

# Aluminium Tower Scaffolds – Information for SAA Members

Date: August 2021

## Introduction:

The recent tragic fatal accident involving scaffold at a Football field in Mitchelton has highlighted the need for owners and users of this type of scaffold to ensure they are safe to use.

Whilst the exact nature and cause of the accident is still under investigation by Workplace Health & Safety Queensland we can't comment on the specifics of this case, but we can offer some general guidance when using this type of equipment.

## Issues to be addressed:

The Australian Standard AS/NZS 1576.1 Scaffolding General requirements notes several issues which should be addressed and include:

- Product information should be available and include at least the following:
  - A list of components with descriptions from which each can be identified
  - Instructions for erection, dismantle, use, transportation, and storage
  - Guidance for the servicing and inspection of the equipment
  - Nominal weight of each component
  - Details of duty loadings, maximum heights, and number of working platforms
  - Any other relevant limitations such as environmental conditions, ground slopes etc.
  
- Where the scaffold is a free standing, single bay tower scaffold with a working platform less than 6m from the ground the above information may be considered to be met provided the following information is displayed in a prominent position on the scaffold:
  - Instructions for erection, dismantling, use and transportation and storage including –
    - Advice on safe means of access
    - Where scaffold is not an insulated type, the words “DO NOT USE WHERE ELECTRICAL HAZARD EXISTS” in largest lettering practical
    - The working load limit (WLL) in kilograms and where applicable
      - Maximum height of working platform
      - Maximum number of working platforms
      - Any other relevant limitations.
  
- The design of the scaffold must consider:
  - The strength, stability, and stiffness
  - Edge protection
  - Safety of persons erecting, dismantling, and using the scaffold
  - The safety of persons in the vicinity of the scaffold
  - The environment in which the scaffold is being used
  - The duration that the scaffold is expected to be in use.

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- Mixing of systems from different suppliers should not be done without the mix being assessed by appropriate personnel, typically an engineer.
- Environmental loads, particularly wind load on light aluminium scaffolds can be severe. An onsite evaluation will indicate if local conditions and wind loads require additional control measures such as counterweights or tie downs. Scaffolds, although temporary, are still subject to the wind loads noted in AS/NZS 1170.2 albeit at a lower wind speed.
  - The minimum design wind speed whilst scaffold is in use is 16m/s (57.6kph) and must remain stable under these conditions
  - Maximum design wind speed will be much higher when out of use and reference should be made to AS/NZS 1170.2 for the appropriate location, terrain, and height. This wind speed will exceed 100kph in some circumstances.
- Additional requirements for mobile and tower scaffolds:
  - Castors shall conform to AS/NZS 1576.2 and have brakes applied except when scaffold is being moved
  - The supporting structure shall be a hard flat surface unless the castors incorporate adjustable legs.

Clarification should be sought, especially for free standing aluminium scaffolds, on allowable heights and if wind loads have been assessed. Often manufacturers' list maximum heights of towers, sometimes incorporating outriggers or extended bases, but may exclude any wind loading considerations. Towers, even less than 4m, designed for wind loading will often have larger bases, rakers, counterweights, guys, ties to adjacent structures or a combination of these controls. The old industry rule of thumb of 3:1 or 2:1 ratio of height to minimum base width may not be sufficient to maintain stability under all wind loading conditions.

Whilst the Qld Scaffolding Code of Practice 2021 is primarily for use in construction, much of the information contained in it could be used to assist duty holders in their obligations to providing a safe workplace outside of construction.

From 1 July 2018 duty holders are required to comply either with an approved code of practice under the WHS Act or follow another method, such as a technical or industry standard, if it provides an equivalent or higher standard of work health and safety to the standard required in the code. A code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code. Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks which

may arise. **The health and safety duties require duty holders to consider all risks associated with work, not only those for which regulations and codes of practice exist.**

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- In performing scaffolding work where a person or thing may fall more than 4m, a scaffolder must hold a basic, intermediate or advanced high risk work licence. A duty holder may not direct or allow a worker to carry out high risk work unless the person sees written evidence that the worker has the relevant high risk work licence.
- A person is not required to hold a high-risk work licence for scaffolding work if a person or thing may fall 4m or less from the scaffold. However, the duty holder still has a general duty to ensure workplace health and safety of themselves, workers, and other persons.
- Scaffold erected for the public to access may also fall under the requirements of the National Building Code and may require formal engineering and building certifier approvals.
- A scaffold plan is to be prepared for scaffolding work above 4m and all work should be in accordance with AS/NZS 1576. The plan is to include a site layout plan and sufficient detail to adequately describe the scaffold to be erected. The Code of practice lists several items which should be assessed.
- The scaffold system should have a design registration number readily accessible.
- Scaffold must be inspected by a competent person at least every 30 days. The required frequency of inspections may vary depending on weather and site conditions, the type and size of the scaffold and the risks associated with scaffold collapse. In some circumstances, inspections may be required at much less than 30 days. Records of inspections should be kept onsite and include location, comments, date and time of inspections, the relevant design or specification and the person who conducted the inspection.
- The person responsible for erecting or alteration of scaffold over 4m high should provide duty holder with a handover certificate which should be kept onsite until scaffold is dismantled. The handover certificate should state that the scaffold has been erected in accordance with the Qld Scaffolding Code of Practice, AS/NZS 1576 and AS 4576 and is suitable for its intended purpose. A scaffold under 4m high should have a handover certificate that states it has been erected in accordance with the manufacturer's instructions.