**NOTE: Green text is for instruction only and not to be included in the final specification**

**1 Carpentry**

**1.1. Preliminary**

Refer to General Conditions of Contract and the Special Conditions in this Specification as appropriate. Read this section in conjunction with all other trade sections.

**1.2. Compliance**

Comply with the New Zealand Building Code 1992 including all revisions and amendments, Verification Methods where appropriate, and construction principles that are embodied in the Acceptable Solutions

Comply with all relevant provisions and recommendations of:

AS/NZS 1170.2:2011 Structural Design Actions – Wind Actions

NZS 3604:2011 Timber Framed Buildings

**1.3. Supercrete™ Soundfloor Flooring System**

**1.3.1 Scope**

Supply and install Supercrete™ Soundfloor Flooring System to the locations identified on the drawings, complete with system accessories.  All aspects of this work shall be in complete accordance with the [Supercrete™ Soundfloor Design & Installation Guide](http://www.superbuild.co.nz/technical/design_guides/supercrete_soundfloor_system_design_guide.pdf) (check [www.superbuild.co.nz,](http://www.superbuild.co.nz,) or call 0800 464 787 for the latest editions), other relevant product manufacturers' recommendations, and as shown on the drawings.

No substitutions are permitted for Supercrete™ Soundfloor Flooring System

**1.3.2 System Components**

Select any of the paragraphs below as appropriate to the detailing of the system on the drawings

**Supercrete™ Soundfloor Panels.**  600mm x 1800mm x 75mm thick, tongue & groove edge profile, steel mesh reinforced, lightweight Autoclaved Aerated Concrete (AAC) floor panels.  43kg/m² nominal weight at 10-12% moisture content.  Maximum 3kPa uniform Live Load, 1.8kN concentrated Live Load.  Non-toxic and non-combustible.
Installed directly over timber or steel floor joists spaced at maximum 600mm centre in accordance with the Supercrete™ Soundfloor Design & Installation Guide.

Location: List locations on building of Supercrete™ Soundfloor Panel

**Holdfast Gorilla Nailpower PRO Expanding Foam Click & Fix, self-expanding polyurethane adhesive foam**.  Used for bonding Supercrete™ Soundfloor Panels to the floor joists.  Applied to substrates that are clean and free of dust and grease and other contaminants that may reduce bonding.

**Supercoat™ AAC Superbond Adhesive.**  A cement-based, polymer modified adhesive.  Applied by trowel to Supercrete™ Soundfloor panel-to-panel joints (except control joints).  Use only when ambient temperatures are between 10°C - 30°C, including the entire curing period.  Supplied as a bagged dry powder and mixed on site with clean, uncontaminated water in accordance with the manufacturer's requirements.

**Supercrete™ Soundfloor Panel screw fastenings for timber floor joists** - 14g-10 x 100mm Bugle Head self-drilling screws to AS 3566.  Fixed in accordance with the Design & Installation Guide.

**Supercrete™ Soundfloor Panel screw fastenings for steel floor joists** - 14g-10 x 90mm Bugle Head, T17, self-drilling, metal cutting screws to AS 3566.  Fixed in accordance with the Design & Installation Guide.

**Corrosion Protection Coating.**  Applied to exposed steel reinforcing of Supercrete™ Soundfloor Panels as an anti-corrosion treatment.  Supplied by Superbuild International Ltd.

**Flexible Sealant** - Holdfast FIX All 220LM Polymer.  Used as a flexible joint sealant to Supercrete™ Soundfloor Panel movement control joints and applied over an 8mm diameter PEF backing rod.

**1.3.3 Co-operation**

Co-operate with other trades to ensure that all preliminary and preparatory works are completed to specification and as shown on the drawings.
Co-ordinate with other trades to ensure that the Supercrete™ Soundfloor Flooring System correctly allows for the installation of floor finishes, and for the installation of building components and fittings installed by others, and to install Supercrete™ Soundfloor Flooring System as required.

**1.3.4 Workmanship**

Where required by the NZ Building Amendment Act 2012 it is the building contractor's responsibility to ensure that all restricted building work is carried out by a Licensed Building Practitioner.

Installation of the Supercrete™ Soundfloor Flooring System shall be carried out by Superbuild International Ltd registered installers, familiar with the specified products and installation techniques, to fully comply with all Superbuild International Ltd warranty requirements and in accordance with the manufacturer's requirements and as shown on the drawings.

All cutting, jointing, fixing, sealing and finishing techniques shall be exactly as recommended by the manufacturer.  All work shall be such as to leave a neat, efficient, robust installation.

Carry out all necessary installation inspections to fully comply with the manufacturer's warranty requirements.

**1.3.5 Delivery & Handling**

Store Supercrete™ Soundfloor Panels on the delivery pallets, clear of the ground on a flat, even and level surface - do not stack pallets more than two high - keep all materials and products dry and protected from damage and contamination at all times.
Store Supercoat™ adhesive compound under cover out of direct sunlight, keep dry and protect from damage and moisture at all times.
Do not used damaged or faulty materials or products, or products that are beyond their designated shelf life.  Reject panels that are structurally damaged and contact Superbuild International Ltd for replacement.

Handle all products and materials in accordance with the manufacturer's requirements, as outlined in the Supercrete™ Properties and Handling Guide, and in a manner that prevents damage or deterioration to the material.  Do not install Supercrete™ Soundfloor Panels in wet conditions.
Installers shall be familiar with and comply with the manufacturer's Material Safety Data Sheet precautions for use, and use appropriate safety gear when handling materials.
Cut and drill Supercrete™ Soundfloor Panels outside in open air or in a well-ventilated space.  Site-cut Supercrete™ Soundfloor Panels shall have any exposed steel reinforcing treated with a corrosion protection coating prior to installing the panel.

**1.3.6 Preparation**

Choose one of the following paragraphs

Timber Joists

Check that the timber floor framing complies with NZS 3604, or is in accordance with NZS 3603 and AS/NZS 1170 for specific design, and is in accordance with Supercrete™ Soundfloor Flooring System requirements and as shown on the drawings.
Check that the joists are set-out to the spacings and layout shown on the drawings, and that the floor framing is level and in true alignment, and includes all necessary blocking and edge support for the flooring system.
Check that the top surface of the floor framing members are clean and free of dust and grease and other contaminants that may reduce the bonding of the specified construction adhesive.

Steel Joists

Check that steel floor framing has been completed as shown on the drawings and inspected and approved by the BCA, complies with NASH3405, or the NZBC for specific design, and is in accordance with Supercrete™ Panel Cladding System requirements.
Check that the joists are set-out to the spacings and layout shown on the drawings, and that the floor framing is level and in true alignment, and includes all necessary blocking and edge support for the flooring system.
Check that the top surface of the floor framing members are clean and free of dust and grease and other contaminants that may reduce the bonding of the specified construction adhesive

**1.3.7 Installation**

Install Supercrete™ Soundfloor Panels in a stretcher bond (staggered) pattern, minimum 600mm overlap, at right angles to floor joists, with a minimum span of one joist and not less 300mm, and with end joints centred on a joist.
Confirm the location of all control joints and any specific panel detailing requirements prior to installation.
Accurately cut the panels to suit the required layout, allowing for a 10mm separation gap around any wall framing installed directly onto the floor framing.  Do not cut panels less than 270mm wide - if a narrow piece is required, reduce two panels in width so that both exceed 300mm.
Treat all exposed steel reinforcing of cut Supercrete™ Soundfloor Panels with Corrosion Protection Paint

Apply a 5mm bead of the specified construction adhesive to the top of the joists being covered by the floor panel.  Where panel ends meet over a joist apply two beads of adhesive.  Accurately position the panel in place keeping any horizontal sliding on the joists to a minimum to ensure maximum bonding with the construction adhesive.

Screw fix the panel to the joists with two screws per joist fixed 100mm - 150mm inside the longitudinal edges of the panel - do not screw fix panel end-joints - only fix panel ends that are at the boundary of the installation and where the panel layout changes orientation.  Centralised panels shall be screw fixed in the body of the panel only - not at the panel ends (end-joints).  Set screw heads 5mm nominal below the panel surface.

Apply a coat of Supercoat™ AAC Superbond Adhesive to the panel edges that are being joined.  Position the next panel in place, to the staggered pattern, so that the edges are tightly jointed and with full contact of the Superbond Adhesive along the joints, and screw fix the panel to the joists (except at end-joints).  Panel joints shall not exceed 3mm in width.
Flush-finish panel joints and countersunk screws with the jointing adhesive as each panel is installed, and remove excess adhesive and droppings.
Repeat the panel installation process for subsequent panels until Supercrete™ Soundfloor Flooring System installation is complete.

As the panels are installed, form movement control joints to the locations and details shown on the drawings in accordance with the Design & Installation Guide.  Control joints shall be nominal 5mm wide, spaced at maximum 6000mm centres in any one direction, and sealed with the specified flexible sealant over a PEF backing rod.

At the end of the work being carried out for that day, scrape the surface of the panels smooth, removing all overfilled adhesive from the panel joints, and clean up all dropped panel adhesive from the floor below.

**1.3.8 Completion**

Carry out a final inspection immediately after installation.
Check that the Supercrete™ Soundfloor Flooring System has been installed correctly, and that all panel joints and control joints have been sealed and completed correctly.  Check that all screw fixings have been flush fill with jointing adhesive.
Check panels and joints for damage and defective work - carry out repairs as necessary.  Repair any chipped edge of panels around the perimeter square and flush with Supercoat™ AAC Superbond Adhesive.

Leave this work complete and sound in accordance with Supercrete™ requirements.  Where the Soundfloor is laid over a timber diaphragm, keep the floor protected from weather until the building has been made watertight.
Leave the work area and surrounding surfaces clean and free of rubbish and debris.  Remove all rubbish and excess material from the site.

Provide the Supercrete™ Soundfloor Installation Producer Statement.