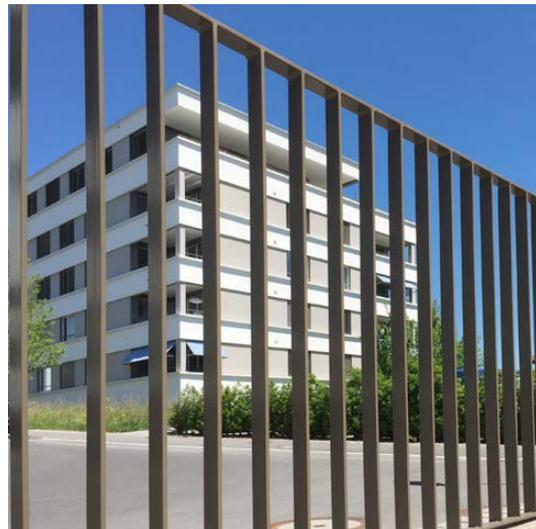
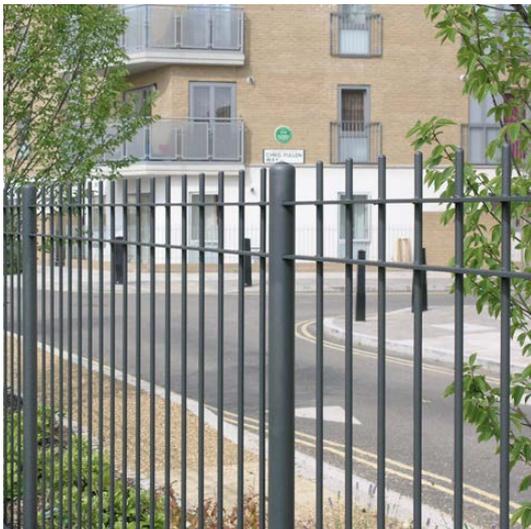


# LANGFULTON



**Steel Fencing Systems**

**Railing Fences**

**Modena | Siena | Siena Sport | Rimini**

t: 0131 441 1255

sales@langandfulton.co.uk

www.langandfulton.co.uk



# Our History

Lang+Fulton is one of the oldest companies in Scotland; its history as iron merchants in Greenock dates back to 1781. From those early days it developed into an important supplier of steel to the UK shipbuilding industry, often carrying steel from the mills in its own ships.

The business has progressively evolved from this background in steel stockholding, fabrication and shipping and today operates as a supplier of fencing, gratings and louvres, employing a young team from engineering and surveying backgrounds.

Our main sales and technical office is based in Edinburgh with a presence and stockholding facility in the West Midlands to best serve our primary market in the South.

# Our Products

- o High quality traditional and contemporary railing fences
- o Durable finish for optimum resistance to corrosion and low maintenance
- o Modular systems for simple installation
- o Advice & support from experienced technical and design team.

## Standard and Bespoke Designs

The range includes a variety of styles for residential, commercial, municipal, sports, play and security applications with features offering particular suitability for specific types of projects. Alternatively, Lang+Fulton will collaborate in the development of a unique design or customise a standard railing by introducing decorative posts, finials and any RAL colour scheme.

## Material

Mild Steel S235JR BS EN 10025.

## Performance

**Compliance:** all fences are supplied in accordance with BS 1722-9.

## Installation

**Narrow Width End Panels:** panels can be cut to size on site or made to custom sizes.

**Groundworks:** posts are set in holes 300mm to 450mm square in plan, depending on fence height, completely filled to a minimum of 50mm below ground level with concrete mix C20.

**Height from ground:** panels should sit no more than 100mm off ground.

**Changes in level:** fence panels can be stepped to a maximum of 150mm on standard length post. Post centres should be reduced for steeper gradients (between 1:20 and 1:7).

## Technical Assistance and Design

Full design service available for panels, posts and gates with consultant engineering services for non-standard loadings.

Detailed CAD drawings prepared for layout and installation and bespoke designs.

## Supply

Products are supplied fully finished for site installation throughout the UK, Channel Islands, Ireland and worldwide destinations.



While all reasonable care is taken to ensure that published and website information is accurate and regularly updated, Lang+Fulton cannot guarantee its accuracy and information may change at any time without notice.



# Modena

Modena is a contemporary railing fence with a stylish appearance for boundary applications, developed in collaboration with one of Italy's leading designers.

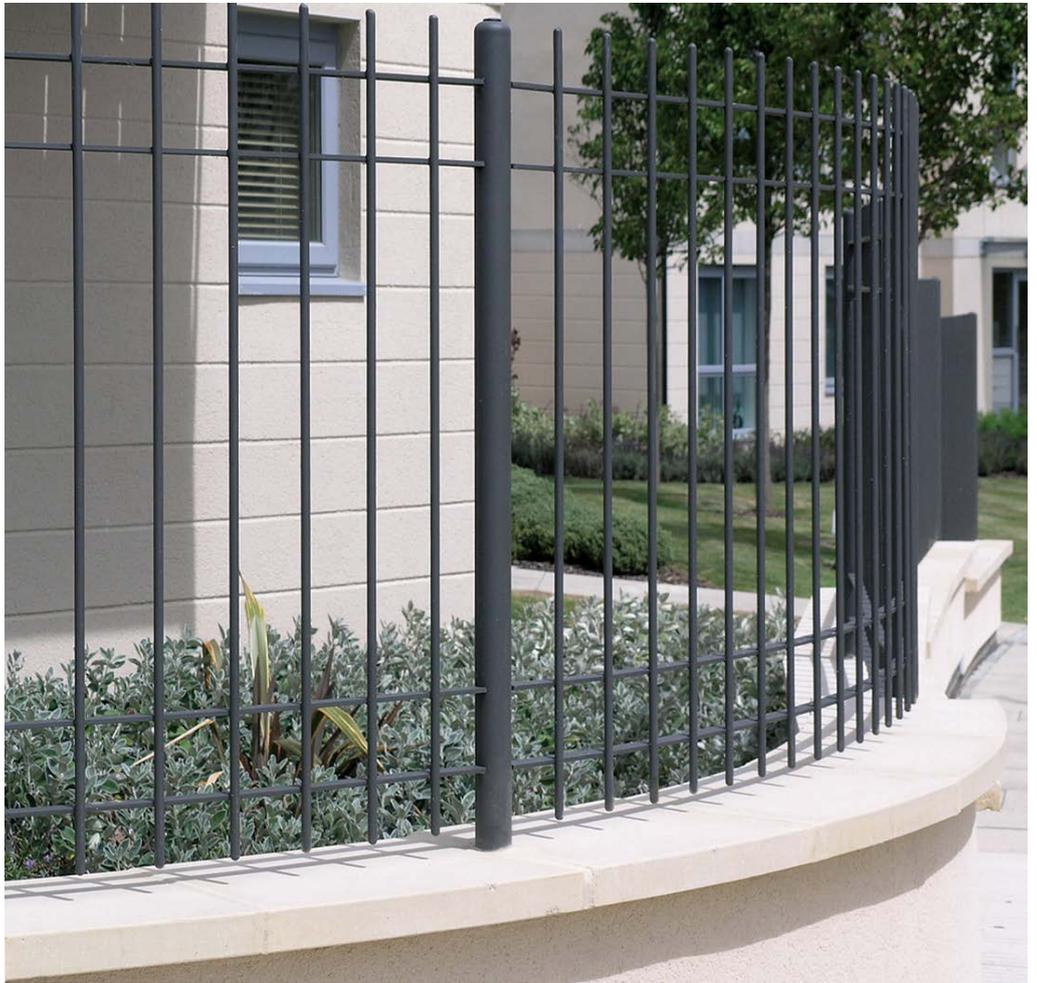
The fencing is made to a modular format from two or three pairs of mild steel horizontal bars according to the height of fence. The horizontal bars are electrofused to solid bar pales which are attractively domed at top and bottom.

Panels and posts are made with a choice of two different fixing systems; the most appropriate is determined by site conditions.

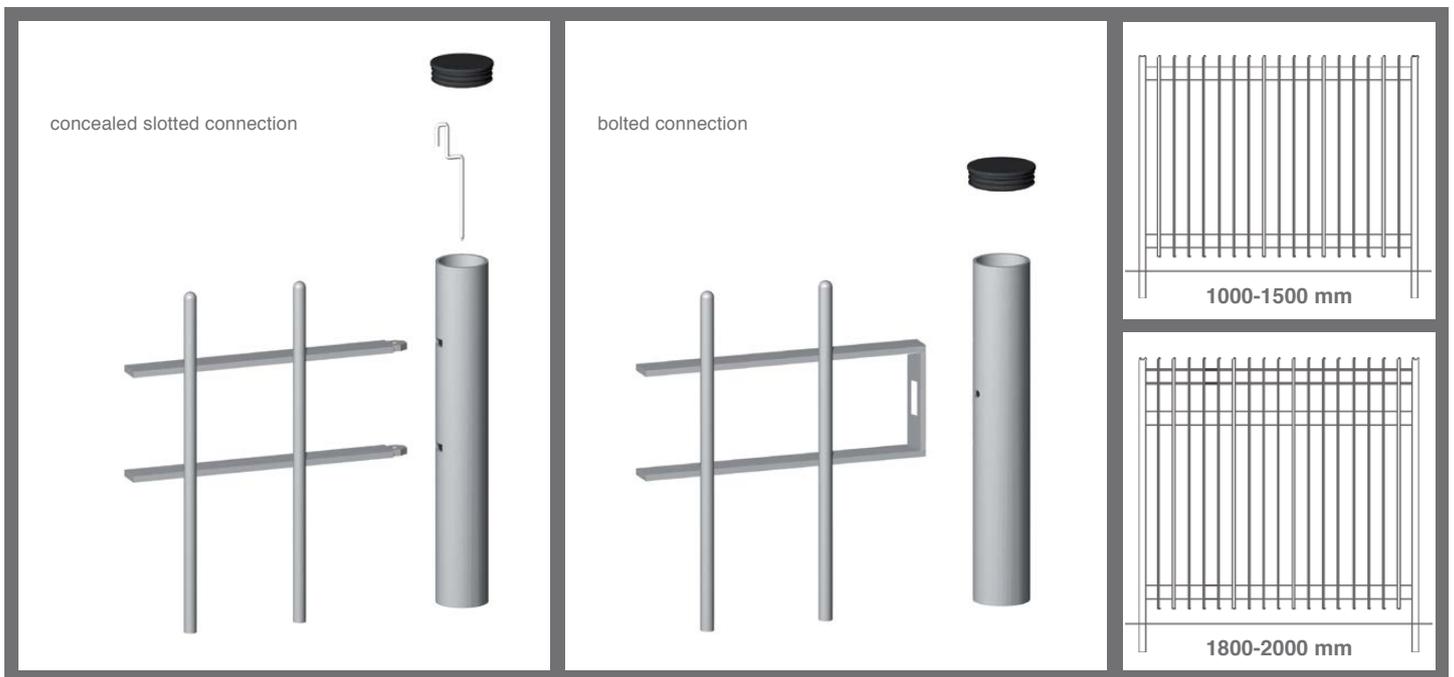
The mild steel is hot-dip galvanized to BS EN 1461 before polyester powder coating in matt mica grey for a smart gun-metal finish, and optimum resistance to corrosion. Alternatively any RAL colour is available on request.

Panel to post connections:

- Posts with a concealed slotted connection are supplied as standard.
- Posts with a bolted connection are recommended for variable ground levels.



| PANEL     |                         | PALE         | RAIL       | POST     |        | POST LENGTH    |                  |
|-----------|-------------------------|--------------|------------|----------|--------|----------------|------------------|
| HEIGHT mm | WIDTH (post centres) mm | SOLID BAR mm | SECTION mm | CHS Ø mm | SHS mm | WALL FIXING mm | GROUND FIXING mm |
| 1000      | 2000                    | 12Ø          | 25x6       | 50       | 50x50  | 1300           | 1500             |
| 1200      | 2000                    | 12Ø          | 25x6       | 50       | 50x50  | 1500           | 1800             |
| 1500      | 2000                    | 12Ø          | 25x6       | 50       | 50x50  | 1800           | 2100             |
| 1800      | 2000                    | 12Ø          | 25x6       | 60       | 60x60  | 2150           | 2500             |
| 2000      | 2000                    | 12Ø          | 25x6       | 76       | 80x80  | 2350           | 2800             |



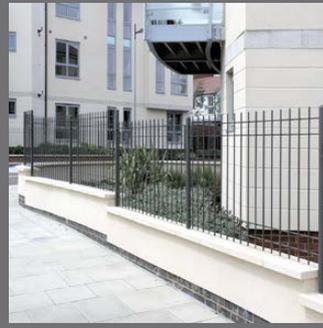


## Onslow House Guildford

Onslow House is a highly prominent 90,000 sq ft office development in the centre of Guildford. A Modena railing fence was specified to complement the contemporary and prestigious architectural styling of the building.

110 linear metres of 1200mm high fencing was supplied to demarcate the boundary along two sides of the office building. Four single-leaf gates fitted with high quality euro-profile cylinder locks provide access to several areas of planting.

Main Contractor: Alfred McAlpine  
Landscaping: Derek Lovejoy & Partners



## Springhead Park Ebbsfleet Valley North Kent

Ebbsfleet Valley is an exciting example of urban regeneration. Springhead Park is a modern reinvention of the traditional Kentish village with contemporary and classic elements in brick and pastel colours reflecting the local vernacular.

Modena was used within the 27.5 hectare site to enclose the front garden areas. The railings were mounted on a dwarf wall and were radiused in sections to follow the line of the wall. Modena fencing also surrounds the central recreational park.

Developer: Countryside Properties



## Bellevue, Edinburgh

A high quality development within the City centre with a design focus on the provision of private garden and public space at its core. The car free zone aimed to create a sense of community, encouraging residents to take interest and responsibility for its care, maintenance and aesthetic appearance.

The project involved different heights of fencing installed between brick pillars with entrance gates to the individual properties. The panels were made for a bolted connection to accommodate the stepped levels of the site.

Finish: hot dip galvanized and ppc RAL 7012.

Architect: EMA Architecture + Design  
Developer: Glencairn Properties Ltd



# Modena-XL

Modena-XL has been designed as complementary to Modena in order to provide the option of taller heights of fence.

The fence is made from 20mm dia CHS vertical pales and 40x6mm horizontal rails to create a robust panel for heights greater than 2000mm. The increased rigidity also allows for a wider panel with post centres at 2500mm.

Panels and posts are made with the same choice of different fixing systems as Modena; the most appropriate is determined by site conditions.

The mild steel is hot-dip galvanized to BS EN 1461 before polyester powder coating in matt mica grey for a smart gun-metal finish, and optimum resistance to corrosion. Alternatively any RAL colour is available on request.

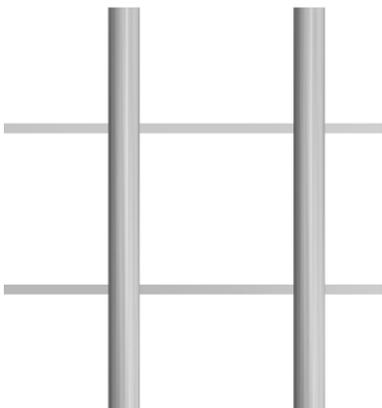
Panel to post connections:

- Posts with a concealed slotted connection are supplied as standard.
- Posts with a bolted connection are recommended for variable ground levels.

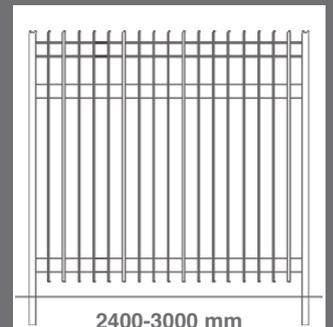
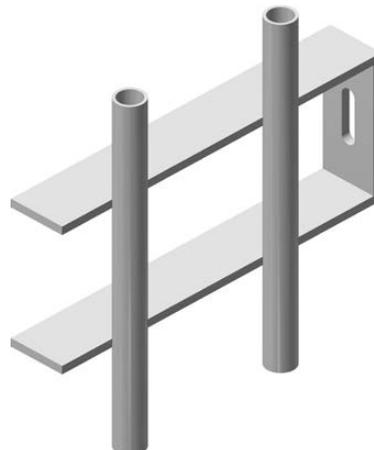


| PANEL     |                         | PALE       | RAIL       | POST     |         | POST LENGTH    |                  |
|-----------|-------------------------|------------|------------|----------|---------|----------------|------------------|
| HEIGHT mm | WIDTH (post centres) mm | TUBULAR mm | SECTION mm | CHS Ø mm | SHS mm  | WALL FIXING mm | GROUND FIXING mm |
| 2400      | 2500                    | 20Ø        | 40x6       | 89       | 80x80   | 2800           | 3200             |
| 2700      | 2500                    | 20Ø        | 40x6       | 114      | 100x100 | 3100           | 3500             |
| 3000      | 2500                    | 20Ø        | 40x6       | 114      | 100x100 | 3400           | 3750             |

Modena-XL with tubular pale



Modena-XL with bolted connection



2400-3000 mm



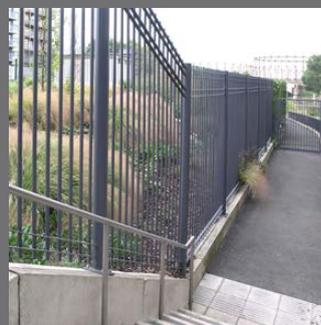
## Caledonian Park Islington

Significant improvements were made to Caledonian Park during the redevelopment of Market Estate. These included Modena as perimeter fencing to the formal landscaping and a children's play area. A separate enclosed garden space opens up the North/South axis towards the Clock Tower, which stood in the centre of the 30-acre Metropolitan Cattle Market, established in 1855 to replace Smithfield as London's livestock market.

Over 450 metres of standard and radiused Modena fencing was supplied with double-leaf and pedestrian gates.

Bespoke gates were made with a curved brace across each panel and a circle in the resulting spandrel, detailed to match the original Grade II listed design. These hang within stone pillars with a supporting section of 3-metre high Modena-XL fencing to each side. They form an impressive entrance to the Victorian Clock Tower which was a prototype for Big Ben.

Architect: Watkins Gray International  
Main Contractor: Higgins Construction



## Bow School Tower Hamlets East London

Bow School was commended at the Civic Trust Awards for its contribution to the quality and appearance of the built environment.

Sir Nicholas Serota, Director of the Tate Galleries, also said, "It's remarkable the way the building gives protection to the pupils and pays appropriate attention to the environment with a beautifully landscaped garden."

Three different heights of Modena-XL were used extensively throughout the landscaping, providing the required level of security and quality. In addition to the standard panels, various sections were either raked or radiused.

The project included seven gates (double leaf, single leaf and sliding) plus a section of 1000mm high Modena to enclose an area of planting at the school entrance.

Finish: hot dip galvanized and ppc RAL 7015.

Architects: van Heyningen & Haward  
Main Contractor: Bouygues UK

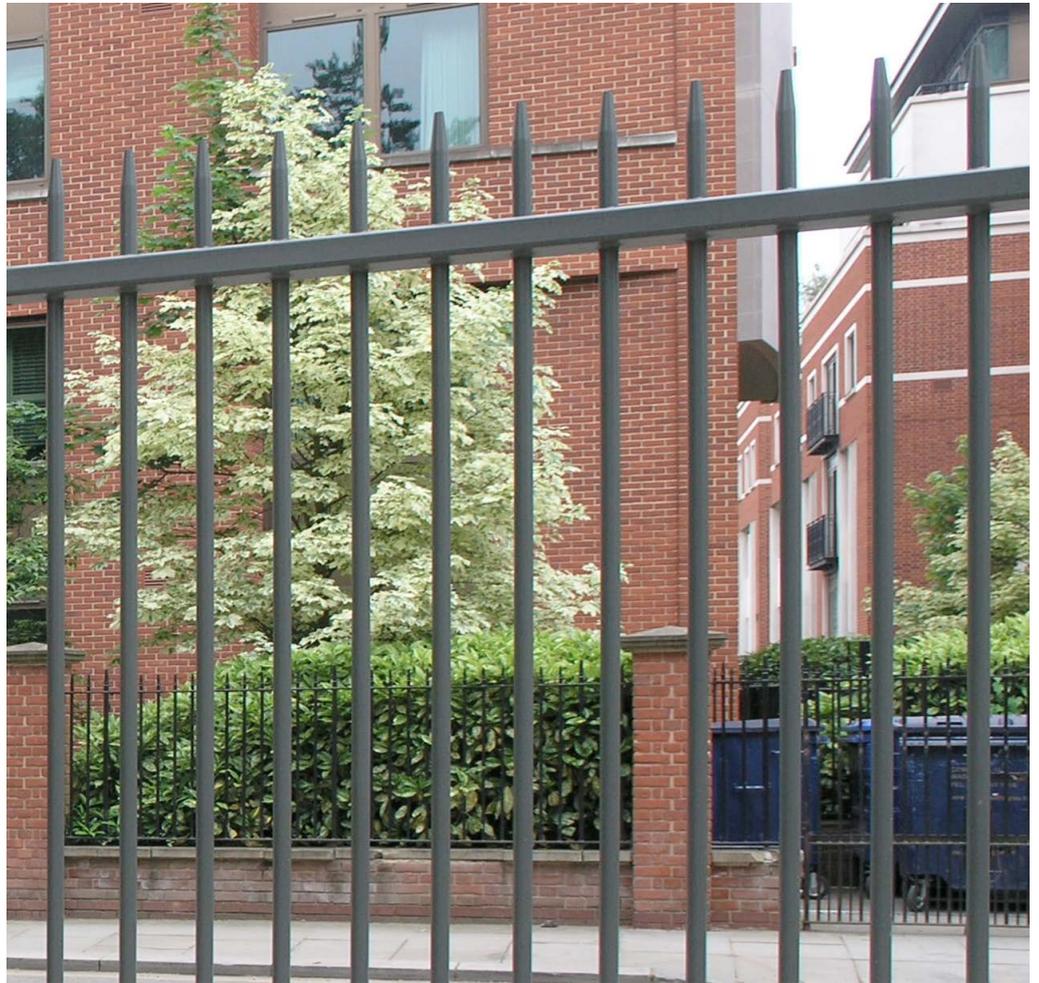
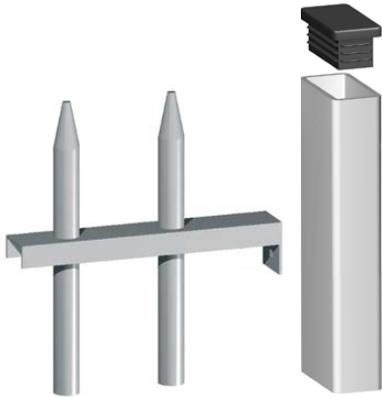


# Siena

Siena is a modern interpretation of the traditional railing fence. It is made from vertical tubular bars with conified tops passing through horizontal rails at top and bottom which are bolted to steel posts.

The flat bar or RHS post can be drilled on site with additional holes for stepping, allowing panels to accommodate uneven ground.

If necessary, panel widths can be reduced on site to suit ends of fence runs and fixed using hidden sleeves fitted to the rails.



| PANEL        |                                    | PALE          | RAIL          | POST                     | POST LENGTH       |                     |
|--------------|------------------------------------|---------------|---------------|--------------------------|-------------------|---------------------|
| HEIGHT<br>mm | POST CENTRES<br>(flat bar post) mm | TUBULAR<br>mm | SECTION<br>mm | SECTION<br>mm            | WALL FIXING<br>mm | GROUND FIXING<br>mm |
| 1100         | 2000                               | 20Ø           | 50X25 channel | 60x8 flat bar; 50x30 RHS | 1400              | 1600                |
| 1364         | 2000                               | 20Ø           | 50X25 channel | 60x8 flat bar; 50x30 RHS | 1650              | 1950                |
| 1496         | 2000                               | 20Ø           | 50X25 channel | 60x8 flat bar; 50x30 RHS | 1800              | 2100                |
| 1628         | 2000                               | 20Ø           | 50X25 channel | 60x8 flat bar; 50x30 RHS | 1950              | 2250                |
| 1800         | 2460                               | 26.9Ø         | 60x30 RHS     | 80x8 flat bar; 60x40 RHS | 2100              | 2500                |
| 2000         | 2460                               | 26.9Ø         | 60x30 RHS     | 80x8 flat bar; 80x40 RHS | 2300              | 2800                |
| 2400         | 2460                               | 26.9Ø         | 60x30 RHS     | 80x8 flat bar; 80x40 RHS | 2700              | 3200                |

## Holland Park School

Holland Park is one of the UK's first and most famous comprehensive schools. £105m was raised by selling off part of the original school site to fund the building of a new six-storey school for 1,500 pupils.

Situated within the Holland Park Conservation Area, adjacent to the park itself, the perimeter fencing was chosen to reflect the prestigious nature of the site.

Bespoke posts were designed to carry the Siena fence panels so that an original brick wall along the Campden Hill Road boundary, which was not structurally suitable for standard fixing, could be retained.

Architect: Aedas Architects



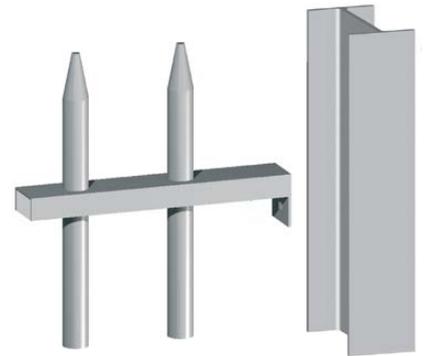


# Siena Sport

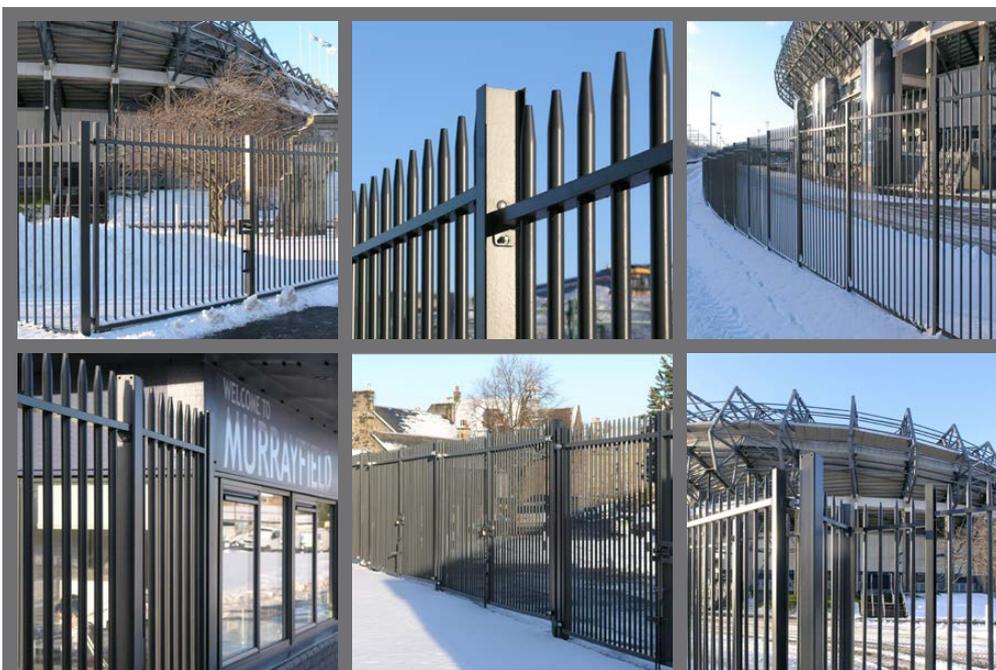
Siena Sport is a particularly heavy-duty railing fence with a smart conified top and anti-climb properties which provide excellent security.

It is specifically designed to take crowd loadings, for example around sports grounds.

The robust 33.7mm tubular pales have a 2.5mm wall thickness and pass through 60x30mm RHS rails at top and bottom.



| PANEL        |             | PALE          | RAIL          | POST                                 | POST LENGTH       |                     |
|--------------|-------------|---------------|---------------|--------------------------------------|-------------------|---------------------|
| HEIGHT<br>mm | WIDTH<br>mm | TUBULAR<br>mm | SECTION<br>mm | SECTION<br>mm                        | WALL FIXING<br>mm | GROUND FIXING<br>mm |
| 2400         | 2460        | 33.7Ø         | 60x30 RHS     | 100x55mm IPE, 100x50mm RHS; 89Ø CHS  | 2800              | 3200                |
| 2700         | 2460        | 33.7Ø         | 60x30 RHS     | 100x55mm IPE, 100x50mm RHS; 114Ø CHS | 3100              | 3500                |
| 3000         | 2460        | 33.7Ø         | 60x30 RHS     | 100x55mm IPE, 100x50mm RHS; 114Ø CHS | 3400              | 3750                |



## Murrayfield Stadium

Murrayfield Stadium is the headquarters of the Scottish Rugby Union and the home venue for Scotland's international fixtures.

In 2010 the perimeter boundary was relocated to allow for the construction of a new tram system in Edinburgh.

A Siena Sport fence was chosen to provide the security and access requirements as well as complying with the necessary crowd control standards.

302 metres of 2400mm high fencing was supplied with IPE posts and a series of fifteen double-leaf and three single-leaf gates.

Finish: galvanized and ppc RAL 7021.

# Rimini

Rimini has a modern angular appearance. It is made entirely from solid flat bars to provide strength, rigidity and a weightiness appropriate to a quality fence. The flexibility of the design allows it to be made with alternative sections of flat bar; the depth of the flat bar pale can be increased up to 100mm according to architectural preference, with consideration given to the weight of panel.

Rimini can be made to a specific required height. Posts can be base plated for wall mounting or made in lengths for ground fixing.



|                             |                             |       |       |       |
|-----------------------------|-----------------------------|-------|-------|-------|
| <b>PANEL HEIGHTS (mm)</b>   | 550, 750, 950, 1150, 1450mm |       |       |       |
| <b>PANEL WIDTH (mm)</b>     | 1500mm                      |       |       |       |
| <b>FLAT BAR - PALE (mm)</b> | 40x8                        | 50x8  | 60x8  | 80x8  |
| <b>FLAT BAR - RAIL (mm)</b> | 40x10                       | 50x10 | 60x10 | 80x10 |
| <b>*FLAT BAR POST (mm)</b>  | 40x15                       | 50x10 | 60x10 | 80x10 |
| <b>CORNER POST (mm)</b>     | 40x40                       | 50x50 | 60x60 | 80x80 |

\* A heavier section of flat bar post would be required if Rimini is specified as a load-bearing balustrade.

## St John Bosco Battersea

The masterplan for the former Salesian College site in Battersea included new school buildings for Saint John Bosco College and more than 100 apartments and town houses.

Rimini railings were supplied for the street frontage, stair balustrade and enclosed inner courtyard. Gates were made with matching infill panels.

Finish: galvanized and ppc RAL 7022.

Architect: Allford Hall Monaghan Morris



# Rimini at Luma Hotel Hammersmith London

The Luma Hotel in Hammersmith is a new 89-bed Apart Hotel offering luxury studio style bedrooms. Designed and built by Elements Europe, the entire project was assembled on-site from factory produced modules within a 10-month programme. Once the en-suite room modules and roof cassettes were installed, the envelope of the building was completed with a traditional façade and finally a package of external works.

The landscaping to the front of the building was considered a high propriety in order to create a stylish recreation area and achieve a distinctive image for the hotel. A Rimini railing fence, which was customised with 30x10mm flat bar pales and 40x10mm rail, was chosen to fulfil the contemporary brief.

#### Perimeter Demarcation:

1230mm high fence panels in various widths with 50x30 RHS posts were installed between decorative brick pillars. Two single leaf gates with side panels provide pedestrian access.

#### Lightwells:

A 1100mm high Rimini balustrade, with equalized end panels, was installed around each of two lightwell openings to the basement floor. The flat bar posts and face plates, which were attached to a concrete upstand, were engineered for a parapet application.

#### Finish:

Hot-dip galvanized and ppc RAL 9005

Landscape Architect: Modular



# Customised Railings

Lang+Fulton's Technical Office is pleased to work with an architect to develop an individual concept for a particular project

It is also possible to modify a railing fence from one of the existing ranges to create a unique design or to suit specific site requirements.

Customised railings can be made out of tubular or solid bar pales: plain, twisted or decorative.

Alternative features include a range of finials.

Railings can also be made with a cranked extension for increased security.

Pales are always set with a maximum gap of 98mm to comply with anti-trap regulations.



# Customised Posts

Any section of post can be supplied with a choice of decorative finials.

In addition to ground fixing, posts can be supplied with welded base plates, side plates of shaped to achieve an off-set panel centred above a wall.

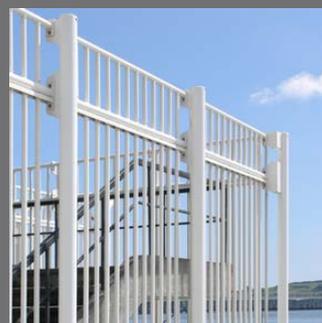


# Dundee Waterfront

Lang+Fulton supplied the fencing for an important waterfront location on the River Tay. The design was developed jointly with the City of Dundee Chief Engineer. It included a special cranked extension which increased in depth through one section of the fence line.

The 114mm diameter posts were 'bent' to carry the radiused extension panels and to create a pleasing, organic aesthetic. Small supplementary panels were added to the gates to maintain continuity of design.

The fencing was hot-dip galvanized and polyester powder coated to provide a durable, low maintenance finish to withstand the rigours of the coastal site.



# Gates

All gates are manufactured to custom sizes and supplied with SHS posts appropriate to the overall size and weight of the gate. Infill panels are supplied from the full range of railings to match the style of fencing.

Panels are generally welded but can be bolted to the RHS gate frame.

Gates are designed for manual operation but can also be automated for installation by specialist engineers.

**Swing Gates:** single-leaf, double-leaf or bi-folding gates are designed to conform to BS 1722 Parts 9 or 12.

Features include:

- Locinox eurocylinder locks, sliding latch for padlocks or maglocks
- optional Locinox electric strikes for remote opening with provision for intercom units in gate post or adjacent panel
- adjustable hinges for ease of installation or self-closing hinges.

**Pivot Gates:** made up to 2.4m high and 2.0m wide and mounted on a single RHS post and positioned to provide equal or unequal openings.

**Sliding Gates:** a choice of ground fixed rail, overhead rail or cantilevered; automated gates carry the CE mark, certifying manufacture and testing in compliance with EU health, safety and environmental requirements EN13241-1, EN12604, EN12605 and EN12424.



Modena-XL: bespoke gates made with a curved brace across each panel and a circle in the resulting spandrel, detailed to match the original Victorian Grade II listed design.





## Finishing

### Galvanizing

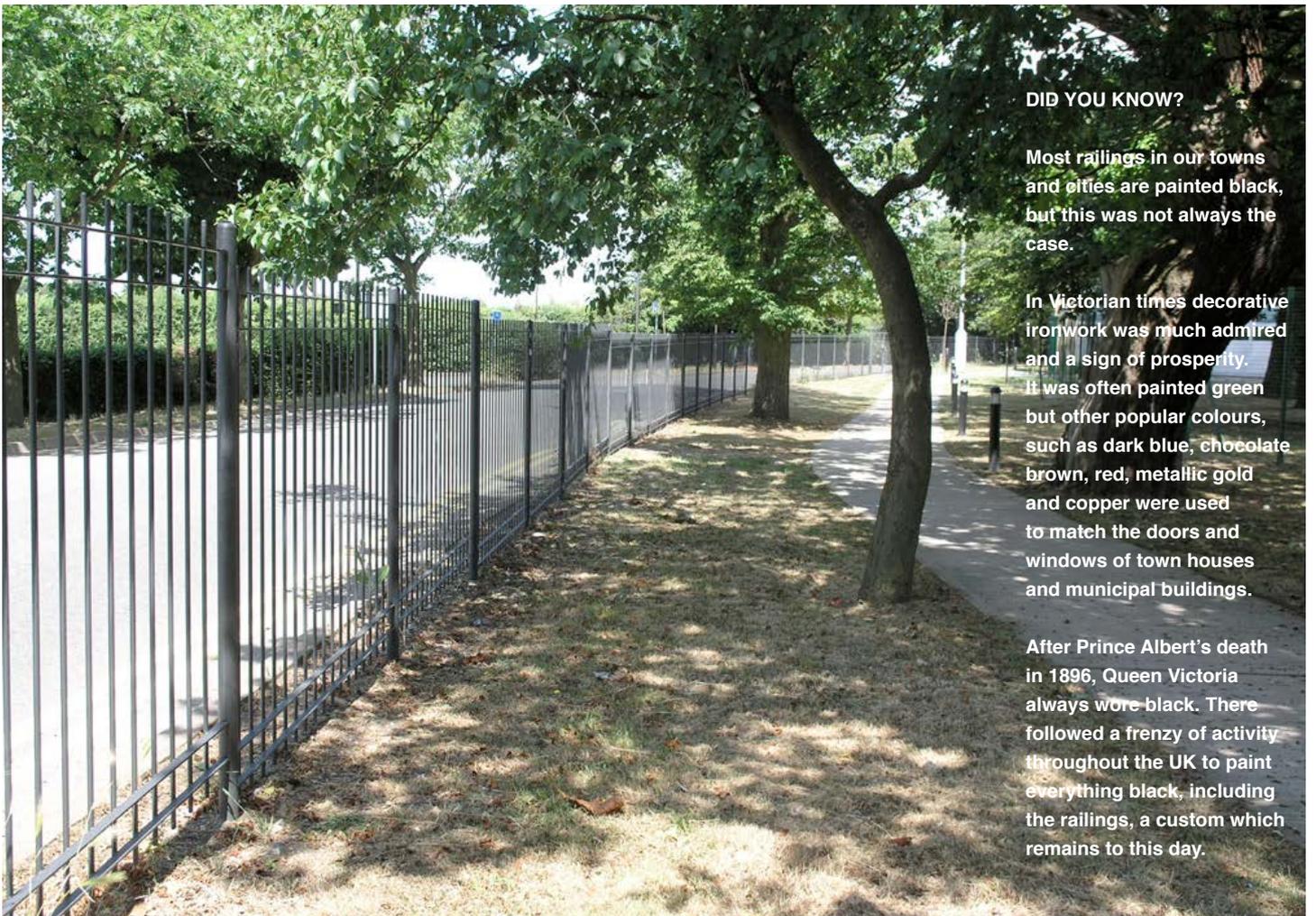
All products are supplied hot-dip galvanized to BS EN ISO 1461 for long term durability and a low-cost life cycle.

Galvanized products may randomly exhibit a rough surface texture as well as dissimilar colour characteristics and will oxidise when exposed to the elements.

### Polyester Powder Coating

Subsequent to galvanizing, a multi-stage process applies thermo-setting resins producing a significantly superior finish to painting. Polyester powder coating is available in any RAL or BS colour in full accordance with BS-1722 part 16.

Polyester powder coating provides a smoother finish which is less attractive to dust and dirt. It is always recommended for schools or residential projects.



### DID YOU KNOW?

Most railings in our towns and cities are painted black, but this was not always the case.

In Victorian times decorative ironwork was much admired and a sign of prosperity. It was often painted green but other popular colours, such as dark blue, chocolate brown, red, metallic gold and copper were used to match the doors and windows of town houses and municipal buildings.

After Prince Albert's death in 1896, Queen Victoria always wore black. There followed a frenzy of activity throughout the UK to paint everything black, including the railings, a custom which remains to this day.





# LANG+FULTON

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