



Temporary access

Introduction

In planning or carrying out maintenance work, there is often a need to gain access to upper sections of building walls (both internal and external), roofs and ceilings. For brief access by a single person to a limited height, a ladder will often suffice. In other cases, where the work is lengthy or involves several people, or the height is considerable, some kind of scaffold or mechanical access will be necessary.

Types of scaffolding

The most familiar sort of scaffold is **fixed** and is made up of standard components assembled especially for each job. Framing members are normally made up of 50mm steel tube, on which sit planks of steel or timber. It is highly adaptable to different building forms, provides the most stable work platform, allows work on more than one level at once and can carry large loads. Because of the cost of assembly and removal, a large fixed scaffold is generally more expensive than other types, and is therefore economic only for work which will take a considerable time.

A **tower** scaffold is a small section of fixed scaffolding, often made up of proprietary components, which can be erected in one place, then readily dismantled, moved and re-erected in another. For internal use especially, a **mobile** scaffold may be appropriate. This is a tower scaffold (usually made of aluminium tubing) mounted on wheels. Both types of scaffold are useful for periodic inspection and maintenance and are relatively inexpensive, but can be used by only one or two people at a time.

For buildings with mostly straight walls, **climbing** scaffolding is an alternative. It consists of a long platform mounted on at least two slim scaffolding towers so that it can be moved up and down the building face. The working platform can be adapted to a limited extent to suit projections or recesses in the wall. This type of scaffold is often less expensive than a fixed scaffold for a large building, but allows only one floor to be worked on at a time.

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Photograph by Lianne Hall.

Fixed scaffolding, Church Street, Parramatta.

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Other access methods

For light work like painting a **swinging stage** can often be used. This is a small platform suspended from the top of the building, and able to be moved vertically. It needs to be fixed firmly at the top of the building, which may require a temporary roof penetration, and is capable of supporting only one or two people and a small amount of material.

A **scissor stage** is a small platform mounted on an extendable frame. Like the swinging stage, it is suitable only for light loads and, in addition, is restricted in height to only a few metres. It is, however, more readily movable to a new location.

A more flexible method of access, especially useful for inspection or other brief operations such as changing lights, is the **cherry picker**, which is a mobile crane mounted on a truck or trailer, carrying an enclosed platform large enough for two or three people. Provided access for the truck is available, cherry pickers can allow work at heights of up to 55m or so.

Choosing the right type

The choice of access type will depend on:

- nature of work to be done
- duration of work
- height of work
- site restrictions
- number of people to be supported
- cost
- requirements of authorities.

Whichever type is chosen, you need to know in advance how it may affect the building and its operations. You should obtain details of the proposal from the contractor, in particular the set-out of the scaffold or other access equipment on the site and the methods proposed for stabilising it.

For any type of scaffold the building, its surroundings, occupants and passers-by need to be protected from damage.

Wire netting and shade-cloth provide protection on the scaffolded bell tower at St Andrew's Church in Manly.



Photograph by Yvonne Kaiser-Glass.

Costing for scaffolding

When considering the cost of different kinds of scaffold or access method, allowance may need to be made for:

- erection and dismantling
- permits from authorities
- hiring charges
- moving scaffolding around the work
- providing lighting
- safety requirements
- signage
- barricades
- hoardings
- work outside normal hours
- hoists
- decking
- shadecloth and wire
- protection of building and people
- maintenance
- security
- insurance.

Protection and security

For any type of scaffold the building, its surroundings, occupants and passers-by need to be protected from damage. This may of itself determine the kind of scaffolding required for the work.

To safeguard the building, points of actual or potential contact of the scaffold or other access method with the inside or outside of the building should be determined and protected. Attachment to the building should not involve fixing directly to the masonry. Use clamps or similar devices which are fully reversible.

It is common for scaffolders to break windows and fix scaffolding into window openings. This is unacceptable for heritage buildings which retain early glass. Fix the scaffold through semi-open windows, making them weatherproof by using temporary plywood panels neatly cut around the scaffold tube. If trees are in the way of the scaffold they may need pruning, which should always be done by qualified tree surgeons.

To protect people from injury, hoardings or barriers (or both) may be needed at ground level. Hoardings at ground level should be free of sharp edges or protrusions. Wire netting and non-combustible shade-cloth are needed to protect people working on a scaffold.



Photograph by Robyn Conroy.

Fixed scaffolding provided access during conservation to stonework at the Chief Secretary's building in Sydney.

Unless the building is empty, all entrances to the building, and more particularly all fire exits, should be able to function during the access operations.

Site restrictions

Unless the building is empty, all entrances to the building, and more particularly all fire exits, should be able to function during the access operations. If there are residences nearby, local authorities may restrict working hours.

Fixed scaffolding

A fixed scaffold should be erected as close as practicable to the façade. Sole plates of columns should be as small as safety allows, and located so as to minimise obstruction to traffic. The base of the scaffold should also be held down with concrete blocks.

Where the scaffold meets the building face, wrap tubing with old carpet or space it away from building surfaces using plastic-coated timber blocks. Two complete working platforms should preferably be provided, together with at least one stair running the full height of the scaffold. If a hoarding is required, it should be a minimum of 2.4m above the footpath and may require lighting at night.

Scaffolding components should preferably be all one colour, and must be free of rust or debris from previous jobs. Timber sections, such as hoardings and weather protection boards, should be painted. They should ideally be pre-painted before being brought on the job.

Fixed scaffolding should be planned in conjunction with the client's or occupant's requirements. Suitable access to site amenities should be included; careful planning saves time and cost on the job.

Hoisting

Certain kinds of access methods, such as cherry pickers and swinging stages, involve integral hoisting of people and materials to and from the job. With other kinds, notably fixed scaffolding, a separate hoist may be necessary. This can take various forms, from a simple block and tackle to a temporary lift capable of carrying several people.

Maintenance of access

It is important to keep areas of work accessible until the work has been completed and inspected, and all defects have been made good.

A carefully selected, well-made and well-kept scaffold or other form of temporary access provides an encouraging work environment, and also creates an impression of sound building management.

FURTHER READING

Standards Association of Australia 1995, *AS/NZS 4576-1995 Guidelines for Scaffolding*, Standards Association, Sydney.

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