

# Preventing masonry structures from collapsing

## What is the problem?

The collapse of masonry structures during construction, renovation and demolition.

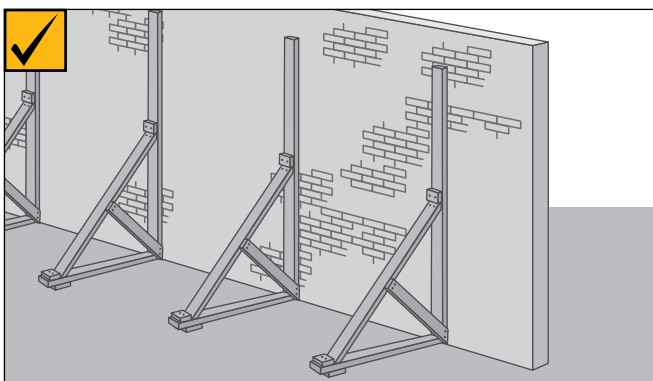
## What are the risks?

The collapse of unstable and inadequately braced masonry structures has resulted in death and serious injury.

Incidents that highlight the dangers of unstable or inadequately braced masonry structures – such as walls of brick, stone and concrete blocks – when subjected to wind or impact include:

- a carport wall under construction that collapsed onto two workers during a storm
- a second floor block wall under construction that collapsed and brought down a whole building
- a brick chimney that collapsed onto a worker during roof works
- a four-metre high double leaf perimeter wall without support piers that was blown over.

## A solution



Masonry block wall supported by temporary bracing.

## What is a solution to the problem?

Ensure the masonry structure has adequate strength and stability during all phases of the work. The structure must also be able to resist the effects of extreme weather.

Before any renovation or demolition works on or near a masonry structure, assess the stability and affect works may have on its stability. Develop a schedule of work so activities are only done when safe.

Ensure construction of masonry does not proceed too quickly. Allow mortar to develop to full strength.

Use adequate temporary bracing when the structure is unstable. The need for temporary bracing should be considered if the structure is incomplete. If the structure's lateral support from piers, cross walls, floors and roof framework is missing or being altered, temporary bracing should also be used.

Works should not be undertaken during extreme weather conditions.

## Further Information

### WorkSafe Advisory Service

Toll-free: 1800 136 089  
Email: [info@worksafe.vic.gov.au](mailto:info@worksafe.vic.gov.au)  
[worksafe.vic.gov.au](http://worksafe.vic.gov.au)

### Australian Standards

AS3700 – *Masonry structures*  
AS3700 – *Masonry structures – Commentary*  
AS1170.2 – *Minimum design loads on structures – Wind loads*

### Related WorkSafe guidance

Guidance Note – *Stability of buildings during construction*