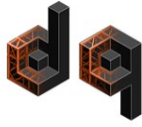


1/11/2022



Unit 2, 15 Percy Street
Auburn NSW 2144

ATTENTION: Ian Wood

STRUCTURAL DESIGN CERTIFICATE FOR TEMPORARY STRUCTURES

PROJECT: Stage 12 Platform Unit
STRUCTURE: 2.4m(W) x 1.2m(D) x 1m(H) Aluminium Global Truss Stage
LOCATION: Australia Wide
DURATION: 1st November 2022 – 31st October 2025

We Event Engineering, being professional Chartered Structural Engineers within the meaning of the National Construction Code (NCC) of Australia, confirm that we have been appointed as the engineers responsible for the Structural Certification of the above project. We certify that the design, subject to the limitations listed within this certificate, is in accordance with the relevant provisions of the standard building codes of Australia, accepted engineering practice and principles and the design methods for *Temporary Demountable Structures* as per the *Guidance on Procurement, Design and Use of Temporary Demountable Structures* (Institution of Structural Engineers, 2017).

We advise that the maximum design 3 second wind gust speed for the above structure is 30m/s, in accordance with the minimum requirements set forth by AS1170.2:2011 (Clause 2.3) . Should the wind speed approach this speed, the safety steps identified within this certificate must be implemented.

We note that this certification is effective only for the dates specified and that further review and certification will be required if the design is modified in any way. This certificate shall not be construed as relieving any other party of their responsibilities, liabilities or contractual obligations. This certificate is applicable only for this installation and relies upon all other risk assessments, WHS requirements and job safety statements associated with this project.

Tatiana Bolshakova
BEng(Civil&Structural)
STRUCTURAL ENGINEER

Morgan Sheehy
MEng (Hons I) Tech Cert Eng (Civil)
MIEAust CPEng NER 3468223 (Civil & Structural)
APEC Engineer IntPE(Aus) RPEQ 14767
PE 657 (Civil Engineer)
SENIOR ENGINEER

1. REFERENCED STANDARDS

- 1.1. **ABCB:2015** Temporary Structures Standard;
- 1.2. **AS1170.0:2002** General principles;
- 1.3. **AS1170.1:2002** Permanent, imposed and other actions;
- 1.4. **AS1170.2:2021** Wind actions;
- 1.5. **AS1664.1:1997** Aluminium structures;
- 1.6. **AS1720.1:2010** Timber structures;
- 1.7. **AS4100:2020** Steel Structures;
- 1.8. **IStructE:2017** Temporary Demountable Structures.

2. ATTACHMENTS

Att. No.	Title Reference	Issued By	No. Pages
1	General Arrangement	Global Truss	1

3. DESIGN LIMITATIONS & REQUIREMENTS

- 3.1. **Exposure:** maximum period of external activation 4 weeks at any time;
- 3.2. **Maximum Loading:**
 - 3.2.1. **Dead:** Self-Mass of approximately 40kg;
 - 3.2.2. **Live:** UDL=7.5kPa and PL=4.5kN;
 - 3.2.3. Concentrated loads greater than 1.5kN (150kg) must be located within 100mm of the support trusses;
- 3.3. **Stability:** Provided through geometry of the structure;
- 3.4. **Minimum ballast:**
 - 3.4.1. To be assessed if used externally;
 - 3.4.2. For a single unit installed externally without additional cladding minimum ballast in relation to design wind gust speed:

Wind Speed, m/s	20	25	30
Ballast, kg	30	70	120

- 3.5. **Terrain Category:** 2;
- 3.6. **Member Specifications:**
 - 3.6.1. 40x20x3mm RHS T6 6061;
 - 3.6.2. 17mm Structural Plywood minimum strength grade F17;
 - 3.6.3. Ø8mm T4 6061;
 - 3.6.4. Ø9mm, Ø12.6mm Steel;
 - 3.6.5. 48x3mm CHS T6 6082;
 - 3.6.6. 65x65x4.5mm SHS T6 6061;
- 3.7. **Minimum Fixings:**
 - 3.7.1. M6, M10 Bolts Grade 8.8;

- 3.8. Rubber Matting:** Rubber matting to be provided under bases when located on hardstand;
- 3.9. Catenary Loading:** No catenaries to be fixed to structures without review and approval by engineer;
- 3.10. Bearing Capacity:** Minimum bearing capacity shall be 100kPa;
- 3.11. Spreader Plates:** To be provided beneath all structural support struts;
- 3.12. Workshop Drawings:** Shall be submitted for engineer's written approval prior to any additional fabrication or further modifications;
- 3.13. Wind Management Plan:**
 - 3.13.1.** The wind speed must be measured on site by an anemometer or the nearest weather station;
 - 3.13.2.** If the wind speed approaches 20m/s, personnel must go on standby to implement an evacuation;
 - 3.13.3.** If the wind speed approaches 22m/s, all non-essential personnel must be evacuated;
 - 3.13.4.** If the wind speed approaches 25m/s, all structures must be abandoned and all personnel moved within a permanent structure of importance level 2-4 as specified within the BCA;
- 3.14. Operational Safety:**
 - 3.14.1.** Event Engineering is not responsible for the operational safety of the structure and the public;
 - 3.14.2.** We have been engaged for structural engineering compliance not how the end user engages with the structure, that is solely the responsibility of the client and event organiser.
- 3.15. Important notes:**
 - 3.15.1.** This certification lapses three years from the date of issue;
 - 3.15.2.** Annual inspection and revision is required by the professional engineer to ensure all the structural members are in adequate condition;
 - 3.15.3.** Reassessment against current building codes and standards must be carried out as part of the recertification process.

