PROJECT CASE STUDY / HIGHER EDUCATION · ARCHITECTURAL FABRICATION

Mesa Housing Pedestrian & Bicycle Bridge

University of California, San Diego · La Jolla, California

Granite Construction · Hensel Phelps



The completed crossing — In-Line-fabricated galvanized picket railing carrying the full length of the span as it curves off the canyon and onto the mesa.

OWNER

University of California, San Diego

CONTRACTORS

Hensel Phelps · Granite Construction

IN-LINE ROLE

Railing engineering, fabrication & galvanizing

SUBCONTRACT

September 2018

COMPLETED

2020

DESIGN TEAM

Studio E Architects · Kleinfelder · Kimley-Horn

THE PROJECT

UC San Diego needed to connect its expanded Mesa Housing neighborhood to the heart of campus across a natural canyon in La Jolla. The result is one of the most decorated pedestrian bridges built in California in the last decade.

The architects designed it around contrast — heavy against light, solid against diaphanous, a straight mid-span that bends and wanders as it meets the mesas at either end. That curve is the whole idea of the bridge, and the railing is what makes it legible. Every picket, every rail, every base plate had to follow a changing radius and still read as one continuous line.

In-Line engineered, fabricated and galvanized the railing systems for it.



Detail at the approach — every picket, rail and base plate set to a changing radius.

PCI

2022 National Design Award — Best Non-Highway Bridge

ACEC

California Engineering Excellence Honor Award

Orchid

San Diego Architectural Foundation

ASCE & APWA

Additional project recognition

WHAT IN-LINE DELIVERED

- **Architectural picket railing, engineered to the curve** — shop drawings, fabrication and hot-dip galvanizing of the bridge and approach railing systems, built to follow the changing radius of the alignment.
- **Base plate and connection redesign** — when the anchorage detail was revised in the field, In-Line re-engineered base plate thickness and hole pattern and added plates at every post, priced and fabricated to the revised design.
- **Full hot-dip galvanized finish** — coastal-grade corrosion protection on an exposed canyon crossing, coordinated through the galvanizer and delivered to site.
- **Delivery to a constrained, active campus site** — sequenced to the bridge erection schedule on a live university campus adjacent to the medical center.

Field installation of the railing was performed by others under separate contract.

SCOPE AT A GLANCE

Architectural picket railing | **Curved / variable radius fabrication** | **Shop drawings & engineering** | **Hot-dip galvanizing** | **Base plate & anchorage design** | **Bridge & approach railing**

THE RESULT

The bridge opened in 2020 and has since collected a National PCI Design Award for Transportation, an ACEC California Engineering Excellence Honor Award, an Orchid from the San Diego Architectural Foundation, and recognition from ASCE and APWA.

Architects win those awards for the idea. They only get built when a fabricator can hold the line — literally — through a changing radius, in galvanized steel, to a tolerance a campus walks past every day.

When the drawing is a curve and the finish is galvanized and there is nowhere to hide a bad joint, the fabricator stops being a vendor and becomes part of the design team.

WHY ARCHITECTS AND PRIMES SPECIFY IN-LINE

Most fence companies install what someone else made. In-Line runs its own shop — which means the drawing, the steel and the finish are all one accountable line.

- **We fabricate, we don't just buy.** Curved railing, custom pickets, variable radius, architectural detail — if it can be drawn, it can be built here.
- **We do the engineering that makes it installable.** Shop drawings, connection design, base plates and anchorage — resolved before it reaches the field.
- **We control the finish.** Hot-dip galvanizing, powder coat, coastal-grade protection, coordinated as part of fabrication rather than left to chance.
- **We build for public work.** Universities, transit agencies, cities, school districts and federal installations across Southern California since 1990.
- **We are certified, bonded, signatory, and safe.** DBE · SBE · SLBE · SB · HUBZone · SBA 8(a). Union affiliated, Local 89 & Local 12. CSLB C-13, C-51, C-32. Bonded through Old Republic Surety, rated A+ XV. **EMR 0.68.**

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