



Te Tāhuhu o
te Mātauranga
Ministry of Education

Fencing at Schools

Design and Specification Guidance

Version 1.0 May 2023



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1. Introduction

1.1 Introduction

Schools / kura should be safe, welcoming and inclusive environments for ākonga, whānau and the wider community to enjoy.

Fencing can be used where there is an identified safety, security, privacy reason or to manage external noise at schools. Fencing may also support student safety and create an inclusive environment for ākonga with learning support needs.

Fences must not discourage learner, whānau and community engagement with a school, during and after school hours. It is important to consider a range of other strategies that could be used to meet a school's needs. For example, consider landscaping, operational, behavioural, social and cultural strategies to create safe and inclusive environments.

1.2 Scope and Application

The Ministry of Education (The Ministry) does not have a specific requirement for schools to be fenced. Fencing should be considered on a needs basis.

If you are planning to install fencing, there are mandatory functional and technical standards that must be met. This document outlines our standards and preferred solutions for meeting them. These standards aim to ensure that school fences are future-proofed and fit-for-purpose.

The document provides:

- guidance for considering the purpose and functional requirements of a fence,
- specifications for fencing and gate design, and
- outlines the preferred solutions for meeting our standards.

This document's scope includes all fencing projects in schools with a particular focus on boundary fencing. All images included in this document are indicative only and not suitable for site-specific construction documentation.

1.3 Intended Audience

The intended users of this document are schools, school boards, project managers, designers and contractors. This document must be used to prepare specifications for fencing manufacturers and contractors.

1.4 Additional Information

Find additional information about designing and installing fences at schools on the Ministry website:

- [Fencing at schools](#)
- [Designing Schools in Aotearoa New Zealand](#) (DSNZ)

2. Guidance for Planning a Fence

2.1 Boundary Fences

This document focuses on guidance for boundary fence design. For the purposes of this document, a boundary is where the school learning campus (including school property, outdoor learning areas, recreation areas and circulation areas) meets an area considered 'out of bounds' for ākonga during normal school time activities. Out of bounds areas are spaces where learners should not have access to, typically for safety reasons.

Some examples of out of bounds areas include:

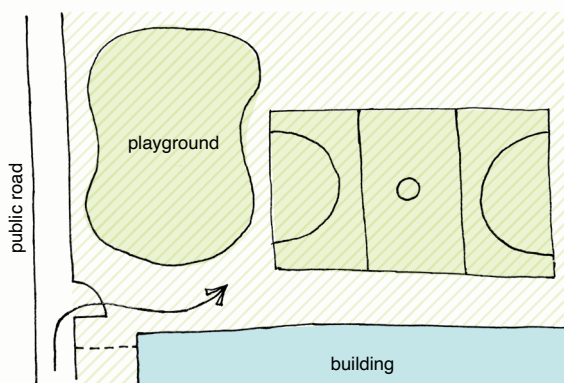
- land owned by someone else; private, public, commercial or residential neighbours,
- areas for vehicles; roads or pick up and drop off areas, and
- areas that pose a safety risk; steep banks, busy roads, train lines or waterways for example.

The term 'boundary' does not refer to the school's property boundary. Instead, a boundary fence creates a secured, inclusive area within a school.

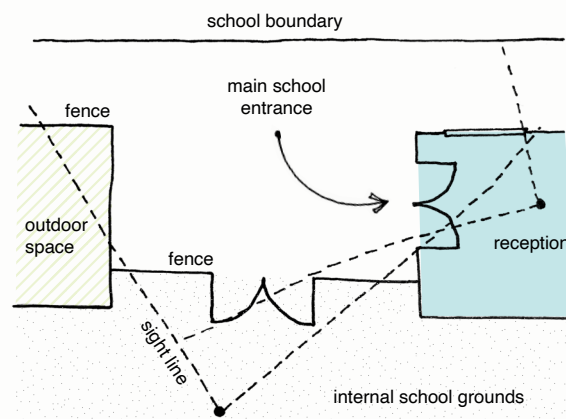
2.2 Fence Design and Location Guidance

When planning fence and gate design:	Guidance
<p>Ensure fences and gates are best placed to support safe and welcoming school objectives.</p>	<ul style="list-style-type: none"> • Ensure the main entrance and public facing parts of the school remain welcoming, inviting and accessible to the public. • Embed passive surveillance principles when planning fence locations and design. Use Crime Prevention Through Environmental Design (CPTED) strategies to maximise quality passive oversight and minimise antisocial behaviour. For example: <ul style="list-style-type: none"> • ensure sightlines between reception and staffed areas and public entrances or vehicle access ways are created or preserved, and • prioritise fencing types that allow transparency and enable passive oversight and good visibility. • Position gates in locations that enable community access to facilities such as admin, courtyards, sports courts, fields and play areas. • Avoid installing climbable structures, such as trees, bench seats or playground equipment near boundary fences. • Avoid placing fences where they can be used to access roofs or other unsafe areas. • Where practical, explore alternative solutions to creating a boundary line between the school campus and public areas. For example, incorporating landscape design (using planting, bollards, boulders, material changes or level changes) to mark a boundary.

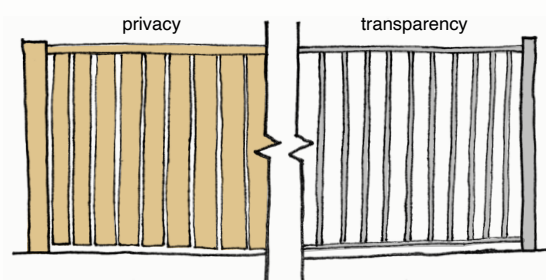
Where practical, future proof the fence by choosing a fence design that meets multiple needs.	<ul style="list-style-type: none"> To ensure all boundary fences meet potential future learning support needs, they must be at least 1.8m high. 1.8m fences are harder to climb over.
Ensure the durability of the materials and style of fence is of a commercial quality and fit-for-purpose.	<ul style="list-style-type: none"> Design for specific contextual considerations such as rust-resistant materials for high corrosion zones and robust fence styles for vehicle parking areas.
Consider the visual impact of the fence and strategies to soften the barrier.	<ul style="list-style-type: none"> Landscaping and planting small hedges around the fence, particularly towards the entrance of a school, can soften the boundary and support a welcoming entrance. Darker coloured fences typically blend better into the surrounding landscape. Brighter or lighter colours may be required in areas to increase the contrast of the fence with the surroundings and support low vision learners.
Ensure circulation routes remain accessible and appropriate for traffic flow.	<ul style="list-style-type: none"> Ensure gate widths are appropriate for accessible routes. Avoid creating bottlenecks or pinch points on primary circulation routes. Avoid narrow gates for the main entries into a school.
Ensure safe vehicle and pedestrian movement.	<ul style="list-style-type: none"> Provide clear sightlines where needed for safety. Avoid solid fences where a lack of sightlines may adversely impact pedestrian safety. This is especially important where a pedestrian path intersects with a vehicle route.
Ensure emergency vehicle access routes are planned for and protected.	<ul style="list-style-type: none"> If fencing a localised area within a school, ensure protection of fire egress routes and emergency evacuation zones.



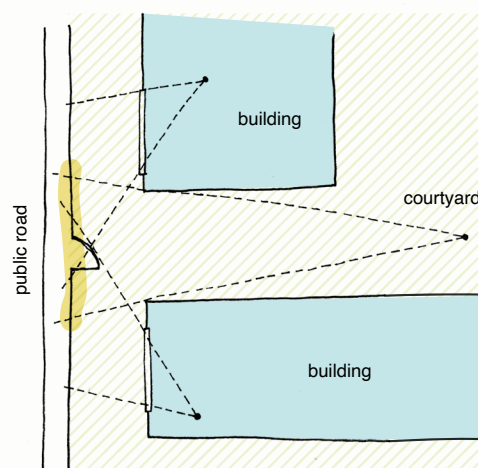
Enable community access to key facilities.



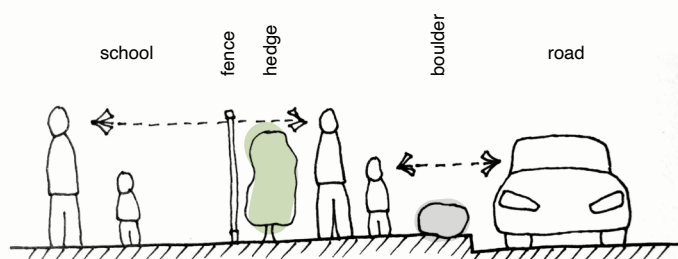
Prioritise creating welcoming, barrier-free entrances.



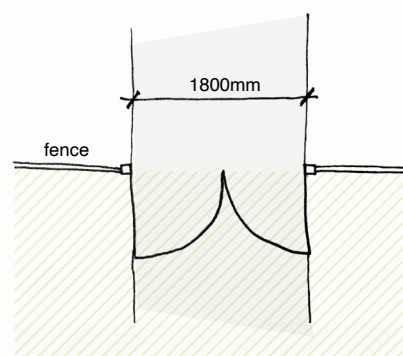
Consider fence transparency for passive oversight.



Prioritise gate locations within sight lines.



Consider landscape solutions.



Maintain accessible routes.

3. Types of Fencing and Functional Requirements

3.1 Fence Type Selection

The following table and flow chart can be used to guide the selection of a fence type.

Fence type:	Metal Bar Fence	Folded Rigid Wire Fence	Wire Mesh Fence	High Density Material Fence	Timber Fence
<u>Private Boundary (visual privacy)</u>					✓
<u>Public Boundary (safety)</u>	✓	✓			
<u>Noise Barrier</u>				✓	✓
<u>Sports Fields & Hard Courts</u>	✓	✓	✓		
<u>Swimming Pool</u>	✓	✓			
<u>Separating Vehicles from Pedestrians</u>	✓	✓			

What is the main purpose for the fence?

Create a secured and inclusive area within the school boundary

Create a barrier to increase privacy at a boundary

Create a barrier to enclose sports equipment

Create a noise barrier

What is the main priority for the school site?

How high are balls or other sporting equipment likely to go?

How intense is the noise that is trying to be reduced?

General use
Is the fence just to mark a boundary?

Durability
Is corrosion an issue due to your school's location?

Strength
Is impact against the fence likely to be an issue?

<1.8m

>1.8m

<10dB
Light noise from a road

>10dB
Loud noise from a busy highway

Create a fence that is impervious

Consider a fence that is made from denser material

Consider metal folded rigid wire fence

Consider an aluminium metal bar fence

Consider a steel metal bar fence

Consider a timber fence

Consider a metal folded rigid wire fence


Consider a wire mesh fence

Consider a plywood or timber fence

Consider a concrete, block or brick fence

3.2 Boundary Fencing Between a Private Neighbour and a School

This fence type outlines the functional requirements to create a secured and inclusive area within a school and is a suitable boundary fence.

Functional requirements	<ul style="list-style-type: none"> Fences installed on a boundary that is shared with a private neighbour (residential or commercial) should provide visual privacy for the school. Minimise the risk of climbing by ensuring no horizontal rails are on the school side of the fence. For example, single sided timber fences must have the palings facing the school side. The fence design must not include any sharp edges or protruding members. Gaps in the fencing design must support privacy, noise and safety objectives.
Height	<ul style="list-style-type: none"> The minimum height for a boundary fence is 1.8m.
Example fence types	<ul style="list-style-type: none"> Acceptable fence types include: <ul style="list-style-type: none"> <u>Timber fencing</u> <u>High density fencing (if there is a need for a noise barrier)</u> <div data-bbox="758 1115 1265 1462">  </div>

3.3 Boundary Fencing Between a Public or High-Risk Area and a School

These fences may be installed along a boundary with roads, public parks, water ways, or other out of bounds areas and should be designed and located for student safety.


This fence type outlines the functional requirements to create a secured and inclusive area within the school and a suitable boundary fence.

Functional requirements	<ul style="list-style-type: none"> • The fence must be as transparent as possible to support high quality oversight and visual connection. • The fence design must exclude any sharp edges or protruding members. This includes uncapped hollow metal bars or posts, and vertical bars that protrude over the top rail. • Make fences smooth where possible to reduce grip for climbing. • Minimise the ability to climb fences by eliminating potential footholds. Ensure horizontal rails are only near the top and bottom of the fence, not through the central area of the fence. • In all instances, no gaps in the fence design are to be wider than 100mm including the space between the bottom of the fence and the ground.
Height	<ul style="list-style-type: none"> • The minimum height for a boundary fence is 1.8m.
Example fence types	<ul style="list-style-type: none"> • Acceptable fence types include: <ul style="list-style-type: none"> • <u>Metal bar fencing</u> • <u>Folded rigid wire fencing</u> <div data-bbox="700 1355 1185 1655" data-label="Image"> </div> <div data-bbox="700 1675 1185 1995" data-label="Image"> </div>

3.4 Fences as Noise Barriers

Fences can be used to create noise barriers and reduce the impact of surrounding noise (for example, from traffic or construction) on schools.


Only install noise barrier fences in specific locations for targeted noise reduction. Only prioritise noise reduction where necessary to achieve acceptable noise level standards for teaching and learning areas.

Functional requirements	<ul style="list-style-type: none"> • The extent of fencing must consider sightlines needed for CPTED and pedestrian safety reasons. • Noise barrier design must achieve fit-for-purpose noise reductions to achieve Ministry Acoustic requirements. More guidance can be found in our DQLS Acoustic Standards and the NZTA Noise Barrier Design Guide. • Consider the level of noise reduction required when selecting a fence type and materials used. An effective noise barrier design uses dense materials and is impervious. • If the noise barrier fence is installed along a boundary, meet the functional requirements outlined for private boundaries or public boundaries.
Height	<ul style="list-style-type: none"> • The minimum height for a boundary fence is 1.8m. • If the fence is along a boundary, it needs to meet the functional requirements ensure the fence height is fit-for-purpose to achieve noise reduction.
Example fence types	<ul style="list-style-type: none"> • Recommended fence types include: <ul style="list-style-type: none"> • Timber • Concrete • Stone • Brick 

3.5 Fencings for Sport Fields and Hard Courts

Fences for sports fields and hard courts are to be avoided where possible.

Only provide fencing where required to prevent balls damaging property, being lost, or entering neighbouring property or hazardous areas.

Functional requirements	<ul style="list-style-type: none"> • Ensure adequate entry/exit points are provided to support quality circulation to the school and sports areas. • If a wire mesh fence is used, where practical, select a tighter diamond mesh to avoid footholds and minimise the risk of climbing. For example, 25mm diamond rather than 50mm. • If a wire mesh fence is used, provide a top and bottom rail to each panel, for stability. • If the fence is installed along a boundary, meet the functional requirements outlined for private boundaries or public boundaries.
Height	<ul style="list-style-type: none"> • The minimum height for a boundary fence is 1.8m. • Ensure the fence height is fit-for-purpose and appropriate for the sport and context. For example: <ul style="list-style-type: none"> • A rugby field that shares a goal line boundary with a busy road might need a fence over 3m+. The fence may need to be up to 6m behind the goal posts facing the road. • A soccer field that shares a boundary with a footpath or road might need a fence between 1.8m – 3m tall. • A soccer field's edges that are internal to a school might not need a fence or might need a fence that's 1.2m tall. • A tennis court might need a fence that's between 1.8m and 4m tall. • A netball court inside a school site might not need a fence or might need a low fence between 1.2m - 1.8m tall.
Example fence types	<ul style="list-style-type: none"> • Recommended fence types include: <ul style="list-style-type: none"> • Wire mesh fence (up to 6m height and suitable against higher impact) • Folded rigid wire fencing (up to 1.8m height and suitable against lower impact) 

3.6 Fencing for Swimming Pools

Functional requirements	<ul style="list-style-type: none"> Ensure fencing for swimming pools meet the requirements of Building Code Clause F9: Restricting access to residential pools. Fencing surrounding pools must be transparent to support high quality oversight for safety. There may be areas that require solid fencing for privacy around changing spaces. Ensure these areas do not block sightlines necessary for safety. If the fence is installed along a boundary, it needs to meet the functional requirements outlined for private boundaries or public boundaries.
Height	<ul style="list-style-type: none"> Ensure a fence height of 1.8m minimum.
Example fence types	<ul style="list-style-type: none"> Recommended fence types include: <ul style="list-style-type: none"> Metal bar fencing Folded rigid wire fencing

3.7 Fencing to Separate Vehicles from Pedestrians

If there is no need for a boundary fence in this location, consider using landscape design to separate vehicles from pedestrians. For example, planting, boulders, bollards, a change in height or material.

Fences may be used to create a barrier between vehicle areas and pedestrian areas, typically at the main entrance of a school.

Functional requirements	<ul style="list-style-type: none"> Where a fence is required, the fence must be transparent to support high quality oversight and visual connection. Where there is risk of impact from vehicles against the fence, select a stronger fence type (such as steel rather than aluminium). If the fence is installed along a boundary, meet the functional requirements outlined for private boundaries or public boundaries.
Height	<ul style="list-style-type: none"> The minimum height for a boundary fence is 1.8m. If the fence is not acting as a boundary fence, ensure the fence height is fit-for-purpose. A minimum recommended height is 1.2m.
Example fence types	<ul style="list-style-type: none"> Recommended fence types if landscape design is not being used includes: <ul style="list-style-type: none"> Metal bar fencing (if fence could be hit by vehicles) Folded rigid wire fencing (if fence is away from vehicles)

3.8 Fencing for Specific Outdoor Areas for Students with Learning Support Needs

Students with learning support needs may require a specific area within a school to be fenced. Examples of this include outdoor learning areas or an exclusive quiet zone that is adjacent to a satellite unit at a host school.

The functional requirements for boundary fences respond to most of the common needs to support the creation of secured and inclusive areas within a school. However, the design of fences for students with learning support needs will need to respond to the specific learner's needs as these could vary from school to school. Discuss the requirements of the fence design with Ministry staff who will support you to develop a design.

4. Material and Construction Requirements

4.1 Performance Requirements for Boundary Fences at Schools

The following performance requirements apply to all boundary fences at schools. These requirements should be considered as a minimum and all requirements should be checked to ensure suitability to the site, climatic and corrosion zone and functional requirements.

When planning fence and gate design:	Performance requirement
Strength	<ul style="list-style-type: none"> Fence design is to be resistant against impact from students, sports equipment and reasonably resistant against vehicles. Fence members are to be reasonably resistant to bending by students. Ensure the fence is not fixed or attached to any buildings.
Durability	<ul style="list-style-type: none"> Fence design is to be of commercial quality, be resistant to corrosion, wear and tear and vandalism.
Environmental impact	<ul style="list-style-type: none"> For materials and finishes selection, our preference is for the: <ul style="list-style-type: none"> lowest embodied carbon solutions, lowest use of toxic materials, highest potential for reuse or recycling. Where practical, provide solid or compacted grounds underneath the fence. Avoid mowing strips unless there is a functional requirement.
Safety	<ul style="list-style-type: none"> Ensure the fence does not create a safety hazard. No sharp edges or protruding spikes are permitted. Fence design must not facilitate climbing: <ul style="list-style-type: none"> avoid footholds, handholds or horizontal bars, centrally through the fence, where the fence design requires horizontal members, ensure these are not through the middle portion of the fence or accessible from the school side (eg. timber fence palings must be installed on the school side), make fences smooth where possible to reduce grip for climbing. Minimise opportunities for students to climb underneath the fence: <ul style="list-style-type: none"> Where practical, ensure the gap between the bottom of the fence and the ground is no more than 100mm.
Fitness-for-purpose	<ul style="list-style-type: none"> Ensure the fence design meets the functional requirements and supports easy, low-cost landscape maintenance.

When preparing a specification or design for a fence:

- allow for the removal of vegetation and any existing non suitable fencing,
- ensure fence and gate location meets with Ministry design requirements, and
- confirm on site:
 - ground levels and slopes,
 - ground conditions to ensure suitability of foundation design,
 - any underground services prior to design. eg. water pipes and electrical cabling, and
 - all measurements prior to ordering and manufacture.

4.2 Metal Bar Fencing – Aluminium or Steel

Category	Preferred solutions:
Member dimensions	<p>Fence Posts:</p> <ul style="list-style-type: none"> For metal bar fences, post member profiles to be minimum 65mm x 65mm. Post member profiles for gate hinges to be minimum 100mm x 100mm. Post centres to support standard panel widths and provide reasonable stability. <p>Vertical bars and horizontal rails:</p> <ul style="list-style-type: none"> Square hollow sections (SHS) are preferred to circular hollow tubes for vertical bars. Solid rod members are not permitted. Square vertical bar members are to be minimum 25mm x 25mm and for circular members, a minimum 20mm outside diameter. Horizontal rails are to be a minimum of 40mm x 40mm square or 40mm outside diameter. Consider double top rails where additional strength is required. Spacing between vertical bars to be maximum 100mm.
Material	<ul style="list-style-type: none"> Steel or aluminium fences are acceptable. Steel sections to meet AS/NZS1163. All steel to have a hot dipped galvanised coating that meets AS/NZS4680. Electro-galvanising or pre-galvanising prior to welding is not permitted. Minimise screw fixings and maximise sealed, welded joints. For horizontal rail to post connections, if screw fixings are required, aim to conceal the fixing by using brackets and fixing screws to the underside of the rail.
Finish	<ul style="list-style-type: none"> In order of priority, the preferred finish for steel fencing is: <ul style="list-style-type: none"> natural finish galvanised steel, or powder coated, colour to be appropriate for the school. The preferred finish for aluminium fencing is powder coated, colour to be appropriate for the school. Ensure posts are capped.
Foundations	<p>Concrete Foundations:</p> <ul style="list-style-type: none"> Concrete foundations to be minimum 600mm deep x 200mm diameter or square width with the foundation depth at least a third of the fence height. Posts must be minimum 100mm up from bottom of posthole. Contractor to confirm ground conditions and allow to provide deeper footings where required to ensure stability of fencing. Contractor to examine nib walls or other ground features and confirm suitability to provide a strong and safe base for the new fence. Concrete to NZS 3604 with minimum compressive strength of 17.5 MPa.

4.3 Folded Rigid Wire Fencing

Category	Preferred solutions:
Member dimensions	<p>Steel Posts:</p> <ul style="list-style-type: none"> Steel post member profiles to be minimum 65mm x 65mm. In-ground posts or surface mounted posts are acceptable, to be selected based on site suitability. Post centres to support standard panel widths and provide reasonable stability. <p>Steel vertical bars and horizontal rails:</p> <ul style="list-style-type: none"> Vertical wire bars to be minimum 7.5mm diameter. Horizontal wire rails to be minimum 6.5mm diameter. Maximum distance between vertical bars to be 75mm.
Material	<ul style="list-style-type: none"> Hot dipped galvanised steel coating to AS/NZS 4680. Electrogalvanising or pre-galvanising prior to welding is not permitted.
Finish	<ul style="list-style-type: none"> The preferred finish is natural finish galvanised steel. Ensure posts are capped.
Foundations	<p>Concrete Foundations:</p> <ul style="list-style-type: none"> Concrete foundations to be minimum 600mm deep x 200mm diameter or square width with the foundation depth at least a third of the fence height. Posts must be minimum 100mm up from bottom of posthole. Contractor to confirm ground conditions and allow to provide deeper footings where required to ensure stability of fencing. Contractor to examine nib walls or other ground features and confirm suitability to provide a strong and safe base for the new fence. Concrete to NZS 3604 with minimum compressive strength of 17.5 MPa.

4.4 Timber Fencing

A close, vertical board timber fence with palings to face school side.

Category	Preferred solutions:
Member dimensions	<p>Posts:</p> <ul style="list-style-type: none"> • Post profiles to be minimum 100mm x 100mm at approximately 2.4m centres or to suit standard lengths. • 3 horizontal rails, fixed on vertical edge, continuous between posts is preferred to mitigate the risk of paling warping. Maximum 900mm spacing between rails. • A maximum distance of 100mm between the paling ends and bottom of the bottom rail. • Palings; non-lapped, 150mm wide x 20mm - 25mm thick depending on site and durability considerations. An approximate 20mm gap is recommended or to allow even spacing. Maximum gap size of 50mm to maintain privacy. • Fence capping recommended. <p>For fences with palings to one side:</p> <ul style="list-style-type: none"> • Rails to be 100mm x 50mm fixed on vertical edge with halving joint at post junctions with M12 galvanised coach bolt and washers. <p>For fences with palings to both sides:</p> <ul style="list-style-type: none"> • Where rails are not face fixed to posts, screw nails or nail plates are acceptable.
Material	<p>Timber:</p> <ul style="list-style-type: none"> • Timber palings and rails to be: <ul style="list-style-type: none"> • radiata pine with minimum H3.2 treated. Rough sawn preferred, or • untreated timber with proven natural durability when exposed to the weather such as western red cedar, redwood, cypress species heartwood (macrocarpa). • Timber posts and any other timber in contact with the ground to be H4 treated. Rough sawn preferred. • Isolate any metal fences and gates from timber with treatments. <p>Fixings and Hardware:</p> <ul style="list-style-type: none"> • All nails, hinges, latches and hardware to be galvanised or stainless steel if at high risk of corrosion.
Finish	<ul style="list-style-type: none"> • In order of priority, the preferred finish is: <ul style="list-style-type: none"> • unpainted, • stained, or • painted.
Foundations	<p>Concrete Foundations:</p> <ul style="list-style-type: none"> • Concrete foundations to be minimum 600mm deep x 250mm x 250mm wide, or 250mm diameter, with the foundation depth at least one third of the fence height. • Posts must be minimum 100mm up from bottom of posthole. • Contractor to confirm ground conditions and wind exposure, and allow to provide deeper footings where required to ensure stability of fencing. • Different post and foundation sizes may be required where the ground is sloping, soft or where posts are supporting high impact gates. Where uncertain, seek advice from a structural and/or geotechnical engineer. • Contractor to examine ground features and confirm suitability to provide a strong and safe base for the new fence. • Concrete to NZS 3604 with a minimum compressive strength of 17.5 MPa.

4.5 Pedestrian Gates and Latches

Category	Preferred solutions:
General	<ul style="list-style-type: none"> • Ensure gates for swimming pools fences meet the requirements of Building Code Clause F9: Restricting access to residential pools. • Gate style to match adjacent fencing or be a suitable proprietary gate. • Gates must be built to maintain their integrity and shape under heavy daily use. • Gate swing direction is to open into the secured area. • Ensure the gate cannot be lifted off at the hinges. • Provide practical hold-open catches or bolts for all gates on primary circulation routes.
Dimensions & heights	<ul style="list-style-type: none"> • Gate width is to be appropriately sized to accommodate pedestrian volumes. Gates must not cause bottlenecks when learners begin or finish their school day. • A single gate may be used for low traffic entrances and a double gate may be needed for main entrances. Moderate traffic circulation routes where the gate is likely to be held open are to have 1200mm minimum wide gates. High traffic gates must be sized to site needs. • Low volume gates in secondary or service areas are to be minimum 900mm wide. • Gates at the school boundary are to be a minimum height of 1.8m. • Ensure the gap between the bottom of the gate and the ground is no more than 100mm.
Latches & locks	<ul style="list-style-type: none"> • Gate latches must provide free access from the outside in. At times, schools may want the ability to lock gates to restrict the ability of students to leave the school site. Ensure the gate latch and handle design meets the needs of the school. • If the gate is part of a secure boundary fence, typically, latches are to be: <ul style="list-style-type: none"> • a top pull latch type, installed at the top of the gate, or between 1500mm - 1800mm from the ground, or • a handle and latch at an accessible height, accessible from both sides of the gate, with the ability to be locked, or both. • Where additional security is required, consider installing a latch which requires additional manoeuvres to open (eg. twist and pull). • Larger schools may have electronic locking systems for doors and access. For these schools, consider whether extending this system to some gates is appropriate. • For gates between the main school entry and reception, ensure the gate supports access for wheelchair users: <ul style="list-style-type: none"> • consider installing a latch and handle to the exterior side of the gate at an accessible height approximately 900mm above the ground, and • consider installing a doorbell or intercom to the outside of the gate to notify reception staff when assistance is required. • Where there is risk of learners reaching through the vertical bars to open the gate from the inside, consider attaching a solid signage panel or perforated metal panel around the latch, to the outside of the gate and adjacent fence. This could include the school logo, a welcome sign or a pattern design.

Fixings

- Heavy duty self-closing hinges or similar mechanisms are to be installed.
Ensure:
 - 900mm maximum between hinges, minimum 2 hinges installed, 3 hinges preferred if the gate is of a heavier construction, or
 - where 3 hinges are required, install 2 towards the top of the gate and 1 towards the bottom.
- Supply gates with drop bolts or a similar mechanism that allows the fence to be locked open.
- All fixings and hardware to be specified to last at least 10 years. Preferred solutions include molded plastic, galvanised steel or stainless steel if in a highly corrosive area.
- A sign that reads “Please keep gate closed” or similar is to be supplied and securely fixed to the gate on both sides. Refer to section 4.7 Signage.

4.6 Vehicle Gates and Latches

Category	Preferred solutions:
General	<ul style="list-style-type: none"> • Avoid boundary fences across vehicle entry points and driveways. Minimise the number of vehicle gates required across the school. • Gate style to match adjacent fencing or a suitable proprietary gate. • Gates must be built to maintain their integrity and shape under heavy daily use. • Gate swing direction to open into the secured area. • Ensure the gate cannot be lifted off at the hinges. • Provide practical hold open catches or bolts for all vehicle gates.
Dimensions & heights	<ul style="list-style-type: none"> • Gate post members to be sized appropriately to withstand gate forces and potential vehicle impact. • Gate opening widths to be suitable for the type of vehicle thoroughfare and traffic volume. Ensure a minimum opening of 3m for vehicle access. • Ensure emergency vehicles routes have gates that allow a minimum opening of 3.5m wide. • Ensure a gap between the bottom of the fence and the ground that is maximum 100mm. • Gates that are part of a 1.8m high secure school boundary fence are to be 1.8m high.
Latches & locks	<ul style="list-style-type: none"> • If the vehicle gate is also a pedestrian gate, meet the latch requirements for pedestrian gate latches. <p>For vehicle only gates:</p> <ul style="list-style-type: none"> • Gate latch to be accessible from both sides of the boundary. • We recommend installing latches at the top of the gate, 1800mm from the ground. Gate latches installed lower than 1800mm should be lockable and managed by the school. • Ensure latch hardware can be padlocked together with an overlapping arrangement. • Ensure any locking chains are galvanised heavy-duty and enclosed in a plastic or similar to prevent damage to protective coatings. • Ensure that locks to all accessible fire service gates are compliant with Fire Service Padlock requirements.
Fixings	<ul style="list-style-type: none"> • Heavy duty self-closing hinges or similar mechanisms are to be installed. Ensure: <ul style="list-style-type: none"> • 900mm maximum between hinges, • minimum 2 heavy duty hinges installed, 3 hinges preferred if the gate is of a heavier construction, • where 3 hinges are required, install 2 towards the top of the gate and 1 towards the bottom. • All fixings and hardware to be stainless steel or galvanised steel. • Supply gates with drop bolts or a similar mechanism that allows the fence to be locked open. • For heavy or wide gates, provide a jockey wheel where practical to reduce stress on the hinges and posts. • A sign that reads “Please keep gate closed” or similar is to be supplied and securely fixed to the gate on both sides. Refer to section 4.7 Signage.

4.7 Signage

Signage at schools can be used to support welcoming and inviting objectives.

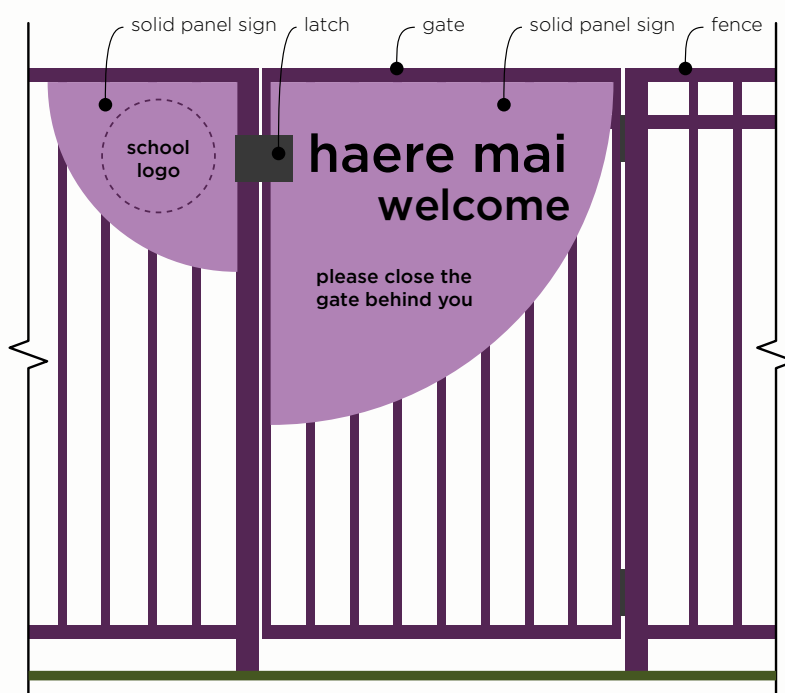
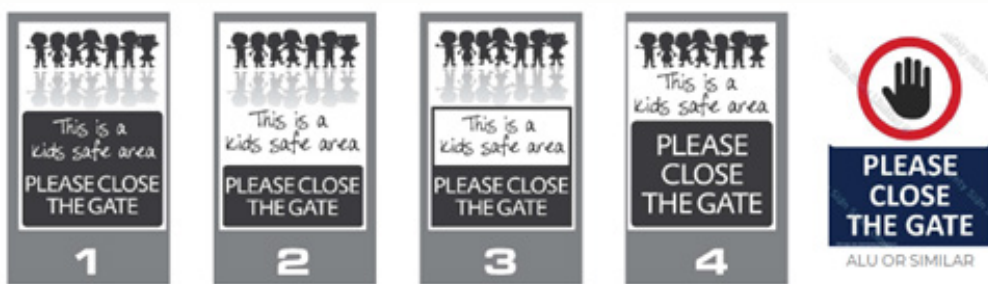
When installing a pedestrian or vehicle gate, ensure a sign is supplied and securely fixed to the gate on both sides. The sign should have a message, approved by the school, that could include:

- gate closure times,
- a reminder to “close the gate behind you”,
- school contact number,
- school logo, and/or
- a welcome greeting.

Ensure the signs:

- have a design that is appropriate for the school,
- are a durable material and with a print quality suitable for exterior use and all weather conditions:
 - for example, screen printed on 1.6mm aluminium sheet (ACM panel),
- rust restraint measures to be taken prior to installation,
- are securely fixed to the front and back of the gate. For example:
 - colour matched cable ties to each corner, securely fixed but easily removeable by a staff member or caretaker to change or adjust if needed.
- have no sharp edges and corners,
- are suitably sized to view from a distance, and
- are installed at a minimum height of 1200mm above ground level from the bottom of the sign.

Signage examples



Te Pou Hanganga Matihiko, Infrastructure and Digital,
May 2023

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