

Form 313
 Technical
 Check Sheet

Minor Internal Alterations Processing Check Sheet

Key: **P = Pass** (ie Compliance with Building Code) **F = Fail** (ie Non compliance with Building Code) **N/A = Not Applicable**
Alternative Solutions = Notes are to be recorded at the end of this checklist

Building Consent No. _____ Date: _____

Property Address: _____

BC Official: _____ Signature _____

Ref No	Items to Consider	Building Code Clauses	KEY	Comments	Alternative Solutions? Y/N
1	Does pile size & layout comply with floor load requirements? <i>Ref. NZS3604:1999, Sec 6 & Sec 14 for 3 kPa.</i>	B1			
2	Are subfloor bracing calculations correct & does framing setout meet floor load demand? <i>Check sub-floor bracing schedule 1.5 kPa / 3 kPa, & pile centres are correct for the bearer & joist spans?</i>	B1			
3	Are pile footings size & connection details provided? <i>Anchor - 900 x 350 x 350 Brace - 450 x 350 x 350 Driven - Obtain specification (NZS 3604 or SED)</i>	B1			
4	Is timber pile grade & treatment correctly specified? <i>Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades'</i>	B2			
5	Do pile heights comply? <i>Min 150mm timber pile, consider min. floor level (550 mm timber floor) Max. 1.2m Cant. Max. 3m timber pile & 1.5m conc. ref. Sec 6 NZS 3604.</i>	B2			
6	Has Driven Pile specification been provided? <i>Refer NZS3604:1999 Sec 6, Cl 6.6.</i>	B1			
7	If SED have calculations. Producer statement and details been provided?	B1, B2			
Bearers					
8	Are bearer spans, grade, spacing, fixings & treatment specified? <i>If 'No', suspend & request information.</i>	B1, B2			
9	Are bearer/ pile & bearer / joist fixings details provided? <i>Check Cl 6.12 & Fix 6.6- NZS 3604</i>	B1			
10	Have load paths been considered? <i>Load bearing partitions within 200 mm of bearers</i>	B1			

Ref No	Items to Consider	Building Code Clauses	KEY	Comments	Alternative Solutions? Y/N
Floor Joists					
11	Do joist grade, treatment, size, span, spacing, fixings & blocking comply with floor load demand? <i>Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades' & call size, now 'Actual Minimum Dried Size' Consider 1.5 or 3 kPa Floor load</i>	B1, B2			
12	Have load paths been considered? <i>Ensure all point loads are adequately supported.</i>	B1			
13	Has direction of services been considered? <i>Check services plan layout.</i>	B1			
14	Do trimmer joists comply? <i>Refer NZS3604, Section 7.1.6 & fig 7.7</i>	B1			
15	Are non-load bearing walls (with bracing elements) adequately supported? <i>Refer NZS3604, Section 7, Cl.7.1.3.5, 7.3.1.6 & figure 7.5</i>	B1			
16	Are non-load bearing walls (without bracing elements) adequately supported? <i>Refer NZS3604, Section 7, Fig 7.5.</i>	B1			
17	Are load bearing walls at right angle to joist within 200mm of bearer support? <i>Refer NZS3604, Section 7, Fig 7.3</i>	B1			
18	Are double joists provided under load bearing walls? <i>Refer NZS3604, Section 7, Fig 7.3</i>	B1			
Flooring					
19	Check relationship between floor load & flooring thickness? <i>Refer NZS3604, Section 7, 7.2 & Section 4, 4.3. Check floor loadings, i.e. 1.5-2.0kPa or 3kPa.</i>	B1			
20	Does flooring thickness & type comply? <i>Ref. Tables 7.4 & 14.9</i>	B1, B2			
21	Is joist spacing appropriate for flooring type? <i>Refer NZS3604, Section 7, 7.2</i>	B1			
22	Is distance between underside of flooring & subfloor ground levels appropriate for flooring type? <i>Refer NZS3604, Section 4, 4.3, Minimum clearance for particle board above subfloor ground is 550mm, otherwise treated plywood is required.</i>	B2			
Concrete floor					
23	Is DPM detailed?	B2, E2			
24	Are slab thickenings required & if so are they detailed & complying? <i>ref. 7.5.11</i>	B1			
25	Does reinforcing comply (is it detailed & is edge, top & bottom cover & supplementary bar detail provided)? <i>ref. 7.5.8.6.4</i>	B1, B2			

Ref No	Items to Consider	Building Code Clauses	KEY	Comments	Alternative Solutions? Y/N
26	Does slab thickness comply? <i>ref. 7.5.8.2</i>	B1			
27	Is bottom plate fixing correctly specified? <i>Ref. 7.5.12</i>	B1			
28	If specific engineering design (SED), is Engineer detail provided? <i>Obtain PS 1</i>	B1			
Wall Framing					
29	Is design within scope of the acceptable solutions? <i>If 'No' obtain SED.</i>	B1			
30	Do stud height, grade, size, spacing, & treatment comply? <i>Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades' & call size, now 'Actual Minimum Dried Size'</i>	B1, B2			
31	Do top & bottom plate grade, size, & treatment comply? <i>Refer 'Amendment 2' NZS 3604 for changes to 'Timber Grades' & call size, now 'Actual Minimum Dried Size'</i>	B1, B2			
32	If the design contains SED, have calculations, PS1 and design been provided <i>If not send to engineer for peer review.</i>	B1			
Bracing					
33	Are wall bracing elements & fixings detailed & correct?	B1			
34	Are wall bracing elements clear of showers?	B2			
35	Is wall bracing schedule calculations & distribution of elements correct? <i>Refer manufacturer specs.</i>	B1			
36	Is a floor diaphragm required & if so does it comply? <i>Refer NZS3604, Section 7, 7.3</i>	B1			
Lintels & Sills					
37	Is lintel and sill span, size, grade, treatment correct? <i>ref. NZS 3604 Table 8.8 - 8.15</i>	B1, B2			
38	Is lintel support correct? (roof, roof /wall)	B1			
39	Are Trimmer Stud Sizes correct? <i>ref. Fig 8.5 NZS 3604</i>	B1			
40	Are lintel fixings specified & correct?	B1			
41	Do lintels support point loads? <i>Check roof truss layout and girder truss point loads. Refer to relevant manufacturers specifications (if applicable) for specific criteria relating to point loads,</i>	B1			
42	Do lintels required engineer design? <i>If so, is PS 4 required?</i>	B1			
43	If SED, have calculations PS1 and design been provided	B1			

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Posts & Beams					
44	Do beams sizes & treatment comply?	B1, B2			
45	Do beam / post connections comply? <i>Check corrosion zone & durability requirements for exposed connections.</i>	B1, B2			
46	Are beams properly supported? <i>Have load paths been considered?</i>	B1			
47	Do post / footing connections comply? NZS 3604 Section 9.6	B1			
48	Does post footing size comply? – (consider uplift) NZS 3604 Section 9.3	B1			
49	Are beams & connections SED?	B1			
Ceiling Joists					
50	Does ceiling joist spacing, size, span, grade, & treatment comply?	B1, B2			
Ceiling Runners (Strong backs)					
51	Does ceiling runner (strong back) spacing, span, size, grade, & treatment comply? <i>Ref Table 10.5 NZS 3604 Section 10</i>	B1, B2			
52	Do ceiling runner dimensions comply with Table 10.5?	B1			
Underpurlins					
53	Does underpurlin size, span, fixing, grade, and treatment comply? <i>ref. Tables 10.3 & 15.7 - consider .5 kPa snow loads</i>	B1, B2			
Strutting Beams					
54	Do strutting beam spans, dimensions, fixings & support comply with Fig 10.10?	B1			
Ceiling Battens					
55	Do ceiling batten spacing, span, size & grade comply? <i>ref. Table 13.1</i>	B1, B2			
Kitchen					
56	Is facility provided for washing utensils / food & waste water disposal? <i>G3, Section 1.1 & Figure 1: Preparation Area and Access to Facility Paragraphs 1.1.2 and 1.5</i>	G3			
57	Are facility provided for cooking? <i>A cooker with an oven and a hot plate, or a wall oven and a separate hob, shall be provided for cooking.</i>	G3			
58	Energy source specified for cooking & refrigeration appliances <i>Where a building is connected to a reticulated energy source, cooking and refrigeration appliances shall be permanently connected to a gas supply, complying with NZBC G11, or provided with connections to electrical outlets complying with NZBC G9.</i>	G3, G9, G11			

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59	Have impervious, easily cleaned wall finishes been specified? <i>Wall linings adjacent to appliances and facilities shall have surfaces that can be easily maintained in a hygienic condition. Stainless steel, decorative high pressure laminate, tiles, wallboards with painted or applied impervious coatings or films, are examples of suitable materials for these surfaces.</i>	G3			
Laundry					
60	Are laundering facilities required? <i>Laundering facilities are not required for detached dwelling with less than 2 people.</i>	G2			
61	Have facilities with a laundry tub or space & connections for a washing machine been provided? <i>G2/AS1,cl 1.0.1 Laundering facilities shall be provided with: a) A laundry tub, or b) Space and service connections for a washing machine.</i>	G2			
62	Has splash protection been specified for floor and wall linings? <i>E3/AS1 cl 3.1.1 'Floors' & 3.1.2 'Walls'. Floor and Wall linings and finishes must satisfy the performance for impervious and easily cleaned surfaces in areas exposed to water splash.</i>	E3			
Wet areas / WCs					
63	If the wet area has a timber floor, is the flooring treatment complying? <i>In wet areas where maintenance of an impervious coating cannot be assured plywood or timber flooring that has been treated to a min. of H3.1 shall be used (ref. NZS 3602: 2003 sec. 10.3.1)</i>	B2, E3			
64	If shower is level access is proposed, has non-slip flooring been specified? <i>Refer D1, Table 2.</i>	D1			
65	If shower is level access is proposed, have adequate falls been provided to the floor drain? <i>Falls required to the floor of a level access shower to the floor drain are to be no less the 1:50. Refer NZS 4121: 2000, 10.5.11.3 'Floors'.</i>	E3, G1			
66	Has a complying waterproofing membrane been specified? <i>Ensure the specified waterproof membrane has been applied in accordance with the manufacturer's technical specification. If required ensure applicator provides a Producer Statement - Construction (PS3)</i>	E3			
67	Have complying floor & wall linings been specified (i.e. tiled, vinyl, wet wall linings, etc) <i>If tiled on wooden floor ensure a waterproof membrane has been specified and manufacturers' technical specification provided.</i>	E3			
68	Has specification demonstrating compliance been provided for the preparation, adhesive & application, laying & jointing of the impervious surface? <i>A relevant specification should be provided demonstrating compliance for the impervious surfaces for both floors & walls.</i>	E3			

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69	Has the shower type been specified (tiled or proprietary cubicle) <i>If tiled shower, have construction details been provided for the tiling substrate and waterproofing membrane.</i>	E3			
70	Has the glazing been specified (shower screens & windows) <i>NZS 4223</i>	F2			
71	Has provision been made to contain accidental overflow damage to adjoining household units? <i>If multi-unit dwelling, Refer E3, section 2.0 'Overflow'.</i>	E3			
72	Has provision been made to temper the hot water to all personal hygiene fixtures? <i>Refer, G12 'Water Supplies' G12.3.6</i>	G12			
Ventilation					
73	Are openings providing natural ventilation to occupied space 5% or more of floor area? <i>Refer, G4, Clause 1.2 'Natural Ventilation'.</i>	G4			
74	Does the mechanical ventilation to be provided for extracting moisture & other contaminants comply? <i>Refer, G4, Clause 1.3 'Mechanical Ventilation'</i>	G4			
75	Does the documentation demonstrate mechanical ventilation ducted to outside air? <i>Refer G4, clause 1.3 'Mechanical Ventilation'.</i>	G4			
Insulation					
76	Is floor, wall and ceiling insulation correctly specified? <i>Refer BRANZ Home Insulation Guide, NZS 4218, AS/NZS 2918.</i>	H1			
77	Is insulation provided to masonry walls in habitable spaces? <i>200 series block generally requires insulation. Refer to BRANZ Home Insulation Guide - and BRANZ Bulletin 357.</i>	H1			
78	Is a loose fill insulation barrier / boundary required around flue/s of domestic solid fuel appliance installations? <i>Check NZS 4721 or AS/NZS 2918 or manufacturer literature.</i>	C			
79	Is a 25 mm separation provided between the top of the insulation and the underside of the skillion roof underlay? <i>Ensure 25mm gap is specified between insulation & building paper, refer 'BRANZ Home Insulation Guide'.</i>				
80	Is subfloor insulation protection required? <i>Subfloor insulation in exposed locations such as under raised floor of a pole house may require protection.</i>	B2, H1			
81	Do the glazed areas exceed 30% of the wall area?	H1			
Glazing					
82	Do vertical windows in external walls have a window area of not less than 10% of the floor area of the room? <i>Refer G7, clause 1.0.1 a).</i>	G7			

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83	Do vertical windows in external walls have a glazing transmittance of no less than 0.7? <i>Refer G7, clause 1.0.1 b).</i>	G7			
84	Is the window head height at least 1/2 the room width for windows on the same or adjacent sides & 1/4 the room width for windows on the opposite sides of the room? <i>Refer G7 - Clause 1.01 -"Vertical Windows in External Walls" & Figs 1&2. Note in the event that this is impractical - equivalent of 10% of floor area of room may be necessary.</i>	G7			
85	Is the natural light entering the building restricted by other structures or natural land features? <i>Either the total window area requires increased or interior surfaces of suitable reflectance (refer 1.0.2).</i>	G7			
86	If reflective surfaces are required, then do they comply? <i>Refer to G7 Cl. 1.0.3 & 1.0.4. & Tables 1 & 2.</i>	G7			
87	Is at least 50% of the glazed area provided for natural light clear glazed? <i>(G7 2.0.1 & .2)It is acceptable for awareness of the outside to be provided via another space.</i>	G7			
88	Is glazing required to comply with NZS 4223 Part 3? <i>Only glazing within 2.0 m above floor level is normally likely to be subject to human impact. NZS 4223 Part 3 is concerned only with glazing in this zone. Note: Manifestation of glass is not required in residential dwellings (F2.3.2.)</i>	F2			
89	Is glass in framed shower screens and bath enclosures specified as Grade A safety glazing? <i>Safety glazing is to comply with NZS 4223 Part 3 - Table 3.1.</i>	F2			
90	Is glazing in bathrooms & spa pool enclosures within 2.0 m of floor Grade A Safety Glass & correctly sized and specified? <i>Ref. NZS 4223 Part 3 - Cl. 308.1 & Table 3.1.</i>	F2			
Sanitary Pumping					
91	Has a comprehensive specification been provided?	G13			
91	Has a schematic plan been provided for dwellings of 2 or more storeys?	G13			
92	Is insulation specified for the potable hot water system complying? <i>Refer H1, clause 5.0 'Hot water system' & NZS 4305:1996: Energy efficiency - Domestic type hot water systems.</i>	H1			
93	Do the plans & specifications provide adequate information to enable compliance to be properly assessed? <i>If information is not adequate then suspend the application and request further information from the applicant.</i>				
94	Has a specification been provided for the proposed sanitary plumbing work? <i>Ensure the specification is relevant and provides reference to appropriate & current standards, materials, workmanship, durability, fittings, & fixtures.</i>	G12			

Ref No	Items to Consider	Building Code Clauses	KEY	Comments	Alternative Solutions? Y/N
95	Are pipe sizes specified adequate <i>Refer G12, Sec 5.3 'Water pipe size'</i>	G12			
96	Is waste pipe size / length & venting correct?	G13			
97	Is the discharge pipe size appropriate? <i>(Refer Table 1)</i>	G13			
98	Is the discharge pipe size correct? <i>(Refer Table 1)</i>	G13			
99	Is it to discharge to the foul water drainage system via a gully? A trap must be fitted to the fixture.	G13			
100	Is a floor waste installed? Is it for accidental overflow?	E3, G13			
101	Is more than one fixture discharging to the discharge pipe? (Refer Table 4 & 5 for sizing)	G13			
102	Is provision for cleaning and maintenance allowed for?	G13			
103	Is the gradient appropriate for the pipe size? <i>(Refer 4.2)</i>	G13			
104	Are pipe materials appropriate (Refer Table7)	G13			
Sanitary Drainage					
105	Are drainage pipes correctly sized?	G13			
106	Does the system incorporate access points, chambers, rodding points G13 & inspection points as appropriate?	G13			
107	Is the drain gradient specified correct? (Refer Table 2)	G13			
108	Are drains correctly vented? <i>Ensure all branch drains 10m or > are vented</i>	G13			
Fire Alarm					
109	Are domestic smoke alarms correctly specified and correctly located (refer to NZBC F7)	F7			

Alternative Solution

Ref No	Brief description of Alternative Solution	Reason for acceptance