.

- **Drainage**
  - Downspouts and gutters are installed
  - Groundwater is contained within site

- **Cladding**
  - All cladding is installed
  - All caulking are installed where required
  - All flashing is installed where required
  - Appropriate clearance is provided from grade to siding
  - Automatic garage door safety features operating correctly
  - Garage crossing (apron) is installed at lane

- **Miscellaneous**
  - Roof venting installed
  - Attic access hatch installed if garage has a ceiling finish