

Guidance Notes for the inspection and certification process



A guide to the inspection and certification process

1. Now That I Have My Consent, What Happens?

Now that you have got your building consent, there are some important things that you, your builder or contractor need to know.

Under the Building Act 2004 there are some statutory time frames which impact on your building project:

- A building consent lapses if work is not started within 12 months
- If no application for a Code Compliance Certificate (CCC) is made before the expiry of 2 years from the date the building consent was granted, the Building Consent Authority must decide whether to issue the CCC (refer to section sets of this Guide)

Please note these dates and if you cannot meet them you need to apply to the Council for an agreed extension of time – provided it is prior to the lapse date.

Your building consent will detail inspections that are required to be carried out during construction. You must ensure that they do occur, as failure to do so may cause significant problems at the completion of your building project and create difficulties in obtaining a CCC.

To arrange for these inspections, telephone a Council office between the hours of 8.00 am and 5.00 pm, Monday to Friday. Bookings after 3.30 pm are unlikely to be carried out the next day.

Please give as much notice as possible. A minimum of 24 hours is required and although we will endeavour to provide a next day service, it may not always be possible due to workload, available resources, and travel distances.

When booking inspections, basic information is required such as:

- Building consent number
- Site address
- Type of inspection (foundation, pre-slab, final, etc)
- Contact telephone number
- Name of person making booking

2. Purpose Behind the Inspection Process

Council has inspectors to undertake required inspections during construction. The required inspections will be identified during the building consent approval process and clearly indicated on the consent documents. It is important that the identified inspections are requested and undertaken, as failure could result in difficulties obtaining a CCC at the end of the project.

The fundamental principle behind the inspection process is to provide sufficient information to enable the Council as Building Consent Authority to issue a CCC at the completion

of the building project. To enable this decision to be made the Council must be satisfied, on reasonable grounds, that the completed building project complies with the building consent, which includes the consented plans, specifications, and any amendments approved during the process.

3. Alterations/Amendments During Construction

The Building Act 2004 requires work to be carried out in accordance with the building consent. However, changes often occur during construction either to the design, materials or proprietary systems, which require an amendment to the building consent. There are two ways that these amendments can be dealt with:

- (a) For minor amendments/changes the Building Inspector may simply note the plans, record their decision for acceptance and work can carry on. Some examples of minor works could be:
 - A change to window/door positioning that does not affect wall bracing
 - A change in insulation to a higher R value
 - A change in timber treatment to a higher level
- (b) For major amendments/changes you will be required to apply to the Council for an amendment. This may result in work being held up until the amendment has been granted and issued. This may not necessarily require the entire building project to stop but it will certainly stop work on the area covered by the amendment. Additional costs may be associated with the amendment process. Examples of major work could include:
 - A change to the siting of the building
 - A change to the footprint of the building
 - A change to foundation details
 - Any structural change, including trusses
 - A change to the interior/exterior wall cladding
 - A change in roofing material
 - A change to service room layouts
 - A change to wall bracing

This is not an exhaustive list. It is recommended that regardless of the change, you discuss this with the Building Inspector so that agreement can be reached on the way for dealing with them.

4. The Inspection Process

Whenever possible, someone who has the authority to make decisions or act on behalf of the Building Consent Holder should be on-site during the inspection process. Your approved plans and supporting documents must be on-site and available at the time of the inspection.

Depending on the scope of your building project, a number of inspections will be carried out during construction and these are detailed in this Guide.

Site safety is the responsibility of the Project Manager or Contractor. If Council's Building Inspectors do not feel safe, they will not enter into the site. The consequence will be a new booking time and additional inspection cost.

5. What We Will Be Looking For During Each Specific Inspection

What we will be looking for during the inspection, what will you need to do in preparation and when do you need to call for the inspection?

For each inspection, ensure that approved plans and supporting documents are on-site and please provide safe access to site. At each inspection we will try and advise on the next inspection required.

(a) Site Inspection

When to call for inspection

- When the building set-out has been completed, footings have been excavated and reinforcement is in place.

What we will look at

- Site location
- Visible boundary markers (note: if boundaries are not identified, a Registered Surveyor may be required to establish or confirm the set-out) – the responsibility for identifying the boundary rests with the owner
- Site contours are in accordance with submitted plans
- Check that submitted plans reflect extent of proposed work (alterations, additions)
- Preliminary check of ground conditions
- That minimum floor levels/ground clearances can be achieved against datum

What you should do

- This is an opportunity to meet the Building Inspector, discuss the project overview and confirm the next required inspection
- Ensure that boundaries are adequately defined

(b) Foundation

When to call for inspection

- When all formwork (boxing) has been completed, footings have been excavated and reinforcement is in place.

What we will look at

- Check that the siting of the building conforms to the building consent site plan
- Footings are appropriate size and excavated to solid
- Reinforcing is in place (size, spacing, laps and cover), adequately tied and secured and conforms with consent documents
- For ring foundations; subfloor vents

What you should do

- Ensure that building set-out complies with consent documents
- If required, a surveyor's report is available
- Don't put us and the Contractor under pressure by ordering concrete until after the inspection has been carried out

(c) Piles

When to call for inspection

- When all the holes are excavated prior to installation of piles
- In the case of driven piles, the inspection should be co-ordinated with the Design Engineer (note: a Building Inspector is still required to be present)

What we will look at

- Pile holes are correct size and depth and to solid
- Piles are on-site and meet the required treatment level
- Check or advise that no cut ends of piles are to be in ground

What you should do

- Ensure that boundaries are adequately defined and work set out against datum
- Ensure that building set-out complies with consent documents
- If required, ensure that the Design Engineer has been advised

(d) Pre-Slab

When to call for inspection

- When all plumbing and drainage pipes have been installed and prior to backfilling, installation of Damp Proof Membrane (DPM) and reinforcing mesh
- When the DPM has been placed with all laps and penetrations sealed, reinforcing in place and in position, with chairs as appropriate

What we will look at

- Positioning of wastes, drains and heating pipes; fall and separation/protection through concrete
- DPM, sand blinding, taping of laps and penetrations
- Reinforcing steel/mesh; size, spacing, laps, cover, and support
- Slab thickening under load-bearing elements
- Base compaction certificate

What you should do

- Ensure plumber/drainlayer is suitably qualified and licensed or supervised and preferably on-site
- If required, ensure that the Design Engineer has been advised and is on-site, or has previously inspected (if so, have report available at inspection)
- Complete base compaction certificate and have available at inspection

(e) Subfloor

When to call for inspection

- When all subfloor connections, joists and required blocking, and any suspended plumbing pipework have been completed, but before any flooring or baseboards have been fitted. Relocated dwellings require a subfloor inspection before baseboards being fitted

What we will look at

- Pile height, pile connections, crawl space and DPM
- Cut pile ends sealed
- Bracing connections: strength and durability
- Subfloor framing: treatment, layout related to load-bearing elements supported
- Insulation and protection advice on next inspection

What you should do

- If required, the Design Engineer has been advised and is on-site, or has been previously inspected (if so, have report available at inspection)

(f) Drainage

When to call for inspection

- When all drainage work is completed and drain is under test. An as-laid drainage plan is required at time of inspection, or at final inspection stage

What we will look at

- The drains are to be left uncovered during this inspection
- Trench size, support and bedding material
- Trench/foundation relationship
- Material, connections, junctions, fall and network connection

What you should do

- Drainlayer must provide an as-laid drainage plan if deviation from approved plans
- Ensure that drains are under test at time of inspection
- With on-site effluent disposal systems, ensure any design certification is available

(g) Trusses and Pre-Wrap

When to call for inspection

- When all roof and wall framing is complete, including any exterior sheet bracing, but before building wrap (building paper) has been installed

What we will look at

- Inspect all structural framing, including roof structure
- Timber: treatment, member sizes, and spacing
- Sub-lining: wind barriers, exterior wall bracing
- Connections: structure and durability
- Waterproof rebate for masonry/brick veneer
- Firewall structural connections
- Check window/door opening sizes and location

(h) Post-Wrap and Cavity Systems

When to call for inspection

- When building wrap (building paper) and window and door flexible flashing tape has been installed, cavity battens (cavity systems), cavity closers, and all flashing systems are in place, but before joinery is installed

What we will look at

- Building wrap: absorbency, laps and support
- Cavity closed at top and closed off from subfloor and attic spaces
- Check building wrap for correct installation and type
- Check installation at flashing tape around all openings
- Check other flashings, including meter box and gas units
- Check cavity battens and closers if cavity system being used

(i) Pre-Stucco/EIFS

When to call for inspection

- After the post-wrap inspection and when all the reinforcing and flashings are in place

What we will look at

- EIFS/Fibre cement sheet, fixing, layout, control joints, joint reinforcement, mouldings (edges, corners, around penetrations)
- Cladding around clearances; note regarding future landscaping
- Flashings: inter-storey and around all penetrations
- Control joints
- Backing, mesh, spacers, proposed curing

Note: If proprietary control jointing systems are not being used, an additional inspection will be required after the first scratch coat when control joints have been formed.

(j) Pre-Line (Plumbing)

When to call for inspection

- The completed plumbing work must be subjected to the standard pressure test by an appropriately qualified person using recognised and calibrated testing equipment

What we will look at

- Pipework and venting
- Test certificates
- Lagging
- Plumbing pipework installed in framing: material, support, pressure test, connection to approved supply

What you should do

- Ensure plumbing work is carried out by appropriately qualified and licensed plumbers

(k) Pre-Line (Building)

When to call for inspection

- When the exterior of the building is weathertight, air seals fitted to openings, all structural components (including bracing) have been completed and wall insulation in place

What we will look at

- Building closed in: penetrations weathertight (flashings, scribes, etc)
- Joinery: standard appropriate for site exposure, cover with cladding achieved
- Framing: size, spacing, treatment, cut out for services
- Connections: bracing, number, size, durability
- Moisture content
- Insulation: material and installation workmanship
- Air sealing around penetrations

(l) Post-Line

When to call for inspection

- Pre-application of wet area membrane (before membrane is applied), when all outlets and flashings have been installed ready for installation
- When all interior linings have been installed but before fitting of skirting, scotia, or plaster stopping

What we will look at

- Fixing of wall linings
- Installation details of wall bracing elements and wall linings in general
- Correct installation of any fire rated and wet area wall linings

(m) Wet Area Membrane (decks, roofs, and shower areas)

When to call for inspection

- After application of wet area membrane
- Deck and roof membranes are in place

What we will look at

- Substrate material, fixing, joint preparation
- Finished membrane installation

What you should do

- Ensure membrane is applied by approved applicator (approved by manufacturer or supplier)
- Obtain product and installation warranties for membrane

(n) Concrete Block Walls

When to call for inspection

- When all masonry blockwork is completed to pour height, reinforcing in place and exposed washout openings in place

What we will look at

- Reinforcing is as detailed, lapped correctly and securely tied
- Block cavities washouts out and clean
- Joints cleanly struck
- Washouts present

What you should do

- Ensure blockwork is carried out by or under supervision of a registered mason

(o) Brick Veneer

When to call for inspection

- When veneer is at half-height and all flashings are in place

What we will look at

- Washouts being utilised
- Brick ties in place and screw fixed
- Appropriate type of brick tie used
- Cavity correct width
- Cavity clear of mortar
- Cavity clear of services
- All flashings in place

(p) Retaining Walls (concrete, timber or block)

When to call for inspection

- After application of waterproof membrane system
- Protection installed for membrane system and installation of perforated drainage system before backfilling

What we will look at

- Check as for concrete block inspection
- Post holes inspected
- Subsoil drain: below slab level, protected with geotech fabric; fall to trapped outfall
- Waterproof membrane, including junction with any floor slab DPM
- Membrane protected and backfilled with appropriate drainage material

What you should do

- Ensure blockwork is carried out by or under supervision of a registered mason or registered engineer

(q) Final Inspection

When to call for inspection

- Final inspections are carried out at the completion of the project and once the Application for Code Compliance Certificate (Form BC6) and associated relevant certificates and warranties have been received. It may also include the entire project, plumbing, drainage and stormwater. The Code Compliance Certificate is issued if the building work complies with the approved building consent and the New Zealand Building Code.

What we will look at

- That the work complies with the building consent plans and specifications, including amendments
- Follow up any outstanding items from previous inspections
- Cladding: roof, decks, (slip resistant) and walls, flashings, subfloor ventilation, brick cavity vents, ground clearance measured/noted
- Downpipe: size, support, spreaders, termination to gully/interception, deck and internal gutter overflows
- Drainage: trenches backfilled, site fall away from building and to sumps, gully rims above surrounding ground
- Stairs: dimensions, slip resistance, handrails
- Safety barriers: fixings, gaps, fencing of swimming pools
- Wet area surfaces: impervious and easy to clean
- HWC: seismically restrained, valves, overflow drain, temperature (measure/record at sanitary fixtures)
- Waste venting: terminations, AAVs
- Plumbing: taps, stop valves, cistern overflow
- Check installation and location of smoke detectors
- Glazing: human impact, opening sizes
- Location and security of gas cylinder and solar water heating
- Driveway and landscaping to determine ground levels and water flowpath, site fall away from building and to sumps

What you should do

- Ensure approved plans and supporting documents are on-site and available
- Provide safe access to site
- Ensure power and/or gas is turned on to allow for checking water temperature
- Ensure that development levies are paid

(r) Free-standing Solid Fuel Heater

When to call for inspection

- When installation is complete
- Final inspection required only in normal circumstances

What we will look at

- Clearances: hearth requirement, lining, framing at ceiling and roof
- Flue internal: ceiling collar, shield requirement

What you should do

- Ensure smoke detectors are in place and working
- Ensure ceiling plate is loose to ensure flue clearance is able to be checked

(s) In-built Solid Fuel Heater

When to call for inspection

- Inspection required before installation **and** after installation is complete

What we will look at

- Initially to check conditions of flue opening and chimney

Once the flue has been installed (second inspection)

- Clearances: hearth requirement
- Seismic restraint
- Flue external: weatherproof flue penetration, termination position relative to roof line and openings

What you should do

- Ensure smoke detectors are in place and working

(t) Multi-Residential, Commercial, or Industrial

There are additional inspections required for multi-residential/commercial/industrial buildings. These inspections will be identified in your building consent and as may be discussed with the Building Inspector.

(u) Specific Inspections by Engineer

Many building projects have specific engineer design aspects involving inspections by the engineer or their delegated representative. These elements may include:

- Structural design
- Fire design
- Mechanical services
- Geotechnical features

When any of these inspections are undertaken, the Design Engineer must provide a Producer Statement (PS4) supported by any site inspection notes. This will also need to match the inspection schedule provided and agreed to by the Council as Building Consent Authority before the consent was issued. These reports are to be provided as soon as reasonably practicable after the inspection. Such inspections carried out by engineers do not avoid the requirement on Council to inspect. It is helpful if these inspections can be co-ordinated. To assist this, advance notice is required.

6. The Certification Process

The certification process is the final act in the building consent process. To commence this process the owner must apply to Council for a Code Compliance Certificate (CCC) using the prescribed form (Form BC6). This application must be received by the Council prior to the 24 month anniversary of the building consent being granted. A reminder letter will be sent approximately three months before the expiry date.

Once received, a final inspection as detailed above will be carried out and provided the building project complies with the building consent, a CCC will be issued. The Council has 20 working days to either issue or refuse to issue the CCC.

If during the final inspection the Council discovers non-complying aspects, the application for CCC will be suspended pending a remedy to this non-compliance. A Notice to Fix can also be issued, which will detail the work and associated time frame for completion.

Once the specified work is completed, the Council will reinspect and, if reasonably satisfied, the CCC may be issued.

7. Other Considerations

Site Water, Erosion and Sediment Management

Erosion of topsoil from vegetation clearance and earthworks on building sites can develop into a problem. Effective control is based on the following principles:

- Good forward planning
- Minimise clean water running onto your site
- Restrict soil erosion on your site
- Capture and treat dirty water running off your site
- Check that your sediment control measures remain effective

Windblown Dust and Dirt

Building sites within the District (especially in coastal areas) are sandy in nature, which can cause problems once the grass cover is disturbed. The resulting loose sand and dirt can be a nuisance to neighbouring properties and if not contained quickly drifts on to roads and stormwater systems. Dust is particularly a problem during the summer period when the use of water may be constrained due to water restrictions. Restrict the removal of vegetation to the immediate footprint of the building and cover loose or stockpiled soil with scrim or polythene.

Vibration or Shaking

The physical driving of piles can and often does cause concern for adjoining property owners due to the vibration and ground shaking as piles are driven. An early discussion with neighbours advising of the intent to drive piles and a simple explanation of the resulting effect could avoid a potential confrontation.

Noise

Building sites can be noisy. Noise is controlled under Council's Tasman Resource Management Plan and Council uses NZS 6803:1999 as an acceptable benchmark. If there are occasions when noisy work will occur outside of the time and levels specified in the standard because of safety or other issues, it is advisable to notify any residents who may be affected and give them an on-site contact telephone number.

Music on-site is very common and if kept to a reasonable level will not be objectionable. However, all noise generated on a building site, whether from a radio or other sources, is subject to the same controls. All it takes is some common courtesy and consideration towards neighbours.

Waste Building Materials

Construction sites are work in progress and by definition will have materials stored on-site from time to time. This should always be kept in safe conditions. Waste material on-site should be minimised and disposed of properly.

Toilets

Please provide suitable toilet facilities on-site for the duration of the contract.

8. Further Information

This Guide has been provided to assist you in successfully completing the inspection and certification process, meeting your obligations under the Building Act 2004 and obtaining a Code Compliance Certificate. Please contact Council or Council's website (www.tdc.govt.nz) should you require further information.

In conclusion, the Council wishes you all the best with your building project and the associated inspections.

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