

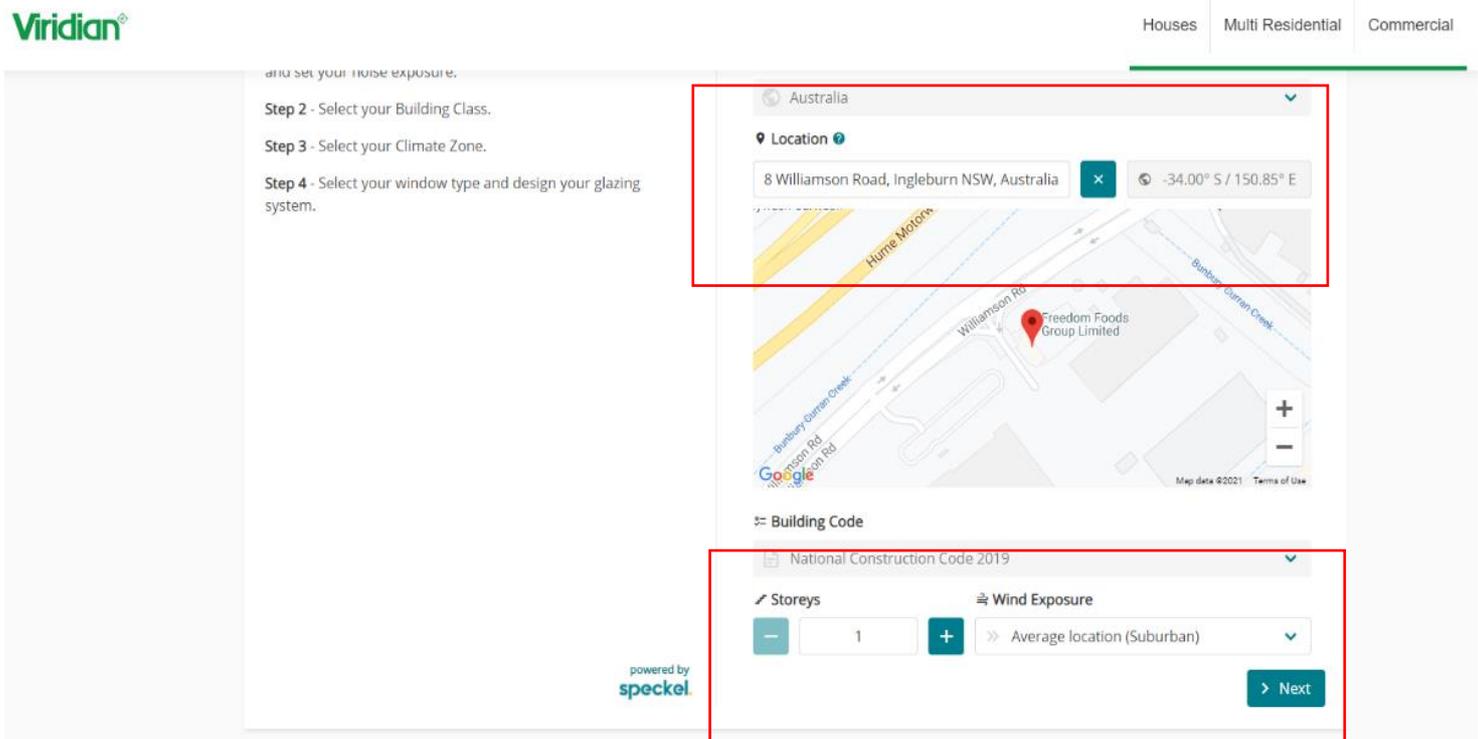
Viridian Speckel is a helpful tool that allows users to work through different glass and frame types to assess NCC2019 compliance.

This tool **does not** replace the approval process, nor does it assume that compliance will be met using this tool (please read our terms and conditions). This tool assists in providing a comparison with the Deemed-to-Satisfy Provisions and part of the means to demonstrate compliance with Building Fabric requirements of JP1. Performance Solutions are available when you sign up to speckel.io

This user guide is designed for building professionals who understand the relevant terminologies and compliance concepts. This tool is offered as self-service only, Unfortunately Viridian staff **cannot** offer detailed training or technical support on its usage to non-building professionals.

Step 1. Enter the project address in the location, move down the page and enter the number of storeys of the project. Next enter the wind exposure the project will experience.

Click **next** to proceed.



The screenshot shows the Viridian Speckel web application interface. At the top right, there are navigation tabs for "Houses", "Multi Residential", and "Commercial". The main content area is divided into a left sidebar and a main form area.

Left Sidebar:

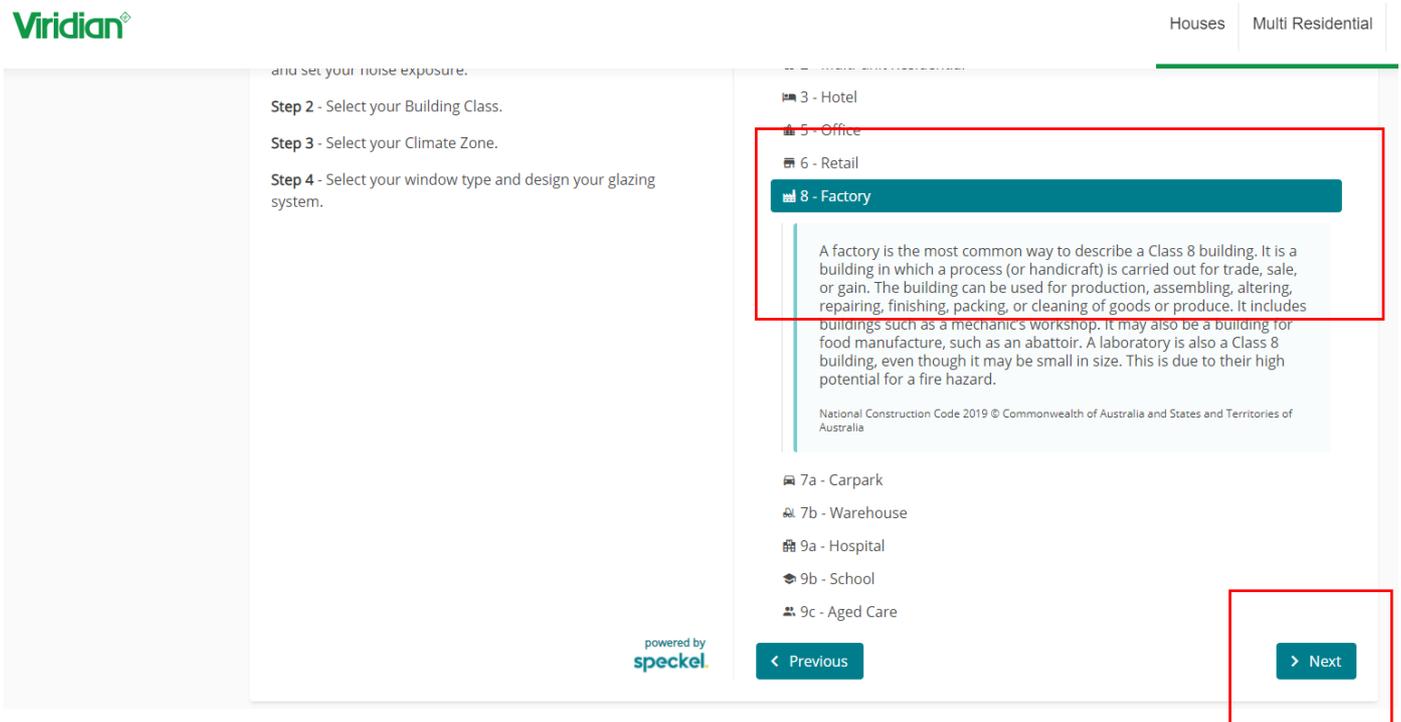
- and set your noise exposure.
- Step 2 -** Select your Building Class.
- Step 3 -** Select your Climate Zone.
- Step 4 -** Select your window type and design your glazing system.

Main Form Area:

- Location:** A dropdown menu is set to "Australia". Below it, a text input field contains "8 Williamson Road, Ingleburn NSW, Australia" with a clear button (X). To the right, a location icon shows coordinates "-34.00° S / 150.85° E". Below the text is a map showing the location with a red pin and the label "Freedom Foods Group Limited".
- Building Code:** A dropdown menu is set to "National Construction Code 2019".
- Storesys:** A numeric input field contains "1" with minus (-) and plus (+) buttons.
- Wind Exposure:** A dropdown menu is set to "Average location (Suburban)".
- Next:** A blue button labeled "Next" with a right-pointing arrow.

At the bottom left of the form area, it says "powered by speckel."

Step 2. Select the project type, move down the page and click **next** to proceed.



Viridian[®] Houses Multi Residential

and set your noise exposure.

Step 2 - Select your Building Class.

Step 3 - Select your Climate Zone.

Step 4 - Select your window type and design your glazing system.

3 - Hotel

5 - Office

6 - Retail

8 - Factory

A factory is the most common way to describe a Class 8 building. It is a building in which a process (or handcraft) is carried out for trade, sale, or gain. The building can be used for production, assembling, altering, repairing, finishing, packing, or cleaning of goods or produce. It includes buildings such as a mechanic's workshop. It may also be a building for food manufacture, such as an abattoir. A laboratory is also a Class 8 building, even though it may be small in size. This is due to their high potential for a fire hazard.

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7a - Carpark

7b - Warehouse

9a - Hospital

9b - School

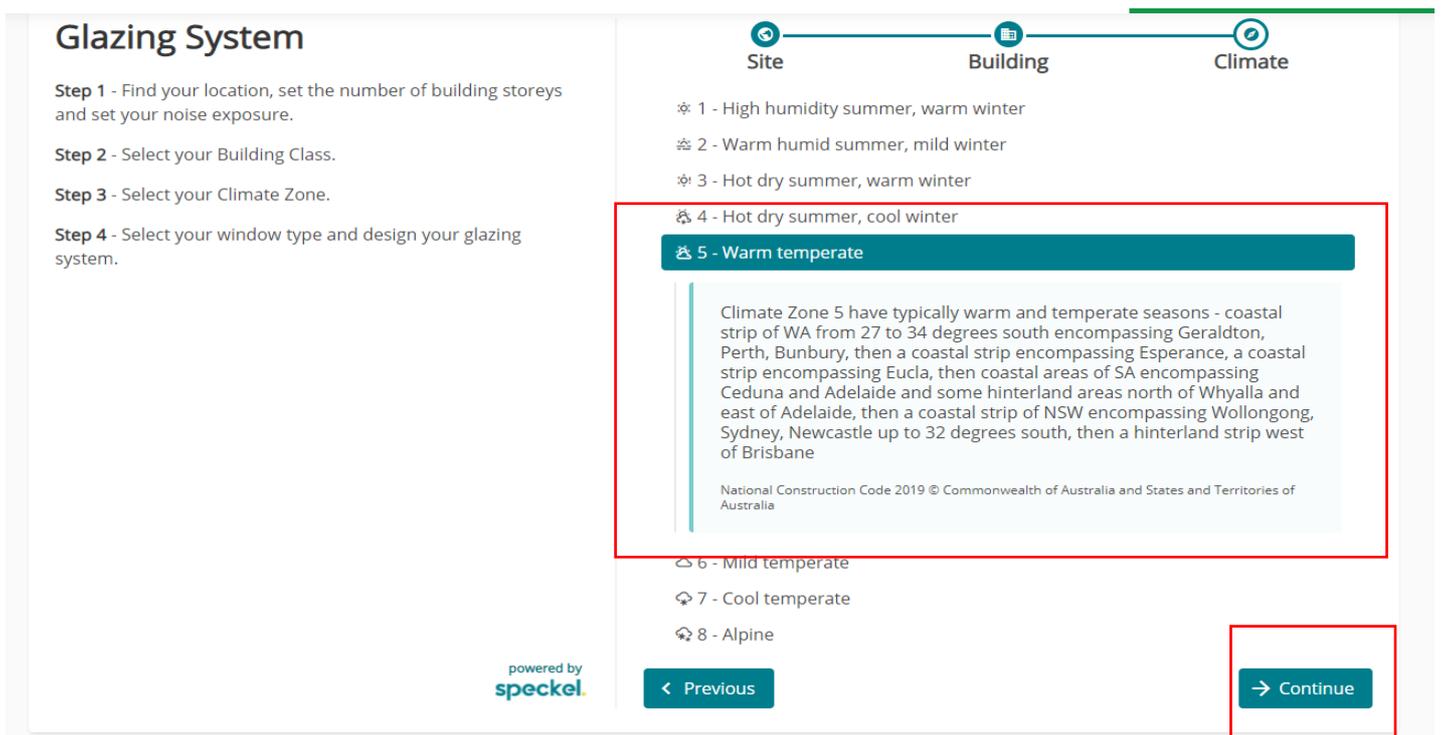
9c - Aged Care

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< Previous

> Next

Step 3. Select the climate type, move down the page and click **Continue** to proceed.



Glazing System

Step 1 - Find your location, set the number of building storeys and set your noise exposure.

Step 2 - Select your Building Class.

Step 3 - Select your Climate Zone.

Step 4 - Select your window type and design your glazing system.

Site Building **Climate**

1 - High humidity summer, warm winter

2 - Warm humid summer, mild winter

3 - Hot dry summer, warm winter

4 - Hot dry summer, cool winter

5 - Warm temperate

Climate Zone 5 have typically warm and temperate seasons - coastal strip of WA from 27 to 34 degrees south encompassing Geraldton, Perth, Bunbury, then a coastal strip encompassing Esperance, a coastal strip encompassing Eucla, then coastal areas of SA encompassing Ceduna and Adelaide and some hinterland areas north of Whyalla and east of Adelaide, then a coastal strip of NSW encompassing Wollongong, Sydney, Newcastle up to 32 degrees south, then a hinterland strip west of Brisbane

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6 - Mild temperate

7 - Cool temperate

8 - Alpine

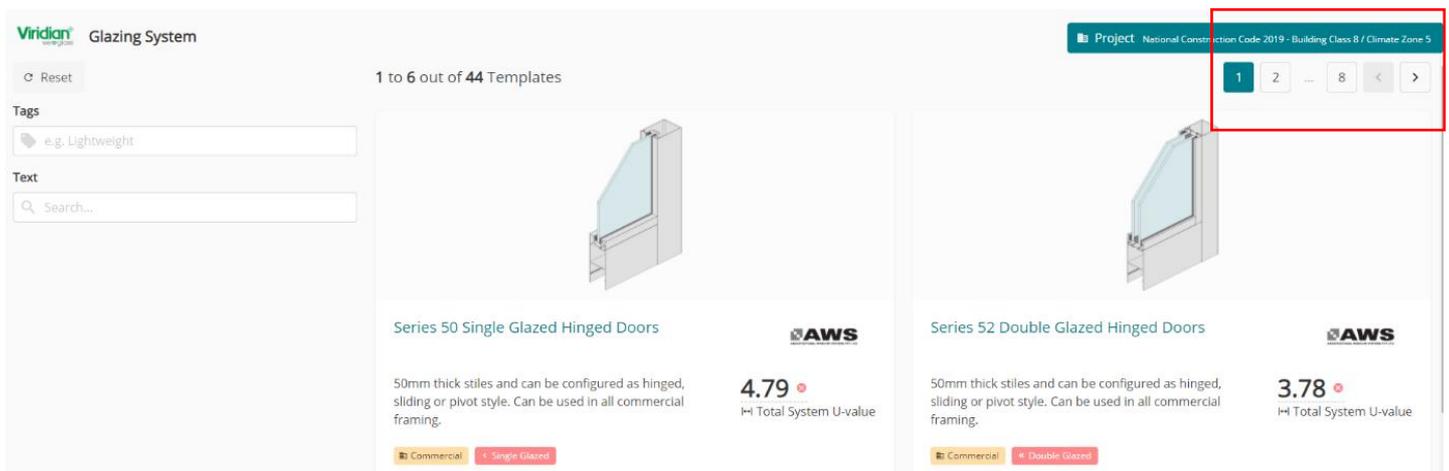
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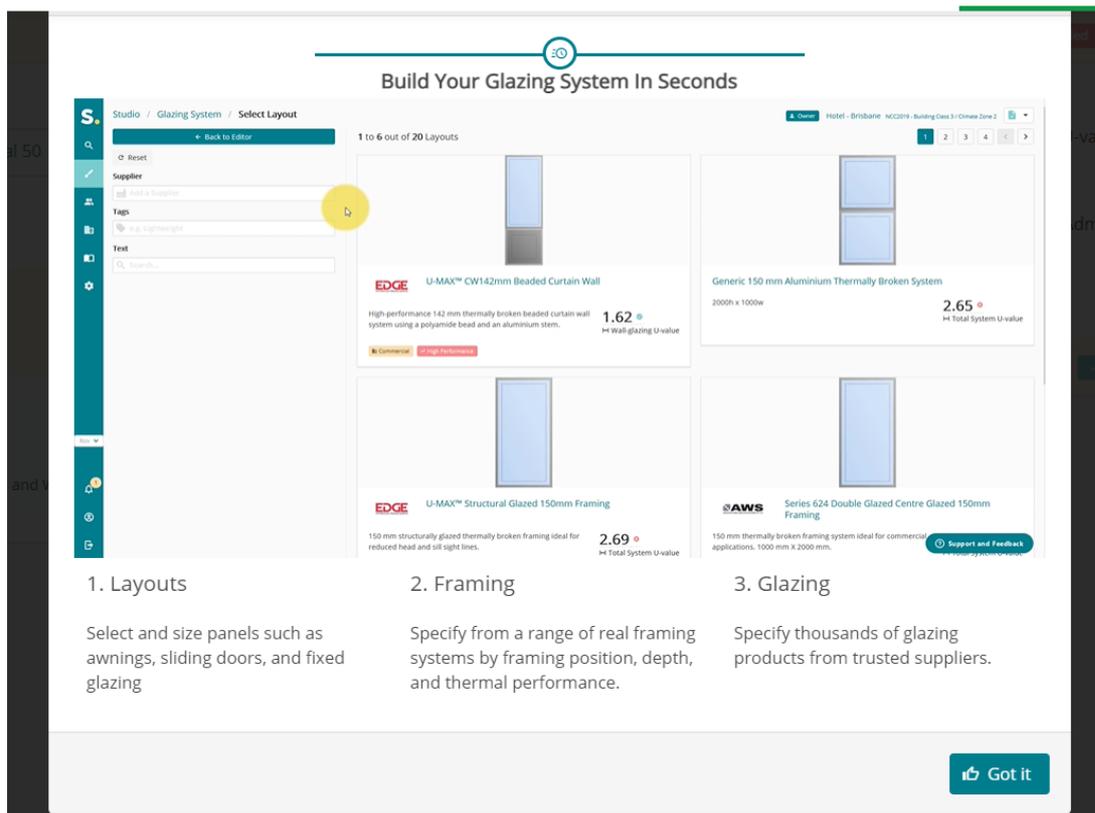
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Step 4. Select the frame type from the library that you require for your project. You can toggle through different system from Viridian partners or use generic frame types.

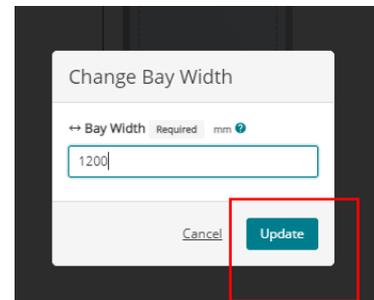
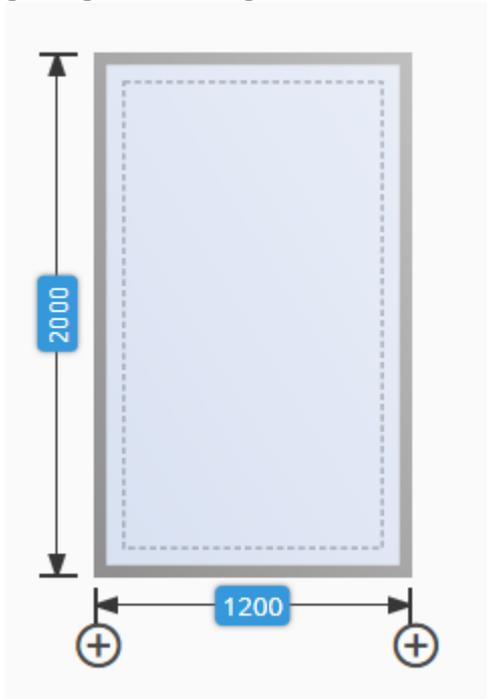
Tip – if you are planning to more than 50% WWR you will need to consider a thermally broken frame to begin with.



Please read and observe the Interactive video, when you are ready to move forward click the Got It button.



Step 5. Click on the dimensional figures to adjust the size that matches your design and update accordingly. Click on the update button. Next click the + buttons to add additional glazing to the design.



Navigate each of the material, Module and Shading tabs to change products, add shading devices or change the WWR to assist in compliance. You need to get the pink slide bars on the right hand side of the page to meet compliance.

Once changes are complete, and your selections meets the relevant compliance level the slide bars will change from pink to blue. Next click on the download report tab, a detailed report will now be emailed to you based your inputs.

The screenshot displays the Viridian Glazing System software interface. On the left, the 'Materials' section lists 'Architectural Window Systems ThermalHEART 804' and 'Viridian PerformaTech™ - PH1160Cr (U-value 1.3 / SHGC - 0.25)'. Below this, the 'Shading' section includes options for 'Add Shading Device' and 'Add Overhang'. A 'Concept' section shows a 'Glazing Wall Ratio' slider set at 50% and a 'Wall Total R-value' slider set at 2.0. In the center, a diagram labeled 'Elevation' shows a window with a height of 1200 and a width of 900. On the right, the 'Results' section shows a 'Code' status of 'Passed'. Key performance metrics include: H-Wall-glazing U-value of 1.95 (with a slider set at 1.95 and a 2 (max) limit), Solar Admittance of 0.10 (with a slider set at 0.10 and a 0.13 (max) limit), and Wall Total R-value of 1.00 (with a slider set at 1.00 and a 1 (min) limit). A red box highlights the 'Download Report' button in the bottom right corner of the Results section.