



SECTION 5: SCAFFOLDING, STAIRWAYS AND FREE STANDING LADDERS



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5.1 SCAFFOLDING

This section of the site HSE manual identifies the standards and controls to be implemented for the use of scaffolding on TW sites.

This has been developed to ensure that all work from scaffolding including planning, erecting, use, altering, inspecting and subsequently dismantling is correctly planned with suitable measures in place to prevent:

- A fall from scaffolding.
- The risk of falling objects; and/or
- Instability or collapse of scaffold.

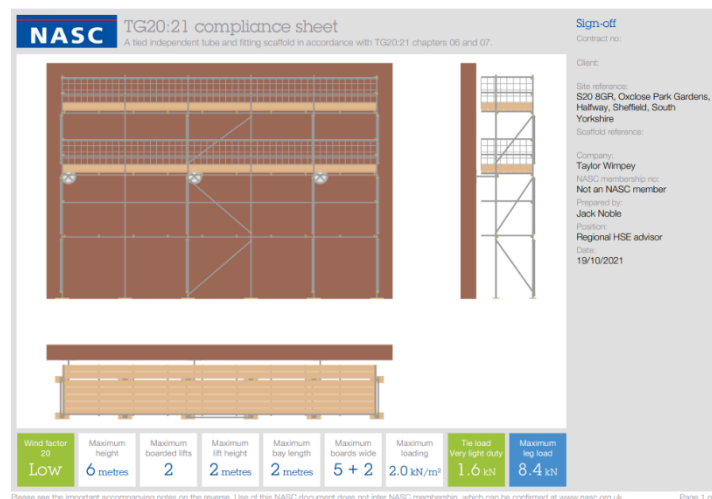
5.1.1 TUBE AND FITTING SCAFFOLDING

This applies to traditional steel tube and fitting scaffolds and includes the use of “system type” components such as extending transoms, steel, aluminium ladder beams and unit beams.

All components must be used in strict accordance with the manufacturer’s instructions/design guidance, and the information supplied to site

Throughout this section, three types of scaffold are discussed.

- Basic scaffold: these are defined as those which are specified and constructed in full accordance with NASC (National access scaffolding confederation) guidance TG20:21, supported by the presence of a TG20:21 compliance sheet on site.



- Standard designed scaffold: a few our house types and standard build methods require a designed scaffold; however, these are in routine use and do not normally require a bespoke site-specific design. The designs are available on *in house*. The designs have been produced taking into account a ‘normal’ site and may not always be appropriate if you are building on a particularly exposed site (i.e., on a hill, by the coast). Through the pre-development scaffold requirements checklist, it is identified if these standard designs are appropriate for your site.
- Bespoke designed scaffold: Some unique house types/ apartment blocks, build methodologies or very exposed sites may require bespoke designs on some or all the plots. Through the pre-development scaffold requirements checklist, it is identified if bespoke designs are required for your site.

If at any point during your build, you need to erect a scaffold that was not identified in pre-development but cannot be erected as a 'basic scaffold' please contact your RHSEA for advice.

5.1.2 SYSTEM SCAFFOLDING

All system scaffold types, such as Kwikstage, Haki, Layher, etc., must conform to the relevant British and European Standards BS EN 12810/12811.

All Scaffold Operatives erecting, or dismantling systems scaffolding must have successfully completed the relevant Systems Product Training.

Where a TW Site Manager oversees a site using System Scaffold, they must be provided with familiarisation training in relation to the inspection of the System Scaffold, either via the manufacturer, supplier, or a specifically trained Site HSE Advisor. The familiarisation training must highlight the key aspects of the scaffold to be inspected.

5.1.3 PLANNING FOR SCAFFOLDING


Good planning before commencing on site is essential to ensure that scaffolding can be provided for all intended uses. Ensuring all scaffold needs are correctly identified to ensure an appropriate and compliant solution can be factored into the program constraints of the site. Prior to commencing on site the following areas must have been considered and addressed.

- Consideration if scaffolding requires a bespoke design
- Consideration given to scaffolding or handrails not directly connected to a plot that will be required (retaining or garden walls etc)
- Consideration of any unusual external works that may compromise scaffold stability (e.g. scaffold at the top of an embankment or non-load bearing retaining feature)

Identification of Plots requiring a Scaffold Design

Buildings that require a scaffold design must be identified and noted (at pre-tender stage) in the Folder 1 ([F1.6 Scaffold Selection Checklist](#)). This form prompts the Scaffold contractor to provide suitable design documents where required, including:

- For tube and fitting: design calculations in accordance with scaffolding standards.
- For system scaffolds: confirmation of compliance with the Manufacturer's User Guides.
- Design drawings: including the type, number and location of any required ties, etc.; and
- A list of the critical inspection points, e.g. ties, rakers, etc.



Scaffold selection checklist
 Site name here

Each of our developments will have unique scaffolding requirements based on the type of product we are constructing, build techniques, topography and external works constraints. Early identification of additional scaffolding needs, and situations where a designed scaffold must be used can help ensure that our scaffold is compliant and that delays and cost overruns can be avoided.

Part 1 Scaffold compliance check
 For each house or block type, use the TG2021 E guide to develop a compliance sheet.

Plot or block numbers	House type(s)	Can a TG20:21 compliant scaffold be used? (attach compliance sheet to the folder 1)	If no; Can the plot scaffold be constructed using a TW standard design? (check site conditions and design caveats)

If NO; a bespoke design will be needed.

Part 2 Designed scaffold

Scaffold designer identified for the scheme	
Design Brief outline	
Additional scaffolder competence required/ bespoke rescue plans	

Where a design has been identified as necessary and no designs have been provided by the scaffolding contractor - scaffold erection cannot proceed (until the design has been provided and checked).

5.1.4 BASIC SCAFFOLDS

Most scaffolds on a TW development are considered as basic scaffolds.

A TG20:21 compliance sheet must be retained on site for each of these configurations and used as the criteria for the regular inspection the scaffold.

5.1.5 STANDARD DESIGNED SCAFFOLDS

Across our sites, there are a number of scaffolds requiring design that are in routine use, and as such, can be managed on site in the same manner as a 'standard scaffold'. The suitability of the pre-existing design must be checked against the site constraints, and if in any doubt, discuss this with the Designer named on the drawing.

These might include.

- Free standing table lifts for room in roof plots
- Taylor Wimpey standard loading bay
- Truss rack

For each of these, designs and calculations are available on *inhouse* and key construction and inspection points are outlined on the design drawings.

5.1.6 BESPOKE DESIGNED SCAFFOLDS

During pre-development or as the site evolves, it may be necessary to erect a scaffold not in accordance with one of the standard configurations outlined above. In this case, a design must be sought from a competent scaffold designer (via the appointed Scaffold Contractor, Scaffold Manager or Technical Team).

When procuring a designed scaffold, there are some additional considerations that must be addressed/identified, including.

- The process of erection is managed via the use of **F2.32 - ATP- Erect a Designed Scaffold**.
- Additional competencies may be required for the scaffolders working on the structure
- Additional support may be needed with the statutory inspections
- Additional nonstandard components may be needed
- Additional design work may be needed for the foundation.
- Additional rescue plans may need to be developed.

Speak with your contractor or RHSEA if you are unsure about any of these.


Authority to Proceed - Erect Designed Scaffold

Prior to erecting a 'designed scaffold', the Scaffold Supervisor must complete form Folder 2 **F2.32 ATP – Erect Designed Scaffold** (supplied by the Site Manager) with a copy of the relevant Folder 1 F1.6 Scaffold Design Requirements attached. The Site Manager must have confirmation that the scaffold is erected to the design.

5.1.7 TW SCAFFOLDING SPECIFICATION / REFERENCES

A.General	<ul style="list-style-type: none"> All scaffolding must be constructed in accordance with the requirements outlined on its TG20:21 compliance sheet, system scaffold user manual or a design completed by a competent scaffold designer. Compliance sheets can be provided by your scaffolding contractor, scaffold manager (TW in house scaffolders) or your RHSEA. In the table below, some areas are identified where Taylor Wimpey expectations exceed or vary from those expressed within TG20:21. If a point is not referenced below, refer to the TG20:21 compliance sheet or design drawing.
B.Access to plots	<ul style="list-style-type: none"> Access to plots must be provided with adequate unobstructed head height access where internal access is required. Where works will be taking place from the scaffold above the entrance, suitable protective measures must be in place to protect those below from falling materials (eg double boarding with polythene sheet, ply boarding)
C.Proprietary Stairways/ ladder access	<ul style="list-style-type: none"> The preferred access to main working platforms is via a proprietary stairway. This is a mandatory requirement on any multiple lift scaffold. Ladders may be used on scaffold for single garages, garden or retaining walls, substations, or similar small structures only. All ladders must conform to EN131 Professional standard (or preceding equivalent standard) and free from defects. Ladder to extend at least 5 rungs above the working platform but does not present a cantilever effect. Ladder to be secured by both stiles (so cannot twist) with proprietary ladder fixings or suitable secure fittings. For metal access ladders, rungs to be profiled. (See section 5.2.2)
D. Birdcage scaffold	<ul style="list-style-type: none"> All birdcage scaffolds to be back propped to the ground floor unless the flooring manufacturer (PCC or timber joists) confirms that the flooring can support the imposed load of the scaffold and any loading (consult the compliance sheet).
E.Engineering components	<ul style="list-style-type: none"> All engineered components to be supplied with data sheets / loading calculations, e.g. ladder beams. Gallows brackets to be tested and of known capacity.
F. Foundations	<ul style="list-style-type: none"> All scaffolds will require a suitable foundation to be prepared in advance of construction. This will either be an existing hard standing (tarmac/ concrete) or a foundation constructed with compacted aggregate. The foundation must be firm, level and sufficiently robust to withstand the expected weather conditions.
G. Guardrails & toe boards	<ul style="list-style-type: none"> Verge guardrails to be installed where table lifts do not offer suitable protection whilst working on roofs. A single guardrail must be left in place on each un-boarded lift for the duration of the lift to ensure safe dismantling as per SG4: Latest Edition. Brick guards must be attached to the toe boards – either by hooks incorporated within the brick guard or by staples, ties or similar.

	<ul style="list-style-type: none"> On roofs with a pitch 40 degrees or more additional (triple) guardrails to be installed on the external edge of the working platform with no gaps in excess of 470mm between any guardrails. Suitable edge protection must be provided to all sides of table lifts.
H. Loading bays and gates	<ul style="list-style-type: none"> TW standard tube and fitting loading bays: A standard design is available on doc hosting for a progressively constructed loading bay. Additional spur bracing will be required for loading on the loading bay's handrails. Loading bay gates: Gates to prevent the fall of persons and materials must be flush when closed and of an 'up-and-over' design. Self-closing gates with an integral barrier must be used and provide full opening for loading. Mesh infill section adequately secured to the gate frame. Gate closed securely at the bottom to prevent the fall of materials. The sides of the loading bay adequately secure (e.g. mesh) to prevent the fall of materials from the sides. Gates operated without undue force. Extendable gates with the mesh infills are prohibited for use on all TW sites.
J3. Scaffold Components: Internal Standards	<ul style="list-style-type: none"> The top of internal standards should be flush with any working platform, where this is not possible, they must protrude a minimum of 1m and be capped.
J8. Sole board/ base plates	<ul style="list-style-type: none"> Whole scaffold boards are to be used as sole plates where required by the design or compliance sheet. These must be painted red so that they are not used as part of a working platform again. Base Plates - Must always be used for tube and fitting. On block and beam, sole boards to be doubled up and span at least 3 beams.
K. Sheeting / netting Scaffolding	<ul style="list-style-type: none"> Scaffold must not be sheeted or netted unless this has been included in the design calculations or compliance sheet.
L. Signage	<ul style="list-style-type: none"> Signs to be displayed by the scaffolders. Check your working platform. 3 points of contact (where ladders are being used) Scaffolding incomplete "Do not use"- where any scaffold is being adapted or left in an incomplete state. Weight signage to be displayed on loading bays
M. System Scaffold	<ul style="list-style-type: none"> There must be a copy of manufacturer's user instructions available on site Any member of the site management team inspecting the scaffold must have received training in the inspection of the system (including cover managers) The site HSE advisor must have received training in the inspection of the system. Scaffolders erecting, altering or dismantling the scaffold must be able to demonstrate competence in the system being used.

N. Table lifts	<ul style="list-style-type: none"> Access to table lifts should be via a ladder and self-closing half gate to afford protection whilst maintaining access for loading materials. Internal handrails must be installed and remain in place to any table lift where ever there is a risk of falls.
O. Tying in, Bracing and Buttreassing	<ul style="list-style-type: none"> Ties must be installed in accordance with the compliance sheet or design as the structure is progressed. Works that will require tie removal (ie window fitting) must be planned to ensure that additional ties can be provided in alternative locations.
R. Waste Chutes	<ul style="list-style-type: none"> Where proprietary Waste Chutes are used they must be installed by the Scaffolding Contractor to the Waste Chute manufacturers installation guidance, with a copy held on Site The Scaffolding Contractor must consider the attachment of the Chute to the Scaffold and whether it affects the Scaffold design (consult compliance sheet) The Chute assembly is installed such that a clear space of approx. 1m is provided between the bottom of the lowest chute and the top of the skip Chutes fixed either near a loading bay or a tie position for stability 
<ul style="list-style-type: none"> Scaffold References: BS EN 12811 is the recognised standard for scaffolding in the UK, replacing BS 5973. It sets out the performance requirements, methods of structure and general design of access and working scaffolds. TG20: Latest edition - 'A Guide to Good Practice for Scaffolding with Tubes and Fittings' provides technical guidance on the use of BS EN 12811-1 and is the recognised good practice guide for scaffolding with tubes and fittings. SG4: Latest edition – Preventing Falls in Scaffolding provides guidance for reducing the risk of falls when erecting. TG3: Erection, Use and Dismantling of Temporary Rubbish Chutes on Scaffolding (latest edition) 	

5.1.8 SCAFFOLD ACCESS ARRANGEMENTS

Authorised means of access to the scaffold:	To be used for scaffolds at:
Proprietary Stairways (see section 5.1.12)	Mandatory on: <ul style="list-style-type: none"> ▪ All houses and bungalows, both traditional and timber frame ▪ All apartment buildings ▪ All garage ‘terraces’ of 3 or more and barn style garages ▪ All render Scaffolds ▪ Note: a suitable proprietary stair must be provided for access into RC basements, on concrete podium slabs, RC frame buildings, and slip-forms over 1st lift where space permits.
Ladders – with self-closing gates (see section 5.1.17)	Only on small single storey structures, including: <ul style="list-style-type: none"> ▪ Single and double garages ▪ Bin stores ▪ Bike stores ▪ Pumping and electrical sub stations ▪ Garden/screen/retaining walls ▪ Table lift scaffolds (See Section 5.1.9.3) ▪ Porches

System scaffolds: e.g. Kwikstage, Haki, Layher etc. will have their own stair access tower that must be used (do not mix systems in one scaffold without design advice from a competent scaffold designer).

Tube and Fitting scaffolds: System staircases may be used to access tube and fitting scaffolds, provided a detail for fixing the two systems together is provided and implemented. Where a tube and fitting tower is used to support the staircase it must conform to the requirements identified in section 5.1.14.

5.1.9 SCAFFOLD SIGNAGE

During inductions, Site Managers must remind all operatives to inform them immediately if they believe the scaffold is unsafe or if they identify any remedial or adaption work is necessary for them to carry out work. They must also be advised that works must stop on the scaffold until the remedial work is carried out.

- At all ladder / stair accesses a 'Check Your Working Platform' sign is placed to advise all operatives to carry out a visual user-check before use and a Ladder Safety Sign to encourage safe use of the ladder as illustrated.
- Scaffolding signs can be attached in a group, such as on a portable brick guard.



- Loading bays must be signed with the safe working load (check your design, compliance sheet or system user guide)
- Loading bays must display the 'keep gate closed' sign.



5.1.1.0 SCAFFOLDER COMPETENCE

Scaffolders and Scaffold Supervisors working on Taylor Wimpey sites must hold a scaffold qualification /card relevant to their work through the CISRS scheme.

The back of the CISRS Card identifies which system the holder has been trained in and this card must be presented to the site management team before any work is carried out.

Scaffolders may only work on types of system that they have been trained on.

Within any team of scaffolders, it must be ensuring that there is the correct ratio of 'trained' to 'trainee' scaffolders. A scaffolder is considered a 'trainee' until they have passed their 'part 2' training and until this point may only work under the close supervision of a 'part 2' or 'advanced' scaffolder.

Note: The CISRS 'Basic Access Systems Erector' Card is not acceptable on a TW site unless the operative is under training and constant supervision of the fully trained scaffolder.

Make sure those carrying out scaffolding operations on your site have completed the relevant training, experience and assessment and are holding the correct card.

CISRS

CONSTRUCTION INDUSTRY
SCAFFOLDERS RECORD SCHEME

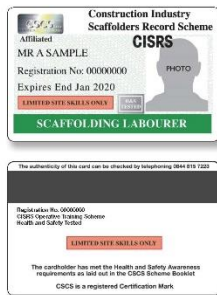
Have you got the Right Card?

Scaffolding Labourer

The holder of this card can only carry out labouring duties, in support of scaffolding operations.

If working off the ground they must do so from a completed, fully boarded and double guard railed section of the scaffold platform. They must not erect, dismantle or alter scaffold structures in anyway.

Scaffolding labourers are required to attend a CISRS 1 Day New Entrant Course (COTS) and have passed a recognised H&S Test.

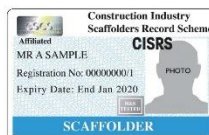


Scaffolder

The holder of this card has successfully reached Scaffolder status, this enables them to lead or partake in scaffolding operations covered by their training and assessment, which includes independent, towers, birdcages, fans, gantry & beam work etc.

Scaffolders who have qualified via the tube and fitting route can attend Systems Scaffold Product Training Scheme (SSPTS) 2 day courses, and have these qualifications endorsed on the rear of the card. Please see note on Systems Training to ensure that the operative holds the correct system endorsement.

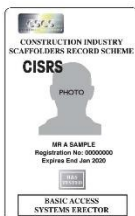
Scaffolders who qualify through the systems route e.g. Part 1 Haki, Part 2 Haki only eligible to work with the systems endorsed on the rear of the card.



Basic Access Systems Erector (Base)

This is a limited skills card for non scaffolding operatives who may be required to erect, dismantle or alter simple system scaffold structures.

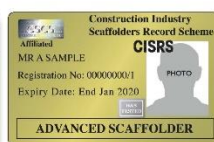
There are limitations on height, type of structure, location and system used. Any tube and fitting scaffold or system structures outside of those covered in the BASE course must be carried out by a CISRS qualified Scaffolder.



BASE card holders are required to attend a CISRS 1 Day New Entrant Course (COTS) and have passed a recognised H&S Test.

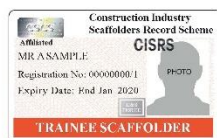
Rear of card will be endorsed with training undertaken to date.

Please see note on system training to ensure operative holds the relevant system endorsement.



Advanced Scaffolder

The holder of this card has successfully reached Advanced Scaffolder status, this enables them to lead or partake in all types of Basic and Complex scaffolding operations including but not restricted to suspended scaffolds, temporary roofs and support structures. These structures can be erected in system scaffold provided the operative's card has been endorsed with the relevant endorsement.



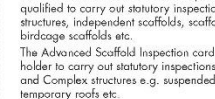
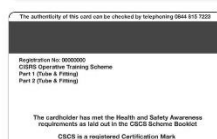
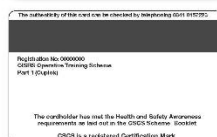
Trainee Scaffolder

The holder of this card is currently undergoing CISRS Scaffolder training and assessment. They are entitled to work as part of a scaffold gang under the direct supervision of a CISRS Scaffolder or Advanced Scaffolder.

Trainee scaffolders are required to attend a CISRS 1 Day New Entrant Course (COTS) and have passed a recognised H&S Test.

The rear of the card will be endorsed with training undertaken to date. Part 1 and 2 training can be undertaken in both tube & fitting and recognised system scaffold products. Please see note on Systems Training to ensure that the operative holds the correct system endorsement.

Note: An operative is considered a trainee until they have completed Part 1 and 2 training, S/NVQ Level 2, CISRS assessment skills test and have passed a recognised H&S Test.



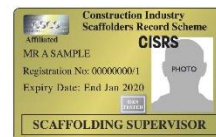
Systems Training

Systems Scaffold Product Training Scheme (SSPTS) 2 day courses are available in recognised system scaffold products. Operatives who hold a BASE, Scaffolder and Advanced Scaffolder card are eligible to attend these courses as are Trainee cardholders who have completed Part 1 training. Recognised Systems Products are split into various types. Details of recognised systems products, system types and the requirements for additional training can be found on the CISRS website.

Scaffold Supervisor

The holder of this card has successfully completed the CISRS 5 Day Supervisors course, the content is similar to SMSTS (Site Manager Safety Training Scheme) but is scaffold specific. It covers Health and Safety Legislation, Performance Standards, Basic Employment Rights, Supervisory Skills & Commercial Elements.

Delegates are required to sit a written test on each subject and also submit a project which contributes to the overall assessment.



For further information on CISRS course content, duration, life span of cards, CPD/renewal requirements, plus details of all accredited CISRS training providers and much more visit www.cisrs.org.uk

CISRS

CONSTRUCTION INDUSTRY
SCAFFOLDERS RECORD SCHEME

To check validity of cards call 0844 815 7223,
email: enquiries@cisrs.org.uk or visit: www.citb.co.uk/cards-testing/how-do-i-check-card-details/online-card-checker/

5.1.11 SAFE SYSTEM OF WORK

Prior to making any alteration to a scaffold, access must be closed and locked off, with a scaffold incomplete sign placed clearly at each entry point.

Where any scaffolds are interlinked, the linked plots must be securely separated from the plot to be worked on by stop ending.

During work, scaffolders must ensure steps are taken to secure scaffolding material (tubes and boards) whilst dismantling or erecting scaffold.



- Ensure all tubes and boards temporarily rested against the scaffold structure are positioned securely
- Do not stack too much material against the scaffold at any one time
- Move or use tubes / boards in a stillage as soon as possible



Setting up an Exclusion Zone

It is impractical to completely enclose a plot during the erection or dismantling of scaffold as scaffolders need unobstructed working areas, However, we do need to have a means of alerting others to the foreseeable risk i.e. advising them to keep clear of the plot/area to avoid the potential hazard of falling or dropped scaffolding materials.

Shown below is a means of establishing a suitable 'Scaffold Exclusion Zone' thereby alerting persons on site that:

- a) Scaffolding work is underway; and
- b) To keep a safe distance away from the scaffolding area.



The approach to setting up a 'Scaffold Exclusion Zone' will differ depending on the plot e.g. route of traffic management, telehandler off-loading area, etc. However, a simple assessment during 'pre-call-off' or 'pre-work' checks by the Site Management Team and Scaffold Supervisor can identify the most prominent location for the warning signs, to achieve maximum exposure.

All sites must have a minimum of eight Barriers and four Warning Signs allocated for this use (*sites with a greater build rate may require more*). The barriers and signs can be stored locally near the plots in readiness for any scaffolding erection or dismantling operation. *Note: any 'riot' type barriers are suitable.*

All scaffolders on site must be briefed and the use of the Exclusion Zone discussed with other site operatives during site inductions.

Areas of your site where the simple measures outlined above are not sufficient to protect others from the risk of falling scaffolding components will require further consideration. These circumstances might include

- Striking or erecting scaffold over or adjacent to an area alongside a public area
- Striking or erecting scaffold near to an area open to the public
- Striking or erecting scaffold in an area where a fallen component could reach a public road, or a railway.

Fall Protection

To ensure that scaffolds are erected, altered and dismantled safely, scaffolders must operate a safe system of fall protection, i.e. enable handrails to be fitted to the next lift before accessing the platform.

Systems must comply with Industry Guidance (SG4 Latest Edition), such as:

Scaffolder's "step"

This step allows the scaffolder to erect the guardrail protection on the lift above in advance of them accessing the lift

For some modular system scaffolding, standard side brackets (hop-ups) can be used to create an internal temporary platform to install guardrails in the lift above, in a similar fashion to the proprietary scaffolders step system.

Note that a guardrail will need to be fixed to the base lift to accommodate the step for the first lift.

A foot tie may also be required to secure the base lift with certain step designs that are supported by a scaffold standard – see manufacturers' instructions.

Scaffolders must be clipped on to a suitable anchor point (ideally to the back ledger) due to the remaining risk of falling from the scaffold when using a scaffolder's step system.

Scaffolders must be clipped on before climbing on the temporary platform and must not jump down onto the boarded platform due to the risk of board failure from spot impact loads



Advanced Guardrail ('bSafe' Fast Guard)

This push-up type advanced guardrail tool (AGT) utilises special couplers that allows scaffold tube guardrails to be erected from below and pushed up into position with a locating tool.

The guardrail is automatically locked and remains in place to provide fall protection when scaffolders access the next lift. The sequence of work is critical as the advance guardrails need to be raised before the next lift is formed. The temporary guardrail remains in place whilst the permanent guardrails are fitted. Alternatively, the AGT couplers can be replaced with normal right-angle scaffold couplers to form the scaffold guardrails. This system can be used on all faces of the scaffold including inside fall risks and stop-ends.

The positioning tool can also be used to unlock the guardrail from below during dismantling.

All scaffold operatives must have access to and be briefed on their Safe System of Work, which must include the following:

- Wearing a harness and lanyard at all times e.g.:
- Fall arrest harness with rear dorsal ring to BS EN 361;
- Fall arrest lanyard incorporating an energy absorber to BS EN 355
- (max Length 1.75m) with 55mm opening scaffold hook for one handed operation to BS EN 362; and
- Displaying a “scaffold not in use” sign where necessary

Impact Wrenches

- Scaffolding Contractors whose Operatives use impact wrenches on site must establish that the impact wrenches being used can apply the correct torque (50 N/Mtr) to scaffold fittings on a consistent and recurring basis.
- Prior to using an impact wrench on site all Operatives must first undergo training, instruction and familiarisation. Monitoring should be carried out to ensure that the impact wrench is always being used in the correct manner.
- An Assessment is carried out to identify the risks from noise and hand/arm vibration
- Impact wrenches are normally supplied with rechargeable lithium batteries that provide a more stable power pack. It is recommended that all users must follow manufacturer’s instructions and that battery life should be regularly monitored.
- Impact wrenches are not to be used with ‘pressed’ type scaffold fittings.

5.1.12 EMERGENCY AND RESCUE

All scaffolders safe systems of work will need to include emergency rescue arrangements that are suitable for the scaffolds being worked on. It must be noted that a rescue plan that is suitable for basic housing will not be appropriate for more complex structures such as truss out or suspended scaffolds. Consult with your RHSEA if you are unsure.

An outline of a typical rescue system for a scaffolder who has fallen within the scaffold structure or is suspended next to the scaffold is detailed below:

- All operatives to receive instruction in their rescue plan and rescue procedures;
- Inform site management immediately of emergency situations and ensure emergency services are called with instructions on the nature of the incident; and
- **First priority is to recover suspended scaffolder and release the pressure of the harness as soon as possible.**

Self-Rescue – If possible, a fallen scaffolder should attempt self-rescue by supporting self on adjacent scaffold or structure to reduce suspension trauma and then climbing back on to structure / platform.

Assisted rescue- A fallen scaffolder may be incapable of self-rescue, in these scenarios, colleagues will need to;

- Move to or create a working platform adjacent to casualty; ensure this is boarded out with min 3 boards; use own harness and lanyard if no guard rail;
- Encourage casualty to keep all limbs moving to aid blood circulation, flex muscles, transfer weight from side to side, make use of foot straps if available or adjacent scaffold / structures;

- Draw the fallen or injured scaffold onto the platform, once the casualty is on safe platform, the fall arrest equipment can be released; and
- Casualty to be seated in upright position and not allowed to lie horizontally or in traditional recovery position if conscious.
- Once the fallen scaffolder is recovered, steps will need to be taken to safeguard first responders, by for instance, boarding adjacent bays, provision of double handrails and means of safe access.

Scaffolder Unconscious - Create a platform as above and manually manoeuvre casualty onto platform. Leave casualty in the inclined position, with the head at the highest point and body at about 20 degrees, NEVER LAY FLAT if unconscious

Emergency Services – Any scaffolders on site may assist emergency services by constructing safe access to the casualty where required and assisting the emergency services if practicable in getting the casualty to ground level.

Any scaffolder who has been suspended in a harness must be treated as a medical emergency and should be given immediate medical attention.

Other scenarios

Rescues of scaffolders who have fallen and are hanging in free air are far more complex and will require specific plans to be developed, along with training and equipment. Your scaffolding contractor and RHSEA will be able to assist with developing these.

Examples include

- Rescue by a MEWP
- Gotcha rescue kits

5.1.13 SCAFFOLD HANDOVER AND INSPECTION ARRANGEMENTS

Taylor Wimpey UK SCAFFOLD HANDOVER CERTIFICATE (TWUK SCAFFOLDER)									
NAME OF CONTRACT:									
Description of section handed over: Plot, Lift									
Drawing Number (where applicable):									
Use only for:									
Loading (kN/m ² per lift):	<table border="1"> <tr> <td>Inspection</td> <td>0.75 kN/m²</td> </tr> <tr> <td>Light Duty</td> <td>1.50 kN/m²</td> </tr> <tr> <td>General Purpose</td> <td>2.00 kN/m²</td> </tr> <tr> <td>Floor Support (Party Walls)</td> <td>2.50 kN/m²</td> </tr> </table>	Inspection	0.75 kN/m ²	Light Duty	1.50 kN/m ²	General Purpose	2.00 kN/m ²	Floor Support (Party Walls)	2.50 kN/m ²
Inspection	0.75 kN/m ²								
Light Duty	1.50 kN/m ²								
General Purpose	2.00 kN/m ²								
Floor Support (Party Walls)	2.50 kN/m ²								
Designed to take tarpaulins/ Nets (or other windsails)?	Yes / No Other comments:								
Any additional comments - (particularly any special points for inspections)									
Notes: 1. This Scaffold Handover Certificate is for the use of Taylor Wimpey Scaffolders only. 2. The scaffold must be inspected by Site Management once a week, After Alteration or following exposure to weather conditions likely to affect it. A record of the inspections must be kept in the Construction HSE Plan (COM F2.6: Working Platform/Scaffold Inspection Record Sheet). 3. Alterations to this scaffold must only be made by TW scaffolders unless prior written authority has been granted by them to another party. 4. A further handover certificate will be issued following any modification by TW scaffolders. 5. Windsails in the form of tarpaulin/ net sheets or other materials must not be fixed to a scaffold unless it has been specifically designed and constructed to accommodate them. For TW Scaffolders: Name (Print): Signature: Date: Received by Site Manager: Name (Print): Signature: Date/Time: A SIGNED COPY TO BE RETAINED WITHIN THE CONSTRUCTION HSE PLAN									

The scaffolder must provide a handover certificate for each scaffold erected or adapted. **Directly employed scaffolders must also provide a handover certificate on completion of work.**

The Site Manager must inspect the scaffold at handover, before the scaffold is brought into use and regularly thereafter (at least every seven days – see [section 1.4.2.2](#)). The Working Platform/Scaffold Inspection Record Sheet ([Construction HSE Plan – Folder 2, F2.6](#)) is illustrated below:

On complex or designed scaffolds, guidance on the additional critical elements to check should have been provided by the scaffold designer (see [section 5.1.5](#)).

5.1.14 KEY INSPECTION POINTS

The following section is designed to assist any member of the site team who is required to inspect any scaffold used on site. The points below refer to the expected standard of a TG20:21 compliant or basic system scaffold. More complex or designed scaffolds may have additional key points to inspect; the design or compliance sheet also describes these.

Many of the principles are similar when inspecting a system scaffold. Where there is a possibility of significant differences between the requirement for tube and fitting and system, this must be highlighted, and discussed in your system scaffold inspection training.

Scaffold margin/ foundation

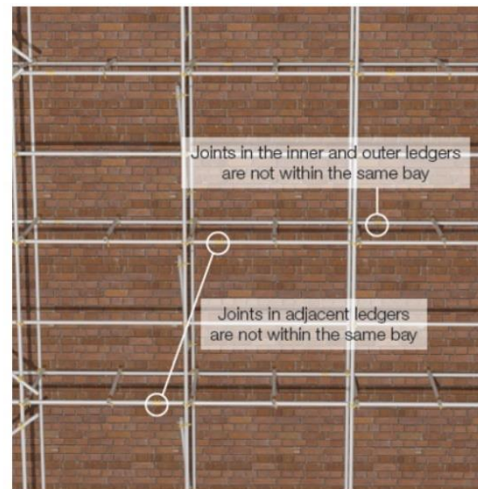
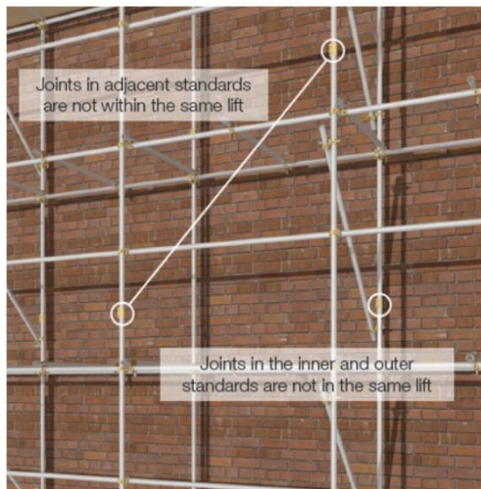


- The foundation for the scaffold must be firm and level, either an existing hardstanding or compacted aggregate.
- During inspections, check if the condition is deteriorating due to weather
- No excavation within 1.0m of the scaffold standards.
- No slope or excavation batter within 300mm of the scaffold standard
- All standards terminate at a base plate
- All standards on a sole pad (**38x225x450mm**) or if founded on a hardstanding, a treader plate (up to three lifts).

Scaffold structure and bracing

- Standards spaced as per the indicated standard spacing on the compliance sheet or system user guide.
- Lift heights not greater than the maximum lift height on the compliance sheet or system user guide.
- Standards and ledgers plumb vertical/ horizontal (maximum deviation of 50mm across full length/ height)
- Ledger bracing to every end frame and every second bay, to every lift. Bracing to be secured to the scaffold within 300mm of a node point (tube and fitting only)
- Façade bracing every six bays, to every lift and every elevation (tube and fitting only)
- System scaffold braced as per the user guide
- Transoms spaced at a maximum of 1200mm, with an additional transom within 300mm of every standard.
- Board ends bearing on the transom with an overhang of at least 50mm and not more than 150mm. (tube and fitting).

- Where tubes are jointed, this must be with the use of load bearing 'sleeve couplers' or 'tubelock'. Care must be taken to ensure that where sleeve couplers are used, joints in both the standards and ledgers are staggered between different lifts and different bays.



Ties

Ties play an extremely important role in providing stability to scaffolding structures, with several techniques available, including using structural features of the building or by anchors installed into the fabric of the building.

Tube and Fitting scaffolds must be tied in accordance with the tie frequency indicated on the TG20:21 compliance sheet as soon as the scaffold reaches a height of 4.0m from its base plates, or in accordance with any design in place.

System scaffolds must be tied in accordance with the user guide for that system or any design in place.

When considering how to tie a particular scaffold, the following points lead to a determination of the most effective and simplest means.

- Any elevation with windows can be tied with through ties as shown below
- For any elevation with a compliant loading bay or stair tower, the bays directly behind the add on structure and one bay either side can be said to be 'buttressed' by this tower
- Any elevation with sufficient space around its base may be secured with the provision of a raker in accordance with the detail below.
- If none of these above options are available, then mechanical ties into the building fabric are needed.

Through ties



- Tie tube connected to the inside and outside ledger with a right-angle coupler, within 300mm of a standard
- Secured with a tube on the inside and outside of the opening to prevent movement in both directions.
- Openings for through ties may be created by omitting or removing a brick/ block

Rakers



- Several configurations of rakers can be found in TG20:21, some requiring a secure stake into the ground. For simplicity, the non-staked version is pictured and described here.
- Rakers can secure a scaffold up to a maximum height of 6.0m and can only be used in situations where the tie duty indicated on the compliance sheet does not exceed 2.7kn/m²
- The main raking tube must sit at an angle of not more than 60deg and be fixed to the ledger braced standard within 300mm of a node point.
- The raking tube can be fixed to the inner face (as shown) or the outer face. Where fixed to the outer face, the raker requires additionally fixing to the 2.0m lift with a structural transom.
- The base of the raker must sit on a sole board and be secured both to the scaffold at its foot and to at least one other raker. (if only a single raker is used, it must be securely staked into the ground).

Mechanical ties

- Achieving a satisfactory mechanical tie into 'green' brickwork can be difficult, and as such, this tie methodology must only be considered where other options have been exhausted.
- Brickwork requires sufficient time to fully cure before a tie can be installed.
- Ties must be installed in accordance with the fixing supplier's guidance.
- Once installed, ties will need to be tested by a competent person (usually the scaffolder or supervisor) using a calibrated pull tester.
- On each plot, a minimum of 5% of the ties (with a minimum of three) must be tested.
- If any test fails, the testing frequency is to be doubled to 10% (minimum of 6)
- If two tests fail, the testing frequency is to double again to 20% (minimum of 12)
- If more than two tests fail, the fixing methodology needs to be reviewed and all ties tested.
- When testing a tie into brickwork, the test apparatus must be set up, so the feet of the testing rig do not rest on the brick into which the tie is made; this means that the integrity of the mortar joints is also being tested.

Putting this into practice

- Within one scaffold, it would not be unusual to encounter multiple types of ties
- The entire scaffolding, considering its returns, buttresses and ties must be considered as a whole to ensure that each elevation is tied as a minimum at the frequency as indicated on the compliance sheet or system scaffold user guide.

Working platform

- Every working platform must have a minimum of two guardrail, one positioned at a minimum height of 950mm, and others positioned in such a way that means no gaps greater than 470mm are present.
- There may be no lateral opening in any guardrail except where a ladder or stair access joins.
- Every working platform must be equipped with a toe board of a minimum height of 150mm, and, where tools or materials are going to be carried on the platform, brick guards must be in place, that are secured at the top and bottom.
- On any plot with a roof pitch of more than 40 degrees, a third guard rail must be provided.
- There may be no gap in any working platform except that created where the standards protrude between the working platform and inside boards. The inside boards must be clipped to prevent this gap opening up during use.
- The gap between the building and inside boards must be kept to the smallest reasonable distance to allow works to progress. Thus in traditional build methodologies, this must not be more than 100mm. Where additional working room is needed, i.e. for render, cladding or in timber frame build, an additional gap up to a maximum of 225mm may be introduced just in advance of this build stage that requires the gap.
- Where the gap exceeds 225mm, internal handrails must be installed.
- All boards must be checked to see if they are in good order and replaced if defective.
 - No scores across the face of the timber (check the underside from below)
 - No notches in boards
 - No splits in the timber longer than the board is wide
 - No warping or twisting of timbers

Loading bay

- A standard design for a loading bay is available on inhouse, this, or a TG20:21 compliant loading bay is to be provided where materials are required to be loaded out onto a scaffold.
- The key inspection principles are identified on the design.
 - Transoms spaced at 400mm
 - Standards spaced at 960mm
 - Sufficiently braced (façade, ledger and plan bracing needed)
 - All puncheons fitted with supplementary couplers.
- Where long loads are to be loaded over the handrails of the loading bay, spur bracing must be in place.
- Self-closing up and over gate in place.

Stair tower

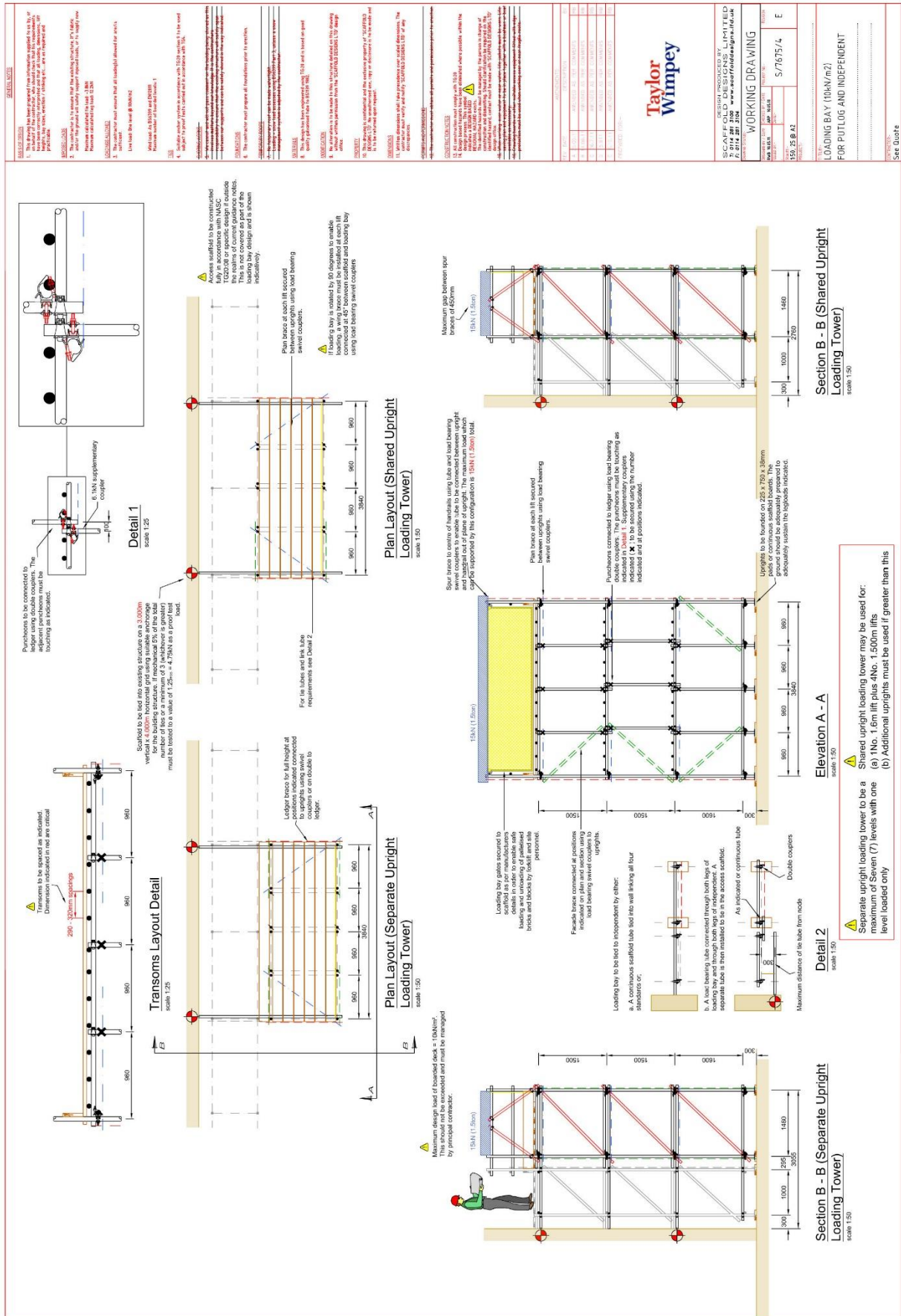


- Stair towers may be proprietary systems or constructed in tube and fitting.
- Where constructed from tube and fitting, the following requirements apply.
 - Stair treads that rely on a scaffolding clip for stability (see right) are not permitted, instead, a tube and fitting tower may support a proprietary stair unit.
 - Stair towers over 1.5m tall, must be designed by a competent scaffold designer.
- Where proprietary stair towers are used to access a scaffold, the following requirements apply
 - The manufacturer's instructions for erection, dismantling and use must be followed and available on site
 - Scaffolders must have been trained in the use of the system
 - Site management teams must have been trained in its inspection.
 - The system must be physically secured to a structure or scaffolding in accordance with the manufacturers guidance.
- Stair towers may be proprietary systems or constructed in tube and fitting.
- Where constructed from tube and fitting, the following requirements apply.

Scaffolding for timber frame

- All methods of timber frame construction require that scaffolding is erected free standing in advance of construction. **All timber frame scaffolds require a design.**
- These scaffolds must be constructed and inspected in accordance with the design drawings.
- Where any kentledge is indicated, this must be positioned onto the scaffold in the indicated location in advance of construction.
- Where any buttress is indicated, this must be constructed progressively with each lift/ elevation.
- Any buttress and/ or kentledge weight must remain in place until has been tied to the structure in a manner indicated by the timber frame manufacturer. This usually requires tying into the floor cassettes.
- As bricklaying commences, the scaffold may require numerous alterations. It must be ensured that each alteration does not affect the stability of the overall structure or create falls from height. I.e. where inside boards are removed, additional internal handrails must be provided.

Standard Taylor Wimpey loading bay design (full resolution available on *in house*)



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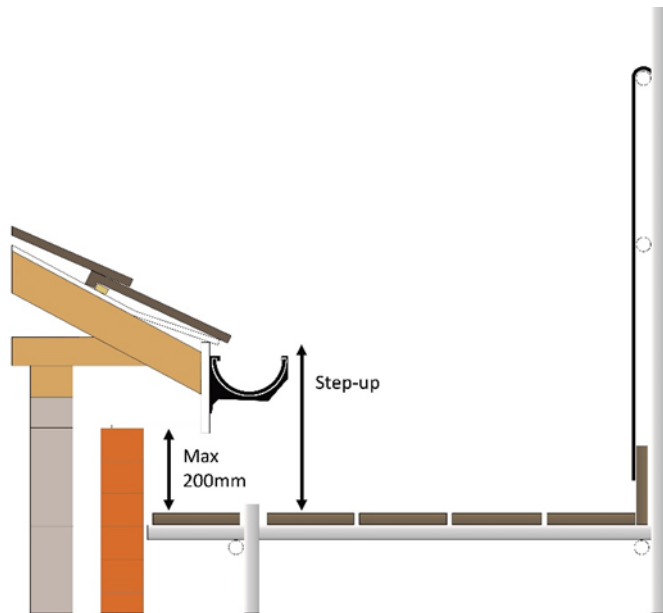
5.1.15 SCAFFOLD LIFT HEIGHTS

The type of construction work being carried out from the scaffold determines the height and number of lifts required on each scaffold.

To manage the risk of falls from the mid-floor(s) and roof surface on to the external scaffold working platforms, there are a few critical height dimensions/measures that must be applied to all our scaffolds.

Critical Scaffold Lift Heights

- To ensure the risk of falls from any midfloor are minimised, the scaffold working platform must be set a maximum of 800mm below the finished height of that mid floor.
- To ensure the risk of falls off the scaffold (onto floor slab/ midfloor) are minimised, no scaffold lift may be set more than 600mm above the floor slab/ midfloor unless internal fall protection (decking system, birdcage) is in place, or internal handrails provided.
- To allow safe access onto the roof, the 'top lift' of scaffold working platform is set a maximum of 200mm from the underside of eaves.



Window Infills

Fall protection must be in place at structural openings where a gap exists between the working platform and proprietary decking system. This should be achieved by extending the scaffold or decking system into the opening in accordance with the user guide, compliance sheet or scaffold design.



Note: All scaffolds must be erected to minimise the internal fall distance, including the installation of proprietary decking systems (i.e., TRAD, RHINO or M&G decking systems)

Table Lifts

Access to table lifts is via a ladder and with a self-closing gate. The gate must be a 'half' type to leave enough room below for loading materials.



- Table lifts not to exceed 2m in height so that materials can be easily loaded up by hand.
- Ladders are positioned adjacent to the table lift so the step off point is to the side.
- When fitting a gate to a putlog scaffold to ensure that the support tubes are stable and cannot move.
- Ladders are secured.
- Tools and materials must not be carried up the ladder as three points of contact cannot be maintained.

Access Scaffolds for External Rendering

For the application of external render finishes safe access must be provided via a suitable scaffold working platform.



- The existing scaffolding may need to be fully or partially adapted to achieve a suitable working height for rendering
- Bricklayers hop-ups or similar may not be used to gain additional height on the working platform
- When adapting for render, Scaffold Operatives must remove the inside board and secure a scaffold tube, closing the inside gap to a maximum 225mm, whilst allowing space for equipment
- Brick guards required only if material is stored on the working platform
- Access is via a stair tower

5.1.16 TIMBER /CONCRETE STRUCTURES – FALL PROTECTION

On timber frame or concrete structures where the height between the mid-floor and scaffold platform below exceeds 800mm, then suitable edge protection is to be provided e.g.:

- Internal handrail on inner side of scaffold; or
- Edge protection to the perimeter of the floor/slab edge



5.1.17 SCAFFOLD SECURITY

Securing Stairs/ladders to prevent unauthorised access

All stairs/ladders when the site is closed must be secured to prevent unauthorised access. Means of securing stairs/ladders include:



Stairs:

- Closed-off using a proprietary gate provided by the scaffold supplier, or
- Closed-off using a heras or other type of fence panel
- The sides and rear closed off with heras fence panels, boards or panels, and
- The gate/fence must be secured with a suitable lock to stop access on to the stairs

Ladders:

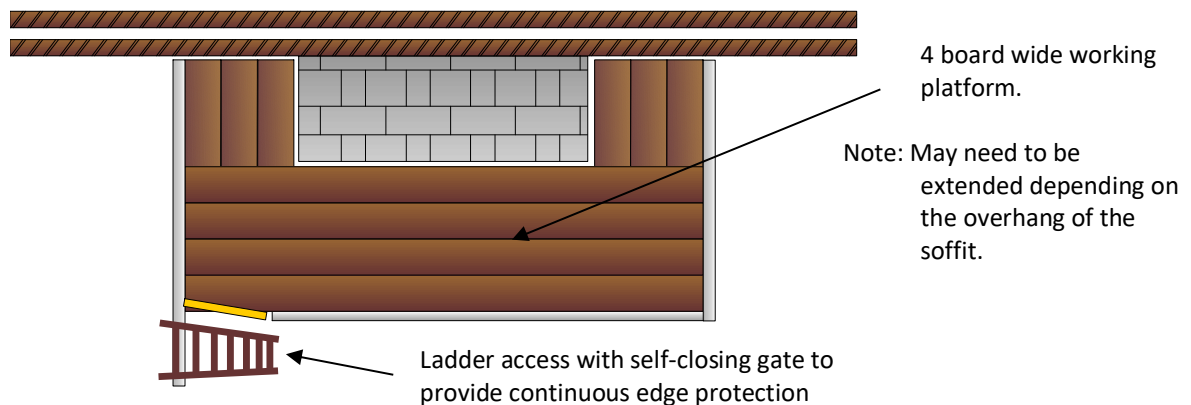
- A 'ladder guard' fitted that is locked/padlocked into ladder to make the rungs unusable
- Remove ladders and store securely, either in the compound or padlocked horizontally to the scaffold

5.1.18 LOW LEVEL SCAFFOLD ACCESS

Access to small low roof: e.g. bolt on, retrofit or small tiled porch roofs.

Wherever possible the main existing scaffold is utilised as it is progressively stripped to provide the necessary wrap-round platforms with suitable provision for ladder access and loading.

However, if the scaffold is provided independently the detail illustrated below is used.



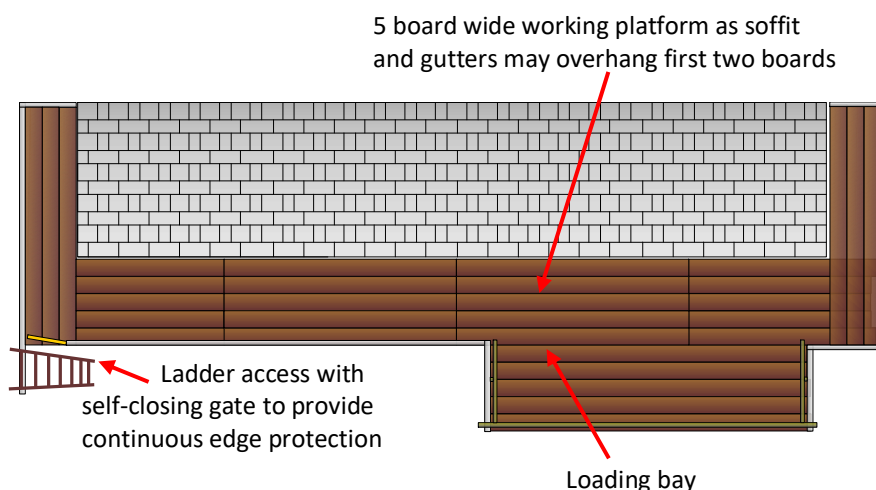
This scaffold is of a wrap-around type, giving sufficient access to the front and sides of the roof. Access is via a ladder and self-closing gate directly on to the working platform.

Access to Large low roofs e.g. those over integral garages and porches.

Wherever possible the main existing scaffold is utilised as it is progressively stripped to provide the necessary wrap-round platforms with suitable provision for ladder access and loading bay. However, if the scaffold has to be provided independently the following detail is used:

Access is via a ladder and self-closing gate directly on to the working platform.

A loading bay is to be included for the loading of materials.





Example of low level



5.1.19 TRUSS / SPANDREL PANEL RACKS

Tube and Fitting Roof Truss/Spandrel Panel Racks

Details are available for:

- Independent (freestanding) truss/spandrel rack, available on  –; and
- Truss rack against a scaffold, available on 
- Both are capable of storing trusses up to 10m span with total stored weight of 4.5 tonnes.
- Key inspection points
 - The truss rack is at high risk of being knocked during use and can be subject to high wind loads- ensure it is included in your statutory inspections.
 - Ensure the raking tubes and correct weight of kentledge is in place as indicated on the design if free standing.
 - Ensure the maximum bay lengths and sizes are adhered to.
 - Ensure supplementary couplers are in place as indicated on the design (marked with a black cross)
 - Trusses must be supported on the truss rack at the indicated node points (see design)

System Scaffold Independent (Free Standing) Truss / Spandrel Panel Racks

There are also System Scaffold drawings available on Inhouse for both Freestanding CupLock Truss Rack Scaffold and Freestanding KwikStage Truss Rack Scaffold.

Truss /Spandrel Panel Racks in Use

The truss racks are designed to:

- Carry a number of truss packs as well as floor joists or spandrel panels and so service a number of plots.
- Varying sizes can be accommodated with extra transoms in the rack; and
- Meets NHBC's and manufacturer's truss storage requirements.

Standard Taylor Wimpey truss rack design (full resolution available on *in house*)

Calculations

Consider the loads:
 Roof Truss Self Weight = 30kN/ton

Consider the Transoms:
 Load W = (45kN / 10.00m) x 5 = 22.5kN per transom
 M = (22.5 x 1.800 / 8) = 2.4kNm
 Therefore transoms slip 7%
 Transoms ok in shear as 11.25kN < 25kN shear capacity.

Consider the Ledger Channels:
 Load to ledger connection = (45kN / 2) / 2 = 11.25kN so Fx = 1
 Maximum ledger = 11.25 + 0.4 = 11.65kN

Consider the Bracing:
 Horizontal load total = infx 45 = 4.75kN total
 perpendicular to angle of 73 / cos70 = 5.48kN / 3 bracing = 1.82kN
 perpendicular to 1.82kN / 0.185 = 9.83kN OK

Load through bracing = (4.75 / 3) / sin70 = 1.47kN < 6.1kN member OK
 Vertical Component = 2.4 / tan35 = 3.42kN x 1.50m = 5.14kN
 Kedge required = 5.14 - 0.8 = 4.34kN / Per frame

Plan Layout
Scale 1:50

Dimensions: 5000mm max, 10000mm max, 5000mm max, 5000mm max, 1000mm, 5000mm max.

Details: Ledge brace every other frame secured using load bearing double couplers. Raker tubes to be secured to every frame of the scaffold, this must be fixed to 1.5m.

Section B - B
Scale 1:50

Dimensions: 1500, 1000, 1000mm max.

Details: 5 kN/m kedge required on inside and outside of raker as indicated (at 1 central frame). Alternative ground anchors can be used if required (anchors to be fixed to 3.0kN (inclusive of factor of safety)).

Elevation A - A
Scale 1:50

Dimensions: 5000mm max, 10m max - width dependent on trusses used on site, 5000mm max.

Details: Roof trusses stacked on truss rack and secured using load bearing transom connection. Tube to extend past ledger to trussion and secured using load bearing transoms to prevent trusses slipping off truss rack. 6.1kN supplementary coupler. (Upstake to be checked at 250, 750, 1500mm from continuous scaffold truss. The ground should be adequately prepared to adequately sustain the legloads indicated).

Notes:

1. The scaffold must be erected in accordance with the design.
2. The scaffold must be erected in accordance with the design.
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20. The scaffold must be erected in accordance with the design.

5.1.20 SUPPORTING MID-FLOORS

Where working platforms are required on mid-floors, the joists must either be certified by the manufacturer to be capable of supporting the load, or be additionally supported to carry the loading by:

- Underpropping; or
- Punched-through' (independent) scaffold.

Examples of mid Floor supported from below by scaffolding

Note: sole boards under the propping must be sprayed red to avoid reuse on working platforms due to the loadings applied to them in this configuration

'Punched-through' Independent Scaffold

Scaffold platforms can be installed from independent scaffold punched through the decking (see section 6.3.2.2). Note: special floor cutters / inserts are available for correctly closing-in the holes.

5.2.1 LIGHTWEIGHT MOBILE SCAFFOLD PLATFORMS

Only a 'Nominated Person' is permitted to erect, inspect, use, move, alter and/or dismantle a Lightweight Mobile Scaffold Platforms and this person must be PASMA certificated.

Lightweight Mobile Scaffold Platforms are inspected, and a report made by the nominated person after assembly, or significant alteration, and before use. Thereafter, they are inspected regularly but at least every 7 days, or after any event likely to have affected stability or structural integrity, e.g. adverse weather conditions.

5.3 FREE STANDING LADDERS

5.3.1 WORKING WITH LADDERS

All work at height must be planned. Where possible and practicable, external works at height is to be carried out from the main scaffold. This may require progressive stripping of the scaffold to be organized (see [section 7.6.1 Progressive Scaffold Strip](#)).

Typical works that could be carried out in this way include:

- Downpipes.
- Mastic pointing.
- Cleaning, painting.
- Installing aerials, alarm boxes, etc.; and
- Pointing putlog holes.

In any case, working from a ladder may only be carried out:

- For short duration work (30 minutes maximum);
- For light work (materials or tools up to 10 kg and of manageable size / length);
- To a maximum height of 5m. For heights above this, alternative means of access must be found; and
- Where three points of contact can be maintained at all times.

5.3.2 TYPES OF LADDERS

Only the following ladders may be used on TW sites:

Ladders to EN161 professional

Note: a) damaged ladders must be put out of use immediately.
b) metal ladder rungs must have a profiled (antislip) surface.

5.3.3 STABILITY OF FREE-STANDING LADDERS

A proprietary stability device must be employed at the base – it is not acceptable to only 'foot' ladders.

A stand-off 'V' bracket facilitates safer ladder use, e.g. around corners or where there is not a strong upper resting point (e.g. against plastic guttering / fascia).

5.3.4 THREE POINTS OF CONTACT

Three points of contact must always be maintained on a ladder . This can be provided via feet and hands (e.g. two feet and one hand when carrying out tasks such as wiping windows/frames, plastic guttering or fascia, etc.). However where three points of contact cannot be maintained (e.g. fitting a swan neck to a downspout, mastic work, pointing putlog holes, etc.), the operative must wear a safety harness with D-ring, secured to the ladder by lanyard restraint (provides the third point of contact).



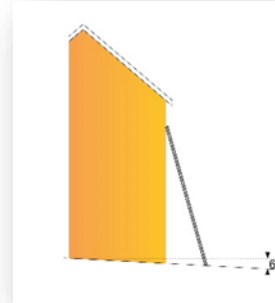
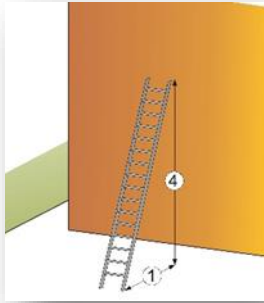
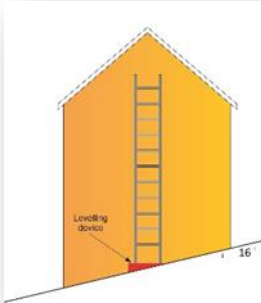
Item	Order Reference
Ladder Stability Device	TW01
Ladder Stand-off Bracket	TW02
Safety Harness with D-ring	TW03
Restraint Lanyard	TW04
Full set (TW01, TW02, TW03 and TW04)	TW05

Ladder Safety Equipment is available from Safety Gear Store (Tel 0800 678 5708). Email: customerservice@safetygearstore.co.uk

This use of the ladder safety equipment is for all freestanding ladders on TW sites, whether supplied by TW or a contractor. Site Managers must stock at least one set of the equipment for use by general operatives on site for tasks such as minor repairs, cleaning, etc.

5.3.5 GENERAL POINTS FOR SAFE USE OF LADDERS

- When erected, a ladder must be kept at an angle of 75° (the best angle for stability). Use the angle indicator marked on the stiles of some ladders or the 1 in 4 rule).
- Ladders must be sited with no more than 16° side slope (level the rungs with a suitable device).
- Ladders must be sited with no more than 6° of back slope.



- Ladders must never stand on moveable objects, such as pallets, bricks / blocks, tower scaffolds, vans, or mobile elevating work platforms.
- Do not work within 6m horizontally of any overhead power line, unless it is confirmed 'made dead' or is protected with barriers / insulation.
- Ladders must have a strong upper resting point (not plastic guttering / fascia).
- Never try to move or extend a ladder whilst standing on the rungs.
- Keep both feet on the same rung or step throughout the task.
- Do not work off the top three rungs - these should be kept clear to provide a handhold.
- **Do not overreach - make sure your belt buckle (navel) stays within the stiles.**
- Tools and small materials may only be carried in a way such that the three points of contact can always be maintained (e.g. kept in an appropriate tool belt).