

Protecting survey marks

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 or 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.



Reference Tree

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



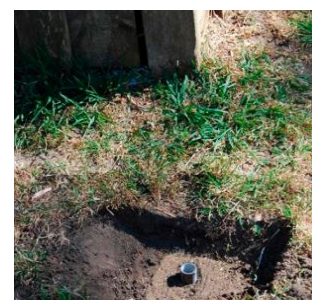
State Survey Mark

Cadastral (Boundary) Marks

Cadastral marks are used to mark property corners. Cadastral Reference marks also define property boundaries and are buried approx 100-200mm deep, or placed in the footpath, kerb or gutter.



Concrete Block references boundary corner (peg)



Galvanised Iron Pipe references boundary corner



Drill Hole & Wing in Kerb references adjacent boundary corner



Alignment Pin references road alignment

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 may need to be removed

As a result of construction or development works it may be necessary to remove some survey marks.

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 [Surveyor General's Directions No. 11 Preservation of Survey Infrastructure](#) on the Spatial Services website.



How to protect survey marks?

1. Before Works Commence

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

- 1.1. Viewing the Permanent Survey Mark layer on SIX Maps - maps.six.nsw.gov.au and print the map showing location of survey marks.
- 1.2. Downloading the [Permanent Survey Mark Locality Sketches](#).
- 1.3. Conducting a thorough search of plans on public record (e.g. Deposited Plans) to determine the location of cadastral reference marks. It is recommended a Registered Land Surveyor or a person under their supervision to undertake this task. A registered surveyor should be consulted as early as possible (at the planning stage).
- 1.4. Inspect the site paying particular attention to survey marks located in the footpath, kerb or gutter.
- 1.5. If no survey marks are affected by the proposed works then commence works.

2. If any survey marks could be affected by the works, e.g. disturbed or removed

- 2.1. Submit an [Application for Surveyor General Approval - Survey Mark\(s\) Removal](#).
 - 2.2. If only Permanent Survey Marks are affected, a declaration made by a Registered Land Surveyor stating that no Reference Marks are affected needs to be submitted with the application.
 - 2.3. Allow 10 working days for a formal response.
 - 2.4. Where required contact a registered surveyor to assist with the conditions of approval.
- ## 3. Protect survey marks
- 3.1. Comply with the conditions of the approval, place new marks and arrange a survey where required.
 - 3.2. Protect adjacent marks from disturbance for the duration of the works. Note that up to 3 weeks may be needed to complete the survey (dependent on the complexity).

Penalties for disturbing survey marks

The unauthorised removal, disturbance or destruction of survey marks is costly to the community. Section 24(1) of the Surveying and Spatial Information Act 2002 states a person must not remove, damage, destroy, displace, obliterate or deface any survey mark unless authorised to do so by the Surveyor-General. In addition to a maximum penalty of 25 penalty units (currently \$110 per penalty unit) a person found guilty by a court may be ordered to pay compensation up to \$10,000 towards the cost of reinstatement and up to \$10,000 towards loss or damage suffered.

For more information, please visit the [Preservation of Survey Infrastructure webpage](#).

For any enquiries contact [DCS Spatial Services](#).