

What are survey marks?

Survey marks support billions of dollars of investment, property rights and infrastructure. There are many types of survey marks used for various purposes.

Survey marks – what to look for



Paint
Yellow/white paint on the mark, or surrounding features.



Identification plates
Identification plates in rural areas help to locate permanent survey marks.



Star picket
Painted star pickets in rural areas may indicate a survey mark in the vicinity.



Tree blaze
A blazed tree may indicate a permanent mark or a cadastral boundary corner is located near by. It is most common in rural areas.



Alignment marks
Alignment stones, posts, pins and old stone kerbs are important cadastral marks.

Types of survey marks

Permanent survey marks

Permanent survey marks are fundamental marks that define location for surveying, mapping and engineering projects. Uses include housing developments, new road and bridge construction, improving railways and environmental mapping.



Trig Station



Permanent Mark



State Survey Mark

Cadastral survey marks

Cadastral survey marks are used to define property boundaries. Survey marks near properties provide an accurate and reliable reference to locate boundaries. Many cadastral marks are buried – usually between 0.5 and 1 metre from a property corner.



Concrete Block and Boundary Peg



Drill Hole and Wing in Kerb



Galvanised Iron Pipe



Alignment Pin

Why protect survey marks?

Survey marks provide a wealth of important information to a wide range of people in the community. They are used to support the surveying of property boundaries, but are also important to engineering, road building, mapping and other land surveys. The loss of survey marks can significantly degrade the integrity of the legal property boundaries and impact on the costs of development projects that depend on position and height.

How survey marks are lost

Over the last decade in excess of \$1 million worth of permanent survey marks have been destroyed in NSW per year*. This does not include the loss in value of destroyed cadastral marks or the lost value to the community and industry that survey marks provide. Survey marks are usually destroyed by development activity, particularly:

- road works and footpath construction
- roadside slashing
- shopping mall developments
- street beautification projects
- underground utility upgrade or replacement
 - gas
 - water
 - electricity
 - telecommunication cable installation.

* Based upon cost of mark placement and survey

Survey marks need to be relocated

It is inevitable that survey marks will be destroyed from time to time by various types of works, e.g. permanent marks and reference marks may be obliterated in a shopping mall redevelopment.

There are procedures in place for times when a survey mark has to be removed or replaced. The Surveyor General has guidelines for the replacement of survey marks. See the *Surveyor General's Directions No. 11 Preservation of Survey Infrastructure* on the LPI website www.lpi.nsw.gov.au



How to protect survey marks

Before works commence

Find out if there are survey marks located in the area of interest by:

1. viewing the survey mark layer in SIX Maps – <http://maps.six.nsw.gov.au/>
2. contacting Survey Services, LPI, who will advise the location and status of survey marks in the area
3. inspecting the site, paying particular attention to survey marks located in the footpath/kerb and gutter.

If there are survey marks in the area

Download the locality sketch plan (Survey Mark Sketches) from the SIX portal www.six.nsw.gov.au

If survey marks are likely to be disturbed or destroyed

Email LPI Survey Services at SCIMS@lpi.nsw.gov.au, detailing the mark type and number, proposed scope of works and scheduling.

Allow for 10 working days for an appropriate response.

It is preferable that works avoid disturbing or destroying survey marks by:

1. diverting works to avoid disturbing the marks or
2. contacting a registered surveyor to place and survey a mark at a more suitable site nearby to maintain survey integrity.

Any survey necessary to recover the position of survey marks proposed to be destroyed may only be undertaken by a surveyor registered under the *Surveying and Spatial Information Act 2002* or by survey staff authorised by the Surveyor General.

Report survey marks at risk of being destroyed

Look for the Survey Mark Status report at http://scims.lpi.nsw.gov.au/status_report_frames.html

Destruction or removal costs

The removal or destruction of survey marks is costly to the community. Section 24(1) of the *Surveying and Spatial Information Act 2002* states that a person must not remove, damage, destroy, displace, obliterate or deface any survey mark unless authorised to do so by the Surveyor General. A person found guilty of breaching the Act by a Court, may be required to pay a penalty up to \$20,000.

