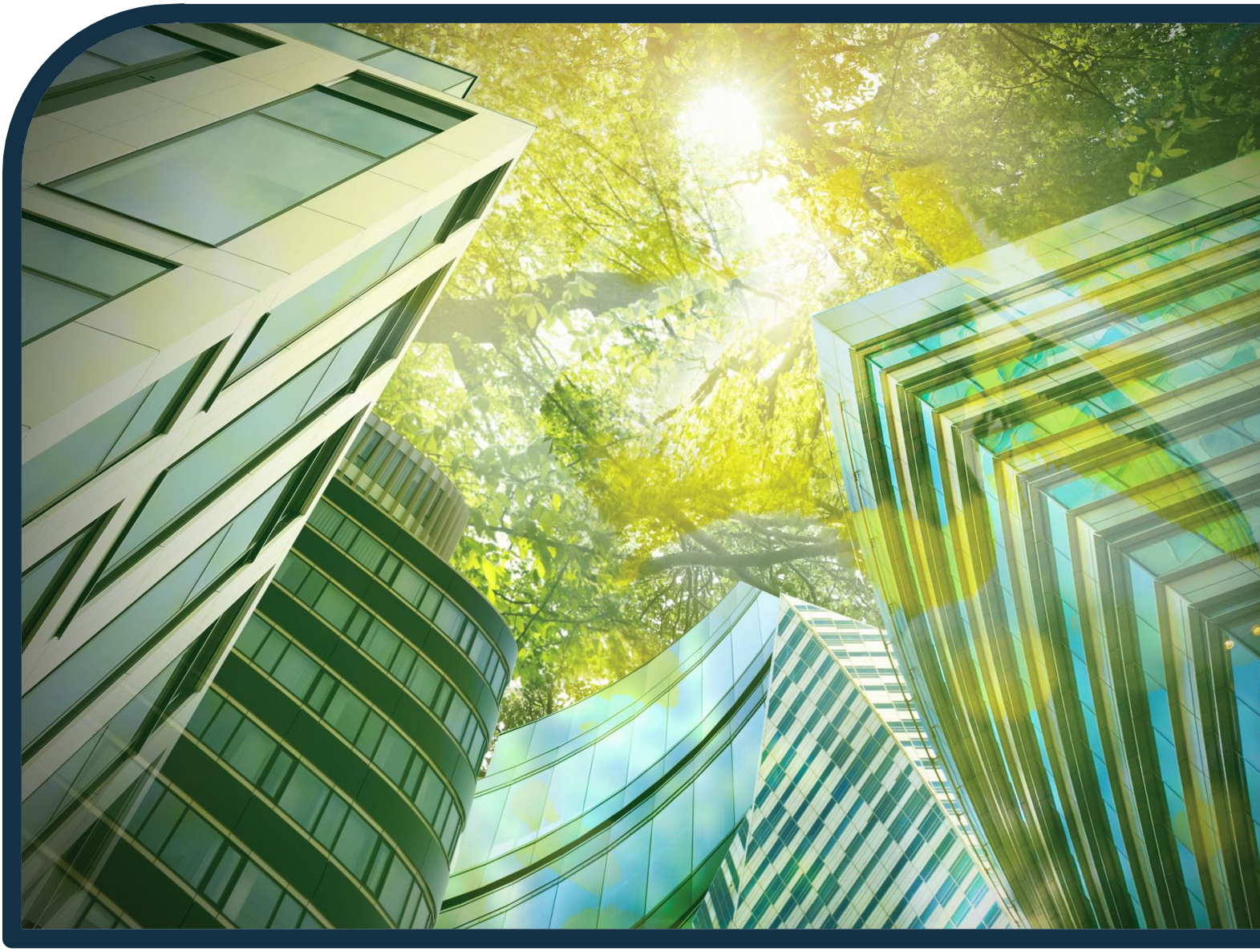

ENVIRONMENTAL PERFORMANCE TENANT FITOUT GUIDE

Retail

Chatswood Chase
Vicinity

NDY
A TETRA TECH COMPANY

CONFIDENTIAL

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1 INTRODUCTION

1.1 OVERVIEW

This Tenant Fitout Guide has been prepared to allow tenants of the Chatswood Chase development to understand and implement the environmental performance envisaged and targeted by the design team for the project. It outlines initiatives that the base building has undertaken and explains their benefits in Section 3.0.

- There are several mandatory initiatives that the tenant must implement within the fitout for the base building to achieve its targeted environmental objectives (refer to Section 3.0).
- In addition, there are recommended initiatives that the tenant may implement within the fitout in order to successfully benefit from the building's environmental, social and economic initiatives, including, but not limited to, occupant experience and connection to the built environment.

1.2 BUILDING DESCRIPTION

The Chatswood Chase project is a Major Shopping Complex on the corner of Archer Street and Victoria Avenue, Chatswood NSW which comprises of approximately 300m^2 of commercial office space and approximately 59,919 m^2 of retail space (GLAR).

Chatswood Chase shopping centre consists of five levels of retail space with over 130 specialty stores and major tenants including David Jones, Coles and Kmart. The centre is accompanied by multi-level carparking and multiple public transport connections.

1.3 ENVIRONMENTAL OBJECTIVES

The project has been designed to meet the following ESD objectives for its retail component:

- Minimum 4.5 Star National Australian Built Environment Rating System (NABERS) Energy for Shopping Centre Rating
- Minimum 3.0 Star NABERS Whole Building Water Rating in operation
- Minimum 4 Star Green Star Design & As Built v1.3 rating

The following energy and water targets are to be met in order to achieve the targeted ratings:

TABLE 1: CHATSWOOD CHASE ENVIRONMENTAL ENERGY AND WATER TARGETS.

PROJECT NAME ENVIRONMENTAL TARGETS		
Energy	4.5 Star NABERS Energy for Shopping Centre Rating	Maximum **326.3 MJ/m2** per annum
Water	3.0 Star NABERS Water Whole Building Rating	Maximum **1.043 kL/m2** per annum

1.4 TENANCY DESIGN

The following table outlines the base building provision for tenancy design as noted in the Contract documentation:

TABLE 2: RETAIL BUILDING SERVICES DESIGN PROVISIONS.

BASE BUILDING TENANCY PROVISION	
Hours of operation	Monday: 9:30am-5:30pm Tuesday: 9:30am-5:30pm Wednesday: 9:30am-5:30pm Thursday: 9:30am-9:00pm Friday: 9:30am-5:30pm Saturday: 9:00am-5:00pm

BASE BUILDING TENANCY PROVISION		
	Sunday: 10:00am-5:00pm Mechanical HVAC system is anticipated to operate 1 hour before and 1 hour after centre trading hours.	
Occupancy	Specialty Shop	3.5m2/pp for small shops of <100 m2) 5m2/pp (for shops above 100m2)
	Mini-Majors	5m2/pp
	Gyms	3.5m2/pp
	Food Shops (with cooking)	2m2/pp
Retail outdoor air supply	10 L/s/person	
Internal heat gains (Lighting & Power)	Specialty Shops	47W/m²
	Mini – Majors	100W/m²
	Gyms	100W/m²
	Food Shops (with cooking)	100 W/m2
	Malls	12 W/m2
Mechanical ventilation	Kitchen Exhaust	Nominally 2,500L/s per food tenancy with cooking (nominated as per leasing agreement)
	Toilet Exhaust	10L/s/m2

1.4.1 TENANCY WATER ALLOWANCES

The tenant should refer to these items to ensure that tenancy water usage does not exceed the base building design allowance, which will ensure that building water consumption targets are not jeopardised.

The tenant fitout design must:

- Ensure any water-using fixtures, fittings or equipment are regularly maintained.
- Have any proposed fitout works assessed and approved by the Landlord and Landlords consultants to ensure these do not adversely impact the building's water consumption.
- Encourage occupants to reduce water consumption through education and behaviour change.
- Tenant appliances and fixtures to meet the water efficiency WELL rating requirements outlined in Table 8 in Section 5.5.

1.4.2 TENANCY FITOUT DESIGN REQUIREMENTS

Section 3 outlines Green Star requirements for the tenancy. The tenant is to ensure that fitout design have incorporated the mandatory sustainability initiatives, which will ensure that the base building Green Star targets are not jeopardised.

1.5 USE OF THIS GUIDE

The intent of this guide is to provide an overview of the base building environmental initiatives. The tenant is ultimately held to meeting the specific requirements of their lease terms, outlined in the project brief and leasing agreement. This guide holds fitout design requirements, recommendations and considerations for designers and tenants.

2 BASE BUILDING ENERGY & ENVIRONMENTAL STRATEGY

A number of energy efficiency features have been incorporated into the design of the base building including:

2.1 ELECTRICAL

- All base building areas are provided with LED lighting.
- Specialised lighting is being provided in key public areas within the shopping centre, common lift lobbies, amenities, and external landscape.
- High efficiency luminaires have been provided in all areas.
- All luminaires have high frequency, high power factor electronic control gear.
- Lighting controls have been provided for the development to minimise energy consumption in compliance with the Section J7D4 of the NCC2022.
- Illuminance Levels in all base building areas are designed in compliance with the AS1680.
- Lighting and Power are separately metred in compliance with Section J9D3 of the NCC2022.
- Artificial lighting is designed so the maximum illumination density is compliant with the Section J7D3 of the NCC2022.
- Extensive commissioning works are to be undertaken to streamline operation.
- A program of ongoing building tuning is to be implemented to ensure correct operation of electrical systems.

2.2 MECHANICAL (COOLING, VENTILATION)

- Low temperature variable air volume (VAV) system delivering maximum comfort and efficiency while allowing central plant to operate at optimised design conditions.
- All fans are provided with Variable Speed Drives (VSDs). This enables building operators to tune the speed of systems and air movement without wasting energy.
- Economy cycle operation are enabled for AHUs.
- Energy efficient plant selections (i.e., chiller, pumps, fans, etc.)
- Control of plant via a detailed Building Management Control System (BMCS).
- Extensive Commissioning works are to be undertaken to streamline operation.
- A program of ongoing Building Tuning is to be implemented to ensure correct operation of mechanical system.

2.3 HYDRAULICS

- Selection of high efficiency domestic hot water plant, namely an electric heat pump serving the end of trip facilities. All other hot water heating is through instantaneous hot water units which are also electric.
- Rainwater reuse for irrigation and flushing of WCs.
- Distribution pumps powered with VSDs.
- Fixture flow rates designed to meet 3.0 Star NABERS water rating.
- Control and monitoring by BMCS.

2.4 METERING

- Sub-metering of lighting, power and major electrical loads throughout the building.
- Sub-metering of tenant lighting and power.
- Monitoring of energy consumption via the BMCS.
- Metering of all major water uses is incorporated into and monitored via the BMCS.
- The metering system is used to monitor water usage. It includes a fault reporting system in major hydraulic/wet fire plant and equipment, which connects to the BMS.

3 TENANCY GUIDELINES

The following table highlights the Green Star and initiatives incorporated by the base building to maximize the amenity and environmental performance of the building.

The following initiatives are either **Mandatory** (bolded) or recommended to be incorporated into the tenancy fitout by the design team in order to take advantage of the economic and indoor environment benefits associated with these strategies. In addition, it is highly recommended that the fitouts pursue Green Star Interiors certification.

TABLE 3: GREEN STAR LESSEE GUIDELINES AND REQUIREMENTS.

BASE BUILDING GREEN STAR INITIATIVE	TENANCY INITIATIVE
2.1 Services and Maintainability Review **(Mandatory)**	**This is a mandatory requirement the fitout design must comply with.** A services and maintainability review is to be carried out for the Base Building by the ICA to highlight systems commissionability, controllability, maintainability, operability and safety. It is recommended that a services & maintainability review is conducted relating specifically to the fitout, to ensure the fitout systems are designed efficiently and interface appropriately with base building systems. **This will be achieved as per 30C supplementary Tenancy Fitout Review.**
2.2 Building Commissioning	The base building is to be commissioned thoroughly to ensure all building services operate as designed. It is recommended that commissioning activities be performed for all fitout systems to ensure all services are operating to their full potential and as designed.
2.3 Building Systems Tuning	All base building services are to be tuned after practical completion with quarterly adjustments over a 12 month period. It is recommended that a similar tuning process be established for the fitout works.
4.1 Building Operations and Maintenance Information	Comprehensive Base building operations and maintenance (O&M) information is to be compiled and made available to the facilities management team for all systems. It is recommended that fitout O&M information is also compiled and provided to all relevant parties to ensure system information is available for optimised performance.
4.2 Building User Information	Building user information is to be developed with information of all nominated systems. It is recommended that fitout user information is compiled and provided to all relevant parties to ensure system information is available.
5.1 Environmental Building Performance **(Mandatory)**	**This is a mandatory requirement the fitout design must comply with.** A memorandum of understanding or equivalent is required to be established between the Landlord and Lessee to set, measure and report on the following building performance metrics; • Greenhouse Gas Emissions • Potable Water Usage The base building metering and monitoring system will monitor energy and water usage throughout the building. The Lessee must ensure the fitout design complies with base building metering and monitoring strategy. **Optional Reporting** If desired, Lessee may, under their own initiative, monitor and report on other NABERS or Green Star Interiors metrics such as Operational Waste and / or Indoor Environment Quality (IEQ).
5.2 End of Life	**This is a mandatory requirement the fitout design must comply with.**

BASE BUILDING GREEN STAR INITIATIVE	TENANCY INITIATIVE
Waste Performance (Mandatory)	A memorandum of understanding (MOU) or equivalent is required to be established between the Landlord and Lessee to demonstrate demolition waste reduction at the end of life of an interior fitout. A 'Make Good' clause must be included in the tenancy lease.
6.0 Metering	A monitoring system is to be provided for the base building that is capable of capturing and processing the data produced by the installed energy and water meters. It is required that any fitout with a major energy use (100kW or greater) and major water use (using more than 10% of the buildings water demand) are also linked to the building monitoring system.
6.1 Monitoring Systems	A monitoring system is to be provided for the base building that is capable of capturing and processing the data produced by the installed energy and water meters. It is required that any fitout with a major energy use (100kW or greater) and major water use (using more than 10% of the buildings water demand) are also linked to the building monitoring system.
7.0 Construction Environmental Management	A comprehensive Environmental Management Plan (EMP) will be developed for the base building. It is recommended that the fitout contractor develop their own project specific EMP and implement a formalised environmental management system.
8.0 Operational Waste (Mandatory)	**This is a mandatory requirement the fitout design must comply with.** An Operational Waste Management Plan (OWMP) has been developed for the building as a whole. Waste is to be segregated into general waste, commingled recyclables, soft plastics, paper products (non-cardboard) and organics. Where a tenant has a specific waste management requirement this must be communicated to Vicinity (e.g. medical waste, electronic, etc). Tenants are to adhere to the Vicinity OWMP requirements, particularly for waste stream separation.
9.3 Exhaust or Elimination of Pollutants (Mandatory)	**This is a mandatory requirement the fitout design must comply with.** Ensure pollutants from kitchens are exhausted to the exterior of the building using the dedicated tenant exhaust riser. These spaces must be enclosed and separated from adjacent spaces, with an area opening no greater than 2.5sqm. This applies to commercial or industrial kitchens where the power input is greater than 0.5kW/sqm. Kitchenettes and tea points where food is reheated only do not need to comply with this credit. There is no provision for printer room exhaust. All printing and photocopying equipment are procured and maintained to minimize the emission of particulate matter in accordance with ECMA-328, RAL-UZ 171 or GGPS-003.
10.1 Internal Noise Levels	Base building services and constructions have been designed so that internal ambient noise levels within the fitout are designed to be no more than 5dB(A) above the "satisfactory" sound levels provided in Table 1 of AS/NZS 2107:2000. It is recommended that any tenancy fitout items (supplementary mechanical systems) are designed with consideration of internal noise levels. This will improve tenant satisfaction, wellbeing and productivity.
11.0 Minimum Lighting Comfort (Mandatory)	**This is a mandatory requirement the fitout design must comply with.** Ensure all tenancy lighting provided in the fitout meet the following requirements (excluding decorative fixtures): • Flicker Free Lighting: Tenancy lighting is required to be installed with High frequency electronic ballasts; or Electronic drivers that feature 12-bit or greater resolution for all Light-emitting Diode (LED) lighting, in order to reduce flickering lights and enhance workplace amenity for tenants

BASE BUILDING GREEN STAR INITIATIVE	TENANCY INITIATIVE
	• Colour Rendering Index (CRI): CRI of all lamps in regularly occupied spaces not less than 80 (in all internal and external applications).
11.1 General Illuminance (Mandatory)	**This is a mandatory requirement the fitout design must comply with.** The maintained Illuminance values must achieve a uniformity of no less than that specified in Table 3.2 of AS 1680.1:2006, with an assumed standard maintenance factor of 0.8.
13.1 Paints, Adhesives, Sealants and Carpets (Mandatory)	**This is a mandatory requirement the fitout design must comply with.** All paints, adhesives, sealants, carpets and flooring installed as part of base building are to comply with the maximum VOC limits as outlined in the Materials and Emission section below (Tables 3 and 4). Any liquid finishes installed in the fitout must not exceed the limits. The base building has made all endeavours to keep paints below 5g/litre TVOC in all internally applied areas except doors and door frames.
13.2 Engineered Wood Products (Mandatory)	**This is a mandatory requirement the fitout design must comply with.** All engineered wood products installed as part of the base building comply with the formaldehyde emissions levels as outlined in Table 6 of Section 5.3 Formaldehyde Emissions Limit Values for Engineered Wood Products. In lieu of detailed laboratory testing data being available for all engineered wood in the fitout, selecting products that are labelled "Super E0", "E0" or "E1" are required to ensure the environmental quality of the fitout.
14.1 Thermal Comfort	Base building mechanical systems have been designed to achieve thermal comfort for occupants. It is suggested that any additional tenant HVAC installed is designed with occupant thermal comfort in mind and appropriate analysis is undertaken. Creating workspaces with high levels of thermal comfort can improve health and wellbeing as well as productivity.
15 Greenhouse Gas Emissions	**This requirement must be considered with respect to the building's NABERS requirements.** The Base building is designed to achieve a 4.5 Star NABERS Energy Shopping Centre rating, through the use of efficient mechanical systems, lighting controls and efficient services. It is recommended the fitout teams consider energy efficiency when selecting mechanical plant equipment, lighting fixtures and any energy consuming equipment and ensure that it does not impact the base building's ability to meet its environmental targets. The retail tenancy lighting must conform with the following requirements; • Energy efficient lighting is to be installed so that 10% less lighting energy is required for the fitout when referenced against NCC 2022. The actual installed aggregate illumination power is not more than 90% of the maximum illumination power based on the maximum allowable lighting power densities defined in NCC 2022 Table J6.2a • Automated lighting control systems for schedule afterhours turn off.
18 Potable Water	**This requirement must be considered with respect to the building's NABERS requirements.** The building is designed to achieve a 3.0 Star in NABERS Water, using water-efficient fixtures and fittings and recycled water is used for toilet flushing to reduce potable water consumption. Should dishwashers or any other water consuming appliances be installed to the fitout, water efficiency must be considered when making selections to ensure that it does not impact the base building's ability to achieve its 3.0 NABERS water rating. This will reduce the water consumption of the building, which has environmental and economic benefits.

BASE BUILDING GREEN STAR INITIATIVE	TENANCY INITIATIVE
	Any dishwashers installed must have a WELS 5 Star Rating or higher. See Section 5, Table 7 and Table 8 for further ratings for fixtures and appliances.
20.2 Timber	Common uses of timber in the base building are certified by a forest certification scheme or are from a reused source. In order to reduce the environmental impact of sourcing timber, it is recommended that any timber items installed as part of the fitout are also certified by a forest certification scheme. See the GBCA Recognised Product Certification Schemes section below.
20.3 Permanent Formwork, Pipes, Flooring, Blinds and Cables	All blinds, pipes, flooring and cables in the Base Building either do not contain PVC or meet the Best Practice Guidelines for PVC in the built environment. In order to reduce the environmental impact of the manufacturing of PVC, it is recommended that any PVC items installed as part of the fitout also meet the Best Practice Guidelines.
21.1 Product Transparency and Sustainability	Materials used in the Base Building meet transparency and sustainability requirements such as: reused products, recycled content products, environmental product declarations, third party certification; and stewardship programs. It is recommended that tenant fitout team consider the environmental sustainability of any fitout product used. Tenant fitout teams are encouraged to use certified carpet, plasterboard, joinery, partitions and furniture.
22B Reduction of Construction and Demolition Waste	90% of the waste generated during construction and demolition is to be diverted from landfill. The fitout works are encouraged to also meet a 90% waste diversion from landfill target in order to improve the overall project waste generation rate.
30 C Supplementary Tenancy Fitout Review (Mandatory)	**This is a mandatory requirement the fitout design must comply with.** Tenants must submit tenancy fitout systems for a supplementary review by Vicinity. This is to allow a services and maintainability review of tenancy systems to be undertaken, and ensure systems are properly integrated with the base building systems.

4 EXPANSION / RE-FIT CONSIDERATIONS

In the event of expansion or refurbishment of Chatswood Chase, the following should be considered:

4.1 MANAGEMENT

- Engagement of a Green Star Accredited Professional to advise on potential environmentally sustainable practices, produces and procedures.
- Commissioning should occur after any refurbishment works in order to ensure the building is operating at its maximum efficiency within refurbished areas.
- This Tenant Fitout Guide should be updated to account for any changes in the building due to expansion / refurbishment.
- Divert 90% of all waste generated as part of the demolition and make good works through recycling or other means (e.g. reuse, donating to charity, on-site segregation, off-site segregation).
- At the end of demolition works, engage a suitably qualified waste auditor to confirm the amount of waste diverted from landfill.

4.2 INDOOR ENVIRONMENT QUALITY

- Fresh air supply is maximized to provide high quality indoor environments.
- Engage an acoustic consultant to design refurbished areas to meet acoustic requirements for the building.
- Provide localised lighting control where feasible.
- All paints, adhesives, sealants and carpets applied in demolition and make good works must meet stipulated VOC limits as outlined in the latest Green Star Interiors tool at time of works.
- All engineered wood products used in demolition and make good works must meet stipulated formaldehyde limits as outlined in the latest Green Star Interiors tool at time of works.
- Avoid using products with lead and mercury.

4.3 ENERGY

- Any refurbishment should consider impacts on energy efficiency.
- All services should be fitted with separate sub meters and linked to the BMCS.
- Lighting is designed to meet existing lighting levels and high efficiency luminaires are to be used.
- Renewable energy options should be considered.

4.4 WATER

- Water Rating (WELS) should be considered when selecting fixture and fittings. See Table 8, Section 5.5.
- Water meters should be installed on any significant water uses and linked to the BMCS.

4.5 MATERIALS

- Recycling and general waste storage areas should be updated to account for potential increases in building population.
- Reuse of existing materials, structure and façade elements should be considered during the design of the refurbishment in order to reduce greenhouse gas emissions associated with product manufacture.
- Materials with a high recycled content and /or environmental certification should be specified ahead of other alternatives.

4.6 EMISSIONS

- Refrigerants and insulation products with a low or zero ozone depletion potential should be investigated for use within the expansion or refurbishment.
- Stormwater leaving the site should meet the stormwater pollution reduction targets for the building even after refurbishment works.

5 MATERIALS & EMISSIONS

5.1 MAXIMUM TVOC LIMITS FOR PAINTS, ADHESIVES AND SEALANTS

TABLE 4: MAXIMUM TVOC LIMITS FOR PAINTS, ADHESIVES AND SEALANTS

PRODUCT CATEGORY MAX TVOC CONTENT	(G/L OF READY-TO-USE PRODUCT)
General purpose adhesives	50
Interior wall and ceiling paint, all sheen levels	5
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100

5.2 CARPET TEST STANDARDS AND TVOC EMISSIONS LIMITS

TABLE 5: CARPET TEST STANDARDS AND TVOC EMISSIONS LIMITS

TEST PROTOCOL	LIMIT
ASTM D5116 - Total VOC limit	0.5mg/m2 per hour
ASTM D5116 - 4-PC (4-Phenylcyclohexene)	0.05mg/m2 per hour
ISO 16000 / EN 13419 - TVOC at three days	0.5mg/m2 per hour
ISO 10580 / ISO/TC 219 (Document N238)	0.5mg/m2 per hour

5.3 FORMALDEHYDE EMISSION LIMIT VALUES FOR ENGINEERED WOOD PRODUCTS

TABLE 6: FORMALDEHYDE EMISSION LIMIT VALUES FOR ENGINEERED WOOD PRODUCTS

TEST PROTOCOL	LIMIT
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	≤1mg/L
AS/NZS 1859.1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5 mg/L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1mg/L
AS/NZS 4357.4 - Laminated Veneer Lumber (LVL)	≤1mg/L
Japanese Agricultural Standard MAFF Notification No.701 Appendix Clause 3 (11) - LVL	≤1mg/L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	≤1mg/L
JIS A 5905:2003 - MDF, with use of testing procedure JIS A 1460	≤1mg/L

TEST PROTOCOL	LIMIT
JIS A1901 (not applicable to Plywood, applicable to high pressure laminates and compact laminates)	≤0.1mg/m²hr
ASTM D5116 (applicable to high pressure laminates and compact laminates)	≤0.1mg/m²hr
ISO 16000 part 9, 10 and 11 (also known as EN 13419), applicable to high pressure laminates and compact laminates	≤0.1mg/m²hr (at 3 days)
ASTM D6007	≤0.12mg/m³
ASTM E1333	≤0.12mg/m³
EN 717-1 (also known as DIN EN 717-1)	≤0.12mg/m³
EN 717-2 (also known as DIN EN 717-2)	≤3.5mg/m²hr

5.4 RECOMMENDED APPLIANCE ENERGY RATINGS

TABLE 7: REQUIRED APPLIANCE ENERGY RATINGS.

APLIANCE	RATING
Fridge	5 Star
Freezer	5 Star
Combined Fridge / Freezer	5 Star
Dishwasher	4 Star
Computer Monitors	8 Star
Televisions	7 Star

See https://calculator.energyrating.gov.au/Default.aspx for products and guidance.

5.5 REQUIRED FIXTURE AND APPLIANCE WELS RATINGS

TABLE 8: REQUIRED FIXTURE AND APPLIANCE WELS (WATER) RATINGS.

APLIANCE	RATING
Taps	5 Star
Urinals	5 Star
Toilet	4 Star
Showers	3 Star
Clothes Washing Machines	4 Star
Dishwashers	5 Star

5.6 GBCA RECOGNISED PRODUCT CERTIFICATION SCHEMES

The following schemes and relevant standards have been assessed as compliant with the requirements of the GBCA's Assessment Framework for Product Certification Schemes. It is recommended that fitout materials and furniture be chosen with these schemes in mind.

- Carpet Institute of Australia Limited, Environmental Certification Scheme (ECS) v1.2
  - ECS Level 2 - Level C recognition
  - ECS Level 3 - Level B recognition
  - ECS Level 4 (two options) - Level A recognition.
- Global GreenTag's GreenRate v4.0
  - GreenTag GreenRate Level C - Level C recognition
  - GreenTag GreenRate Level B - Level B recognition
  - GreenTag GreenRate Level A - Level A recognition.
- Australasian Furnishing Research and Development Institute, Sustainability Standard for Commercial Furniture - AFRDI Standard 150
  - AFRDI Green Tick Level C/Silver - Level B recognition
  - AFRDI Green Tick Level B/Gold - Level A recognition
  - AFRDI Green Tick Level A/Platinum - Level A recognition.
- Good Environmental Choice Australia (GECA)
  - GECA BIMv2.0-2018 – 'Building Insulation Materials – Level A recognition
  - GECA CCCPv1.0i-2017 – 'Cement, Concrete and Concrete Products'- Level A recognition
  - GECASSPv1.0-2019 - 'Steel and Steel Products' - Level A recognition
  - GECARPv1.0i-2015 - 'Recycled Products' - Level A recognition
  - GECASPSv2.0-2020 - 'Sustainable Products and Services (Life Cycle Assessment)' - Level A recognition
  - GECAFFFMv3.0-2017 'Furniture, Fittings, Foam & Mattresses' - Level A recognition
  - GECAFFFMv3.1-2017 'Furniture, Fittings, Foam & Mattresses' - Level A recognition
  - GECAFFv3.1-2017 'Furniture and Fittings' -Level B recognition
  - GECA FFM v3.0-2017 - 'Furniture Fittings and Mattresses' -Level A recognition
  - GECA FF v3.0-2017- 'Furniture and Fittings'- Level B recognition
  - GECA 28-2010 v2.1 - 'Furniture Fittings and Foam'- Level A recognition
  - GECA 50-2011 v2 - 'Carpets'- Level A recognition
  - GECA 25-2011 v2 - 'Floor Coverings'- Level A recognition
  - GECA 04-2011 v2 - 'Panel Boards'- Level A recognition
  - GECA 40-2008 v1.1 - 'Hard Surfacing'- Level A recognition
  - GECA 28-2006 Modified 2010 v2 - 'Furniture and Fittings'- Level B recognition.
- The Institute for Market Transformation to Sustainability (MTS) Sustainable Materials Rating Technology standard version 4.0 - SMaRT 4.0
  - SMaRT 4.0 Sustainable Platinum - Level A recognition
  - SMaRT 4.0 Sustainable Gold - Level A recognition.

See the GBCA website www.gbca.org.au for more information.

6 REFERENCES AND FURTHER INFORMATION

The following links provide useful reference material:

- Green Building Council of Australia
  www.gbca.org.au
- City of Willoughby waste and recycling Information
  https://www.willoughby.nsw.gov.au/Residents/Waste-and-recycling
- National Built Environment Rating Scheme
  www.nabers.com.au
- EcoSpecifier
  www.ecospecifier.com.au
- Transport NSW
  www.transportnsw.info
- Energy Rating
  www.energyrating.gov.au
- Energy Efficiency database for equipment and appliances
  https://reg.energyrating.gov.au/comparator/product_types/
- Water Efficiency Labelling and Standards (WELS) scheme
  www.waterrating.gov.au
- Department of Environment and Energy
  www.environment.gov.au
- Bicycle Network
  www.bicyclenetwork.com.au

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