



Green Star Design & As Built NZ v1.0

Fitout Scope: Guidance for Integrated, Cold Shell and Warm Shell Fitouts

October 2022

Contents

Introduction: Fitout Scope in Green Star – Design & As Built	01
Definitions	03
Guidance for Credits & Criteria	05
Type A (Owner): Operational & Design control of Asset Owner, or Whole Building Attribute	05
Type B (Contractor): Head Contractor scope of works	05
Type C (Fitout): Fitout Dependent	05
Fitout Scope Ranges	06
Documentation Requirements	07
How <i>Cold Shell</i> and Integrated spaces are reflected in the Scorecard	08
Summary	09
General Guidance	12
Certificates	13
Innovation	13
Appendix A: Credit Criteria Guidance	14
Appendix B: Delivery Scopes by Asset Class	39
Appendix C: <i>Integrated Fitout and Cold Shell</i> - Using the Scorecard	43

BELOW:

Fisher & Paykel Healthcare,
Daniell Building, Auckland.
5 star Green Star Industrial
Built v3



Introduction: Fitout Scope in Green Star – Design & As Built

The purpose of *Green Star – Design & As Built* is to deliver an ‘As Built’ rating. It sets criteria for assessment of the building **as delivered by the building owner or developer**.

Within New Zealand the following are the typical delivery options used by building owners/developers,

- ┌ *Integrated Fitout*
- ┌ *Warm Shell* (Open Plan)
- ┌ *Cold Shell* (Shell and Core)

This document is designed to provide guidance to project teams where part or all of the Primary and Secondary areas in a building are being delivered as *Integrated Fitout* or *Cold Shell*. When used, it supersedes all guidance in the Submission Guidelines for Green Star – Design & As Built (all versions) relating to Tenancy Fitout Guides and unleased spaces (unless otherwise noted).

For buildings with lettable tenanted spaces, ***Green Star – Design & As Built* expects the building owner/developer to deliver base build solutions** within the lettable area of a building that meets the Green Star credit criteria, not the tenant. **Awarding credits for a base building cannot depend wholly on a tenant to be responsible for delivering outcomes.** This extends to *Integrated Fitout* and *Cold Shell* areas. *Integrated Fitout* delivery is becoming increasingly common in the New Zealand market, particularly in commercial offices. The benefits of *Integrated Fitout* delivery include avoiding waste, cost, time and to provide a building that meets the tenant’s specific requirements. The benefits of *Cold Shell* delivery include avoiding waste, reducing cost and time. The rating tool expects that for *Integrated Fitout* and *Cold Shell* areas, **the base building (and its services) will enable the tenant to build high quality spaces**, meaning outcomes are expected to be provided and/or delivered.

Integrated Fitout

In most *Integrated Fitouts*, there are situations for particular *Green Star – Design & As Built* credits where the tenant specified items affect the developer’s ability to achieve the credit. As an example, a tenant may specify specialised light fittings for their fitout that do not comply with the minimum lighting comfort credit criteria. The developer should not in this case be penalised for items that are outside of their control.

This document provides a method to enable *Integrated Fitout* spaces to claim particular credits based on the elements that are within the developers control or otherwise label as N/A where contractually the tenant is responsible. This document provides additional guidance and clarity on **what elements within the building should be included within the *Integrated Fitout Design & As-Built* rating.**

Cold Shell

In most *Cold Shell* spaces, there are situations for particular *Green Star – Design & As Built* credits where the infrastructure does not exist to demonstrate the required outcomes. These outcomes cannot be met because

it is not applicable at this stage of development, rather than due to poor installation or non-compliance. As an example, in *Cold Shell* spaces lighting is generally not installed within a tenanted space. In this case, the building owner cannot claim that the building has good lighting, nor could the rating tool claim it has bad lighting. Rather, lighting does not exist. As such, the issue of lighting comfort is not relevant. Project teams cannot claim credits, yet neither should they be penalised.

This document provides a method to enable *Cold Shell* spaces to identify particular credits as either fully 'Not Applicable', or to exclude areas from assessment and have that reflected in the overall score. This document outlines which credits can be adjusted based on *Cold Shell* delivery, and what project teams are required to do to qualify for exclusion. It also outlines how to demonstrate compliance for credits where the score cannot be adjusted.

For some credits, project teams are required to demonstrate how they will communicate requirements, expectations and crucial building information to the tenant (sometimes irrespective of delivery scope). Appendix A provides guidance on which credits require building owners to inform a tenant of a whole building system, policy or plan requirement and the minimum expectations of that content.

For some sectors where the building was specifically built for a single primary operator such as a hospital or a hotel, the rating tool assumes all aspects of the building and fitout are included unless noted otherwise. These sectors are addressed as such because the scope of the delivery typically extends to the whole building and the rating for these sectors and situations is assumed to be a whole of building rating. Appendix B outlines the classes of buildings that are rated as whole of building. For these classes of buildings, the guidance in this document should only apply to small areas of different usage (e.g small retail areas). Where a building in this situation does contain a large amount of *Cold Shell*, project teams are encouraged to contact the NZGBC for further guidance specific to their building.

This document aims to create clarity on the following issues related to the scope of fitouts in *Green Star – Design & As Built* projects:

- ✔ Defining common terms
- ✔ Addressing the range of Fitout Scope within a building
- ✔ Guidance for Credits and Criteria in relation to Fitouts
- ✔ Documentation Requirements for *Integrated Fitout/Cold Shell* spaces
- ✔ How *Integrated Fitouts* and *Cold Shell* spaces are reflected in the Scorecard

Project teams wanting to adopt this guidance must do so in full, and where a *Cold Shell* approach is taken, use the specific *Cold Shell* scorecard provided by the NZGBC.

Project teams are encouraged to talk to the NZGBC where they have questions relating to their project regarding this guidance. Where previous advice has been provided to project teams for a particular project, previous advice may apply.

Definitions

Area Definition Request: Area Definition Requests are made when project teams want to clarify how credits should be applied to their project. The process involves the project team submitting a marked up set of drawings and a completed Area Definition Template defining the Primary, Secondary and Tertiary spaces within the project, along with any *Cold Shell* areas and other proposed exemptions (such as specialist spaces like a laboratory).

Cold Shell (Core and Shell): Finishes and services are not installed. A tenancy with an unfinished interior, with no HVAC services beyond the riser (or core or rigid duct), and without lighting, plumbing, ceilings, floor finishes (or with a setdown to allow for future provision of floor finishes), interior partitions or walls.

Fitout Scope: The range of scope which is delivered as *Cold Shell*, *Warm Shell* or *Integrated Fitout* within a Green Star project.

Head Contractor: The head contractor is the main contractor who is completing the base build works and any MCHF works.

Integrated Fitout: Where the tenancy design and construction is fully coordinated with the base building. This includes finishes, services and fitout to all areas, common and tenancy, with services fully installed at each floor. The definition of *Integrated Fitout* for the purposes of Green Star is a tenancy space where all ceilings, floor coverings, lighting systems, mechanical, electrical and hydraulic services, partition walls, and finishes are installed. This means a highly modified *Warm Shell* design or a fitout that is purpose built. It does not include items that would typically only be included in an Interiors rating such as furniture or decorative fixtures. The works are typically separated into MCHF works (developer) and SHF works (tenant)

Make Good Drawings: A set of drawings demonstrating the intended generic (or *Warm Shell*) design of a floor plate.

MCHF (Main Contract Hard Fitout): MCHF applies to the works requested by the tenant that will be undertaken by the developer as part of an *Integrated Fitout*. This typically includes works associated with modifying the base build structure, architecture and building services.

Model lease clauses: Standard leasing contract clauses relating to the tenant requirements within a specific building.

Nominated area: The area of a building relevant to particular credit criteria (as per Submission Guidelines), e.g. Primary, Secondary or Tertiary.

Not Applicable: Where a credit or criterion has been approved as 'Not Applicable', that credit or criterion's points will be excluded from the total points available. The Green Star score calculated by the scorecard will account for this in the percentage calculations.

Primary Space: All areas where a person is expected to work, or remain for an extended period of time (as per Submission Guidelines). Typically, retail and office *Cold Shell* areas should be treated as Primary space; project teams wanting to define *Cold Shell* areas as secondary and/or tertiary space should outline reasons in an Area Definition Request submitted to the NZGBC.

Secondary Space: All areas used to support the principal activity of the primary space. These spaces will be regularly occupied, however a single person is unlikely to remain within for more than two hours (as per Submission Guidelines).

SHF (Sub-divisional Hard Fitout): SHF applies to the works that will be carried out by the tenant as part of the *Integrated Fitout*. This typically includes the interior design, furniture, communications, tenant security, specialist lighting, audio visual.

Tenancy Fitout Guide: Comprehensive guidance document outlining whole building system, policy or plan requirements for the fit out of all areas to enable a tenancy to become fully operational. It is intended to ensure tenants are informed of provisions and obligations related to base building systems and performance. **For the purposes of Green Star, Tenancy Fitout Guides must provide a project-specific response and outline to the tenant how the base building has been designed to deliver necessary base building characteristics and functions to meet the intent of the credit, in compliance with Appendix A.**

Tertiary Space: All areas which are either transient spaces, or accessed intermittently (as per Submission Guidelines)

Warm Shell (Open Plan): Finishes and services are applied to common areas. Tenancies are delivered with ceilings, floor coverings and lighting systems; and ducts from air supply and return risers, electrical and hydraulic services are installed above the ceiling from the riser throughout the tenancy areas. For the purposes of Green Star, these spaces can typically demonstrate compliance as delivered by the contractor, without further lease clause or tenancy fitout documentation (for most credits).

Guidance for Credits & Criteria

To help project teams understand how to approach the Fitout Scope of a project, Green Star – Design & As Built credit criteria have been separated into three types, listed below. Appendix A provides a full list of all criteria and their classifications, as well as additional guidance for Tenancy Fitout Guides.

Type A (Owner): Operational & Design control of Asset Owner, or Whole Building Attribute

Credits in this category are considered to be under the design and operational control and influence of the asset owner, or a whole of building attribute which isn't influenced by tenancies. These credits are generally understood to be able to be achieved regardless of whether an area is considered *Cold Shell*, *Warm Shell* or *Integrated Fitout*. Guidance is provided in Appendix A for credits where there are requirements for communication to tenants.

Type B (Contractor): Head Contractor scope of works

These credits are limited to the scope of the Head Contractor. Where the project includes *Integrated Fitout* delivery, the credit requirements relate to the work undertaken by the Main Contractor in relation to the *Warm Shell* and MCHF works.

Where no items exist in the scope because of *Cold Shell* delivery, the credit requirements are deemed to be met.

Type C (Fitout): Fitout Dependent

These credits depend on a fully installed fitout to demonstrate compliance. Where the *Cold Shell/Integrated Fitout* spaces make up between 5-95% of Primary and Secondary spaces, they may be excluded on submission of relevant documentation, and the scorecard adjusted to reflect this exclusion. These credits can be made 'Not Applicable' if *Cold Shell/Integrated Fitout* spaces make up >95% of Primary and Secondary spaces subject to documentation requirements. Please refer 'Fitout Scope Ranges', 'Documentation Requirements' and 'How *Cold Shell* and *Integrated Fitout* Spaces are Reflected in the Scorecard' for any claim of exclusion or 'Not Applicable'.

Alternatively for *Integrated Fitout*, the credit can be claimed if it can be demonstrated that the fitouts are also compliant.

Fitout Scope Ranges in Green Star – Design & As Built

When targeting a Green Star – Design & As Built rating which includes *Integrated Fitout* and/or *Cold Shell* spaces, there are three possible scenarios based on the amount of Primary and Secondary space being delivered as *Integrated Fitout* and/or *Cold Shell* (with the exception of some sectors where the building was specifically built for a single primary operator, such as a hospital or a hotel. Refer Appendix B). These scenarios determine how *Integrated Fitout* and/or *Cold Shell* spaces are reflected in the Scorecard.



Scenario 1:
 <5% Primary & Secondary spaces delivered as Cold Shell and/or Integrated Fitout

Cold Shell and *Integrated Fitout* spaces can be excluded from compliance with Type C (Fitout) credits. Refer Documentation Requirements.



Scenario 2:
 5-95% Primary & Secondary spaces delivered as Cold Shell/Integrated Fitout

Cold Shell/Integrated Fitout spaces can be excluded from Type C (Fitout) credits, and points can be scaled based on the percentage of *Cold Shell* when N/A documentation requirements for type C credits are met.

Alternatively, *Integrated Fitout* can target the credit, if the fitout also complies. Refer Documentation Requirements.



Scenario 3:
 >95% Primary and Secondary spaces delivered as Cold

This building is considered all *Cold Shell/Integrated Fitout*. All the type C (Fitout) credits can be made “Not Applicable” when N/A documentation requirements for type C credits are met. Alternatively, *Integrated Fitout* can target the credit, if the fitout also complies. Refer Documentation Requirements.

Documentation Requirements

Type A (Owner) & Type B (Contractor) credits:

Refer Submission Guidelines for all areas. Appendix A also provides guidance for project credit requirements for *Integrated Fitout* and *Cold Shell* arrangements.

Type C (Fitout) credits:

Integrated Fitout

Integrated Fitout areas may be excluded from the assessment, or the credits made 'Not Applicable' by submitting the following for assessment:

- ✔ a **Tenancy Fitout Guide (or equivalent)** describing the proposed base building outcomes for the tenancy and examples of how these can be achieved; and
- ✔ one of the following:
 - ✔ For unleased spaces, a **model lease clause** outlining a tenant's obligation to meet the credit requirements outlined in the tenancy fitout guide, **and a commitment letter** from the owner to include the model lease clause in all leases.
 - or -
 - ✔ For leased spaces delivered as *Integrated Fitout*, a **signed lease agreement** outlining a tenant's obligation to meet the credit requirements in the tenancy fitout guide.

For projects with a single tenant, project teams may use 'Make Good' drawings in lieu of a Tenancy Fitout Guide in some cases. Project teams are encouraged to contact the NZGBC to discuss.

Alternatively the credit can be achieved if the project can demonstrate the base build and the fitout is compliant with the credit requirements.

Cold Shell

Cold Shell areas may be excluded from the assessment, or the credits made 'Not Applicable' by submitting the following for assessment:

- ✔ a **Tenancy Fitout Guide (or equivalent)** describing the proposed base building outcomes for the tenancy and examples of how these can be achieved; and
- ✔ one of the following:
 - ✔ For unleased spaces, a **model lease clause** outlining a tenant's obligation to meet the credit requirements outlined in the tenancy fitout guide, **and a commitment letter** from the owner to include the model lease clause in all leases.
 - or -
 - ✔ For leased spaces delivered as *Cold Shell*, a **signed lease agreement** outlining a tenant's obligation to meet the credit requirements in the tenancy fitout guide.

For projects with a single tenant, project teams may use 'Make Good' drawings in lieu of a Tenancy Fitout Guide in some cases. Project teams are encouraged to contact the NZGBC to discuss.

How Cold Shell and Integrated spaces are reflected in the Scorecard

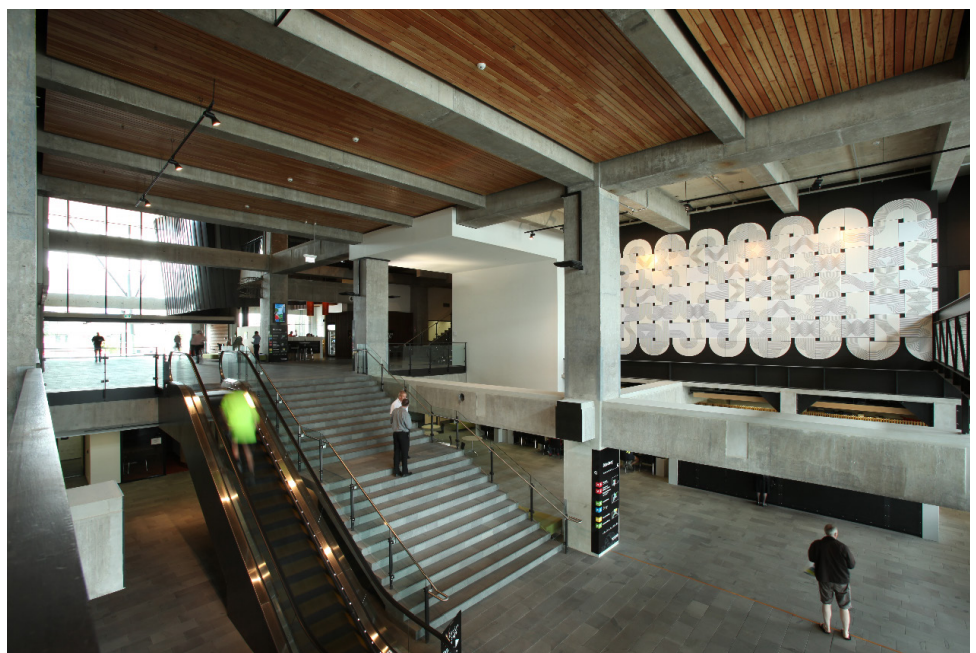
How the credit is assessed depends on the amount of *Integrated Fitout* and/or *Cold Shell* delivery in comparison to the total GFA of primary and secondary spaces in the building.

- ✔ Scenario 1: Where the total combined *Integrated Fitout* and/or *Cold Shell* primary areas in a building are less than 5% of the Primary and Secondary spaces (e.g. retail space in a commercial building), these areas can be excluded from compliance for these credits (subject to documentation requirements). The scorecard remains out of 100 total points.
- ✔ Scenario 2: Where 5% to 95% of a project's Primary and Secondary spaces are delivered as *Cold Shell* or *Integrated Fitout*, the *Cold Shell* and *Integrated Fitout* areas can be excluded from the Type C (Fitout) credits. The percentage of *Cold Shell* space can be considered 'Not Applicable' and deducted from the amount of points available for a project to target, and from the total points as well. The award of 'Not Applicable' is subject to the provision of specified documentation (refer 'Documentation Requirements'). For *Integrated Fitout*, if the full point is targeted then the fitouts will need to comply.

For example, where one point is available, and 40% of a project's Primary & Secondary space is *Cold Shell* and the other 60% is *Warm Shell*, 0.4 of the point can be made 'Not Applicable' (and deducted from the total score), leaving the project to be awarded up to 0.6 out of 0.6 remaining points.

- ✔ Scenario 3: Where 95% or more of a project's Primary and Secondary spaces are delivered as *Cold Shell* or *Integrated Fitout*, Type C (Fitout) credits can be made 'Not Applicable'. The project scorecard will be adjusted accordingly, removing these points from the overall tally. The award of 'Not Applicable' is subject to the provision of specified documentation (refer 'Documentation Requirements'). For *Integrated Fitout*, if the full point is targeted then the fitouts will need to comply.

RIGHT:
Christchurch City Council Civic Building. Christchurch City Council, Ngāi Tahu Property. 6 star Green Star Office Interiors (2009)



Christchurch Civic_building_foyer_credit_Ruffell_Productions

Summary

INTEGRATED FITOUT/ COLD SHELL SCOPE	CREDIT TYPE	DOCUMENTATION REQUIREMENTS	SCORECARD / POINTS OUTCOME
<p>Scenario 1:</p> <p>≤5% Combined <i>Integrated Fitout/ Cold Shell</i> Primary and Secondary Spaces</p> <p><i>Integrated Fitout/Cold Shell</i> areas can be excluded from Type C (Fitout) credits</p>	<p>A & B</p> <hr/> <p>C</p>	<p>All areas: Documentation requirements as per Submission Guidelines</p> <hr/> <p><i>Warm Shell</i>: Documentation requirements as per Submission Guidelines</p> <p><i>Cold Shell</i> areas and <i>Integrated Fitout</i> Areas to be excluded:</p> <ul style="list-style-type: none"> ✔ Tenancy Fitout Guide (or equivalent) ✔ For unleased <i>Cold Shell/ Integrated Fitout</i> spaces, a model lease and a commitment letter from the owner (Refer Note 1) OR ✔ For leased <i>Cold Shell/ Integrated Fitout</i> spaces, a signed lease agreement or separate agreement between tenant and landlord. (Refer Note 1) <p>Refer Documentation Requirements & Appendix A</p> <p>Note: for small projects (under 1000sqm), the project team may be exempt from submitting the required <i>Cold Shell</i> Documentation for this scenario. Project teams are encouraged to contact the NZGBC.</p>	<p>No change.</p> <hr/> <p><i>Integrated Fitout</i> and <i>Cold Shell</i> areas considered excluded from Type C credits. Score remains out of 100.</p>
<p>Scenario 2:</p> <p>Between 5-95% <i>Cold Shell</i> Primary and Secondary spaces</p> <p>Type C (Fitout) credits scaled based on percentage of <i>Cold Shell</i> delivery.</p> <p>Where <i>Cold Shell</i> area is X%</p>	<p>A & B</p>	<p>All areas: Documentation requirements as per Submission Guidelines, plus additional guidance for <i>Cold Shell/ Integrated Fitout</i> spaces in Appendix A</p>	<p>No change.</p>

INTEGRATED FITOUT/ COLD SHELL SCOPE	CREDIT TYPE	DOCUMENTATION REQUIREMENTS	SCORECARD / POINTS OUTCOME
<p>Scenario 2:</p> <p>Between 5-95% Cold Shell Primary and Secondary spaces</p> <p>Type C (Fitout) credits scaled based on percentage of <i>Cold Shell</i> delivery.</p> <p>Where <i>Cold Shell</i> area is X% (Cont)</p>	C	<p><i>Cold Shell</i> Areas and <i>Integrated Fitout</i> Areas claiming N/A:</p> <ul style="list-style-type: none"> ✔ Tenancy Fitout Guide (or equivalent) AND either ✔ For unleased <i>Cold Shell/ Integrated Fitout</i> spaces, a model lease and a commitment letter from the owner (Refer Note 1) OR ✔ For leased <i>Cold Shell/ Integrated Fitout</i> spaces, a signed lease agreement or separate agreement between tenant and landlord. (Refer Note 1) <p>Refer Documentation Requirements & Appendix A</p> <p><i>Warm Shell/Integrated Fitout</i> Areas claiming full compliance: Documentation requirements as per Submission Guidelines, plus additional guidance for <i>Integrated Fitout</i> spaces in Appendix A</p> <hr/> <p><i>Warm Shell</i> areas: Documentation requirements as per Submission Guidelines</p>	<p><i>Cold Shell/Integrated Fitout</i> percentage of points (X%) for Type C (Fitout) credits may be awarded as 'Not Applicable' by the Certified Assessor. If awarded as 'Not Applicable' the overall points total in the scorecard is adjusted to deduct these partial points.</p> <p>The remaining Type C (Fitout) credit points (100-X%) are available to be targeted for <i>Integrated Fitout</i> areas claiming the point.</p> <hr/> <p>The remaining Type C (Fitout) credit points (100-X%) are available to be targeted.</p>

INTEGRATED FITOUT/ COLD SHELL SCOPE	CREDIT TYPE	DOCUMENTATION REQUIREMENTS	SCORECARD / POINTS OUTCOME
<p>Scenario 3: ≥95% <i>Cold Shell/ Integrated Fitout</i> Primary and Secondary spaces</p>	A & B	<p>All Areas: Documentation requirements as per Submission Guidelines, plus additional guidance in Appendix A</p>	No change.
<p>Building considered all <i>Cold Shell</i></p>	C	<p><i>Cold Shell</i> Areas and <i>Integrated Fitout</i> Areas claiming N/A:</p> <ul style="list-style-type: none"> ✔ Tenancy Fitout Guide (or equivalent) AND either ✔ For unleased <i>Cold Shell/ Integrated Fitout</i> spaces, a model lease and a commitment letter from the owner (Refer Note 1) OR ✔ For leased <i>Cold Shell/ Integrated Fitout</i> spaces, a signed lease agreement or separate agreement between tenant and landlord. (Refer Note 1) <p>Refer Documentation Requirements & Appendix A</p> <p><i>Integrated Fitout</i> Areas claiming full point: Documentation requirements as per Submission Guidelines, plus additional guidance for <i>Integrated Fitout</i> spaces in Appendix A</p> <p><i>Warm Shell</i> areas (if any): Documentation requirements as per Submission Guidelines</p>	<p>Entire credit can be made 'Not Applicable' for <i>Cold Shell</i> Areas and <i>Integrated Fitout</i> Areas targeting the point and deducted from overall points total.</p> <p>The remaining Type C (Fitout) credit points (100-X%) are available to be targeted for <i>Integrated Fitout</i> areas claiming the point and <i>Warm Shell</i> areas.</p>

General Guidance

- It is recommended that project teams submit an Area Definition Request, outlining which areas are delivered as *Integrated Fitout* and/or *Cold Shell* and which credits these spaces should be excluded from based on the guidance in the comments section of the Area Definition Template table.
- Cold Shell* areas are considered as Primary Space and Secondary areas for the purpose of Type A (Owner) and Type B (Contractor) credits where applicable.
- Where credits only require a percentage of the space to comply: *Cold Shell* areas are included in the calculations, and are counted towards the non-compliant areas. Project teams will need to demonstrate compliance for these areas as reflected in this document in order to count towards compliant area.
- Further guidance for some A & B type credits on how to demonstrate compliance for *Integrated Fitout* and *Cold Shell* areas is provided in Appendix A: Credit Criteria Guidance.
- Within Appendix A some credits state the credit shall include “systems typically provided by the developer”. To assist with this, see the list below for systems that do not need to be included within the credits as they are not considered “systems typically provided by the developer”.

Mechanical

- Standalone tenant systems for process cooling (i.e tenant comms rooms AC, tenant cool room refrigeration units).
- Standalone tenant ventilation systems that are not connecting to a base build ventilation system (i.e individual fans cooling tenant comms cupboards)
- Standalone tenant BMS to control/monitor tenant equipment

Electrical

- Tenant decorative lighting that is not used to achieve lux levels.
- Power from the tenant DBs to tenant power outlets.
- Tenant standalone generators that are not a base build offering.
- Tenant metering that is in addition to the metering detailed in this guideline.

Hydraulic

- Tenant extension of the cold water system from the tenancy boundary.
- Tenant hot water systems that are not provided by the base build (e.g HWC in a tenants kitchenette)

Fire Protection

- Tenant items that are not required by code (e.g Tenant gas suppression systems in comms rooms)

Certificates

Projects with *Cold Shell* spaces are required to ensure the project is named on the Green Star Certificate according to the majority of the delivery scope.

E.g.:

- ✔ A hotel with 10% retail *Cold Shell* space should include the term 'Hotel' in the project name.
- ✔ A commercial project that has been delivered as primarily *Cold Shell* (e.g. 50-90%) should include the term 'Commercial - *Cold Shell*'.

Integrated fitouts in the scope of the assessed area can claim they are in a Green Star building, but cannot claim they are a Green Star rated tenancy (unless they have been certified under Green Star – Interiors separately). Where *integrated fitout* projects take up a large percentage of the total Primary and Secondary Space and would like to be recognised on the certificate, project teams should contact the NZGBC.

Innovation

Projects may be eligible for an innovation claim under Market Transformation where they can demonstrate a specific *Integrated Fitout* or *Cold Shell* strategy has been implemented or scope has changed from *Warm Shell* to *Integrated Fitout/Cold Shell* following tenant engagement which results in significant sustainability benefits which would not have otherwise been realised. Project teams should contact the NZGBC to discuss further.

RIGHT:
NZ Green Investment Finance,
Wellington. 4 star Green Star
Interiors NZ v1.0 Certified Built
(2020)



NZGIF Office

Appendix A: Credit Criteria Guidance

This table provides guidance on credit Type and how to demonstrate compliance for Integrated Fitout and Cold Shell spaces.

It also includes guidance for what is expected to be included in a Tenancy Fitout Guide (or equivalent). Grey cells indicate no additional work required

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Management					
Green Star Accredited Professional	1	Accredited Professional	A		
Commissioning and Tuning	2.1	Environmental Performance Targets	A	Relates to base building Nominated Systems only.	
	2.2	Services and Maintainability Review	A	'Services and Maintainability Report' to include review of general design intent for tenant spaces in relation to base building services with key maintainability outcomes for base building services located in tenancies made available to tenants.	'Services and Maintainability Report' only required for the systems that are typically provided by the developer, this should incorporate any tenant driven changes to these systems. (See guidelines for systems that can be excluded).
	2.3	Building Commissioning	A	Commissioning plan to include guidance for tenants with regards to their commissioning to avoid impact on base building systems, including handover documentation. Template commissioning method statements for expected tenant plant shall be provided in assessment documentation.	Commissioning plan to include as a minimum the systems that are typically provided by the developer, this should incorporate any tenant driven changes to these systems. (See guidelines for systems that can be excluded).

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
				Statements shall cover all nominated systems, not limited to: Heating, cooling, ventilation, supplemental units, lighting, metering, hot water, cold water, fire and controls.	
	2.4	Building Systems Tuning	A	Tuning of tenant installed systems is exempt, but base building air handling, heating and cooling systems must be tuned irrespective of whether tenants have modified them or not.	Tuning to include as a minimum the systems that are typically provided by the developer, this should incorporate any tenant driven changes to these systems. (See guidelines for systems that can be excluded).
	2.5	Independent Commissioning Agent	A		The independent commissioning agent scope shall include as a minimum the systems that are typically provided by the developer, this should incorporate any tenant driven changes to these systems. (See guidelines for systems that can be excluded).
Adaptation and Resilience	3.1	Implementation of a Climate Adaptation Plan	A	Where the climate change adaptation plan places design or operational requirements on tenants, project teams are required to demonstrate compliance for the requirements in leasing documentation.	Where the climate change adaptation plan places design or operational requirements on tenants, project teams are required to demonstrate compliance for the requirements in leasing documentation.

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Adaptation and Resilience (cont.)	3.2	Earthquake Resilience		Where the Low Damage Design (LDD) Analysis creates an increase in requirements on yet to be installed building services, project teams are required to demonstrate compliance for the requirements in the leasing documentation.	Where the Low Damage Design (LDD) Analysis creates an increase in requirements on the services this should be for the systems that are typically provided by the developer, this should incorporate any tenant driven changes to these systems. (See guidelines for systems that can be excluded).
Building Information	4	Building Information	A	<p>The Building Users Guide shall include guidance on the design intent for spaces, even if specific design elements are not yet installed. Including:</p> <ul style="list-style-type: none"> ☑ Lighting design, including fittings, which would meet target design. ☑ Ventilation design, including specific requirements with regards all other credits claimed (access for maintenance etc). <p>Project teams to communicate information regarding the process for the tenant to update the Building Log Book in the Building Users Guide or equivalent.</p>	<p>The Building Users Guide shall include details on all systems that will be maintained by the Landlord irrespective as to whether it was a tenant <i>integrated fitout</i> requirement.</p> <p>The BUG is a live document and therefore should be modified to include any tenant modifications.</p> <p>Project teams to include in tenant guide the process for the tenant to update landlord on any changes required to the Building Log Book in the Building Users Guide or equivalent in the future.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Building Information Commitment to Performance	5.1	Environmental Building Performance	A	Regardless of delivery scope, project teams are to demonstrate they have the mechanism to enforce compliance (e.g. model lease clauses), as outlined in the Guidance section of the credit.	Regardless of delivery scope, project teams are to demonstrate they have the mechanism to enforce compliance (e.g. lease agreement clauses or memorandum of understanding), as outlined in the Guidance section of the credit.
	5.2	End of Life Waste Performance	A	Regardless of delivery scope, project teams are to demonstrate they have the mechanism to enforce compliance (e.g. model make good lease clauses), as outlined in the Guidance section of the credit.	Regardless of delivery scope, project teams are to demonstrate they have the mechanism to enforce compliance (e.g. make good lease agreement clauses), as outlined in the Guidance section of the credit.
Metering and Monitoring	6.1	Metering	A	<p>For each service, a minimum of one meter per floor is to be provided and commissioned by the base building. Installation of tenant sub-meters for specific tenant uses is not required.</p> <p>Submission must demonstrate sufficient spare capacity to accept additional tenant sub-meters (HVAC, Lighting & Power) and additional water sub-meters per tenancy.</p> <p>The base building may not rely on uninstalled tenant meters for calculations, error or leak detection.</p>	<p>For each service, a minimum of one meter per floor is to be provided and commissioned by the base building. If either of the lighting, power or HVAC loads per floor are greater than 5kVa then individual meters shall be installed on the respective service. Installation of tenant sub-meters for specific tenant uses is not required for the Design & As-built rating, this should be covered under the Interiors rating.</p> <p>For Office projects the sub-meters shall allow for separate monitoring of base building energy use as defined by the NABERSNZ Rules.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
					Strategy should be based on <i>Warm Shell</i> monitoring system requirements.
Metering and Monitoring (cont.)	6.2	Monitoring Systems	A	Where base building metering and monitoring strategy relies on connection of tenant meters, guidance must be created for tenants regarding metering requirements, including rules for connection of meters and programming of monitoring systems. Project teams to demonstrate this guidance has been created for tenants in leasing documentation.	<p>Strategy should be based on <i>Warm Shell</i> monitoring system requirements.</p> <p>For Office projects the sub-meters shall allow for separate monitoring of base building energy use and the tenant usage (meters as detailed in 6.1) as defined by the NABERSNZ Rules.</p> <p>Note: Any fitout metering will be covered under the Interiors tool. However the base build monitoring system shall have capacity for the monitoring of additional tenant meters.</p>
Responsible Building Practices	7.1	Environmental Management Plan	B	Applies to Head Contractor. Fitout contractors for subsequent tenancy <i>Cold Shell</i> fitouts are not required to meet the credit requirements.	Applies to Head Contractor. Fitout contractors for <i>integrated fitouts</i> are not required to meet the credit requirements.
	7.2	Formalised Environmental Management System	B	Applies to Head Contractor. Fitout contractors for subsequent tenancy <i>Cold Shell</i> fitouts are not required to meet the credit requirements.	Applies to Head Contractor. Fitout contractors for <i>integrated fitouts</i> are not required to meet the credit requirements.

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Operational Waste	8.4	Performance Pathway - Specialist Plan	A	<p>Operational Waste Management Plan is developed considering the whole building waste generation profile.</p> <p>Where tenant specific requirements for compliance with operational waste plan exist, project teams are required to demonstrate in leasing documentation.</p> <p>Note: This is the same for any delivery option.</p>	<p>Operational Waste Management Plan is developed considering the whole building waste generation profile, density profiles to be based on the lease agreement.</p> <p>Where tenant specific requirements for compliance with operational waste plan exist, project teams are required to demonstrate in leasing documentation.</p> <p>Note: This is the same for any delivery option however stated densities are based on the lease agreement.</p>
	8B	Prescriptive Pathway - Facilities	A	<p>Waste facilities to be developed considering the whole building occupancy and waste generation profile. Tenancy Fitout Guide to include guidance for tenants regarding 8B.1.</p> <p>Note: This is the same for any delivery option.</p>	<p>Waste facilities to be developed considering the whole building occupancy based on lease agreement densities and waste generation profile. Tenancy Fitout Guide to include guidance for tenants regarding 8B.1.</p> <p>Note: This is the same for any delivery option however stated densities are based on the lease agreement.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Indoor Air Quality	9.1	Ventilation System Attributes	A	<p>Ventilation System Attributes to be achieved for all systems that are provided under the base build <i>Cold Shell</i> arrangement.</p> <p>All base building systems installed must comply with credit criteria 9.1.3.</p> <p>In addition, where the expected base building design, as described in the Building User Guide or Tenancy Fitout Guide requires the installation of moisture or debris generating components (for example chilled beams, fan coil units or heating coils within VAV boxes) that cannot be provided with adequate access for cleaning this credit cannot be claimed.</p>	<p>Ventilation System Attributes to include as a minimum the systems that are typically provided by the developer, this should incorporate any tenant driven changes to these systems. (See guidelines for systems that can be excluded).</p> <p>Project teams to demonstrate compliance with credit based on the intended design occupancy rate. Where the occupancy rate is less than the New Zealand Building Code, the design team shall demonstrate the basis for the occupancy rate.</p>
	9.2	Provision of Outdoor Air	A	<p>Project teams to demonstrate compliance with credit based on the intended design occupancy rate. Where the occupancy rate is less than the New Zealand Building Code, the design team shall demonstrate the basis for the occupancy rate.</p>	

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
	9.3	Exhaust or Elimination of Pollutants	A	Project teams are required to demonstrate provision for <i>Cold Shell</i> spaces has been provided based on building type.	<p>Where a tenant exhaust system is provided, submission to include as a minimum all systems that are provided under the base build arrangement. Guidance should be provided in the Tenant Fitout Guide to the tenant to ensure appropriate installation.</p> <p>Whether this is utilised by the fitout will not factor into the assessment. If the source of pollutants are to be removed based on 9.3A then a lease agreement clause can be provided demonstrating that this is a leasing requirement.</p> <p>Note: Whether the system connects to the correct location in the fitout will form part of the interiors rating.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Acoustic Comfort	10.1	Internal Noise Levels	A	'As Built' Internal Noise Levels assessment to be performed with consideration to all noise generated by the base building systems and any external noise ingress through the facade (as installed by the base building). Empty tenancy spaces must be tested for and demonstrate compliance.	As a minimum, final measurements should be taken in areas that are still matching the base build arrangement (e.g open plan). Tenant fitout guide to be provided detailing recommended internal noise levels for areas matching the base build arrangement (e.g open plan office and areas with workpoints)
	10.2	Reverberation	C	Guidance to be provided to future tenants regarding the effect of materials on reverberation.	Pathway 1: Credit to be N/A Integrated spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter. Pathway 2: Award of points Alternatively, a full point can be achieved if compliant tenanted spaces as built design is submitted.
	10.3	Acoustic Separation	C	Where full-height intertenancy walls are being delivered by the Head Contractor to <i>Cold Shell</i> spaces, these walls must comply with the credit requirements and cannot be excluded; the point cannot be made 'Not Applicable'. This varies from the Submission Guidelines.	Pathway 1: Credit to be N/A Integrated spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter. Proof of compliance to be provided for base build walls only.

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
					<p>Pathway 2: Award of points</p> <p>Alternatively a full point can be achieved if compliant tenanted spaces as built design is submitted.</p>
Lighting Comfort	11.1	Minimum Lighting Comfort	C	<p>Minimum requirement, no points allocated to this criterion meaning no points are scaled. <i>Cold Shell</i> spaces however are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p>	<p>Minimum requirement, no points allocated to this criterion meaning no points are scaled.</p> <p>Pathway1: Compliance is achieved by providing a compliant tenanted spaces as built design.</p> <p>Pathway2: If a compliant tenanted spaces as built design cannot be submitted, integrated spaces however are required at least to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p> <p>For any of the lighting criteria below that are being targeted, the same pathway need to be followed for the sake of consistency.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Lighting Comfort (cont.)	11.2	General Illuminance and Glare Reduction	C	Documentation requirements and points allocation in this document supersede information in the Guidance section of this credit in the Submission Guidelines for <i>Cold Shell</i> spaces. For this point to be awarded as N/A, <i>Cold Shell</i> spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.	<p>Pathway 1: Credit to be N/A</p> <p>Integrated tenancy spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p> <p>Tenant fitout guide to be provided detailing recommended general illuminance and glare reduction for areas matching the <i>Warm Shell</i> arrangement (i.e open plan office and areas with workpoints)</p> <p>Pathway 2: Award of points</p> <p>Alternatively, a full point can be achieved if compliant tenanted spaces as built design is submitted.</p>
	11.3	Surface Illuminance	C	Documentation requirements and points allocation in this document supersede information in the Guidance section of this credit in the Submission Guidelines for <i>Cold Shell</i> spaces. For this point to be awarded as N/A, <i>Cold Shell</i> spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.	<p>Pathway 1: Credit to be N/A</p> <p>Integrated tenancy spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p> <p>Pathway 2: Award of points</p> <p>Alternatively, a full point can be achieved if compliant tenanted spaces as built design is submitted.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
	11.4	Localised Lighting Control	C	Documentation requirements and points allocation in this document supersede information in the Guidance section of this credit in the Submission Guidelines for Cold Shell spaces. For this point to be awarded as N/A, <i>Cold Shell</i> spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.	<p>Pathway 1: Credit to be N/A</p> <p>Integrated tenancy spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p> <p>Tenant fitout guide to be provided detailing recommended localized lighting control for areas matching the <i>Warm Shell</i> arrangement (i.e open plan office and areas with workpoints)</p> <p>Pathway 2: Award of points</p> <p>Alternatively a full point can be achieved if compliant tenanted spaces as built design is submitted.</p>

RIGHT:
 82 Wyndham Street, Auckland
 Argosy Property Ltd. 5 Green Star
 Office Built, 5.5 star NABERSNZ,
 CarboNZero certified.
 Tenant: Eke Panuku, 4 star Green
 Star Interiors, 5 star NABERSNZ
 tenancy rating.



CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Visual Comfort	12.1	Glare Reduction	C	<p>Minimum requirement, no points allocated to this criterion meaning no points are scaled. <i>Cold Shell</i> spaces however are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p> <p>Where blinds are used to meet compliance requirements, for <i>Cold Shell</i> spaces they are required to be wholly or partly contributed by the base building owner as part of leasing agreements. Guidance to be provided to future tenants regarding visual light transmittance. Project teams are required to demonstrate the future installation of blinds to windows are not impeded by base building services, façade design and/or structure. Solutions for installing blinds should not be cost prohibitive. Project teams to provide a typical blind detail to demonstrate how blinds can be integrated at the perimeter.</p>	<p>Minimum requirement, no points allocated to this criterion meaning no points are scaled.</p> <p>To achieve this minimum requirement, compliant as built design for all the nominated areas is expected.</p> <p>Alternatively, as a minimum, integrated tenancy spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter. Guidance to be provided to tenants regarding visual light transmittance. Project teams are required to demonstrate the installation of blinds to windows are not impeded by base building services, façade design and/or structure. Solutions for installing blinds should not be cost prohibitive. Project teams to provide a typical blind detail to demonstrate how blinds can be integrated at the perimeter.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
	12.2	Daylight	A	<i>Cold Shell</i> spaces are considered Primary space.	Modelling to be performed on the base build arrangement, tenant internal walls/partitions do not need to be taken into account.
	12.3	Views	A	<i>Cold Shell</i> spaces are considered Primary space.	Measurement to be performed on the base build arrangement, tenant internal walls/partitions do not need to be taken into account.
Indoor Pollutants	13.1	Paints, Adhesives, Sealants and Carpets	C	<p>Documentation requirements and points allocation in this document supersede information in the Guidance section of this credit in the Submission Guidelines for <i>Cold Shell</i> spaces.</p> <p><i>Cold Shell</i> spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p>	<p>Pathway 1: Credit to be N/A</p> <p>Integrated tenancy spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p> <p>Evidence to be provided that at least 95% of all internally applied paints, adhesives, sealants and carpets installed by the head contractor are compliant.</p> <p>Pathway 2: Award of points</p> <p>Alternatively a full point can be achieved if compliant tenanted spaces as built design is submitted however instead of 95% of products being compliant this can reduce to 80%.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Indoor Pollutants (cont.)	13.2	Engineered Wood Products	C	<p>Documentation requirements and points allocation in this document supersede information in the Guidance section of this credit in the Submission Guidelines for <i>Cold Shell</i> spaces.</p> <p><i>Cold Shell</i> spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p>	<p>Pathway 1: Credit to be N/A</p> <p>Integrated spaces are required to demonstrate compliance through a Tenancy Fitout Guide (or equivalent), model lease clause and commitment letter.</p> <p>Evidence to be provided that at least 95% of all engineered wood products installed by the base build contractor are compliant.</p> <p>Pathway 2: Award of points</p> <p>Alternatively, a full point can be achieved if compliant tenanted spaces as built design is submitted however instead of 95% of products being compliant this can reduce to 80%.</p>
Thermal Comfort	14.1	Thermal Comfort	A	<p>For the modelled pathway, the model is to be carried out in line with the Guidance section of this credit in the Submission Guidelines. Modelling the thermal comfort levels based on provision of base building systems and minimum requirements is accepted for the reference building pathway.</p> <p>For the prescriptive pathway for mechanical services, the requirements must be present in the model lease clauses and/or Tenancy Fitout Guide or equivalent.</p>	<p>Modelling to be performed on the base build arrangement.</p> <p>Note: Modifications due to fitout would be covered under the interiors tool.</p> <hr/> <p>For the prescriptive pathway for mechanical services, the requirements that are within the tenants control must be present in the model lease clauses and/or Tenancy Fitout Guide or equivalent.</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
	14.2	Advanced Thermal Comfort	A	The model is to be carried out in line with the Guidance section of this credit in the Submission Guidelines. Modelling the thermal comfort levels based on provision of base building systems and minimum requirements is accepted.	Modelling to be performed on the base build arrangement. Note: Modifications due to fitout would be covered under the interiors tool.

Energy

Greenhouse Gas Emissions	15.1	Conditional Requirement: Reference Building Pathway	A		
Indoor Pollutants	15.2	Comparison to a Reference Building Pathway	C	<p>Modelled energy use for <i>Cold Shell</i> spaces to be based on the most energy-intensive allowed by base building system requirements outlined in leasing agreement/Tenancy Fitout Guide.</p> <p>For <i>Cold Shell</i> spaces where there is no provision for connection to base building systems, the project team are to model standalone (supplementary) tenant systems to based on the most energy-intensive allowed by requirements outlined in leasing agreement documentation.</p>	<p>Modelled energy use for Integrated spaces to be based on the most energy-intensive allowed by base building system requirements outlined in leasing agreement/Tenancy Fitout Guide or based on the as-built lighting layout.</p> <p>Tenancy Fitout Guidance to identify (including but not limited to) the tenant's allowable internal loads (tenant lighting and equipment power allowances), HVAC system zoning</p>

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Greenhouse Gas Emissions (cont.)	15.2	Comparison to a Reference Building Pathway	C	<p>Tenancy Fitout Guidance to identify (including but not limited to) the tenant's allowable internal loads (tenant lighting and equipment power allowances), HVAC system zoning requirements (internal and perimeter zones with independent temperature control), HVAC system type & design capacities, and outdoor air rates.</p> <p>The design team must demonstrate the design provision (e.g. space allowance) that has been made for accommodating the system type modelled.</p>	requirements (internal and perimeter zones with independent temperature control), HVAC system type & design capacities, and outdoor air rates.
Peak Electricity Demand Reduction	16A	Prescriptive Pathway - On-site Energy Generation	A	Peak demand for <i>Cold Shell</i> spaces to be calculated based on the most energy-intensive fitout allowed in leasing agreement/Tenancy Fitout Guides.	Peak demand for <i>Integrated Fitout</i> spaces to be calculated based on the most energy-intensive fitout allowed in leasing agreement/Tenancy Fitout Guides or based on the as-built tenant layouts.
	16B	Performance Pathway - Reference Building	A	Modelling parameters to match Energy credit.	Modelling parameters to match Energy credit.

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Transport					
Sustainable Transport	17.1	Access by Public Transport	A		
	17.2	Reduced Car Parking Provision	A		
	17.3	Low Emission Vehicle Infrastructure	A		
	17.4	Active Transport Facilities	A	Base building to demonstrate End of Trip facilities have capacity for occupancy profiles of <i>Cold Shell</i> areas based on occupancy levels.	Base building to demonstrate End of Trip facilities have capacity for occupancy profiles as detailed in the <i>Integrated Fitout</i> lease agreements.
	17.5	Walkable Neighbourhoods	A		
Water					
Potable Water	18A.1	Potable Water - Performance Pathway	A	Base building to demonstrate End of Trip facilities have capacity for occupancy profiles of <i>Cold Shell</i> areas. Where possible, toilets should be provided as part of the core/base building design.	Base building to demonstrate base building facilities have capacity for occupancy profiles as detailed in the <i>Integrated Fitout</i> lease agreements.
	18B.1	Comparison to a Reference Building Pathway	C	Base building to demonstrate End of Trip facilities have capacity for occupancy profiles of <i>Cold Shell</i> areas. Where possible, toilets should be provided as part of the core/base building design.	Base building to demonstrate base building facilities have capacity for occupancy profiles as detailed in the <i>Integrated Fitout</i> lease agreements.

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Water					
Potable Water (cont.)	18B.2	Rainwater Reuse	A		
	18B.3	Heat Rejection	A	Inputs for Heat Rejection should match that of the modelled pathway from GHG as per potable water guide section 7.2	Inputs for Heat Rejection should match that of the modelled pathway from GHG as per potable water guide section 7.2
	18B.4	Landscape Irrigation	A		
	18B.5	Fire System Test Water	A		



BNZ Centre Christchurch

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Materials					
Life Cycle Impacts	19A.1	Comparative Life Cycle Assessment	A	<p>Operational energy profile must match the Reference and Proposed Building in the Energy credit.</p> <p>When project teams can demonstrate that they have taken significant efforts to amend their delivery scope to avoid a <i>Warm Shell</i> that would be removed, project teams are invited to submit a technical question to confirm alternate scope of reference building. Project team will need to demonstrate:</p> <ul style="list-style-type: none"> a) Significant effort and evidence of scope change documentation to avoid unnecessary environmental impacts from <i>Warm Shell</i> delivery (not just cost saving for example) b) A significant sustainability benefit in the elimination of finishes, in the context of the whole building 	<p>Operational energy profile must match the Reference and Proposed Building in the Energy credit.</p> <p>When project teams can demonstrate that they have taken significant efforts to amend their delivery scope to avoid installation of redundant <i>Warm Shell</i> elements, project teams are invited to submit a technical question to confirm alternate scope of reference building. Project team will need to demonstrate:</p> <ul style="list-style-type: none"> a) Significant effort and evidence of scope change documentation to avoid unnecessary environmental impacts from installing redundant <i>Warm Shell</i> elements (not just cost saving for example) b) A significant sustainability benefit in the elimination of finishes, in the context of the whole building
	19A.2	Additional Life Cycle Impact Reporting	A		
	19B.1	Concrete	B		Credit to be calculated against concrete provided as part of the head contract.

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Materials					
Life Cycle Impacts (cont.)	19B.2	Steel	B		Credit to be calculated against steel provided as part of the head contract.
	19B.3	Building Reuse	B		Credit to be based on the head contract.
	19B.4	Structural Timber	B	Tenancy Fitout Guidance to include guidance on sustainably sourced timber.	Credit to be calculated against structural timber provided as part of the head contract. Tenancy Fitout Guidance to include guidance on sustainably sourced timber.
Responsible Building Materials	20.1	Structural and Reinforcing Steel	B		Credit to be calculated against steel provided as part of the head contract.
	20.2	Timber Products	B	Tenancy Fitout Guidance to include guidance on sustainably sourced timber.	Credit to be calculated against timber products provided as part of the head contract. Tenancy Fitout Guidance to include guidance on sustainably sourced timber.
	20.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	B	Tenancy Fitout Guidance to include guidance on sustainably sourced PVC products.	Credit to be calculated against items provided as part of the head contract. Tenancy Fitout Guidance to include guidance on sustainably sourced PVC products

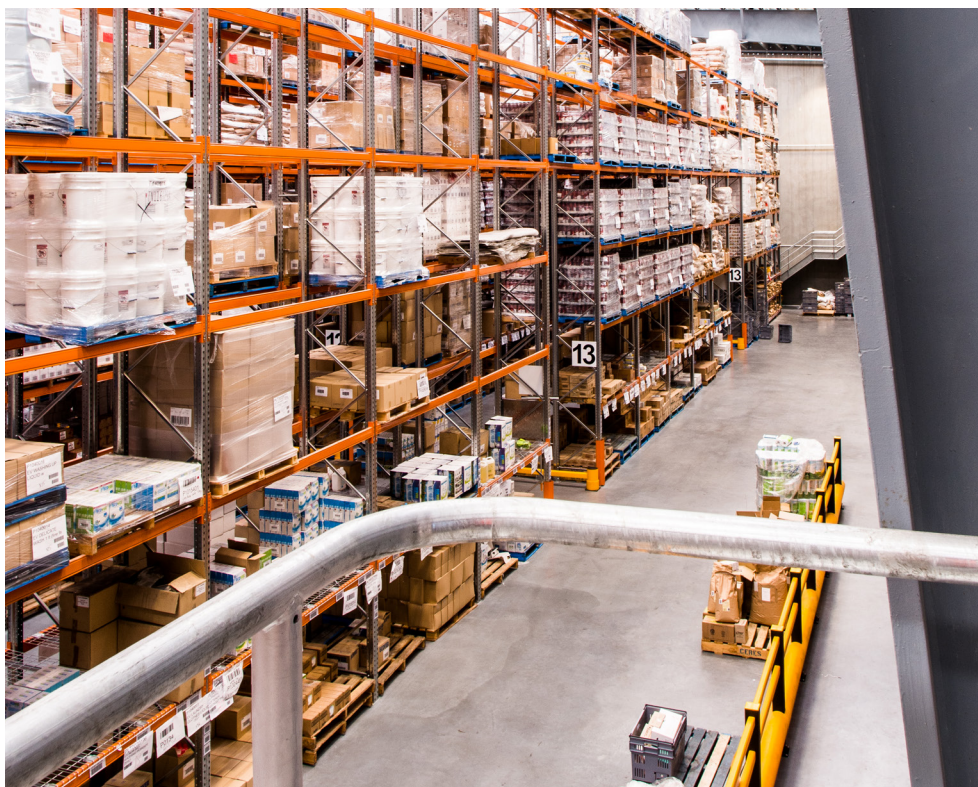
CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Materials					
Sustainable Products	21	Product Transparency and Sustainability	B	Tenancy Fitout Guidance to include guidance on product transparency and sustainability.	Credit to be calculated against sustainable products provided as part of the head contract. Tenancy Fitout Guidance to include guidance on product transparency and sustainability.
Construction and Demolition Waste	22A	Fixed Benchmark	B		Construction and demolition waste to cover all building works completed by the developer.
	22B	Percentage Benchmark	B		Construction and demolition waste to cover all building works completed by the developer.
Land Use and Ecology					
	23	Ecological Value	A		
Sustainable Sites	24.1	Conditional Requirement	A		
	24.2	Reuse of Land	A		
	24.3	Contamination and Hazardous Materials	A		

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Emissions					
Stormwater	25.1	Stormwater Peak Discharge	A		
	25.2	Stormwater Pollution Targets	A		
Light Pollution	26.1	Light Pollution to Neighbouring Bodies	A	Assessment to be based on works carried out by the main contractor. The Building Owner to demonstrate policy outlining limitations on tenants for light pollution e.g. policies on external signage through Tenancy Fitout Guide or equivalent.	Assessment to be based on works carried out by the main contractor. The Building Owner to demonstrate policy outlining limitations on tenants for light pollution e.g. policies on external signage through Tenancy Fitout Guide or equivalent.
	26.2	Light Pollution to Night Sky	A	Assessment to be based on works carried out by the main contractor. The Building Owner to demonstrate policy outlining limitations on tenants for light pollution e.g. policies on external signage through Tenancy Fitout Guide or equivalent.	Assessment to be based on works carried out by the main contractor. The Building Owner to demonstrate policy outlining limitations on tenants for light pollution e.g. policies on external signage through Tenancy Fitout Guide or equivalent.
Microbial Control	27	Legionella Impacts from Cooling Systems	A		
Refrigerant Impacts	28	Refrigerants Impacts	A	Relates to base building systems only. Project teams to outline requirements for standalone units in <i>Cold Shell</i> spaces via a Tenancy Fitout Guide (or equivalent).	Credit requirements relate to only the systems that are typically provided by the developer, this should incorporate any tenant driven changes to these systems. (See guidelines for systems that do not need to be included).

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Refrigerant Impacts (cont.)	28	Product Refrigerants Impacts	A	Requirements for the base building systems are to be in line with the credit requirements. Project teams to demonstrate the base building is compliant if all tenants use their cooling capacity with Water Cooled Package Units, based on the expected upper limit capacity of the supplemental cooling system for the tenants.	
Innovation					
Innovative Technology or Process	29.1	Innovative Technology or Process	A	Project teams wanting to submit innovation claims relating to <i>Cold Shell</i> spaces should contact the NZGBC for further information and guidance.	Project teams wanting to submit innovation claims relating to <i>Integrated Fitouts</i> should contact the NZGBC for further information and guidance.
Market Transformation	29.2	Market Transformation	A	Projects may be eligible for an innovation claim under Market Transformation where it can demonstrated a specific <i>Cold Shell</i> strategy has been implemented or scope has changed from <i>Warm Shell</i> to <i>Cold Shell</i> following tenant engagement which results in significant sustainability benefits which would not have otherwise been realised. Project teams should contact the NZGBC to discuss further.	Projects may be eligible for an innovation claim under Market Transformation where it can demonstrated a specific <i>Integrated Fitout</i> strategy has been implemented or scope has changed from <i>Warm Shell</i> to <i>Integrated Fitout</i> following tenant engagement which results in significant sustainability benefits which would not have otherwise been realised. Project teams should contact the NZGBC to discuss further.

CREDIT	CODE	CREDIT CRITERIA	TYPE	ADDITIONAL GUIDANCE	
				COLD SHELL	INTEGRATED FITOUT
Improving on Green Star Benchmarks	29.3	Improving on Green Star Benchmarks	A	Project teams wanting to submit innovation claims relating to <i>Cold Shell</i> spaces should contact the NZGBC for further information and guidance.	Project teams wanting to submit innovation claims relating to <i>integrated fitouts</i> should contact the NZGBC for further information and guidance.
Innovation Challenge	29.4	Innovation Challenge		Project teams wanting to submit innovation claims relating to <i>Cold Shell</i> spaces should contact the NZGBC for further information and guidance.	Project teams wanting to submit innovation claims relating to <i>integrated fitouts</i> should contact the NZGBC for further information and guidance.
Global Sustainability	29.5	Global Sustainability		Project teams wanting to submit innovation claims relating to <i>Cold Shell</i> spaces should contact the NZGBC for further information and guidance.	Project teams wanting to submit innovation claims relating to <i>integrated fitouts</i> should contact the NZGBC for further information and guidance.

* C Types credits shall be N/A under *Cold Shell* if requirements are achieved.



Ceres_interior_warehouse_-_photo_credit_Blair_Haistings

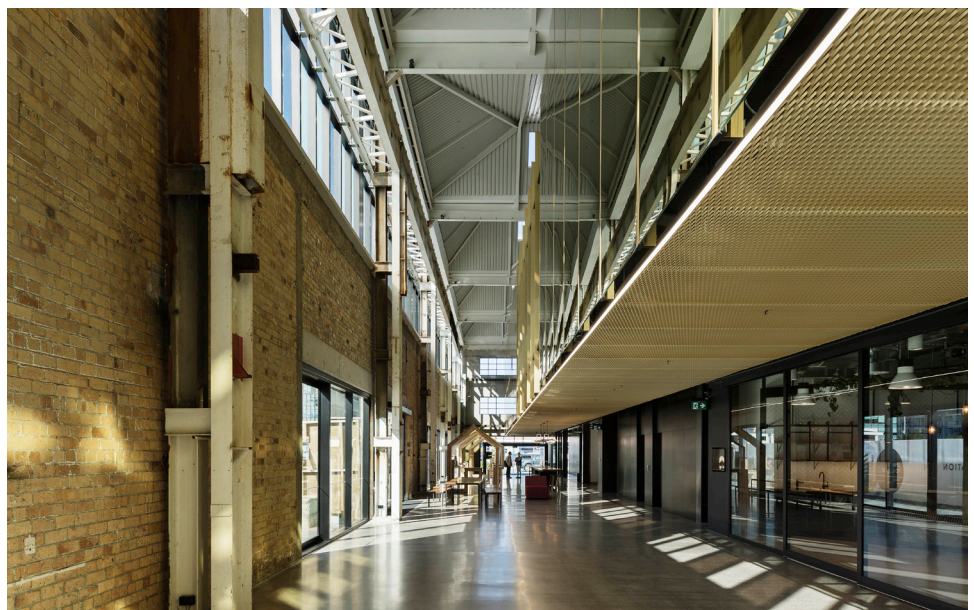
LEFT:
Ceres Organics, Auckland
Norak Properties. 5 star Green Star
Industrial Built (2009)
PHOTO CREDIT:
Blair Hastings

Appendix B: Delivery Scopes by Asset Class

Different sectors will have distinct expected delivery scopes. The rating tool expects that non-tenanted building classes such as Hospital buildings will be delivered as whole buildings (with less than 5% *Cold Shell* space – allowing for minor retail spaces). In this case, the guidance in this document is unlikely to apply. If this is not the case, project teams are encouraged to consult with a member of the NZGBC Green Star team to discuss further.

ASSET CLASS	EXPECTED DELIVERY SCOPE FOR PRIMARY AND SECONDARY SPACES IN A GREEN STAR RATING
Housing – Detached Dwellings & Multi unit dwellings	Homestar is the preferred pathway
Housing Group Dwelling and Communal Residential – Community Service	Homestar is the preferred pathway
Commercial (including retail and shopping centres)	<i>Cold Shell, Warm Shell, or Integrated Fitout.</i>
Industrial	<i>Cold Shell, Warm Shell, Integrated Fitout or whole building.</i>
Community Care – unrestrained (Hospitals)	Whole building delivery (includes building and fitout installation)
Communal non-residential- Assembly service & assembly care	Whole building delivery (includes building and fitout installation)

RIGHT:
Precinct Properties Ltd
Mason Bros, Auckland
6 star Green Star Custom Built



Appendix C: Integrated Fitout and Cold Shell - Using the Scorecard

Step 1:

Refer to the Instructions Tab for information regarding *Cold Shell* and *Integrated Fitout* Spaces in the Scorecard.

Integrated Fitout and Cold Shell Spaces

Building Input Sheet

A section has been provided within the Building Input Sheet to enable project teams to identify the amount of space within the project which is being delivered as 'Cold Shell' or 'Integrated Fitout'.

1. Enter the total amount of Primary and Secondary Spaces within the project
2. Enter the total amount of Primary and Secondary Spaces within the project being delivered as Cold Shell.
3. Enter the total amount of Primary and Secondary Spaces within the project being delivered as Integrated Fitout.
3. Complete table for Integrated Fitout where full compliance is being sort for Integrated Fitout Areas.

The number of points available are for cold shell spaces and integrated fitout are based upon the ratio determined by the above inputs. The remaining points are able to be claimed as 'Not Applicable' within the Design Review and As Built Scorecard sheets.

Note: If the points claimed in the Scorecard has been populated and the Cold Shell percentage changes, the Scorecard inputs will need to be manually updated

Refer to the 'Green Star – Design & As Built Fitout Scope: Guidance for Integrated, Cold Shell and Warm Shell Fitouts' document for further guidance on Primary and Secondary spaces in a building being delivered as Cold Shell or Integrated Fitout.

+	Disclaimer	Change Log	Instructions	Building Input Sheet	Design Review Scorecard	As-built Scorecard	+
---	------------	------------	--------------	----------------------	-------------------------	--------------------	---

Step 2:

Fill out the section for credits being claiming full compliance for *Integrated Fitout* in the 'Building Input Sheet'

This will link to points of Type C credits that can be targeted as normal and as 'Not Applicable'.

Credits being claiming Full Compliance for Integrated Fitout

This section is used to indicate credits that are claiming Full Compliance for the Integrated Fitout Areas (i.e where the credit requirements are also being achieved by the tenant fitout). Refer to the *Green Star – Design & As Built NZv1.0 Fitout Scope: Guidance for Integrated, Cold Shell and Warm Shell Fitouts* document for more details.

Are any credits being claiming Full Compliance for Integrated Fitout?

Please select the credits below which are claiming Full Compliance for integrated Fitout for your project.

Available Integrated Fitout Credits		Select Yes below
Acoustic Comfort	10.2 Reverberation	
	10.3 Acoustic Separation	
	11.2 General Illuminance and Glare Reduction	
Lighting Comfort	11.3 Surface Illuminance	
	11.4 Localised Lighting Control	
Indoor Pollutants	13.1 Paints, Adhesives, Sealants and Carpets	
	13.2 Engineered Wood Products	

Note 2: Where project teams are claiming credit criteria as Integrated Fitout full compliance, project teams must provide evidence to demonstrate that the credit criteria is achieved in both the base building and fitout. The Certified Assessor will determine whether the credit criteria claimed is compliant in line with the evidence provided.

Step 3:

Fill out the *Cold Shell* and *Integrated Fitout Spaces* section of the 'Building Input Sheet', by noting:

- ✔ The number of Total Primary & Secondary Space in square metres, and
- ✔ The number of square metres of *Cold Shell* and *Integrated Fitout* space.

This will calculate what percentage of the Type C points can be targeted as normal and as 'Not Applicable'.

Cold Shell and Integrated Fitout Spaces	
This section is used to calculate the percentage of Cold Shell and Integrated Fitout spaces and determines how Type C credits will be treated for the project.	
IMPORTANT: Projects which are being delivered as Cold Shell and Integrated Fitout must first complete the 'Area Definition Form' and use those outputs as the areas in the cells below. Refer to the <i>Green Star – Design & As Built NZv1.0 Fitout Scope: Guidance for Integrated, Cold Shell and Warm Shell Fitouts</i> document for more details.	
Where Integrated Fitouts and Cold Shell Spaces make up between 5% - 95% of Primary and Secondary Spaces, they may be excluded on submission of relevant documentation, and the scorecard is adjusted to reflect this exclusions in the credits points available value. Refer to the <i>Green Star - Design & As Built Fitout Scope: Guidance for Integrated, Cold Shell and Warm Shell Fitouts</i> document for more information.	
Total Primary & Secondary space (m ²)	
Total Cold Shell Area (m ²)	
Total Integrated Fitout Area (m ²)	
Total Cold Shell Areas (%)	0%
Integrated Fitout Areas (%)	0%
Scaling of Type C Credits - N/A Pathway	
Scaling of Type C Credits - Compliance Pathway (Integrated Fitout)	

>	Disclaimer	Change Log	Instructions	Building Input Sheet	Design Review Scorecard	As-built Scorecard
---	------------	------------	--------------	-----------------------------	-------------------------	--------------------

Step 4:

The Calculator will automatically calculate Type C credit points available, and points available to be made 'Not Applicable'.

Project teams fill in the cells in the Points Targeted and N/A Targeted columns based on the project's ambitions.

The 'Points Targeted' and 'N/A Targeted' cells at the top of the columns will populate as the scorecard is filled out. The 'Targeted Overall Points Total' is 'N/A Targeted' deducted from the standard 100 points.

Green Star - Design & As Built Scorecard

Projects:	0
Targeted Rating:	

Targeted Overall Points Total	97.6
-------------------------------	------

Points Targeted	42.2
NA Targeted	2.4

Points Awarded	0.0
Points TBC	0.0
NA Awarded	0.0
NA TBC	0.0
Overall Points Total	100.0

CATEGORY / CREDIT	AIM OF THE CREDIT / SELECTION	CODE	CREDIT CRITERIA	SHELL & CORE CREDIT TYPE	POINTS AVAILABLE	NA AVAILABLE	POINTS TARGETED	NA TARGETED	POINTS AWARDED	POINTS TBC	OUTCOME	NA OUTCOME	ASSESSMENT CO
Indoor Environment Quality					17								
Indoor Air Quality	To recognise projects that provide high air quality to occupants.	9.1	Ventilation System Attributes	A	0.6	0.4	0.6	0.4					
		9.2	Provision of Outdoor Air	A	2.0	-	2.0						
		9.3	Exhaust or Elimination of Pollutants	A	1.0	-	1.0						
Acoustic Comfort	To review projects that provide appropriate and comfortable acoustic conditions for occupants.	10.1	Internal Noise Levels	A	1.0	-	1.0						
		10.2	Reverberation	C	0.6	0.4	0.6	0.0					
		10.3	Acoustic Separation	C	0.6	0.4	0.0	0.4					
Lighting Comfort	To encourage and recognise well-lit spaces that provide a high degree of comfort to users.	11.0	Minimum Lighting Comfort	C	-	-	Complies	Complies					
		11.1	General Illuminance and Glare Reduction	C	0.6	0.4	0.6	0.4					
		11.2	Surface Illuminance	C	0.6	0.4	0.6	0.4					
Visual Comfort	To recognise the delivery of well-lit spaces that provide high levels of visual comfort to building occupants.	11.3	Localised Lighting Control	C	0.6	0.4	0.6	0.4					
		12.0	Glare Reduction	C	-	-	Complies	Complies					
		12.1	Daylight	A	2.0	-	2.0						
		12.2	Views	A	1.0	-	1.0						
		13.1	Paints, Adhesives, Sealants and Carpets	C	0.6	0.4	0.6	0.4					

Note that Points and N/A for a credit can be targeted independently, if a project chooses to pursue the point but not the N/A documentation requirements, or vice versa.

Green Star - Design & As Built Scorecard

Projects:	0
Targeted Rating:	

Targeted Overall Points Total	97.6
-------------------------------	------

Points Targeted	42.2
NA Targeted	2.4

Points Awarded	0.0
Points TBC	0.0
NA Awarded	0.0
NA TBC	0.0
Overall Points Total	100.0

CATEGORY / CREDIT	AIM OF THE CREDIT / SELECTION	CODE	CREDIT CRITERIA	SHELL & CORE CREDIT TYPE	POINTS AVAILABLE	NA AVAILABLE	POINTS TARGETED	NA TARGETED	POINTS AWARDED	POINTS TBC	OUTCOME	NA OUTCOME	ASSESSMENT CO
Indoor Environment Quality					17								
Indoor Air Quality	To recognise projects that provide high air quality to occupants.	9.1	Ventilation System Attributes	A	0.6	0.4	0.6	0.4					
		9.2	Provision of Outdoor Air	A	2.0	-	2.0						
		9.3	Exhaust or Elimination of Pollutants	A	1.0	-	1.0						
Acoustic Comfort	To review projects that provide appropriate and comfortable acoustic conditions for occupants.	10.1	Internal Noise Levels	A	1.0	-	1.0						
		10.2	Reverberation	C	0.6	0.4	0.6	0.0					
		10.3	Acoustic Separation	C	0.6	0.4	0.0	0.4					
Lighting Comfort	To encourage and recognise well-lit spaces that provide a high degree of comfort to users.	11.0	Minimum Lighting Comfort	C	-	-	Complies	Complies					
		11.1	General Illuminance and Glare Reduction	C	0.6	0.4	0.6	0.4					
		11.2	Surface Illuminance	C	0.6	0.4	0.6	0.4					
Visual Comfort	To recognise the delivery of well-lit spaces that provide high levels of visual comfort to building occupants.	11.3	Localised Lighting Control	C	0.6	0.4	0.6	0.4					
		12.0	Glare Reduction	C	-	-	Complies	Complies					
		12.1	Daylight	A	2.0	-	2.0						
		12.2	Views	A	1.0	-	1.0						
		13.1	Paints, Adhesives, Sealants and Carpets	C	0.6	0.4	0.6	0.4					

Step 5:

The Certified Assessor will assess the project team's submission and assign points to the relevant Points Awarded/TBC or N/A Awarded/TBC columns.

The 'Overall Points Total' cell will show the final number of points the project will be scored against, based on the Assessor awarding the points targeted as N/A.

Innovation Points will be awarded on top of the Overall Points Total.

Green Star - Design & As Built Scorecard

Project:	0
Targeted Rating:	

Targeted Overall Points Total
97.6

Points Targeted	NA Targeted
42.2	2.4

Points Awarded	Points TBC	NA Awarded	NA TBC	Overall Points Total
0.0	0.0	0.0	0.0	100.0

CATEGORY / CREDIT	AIM OF THE CREDIT / SELECTION	CODE	CREDIT CRITERIA	SHELL & CORE CREDIT TYPE	POINTS AVAILABLE	NA AVAILABLE	POINTS TARGETED	NA TARGETED	POINTS AWARDED	POINTS TBC	OUTCOME	NA OUTCOME	ASSESSMENT CO
Indoor Environment Quality					17								
Indoor Air Quality	To recognize projects that provide high air quality to occupants.	9.1	Ventilation System Attributes	A	0.6	0.4	0.6	0.4					
		9.2	Provision of Outdoor Air	A	2.0	-	2.0						
		9.3	Exhaust or Elimination of Pollutants	A	1.0	-	1.0						
Acoustic Comfort	To reward projects that provide appropriate and comfortable acoustic conditions for occupants.	10.1	Internal Noise Levels	A	1.0	-	1.0						
		10.2	Reverberation	C	0.6	0.4	0.6	0.0					
		10.3	Acoustic Separation	C	0.6	0.4	0.0	0.4					
Lighting Comfort	To encourage and recognize well-lit spaces that provide a high degree of comfort to users.	11.0	Minimum Lighting Comfort	C	-	-	Complex	Complex					
		11.1	General Illuminance and Glare Reduction	C	0.6	0.4	0.6	0.4					
		11.2	Surface Illuminance	C	0.6	0.4	0.6	0.4					
Visual Comfort	To recognize the delivery of well-lit spaces that provide high levels of visual comfort to building occupants.	11.3	Localized Lighting Control	C	0.6	0.4	0.6	0.4					
		12.0	Glare Reduction	C	-	-	Complex	Complex					
		12.1	Daylight	A	2.0	-	2.0						
		12.2	Views	A	1.0	-	1.0						
		13.1	Paints, Adhesives, Sealants and Carpets	C	0.6	0.4	0.6	0.4					

RIGHT:
Tonkin + Taylor, Auckland
6 star Green Star Interiors Built
Rating (May 2022)



