



# DANIEL SMITH INDUSTRIES LTD

## JOB PROFILE

**Craigieburn Bridge SH73 RS107**  
**Arthurs Pass, New Zealand**  
**Contract TNZ / 60939**

|                                  |                             |
|----------------------------------|-----------------------------|
| <b>Client:</b>                   | Transit New Zealand         |
| <b>Alternative Design:</b>       | Rob Park, Holmes Consulting |
| <b>Main Contractor:</b>          | Daniel Smith Industries Ltd |
| <b>Alternative Tender Value:</b> | \$910,000.00                |
| <b>DSI Project Manager:</b>      | Daniel Smith                |
| <b>DSI Site Supervisor:</b>      | Neville Pledger             |
| <b>Contract Period:</b>          | February 1998 to June 1998  |

The Craigieburn Bridge conforming tender design was a 4 span, 2 lane, hollow core bridge on a construction of steel H piled abutments, steel cylinder pier foundations, insitu abutment stem and pier caps with hollow core beams, flat slab deck unit. The centre line of the roadway bridge structure and positioning of the pier's meant that the existing busy State Highway bridge had to be demolished to allow construction of the bridge.

Daniel Smith Industries submitted the lowest conforming and alternative design tender for this project and the client accepted our alternative design bid.

Daniel Smith Industries in conjunction with Rob Park of Holmes Consulting designed a 5 span bridge, consisting of steel driven piles, precast pile base stem, caps and hollow core deck units. This alternative design allowed quick on site construction, and pile pier positions were designed so that the existing bridge stayed in place throughout the contract period, with a changeover of central span then diversion of traffic over the new bridge.

Precast concrete was manufactured at Daniel Smith Industries Rangiora yard and transported in components of up to 30 ton and placed on site with Daniel Smith Industries cranes.

On site construction period was 8 weeks and minimal disturbance's to the road user occurred.

