

Government  
Property Office

# Building Performance Specification

Guidance for new build and major refurbishment of government office space



MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT  
HĪKINA WHAKATUTUKI

Te Kāwanatanga o Aotearoa  
New Zealand Government



**MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT**  
HĪKINA WHAKATUTUKI

## **Ministry of Business, Innovation and Employment (MBIE) Hīkina Whakatutuki – Lifting to make successful**

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# Purpose and scope of this document

## Purpose of the Building Performance Specification

The Building Performance Specification (BPS) provides detailed guidance for planning and delivering new government offices and major refurbishments. This includes developer-led new buildings intended to be leased to government and upgrades to existing government leased office space.

The purpose of the BPS is to set clear expectations for future government office performance and support a consistent base-build standard for government offices across New Zealand. Its recommendations reflect government workplace principles, guidelines, and strategic objectives.

The BPS is intended to be used by landlords, developers, government agencies, and project teams involved in planning or delivering government offices.

### Please note:

- The BPS is a guidance document, not a legal requirement.
- Unless a clause is stipulated as a “must”, users (tenant/agency) can decide which clauses are relevant for their project.
- BPS requirements apply only to new builds or major refurbishments of existing offices that will substantially change layout, services, or building performance.
- Minor refurbishments, maintenance, or like-for-like upgrades are not covered.
- The BPS is not intended to retrospectively assess the performance of existing occupied buildings where no future work is planned.
- This guidance applies to office space only. For mixed-use developments, the requirements apply only to the office accommodation components leased or intended for lease to government agencies.

## Scope and disclaimer

This specification sets performance expectations that go above and beyond minimum Building Code compliance. It does not restate or replace mandatory requirements under the New Zealand Building Code (NZBC), the Building Act 2004, or other applicable laws, policies and standards.

The absence of specific code requirements within this document does not exempt the landlord, building owner, or design team from meeting all statutory obligations. All new building works must comply with the NZBC, including annual Building Warrant of Fitness (BWof) inspections, regardless of whether a building consent is required.

If any clause in this BPS conflicts with a government policy, that policy takes precedence. Agencies should notify the Government Property Office (GPO) of any such conflict. Where the BPS introduces expectations or specifications that exceed policy requirements, these elements are optional. Although minor refurbishments, routine maintenance, and like-for-like upgrades are not covered by this BPS, these projects must still comply, where relevant, with the New Zealand Building Code, the Building Act 2004, and any other applicable laws, policies, or standards.

## When to use this document

The BPS should be used by mandated government agencies when planning:

- a new office build, or
- a major refurbishment that substantially changes the layout, services, or overall building performance.

Non-mandated agencies may also choose to adopt BPS recommendations to align with government office expectations and good-practice performance standards.

The BPS can also be used during the ROI or RFP process to help agencies understand a landlord or developer's proposed base-build offering and how well it aligns with government guidance.

## How to use this document

- **Mandatory requirements** are indicated by “must” and typically apply where compliance with a standard set by the System Lead for property, the New Zealand Building Code, or other statutory obligations is required, or where a specific demonstration of compliance is necessary.
- **Recommended criteria:** Where a clause uses the term “should”, this indicates recommended or good-practice guidance under this BPS. The use of “should” does not limit, modify, or replace any obligation that arises under the Building Act 2004, the New Zealand Building Code, or any other applicable law or regulation, which must be met in all cases.
- **Designer(s):** where the term *designer(s)* is used in this BPS, it refers to the relevant subject matter expert(s) responsible for the design, specification, coordination, or certification of the matter being addressed. Depending on the scope and context, this may include (but is not limited to) architects, engineers, building services designers, specialist consultants, land surveyors, certifying professionals, and relevant statutory authorities or approval bodies. The term is used as a collective reference and does not imply that all disciplines are required in all circumstances; responsibility rests with the appropriately qualified professional(s) for the specific subject matter.
- **BPS agreement schedule:** This Building Performance Specification (BPS) is provided as guidance only. It is intended to support informed decision-making and alignment between tenants and landlords.

Tenants are required to assess the applicability of each BPS clause or requirement, whether expressed as **Must** or **Should**. Where a requirement is assessed as applicable, it is to be treated as mandatory and implemented accordingly, regardless of whether it is described as a *Should*.

Agreed positions between tenants and landlords must be formally documented using a method agreed by both parties. The Government Property Office (GPO) provides an Excel-based template to support this process, which may be used where agreed. *Note: The agreement schedule also includes the Climate Change Risk Checklist for clause 1.4.3.*

- **Objectives, guidance and reference documentation:** The objectives are provided at the beginning of each section, to clarify the objective of the criteria along with relevant codes, standards, and documentation for compliance (note, this information is not an exhaustive list).
- **Supplementary evidence:** where supplementary evidence is required to demonstrate compliance, this will be indicated in the “Supplementary evidence is required” textbox.

Supplementary evidence refers to additional documentation (e.g. such as reports, certificates, or modelling outputs) needed when construction documentation or specifications alone are insufficient to verify compliance. Supplementary evidence should be provided with the BPS response. If this is not reasonably practical, the respondent should advise when the evidence will be supplied. Where it is agreed that evidence can be provided later as part of a design deliverable, this agreement should be recorded in the BPS Agreement Schedule under ‘Agreed Position’.

- **Relevant documents:** This specification should be read in conjunction with, as applicable:
  - Government Property Office guidance, including the [Workplace design guidelines](#)
  - [New Zealand Government Procurement](#) guidance, including:
    - the [Government procurement rules](#)
    - the [Construction procurement guidelines](#)
    - all-of-government panels or contracts, where applicable.
- **Access to the latest document:** The Government Property Office (GPO) may occasionally update this document. It is recommended that you check the GPO website for the latest version [www.gpo.govt.nz](http://www.gpo.govt.nz) each time you undertake a project. You are also welcome to contact [info@gpo.govt.nz](mailto:info@gpo.govt.nz) to request an updated copy.
- **Where to get help:** Support and information regarding this document can be obtained by emailing [info@gpo.govt.nz](mailto:info@gpo.govt.nz)
- **Your comments:** Your suggestions will help us to improve the accuracy, relevance, and overall quality of the documentation. If you have issues, comments, or questions regarding the BPS, please send to [info@gpo.govt.nz](mailto:info@gpo.govt.nz)

## General guidance – Building code compliance and disclosure requirements

Compliance with all applicable and mandatory requirements under the Building Act 2004 and the New Zealand Building Code (NZBC) is expected as a minimum baseline.

However, where full compliance is not achievable and the “As Nearly As Reasonably Practicable” (ANARP) principle is applied to obtain Building Consent, the following requirements apply:

- **Disclosure on non-compliance:** The landlord must disclose any known material non-compliance of the premises or building that does not comply with current Building Code requirements, where this may materially affect tenancy use, performance expectations, or compliance with this specification.
- **Use of ANARP:** Where ANARP is relied upon, the landlord must provide a clear expectation of the rationale, including the basis for the approach and any implications for building performance, safety, or long-term compliance.
- **Technical validation:** In cases where a full building services redesign and installation is not proposed, the landlord must engage appropriately qualified technical consultants to assess and confirm the compliance status of existing systems and services.
- **Accessibility and safety:** All premises must support safe and accessible entry by foot, car, or bicycle, and enable staff to move and operate within the building freely and safely. These principles must be embedded in the design and verified through compliance documentation.

## Reference documents – purpose and scope

Throughout this BPS, reference documents have been included to inform performance expectations that go beyond minimum compliance requirements.

**Note:** All applicable and mandatory requirements under the Building Act 2004, the New Zealand Building Code (NZBC), and associated regulations are assumed to be met and are not repeated in this document.

## Landlord guidance

Submissions should reflect the criteria outlined in this document and be supported by qualified technical advice. Any discrepancies between architectural, structural, or services documentation should be resolved in favour of the **higher standard**, as nominated by the tenant.

## Tenant guidance

The BPS should be reviewed and tailored with technical advisors to suit the agency's specific needs prior to issuing it to the market. Agencies may request customisation to address specialised requirements (e.g. commercial kitchens, dock ways, high-security areas). Any agreed changes must be clearly documented.

## Definitions

**Tenant or agency:** the organisation to occupy the premises associated with a procurement activity. The tenant is responsible for the fit-out and operational use of the space and may be involved in specifying workplace requirements and performance expectations.

**Landlord:** the landlord is typically the legal owner of the building or their authorised representative. The landlord is responsible for delivering the base building (and any agreed modifications) in accordance with lease terms and the BPS.

**New office building:** a building that is either yet to be constructed and is being built for the purpose of a new office procurement, or has recently been constructed and is being offered for lease for the first time.

**Major refurbishment:** for the purposes of this document, a major refurbishment is a building, or portion of a building that require the space to be temporarily vacated to enable refurbishment activities. Temporary vacating may occur in full or in stages (for example, floor-by-floor), depending on the scope and sequencing of the works.

A major refurbishment is typically undertaken to extend the building's lifecycle, improve performance, or meet updated compliance standards. These works may include:

- replacement or upgrade of building services (e.g. HVAC, electrical, plumbing)
- seismic strengthening or structural improvements
- renewal of the building envelope (e.g. façade, windows, roofing)
- comprehensive internal refurbishment (e.g. change of building purpose and/or major internal layout reconfiguration that requires the area to be vacated temporarily).

## Tenant and landlord fit-out demarcation

**Note:** *While the following terms are not universally defined across the property and construction industry, they are adopted within the BPS to support internal consistency and clarity across government property projects. These definitions are intended to guide interpretation and application of the BPS and may differ from terminology used in other contexts or by external parties.*

- **Main contractor hard fit-out (MCHF):** elements of the base building that are adjusted or added by the landlord to support the tenant’s fit-out requirements. These are typically delivered as part of the landlord works and may include services extensions, structural modifications, or partial fit-out elements that are common.
- **Sub-divisional hard fit-out (SHF):** elements constructed and funded by the tenant (unless otherwise agreed) to complete their specific workplace design. These are typically delivered by the tenant’s fit-out contractor and reflect the tenant’s operational and aesthetic requirements.

## Definitions of functional floor areas

All areas relevant to the planning, development agreement, or commercial assessment phases should be documented and measured consistently.

- **Gross floor area (GFA):** total area of all floors of a building measured to the external face of the exterior walls. GFA includes all internal spaces (both usable and non-usable) such as plant rooms, stairwells, lift shafts, lobbies, and amenities.
- **Net lettable area (NLA):** total floor area of a tenancy that can be leased to a tenant, measured in accordance with the Property Council New Zealand’s Guide for the Measurement of Rentable Areas. NLA excludes common areas such as lobbies, stairwells, lift shafts, and service risers, but includes areas exclusively occupied by the tenant.
- **Net usable area (NUA):** portion of the tenancy that is usable for the core purposes of work. NUA excludes non-functional areas such as bathrooms, stairwells, lift cores, plant rooms, structural columns and any areas within the NLA that cannot reasonably be furnished or use for work – for example, spaces beneath structural bracing or other building elements that restrict practical use. It reflects the actual area available for desks, meeting rooms, collaboration zones, and other workplace functions. Some clauses will require assessments to be based on NUA rather than NLA. Where required, NUA measurements should be confirmed during the development agreement or lease negotiation to support downstream performance assessments.
- **High level reference table:**  
This table is intended as a general guide only and reflects common interpretations for GFA, NLA and NUA under New Zealand practice, including the Property Council New Zealand (PCNZ) Guide for Measurement of Rentable Areas. Actual inclusions may vary depending on the measurement standard applied, lease documentation, and agency-specific requirements.

Element	Included in GFA	Included in NLA	Included in NUA	Notes
External walls	✓	✗	✗	GFA includes wall thickness
Tenant-exclusive office space	✓	✓	✓	Core usable area
Internal circulation (within tenancy)	✓	✓	✓	Includes corridors within tenancy
Meeting rooms, workstations	✓	✓	✓	Functional work areas

Kitchenettes (within tenancy)	✓	✓	✓	If part of tenant's fit-out
Bathrooms (within tenancy)	✓	✓	✗	NUA excludes non-work areas
Lift cores, stairwells	✓	✗	✗	Common building elements
Building services (risers, ducts)	✓	✗	✗	Not usable or lettable (unless the riser is exclusively for tenant use, and framed and lined within the leased footprint)
Structural columns	✓	✓	✗	Counted in NLA but not usable
Shared lobbies, amenities	✓	✗	✗	Outside tenancy boundary
Plant rooms	✓	✗	✗	Not part of tenancy

*Table 1: Guidance on gross, net lettable and net usable area inclusions*

# Section 1: Sustainability and resilience

## Objectives and reference documentation

### Section objectives

The criteria in this section aim to align leased public sector accommodation with government standards for energy efficiency, sustainability, and climate change mitigation and adaptation. The intent is to support:

- lower operational and upfront embodied carbon emissions
- energy and water efficient buildings
- healthy, comfortable and productive workplaces
- buildings that are resilient to climate change impacts
- consistency across the government office portfolio.

This section supports relevant government policies and programmes, including:

- Chapter 12 Building and Construction, Aotearoa New Zealand's Second Emissions Reduction Plan, 2024. Ministry for the Environment.
- Climate Change Response (Zero Carbon) Amendment Act 2019.
- Embodied emissions of buildings: reporting and target setting in the Carbon Neutral Government Programme. 2024. Ministry for the Environment.
- Target setting in the Carbon Neutral Government Programme. 2024. Ministry for the Environment.
- Government Procurement Rules 5<sup>th</sup> edition and Guidelines - Rule 9: Planning for new construction works.
- National Adaptation Plan. 2022. Ministry for the Environment.

### Section reference documentation

The following reference documentation is relevant to this section:

- New Zealand Government Property Energy Efficiency Standards.
- New Zealand Green Building Council - Green Star Buildings NZ Submission Guidelines.
- NABERSNZ Rules – Energy and Water for Offices v1.2.
- New Zealand Building Code – Clause H1 Energy Efficiency compliance pathways.
- Ministry of Business, Innovation and Employment – Whole-of-Life Embodied Carbon Assessment: Technical Methodology.
- NZGBC Embodied Carbon Methodology.
- Procurement guide to reducing carbon emissions in building and construction.
- WorkSafe guidance on Managing Thermal Comfort at Work.
- NZS 4214: 2006 Methods of determining the total thermal resistance of parts of buildings.

### Section guidance

Landlords and tenants are recommended to engage a sustainability consultant or appropriately qualified subject matter expert to support informed decision-making and effective implementation of agreed sustainability measures.

The landlord and tenant should agree an energy management approach as part of the tenancy. This should include an energy management plan attached to the lease, clear

governance arrangements, and an agreed programme for ongoing performance improvement.

**Supplementary evidence is required for:**

- NABERSNZ Energy certification (see clause 1.1.1 for requirements).
- Embodied carbon evidence (see clause 1.2.4 for requirements):
  - For <2,000 m<sup>2</sup> or small refurbishments: submit an Upfront Embodied Carbon Impact Assessment, (Modules A1–A5).
  - For larger/complex projects: submit an LCA report in alignment with NZGBC embodied carbon methodology for Modules A1–A5, including assumptions, quantities, data sources, and adopted reduction measures.
- (Optional) Sustainable Building Rating (i.e. Greenstar, see clause 1.1.2 for requirements):
  - Green Star Designed Assessment and Certified As-Built rating, where a rating is being targeted.
  - Designed Assessment is recommended to confirm the project is on track and to safeguard agencies targeting a Green Star outcome.
  - A full Green Star submission not only selected or 'higher-risk' credits.
- Climate Change Resilience Review provided within the BPS agreement schedule template (see clause 1.4.3 for requirements).
- Thermal comfort modelling Report (see clause 1.3.2 for requirements).
- Daylight modelling report (see clause 1.3.4 for requirements).

## Requirements overview table

Sustainability requirements are dependent on the type of building (new versus major refurbishment) and building size as summarised in the table below. Refer to further detail captured in each clause section.

Clause / requirement	New buildings	Existing buildings (major refurbishment)	Thresholds / Notes
<b>1.1.1 – NABERSNZ Base building rating</b>	Mandatory if all are true: <ul style="list-style-type: none"> <li>Agency leases <math>\geq 2,000</math> m<sup>2</sup> NLA</li> <li>Agency occupies <math>\geq 50\%</math> of total NLA</li> <li>Lease term <math>\geq 4</math> years</li> </ul>	Mandatory if all are true: <ul style="list-style-type: none"> <li>Agency leases <math>\geq 2,000</math> m<sup>2</sup> NLA</li> <li>Agency occupies <math>\geq 50\%</math> of total NLA</li> <li>Lease term <math>\geq 4</math> years</li> </ul>	Star minimums: <ul style="list-style-type: none"> <li>New buildings <math>\geq 5</math> Stars</li> <li>Major refurb: target <math>\geq 5</math> Stars, must achieve <math>\geq 4</math> Stars</li> </ul>
<b>1.1.1 – NABERSNZ Tenancy rating</b>	Required when agency leases $\geq 5,000$ m <sup>2</sup>	Required when agency leases $\geq 5,000$ m <sup>2</sup>	Star minimums: <ul style="list-style-type: none"> <li>Fit-out <math>\geq 5</math> Stars</li> <li>Major refurb: target <math>\geq 5</math>, must achieve <math>\geq 4</math> Stars</li> </ul>
<b>1.1.2 – Sustainable building rating (Green Star)</b>	Optional (agency may require via lease/development agreements)	Same (as per New Buildings)	Important: Cabinet mandate applies only to <i>agency-led capital builds</i> , not leased buildings
<b>1.2.1 – Onsite renewables and low-emissions systems</b>	Feasibility assessment should be undertaken. If installation is not reasonably practicable, the building should be made renewable-ready.	Same (as per New Buildings)	Options may include solar PV and other suitable renewable or low-emissions systems. Renewable-ready allowances limited to enabling infrastructure only.
<b>1.2.2 – Fossil fuel heating</b>	Must avoid fossils gas for HVAC + DHW	Should avoid; staged transition acceptable where full replacement is not reasonably practicable	
<b>1.2.3 – Refrigerants</b>	Must use 0 ODP; GWP <750; future-ready <150 by 2032	Must use 0 ODP; GWP <750; future-ready <150 by 2032	Applies to HVAC + DHW
<b>1.2.4 – Upfront embodied carbon</b>	A1–A5 Embodied Carbon Impact Assessment, including assumptions, quantities, data sources, and adopted	A1–A5 Embodied Carbon Impact Assessment; Full LCA encouraged for larger refurbishments	

Clause / requirement	New buildings	Existing buildings (major refurbishment)	Thresholds / Notes
	reduction measures (min. 15% reduction).  A1–A5 Embodied Carbin Impact Assessment for New buildings smaller <2,000 m <sup>2</sup>		
<b>1.3.1 – Indoor air quality</b>	Should provide suitable outside air ventilation, appropriate filtration, and CO <sub>2</sub> monitoring; commissioning required to demonstrate performance	Should provide suitable outside air ventilation, appropriate filtration, and CO <sub>2</sub> monitoring; commissioning required to demonstrate performance	Applies to representative office zones; performance-based requirement
<b>1.3.2 – Thermal comfort (PMV)</b>	PMV modelling not required unless targeting Green Star	PMV modelling not required unless targeting Green Star	Applies to NUA only
<b>1.3.3 – Thermal comfort (Envelope)</b>	Must meet NZBC H1	Must demonstrate equivalent performance where façade retained	Applies to NUA only
<b>1.3.4 – Daylight availability</b>	Should meet daylight criteria	Same (as per New Buildings)	DA/SDA preferred; DF allowed for small or constrained spaces
<b>1.3.5 – Water efficiency (WELS)</b>	Must meet WELS minimums	Same (as per New Buildings)	WELS aligns with AS/NZS 6400
<b>1.4.1 – Electric vehicles</b>	Provide electrical capacity + pathways for future EV chargers	Same (as per New Buildings)	Tenant supplies the chargers
<b>1.4.2 – Waste and recycling</b>	Must provide compliant waste area	Same (as per New Buildings)	Must support separation of streams
<b>1.4.3 – Climate change resilience</b>	Must address 1% AEP flooding; climate projections to 2090	Same (as per New Buildings)	Requires flood assessment, drainage design, resilience checklist

Table 2: Sustainability requirements applicability matrix for new and major refurbishment of existing buildings.

## Sustainable rating systems and certification

### Clause 1.1.1 NABERSNZ Energy Rating

A NABERSNZ base building rating is required where an agency leases 2,000m<sup>2</sup> NLA or more in a building and occupies 50% or more of the building's total NLA. A rating is not required where the total lease term is less than four years (including renewals), or where agencies occupy less than 50% of the building's total NLA.

New office buildings must achieve a minimum 5-star NABERSNZ Energy rating.

Buildings undergoing a major refurbishment should target a rating 5-stars or above but must achieve a minimum 4-star NABERSNZ Energy rating.

Full energy metering should be provided in line with NABERSNZ requirements to separate out tenant, landlord, and other non-rateable energy uses.

Meters should allow energy use to be logged and monitored via a building management system (BMS) or a web-based energy monitoring platform accessible to the tenant with data available for download in an appropriate format.

For further detailed guidance on which type of rating to obtain, visit the NABERSNZ page on the Government Property Office website [www.gpo.govt.nz](http://www.gpo.govt.nz)

#### Clause guidance

NABERSNZ Certification is to be provided no later than 18 months following practical completion and once the building is a minimum 75% occupied over a minimum 12-month period (whichever comes later). If the target rating has been met, a re-rating is required every three years. If the target rating is not met, the landlord must implement a work programme within 12 months to achieve the target rating and re-rate the building annually until the minimum star rating is achieved.

### Clause 1.1.2 Sustainable building rating system

Sustainable building rating systems, such as Green Star Buildings NZ, can be used to support and verify sustainability outcomes for leased office accommodation. These tools provide an independently verified framework for assessing environmental and social performance, including embodied carbon, operational energy, water efficiency, resilience, indoor environment quality, materials, and design governance.

For leased accommodation, agencies may choose to require Green Star (e.g. through an agreement to lease or development agreement) where this supports policy intent, project objectives, or procurement outcomes.

#### Clause guidance

- Landlords may choose to target certification under Green Star Buildings NZ for new developments or major refurbishments. Any expected rating level (if applicable) should be recorded in the BPS Agreement Schedule, including any must-have credits agreed between the tenant and landlord. A 4-star rating represents industry-recognised best practice by the New Zealand Green Building Council (NZGBC).
- Third-party verification: Green Star certification is independently assessed by the NZGBC, providing a consistent, standardised verification framework. Where adopted, this may be an efficient means of demonstrating alignment with the sustainability outcomes of the BPS and can reduce the need for project-specific reporting.

- Compliance pathway and evidence: Where Green Star is used as the sustainability compliance pathway, landlords may demonstrate compliance with relevant BPS sustainability clauses through Green Star documentation, including the Designed Assessment (where applicable), the As-Built submission, and NZGBC certification documentation. Where Green Star is not used, landlords may demonstrate compliance by meeting the prescriptive requirements set out in the BPS.
- Application of requirements: Green Star may be used as proxy for BPS clause achievement. Where Green Star is used, refer Appendix B: Green Star Alignment Schedule. Agencies may specify additional Green Star credits where these support project objectives. Where Green Star is not used as the means of compliance, the prescriptive BPS requirements shall apply.

## Energy, carbon and building services

### Clause 1.2.1 Onsite renewables and low emissions systems

On-site renewable and low-emissions energy systems can help reduce building emissions and lower reliance on grid-supplied electricity.

As part of lease negotiations or development agreements, the landlord should consider, and where practical allow for, on-site renewable or low-emissions energy systems.

The landlord should provide the tenant with a proposal for one or more suitable low-emissions energy options for the site. This may include solar photovoltaic (PV) systems, preferably with battery storage. Other renewable or low-emissions technologies may also be considered where appropriate. The proposal should clearly explain:

- the type of system proposed
- the expected size or capacity
- the estimated energy generation
- how the system would be installed
- the key commercial terms

If an on-site renewable or low-emissions system is not installed at the time of development or lease commencement, the building should be made renewable-ready to allow for future installation. Renewable-ready allowances should be limited to basic enabling measures, such as safe access to installation areas, planned cable routes, and sufficient space and capacity in electrical switchboards or distribution equipment.

Renewable-ready allowances should not include: pre-purchase or installation of generation equipment, reserving space for specific equipment and major or costly structural strengthening works.

#### Clause guidance

- Where and when a system is installed, the arrangement should benefit the tenant(s) in full, or through a clearly documented and transparent sharing arrangement agreed in the lease.
- In multi-tenant or gross-lease arrangements, the approach to allocating benefits should be clear and allocated fairly.
- Energy generated and consumed should be metered (or reasonably estimated) so that benefits and performance can be clearly understood and reported.

- Where a system is installed, relevant performance and generation data should be made available to the tenant(s) on request to support energy management and reporting.
- Roles and responsibilities for operation, maintenance, and lifecycle replacement should be clearly set out in the lease or associated agreements.
- Performance and procurement risks remain with the landlord unless otherwise agreed.

### Clause 1.2.2 Fossil fuel heating

New office buildings must avoid the use of onsite combustion of fossil fuels for:

- heating, ventilation, and air conditioning (HVAC)
- domestic hot water systems.

It is highly recommended that major refurbishments should avoid the use of onsite combustion of fossil fuels for HVAC and domestic hot water systems. Where full replacement is not reasonably practicable within the scope of works, solutions that reduce emissions and enable future transition to electric systems are preferred.

Exception – emergency power: use of diesel for emergency generators is acceptable for life-safety and resilience purposes.

#### Clause guidance

- This clause seeks to reduce emissions from HVAC and hot water systems while recognising the practical constraints of some existing buildings and small-scope refurbishments.
- For new buildings, full avoidance of fossil fuel combustion is required.
- If your project meets the major refurbishment definition (refer to document purpose for the full definition), avoidance of fossil fuel systems is strongly encouraged. Where immediate replacement is not reasonably practicable due to cost, programme, or technical constraints, agencies should agree a transition plan and initiate discussions with the landlord on options, timing, and staged implementation for phasing out fossil fuel plant.
- Note that Green Star buildings generally do not allow fossil fuels except for very limited exceptions.

### Clause 1.2.3 Refrigerants

HVAC and heat-pump systems must use refrigerants with zero ozone-depletion potential and low global warming potential (GWP). Designs should support the transition to lower-impact refrigerants over time in line with the global phase-down of HFCs under the Kigali Amendment.

HVAC and domestic hot-water heat-pump systems must:

- use zero-ODP refrigerants; and
- use refrigerants with GWP <750 (e.g. R32, R454B, R744); and
- be designed to enable future transition to refrigerants with GWP <150 where available and technically feasible.

Systems relying on refrigerants with high GWP ( $\geq 750$ ) should not be used for new builds or major refurbishments unless no suitable low-GWP alternative exists.

Designs should:

- minimise total refrigerant charge and leak risk
- provide accessible pathways for future refrigerant upgrades (e.g. compatible pipework, service space, or modular equipment replacement)
- consider alternative system types where appropriate (e.g. water-loop heat pump systems, hydronic distribution, packaged air-to-water heat pumps)
- ensure compliance with current safety standards.

This clause does not prohibit variable refrigerant flow/hybrid variable refrigerant flow (VRF/HVRF) systems but requires that any selected system uses low-GWP refrigerants and can adapt to future refrigerant phase-downs.

### **Clause 1.2.4 Upfront embodied carbon**

Landlords should consider upfront (embodied) carbon early in design and procurement and identify reasonable opportunities to reduce it. Upfront embodied carbon refers to product and construction stage emissions (A1–A5).

- Buildings under 2,000 m<sup>2</sup> GFA or small-scale refurbishments should complete a rapid A1–A5 upfront embodied carbon impact review using a recognised MBIE-aligned or NZGBC-aligned methodology, and a readily available carbon review reporting tool such as BRANZ LCA Quick, BRANZ LCA Play (as appropriate to the typology and size of building).
- Larger new buildings or complex projects are encouraged to undertake a detailed lifecycle carbon assessment (LCA) in accordance with EN 15978 or the NZGBC-aligned methodology. The scope of this assessment should be agreed early and may cover either A1–A5 (upfront carbon) or A1–D (whole-of-life embodied carbon, excluding Module B), depending on design influence and project relevance.
- Embodied carbon assessments should identify reasonable opportunities to reduce emissions, including reuse of existing elements, selection of lower-carbon materials, optimisation of structure, and avoidance of over-specification.
- All assessments must use transparent assumptions and material quantities appropriate to the design stage.

Where an upfront embodied carbon assessment is undertaken, it should:

- clearly state which lifecycle stages are included (A1–A5 for all assessments; or A1–D as agreed for Whole of Life LCAs);
- follow a recognised MBIE or NZGBC aligned methodology; and
- focus on major contributing elements such as structure, substructure, façade, and key fit-out elements.
- report the total upfront embodied carbon for the project, in absolute terms TCO<sub>2-e</sub> and nominal area kg.CO<sub>2-e</sub>/m<sup>2</sup> (GFA).
- provide whole building reporting and possible carbon savings as identified by the project for larger projects.

New builds should target and report carbon reduction measures, with an appropriate reduction target to be agreed, typically of 15% or more.

Landlords may choose to set a project-specific embodied carbon reduction target at concept design, based on a suitable reference case and the level of design influence available.

Further guidance on reasonable target ranges is provided in the clause guidance section below.

### **Clause guidance**

This clause aims to support lower-carbon design choices by ensuring landlords assess embodied carbon at an appropriate level for their size and complexity.

- Smaller projects and buildings under 2,000 m<sup>2</sup> NLA require only an A1–A5 impact review.
- Larger or more complex projects benefit from a more detailed A1-A5 Assessment; however, whole-of-life analysis (A1–D, excl B) is optional and should only be used where it is meaningful and within the project’s design influence.
- Existing buildings may see limited benefit from whole-of-life modelling; in these cases, an A1–A5 impact assessment is acceptable.
- Landlords may choose to adopt a carbon-reduction target.
  - For new-build projects, a minimum 15% reduction remains appropriate, reflecting recognised industry baselines for upfront embodied carbon.
  - For major refurbishments, reduction potential is typically greater than 15% due to the retention of existing structure and other elements. However, because refurbishment outcomes vary significantly (e.g., façade retention or replacement, extent of structural reuse), a fixed minimum target >15% is not prescribed. Instead, a project-specific target should be agreed with the landlord upfront, based on the characteristics and constraints of the project.
- Where a landlord elects not to set a reduction target, the rationale should be briefly documented.
- Landlords are not required to undertake Module B.

## **Indoor environment quality and wellbeing**

### **Clause 1.3.1 Indoor air quality**

Buildings must provide outside-air ventilation suitable for office occupancy, appropriate filtration, and CO<sub>2</sub> monitoring in representative occupied zones within the Net Usable Area (NUA), with commissioning to demonstrate settings.

### **Clause 1.3.2 Thermal comfort – thermal comfort-predicted mean vote (PMV)**

Buildings must be designed to provide a comfortable indoor environment for occupants throughout the year. New office buildings that comply with NZBC H1 (current edition) are generally considered to meet acceptable thermal performance and are not required to undertake Predicted Mean Vote (PMV) thermal comfort modelling unless a Green Star rating is being pursued.

For smaller office buildings (under 2,000 m<sup>2</sup> NLA), compliance with NZBC H1 is generally sufficient to demonstrate acceptable thermal comfort and may reduce the need for additional modelling. Comfort and energy modelling remains recommended for larger buildings (over 2,000 m<sup>2</sup> NLA), particularly where design decisions materially influence indoor environmental quality.

Existing office buildings undergoing major refurbishment must demonstrate equivalence with the intent of NZBC H1 but are not required to be formally upgraded or consented to H1 for the purposes of meeting this clause.

Where PMV modelling is required (e.g. for Green Star), thermal comfort in all occupied office zones should achieve a PMV between –1 and +1 for 98% of standard occupied hours, demonstrated via modelling. PMV modelling must follow the method and inputs required under Green Star and use an appropriate typical meteorological year (TMY) weather file.

Responsibility: Where PMV modelling is undertaken, the landlord must provide the thermal comfort modelling report to the tenant upon completion of base-building design works.

Thermal comfort requirements apply to NUA only, ensuring that non-work or back-of-house areas within the NLA are not included in performance assessments.

PMV modelling should use the following criteria:

- CLO (Summer): 0.6
- CLO (Winter): 0.95
- Activity level: 70 W (office work)
- Air velocity: 0.15 m/s
- PMV calculated using the design conditions listed in this document
- Standard hours of occupancy are defined as 8:00am to 6:00pm, Monday to Friday.

#### **Clause guidance**

NZBC H1 addresses thermal envelope performance but does not directly measure thermal comfort. PMV modelling provides additional confidence where required (e.g. Green Star) but is not necessary for all new buildings. Existing buildings may use modelling, performance data, or manufacturer specifications to demonstrate equivalent thermal outcomes without full H1 compliance.

### **Clause 1.3.3 Thermal comfort – building envelope**

A minimum level of thermal comfort must be provided to perimeter office areas (defined as the area within 4 metres of the external façade). New office buildings can meet the thermal performance requirements of NZBC H1 Energy Efficiency (using the relevant compliance method for the building size).

Thermal comfort requirements apply to Net Usable Area (NUA) only, ensuring that non-work or back-of-house areas within the NLA are not included in performance assessments.

Existing buildings or major refurbishments that retain the existing façade must provide evidence that the envelope performs to a level that supports reasonable comfort (e.g. glazing specifications, thermal break details, or modelling demonstrating equivalence with H1 intent).

#### **Glazing requirements**

- Preference is for tenancies that are double glazed.
- Target double glazing with glazing ratio no greater than 60% of tenancy external wall area measured per tenancy office wall elevation (internally); and
- Target limit single glazed area to 45% of tenancy external wall area measured per tenancy office wall elevation (internally).

#### **Clause guidance**

H1 addresses thermal envelope performance but does not guarantee comfort in all conditions. This clause aims to support occupant wellbeing, particularly in perimeter zones

where thermal conditions vary most. Existing buildings do not need to be upgraded to full H1 compliance, but must demonstrate that envelope performance is adequate for typical office use.

**Note:** Smaller buildings (<300 m<sup>2</sup>) may use H1/AS1 or H1/VM1 as required under the Building Code. No additional BPS requirement applies beyond compliance with the relevant H1 pathway.

### Clause 1.3.4 Daylight availability

Buildings should provide a minimum level of daylight availability to at least 40% of the office NUA. Daylight performance should be demonstrated using one of the following recognised methods:

- Daylight Autonomy (DA): Achieve  $\geq 160$  lux for at least 80% of standard occupied hours (8:00 am to 6:00 pm, Monday to Friday) measured at 720mm above finished floor level; or
- Compliance with an industry-recognised daylight standard such as Green Star Buildings NZ - Daylight credit (SDA-based daylight modelling) or WELL Building Standard Feature L06.1 (modelling is required to confirm exact equivalence).

#### Clause guidance

These requirements provide a consistent benchmark for daylight performance in government-leased offices and support occupant health and wellbeing. They do not override landlord obligations under the Building Code but set a higher performance expectation aligned with best practice.

For smaller projects and buildings under 2,000 m<sup>2</sup> NLA, where full spatial daylight modelling (such as SDA or DA) is not reasonably practicable, compliance may be demonstrated using: Daylight Factor (DF). Achieve a minimum 2.0% daylight factor, measured at 720 mm above finished floor level.

### Clause 1.3.5 Water efficiency

New sanitary fixtures and fittings should achieve a minimum water efficiency Water Efficiency Labelling Scheme (WELS) rating of:

- Bathroom Taps 5-Star.
- Urinals 5-Star.
- Toilets 4-Star – cold water dual flush toilets.
- Showers 3-Star or timed shower systems with a maximum duration of 5 minutes per use.

#### Clause guidance

These ratings are based on the New Zealand WELS regulations, which align with the Australian/New Zealand Standard AS/NZS 6400:2016.

NABERSNZ Water provides a third-party verified operational rating for whole-building water performance. While separate from the minimum WELS fixture requirements, agencies may choose to reference NABERSNZ Water where it supports procurement decisions or ongoing performance monitoring.

## Site, infrastructure and resilience

### Clause 1.4.1 Electric vehicles

The landlord should provide infrastructure capable of servicing electric vehicle (EV) charging to all tenant carparks. This includes all necessary electrical capacity, cabling, and separate metered distribution boards to support future charger installation. The tenant should be responsible for supplying and installing the EV chargers themselves. Electrical Services requirements are outlined in clause 9.3.5.

### Clause 1.4.2 Waste and recycling

The landlord should provide a weatherproof and vermin-proof recycling and refuse area, ideally located within 20m of the goods lift or designated goods lift. A secure space for recycling and refuse bins should be provided that permits access and removal by refuse vehicles. The size of the waste area should be commensurate with the tenancy size and dedicated to the tenant's use. A waste specialist should be engaged to determine appropriate sizing. The area should allow for the separation of waste streams, including general waste, mixed recycling, organics, and any other streams required by local authority, sustainability rating schemes or building-specific waste management plans.

#### Clause guidance

Local authority guidance, such as Auckland Council's commercial waste and recycling requirements contained within its Waste Management and Minimisation Plan and supporting guidance, can assist in determining appropriate bin sizes, clearance requirements, and collection arrangements. These resources provide practical advice on waste stream separation, bin access, and service vehicle manoeuvring standards.

### Clause 1.4.3 Climate change resilience

#### Climate change risk checklist

The landlord should complete a Climate Change Risk Checklist to confirm that climate change hazards have been considered and addressed. The checklist is available in the BPS agreement schedule document. Where the landlord and tenant agree to use an alternative method for recording BPS positions, this checklist should be incorporated into the agreed template or record.

The assessment should consider and record potential climate-related impacts (current and future), including:

- exposure to relevant climate-related hazards, including flooding, extreme heat, wind, bushfire, coastal processes, and groundwater
- the potential consequences of those hazards for the building, occupants, operations, and surrounding infrastructure
- planned or existing responses, including adaptation measures and the identification and agreement of any residual climate risks.

#### Risk of flooding assessment

The building must be designed to reduce the risk of flooding from a rainfall event with a 1% Annual Exceedance Probability (AEP) (commonly referred to as a 1-in-100-year rainfall event), using the latest Earth Sciences New Zealand (ESNZ) rainfall and climate data. Critical building infrastructure, including communications rooms, main switchboards, transformers,

high-voltage switchgear, generators, fuel storage, and primary HVAC plant, should be located above the flood level associated with a 1% Annual Exceedance Probability (AEP) event (a 1-in-100-year rainfall event). Buildings with basements or below-street spaces should include appropriate flood protection measures, which may include but is not limited to:

- stormwater systems with sumps and external overflows
- site grading to divert water away from the building and prevent overflow from surrounding infrastructure
- ramp and perimeter slot drains (not connected to the public stormwater network where below street level)
- minimising below-street drainage areas
- basement sumps with silt traps and adequately sized pumps, including redundancy, alarms, and emergency power where available
- fully tanked basements or effective subsoil drainage systems.

Compliance should be demonstrated through design documentation, such as:

- a flood risk assessment referencing NIWA and Earth Sciences New Zealand data
- site grading and drainage drawings showing key flood protection measures
- hydraulic calculations confirming system capacity and redundancy
- basement tanking or drainage details, including pump sizing and power supply
- electrical layouts showing critical plant located above flood levels.

### **Climate change projections**

Climate risk should be assessed using projections to at least 2090, based on a high-emissions scenario (RCP 8.5 or SSP3-7.0, where available and to be agreed).

Relevant sources may include:

- Sea-level rise: NZ SeaRise projections (SSP3-7.0 + vertical land movement).
- Coastal flooding: NIWA 1% AEP extreme sea level flooding viewer.
- Rainfall: NIWA High Intensity Rainfall Design System (HIRDS), RCP 8.5, 2081–2100 period.
- Local projections: Regionally downscaled council climate projections (where available).
- National projections: Ministry for the Environment climate change projections and supporting research.

#### **Clause guidance**

Agencies should discuss their business continuity requirements with the developer and agree an approach that reflects the agency's operational needs and the nature of the development. Both parties should understand and accept an appropriate level of residual risk and record this.

A 1% AEP event has a 1% chance of occurring in any given year. ESNZ datasets update periodically to reflect climate-adjusted rainfall intensities; therefore, designers should use the most current version available at design stage.

Note that the SSPs above do not have a direct correlation with previous RCPs. However, when undertaking a climate risk assessment, it is recommended to review designs against the highest plausible warming scenario available as a way of stress-testing the design solutions. For this use case, SSP3-7.0 and RCP8.5 are both considered a suitable starting point, to be agreed between parties.

# Section 2: Structural

## Objectives and reference documentation

### Section objectives

This section aims to ensure government offices are occupying structurally sound premises. Buildings should have sufficient adaptability in the structural design to allow reasonable tenant modifications (i.e. minimal structural obstructions), required to incorporate a tenancy fit-out.

### Section reference documentation

The following reference documentation is relevant to this section:

- MBIE (2025). Engineering Assessment Guidelines – Version 1. Updated August 2025. Ministry of Business, Innovation and Employment
- Structural Engineering Society New Zealand (SESOC) DFR template.
- NZS 1170.0:2002 A2
- SCI P354 Design of Floors for Vibration (2009).

### Section guidance

Landlords and tenants should engage a qualified New Zealand Chartered Professional Engineer (CPEng) or equivalent to provide guidance on any special requirements and to review technical responses.

Where properties do not comply with requirements, any additional information or planned mitigations should be supplied by the landlord for consideration by the tenant with guidance by an appropriate consultant.

The landlord should advise any structural constraints or elements that may affect the tenant using the space for their intended purpose.

The prospective tenant should supply and specify requirements to the landlord around serviceability state limits (SLS) (i.e. SLS 1 and/or SLS2 requirements) or any requirements around importance Levels (IL) which are above the Importance Level 2 (IL2) requirements (i.e. IL3 or IL4).

## Supplementary evidence required for:

### All buildings:

- Live load and superimposed dead load plans (see clause 2.2.1)

## General requirements

### Clause 2.1.1 Floor levelling

New buildings should be constructed to tolerances outlined in the relevant standards:

- The landlord should demonstrate achievement of the maximum allowable concrete deviation of 20mm from the specified Structural Slab Level (SSL) datum.

- The building floor systems should achieve an FF25 floor flatness rating in accordance with ACI 117-10: Specification for Tolerances for Concrete Construction and Materials and ASTM E1155M-01: Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers, or any equivalent New Zealand or Australian standard.

**Clause guidance**

**Non-compliance mitigation:** Should the contractor not achieve the specified outcomes, adjustment will be proposed by FLC/screed or by localised grinding, whichever is more cost effective, reduces program and impact on affected floor finishes.

The impact of the screed weight should be considered in the structural design of the floor and the building seismic analysis.

Where feasible and appropriate for the building design (for example, floor and door thresholds) and the tenant’s operational requirements, a raised floor system should be considered to help mitigate floor level tolerances and support flexible service distribution. Note (applicable to Clause guidance 2.1.2, 9.3.1 and 9.6.1) A raised floor system is most appropriate where it represents good whole-of-life value and supports adaptability over the tenancy lifecycle. The decision to provide a raised floor system, including whether it forms part of the base building or the tenant fit-out, should be agreed between the tenant and landlord, having regard to ceiling height constraints, service coordination, and future flexibility.

**Clause 2.1.2 Recessed floor boxes**

The landlord should assume that the tenant requires recessed floor boxes: on average one floor box per 100m<sup>2</sup>. The landlord should advise where this cannot be achieved, including viability of embedded conduits.

**Clause guidance**

The use of a raised floor system can simplify the installation of recessed floor boxes and improve flexibility in power and data distribution. Where adopted, it eliminates the need to chase into the concrete slab to accommodate floor boxes or in-slab conduits for electrical and data services. Refer to Clause guidance 2.1.1, 9.3.1 and 9.6.1.

**Structural floor loadings**

**Clause 2.2.1 Live load and superimposed dead load**

The landlord should provide floor plans indicating the live load and superimposed dead load capacities for the floors and any areas that can accommodate higher loading.

The landlord should identify any areas that can accommodate 5KPa floor loading for the tenant’s use specifically for equipment and mechanical/electrical plant loading.

**Clause guidance**

The landlord must disclose if a building is non-compliant with the required floor loadings.

The tenant should specify any requirements for high floor loading outside the standard 3kPa, with guidance from a structural engineer.

## Floor performance – vibration

### Clause 2.3.1 Floor vibration

Floor vibration and deflection should be within limits as set out in NZS 1170.0:2002 A2.

Acceptability criteria may be in accordance with SCI P354: Design of Floors for Vibration (2009) Table 3.2 (Response Factors).

#### **Clause guidance**

Refer to SCI P354 (2009), Table 3.2 for detailed vibration performance criteria and calculation methodology.

# Section 3: Seismic

## Objectives and reference documentation

### Section objectives

The New Building Standard (%NBS) is an index that indicates how a building is expected to respond to earthquake shaking compared to a new building designed to current Building Code standards. It identifies relative seismic risk but does **not** predict building failure or guarantee safety in a specific earthquake.

### Section Reference documentation

The following reference documentation is relevant to this section:

- MBIE (2022). Seismic Risk Guidance for Buildings: Using Seismic Assessments in Occupancy Decision-Making. Ministry of Business, Innovation and Employment, July 2022.

### Section guidance

Landlords and tenants should engage a qualified New Zealand Chartered Professional Engineer (CPEng) or equivalent to advise on special requirements and review technical responses.

If a property does not meet these requirements, the landlord should provide additional information and any planned mitigations for tenant consideration, supported by an appropriate consultant.

The landlord should advise of any structural constraints or elements that may affect the tenant's intended use of the space.

Prospective tenants should specify any requirements for serviceability state limits (e.g., SLS2) or importance levels above IL2 (e.g., IL3 or IL4).

## Supplementary evidence required for:

- Design Features Report (DFR) (see clause 3.1.1)

## Clause 3.1.1 Seismic performance

A building should be designed and/or upgraded to achieve a seismic performance above 67% New Building Standard (%NBS), which is widely regarded in engineering practice as representing an acceptable seismic risk.

### Clause guidance

- %NBS is indicative and should be interpreted alongside qualified engineering advice.
- This expectation supports the Government's aim to improve the overall seismic resilience of its occupied office portfolio over time, reduce life-safety risk, and promote responsible long-term stewardship of publicly funded assets.
- Where this level of performance cannot be practically or economically achieved as part of the project scope, agencies should:

- consider whether the building remains appropriate for its intended purpose, having regard to operational criticality, life-safety considerations, and the agency's risk appetite; and
- document rationale for any departure from this guidance, including proposed mitigation measures.
- Agencies should have regard to the Seismic Risk Guidance for Buildings and other relevant government guidance when assessing seismic performance and making occupation decisions.

### **Clause 3.1.2 Seismic standard**

The landlord should provide a comprehensive Design Features Report (DFR) and drawings for the new building, including confirmation of compliance for structural and secondary elements as outlined in this section.

The DFR should follow the standard Structural Engineering Society of New Zealand (SESOC) Commercial Design Features Report template.

#### **Clause guidance for new buildings**

The tenant should investigate any issues relating to pounding and/or collapse/partial collapse risk from adjacent buildings and likely effects on the building being considered for tenancy.

### **Clause 3.1.3 Seismic restraint of services and non-structural elements**

The landlord must confirm that seismic restraint of services and non-structural elements complies with the following requirements:

- For non-structural elements, seismic restraints must be designed for an SLS1 return period of at least 100 years.
- Fire sprinkler systems: NZS 4541:2020.
- Fire alarm systems: NZS 4512:2021.
- Separation distance between services: NZS 4219:2009 (SLS1 applies as noted above.)

### **Clause 3.1.4 Services crossing seismic gaps and joints**

All mechanical, hydraulic, electronic, and communications services and connections crossing structural seismic gaps or joints must comply with NZS 4219:2009 and be designed to accommodate seismic displacement without failure under at least a 1-in-100-year seismic event.

# Section 4: Architectural

## Objectives and reference documentation

### Section objectives

This section ensures that public sector offices occupy high-quality premises that meet consistent standards, featuring durable, sustainable finishes aligned with tenant fit-out requirements.

### Section reference documentation

The following reference documentation is relevant to this section:

- GPO Design Guidelines which include workplace design principles, branding, wayfinding and signage and universal design:  
<https://www.gpo.govt.nz/delivery/workplace-design>
- AS/NZS 2890.1:2004 Parking Facilities – Off-street car parking and AS/NZS2890.2:2018 Parking Facilities – Off-street commercial vehicle facilities.

## Supplementary evidence required:

- Base building accessibility report (see clause 4.7.5)
- Sanitary design calculations and toilet layout plans (see clause 4.6.1)
- Asbestos survey report and asbestos management plan (see clause 4.9.1)

## General requirements

### Clause 4.1.1 Occupancy densities

New buildings or existing buildings undergoing major refurbishment should be designed to accommodate an average occupancy density of 1 person per 7.4 m<sup>2</sup> NLA across all work floors.

This indicative ratio supports effective planning and compliance with building services, including HVAC and fire systems. It reflects a blended approach for typical government office environments, which include workstations, meeting rooms, collaboration zones, and training spaces.

#### Note:

- Actual design loads may vary depending on furniture layout and intended use.
- Specific densities (e.g., 1 person per 6m<sup>2</sup> for high-density meeting areas or 1 person per 10m<sup>2</sup> for open-plan work floors) should be refined when tenant design is specified in a Developed Design drop.
- Requirements should be confirmed with relevant NZ Building Code provisions, AS/NZS standards, and design professionals.

## Clause 4.1.2 Architectural materials

The landlord should provide a schedule of nominated products and associated warranties for the tenant's review.

Materials, finishes, and systems should be selected based on the following criteria, where applicable:

- Colourfastness.
- Durable: maintaining their appearance over time, resisting fading, staining, or wear in high-use areas.
- Available in a neutral and versatile colour range that supports tenant's choice.
- Dimensionally stable, with changes managed without negative consequence.
- Appropriate fire resistance ratings.
- Materials from sustainable sources (e.g. recycled/upcycled materials).
- Preference given to woollen fibres where practical and appropriate.
- Low volatile organic compounds (VOC) between 0-400ppb.
- Inherently non-conducive of fungal growth.
- Easily maintained and able to be adequately cleaned using environmentally friendly cleaning products.
- Sourced from the waste stream when economical and practical.
- Preference given to materials sourced within New Zealand when economical and practical.
- Where appropriate, use systems that can be easily reconfigured, reused or recycled at end-of-life.
- Preference for materials with recognised environmental certifications (e.g. Declare, Low carbon with an Environmental Product Declaration, GreenTag).
- Vandal-resistant where externally accessible.
- Materials should support accessibility and inclusive design principles (e.g. tactile surfaces, visual contrast).

## Ceilings

### Clause 4.2.1 Ceiling grid systems (non-wet area ceilings)

Ceiling systems should be comprised of a two-way exposed suspended grid system with a powder-coated finish. Ceiling tiles are required to meet the acoustic performance requirements outlined in clause 5.1. The ceiling should be installed at a minimum height of 2700mm above finished floor level (FFL), with a minimum of 2400mm in service areas (e.g. toilet areas), places that are not permanently occupied.

Ceilings should be designed by a suitably registered engineer and supported by Producer Statements PS1 and PS4 upon completion, confirming compliance with structural loading and seismic restraint requirements. The ceiling seismic restraint should be designed to the building's ultimate limit state (ULS) actions and account for the total weight of the ceiling including all supported services (e.g. lighting, HVAC, and sprinklers).

#### Clause guidance

Refer to clause 9.6.2. for above-ceiling space requirements.

## Clause 4.2.2 Wet area ceilings

Ceilings in wet areas should be constructed using moisture-resistant materials to ensure durability, hygiene and compliance with relevant standards. Acceptable finishes include:

- hygiene-rated ceiling tiles designed specifically for wet or humid environments. Where these tiles are used, the design requirements outlined in clause 4.2.1 also apply
- water-resistant plasterboard, finished with plaster and painted using moisture-tolerant coatings.

All materials should be suitable for high-humidity conditions and resistant to mould, mildew, and degradation over time. Moisture-tolerant coatings and finishes should incorporate mould inhibitors, and mould-resistant substrates are strongly recommended to provide long-term protection.

## Clause 4.2.3 Feature ceilings

Feature ceilings in non-wet areas are used to enhance spatial character. These may include exposed structural or service elements, decorative features, or alternative ceiling treatments that depart from ceiling grid systems (refer clause 4.2.1).

Where exposed ceilings are used, acoustic performance should still meet the requirements outlined in clause 5.1. Services such as lighting, HVAC, and sprinklers should be coordinated to ensure visual coherence and compliance with relevant building codes.

Feature ceilings are commonly applied in areas such as public-facing zones (e.g. reception areas, lobbies) and staff breakout zones.

Examples of feature ceiling types include:

- perforated plasterboard with acoustic backing
- timber battens or slatted timber panels
- exposed concrete soffits with acoustic treatment.

All feature ceiling designs should be developed by a suitably registered engineer and supported by Producer Statements PS1 and PS4 on completion. Seismic restraint is designed to building's ultimate limit state (ULS) actions and accounts for the total weight of all suspended or supported elements.

### Clause guidance

Where feature ceilings are used, the minimum ceiling heights in Clause 4.2.1 shall still be met.

Where exposed ceilings are used, the minimum ceiling heights in Clause 4.2.1 shall still be met, measured to the lowest element of the finished exposed services or ceiling treatment.

Refer to clause 9.6.2. for above-ceiling space requirements.

## Flooring

### Clause 4.3.1 Durability

Floor coverings should be robust, durable, and suitable for high-traffic commercial environments.

Materials should be selected to withstand wear, impact, and regular maintenance over time, with appropriate protective detailing at exposed corners and surfaces to prevent damage and ensure longevity.

Examples of flooring types, performance requirements, and acceptable applications are outlined in the following clauses 4.3.2 to 4.3.4.

### **Clause 4.3.2 Carpet tiles (non-wet areas)**

Carpet tiles used in non-wet areas should meet the following requirements:

- Be commercially heavy-duty grade with a minimum 15-year warranty for normal office use.
- Contain 50% or greater wool content, or if nylon be fully recyclable and with recycled content.
- Be approved by the tenant prior to procurement, where possible or prior to installation.
- Where applicable, carpet tiles should also meet the material selection criteria outlined in clause 4.1.2 Architectural materials.
- Achieve the acoustic performance requirements outlined in Clause 5.1.

### **Clause 4.3.3 Flooring (wet areas)**

Floor coverings in wet areas should be constructed using impervious and easily cleaned materials to ensure hygiene, safety, and long-term performance.

Examples of finishes include:

- vinyl or linoleum/marmoleum (where product statement confirms suitability for wet areas)
- ceramic or porcelain tiles (with waterproof membrane as required by the New Zealand Building Code).

All materials should be suitable for high-humidity conditions and resistant to mould, mildew, and degradation over time. Acoustic performance requirements outlined in clause 5.1 should be achieved where applicable.

### **Clause 4.3.4 Feature flooring (non-wet areas)**

Feature flooring is used in non-wet areas to support spatial character. These finishes may depart from standard carpet tile installations and are commonly applied in areas such as public-facing zones (e.g. reception areas, lobbies) and staff breakout zones.

Examples of feature flooring include:

- timber or engineered wood flooring
- broadloom carpet
- decorative vinyl or linoleum
- ceramic or porcelain tiles.

All feature flooring should meet the acoustic performance requirements outlined in clause 5.1 and be suitable for commercial use. Durability and maintenance considerations should align with clause 4.3.1.

## Other elements

### Clause 4.4.1 Cable pathways

Continuous cable pathways should be provided for all visible elements.

- Cable trunking installed along the perimeter of the tenancy at floor level.
- Vertical trunking or conduits to columns.
- Cable pathway colours to be confirmed by tenant.

Refer Section 9 Electrical Services for broader requirements related to cable containment and infrastructure.

#### Clause guidance

Where feasible, the use of a raised floor system can reduce the need for detailed cable pathway planning and provides flexibility for service distribution. Refer section 2.1.1

### Clause 4.4.2 Base build finishes

All exposed interior surfaces should be robust and finished to a minimum standard equivalent to a Level 4 plaster finish, with appropriate durability for tenancy use (e.g. resistance to scuffing and ease of cleaning, where relevant).

Surfaces should be painted in colours and specifications with consideration given to tenant preferences where practicable, and GPO branding, wayfinding, and signage guidance should be used as a reference.

### Clause 4.4.3 Skirtings

Skirtings should be specified according to the location and flooring type, as follows:

- Core walls: skirtings shall be powder-coated aluminium, anodised aluminium, or painted timber. Minimum height 50mm; standard height 100mm.
- Resilient floor areas: skirtings should be coved vinyl, 150mm high, to ensure a hygienic and seamless finish.
- Tiled areas: skirtings should be tiled, matching adjacent wall and floor finishes.

In open-plan office areas: where possible, base build skirtings should be selected to match the tenant's wall and partition detailing, ensuring visual consistency and integration with the fit-out.

All skirting materials should be durable, easy to maintain, and appropriate for the intended use and environment.

## General doors

### Clause 4.5.1 Door specifications

All general base building doors should be of solid core construction and finished with a painted surface suitable for commercial environments. Each door should be fitted with robust and durable hardware appropriate for high-use areas. Wherever possible, doors should have minimum clear opening dimensions of 910mm wide by 2200mm high to support accessibility and facilitate the movement of furniture in and out of rooms. Frame material selection should be either aluminium or timber, depending on security and acoustic requirements. Frame makeup should be coordinated with access control requirements. Where required by the New

Zealand Building Code, doors must include glazed vision panels to support safety and accessibility.

### **Clause 4.5.2 Access control**

All base building doors should be equipped with electronic access control systems unless otherwise agreed with the tenant. The tenant may approve the use of mechanical locking devices for specific doors where access is infrequent and restricted. Any approved mechanical locking systems should be master keyed.

### **Clause 4.5.3 Door hardware**

Doorstops should be installed on all doors that open against a surface, such as a wall, or where no door closer is present to limit the door's travel. Doorstops should be wall-mounted, where practical. Kick plates made of stainless steel, with a minimum height of 300mm, should be affixed to the face of all doors leading to service areas or other high-traffic zones to protect against wear and damage.

## **Toilets, showers, lockers, cleaners' cupboards and kitchenette**

### **Clause 4.6.1 Sanitary design calculations**

Sanitary design occupancy should be calculated on a floor-by-floor basis, using the occupant density specified in clause 4.1.1 as the minimum standard.

To determine the required number of toilet pans, urinals and basins for use in the building, refer to the MBIE's Toilet Calculator tool. The calculator should be used alongside Acceptable Solution G1/AS1 to confirm the appropriate number of fixtures based on building occupancy and use.

For new buildings and major refurbishments, preference should be given to the provision of all-gender (unisex) toilet facilities to support inclusivity, flexibility, and efficient use of space.

### **Clause 4.6.2 General toilets**

- **Flooring:** impervious and easily cleaned, hard-wearing, slip resistant flooring with coved skirting. Floors should be laid to falls with a floor waste. All flooring should meet the durability standards outlined in clause 4.3.1 and be suitable for commercial heavy-duty use.
- **Wall finishes:** wall finishes should be appropriate for wet areas and commercial use. Where walls are adjacent to sanitary fixtures or appliances, finishes should be impervious and easily cleaned to maintain hygiene and durability. Where in-wall cisterns are installed, the wall behind should be tiled and include an accessible panel for maintenance.
- **Hardware:** durable hardware should be provided, including indicator privacy locks, door buffers, coat hooks, and self-closing hinges.
- **Stall dimensions:** recommended 950mm minimum internal stall width.
- **Emergency access:** loose pin hinges should be used on swinging doors to allow removal in case of emergency.

#### Fixtures:

- Commercial-quality WC pans (Min. 4-star WELS), seats, and lids with concealed cisterns and access panel.
- Commercial-quality basins, low-flow taps (5-star WELS), and vanity benches suitable for wet areas.
- Taps may be sensor or lever operated.
- Wall mounted commercial-quality stainless steel paper towel dispenser with stainless steel waste receptacles.
- RCD power outlets for staff use, at a ratio of 1 per 2 basins.

#### **Clause guidance**

The tenant may have standing hygiene supply contracts and may therefore wish to supply and install its own soap dispensers, paper towel bins, towel, and toilet roll holders. Where this is agreed the following shall apply:

- Landlord to coordinate with tenant and install suitable support for fixings within the wall for tenant supplied and installed items.
- For accessible units where the landlord must install fittings earlier to achieve code compliance, the tenant will supply the fittings to the landlord for the landlord to install.

### **Clause 4.6.3 Accessible toilets**

The following guidance also applies to accessible showers, clause 4.6.6:

#### **General design requirements**

- All-gender accessible toilets should be fully enclosed with floor-to-ceiling walls and a maximum 30mm gap at the bottom of the door.
- Avoid door closers where possible, unless required for fire or smoke safety.
- Provide a clear 1500mm wide path from work areas to accessible toilets where practicable.
- Minimise the number of doors required to access the toilet.

#### **Toilet configuration**

- Where two or more accessible toilets are provided, ensure an even split between left-hand (LH) and right-hand (RH) transfer configurations. Signage should indicate LH or RH orientation.
- Preference for accessible toilets to be 1900mm x 2100mm to allow adequate turning space.
- Avoid door thresholds to ensure smooth entry.
- Use cavity slider doors where possible. If impractical, provide a minimum 900mm clear opening positioned for unimpeded access.
- Doors should operate with a lever and include a vacant/occupied indicator.

## Fixtures and fittings

- Use commercial-grade WC pans with structurally sound seats, ergonomic contours and lids.
- Hand basins should have a minimum 675mm clearance underneath. Taps may be sensor or lever operated.
- Include a fixed grab bar and a flip-down rail on the non-wall side of the toilet.

## Additional considerations

- Hoists may be required through the reasonable accommodation process
- Consider installing a panic or nurse call system. If fixed, provide two accessible switches. One should be between 800mm and 1000mm above floor level and the other less than 100mm above floor level

## Clause 4.6.4 Facilities for active and micro-mobility commuters

Buildings should provide suitable facilities to support active and micro-mobility commuting. Provision levels may be scaled to building size and tenant demand and may include secure cycle parking, end-of-trip facilities, and e-bike or scooter charging infrastructure. Detailed requirements for end-of-trip facilities, including showers, lockers, drying areas and charging provision, are set out in clauses 4.6.4 to 4.6.7.

### Clause guidance

- Provision rates for end-of-trip facilities vary across rating tools. For example, Green Star Buildings NZ includes specific cyclist and end-of-trip criteria and may require higher levels of parking, showers, lockers or charging provision.
- E-bike and scooter charging can be delivered initially through future-proofed electrical allowances (such as distribution board space, pathways and spare capacity), avoiding unnecessary over-installation while enabling later expansion as demand increases.
- Use of AS 2890.3 helps ensure cycle parking meets recognised security and usability standards.

## Clause 4.6.5 End of trip facilities

All shower facilities should be secure and located near street access or main entrances. They should be positioned as close as practical to bicycle parking. They should have immediate access to wash hand basins and toilets.

Minimum provision: Based on occupancy density of 1 person per 7.4m<sup>2</sup> of net lettable area (NLA):

Number of regular building occupants	Showers	Lockers
0-12	1 (all-gender and accessible as per Acceptable Solution G1/AS1 Table 2)	1 per 1 bicycle space
13-49	2	1 per 1 bicycle space
50-149	3	1 per 1 bicycle space

150-299	4	1 per 1 bicycle space
300-500	5	1 per 1 bicycle space
Greater than 500	Additional 1 per extra 125 occupants	1 per 1 bicycle space

Table 3: Guidance on minimum shower and locker provision by occupancy.

Showers should be adjacent to a secure external entrance to the building. Ideally, toilets, showers, lockers, changing rooms and drying areas should be located together in the same area.

Where practical, provide no less than 20% all-gender showers. Each shower block should include at least one accessible shower.

Drying areas are required and should be the larger of 10m<sup>2</sup> or 10% of the changing room area (whichever is the larger). These areas should be ventilated and have the ability to be heated and include a floor waste where possible.

#### Clause guidance

Tenant to advise number of bike charging points required in the tenant's requirements brief.

### Clause 4.6.6 General showers

- Shower cubicle finishes should meet the same standard as general toilets as outlined in clause 4.6.2, with the addition of full-height tiles or acrylic wall linings.
- Shower cubicles should be constructed with full-height solid walls extending at least to the edge of the wet zone or shower tray. Beyond the wet zone, drying areas may be formed using proprietary cubicle partitions.
- All-gender showers should be fully enclosed with floor-to-ceiling walls and a maximum 30mm gap at the bottom of the door.
- The wet zone or shower tray should be a minimum of 900mm by 900mm. The drying and changing zone within the cubicle should be a minimum of 1000mm by 1400mm.
- General showers should have glazed hinged doors to the wet zone. Shower curtains are not acceptable.
- Doors should be lockable and include a vacant or occupied indicator. Loose pin hinges should be used to allow emergency access.
- Each cubicle should include a shampoo and soap cradle in the shower area, a fold-down seat and a mirror in the change zone, and two hooks on the back of the door for hanging clothes and towels.
- Allow for a shelf for personal belongings – outside of splash zone.
- Where showers open into larger gendered changing rooms, a full-height privacy wall or screen should be provided to prevent visibility above or below.
- RCD-protected power outlets should be provided for staff use, along with hand dryers within the shower block. One outlet should be provided for every two showers.

### **Clause 4.6.7 Accessible showers**

- Hallways and thoroughfares leading from work areas to accessible showers should have a clear width of 1500mm where practicable.
- Minimise the number of doors required to access the shower.
- Floor drains should be strip drains rather than centre drains.
- Install a flip-down padded seat with the top of the seat positioned between 450mm and 540mm above the finished floor when folded down.
- A flip-up grab rail may also be provided on the non-wall side of the shower.
- Include a recessed ledge or fixed shower caddy positioned at 1000mm above the finished floor.
- Install a call system such as a panic or nurse alarm to contact reception in case of urgent assistance. If fixed in place, provide two switches that are easily accessible.
- Refer to clause 4.6.3 for minimum requirements for doors and accessories, which also apply to accessible showers.
- One switch should be positioned between 800mm and 1000mm above the finished floor and the other less than 100mm above the finished floor.

### **Clause 4.6.8 End of trip lockers**

Lockers should be provided at a rate of one per bicycle space, in accordance with clause 4.6.4.

- Lockers should be constructed from moisture-resistant melamine (MR melamine) or steel.
- Lockers should be raised above the floor with continuous fixed hardwood seating installed below for changing. Additional seating may be provided where needed.
- Locker doors should be lockable. Recommended locking mechanism is swipe card access integrated with the building's access system.
- A range of locker sizes should be provided – three high and two step.
- Accessible lockers should include sliding doors to allow direct approach, a generous toe kick and a key lock.

### **Clause 4.6.9 Cleaners' cupboards**

Cleaners' cupboards should provide:

- a minimum of 1 cleaners' cupboard per floor with minimum dimensions of 900W x 600D x 2100H mm
- stainless steel cleaners sink and floor waste gully
- a minimum 3 no. 900mm long by 400mm deep shelves
- hooks suitable for mops etc
- integrally waterproof sheet flooring (e.g. vinyl) with sealed joints, coved upstand as per clause 4.4.3
- water resistant wall finishes for the sink surrounds

## Clause 4.6.10 Services to kitchenettes

The landlord should:

- identify potential locations for kitchens and kitchenettes within a minimum of 10m from the sanitary risers
- provide capped water supply (hot and cold) to the tenant's kitchenette location
- provide a capped off facility to connect the kitchenette services wastewater drainage to suit the tenant's kitchenette location.
- not use pumping systems without the prior agreement of the tenant.

Also refer Section 12 Plumbing and drainage services.

### Clause guidance

Kitchen joinery will be part of tenant fit-out. Extension of capped services within joinery units will be part of tenant fit-out.

## Entrance lobby, lifts and stairs

### Clause 4.7.1 Entrance lobby location

The main entrance must comply with applicable Protective Security Requirements, as determined by agency assessment, to ensure safety. The entrance should be:

- clearly identifiable
- weather-protected, incorporating a canopy and/or wind lobby
- accessible for all users.

**Note:** The PSR outline the government's expectations for managing personnel, as well as physical information security.

### Clause 4.7.2 Entrance lobby specifications

- Entrance lobby finishes should be durable, slip resistant and hard wearing.
- Where main entrance is tiled, consider a carpeted throughfare which allows for both wayfinding for visual impairment and safe non-slip access for people with disabilities.
- Wind lobby provided with two sets of offset separated sensor-controlled doors and full width recessed matwell. Out of hours access control by proximity card.
- Refer to Section 4.11.1 for signage guidance.

### Clause 4.7.3 Vertical escape routes and stairwells

In multi-tenancy buildings, stairs should be designed to support safe, accessible, and intuitive movement for all users.

- Stair finishes should be high quality, hard-wearing and low maintenance, with a painted finish that complements the tenant fit-out.
- Use visual contrast between surfaces and features in entry and egress areas to support safe navigation for people with visual impairments.

- Finishes should be developed in collaboration with the tenant to ensure consistency with the overall design.

#### **Clause 4.7.4 Accessibility report**

The landlord must provide an accessibility report demonstrating compliance with NZBC and NZS requirements. The report should provide practical recommendations where gaps are identified.

### **Glare control**

#### **Clause 4.8.1A Blinds to curtain wall glazing**

- Internal glare-control roller blinds should be installed to the full extent of curtain wall glazing.
- Blinds should be mounted within a continuous ceiling recess or pelmet.
- Blind boxes should accommodate block-out blinds (supplied and installed at the tenant's cost) Width should align with mullion centres, with blinds spanning across mullions.
- Gaps should only be at mullions and kept to an absolute minimum.
- Colour: mid-range to dark ( $\leq 10\%$  VLT).
- Installation warranty: 12 months; fabric warranty: 5 years.

#### **Clause 4.8.1B Blinds to individual windows**

- Internal glare-control roller blinds should be installed to each window unit.
- Blinds should be mounted within, or above window reveals, aligned to window frame edges.
- Blinds not required to span across mullions unless part of grouped glazing.
- Colour: mid-range to dark ( $\leq 10\%$  VLT).
- Installation warranty: 12 months; fabric warranty: 5 years.

### **Asbestos**

#### **Clause 4.9.1 Asbestos survey report**

For buildings constructed prior to the year 2000, a full asbestos survey report and asbestos management plan must be provided by a suitably qualified person. The report and management plan should be developed with the tenant(s) and address all known materials containing asbestos (including their location), and likelihood of presence within, or externally on, the building.

### **Carparks**

#### **Clause 4.10.1 Carparks**

Where the tenant requires secure car parks, these should be provided within the building envelope or in another building parking facility (e.g. a neighbouring building), provided it is directly adjacent and accessible to the tenancy. In either case, the car parking area should be for the sole use of the tenant (e.g. designated spaces).

Access controlled automatic gates or doors should be provided for vehicle entry. Where appropriate, separate, access-controlled secure gates for pedestrians and cyclists should be provided to ensure safe movement.

For staff safety, particularly after hours, external car parking facilities should incorporate CCTV coverage and adequate lighting to monitor access and deter criminal activity.

Card readers should be located so that drivers don't need to exit their vehicle to gain access. Vehicle egress should be via induction loop.

**Note:** This clause does not cover requirements for external car parking compounds arranged outside the lease. In such cases, security and safety measures (e.g. CCTV and lighting) should still be considered and agreed upon with the car parking provider.

#### **Clause guidance**

Tenant to advise the number of secure carparks required in the tenant's requirements list.

### **Clause 4.10.2 Conversion of carparks**

The tenant may convert designated car parks to motorbike or bicycle parking at its discretion. Unutilised spaces and corners may also be used for motorbike parking, provided this does not impact traffic flow or compromise safety and/or car park accessibility.

## **Signage**

### **Clause 4.11.1 Signage**

- Provision should be made for tenant signage within the building foyer/reception. As a minimum, the landlord is to provide infrastructure (e.g. in-wall bracing) and services (e.g. electrical supply) to support digital directory boards in at least two locations (e.g. main entrance and lift lobby), unless otherwise agreed.
- Floor level signage should be provided in lift lobbies and stairwells of each floor to clearly identify the level.
- Tenant carparks should be clearly identified with signage that meets the following requirements:
  - Content: signage may include the tenant agency name, logo (if permitted), parking designation (e.g. staff, visitor, accessible), and bay numbering.
  - Visibility: signage should be visible in low-light conditions, either through reflective materials or appropriate lighting.
- Landlord must provide statutory signage throughout.

# Section 5: Acoustics

## Objectives and reference documentation

### Section objectives

The requirements outlined in this section aim to ensure that government agencies are located in premises with a good standard of acoustic performance to enable tenants to operate effectively within the workplace.

### Section reference documentation

The following reference documentation is relevant to this section:

- AS/NZS 2107:2016 'Acoustics – Recommended design sound levels and reverberation times for building interiors'

## Supplementary evidence required:

- Sound level test report (see clauses 5.1 to 5.4 inclusive)

**Note:** A report by an independent acoustics consultancy is required to confirm compliance with all stated acoustic requirements. The report should be provided to the tenant upon completion of the measurements (or tenant fit-out works if integrated). The report should contain evidence of acoustic performance achieved as per requirements outlined in clauses 5.1 – 5.4.

## General requirements

### Clause 5.1 Sound insulation

Government buildings should provide a comfortable acoustic environment as follows:

- Minimum Sound Transmission Class (STC) 55 (ASTC 50) between floors.
  - Note: In multi-storey buildings with atria between floors, this rating may not be achievable across open voids. However, the requirement should still be met at the façade edge and any enclosed floor interfaces.
- Minimum STC 45 (ASTC 40) between ancillary spaces (such as stairwells, storage rooms, toilets, etc.) and tenancies.
- Floor/ceiling construction for carpeted floor areas should be rated to a minimum of Impact Insulation Class (IIC) 55 (AIIC 50).
- Floor/ceiling construction for non-carpeted floor areas should be rated to a minimum of IIC 50 (AIIC 45).
- Where STC ratings are not achievable due to existing structural limitations, acoustic upgrades should be implemented to achieve the highest practicable rating, supported by an acoustic report. Exceptions should be approved by the tenant.

## **Clause 5.2 Reverberation control**

Reverberation times in all spaces should be at or below the maximum recommended reverberation time provided in Table 1 of AS/NZS 2107:2016.

## **Clause 5.3 Background noise**

Internal background noise levels in all spaces should be no more than 5 dB above the lower recommended design sound level provided in AS/NZS 2107:2016 - Table 1: Design sound levels and reverberation times for different areas of occupancy in buildings.

## **Clause 5.4 Water pipework**

All waste and storm water pipework in ceiling and wall cavities, directly adjacent to or within tenancy areas, should be acoustically lagged with material which has a mass of  $4\text{kg/m}^2$  or greater.

# Section 6: Fire safety

## Objectives and reference documentation

### Section objectives

The fire safety requirements outlined in this section aim to ensure that government agencies are located in premises with effective fire safety provisions that comply with the New Zealand Building Code and Fire and Emergency New Zealand (FENZ) requirements.

### Section reference documentation

The following reference documentation is relevant to this section:

- NZBC Clauses C1 – C6.
- All relevant Acceptable Solutions and Verification Methods.
- The relevant sections of AS1668.1 The use of ventilation and air conditioning in buildings.  
Fire and smoke control in multi-compartment buildings.
- Fire and Emergency New Zealand (Fire Safety, Evacuation Procedures, and Evacuation Schemes).

### Section guidance

The base building Fire Engineer's Report should include allowances for internal stairs and voids proposed by the landlord or tenant, as outlined in clause 4.7.3 of this document

Where the leased area includes separate consented works affecting fire safety, the landlord is to provide equivalent evidence for those works.

Maximum occupancy levels used in the Fire Engineering Report shall align with clause 4.1.1 of this document, as well as the relevant New Zealand Building Code requirements, noting that in some cases the Building Code may allow for lower occupancy than clause 4.1.1 of this document. The building should not be altered (this includes internal fit-outs), change use, increase occupancy, or exceed approved storage limits without further fire engineering assessment for the means of escape from the building.

## Supplementary evidence required:

### All buildings

- Fire Engineer's Report for the base building. This report does not include a Warrant of Fitness; however, a Compliance Schedule may be attached. See clause 6.1.
- Territorial Authority (TA) documentation confirming approval of fire protection provisions, typically the Code Compliance Certificate (CCC) for the base building. If a CCC is not available, provide alternative evidence such as a Certificate of Acceptance (CoA) or stamped Building Consent documentation from Building Consent Authority (BCA). See clause 6.2.

## General requirements

### Clause 6.1 Fire safety compliance

The building must comply with the New Zealand Building Code Fire Safety clauses C1–C6 as applicable at the time of construction or last major upgrade, including any subsequent amendments applied through consented works.

Provide:

- A copy of the Fire Engineer's Report for the base building, including design assumptions for maximum occupancy numbers in accordance with clause 4.1.1 of this document (or equivalent design documentation if the report is unavailable).
- The current Compliance Schedule detailing specified systems and their inspection and maintenance procedures.

### Clause 6.2 Base building fire protection provisions approval

The building owner must provide evidence of approval from the Territorial Authority (TA) or the Building Consent Authority (BCA) confirming that the base building's fire protection provisions were consented and approved.

Acceptable evidence includes:

- Code Compliance Certificate (preferred),
- Certificate of Acceptance, or
- Stamped Building Consent documentation where CCC or CoA is not available.

### Clause 6.3 Evacuation scheme

The owner of a building must have a procedure in place (evacuation procedure) for the safe, prompt, and efficient evacuation of the building's occupants in the event of a fire emergency requiring evacuation.

If the building is a relevant building under the Fire and Emergency New Zealand Act 2017, the owner should apply to Fire and Emergency New Zealand (FENZ), in accordance with prescribed requirements, for approval of the evacuation scheme provided for the building under section 76.

### Clause 6.4 Fire safety systems

Means of escape must be kept clear and free of obstructions, consistent with Building Code requirements.

Automatic fire alarm and sprinkler systems must be designed and installed in accordance with NZS 4512:2021, NZS 4541:2020, or other relevant standards where these systems are installed to meet Building Code compliance obligations.

The need for these systems should be assessed alongside the building's typology, use, risk profile, fire safety objectives and expected occupancy levels. As a general rule, sprinkler systems are strongly recommended in buildings with high expected occupancy (typically around 350 occupants or more), due to the increased complexity of evacuation and higher life-safety risk.

Fire and smoke separations must be maintained. Closures in fire and/or smoke separations must be self-closing and may be fitted with hold-open devices that activate and release the closure to a closed position upon activation of the fire alarm.

The owner or tenant of the building must install hand-operated firefighting equipment if required by Fire and Emergency New Zealand or by Building Code clause F3 via the building consent process.

In all other cases, providing additional hand-operated firefighting equipment should be considered good practice.

### **Clause 6.5 Commissioning and tuning**

- All fire protection systems, including fire alarms, smoke detection, and sprinkler systems, must be tested and commissioned in accordance with:
  - NZS 4541: Automatic Fire Sprinkler Systems
  - NZS 4512: Fire Detection and Alarm Systems
- Commissioning results should be documented and provided to the tenant prior to Practical Completion.
- Post-occupancy verification checks should be carried out as part of the building tuning process to ensure ongoing compliance and functionality.

# Section 7: Digital design and documentation

## Objectives and reference documentation

### Section objectives

This section aims to ensure the tenant is provided with quality comprehensive documentation for the premises, capable of being modified to incorporate tenant fit-out design requirements. It aims to ensure that building services materials are durable, that services are properly commissioned, and the tenant is provided with user training and information to allow them to operate the premises within the constraints of the lease.

### Section reference documentation

The following reference documentation is relevant to this section:

- CIBSE Commissioning Codes
- ASHRAE Commissioning Guidelines

## Supplementary evidence required:

- Coordinated 3D model (see clause 7.1)
- Building information modelling (BIM) Execution Plan (see clause 7.2)
- As Built documentation (see clause 7.3)

## General requirements

### Clause 7.1 Base building design coordination model (3D/BIM)

A coordinated 3D model should be generated for the building and used to support design documentation and coordination.

**Note:** This model should be provided to the tenant for fit-out design purposes upon execution of the Agreement to Redevelop and Lease. Refer to clause 7.3 for further as-built documentation requirements.

For smaller tenancy fit-outs or refurbishments where a full 3D model is not practicable, the landlord should provide coordinated design documentation sufficient to support tenant fit-out planning and integration.

### Clause 7.2 BIM execution plan

A BIM execution plan should be provided detailing modelling methodology and the proposed BIM level of design (LOD) upon execution of the Agreement to Redevelop and lease.

### **Clause 7.3 As-built documentation**

The landlord should provide full as-built documentation for the completed works, detailing all installed plant and equipment, including layout plans for all floors. Drawings should clearly identify control zones and after-hours zones.

Where tenant frozen layout design requirements are incorporated (through the MCHF process), as-built documentation should reflect all approved MCHF changes. Drawing layout and quality should be consistent with Engineering New Zealand guidelines.

The landlord should provide electronic copies of all operating and maintenance manuals, including instructions and technical details for any equipment operated or managed by the tenant.

The landlord should also provide a Building User Guide summarising key building systems, controls, and operational requirements for day-to-day use.

The landlord should provide relevant design, consent, and compliance documentation to the tenant at Practical Completion.

The landlord should allow for a reasonable handover period following Practical Completion, including on-site training or walkthroughs for tenant representatives covering building systems, controls, after-hours operation, and fault reporting.

# Section 8: Mechanical services

## Objectives and reference documentation

### Section objectives

This section aims to ensure the premises will provide a good standard of mechanical ventilation, heating, and cooling to provide a comfortable working environment that is able to be extended to incorporate the tenant’s reasonable fit-out requirements.

### Section reference documentation

The following reference documentation is relevant to this section and may be used to inform design and performance expectations for ventilation systems:

- NZS 4303 Ventilation for acceptable indoor air quality.
- The relevant sections of AS 1668.2 The use of ventilation and air conditioning in buildings – Ventilation design for indoor-air contaminant control.

These documents provide guidance that may support compliance with NZBC.

Refer also to Section 5 Acoustics and Section 6 General services requirements.

## Supplementary evidence required:

- Commissioning and tuning documentation (see clause 8.4)
- Phase out refrigerant plan (see clause 8.5.2) – if required
- Tenant plant space and pathways plan (see clause 8.5.6)

## Design conditions

### Clause 8.1.1 Outdoor design conditions

#### The requirements that apply to:

#### Buildings <2,000 m<sup>2</sup> (total building NLA)

Either comply with criteria for >2000 m<sup>2</sup> properties or HVAC systems should be designed using project-specific heat load calculations that reflect the building fabric, occupancy, internal gains and ventilation strategy. Where simplified approaches are used, design assumptions should be consistent with the intent of current Building Code Clause H1. The resulting whole-building peak heating and peak cooling loads (expressed in W/m<sup>2</sup>) should be declared, as well as any zones >120 W/m<sup>2</sup>.

#### Buildings >2,000 m<sup>2</sup> (total building NLA)

Outdoor air temperature conditions for HVAC design should be based on the 2.5% daytime design dry bulb temperatures as published by the National Institute of Water and Atmospheric Research (NIWA). This reflects the temperature exceeded only 2.5% of the time during typical daytime hours and provides a balanced approach between system efficiency and performance.

Designers should also include an allowance for potential icing of outdoor coils, particularly in regions with low ambient temperatures. This is especially relevant for heat pump systems, which may experience

	reduced efficiency or operational issues in cold climates.
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#### Clause guidance

Cautionary note - climate change is expected to increase the frequency and intensity of temperature extremes. Designers should consider future-proofing strategies where appropriate, especially for long-term government tenancies.

### Clause 8.1.2 Indoor design conditions

Indoor design conditions for occupied areas should be 22°C +/- 2.0°C with a preferred target of +/- 1.5°C, and:

- 2°C dead band (no heating or cooling in operation)
- internal humidity not directly controlled
- in the case of naturally ventilated or mixed mode solutions, design and performance criteria should be agreed with the tenant or its representatives
- CO<sub>2</sub> levels should be maintained at 800ppm (parts per million).

### Clause 8.1.3 Heat loads

The following minimum heat gains should be allowed when calculating the air conditioning loads:

- **Lighting:** 8 W/m<sup>2</sup> (6W/m<sup>2</sup> Base Building, 2W/m<sup>2</sup> tenant).
- **Office equipment:** 15 W/m<sup>2</sup>.
- **Workspace occupancy:** in accordance with section 4.1.1 of this document.

### Clause 8.1.4 System redundancy

Mechanical systems should be designed with appropriate redundancy to ensure that failure of any single item of plant does not result in the loss of service to more than 25% of the building's net occupied area (NOA).

**Note:** For tenancies occupying less than <1000m<sup>2</sup>, the system should be designed to ensure that failure of any single item of plant does not result in loss of essential services to the tenancy. Redundancy should be considered where practical, particularly for critical systems such as heating, cooling, and ventilation.

#### Clause guidance

It is acknowledged that redundancy levels may vary depending on system type, building configuration, and operational requirements. The engineer should apply reasonable professional judgement in determining the appropriate redundancy strategy and ensure it aligns with the building's risk profile, occupancy type, and criticality of use.

## Outdoor air supply

### Clause 8.2.1 Outdoor air filtration

Outdoor air supply systems for occupied areas should incorporate filtration (equivalent ISO to F7). Pre-filters should also be supplied where recommended by the manufacturer.

### Clause 8.2.2 Outdoor air supply

Outdoor air supply duct work should be connected directly to fan coil unit return air plenums or directly into occupied space.

Outdoor air rates (peak design capacity) should be a minimum of 10% more than the combined open plan per person rate listed in clause 4.1.1, and ventilation per flow rates listed in NZS4303.

#### Clause guidance

It is acknowledged that some workplaces may include high-density areas such as meeting-room-dominant floors, training suites, or event spaces, which may require outdoor air rates higher than typical open-plan office assumptions.

Agencies and tenants are encouraged to identify anticipated high-density areas early in briefing and procurement process, including the likely coincident occupancy rather than theoretical maximum occupancy. Agencies are strongly advised to engage external advisors to help determine what these loads might be, and how they might impact on the procurement process and building design before going to market.

Coincident occupancy assumptions should be documented and coordinated with fire engineering assessments to ensure consistency between ventilation, occupant loading, and life safety design. The final approach shall be agreed with the tenant.

### Clause 8.2.3 CO<sub>2</sub> sensors

Ventilation rate should be modulated via CO<sub>2</sub> sensors located within occupied spaces at 1500mm AFFL (above finished floor level). This control strategy should be applied in areas where occupancy levels are variable or expected to be high (e.g. meeting rooms for 6+ people, training areas, collaboration zones).

The maximum CO<sub>2</sub> sensor control zone size should be 500m<sup>2</sup>.

## HVAC terminal units

### Clause 8.3.1 HVAC zoning

Mechanical services should be suitably zoned to serve areas of similar load. Perimeter and central areas should not be served by the same unit. Where practical, the perimeter zone should be defined as any area within 4m of an external wall.

### Clause 8.3.2 HVAC zone size

HVAC terminal units should be arranged so that the maximum floor area served by any unit does not exceed the following:

- **Perimeter:** 75m<sup>2</sup>
- **Central Units:** 100m<sup>2</sup>

- **Corner:** 50m<sup>2</sup>

### Clause 8.3.3 Draught mitigation

Supplied air diffusers should be sized and co-ordinated with other ceiling services to ensure draught free (less than 0.2 m/s) conditions in the occupied zone up to 1.8m AFFL. Where diffusers are used, they should be swirl type diffusers.

## Extract ventilation

### Clause 8.4.1 General extract

A general extract system to exhaust air at a rate of not less than 65% of the outdoor air supply should be provided for the removal of internal contaminants within the occupied areas.

General exhaust system should have the capacity to accommodate branch spigots on each level to accommodate kitchenettes.

The system should be balanced to ensure the building remains positively pressurised and to mitigate the infiltration of untreated outdoor air.

### Clause 8.4.2 Toilet extracts

Toilet areas should be mechanically ventilated by a dedicated extract system and controlled by sensor, timeclock, or building management system (BMS).

## Air conditioning plant

### Clause 8.5.1 Cooling towers

Cooling towers should be avoided AFARP, and only where the benefits of air-cooled systems cannot be reasonably demonstrated to the tenant for approval.

### Clause 8.5.2 VRF / Split systems

Requirements that apply to:	
<p><b>Buildings &lt;2,000 m<sup>2</sup> (total building NLA)</b></p> <p>VRF or split systems should only be used for new buildings where the refrigerant meets the requirements of clause 1.1.4.</p> <p>The use of VRF or split systems for existing buildings should provide a phase out refrigerant plan to cover the use of non-compliant refrigerants as required in clause 1.1.4.</p>	<p><b>Buildings &gt;2,000 m<sup>2</sup> (total building NLA)</b></p> <p>VRF or split systems should not be used.</p>

### Clause 8.5.3 Connections to fan coil units

Chilled and heating water pipework connections to fan coil units and coils on terminal units should be stainless steel braided hose type connections.

### Clause 8.5.4 Pipework insulation

All chilled water and refrigerant pipework should be insulated using a closed cell foam product, suitably glued and supported to not create a thermal bridge and be weather protected in outdoor locations. Glass fibre or similar materials are not acceptable.

### Clause 8.5.5 Mechanical services power supply

Mechanical services power supplies should be taken from dedicated mechanical services distribution boards and comply with NABERSNZ metering requirements, as per clause 1.1.1.

### Clause 8.5.6 Tenant plant space

Landlord should provide plans showing tenant plant space with a minimum total size of, for example:

- 50m<sup>2</sup> (large building >2000m<sup>2</sup> total building NLA); or
- 20m<sup>2</sup> (small building <2000m<sup>2</sup> total building NLA),
- available on roof including details of pathways.

Rooftop plant space should have easy and secure access for roof top plant complete with safety barriers.

## Automatic control / Building management systems

### Clause 8.6.1 Building management system

Requirements that apply to:	
<b>Buildings &lt;2,000 m<sup>2</sup> (total building NLA)</b> A programmable timeclock control or Building Management System (BMS) must be provided to enable scheduled control of mechanical plant and services.	<b>Buildings &gt;2,000 m<sup>2</sup> (total building NLA)</b> A Building Management System (BMS) must be provided that: <ul style="list-style-type: none"><li>• monitors all major plant; and</li><li>• connects monitored plant to a fault alarm system.</li></ul> The BMS must provide centralised, microprocessor-based digital control and monitoring of air conditioning plant and equipment. An energy management system must be provided in accordance with NABERSNZ, as set out in Clause 1.1.1. A tenant interface and appropriate training must be provided, where the tenant has operational responsibility for building services.

### Clause guidance

#### BMS Capability:

- The BMS should be capable of being monitored and interrogated using no more than a standard internet browser.
- Where the BMS logs plant operating information, it should automatically download data daily and maintain a minimum two-year history recoverable for archiving and analysis (prior to saturation of on-board memory).
- All BMS systems should be open protocol to support interoperability, future upgrades, and tenant integration.
- BMS capability criteria apply to all buildings where a BMS is installed, but not to buildings under 2,000 m<sup>2</sup> that rely solely on programmable timeclock controls.

### Clause 8.6.2 Sensors

Thermostats, temperature sensors and other sensors used for monitoring space conditions should be wall mounted 1500mm AFFL.

Sensor locations should avoid thermal bridging and direct radiant heat.

Return air sensing or ceiling mounted sensors are not recommended.

### Clause 8.6.3 Zoning and after-hours activation

The air conditioning system zoning should be designed such that no single after-hours activation mechanism (e.g. push button) controls a zone greater than 700m<sup>2</sup>.

A push-button mechanism should be provided for after-hours activation of mechanical systems. The button should be:

- located within the relevant activation zone
- accessible and visible near the main entry of the zone or tenancy
- clearly labelled.

Activation can be time-limited (e.g. 2-hour intervals) based on operational requirements.

**Note:** Agreement of after-hour energy charges should be agreed in the Deed of Lease.

### Clause 8.6.4 Modulating control

A fully modulating control over cooling and heating should be provided. On/off control is not recommended.

## Commissioning and tuning

### Clause 8.7.1 Commissioning and tuning

- All HVAC systems should be commissioned in accordance with CIBSE Commissioning Codes (including Code M) or ASHRAE Guideline 1.
- Commissioning results should be documented and provided to the tenant.
- Post-occupancy tuning: monthly monitoring and adjustments, with four quarterly reports prepared over a 12-month period following occupation (minimum 75% of the building being continually occupied).

### **Clause 8.7.2 Permitted building services materials**

- Refrigerant pipework must be hard drawn copper or pre-insulated soft copper “pair-coil” per NZBC H1/VM.
- PVC must only be used for condensate drains; acceptable for sanitary sewer and stormwater drainage.
- Any existing Dux Quest pipework must be removed prior to occupation.
- Polypropylene random copolymer (PPR) pipework should not be used.

# Section 9: Electrical services

## Objectives and reference documentation

### Section objectives

This section aims to ensure the premises will provide a good standard of lighting and power to provide a comfortable and safe operational environment that is able to be extended to incorporate the tenant's reasonable fit-out requirements.

### Section reference documentation

The following documents are provided as supplementary guidance to support best practice in the design and specification of electrical systems. Where no edition is cited, the latest published edition shall apply:

- AS/NZS 3000 Electrical Installations.
- AS/NZS 1680 Interior Lighting.
- AS/NZS 2293 Emergency Lighting and Exit Signs.
- Electrical Safety Regulations.

Refer also to Section 6 General services requirements.

## Artificial lighting

### Clause 9.1.1 Light fittings

All light fittings should be LED and flicker free. Luminaires within open plan office areas should have a maximum glare rating of  $\leq 19$ , in accordance with AS/NZS1680.2.2. LED recessed modules should comply with TM-21, LM79 and LM80. Test reports should be provided for all luminaires for verification including IEC60598 compliance.

All office LED performance data should be presented based on L80 / B10 – 50,000 hours minimum. Luminaires should not exceed three MacAdam steps for colour consistency.

#### Clause guidance

Consideration may be given to Power over Ethernet (PoE) lighting solutions, particularly in new builds or major refurbishments. PoE systems offer simplified installation, centralised control, and enhanced flexibility for future reconfiguration.

### Clause 9.1.2 Lighting design standards

In open-plan office areas, lighting design should comply with the requirements of AS/NZS 1680.2.2:2008 – Interior Lighting for Screen-Based Tasks, including the guidance provided in Appendix E of the Code of Practice.

The lighting uniformity ratio ( $E_{min}/E_{avg}$ ) should be a minimum of 0.7, calculated across the task area, regardless of the standard's default values.

The maximum lighting power density level (LPDL) for open-plan office space should not exceed  $8W/m^2$ . Refer to Table 2 of NZS4243.2 for values to other areas other than open-plan office space.

### **Clause 9.1.3 Lux levels**

The maintained and required average illuminance (lux) light levels at working plane should be as follows:

- Open Plan Offices: 400 lux.
- Corridors: 100 lux.

Landlord should confirm that the areas meet the above light levels, including evidence of lighting levels at start and end of life considering luminaire depreciation. Dimming should be provided to ensure start of life illuminance levels are not excessive.

**Note:** Surface finishes influence not only lighting performance but also contribute to sustainability outcomes and should be considered in the overall design.

Dimming should be provided to ensure start of life illuminance levels are not excessive.

### **Clause 9.1.4 Luminaire colour temperature**

Luminaires should be 4000K colour temperature in open plan office areas with a colour rendering index >80.

### **Clause 9.1.5 Lighting controls**

Luminaires should be fitted with electronic drivers that are compatible with the lighting control system (e.g. DALI / Casambi or equivalent).

Alternatively, luminaires should be capable of supporting the required control functionality, including:

- occupancy sensors providing on/off control
- master switching via contactors
- standalone on/off control where appropriate.

### **Clause 9.1.6 Daylight harvesting**

Where daylight harvesting is provided, luminaires should dim no lower than 25%. The daylight harvesting control should work in conjunction with occupancy sensors, which can trigger both dimming and switching based on whether a space is occupied.

### **Clause 9.1.7 Switching zones**

Light switching zones should not exceed 100m<sup>2</sup>.

### **Clause 9.1.8 Occupancy sensors**

Dual-technology occupancy sensors should be provided in intermittently-used spaces such as toilets, corridors and stairs.

Open plan workspaces should use passive infra-red (PIR) sensors. Only include dual-technology occupancy sensors for areas zoned for after-hours use.

## Clause 9.1.9 Exterior lighting

Exterior lighting should be provided to all trafficable routes to ensure safe access and movement during low-light conditions.

- Controls: Lighting should be controlled via photocell sensors with a time switch override to allow for manual or scheduled adjustments.
- Ingress protection (IP) rating:
  - Minimum IP rating for exterior luminaires should be IP54.
  - The specified IP rating should suit the environmental conditions of the installation location.
  - Submersible luminaires (e.g., those exposed to pooling water or installed below grade) should have a minimum rating of IP67 or IP68.
- Lighting design:
  - Luminaires should be designed to direct light downward, minimizing light spill and sky glow. This reduces night sky pollution and enhances visibility for both people and the surrounding environment.
- Maintenance access:
  - Outdoor luminaires should be designed for easy access and maintenance, with components protected from environmental exposure and readily accessible for replacement or repair.

## Emergency lighting

### Clause 9.2.1 Emergency lighting for servicing

Emergency lighting should be provided adjacent to each tenancy distribution board.

## Power points and wiring

### Clause 9.3.1 Power to workstations

One 20A starter socket on a dedicated circuit should be provided for every six office floor occupants. Final outlet locations should be confirmed during the MCHF design coordination process.

General power outlets for cleaning and maintenance should be provided at intervals not exceeding 15m along wall surfaces in lift lobbies, building cores, and between structural columns.

#### Clause guidance

Where feasible and appropriate for the building design and tenant operational requirements, a raised floor system should be considered to simplify power and data distribution to workstations. Refer to Clause guidance 2.1.1, 2.1.2, and 9.6.1.

### Clause 9.3.2 Cable trays

A dedicated in-ceiling power cable tray should be provided, separated by a minimum of 300mm from any data tray, extending from tenancy distribution boards to within 8m of all final sub-circuit locations.

**Note:** Final outlet locations and sub-circuit requirements should be confirmed during tenant fit-out design coordination.

### **Clause 9.3.3 Distribution board coverage**

The base build provision of the distribution boards should be such that all supported electrical items are within a 30m radius from the supporting distribution board. Plugs and circuits should be arranged such that circuits are common to a specific small area.

### **Clause 9.3.4 Circuitry**

The circuits should be arranged such that the loads are balanced within the building and that no two identical phase feeds supplying the power points are adjacent to each other for each group of power points.

### **Clause 9.3.5 Electric vehicle charging infrastructure**

The landlord should provide infrastructure to support 22kW site EV charging points that comply with WorkSafe regulations within the building, including 32A 3-phase isolators at identified carpark locations. Final charger type and locations should be confirmed during design coordination. Initial installation may use 7.4kW single-phase chargers, with infrastructure designed to support future upgrade to 22kW chargers.

A load management system should be included to manage total electrical demand within the building's capacity, including metering and containment for controls and cabling.

## **Main electrical supply**

### **Clause 9.4.1 Cable size**

Mains and sub-mains supply cables to the tenant areas should be sized to deliver a minimum of:

- 8 W/m<sup>2</sup> for lighting.
- 150W per person (based on occupancy / floor density).

The figures above do not allow for non-typical office loads such as on-floor catering kitchens, large printer rooms, or large communications loads (i.e. server rooms).

Workspace occupancy should be in accordance with clause 4.1.1 of this document.

### **Clause 9.4.2 Embedded network**

If an embedded network is provided this should not place any restrictions on the tenant using its separate preferred electrical supplier. Landlord should provide details on how this will be managed.

### **Clause 9.4.3 Main switchboard form**

The main switchboard (MSB) should be form 3b minimum. The MSB should have IP54 (min) rated if the building is sprinkler protected.

## Floor and area switchboards

### Clause 9.5.1 Switchboard capacity

The switchboard capacities should be calculated after an assessment of the total number of circuits for the fit-out layout. There should be 20% space circuit capacity after this total assessment is made. The switchboards should be lockable or place in a lockable cupboard.

### Clause 9.5.2 Mechanical switchboard

A dedicated switchboard for central mechanical plant should be provided. Any controllers or contactors should be mounted within a separate section of the mechanical services switchboard. The switchboards should be lockable or place in a lockable cupboard.

### Clause 9.5.3 Tenant's distribution board

An electrical distribution board within an electrical cupboard should be provided measuring no less than 1.8m wide by 0.8m deep, dedicated to tenant cabling. Distribution boards should be located at the lesser of each building core or every 1000m<sup>2</sup> of floor area to ensure efficient electrical coverage and servicing.

## Ducting and trunking

### Clause 9.6.1 Cable containment

Continuous cable containment should be provided in the form of either:

- aluminium cable trunking with at least two separated metal cavities and sufficient droppers to suit cable lengths; or
- droppers to every workstation pod.

This should be suitable for CAT6A cabling.

#### Clause guidance

The cable containment strategy should be coordinated with the agreed service distribution approach. Refer to Clause guidance 2.1.1, 2.1.2, and 9.3.1.

### Clause 9.6.2 Above-ceiling space

Above-ceiling service clearance must be coordinated with the structural design, having regard to whether structural beams can accommodate service penetrations.

For the purposes of this specification, service clearance is measured from the underside of the structural beam to the top of the ceiling system, where a ceiling system is provided, or to the intended finished services zone where services are exposed (e.g. excluding the depth of ceiling tiles, grid, hangers, or decorative elements).

Where structural beams cannot be penetrated to accommodate building services:

- A minimum clear services zone of 400 mm should be provided between the underside of the structural beam and the top of the ceiling system, to allow for coordinated reticulation of ductwork, pipework, cable trays, fixings, insulation, seismic restraints, and future fit-out flexibility.

Where structural beams can, or are designed to, accommodate service penetrations:

- A minimum clear services zone of 150 mm should be provided between the underside of the structural beam and the top of the ceiling system, to accommodate smaller building services (such as cable trays, conduits, and minor pipework), including fixings and installation tolerances.

Coordination and confirmation:

- The landlord must confirm the available above-ceiling height, including clearances beneath structural beams, and whether beams can reasonably accommodate service penetrations for fit-out ductwork, pipework, and cabling.
- Where a conflict arises between achieving minimum ceiling heights and maintaining adequate service clearance, service clearance should take priority, subject to tenant acceptance and documented agreement.

## Surge protection system

### Clause 9.7.1 Surge protection

Both primary and secondary surge protection should be provided as part of the main switchboard (primary) and tenancy distribution board (secondary) design.

## Earthing

### Clause 9.8.1 Functional earth

A functional earth on each floor should be provided, complete with bonding from the local distribution board earth bar and terminated on a wall mounted earth bar within every dedicated communication service riser and Comms Room.

## Commissioning and tuning

### Clause 9.9.1 Commissioning and tuning

- Electrical systems should be tested and commissioned per AS/NZS 3000 and CIBSE guidelines.
- Include load testing, lighting luminance levels and control, emergency lighting checks, and uninterrupted power supply (UPS) commissioning where applicable.
- Provide full commissioning reports and as-built drawings to the tenant.

### Clause 9.9.2 Permitted building services materials

- All cabling must comply with AS/NZS standards for fire resistance and performance.
- Use copper conductors; aluminium conductors are not permitted for internal wiring.
- Ensure all switchboards and panels meet IP rating requirements for their location.

# Section 10: Security

## Objectives and reference documentation

### Section objectives

This section aims to ensure the premises are safe and secure yet accessible with security systems able to be readily extended to incorporate the tenant's reasonable fit-out requirements.

### Section reference documentation

The following reference documentation is relevant to this section:

- AS/NZS 62676.4.
- AS/NZS 60839.11.2.
- Protective Security Requirements (PSR).
- AS/NZS 2205.1 – Intruder Alarm System.

Refer also to Section 7 General Services requirements.

## General requirements

### Clause 10.1.1 Security system

The security access control system should be a multi-tenanted server architecture design. Final design and system partition options should be discussed and determined once multi-tenancy profile is confirmed.

#### Clause guidance

The intention is for the system to be compatible with the tenant's universal security system to allow single access card for all tenant sites.

### Clause 10.1.2 Access cards

The landlord must supply access cards to the tenant, with quantities based on the building design occupancy outlined in Clause 4.1.1, plus an allowance of up to 10%. Access cards should include, where supported by the access control system and security model, a photograph of the card holder. Access control data must be made available to the tenant or lead tenant on a regular basis (at least quarterly).

## Access control

Access control must not prohibit a prompt, safe evacuation from the building. In case of fire, locking devices should be easily operated without a key or other security device and allow doors to open in the normal manner.

### Clause 10.2.1 Access control

Landlord should provide access control to the following areas using the base building access control system:

- Car park entry and exit.
- All perimeter entry and egress points.
- All passenger and goods lift cars.
- All utility spaces e.g. main switch room, comms risers, carrier demarcation spaces, storage rooms, rubbish.
- Bike parks cage / room.
- End of trip facilities or other tenant facilities that other building occupants or members of the public could access.
- Stairwell doors.
- Electronic (staff) lockers.
- Drug / medicine cabinets (in some cases).

The tenant may specify other base building areas dependent on site.

### **Clause 10.2.2 Battery backup**

All access system controllers (including electronic door lock power supply units) should be battery backed up for a minimum of 6 hours.

A UPS solution should also be provided as the primary backup power source. Access control panels are typically located in the ICT (Comms) Room, which should include either a base-build or tenant-supplied UPS—free-standing or rack-mounted, depending on kW/hr requirements.

## **CCTV**

### **Clause 10.3.1 CCTV system**

Landlord's CCTV system should feature:

- recording equipment housed in a secure, access-controlled location. The system should be configured to restrict the deletion of footage to authorised personnel only.
- facility for local viewing, playback and export of footage by the tenant. Stored footage able to be exported in its native format, with associated playback software if the native format is proprietary. All footage stored for at least 31 days before automatic overwrite.
- cameras positioned to avoid strongly backlit scenes at all times of day. Where this is not feasible, provide cameras with wide dynamic range capabilities.
- system time synchronized across all devices and set automatically from an accurate source via Network Time Protocol or similar.
- an uninterruptible power supply (UPS) that will supply the system for 30 minutes minimum upon mains power failure.

#### **Clause guidance**

Most modern camera units offer infrared (IR) illumination, enhancing image detail in low-light environments. Additional analytical features may include:

- facial recognition
- licence plate recognition

- occupancy counting.

These capabilities should be considered where appropriate to support operational and security objectives.

### **Clause 10.3.2 CCTV coverage**

The following common base building areas should have CCTV coverage provided by the landlord's system:

- Car park including entry and exit.
- All perimeter entry and egress points.
- All passenger and goods lift cars and publicly accessible or common lobbies.
- Bike parks cage / room.
- All commonly accessible infrastructure and plant areas not already covered by common lobbies.

A Protective Security Requirements (PSR) assessment should be completed to determine tenant-specific requirements. In the absence of agency PSR assessment, the above coverage should be considered the minimum standard.

CCTV coverage of locked utility spaces (e.g. MSB room, comms risers, carrier demarcation spaces) is not typically required unless specified by the tenant or PSR assessment.

## **Cabling**

### **Clause 10.4.1 Cable protection**

All security cabling that passes through or adjacent to public areas should be adequately protected against vandalism and tampering.

- Security cables should not be exposed in public spaces.
- Cabling should be installed within protective enclosures or conduits to ensure physical security and durability.

#### **Clause guidance**

All security cabling external to tenanted areas should be installed within steel conduit or trunking (not plastic) to ensure durability and protection.

A minimum of CAT6A F/UTP cable should be used for PoE camera devices. Final cable lengths should be determined in accordance with the ICT cable manufacturer's specifications.

# Section 11: Communications

## Objectives and reference documentation

### Section objectives

This section aims to ensure the premises can be safely and readily accessed and cabled for tenant's communication services

### Section reference documentation

The following reference documentation is relevant to this section:

- AS/NZS 3084:2017 Telecommunications installations – Telecommunications pathways and spaces for commercial building.
- AS/NZS 11801.1 – Information technology – Generic cabling for customer premises Part 1: General requirements.

Refer also to Section 7 General services requirements.

### Section guidance

Tenants to advise if diverse pathways into the building are required for business continuity.

## Cable pathways

### Clause 11.1 Demarcation

Carrier demarcation frames and building terminations should accommodate multiple and physically separated carrier cable entries or terminations, where required to support tenant resilience or operational needs. A protected/enclosed communications duct or cable pathway should be provided to the building communications entrance facility and demarcation frames and terminations in a communications room for all telco vendors and suppliers within the landlord space.

#### Clause guidance

Provision for multiple or physically separated carrier entries can significantly increase civil, construction, and connection costs, particularly where additional street lead-ins, ducts, or building penetrations are required.

Accordingly, the extent of carrier diversity and physical separation should be proportionate to the tenant's operational needs, resilience requirements, and the likelihood of requiring multiple carriers over the tenancy lifecycle.

Resilience may be achieved through either the use of multiple telecommunications carriers or through multiple, physically separated terminations from a single carrier (for example, to support large or multi-floor tenancies). The appropriate approach should reflect the scale and criticality of the tenancy and the level of risk being managed.

Where full carrier diversity or physically separated external entries are not immediately required, designs should, as a minimum, provide:

- a clearly defined and accessible building entry point;
- sufficient space for future demarcation frames; and

- protected pathways that allow additional carrier connections or terminations to be added later without major disruption.

Any intended approach to carrier diversity or termination strategy should be discussed and agreed between the tenant and landlord during the early design or procurement stages.

### **Clause 11.2 Cable reticulation**

A protected/enclosed cable reticulation path should be provided from telecommunications demarcation point to tenant communications room for data network connections. Cable pathways should allow the retrofit of tenant cables.

### **Clause 11.3 Cable pathway provisions**

Rising communications cabling pathway should include the following features:

- Physically secured against damage or tampering when traversing common areas.
- Riser and riser cupboard to each floor dedicated to communications services.
- Riser cupboard should be lockable by master key or access control.
- Cable ladder supported.
- All cables clearly labelled with purpose to enable quick identification, and owner where tenant shared risers.
- Where dedicated risers and cupboards, for communication services are not possible, there should be sufficient allowances for:
  - cable density
  - services segregation
  - physical security (e.g. within lockable trunking).
- Communications cabling should not be installed within a wet riser.
- Vertical cable routes should include a minimum of primary and secondary risers.
- Where these pass through a fire separation, the penetration should be suitably and appropriately fire stopped.

### **Clause 11.4 Communications cable tray**

An on-floor dedicated in-ceiling communications cable tray should be installed in accordance with manufacturers recommendations to allow loose-lay installation of cable, separated by 300mm minimum from power tray from floor distributors (FDs) to within 8m of all final locations.

### **Clause 11.5 Communication cabling within a raised floor system**

Communications cabling within raised floor systems should be installed in accordance with the manufacturer's recommendations to support loose-lay installation. Cabling should maintain a minimum separation of 600mm from electrical cabling, measured from floor distribution (FDs) to within 4m of all final outlet locations. Where crossover with electrical cabling is unavoidable, it should occur at 90 degrees to minimise electromagnetic interference. Refer clause 2.1.1, 2.1.2, 9.3.1 and 9.6.1.

## Clause 11.6 Mobile phone coverage

On tenant occupation, full cellular phone coverage (the ability to make and receive calls) should be available throughout the tenancy. A mobile signal booster should be added where necessary to achieve this requirement.

## Clause 11.7 Communication rooms

The communication room should be a dedicated room for technology equipment and services for the network throughout the tenant space.

Key requirements include:

- a dedicated space: solely used for ICT and other low voltage specialist equipment, with no other services passing through
- restricted access: featuring security measures like electronic access control or at least a physical locking mechanism
- ceiling height: a minimum of 2400mm is recommended, with 3000mm preferred for overhead cable containment
- floor loading: taking into account the weight of equipment and future needs
- an anti-static floor finish
- door access: a minimum 900W x 2000H mm door is recommended, with outward swinging doors. Double doors (1800W x 2200H mm) may be needed for larger equipment.
- no windows: Exterior windows are generally not recommended for security and temperature control reasons
- rack clearance: maintain adequate space around racks (1000mm front, 800mm rear, and at least 800-1000mm on one side for access)
- environmental control: ensure adequate ventilation and potentially air conditioning to prevent equipment overheating

## Commissioning and tuning

### Clause 11.8.1 Commissioning and tuning

- All data cabling must be tested in accordance with relevant TIA/EIA standards and specific supplier warranty requirements for performance and certification.
- Wireless access points must be commissioned and coverage verified against the design intent.
- Network diagrams and test results must be provided to the tenant.

### Clause 11.8.2 Permitted building services materials

- Data networks must use Cat6 or higher-rated cabling.
- Fibre optic cabling must be used for backbone connections, with copper cabling for horizontal runs.
- All terminations should be housed in lockable racks or cabinets and clearly labelled.

# Section 12: Lifts

## Objectives and reference documentation

### Section objectives

This section aims to ensure that tenants and goods can efficiently and safely move vertically through the premises.

### Section reference documentation

The following reference documentation is relevant to this section:

- NZS 4332.

## Supplementary evidence required for:

- Lift performance modelling (see clause 12.1)

## Passenger and goods lifts

### Clause 12.1 Passenger lifts

Passenger lift cars should have a minimum capacity of 1000kg and a minimum floor area of 2.3m<sup>2</sup>.

The passenger lift system should meet the following performance criteria:

- Average lift interval of 25 seconds during peak for conventional (traditional) controlled lift.  
*Note, conventional (traditional) lift control system where passengers press up/down call buttons on each floor and then select their destination inside the lift car.*
- Average waiting time of 25 seconds during peak for destination-controlled lift.  
*Note, destination-controlled lift is an advanced lift control system where passengers enter their destination floor before boarding (usually via a keypad or touchscreen in the lobby).*
- Handling capacity exceeds 14% of building capacity during a 5-minute period.

Lift performance should be demonstrated by modelling using third party, internationally recognised, non-lift vendor specific modelling software. All parameters used in the modelling, such as acceleration, door times, and flight times, should form part of the lift performance specification and should be demonstrated as part of the building commissioning process.

For modelling lift performance, the following parameters should be used:

- Building occupancy as per clause 4.1.1.
- Passenger arrival rate of 14% of the building occupancy per 5 minutes period.
- Lift call fill factor of no greater than 80%.

## **Clause 12.2 Lift door size, car height and protection**

Lift doors should be a minimum of 2200H x 1000W mm with a minimum internal car height of 2300mm.

Studs for lift protection blankets should be provided within the lift car.

## **Clause 12.3 Lift finishes and features**

Passenger lift doors should be brushed stainless steel. Internal car finishes should be durable, good quality, matching entrance lobby floor finishes. Stainless steel or similar walls and ceilings. There should be a visual contrast between doors, walls and ceiling to assist visually impaired users. Lifts should include floor annunciation, tactile indicators, accessible controls, and handrail to provide a high level of accessibility.

Where the building has an escape height of 10m or more, the lift should be fitted with firefighting lift control.

## **Clause 12.4 Goods lift**

Where required to service a loading dock, a goods lift should be provided servicing all floors, with the following requirements at minimum:

- 2500kg capacity with a minimum floor area of 5.0m<sup>2</sup>.
- Internal car height of 2800mm minimum.
- Supplied complete with construction protection blankets and studs.
- Doors stainless steel 2400mm high and 1400mm wide.
- Direct adjacency to loading bay at ground/basement level.

# Section 13: Plumbing and drainage services

## Objectives and reference documentation

### Section objectives

This section aims to ensure the premises will be serviced with a safe, measurable, and accessible plumbing and drainage solution to align with Section 1 Sustainability criteria which can be extended to incorporate the tenant's reasonable fit-out requirements.

### Section reference documentation

The following reference documentation is relevant to this section:

- G12 Water supplies.
- G13 Foul Water.
- E1 External Moisture.
- AS/NZS 3500.1 Water services.
- AS/NZS 3500.2 Sanitary plumbing and drainage.
- AS/NZS 3500.3 Stormwater drainage.
- AS/NZ S3500.4 Heated water services.

Refer also to Section 1 Sustainability, Section 4 Architectural, Section 5 Acoustics and Section 7 General Services.

## Water supplies and drainage

### Clause 13.1 General provision

Valved, capped and metered cold water supply, and drainage within the services risers should be provided to enable a kitchenette to be installed within 10m of the core riser (refer clause 4.6.9). From 1 May 2026 all copper alloy should be installed within tenancy or fit-out to meet the new lead free and dezincification requirements as per G12/AS2.

### Clause 13.2 Water supply

Water to sanitary fixtures and sanitary appliances should be provided at flow rates which are sufficient for the correct functioning of those fixtures and appliances under normal use conditions.

Backflow prevention should be provided as required to suit the hazard category of the installation in accordance with G12/AS1 or G12/AS3.

Hot water should be reticulated at a temperature to prevent legionella growth within the system.

Water pressure to fixtures should be limited to 500kPa max and minimum on floor pressure of 350kPa. Minimum fixture pressure should be confirmed by assessing actual minimum pressures of selected fixtures and equipment.

### **Clause 13.3 Drainage systems**

All drainage systems should be gravity systems.

A floor waste to a kitchenette should be provided at a location on each floor specified by the Tenant complete with trap priming device where a waste fixture cannot be connected.

Pump systems should not be used without the agreement of the tenant.

### **Clause 13.4 Temperature control**

A thermostatic mixing valve should be provided for all hot water heaters to control hot water temperature.

Washbasins and showers should be provided with tempered water at no more than 50°C. Where elderly or children are likely to use fixtures tempered water should be no more than 45°C.

Valves should be accessible for maintenance.

### **Clause 13.5 Metered water supply**

A BMS-monitored metered water supply should be provided. Refer NABERSNZ metering requirements in Clause 1.1.1.

### **Clause 13.6 Isolating valves**

Floor by floor water isolating valves should be installed.

All internal tapware should be fitted with local service valves to groups of fittings (e.g. per toilet, shower or kitchen area).

### **Clause 13.7 Stormwater**

All stormwater downpipes should be designed to meet RCP 8.5, 1 in 100 events for internal gutters and 1 in 50 events for external eave gutters.

All external strip drains should discharge to independent sump and silt trap prior to joining to downpipe drains.

Where onsite stormwater is collected for re-use, the tank should be provided with first flush diversion before entering the tank. Tank should be designed to allow for maintenance access and clean-out.

## **Commissioning and tuning**

### **Clause 13.8.1 Commissioning and tuning**

- Pressure testing and flow verification must be undertaken for all water and drainage systems.
- Hot water systems must be commissioned to confirm temperature compliance and energy efficiency.
- Commissioning certificates and water quality test results must be provided to the tenant.

### **Clause 13.8.2 Permitted building services materials**

- Copper or approved PEX must be used for potable water systems.

- PVC must be used for sanitary sewer and stormwater drainage.
- Any legacy Dux Quest pipework must be removed prior to occupation.
- PPR pipework must not be used.

# Section 14: GPO Workplace design guidelines

The GPO Workplace Design Guidelines are mainly intended for tenant fit-outs. If the fit-out is being provided by the landlord (e.g. turnkey), the landlord should still refer to these guidelines using the link below.

For traditional builds, whether integrated or not, the guidelines provide a helpful reference for typical tenant requirements.

<https://www.gpo.govt.nz/delivery/workplace-design>

# Appendix A: Green Star alignment schedule

This appendix outlines the minimum requirements for Green Star approach under Clause 1.1.2, and guidance for landlords (and associated projects, where these terms are used interchangeably in this appendix) intending on pursuing an NZGBC Green Star Buildings v1.0 4-Star Certification (in lieu of most BPS Sustainability Criteria outlined in Section 1). Also refer Clause 1.1.2.

## BPS sustainability clauses not achievable via Green Star

The following Clauses should still be demonstrated in addition to Green Star (if pursued):

- **1.1.1 NABERSNZ Energy Rating** – cannot be demonstrated via any Green Star Credit.
- **1.2.1 Onsite Renewables** – cannot be demonstrated via Green Star Credit 23 *Energy Source*.
- **1.2.3 Refrigerants** - cannot be demonstrated via Green Star Credit 24 *Other Carbon Emissions*.

## Green Star application guidance

Additional guidance for developments intended for Green Star certification:

- Projects are not required to register for Green Star prior to Agreement to Lease, or Development Agreement signing. Any risks associated with non-registration are held solely by the landlord. Registration with the NZGBC should be prior to the end of Developed Design or as agreed with the tenant. Registration costs should be held by the landlord.
- Landlord should appoint a GSAP as part of the Project team.
- Projects should achieve a Designed Assessment, for those credits outlined in Table 4 as a minimum, but ideally for the entire assessment. This must be submitted no later than 3-months of construction works starting.
- Projects are strongly encouraged to target a minimum of **19 points** (indicating a 4-point buffer above the minimum required for 4-star). Projects may target more or fewer points but are solely responsible for final achievement of the certification.
- Projects should provide the tenant with a Green Star points pathway table at each major design stage and during construction. The table should show the targeted achievement level for all credits, including leadership credits. It should also include a simple confidence rating (e.g. traffic-light) to flag higher-risk or challenging credits for discussion.
- Any credits requiring compliance via the tenant fit-out works (namely SHF, MCHF, or soft furnishings) should be made clear to the tenant via a project-specific Fit-out Guidance document. Final as-built certification should not be contingent on these credits being achieved.
- Any lease terms requiring Green compliance or agreement with the Tenant should be made clear prior to Agreement to Lease, or Development Agreement signing.

- Projects should provide the tenant with the relevant Designed Assessment and As-Built credit submissions for those credits outlined in Table 4 below for review. This may be completed once the credit is achieved.
- The minimum required achievement criteria listed in Table 4 may only be modified by mutual agreement of tenant and landlord only.
- As-built certification should be achieved within six months of practical completion.

## Green Star pathway and achievement criteria

Project teams can develop and pursue their own Green Star Credit pathways (in agreement from the tenant), except for Green Star Credits outlined below.

The corresponding BPS clauses and their corresponding Green Star Credits are presented below. Where the Green Star credit is achieved, the BPS clause is deemed to be achieved. Minor exceptions and variations are presented in the note column, which should be achieved if a Green Star certification is pursued.

Green Star credit	Corresponding BPS clause	Achievement criteria	Notes
Credit 3: Verification and Handover	8.7.1	Minimum expectations only	Nil
Credit 4: Responsible Resource Management	1.4.2	Minimum expectations only	For Buildings >2,000m <sup>2</sup> : Performance Pathway is preferred. Operational Waste Management Plan must consider the tenant and their likely waste requirements.
Credit 10: Clean Air	1.3.1	Minimum expectations only	Nil
Credit 11: Light Quality	1.3.4 9.1.1 9.1.3	Minimum expectations + Credit achievement 1pt (Daylight Pathway)	<ul style="list-style-type: none"> <li>Daylighting Pathway must be met.</li> <li>Clause 9.1.1 and Clause 9.1.3 should still be achieved where more onerous than Green Star Credit 11</li> </ul>
Credit 12: Acoustic Comfort	5.1-5.3	Optional: Minimum expectations + Credit achievement 2pts	Note the credit 12 may be targeted at the landlord's discretion, however in all cases the more onerous acoustic performance level from the Green Star credit 12 or the corresponding BPS clause should be taken.
Credit 13: Exposure to Toxins	4.1.2	Minimum expectations only	Note that Green Star also requires Engineered Wood Products criteria to be achieved.
Credit 14: Thermal Comfort and Amenity Spaces	1.3.2 1.3.3	Minimum expectations only	For Buildings >2,000m <sup>2</sup> : Performance Pathway is required. For Buildings <2,000m <sup>2</sup> : Either pathway may be taken if desired.

Green Star credit	Corresponding BPS clause	Achievement criteria	Notes
Credit 16: Climate Change Resilience	1.4.3	Refer notes	All projects: BPS Clause 1.4.3 risk of flooding assessment, plus: For Buildings >2,000m2: Credit achievement (1pt) For Buildings <2,000m2: Minimum expectations met only
Credit 21: Upfront Carbon Emissions	1.2.4	Minimum expectations only	Project teams are advised that the minimum expectations upfront carbon reduction changes over time. This criterion applies to all building types regardless of scale.
Credit 25: Water Use	1.3.5	Minimum expectations only	Credit 25 <i>Sanitary Fixtures and Appliance Efficiency</i> pathway is acceptable for all project scales.
Credit 27: Movement and Place	1.3.6	Minimum expectations only	Note the most onerous requirement between BPS Clauses 4.6.4, 4.6.5, and Credit 27 should be taken for the number of bike parking, lockers, and showers (each). Project teams should calculate and demonstrate to the tenant.

Table 4: Green Star alignment with BPS clauses

Notes:

- All minimum expectation credits must be achieved in full for a 4-star rating. They are not all listed here.
- If not listed in the above table, all BPS clauses are still relevant and must be demonstrated to the tenant separately as agreed.

## Appendix B: Acronyms and units

Acronym	In full
AEP	Annual exceedance probability
AFFL	Above finished floor level
AIIC	Apparent impact insulation class
ARI	Annual recurrence interval
AS/NZS	Joint Australia/New Zealand Standard
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASTC	Apparent sound transmission class
BIM	Building information modelling
BMS	Building management system
BPS	Building performance specification
BWoF	Building warrant of fitness
CAT	Category (e.g. CAT6 cabling)
CCC	Code compliance certificate
CCTV	Closed-circuit television
CIBSE	Chartered Institution of Building Services Engineers
CLO	Clothing insulation
CPEng	Chartered professional engineer
DFR	Design features report
DHW	Domestic hot water
DOL	Deed of lease
DSA	Detailed seismic assessment
ESNZ	Earth Sciences New Zealand
EV	Electric vehicle
F/UTP	Foiled / Unshielded Twisted Pair
FD	Floor distributors
FF	Finished floor
FFL	Finished floor level
FLC	Floor levelling compound
GFA	Gross floor area

GPO	Government Property Office
GWP	Global warming potential
HFCs	Hydrofluorocarbons
HIRDS	High intensity rainfall design system
HSWA	The Health and Safety at Work Act 2015
HV	High voltage (electrical)
HVAC	Heating, ventilation and air conditioning
HVRF	Hybrid variable refrigerant flow
ICT	Information and communication technology
IIC	Impact insulation class
IL	Importance levels
IP	Ingress protection
ENZ	Engineering New Zealand (formerly IPENZ)
ISO	International Organisation for Standardisation
LED	Light-emitting diode
LH	Left hand
LOD	Level of design
LPDL	Lighting power density level
MBIE	Ministry of Business, Innovation and Employment
MCHF	Main contractor hard fit-out
MR	Moisture resistant
MSB	Main switchboard
NABERSNZ	National Australian Built Environment Rating System New Zealand
NBS	New building standard
NIWA	National Institute of Water and Atmospheric Research
NLA	Net lettable area
NOA	Net occupied area
NUA	Net usable area
NZBC	New Zealand Building Code
ODP	Ozone depletion potential
PCBU	Person conducting a business or undertaking
PIR	Passive infra-red
PMV	Predicted Mean Vote

PoE	Power over ethernet
PPR	Polypropylene random copolymer
PS	Producer statements
PSR	Protective security requirements
PV	Photovoltaic
PVC	Polyvinyl chloride
R-value	Thermal resistance
RCD	Residual current device
RCP	Representative concentration pathways
RFP	Request for proposal
RH	Right hand
ROI	Request for information
SESOC	Structural Engineering Society New Zealand
SHF	Sub-divisional hard fit-out
SLS	Serviceability state limits
SSL	Structural slab level
SSP	Shared socio-economic pathway
STC	Sound transmission class
TMY	Typical Meteorological Year
ULS	Ultimate limit state
UPS	Uninterrupted power supply
VAC	Volts alternating current
VLM	Vertical land movement
VLT	Visible light transmission
VRF	Variable refrigerant flow
VOC	Volatile organic compound
WC	Water closet
WELS	Water efficiency labelling scheme

Unit	In full
°C	degrees Celsius
A	Amp
E <sub>min</sub> /E <sub>avg</sub>	Lighting uniformity ratio
K	Kelvin
kg	kilogram
kg/m <sup>2</sup>	kilogram per square metre
kPa	kilopascal
kW	kilowatt
lux	lumens per square meter
m	metres
m/s	metres per second
m <sup>2</sup>	square metres
mm	millimetres
ppb	parts per billion
ppm	parts per million
R	R-value
W	watt
W/m <sup>2</sup>	watts per square metre