

1.0 Introduction

This guidance note is provided to assist anyone involved in the commissioning, specification or determination of scaffolds, to readily identify whether a proposed scaffold requires CPEng design or verification.

2.0 Requirements of the WorkSafe Scaffolding in New Zealand Good Practice Guideline

All scaffolding must be in accordance with the *WorkSafe Scaffolding in New Zealand Good Practice Guideline*. This section summarises the requirements of that WorkSafe GPG in respect to what is considered by the regulator to require assessment by a CPEng.

Scaffold systems and components must also comply with the AS/NZS1576 suite of standards (or equivalent) and a CPEng will be expected to be competent in the use of these standards.

Table 2.1 – Scaffold description

A description of the scaffold requirements and details (loading, height, stability, foundations, application and components) will determine whether a CPEng design or check is necessary.

		Standard Scaffold	Engineered Scaffold
Loading	What is the scaffold duty loading?	Scaffold bays are rated light, medium or heavy duty; and bay sizes and duty rating conform with the manufacturer’s instructions and the GPG.	Special duty scaffolds (unless there is sufficient information and structural values to calculate loads); Proprietary scaffolds that do not comply with the manufacturer’s information.
	Have all scaffold loads been verified? (Dead, duty/live, environmental, impact)	Yes	No
	Screened and/or sheeted (shade cloth, debris netting, wraps, scrim etc. including temporary roofs)	No	Yes, unless sufficient information is available using the manufacturers recommendations or calculated or known loads.
	Falsework or propping.	Verified loads and supporting structure, loads supported by proprietary system complying with manufacturer’s information.	Loads not verified; supporting structure not verified; falsework system does not comply with manufacturer’s information.
Height	Tube and Coupler	<33m	>33m
	Proprietary Systems	As per manufacturers spec.	Outside spec.
Stability	Material capacities and strength of supporting structure have been verified?	Yes	No
	Can ties be installed according to manufacturer’s instructions or GPG?	Yes	No
	Buttress / rakers comply with manufacturer’s information?	Yes	No
	Does the scaffold require ballast?	No	Yes
	Height to base width ratio maximum 3:1 (For untied scaffolds higher than 2.0m)	Yes	No
Foundations / supporting structure	Has the load-bearing capacity of the ground or other bearing structure been verified?	Yes	No*
	Is the scaffold erected directly from a supporting structure, roof, veranda or balcony?	No	Yes*
	Is the scaffold a supporting structure for a swinging stage?	No	Yes*
	<i>*Where an engineering assessment is required of the supporting structure, the CPEng will need to calculate and verify the design loadings imposed by the scaffold, as well as the capacity of the structure supporting them, regardless of whether the scaffold is standard or not.</i>		
Application and components	Does the scaffold comply with the manufacturer’s specification or instructions?	Yes N/A	No
	Have components from different scaffold systems been proven as safe to combine?	Yes N/A	No
	Additional components are added to a proprietary system that cannot be installed in accordance with the GPG?	No	Yes
	Is the scaffold a mast-climber?	No	Yes
	Is it a swinging stage?	Proprietary stage and roof rig installed to manufacturers specification and to AS/NZS1576.4	Bespoke
	Being used as an event stage platform supporting people or materials?	No	Yes (may require a Producer Statement)

Does the scaffold use a safety net, a horizontal lifeline, a life rail system?	No	Yes
Use of a mechanical lifting appliance exceeding an imposed load of 250kg?	No	Yes

Note: Any descriptors that align with “engineered scaffold” require CPEng verification.

3.0 Recommendation from the TWf

Further to the requirements of the WorkSafe GPG, it is recommended an assessment of the risk (to human life, environment and commercial) posed by the scaffold in the event of a failure is carried out, to determine the level and independence of checking required.

This approach is consistent with TWfNZ GPG01:19 Temporary Works Procedural Control.

Table 3.1 – Risk Category

This task-specific risk assessment should be carried out by the scaffolder and verified by the Main Contractor (TWC) responsible for the site.

	Low	Medium	High
Description (Risk posed by the scaffold failing)	Low risk to human life; Low-Medium environmental risk; Low-Medium commercial risk	Medium risk to human life; Medium-high environmental risk; Medium-high commercial risk	High risk to human life High environmental risk; High commercial risk.
Other considerations			Situations of high social or environmental value; Situations adjacent to other high-risk activity;

Table 3.2 – Check Category

Based on the scaffold description (2.1) and risk category (3.1), use Table 3.2 to determine the appropriate check category.

	Low	Medium	High
Standard Scaffold	0	0-1**	1
Engineered Scaffold	1	2	3

*** Standard scaffolds with a medium to high risk rating should be verified by a CPEng.*

Table 3.3 – Check requirement

The check category descriptions provided below are in accordance with TWfNZ GPG01:19 Temporary Works Procedural Control.

	Check Category 0 Standard, Low-Med risk	Check Category 1 Standard, Med-High risk; Engineered, Low risk	Check Category 2 Engineered, Medium risk	Check Category 3 Engineered, High risk
Independence and certification of checker	Reviewed and signed off by the COC Scaffolder.	Design certificate <u>or</u> check certificate by a CPEng.	Design certificate <u>or</u> check certificate by a CPEng, independent of the design development.	Design certificate by a CPEng <u>and</u> check certificate by a CPEng from a separate PCBU.

Notes:

- This guidance is intended to be complimentary and non-contradictory to existing NZ Industry guidance at the time of publication.
 - Should there be any information contained here that you believe is otherwise inconsistent with industry best practice, please send your comments to twf@sesoc.org.nz
- All temporary works including scaffolding should be co-ordinated in accordance with TWfNZ GPG01:19 (see www.twf.sesoc.org.nz).