



Access Design & Safety Ltd

# When Scaffolding DOES & DOESN'T Need A Design

BY ACCESS DESIGN & SAFETY

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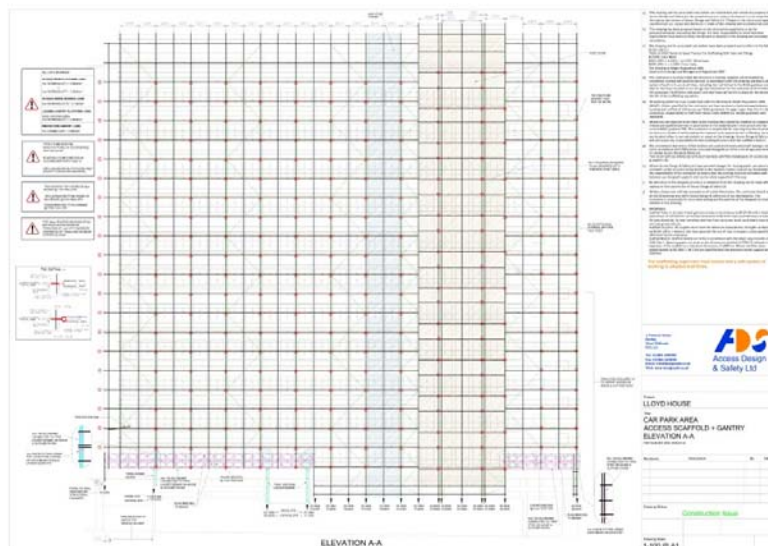
# Introduction

Whether work is taking place on a domestic or commercial property, one of the main considerations that clients have is whether scaffolding arrangements require a design. While the HSE has compiled a useful list of scaffold arrangements that need a design prior to work taking place, it's understandable that confusion sometimes arises.

Historical practices throughout the scaffolding industry and documents which highlight when scaffolding needs a design – such as the TG20:21 guidance literature - often clash.

That's not to say TG20:21 isn't specific or prescriptive in regard to the requirements of scaffolding which can be erected without further design requirements – factors such as the estimated wind load, whether the scaffolding is netted/sheeted, where the scaffolding is located etc. are usually taken into consideration. Ultimately, your scaffold configuration could meet some or all of these criteria, but perhaps the ultimate guidance as to whether you need a design is to consider what your customer wants.

It's possible to argue that certain scaffold configurations won't require a design if it complies with the British Standard/TG20. In these circumstances a TG20:21 compliance sheet can be used instead of a full design. However, if your customer insists on a design, in most cases you'll have no choice but to provide one. Most large-scale contractors won't allow scaffolds to be erected on-site without a design. These designs often form a vital component of the contractors' Health & Safety management – and furthermore, designs are useful to co-ordinate all tradespersons who may need to use the scaffold.



# Which Scaffolds Require Design?

Essentially any scaffold where Tube & Fittings have been used and a TG20:21 compliance sheet cannot fully cover all aspects of the scaffold, should be designed.

The following is a list of the more common scaffold arrangements that DO require a design, although there may be some caveats (listed in brackets):

- Cantilevered / truss out scaffolds (outside of TG20's limited range)
- Shoring / retention scaffolds
- Independent scaffolds higher than 50m
- Independent access scaffolds wider than 5 main and 3 inside boards wide
- Independent access scaffolds with lift heights greater than 3m
- Independent access scaffolds loaded to greater than 3kN/m<sup>2</sup>
- Free standing scaffolds (apart from TG20 free standing towers)
- Bridged scaffolds (with bridge span greater than 6m)
- Temporary roofs
- Support scaffolds
- Complex loading bays (outside of TG20's limited 'standard' loading bay)
- Storage racks
- Mobile tower scaffolds
- Ramps and roadways
- Staircases
- Pedestrian walkways
- Drop scaffolds
- Pavement gantry
- Lifting gantry / lifting tower scaffolds
- Radial / splayed scaffolds
- Temporary screens / hoarding
- System scaffolds installed outside of manufacturers' guidance

# Which Scaffolds Do Not Require Design?

The following configurations can be erected without the need for a design by a competent person, although a TG20:21 compliance sheet should be used instead:

- Independent tied access scaffolds (up to 50m high)
- Interior birdcage scaffolds
- Lift shaft scaffolds (butted in all sides, up to 2.7m \* 2.7m wide)
- Chimney stack scaffolds (ridge, gable end and eaves chimneys)
- Free standing towers (up to 10m high internal or 8m high external)
- Tied tower scaffolds (up to 50m high)
- Independent access scaffolds with pavement lift
- Standard TG20 loading bays
- Independent access scaffolds with bridge spanning up to 6m
- Independent access scaffolds with cantilevered spurred platform

# What Should A Scaffold Design Include?

The Work at Height Regulations (2005) state that unless scaffolding is assembled to a recognised configuration (such as TG20, as previously mentioned) then it must be designed by a competent person, by bespoke calculation. This will ensure the scaffold will have the required rigidity, strength and stability during erection, use and dismantling.

At the beginning of the planning stage, the user should be willing to provide all relevant information to the scaffolding contractor to ensure the proper design process is adhered to. This information will usually include:

- The location where the scaffold will be placed
- The time period the scaffold is expected to remain in place
- The intended use of the scaffold
- The height, width and depth of the scaffold, along with any critical dimensions which could affect the scaffold
- The number of boarded lifts
- The maximum loads to be imposed upon the scaffold
- The maximum number of workers allowed to use the scaffold at any given time
- How the scaffold will be accessed  
(for example: external ladders, staircase or ladder bay)
- Whether the scaffold has any sheeting, brickguard or netting requirements
- Whether there are any specific requirements or provisions in place  
(for example, are there restrictions due to the scaffold being situated on a pedestrian walkway? Do provisions need to be made for hoists or mechanical handling?)
- The nature and condition of the supporting structure and ground beneath the scaffold
- Information on the building or structure the scaffold will be erected against, along with any relevant drawings or dimensions
- Information on restrictions which could affect the erection, alteration or dismantling processes, such as access times

# What Should A Scaffold Design Include?

Once this information has been ascertained, the contractor or scaffold designer should then provide all relevant information about the scaffold. This typically includes:

- The type of scaffold needed (for example, tube and fitting)
- The maximum bay lengths and lift heights
- The platform boarding arrangement (e.g. 5+2) and the maximum number of boarded lifts that can be used at any given time
- The load class of the scaffold
- The safe working load of the scaffold
- The maximum leg loads
- The maximum tie spacing – vertical, horizontal and tie duty
- Any details of additional elements involved (e.g. fans, loading bays or beamed bridges. Some of these may fall under standard TG20 configuration, while some may be designed specifically for the task at hand)
- Any other relevant information pertaining to the installation, design and use of the scaffold
- Any relevant reference numbers or dates for recording, checking and future referencing

# Legal Requirements For Scaffolding

All scaffolds must be erected, altered and dismantled in a safe manner. This can be achieved by referring to the guidance given by the NASC (National Access & Scaffolding Confederation) in a document called SG4: Preventing Falls in Scaffolding. Contractors should also follow similar guidance provided by the manufacturers of their scaffolding system, or by consulting Access Design & Safety literature at [www.designsafe.co.uk](http://www.designsafe.co.uk).

Contractors should also be aware that any proposed alterations or modifications which take a scaffold outside of a generally recognised TG20 configuration must be designed, checked and proven via calculation by a competent person.



# Competence And Supervision Guidelines

Employees must be competent for the scaffolding work they undertake and must receive appropriate training which is relevant to the complexity of the scaffolding they are working with. Employers are expected to provide appropriate supervision and should take into account the complexity of the work involved when considering the level of training/competence required by its scaffolders.

At the very minimum, each scaffold team should contain a competent person who has received appropriate training for the type of scaffold the team are working with, which covers how to erect, alter and dismantle the scaffold. Any trainee or apprentice scaffolders should always be directly supervised by a competent person. All operatives who have yet to complete approved training methods and assessments should be considered “trainees”.



# Supervision Criteria For Scaffolds That Require A Design

Complex structures which fall under the category of requiring a design should be erected under the direct supervision of an advanced scaffolder. An advanced scaffolder is a person who has received training for a specific system or complex scaffolding configuration. They should be up-to-date with all of the latest HSE guidance and have a working knowledge of good working practices within the scaffold industry. Advanced scaffolders should be able to deliver pre-job briefings and regular “toolbox talks” on-the-job to keep all employees informed of the risks involved with each particular task.



# Inspecting A Scaffold

It's important to understand that regardless of whether a scaffold requires a design or not, it is the responsibility of the user to ensure that it has been inspected as follows:

- Before first use, just after installation
- At regular intervals of no less than every seven days (typically at the beginning of the working week)
- Following any extraneous circumstances that could jeopardise the safety of the scaffold (for example, high winds or inclement weather)

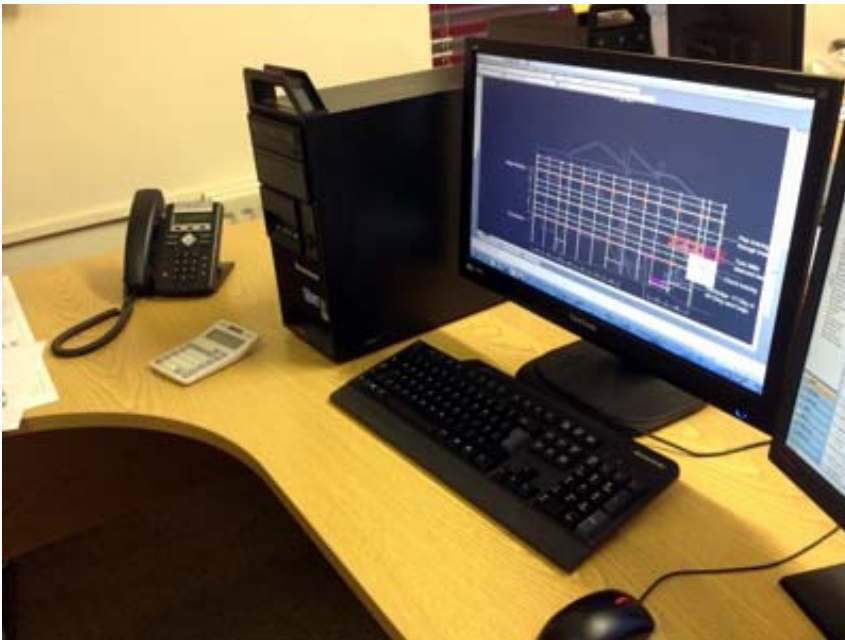
Inspections should be carried out by a worker with the appropriate training, knowledge and experience to understand both simple and complex scaffolding designs. Competence can be assessed under the CISRS (Construction Industry Scaffolders Record Scheme) or the person may have requisite knowledge from attending a training seminar hosted by the manufacturer of the scaffolding set being used.

Non-scaffolders who have attended a relevant scaffold inspection course (such as a project manager) could also be considered competent enough to inspect basic scaffold structures, although complex structures which fall into the “require a design” category should ideally be inspected by an advanced scaffolder.

Inspection reports should clearly state any risks or defects, along with a list of any corrective actions put into place – even if the actions are undertaken promptly (as soon as they are noticed).

# In Summary

If you are unsure whether your scaffold project needs a design it's best to consult a scaffold design professional. At Access Design & Safety Ltd we are experienced and adept at meeting the technical standards prescribed for all types of scaffolding projects & we are fully insured for complete peace of mind. We also offer a TG20:21 compliance sheet service for scaffolds that fall within the scope of a standard scaffold for those who are unable to go to the expense of purchasing their own TG20:21 subscription. If you need further advice about TG20:21 and how you can stay compliant or to discuss how we can help you with your latest scaffolding project, please feel free to contact us by phone or email. You can also find out more about us by visiting our [website](#).



# Contact Us

## Get in Touch

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Call or email us now, for all of your scaffold design or design checking requirements.

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