

Loss Prevention Standards – Asset Classes

Mobile Plant Theft from Construction Sites

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Securing construction sites or plant machinery storage sites to protect against mobile and immobile plant theft.



Mobile Plant Theft from Construction Sites



Introduction

The theft of plant and tools remains a significant issue for construction sites across the UK.

Increased demand for equipment, combined with supply chain disruptions and high residual values for second-hand items, provides criminals with a lucrative and relatively easy means for profit.

A drive to introduce electric-charged plant on sites has further increased demand and supply chain pressures.

Loss of such items not only incurs a monetary cost to that site but also project delays, residual damage to the site from any forced entry, and loss of potential business contracts.

Following the restricted use of red diesel in construction in April 2022 and higher diesel prices, diesel bowsers and fuel tanks are now more theft attractive than ever.

It is important that suitable precautions are taken on construction sites to protect essential and high-value equipment from theft and damage. The cost versus benefit of preventative measures against theft should not be underestimated.



Perimeter Security

Whilst security is usually consistent across sites the location of the site can determine some of the protection features in place.

- Hoarding should be a minimum 2.4m in height and preferably fixed palisade type or traditional hoarding. Heras temporary fencing is easier to breach and should be avoided wherever possible;
- Place CCTV and ID-marking warning signs in clear locations as applicable to act as a deterrent;
- Avoid storage around the inside of the fencing or waste externally that could make climbing any fence easier;
- Have routine inspections for perimeter damage and make prompt repairs as necessary;
- The number of access points should be kept to the minimum possible, and the quality and height of gates should be commensurate with that of the hoarding line;
- Vehicle gates should be secured with a high-quality padlock and protected against lifting or removal, for example by having hinge tops welded over. Gaps beneath should be at a minimum to prevent passage;
- Gates should be installed so as to open inwards to the site. At the end of each day large plant should be placed next to any gate, where possible, to make gate access difficult;
- Consider the installation of a portable Perimeter Intruder Detection (PID) system. These can act as a deterrent in addition to raising a visually verifiable remote alarm;
- Utilise full-height turnstiles to pedestrian entrances with electronic or biometric controlled barriers;
- It is important that security lighting covers all parts of the site, making the site easily visible from neighbouring properties and adjacent roads without being an inconvenience to neighbours. Lighting can be set to activate on motion sensors.

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Monitored CCTV

Detector-activated CCTV can provide early warning of intrusion onto the site.

- CCTV coverage should extend across perimeter lines, including any points of access and egress. Plant storage areas should also be covered;
- Systems should transmit to an offsite monitoring centre to give operators an understanding of what caused the activation and what response may be appropriate;
- Remote operators should be able to view any camera and preferably be able to alter camera views;
- Loudspeakers should be installed onsite to issue audible warnings to challenge any unauthorised persons;
- To ask for police attendance quickly and reliably, the CCTV system will need to have Unique Reference Number issued by the local Police;
- The use of thermal imaging cameras can enable easier identification, through a person's body heat.

Manned Guard

- Depending on the size of the site or the type and stage of construction it may warrant manned security posted on the site, either on a full-time basis, or at any times when the site is unmanned;
- Outside of working hours manned security should incorporate security patrols with designated routes with a means of tracking and Proof of Presence Reporting
- Temporary manned guarding should also be considered where the site is to be shut for holidays or extended periods;
- Security companies should be selected from:
 - SIA (Security Industry Authority) approved contractors (www.sia.homeoffice.gov.uk) or;
 - NSI (National Security Inspectorate) www.nsi.org.uk Gold/Silver approved contractors.

Marking of Plant

- All plant and equipment should be marked and registered (i.e the CESAR scheme) www.cesarscheme.org;
- Ideally there should be a mixture of overt (obvious and visible) markings and covert (hidden) markings;
- All serial numbers and chassis numbers and other identification marks should be recorded. Copies should be retained offsite;
- Selectamark DNA is a permanent and visible theft deterrent that uses a chemical etching to permanently and visibly mark property. It is ideal for use on vehicles, plant, tools, machinery, and tested to LPS1225;
- Once marked the code can be registered with the Police so recovered items can be linked back to the owner.

Immobilisation of Plant

- Hired-in plant should be selected considering the security systems supplied with the vehicles;

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- Unique keys for all plant should be used wherever possible and locked away securely;
- All fitted immobilisation systems should be utilised whenever the site is silent (even if security guards are present);
- Removal of batteries from plant can help prevent theft with the added benefit of maintaining charge during long periods of inactivity. This is particularly relevant for electrical plant;
- Batteries must then be stored in a secured container or building to prevent easy replacement;
- Commonly older items of plant are immobilised behind the main vehicle entrance gate to prevent easy removal of higher value assets
- Plant should not be left on trailers overnight regardless of if they are hitched or not. Trailers can be protected with hitch locks or wheel clamps

Tracking devices

Such devices enable plant to be easier to recover following theft but can also provide an early alert through geo-fencing alerts. There are a large number of plant and vehicle tracking devices on the market and these may be manufacturer installed or after-market additions to the vehicles.

- The device should be covertly installed, and preferably be automatically activated (whilst theft is taking place), rather than manually activated (once theft has been discovered);
- After market Thatcham approved devices to Category S5 (where suitable manufacturer installed tracking devices are not present) will provide the highest specification of post-theft tracking and recovery systems where they provide the ability to immobilise a vehicle remotely by capping certain engine functions

Other Susceptible Items

Whilst the targeted theft of larger plant and equipment is often driven by organised criminal gangs, the opportunistic theft of tools, materials, worker transport such as bicycles and scooters, and other items that can easily be removed by a single individual, is also increasing. Security measures for such theft-attractive items can include:

- Minimise storage onsite wherever possible;
- Locked metal containers installed with SelectaDNA Portable Intruder Spray;
- For fuel bowsers consider offsite refuelling or occasional site fuelling with the removal of any bowser as soon as practicable;
- Ensure that these areas are protected by monitored CCTV.

Checklist

A generic Site Security Checklist is presented in Appendix 1 which can be tailored to your own organisation.

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Sources and Useful Links

- [National Security Inspectorate \(NSI\)](#)
- [Security Systems & Alarm Inspection Board \(SSAIB\)](#)
- [British Security Industry Board \(BSI\)](#)
- [Security Industry Authority](#)
- [RISCAuthority](#) (UK insurers' technical advice body)

Additional Information

Relevant Loss Prevention Standards (LPS) include:

- Mobile Plant
- Hand Tool Safety

To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

Email us at riskadvice@aviva.com or call 0345 366 6666.*

*The cost of calls to 03 prefixed numbers are charged at national call rates (charges may vary dependent on your network provider) and are usually included in inclusive minute plans from landlines and mobiles. For our joint protection telephone calls may be recorded and/or monitored.

Appendix 1 – Site Security Checklist



Location	
Date	
Completed by (name and signature)	

	Site Protections	Y/N	Comments
1.	<ul style="list-style-type: none"> Site perimeter fencing/hoarding in good order No signs of attempted forced entry such as tool marks No storage in vicinity of fences which would aid climbing (ladders, scaffold towers, materials/waste) Site gates and other access points provided with suitable heavy-duty locks and chains in good working order Signs to perimeter of site advising security measures in place still affixed and visible 		
2.	<ul style="list-style-type: none"> Site CCTV confirmed to be operational. (As site changes relocation of cameras may be required) Site alarm system (where present) set Keyholder lists up to date Site Lighting in good working order; no signs of damage and all bulbs illuminating Detection devices to cameras and lighting not obstructed by machinery, site materials etc. 		

	Plant & Machinery	Y/N	Comments
3.	<ul style="list-style-type: none"> List of site plant up to date List of all equipment identity numbers, registration scheme markings, forensic coding materials held on- and off-site and updated regularly Equipment on site isolated by all available devices Batteries removed from plant and securely stored 		

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	<ul style="list-style-type: none"> • Equipment keys stored securely or removed from site • Smaller equipment stored indoors or within containers where possible • No Plant machinery stored on trailers 		
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	Site Guards (where present)	Y/N	Comments
5.	<ul style="list-style-type: none"> • Site formerly handed over to site guards • Site guard's activity logs (clocking points) checked regularly to ensure designated patrols undertaken • Site guards' duties confirmed and acknowledged (Guards may regularly change and new staff may be unfamiliar with site and need H&S induction) 		

6.	Additional comments:
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