

APPLICATION CHECKSHEET

Solar Water Heater - Residential

Address: _____

Guidance Notes for Applicant:

- Where SED is noted – Specific Engineering Design evidence for compliance with NZBC B1 is required with the application.
- All alternative solutions identified must be supported with information demonstrating compliance with performance requirements of the Building Code.
- Please complete each section and answer all questions and please complete each box in the customer use column as you attach the information.
- **An incomplete application or lack of any supporting information will mean that your application cannot be accepted for processing.**

Customer use	1. GENERAL <i>COMPLETE FOR ALL APPLICATIONS</i>
<input type="checkbox"/>	a. Building Consent Application Form B-002: Completed and signed by the owner or by an agent on behalf of the owner.
<input type="checkbox"/>	b. Proof of Ownership: A recent copy of each current certificate(s) of title (less than six months old) and where applicable a copy of purchase agreement (if recently purchased), a copy of relevant portions of current lease or document showing the full name of legal owner(s) of the building. <ul style="list-style-type: none"> • CT available at Christchurch City Council for a fee. Required <input type="checkbox"/> yes / <input type="checkbox"/> no (<i>applicant to complete</i>)
<input type="checkbox"/>	c. Relationship to owner: You as agent must state the details of the authorisation from the owner to make application on the owner's behalf (e.g. contractual agreement etc). Please note: this question must be answered before your application for consent can be processed.
<input type="checkbox"/>	d. Application Fee: Applications will not be processed without payment of the appropriate application fees. Fees payable are set out in the Building Consents Fee Schedule available on our website and will be invoiced on acceptance of the application.
<input type="checkbox"/>	e. Certificate of Design Work: Where the proposed building work includes restricted building work the application for building consent must include a Certificate of Design Work from a licensed building practitioner who is licensed to carry out or supervise design work that is restricted building work. Or, where a owner-builder exemption applies, provide a <i>Statutory Declaration as to Owner-Builder Status</i> form.

Customer use	2. PLANS AND SPECIFICATIONS COMPLETE FOR ALL PROJECTS
<input type="checkbox"/>	a. Site showing: <ul style="list-style-type: none"> Physical location of buildings (<i>CCC aerial photograph with property / buildings highlighted is sufficient</i>) North point Recession angle compliance demonstrated where close to boundary
<input type="checkbox"/>	b. Floor Plans showing: <ul style="list-style-type: none"> All levels with designated spaces. All spaces labelled Hot water cylinder location shown. New hot water cylinders to comply with NZS 4305. Note, seismic restraint requirements below. Location of existing/proposed smoke alarms (that comply with the relevant standards including having a "hush" facility); they must be marked with ⊙ on Floor Plan. These will be inspected and tested prior to the issue of the Code of Compliance Certificate. Note: If property has a sleep-out, the sleep-out is also required to have smoke alarms fitted.
<input type="checkbox"/>	c. Roof Plan: <ul style="list-style-type: none"> Show location of panel(s) Pitch of roof and pitch of solar collector Dimension panel(s) from roof edges where near a gable. Dimensions of panel(s)
<input type="checkbox"/>	d. Specification: <ul style="list-style-type: none"> Specification must be specific to the project and cover items not shown on plans Detail a procedure plan for existing building where it is reasonably likely asbestos in a potentially hazardous form will be disturbed by the proposed building work.

Customer use	3. COMPLIANCE COMPLETE FOR ALL PROJECTS
<input type="checkbox"/>	<ul style="list-style-type: none"> Compliance with AS/NZ2712 A test certificate verifying compliance with AS/NZS 2712 to be supplied from a recognised testing agency.

Customer use	4. STRUCTURAL CONSIDERATIONS COMPLETE FOR ALL PROJECTS
<input type="checkbox"/>	a. Structural Support Specific Engineering Design evidence for compliance with NZ Building Code Clause B1 is required where the building does not meet with the structural requirements specified standards in clause 1.1.1 of G12/AS2.
First year the building was structured <input type="text"/>	
Does the building comply with the structural requirements specified in any one following standards (refer to G12/AS2 1.1.1)?	
<ul style="list-style-type: none"> NZS3604:1990 NZS3604:1999 NZS3604:2011 NZS4203 AS/NZS 1170: Parts 0,1,2,3 and NZS1170 Part 5 	<input type="checkbox"/> Yes <input type="checkbox"/> No
Specify the total weight of the collector filled with fluid, frame and fittings <input type="text"/> kg/sqm. Is the total weight equal to or less than 22kg/sqm?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the pitch of the roof less than 45°?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the building in a wind zone where wind speed does not exceed 50m/s (VH wind zone defined by NZS3604)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Specify solar collector area: <input type="text"/> m ² Is the solar collector area equal to or less than 4m ² ?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Key: ✓ or = provided

or = not applicable to job

Customer use

4. STRUCTURAL CONSIDERATIONS Cont'd

Is the design ground snow loading for the building less than either – (i) 0.5 kPa (40m or less in altitude) as determined by NZS4203, or NZS3604:1990 or NZS3604:2011 Section 15; OR (ii) 1.0 kPa (100m or less in altitude) as determined by AS/NZS1170 or NZS3604:2011 Section 15?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If the answer is NO to any of the above questions a SED structural solution is required.		
Is the solar collector installed to a different pitch to the pitch of the roof and all of the follow apply: - the pitch of the solar collector is greater than 45° to the horizontal, and - the building is in a wind zone where wind speed exceeds 44m/s (H wind zone defined by NZS3604), and - the solar collector does not face in the same compass as the section of roof the solar collector is installed on?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If the answer is YES to the above question a SED structural solution is required.		
Does to the proposed work involved the replacement or new hot water storage tank? If so, complete the following otherwise move on to item b.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the hot water storage tank on or above the roof?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the hot water storage tank in the roof space?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If the hot water storage tank is in the roof is the maximum capacity of the tank more than – i) 200 litres when installed in accordance with NZS3604:1999 Section 14; Or ii) 450 litres when installed in accordance with AS/NZS3500 Part 4:2003 Section 5?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If the answer is YES to any of the above questions a SED structural solution is required for either the seismic restraint of the tank, and/or the structural support of the tank, or both.		

b. Construction Details:

- Collector fixing details appropriate for the roofing type.
- Specify/detail flashing to all pipe penetrations and sealing of fixing through roof.
- Include details of the existing roof material, collector frame material, collector material, pipe material.
- Storage tanks in the roof space have access of sufficient dimension for removal / replacement

Note:

- Materials in contact with each other to comply with NZBC G12/AS2 Table 2
- Materials subject to water runoff to comply with NZBC G12/AS2 Table 3
- Stainless is not in permitted contact with galvanised roofing
- Materials are suitable for use in the applicable exposure zone. Exposure Zone: (NZS3604 Section 4 – Note all properties in the CCC District are either Zone 1 or Seaspray Zone.

c. Collector Fixing:

- At least 4 points of support per collector, 8 for collectors mounted at a different pitch to the roof pitch.
- Outermost support within 200mm of collector edge.
- Fixings are not to compromise roof framing strength.
- Collectors fixed direct to roof have spacer blocks (refer to G12 / AS2 Fig.11)
- Direct fixing to metal roof cladding to G12/AS2 section 6.3 or alternative equal or better fixing details.
- Concrete tile straps to G12 / AS2 6.3.4 - or alternative equal or better tile fixing detail.
- Elevated mounting complies with G12 / AS2 6.4 and 6.5
- Collectors mounted at a different angle to roof pitch comply with G12 / AS2 6.6 or alternative equal or better solution.

d. Structural Drawings:

If any design work requires the services of a structural engineer, include a copy of the structural documents, if not shown on the architectural drawings. These must be consistent with the architectural drawings.

Key: ✓ or [Y] = provided

[X] or [N/A] = not applicable to job

Customer use	4. STRUCTURAL CONSIDERATIONS Cont'd
<input type="checkbox"/>	e. Producer Statements: If this application for consent relies on any producer statements certifying compliance with the NZ Building Code, this must include: <ul style="list-style-type: none"> • An accurate reference to all work covered. • The qualifications of the person issuing the statement to verify that they have the necessary expertise to issue the statement. • Details of the inspections that will be carried out by third parties.
<input type="checkbox"/>	f. Structural Calculations: Structural calculations are to be supplied with the Producer Statements. A design features report should be supplied to assist processing of the application.

Customer use	5. SOLAR WATER HEATER REQUIREMENTS COMPLETE FOR ALL PROJECTS
<input type="checkbox"/>	a. Solar Water Heater System: <ul style="list-style-type: none"> • Labelled pipe diagram appropriate to actual installation • Frost protection / insulation to all pipework outside the insulated envelope of the building to be specified. • Show drain lines termination, relief valve detail to be described • Legionella control method (refer to G12AS2 3.5) • Pipe material (<i>Polybutylene pipe systems used for circulating pipework between collectors and storage tanks requires verification from piping manufacturer for suitability as required by AS/NZS 2642.2:2008</i>). • Anti-scalding method stated and temperature limited at 55 degrees Celsius or 45 degrees Celsius elderly / early childhood centres. • Temperature control devices to comply with G12 / AS1 6.5 (<i>Thermostats / Energy cut outs</i>) • Relief valves to comply with G12 / AS1 6.6 (must be specified on documents) • Insulation to exterior is to be waterproof and wrapped or similar to prevent premature degradation • Relief valves are not to discharge onto roofing / gutters

NOTES:

The issue of a building consent does not relieve the owner of any duty or responsibility under any other act. Please check with your local territorial authority regarding the requirement for other approvals required and fees payable. These may include:

- Consents under the Resource Management Act
- Approvals under bylaws including earthworks, vehicle crossings and road openings