



**BLACKLINE**  
STRUCTURES

**CurvaWall™**  
Product Info Sheet

# CurvaWall™

## Patent-Pending Modular Curved Framing System. The Smarter Way to Build Curved Walls & Arches.

Blackline Structures is a leading manufacturer of high-quality light gauge steel framing (LGSF), structural steel, and custom-fabricated structures for residential and commercial projects across Southeast Queensland and Northern New South Wales.

CurvaWall is a patent-pending light gauge steel stud system that forms smooth, repeatable curved walls and arches. The modular studs connect with pivoting bearing members so assemblies can be pre-fabricated to a precise radius or shaped on site to follow actual geometry. CurvaWall is built on the trusted TRUECORE® LGSF platform and is designed for both load-bearing and non-load-bearing applications.



## How CurvaWall Works

Each CurvaWall stud assembly comprises a C-shaped stud member and upper and lower bearing members. The bearing members have end portions that pivot and fasten to adjacent assemblies, allowing the structural assembly to be curved to a preset radius or adjusted on site. The front face includes access holes and the rear C-profile creates a service cavity for wiring and services. See patent drawings for component detail.



- Pivoting upper and lower bearing members for controlled curvature.
- C-shaped stud profile with rear service cavity and front access.
- Countersunk connector / fastener detail for flush heads and pivoting joints.
- Options to pre-fabricate to a specific radius or curve on site to match geometry.



## Specifications

CurvaWall follows all primary specifications of TRUECORE® LGSF due to its shared platform.

### Material and finish

Steel: TRUECORE® steel G550 with Activate® technology is a hot-dipped AM150 (coating class) steel with a guaranteed minimum yield strength of 550MPa, manufactured using a blue tinted resin.

### Standard dimensions

Typical dimensions: 70mm and 90mm profiles, with 38mm and 63mm side walls respectively. Metal thickness (all members): 0.75mm, 0.95mm and 1.20mm BMT.

### Structural use

Applicable for both load-bearing and non-load-bearing wall assemblies when specified and engineered accordingly.

### End connection details

Each bearing end portion defines three aligned openings to overlap and fasten to an adjacent end portion; central overlapping openings are typically used for pivoting connection. Fasteners: shank fasteners through nested/countersunk openings; heads seat flush against connector countersinks.

### Design & fabrication

Compatible with standard LGSF tie-down points and bracing methods; integrates into existing LGSF workflows and fixing patterns.

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## Installation Practice

CurvaWall assemblies may be supplied pre-fabricated to a specific radius or supplied as straight modules that are curved on site. Use the same tie-down, bracing and fixings as you would for standard Blackline & TRUECORE® LGSF systems. For service access, use the front access holes and route wiring inside the stud cavity.

### Framing practice to follow:

- Use an impermeable membrane under perimeter bottom plates on slabs on ground and follow the BlueScope guidance for membrane installation to protect frames from ground moisture.
  - Select fasteners compatible with the corrosivity category of the project; fasteners should offer equivalent durability to the steel (see TRUECORE® TB-34 and referenced fastener guidance).
  - Protect cut edges and weld areas with zinc-rich paint or per BlueScope TB recommendations where required.
- Store and handle frames to avoid coating damage and minimise exposure to weather during construction.

### Marine / corrosive environments:

For coastal or marine sites, apply the BlueScope TB-34 separation / isolation measures and refer to the marine zone table and recommendations. CurvaWall installations within high corrosion zones should follow the enhanced isolation guidance in TRUECORE® TB-34.

## Compliance & Downloads

CurvaWall is manufactured from materials compatible with AS/NZS 4600 and aligned with standard LGSF practice. CAD/BIM families, installation guides and full technical drawings are available on request. For project-specific engineering and load tables, contact our technical team.

### Contact Block:

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### Additional Note:

This document contains general technical information only. Project specific design, structural calculations and on-site conditions must be confirmed by a qualified engineer. Do not use these notes as an engineered specification. Refer to the project engineering pack for final design. For specific framing technicals, please refer to the TRUECORE® LGSF Framing technical spec sheet.

