NT Region C

ENGINEERING CERTIFICATE

Monkeytoe

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NORTHERN TERRITORY OF AUSTRALIA
BUILDING ACT
SECTION 40 – CERTIFICATE OF COMPLIANCE – STRUCTURAL DESIGN

All sections must be completed – mark N/A to any question that does not apply

PROPERTY / PROJECT DETAILS	
Owner (if known): N/A	
Lot/Portion Number: N/A	Address: N/A
Location: N/A	Town / Hundred : N/A
Description of works : Proprietary rooftop condenser unit mounts (designed by Monkeytoe) have undergone structural design and verification to withstand horizontal wind loads in Wind Region C (Cyclonic), as specified in AS1170.2.	

DOCUMENTS ATTACHED
Drawing Nos: - CM01C-AU-1 [120kg Top Fix Condenser Mount – AU Region C] - CM03C-AU-1 [300kg Top Fix Condenser Mount – AU Region C] - CM05C-AU-1 [500kg Top Fix Condenser Mount – AU Region C] - CM10C-AU-1 [1000kg Top Fix Condenser Mount – AU Region C]
Other: N/A

DESIGN BASIS AS1170.0, AS1170.1, AS1170.2, AS1664.1.

Class of Building (BCA): N/A			Type of Construction (BCA volume 1 §C1.1): N/A (eg. Type A fire-resisting construction)	
Building Importance Level (BCA Table B1.2a): 2			Annual Probability of Exceedance for Wind (BCA Table 1.2b): **1 in 250**	
Region: C	Regional ultimate wind speed V_R(m/s): 62		Terrain Category: 2.5	Reference height (m): 15m / 30m
$M_{z,cat}$: 0.97	M_s : 1	M_t : 1	$V_{des\theta}$ Design Wind Speed at reference height (m/s): 54	

Internal Pressure Coefficients ($C_{p,i}$):		**N/A**
External Pressure Coefficients ($C_{p,e}$)	Walls	**N/A**
	Roof	**N/A**
Net Pressure Coefficients: ($C_{p,n}$)	Roof / Walls	**N/A**
Imposed Loads, kPa	Floor / Roof	**N/A**

Earthquake Design Category, EDC (Table 2.1 of AS 1170.4): II
Annual Probability of Exceedance for Earthquake Actions (BCA Table 1.2b): **1 in 500**
Importance Level (BCA): 2 Hazard Factor, Z (Section 3): 0.15 Class of Sub-Soil (Section 4): Ce

Safe Foundation Bearing Capacity, kPa: N/A Site classification (AS2870): N/A

COMMENTS / EXCLUSIONS (Exclusions to this Certificate must be clearly identified).
The following items are excluded and shall be certified separately: Excludes the supporting structure.
Comments: This design is limited to the condenser mount frame only.

CERTIFICATION BY STRUCTURAL ENGINEER	
Company Name Kusch Consulting Engineers	**Company NT Registration Number** 322774ES
I certify that reasonable care has been taken to ensure that the structural engineering aspects of the works as described above have been designed in accordance with the requirements of the Building Code of Australia and the Northern Territory Building Regulations.	

Name	Nominee/Individual NT Registration Number	Signature	Date
Rowan Neville	322761ES		03/11/2022

* Name and registration number of nominee signing on behalf of the company or if no company, name of individual issuing certification.

SCHEDULE OF STRUCTURAL INSPECTIONS REQUIRED

Inspection of construction is required at the stages indicated below.

[ ] **1.** Completion of site preparation/site filling/excavations for footings prior to placement of any reinforcement or concrete.

[ ] **2.** Completion of preparations for placing of concrete strip footings including placement of reinforcement.

[ ] **3.** Completion of preparations for placing concrete slabs including compaction of fill and sand blinding, placement of formwork, reinforcement, starter bars and cast in items.

[ ] **4.** Completion of preparations for placing of concrete pier footings including reinforcement (if any).

[ ] **5.** Starter bars and cast in items after placing of concrete and prior to any covering up work.

[ ] **6** Reinforcement to walls completed prior to core filling (inspection holes and cleanout cores to be completed).

[ ] **7.** Structural steelwork and cold formed steelwork completed and prior to any covering up work. Floor framing system completed before floors are laid or underside is lined.

[ ] **8.** Suspended concrete floor slabs with formwork, reinforcement and cast in items completed, prior to placing of concrete.

[ ] **9.** Wall framing or blockwork wall core filling completed (with windows fixed in place) and roof framing with connections completed and prior to sheeting or lining.

Note: [ ] Prior lodgement of truss manufacturer's drawings, details and certification required.
[ ] Prior lodgement of windows manufacturer's drawings including fixings and certification required.

[ ] **10.** Structural wall linings completed and prior to any covering up work.

[ ] **11.** Final inspection upon completion of all structural work including fixings of external roof and wall claddings, flashings, barges & vents.

[ ] **12.** Other Inspections as required by the building permit

Important Information:

1) The above inspections are required to be carried out by either the certifying engineer or the building certifier who issued the Building Permit for the work. (If no inspections are indicated refer to the certifying engineer for advice).

2) Where works are prescribed building works under the *NT Building Act*, the building certifier must be provided with a copy of the inspection record and no further works must be carried out by the builder until the building certifier issues a release to proceed with further works.

3) Additional non structural inspections may be required during the course of construction before the issue of an Occupancy Permit (refer to building certifier for requirements).

4) Failure to obtain inspections may prevent the issue of an Occupancy Permit upon completion of the building works.

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