City Plan Services P/L
ABN 30 075 223 353

30 January 2019

Our Ref: 183855

Mr John Weil
john@civplan.com.au

Dear John,

BUILDING CODE OF AUSTRALIA ASSESSMENT
25 MARTIN ROAD BADGERYS CREEK

We have assessed the architectural plans for the construction of a new Resource Recovery Facility and ancillary structures at the above-mentioned premises for compliance with the Building Code of Australia (BCA) 2016 Amendment 1. The following main BCA issues associated with the proposed building work have been identified.

1. INTRODUCTION

1.1. General

The premises subject to this report is located at 25 Martin Road, Badgerys Creek within the local government area of Liverpool City Council. The proposed development comprises a new Resource Recovery Facility with ancillary structures. The main structure is considered to be a large isolated building for the purposes of the BCA.

1.2. Description

The building is a Class 8, large isolated building and is required to comply with C2.3 of the BCA. The requirements imposed by this clause vary depending on the floor area and volume of the building.

1.3. Purpose of the Report

This report has been prepared, on behalf of Mulgoa Excavations to establish compliance to the Building Code of Australia and relevant Acts and Regulations of the development application documentation for the proposed works.

1.4. Report Basis

This report is based on:

a. Architectural plans prepared by Castleage Drafting Service as identified in the attached Appendix 1
b. The Building Code of Australia 2016 Amendment 1, inclusive of NSW variations (See Note 1).
c. Environmental Planning and Assessment Act 1979.
d. Environmental Planning and Assessment Regulation 2000.

Notes (1) Building Code of Australia (BCA) 2016 Amendment 1 was adopted in NSW on 12 March 2018. The amendment of the BCA in force at the date of lodgement of the Construction Certificate is the version called up by Clause 98 of the Environmental Planning & Assessment Regulation 2000 for the purpose of the building design. Therefore, comments may be subject to changes to comply with updated versions of the Building Code of Australia.

1.5. Exclusions

This report does not consider the following except where specifically mentioned:

a. Structural design.
b. The Disability Discrimination Act 1992 (access for people with disabilities has been assessed in accordance with Part D3 of the BCA, however additional measures may be required to be provided subject to the Disability Discrimination Act 1992)
c. Disability (Access to Premises – Building) Standards 2010.

2. BUILDING DESCRIPTION

2.1. The building classification relevant to the proposed use is Class 8.

2.2. The Building has an effective height of less than 12m.

2.3. The building has a rise in storeys of 1.

2.4. The proposed fire safety schedule is provided in Appendix 2.

3. STRUCTURAL PROVISIONS

3.1. Full structural details and design certification will be required with the construction documentation to indicate compliance with Part B1 of the BCA - Structural Provisions.

4. FIRE RESISTANCE

4.1. The proposed building has a floor area of approximately 12,000 m², a volume of approximately 163,000 m3 and a ceiling height in excess of 12m. The building is considered to be a large isolated building for the purposes of the BCA.

4.2. Perimeter building access is to be provided in accordance with C2.4(b) and must **-**

i. be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and
ii. must have a minimum unobstructed width of 6m, with no part of its furthest boundary more than 18m from the building and in no part of the 6m width be built upon or used for any purpose other than vehicular or pedestrian movement; and
iii. must provide reasonable pedestrian access from the vehicular access to the building; and
iv. must have a load bearing capacity and unobstructed height to permit the operation and passage of fire brigade vehicles; and

v. must be wholly within the allotment except that a public road complying with the above may serve as the vehicular access or part thereof.

4.3. Fire Hazard properties of any material or assembly used in the building are required to comply with C1.10 and Specification C1.10 of the BCA.

4.4. The proposed building has a floor area of approximately 12,000 m², a volume of approximately 163,000 m3 **and** a ceiling height in excess of 12m.

5. ACCESS AND EGRESS

5.1. No point on the floor must be more than 20m to an exit, or a point from which travel in different directions to exits is available, in which case the maximum distance to one of those exits should not be more than 40m. Extended travels distance to a point of choice of up to 30m and a maximum distance of 50m to one exit can be performance justified (alternative fire engineered solution).

5.2. The distance between alternative exits should not exceed 60m and not closer than 9m.

5.3. Installations in exits and paths of travel are to comply with BCA D2.7.

5.4. Door hardware is to comply with BCA D2.21.

6. ACCESS FOR PEOPLE WITH DISABILITIES

6.1. Access for people with a disability is not considered to be appropriate as the facility would pose as a health risk for people with a disability. If office facilities are to be provided, access for people with a disability would be required to this area only.

7. SERVICES AND EQUIPMENT

The following services are required to be installed to service the building;

7.1. The building is protected throughout with a sprinkler system in accordance with Specification E1.5**.**

7.2. The building is required to be served by a hydrant system in accordance with BCA Clause E1.3 and AS2419.1-2005. External hydrants may be utilized if they provide the required coverage and flows/pressures and comply with AS2419.1-2005.

7.3. Fire hose reels are required in accordance with BCA E1.4 & AS 2441.

7.4. Portable fire extinguishers must be provided in accordance with BCA clause E1.6 and AS2444-2001.

7.5. The building is to be provided with an automatic smoke exhaust system in accordance with Specification E2.2b

7.6. Emergency lighting must be provided in accordance with BCA Part E4 & AS 2293.1-2005.

7.7. Exit signs are required in accordance with BCA Part E4 and & AS 2293.1-2005

7.8. The building is to be provided with an automatic smoke exhaust system in accordance with Specification E2.2b.

8. HEALTH & AMENITY

8.1. Stormwater drainage must comply with AS/NZS 3500.3-2015

8.2. Glazed assemblies are to comply with BCA F1.13 & AS 2047.

8.3. Sanitary facilities are to be provided in accordance with BCA Part F2.

8.4. Where sanitary compartment doors swing into the sanitary compartment room and the hinge side of the door is less than 1.2 m from the WC pan, lift off hinges are required to the door. Refer to BCA F2.5(b).

8.5. Artificial lighting is required to be provided in accordance with BCA Clause F4.4 and AS/NZS 1680.0- 2009.

9. CONCLUSION

The design as proposed is capable of complying with the Building Code of Australia and will be subject to construction documentation that will provide appropriate details to demonstrate compliance. This report has identified areas of non-compliance with the deemed-to-satisfy provisions and indicates the design intent to modify the design or demonstrate compliance with the Performance Requirements of the BCA. Whilst the performance-based solutions are to be design developed, it is my view that the solutions will not impact on the current design.

Should you need to discuss any issues, please do not hesitate to contact the undersigned on 8270-3500.

Yours Faithfully / Sincerely,

Scott Reid
Senor Building Regulations Consultant

On behalf of City Plan Services

APPENDIX 1

Assessed plans prepared by Castleage Drafting Service

Plan Title	Drawing No	Revision	Date
SITE PLAN	1	B	07.01.16

APPENDIX 2

Fire Safety Schedule

The following table is a list of the required fire safety measures for this development. This list is to be treated as a guide as to what the buildings are considered to require

NO	FIRE SAFETY MEASURES (AS SET OUT UNDER CLAUSE 166 OF EP&A ACT REGULATIONS)	STANDARD OF PERFORMANCE	EXISTING	PROPOSED
1.	Automatic fire suppression system	BCA 2016 E1.5, Spec E1.5 & AS 2118.1-1999$_{\text{Amdt 1}}$ AS 2118.6-2012	NO	YES
	Emergency lighting	BCA 2016 Clause E4.2, E4.3, E4.4 & AS 2293.1 – 2005Amdt 1 & 2	NO	YES
	Exit signs	BCA 2016 E4.5, E4.6, E4.8 Spec E4.8 & AS 2293.1-2005Amdt 1 & 2	NO	YES
	Fire Hose reel systems	BCA 2016 E1.4 & AS 2441-2005Amdt 1	NO	YES
	Fire hydrant systems	BCA 2016 E1.3 & AS 2419.1-2005Amdt 1	NO	YES
	Mechanical air handling system	BCA 2016 E2.2(b) - , Spec E2.2(a) & AS/NZS 1668.1-2015 Class 7a (carpark building mechanical ventilation systems) BCA 2016 E2.2, Table E2.2(a) and Clause 5.5 of AS/NZS 1668.1-2015 & AS 1668.2Amdt 1 Class 9b (automatic shutdown) NSW Table E2.2(a)	NO	YES
	Perimeter vehicular access for emergency vehicles	BCA 2016 Clause C2.4(b)	NO	YES
	Portable fire extinguishers	BCA 2016 E1.6 & AS 2444-2001	NO	YES
	Warning and operational signs	EPA Regulation 2000 (Clause 183), D2.23 (signs on exit doors) E3.3 (lifts), C3.6 sliding doors	NO	YES