

White paper School entrance gate design & specifications

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Helping you to choose the right specification of fencing and gates for your school



A guide to: Choosing the right specification of fencing and gates for your school



When it comes to securing the perimeter and entrance points of your school, there are a number of factors to take into consideration.

From first impressions, fencing and gates are a clear, physical demonstration of your commitment to the safety and security of your students and staff, and are a projection of the image of the school and its values to students, staff, and the wider community. And whilst you'll want to ensure a safety first approach, the last thing you'll want is for your school to resemble Fort Knox...

In this guide, we describe best practice specifications for fencing and gates. Whether you require specialist advice on high security, fencing for sports courts and fields, playgrounds or outside learning areas, the New Forest Fencing Group have the long-standing expertise to advise you and carry out a free audit of your site.

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Safety first...

Replacing or establishing school perimeter fencing and gates aren't a small feat, it's a permanent fixture and likely isn't a job you want to have to do more than once.

With this in mind you'll need to consider carefully your site and the appropriate level of security you'll need – whether you're in a higher risk or a lower risk area.

Start with a security audit that encompasses the following:

- Walk around the site, but view it from an intruders' perspective
- Take photographs and notes to help you visualise the layout and location of access points, elevated ground, trees etc as this will help to inform the right level and type of fencing that you'll need

Your fencing should:

- Allow clear views over the buildings and grounds from surrounding land and buildings to deter anti-social behaviour, and unauthorised entry & exit.
- In some places, you may need to shield students from unwanted outside attention, or control the projection of noise.

Height requirements (the bits you need to know)

For controlling the flow of people and vehicles, perimeter fencing and gates should adhere to these guidelines:

- Steel or timber fencing of between 1.2m and 1.6m in height.
- Security: Steel or timber fencing of between 1.8m and 2.4m in height.
- Whether of timber or steel construction, pales should be securely fixed to the frame/rails.
- Ensure all fixings employed in the panel or pale to rail construction are either welded or of galvanized steel or stainless steel with a design life to match the fence or gate.

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Fencing in lower and standard risk areas

There are several types of fencing that you could choose that are both secure and aesthetic. For best value for money, at **the New Forest Fencing Group**, we often recommend stainless steel or galvanised vertical bar fencing for best strength, durability and aesthetics.

Whether you choose timber or steel palisade fencing, the panels should:

- Be orientated vertically to avoid step-up points for climbing
- If of timber construction, pales should be no less than 25mm thick
- If steel, the wall thickness should be no less than 1.5mm
- Pales should be securely fixed to the frame/rails, with a design life matched to the fence or gates. For example, they should either be of welded or galvanised steel or stainless steel.

Heights, tops and posts (the nitty gritty bits):

Heights:

Minimum of 1.8m overall, and capable of raking or stepping to maintain height over uneven ground.

<u>Tops:</u>

The tops/top rail/capping of fencing and gates should be of a design able to accommodate a security topping where necessary to deter attempts to scale over into the school grounds.

Posts:

- Posts should allow the construction of an unbroken panel to post chain and be of a non-brittle material.
- The dimensions of the timber or steel post should be matched not only to the fence height and type but also to loading factors the fence will be subject to including wind and pushing.
- Consider whether the posts will be used to mount other security measures such as CCTV or lighting as these will need to be specified from the start.

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If you opt for a welded mesh fence system:

- There should only be small gaps between the mesh strands to prevent climbing.
- The fixings between the panel and rails should create a secure mechanical bond to provide a linking effect where each panel and post reacts with the next to resist attack by pushing and pulling.



Gates in lower and standard risk areas

When it comes to gates, there are several factors that need to be considered. Firstly, separate access points should be provided for people vs vehicles to ensure the safe flow of both. Secondly, the specification of gates, should match the specification of fencing to ensure strength and durability. Thirdly, if you require automated gates, they must always be CE marked, and compliant with EU Directive 2006/42/EC.

For further information on automated gate safety standards, please see below.

Pedestrian gates

For pedestrian gates, they'll need to be of a framed design, with galvanised adjustable hinges, and fixings mounted behind the attack face. Where gates are outward opening and the hinges or brace is mounted on the attached face, fixings should be a galvanised 'blind' coach bolt design.

It goes without saying that all pedestrian gates should be fitted with locks and fixing features that match the fence.



Vehicle gates

To avoid an expensive damages bill, vehicle gates should be inward opening. Like pedestrian gates, they should be built from a substantial framed construction with galvanised adjustable hinges, and fixings mounted behind the attack face.

When it comes to locks and bolts, they should be fitted with galvanised drop bolts, and the facility for padlocking (manual gates), or electromechanical locking (for automated gates), with mechanical/electro-mechanical devices as applicable to hold gate leaves in the open position.

Automated gates

Since January 2010, 8 automated gate accidents involving children have been reported. 2 occurred in schools, and 2 incidents resulted in fatalities.

That's why it's imperative to ensure that gates are installed by **Door & Hardware Federation installers** like the **New Forest Fencing Group**, and are maintained regularly for safe and reliable operation.

As mentioned above, gates must always be CE marked, and compliant with EU Directive 2006/42/EC.

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Fencing and gates in higher risk areas

If you need to prevent higher chances of more severe risks for a school in a higher crime area, the specifications you'll need to consider are slightly different to those described earlier in this guide. For example:

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The fences and gates will need to be a minimum height of 1.8m	The design will need to be certified to LPS 1175 Security Rating 1 (SR1)	For higher applications, consider LPS 1175 SR2 or SR3 SR3 is more resistant to penetration than SR1	If SR3 is not required, you may want to opt for SR1 at a height of 2.4m

When it comes to gates in these circumstances, they too must be certified to the same rating as the adjoining fencing, and of the same height and style. It shouldn't be possible to lift the gate from its hinges, and the lock cylinder should be protected to prevent them being used as climbing aids.

Gates used for preventing access into a fire path to the side and rear of a school should be certified to either LPS 1175 SR2 or STS 202 BR2.

Where the gate forms part of an emergency escape route, the release mechanism must be of a keyless design, and protected to prevent it being operated from outside of the gate.

In addition, if there is a genuine risk of attack from a vehicle(s), steel security bollards should be considered. In these circumstances, only consider those which have been successfully tested to PAS 68-1:2013.



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Where to go from here?: Advice on best practice

The Crime Prevention Design Advisor or Architectural Liaison Officer at your local police station, and Secured by Design's New Schools Guidance document, are all excellent sources of guidance on the design of your boundary protection.

At the New Forest Fencing Group, we can additionally offer a free security audit of your site, and provide you with a range of suitable options, costs and timescales for solutions that are both fit for purpose, and where possible, are made in accordance with school colours.



Contact us to arrange your free security audit and get a quote:

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