



**The Australian Standard® for Bridge Design (AS 5100)** sets out minimum design loads, forces, load effects and load combinations for the design of concrete and steel bridges that support road and rail traffic loads.



## Bridge design standards that hold up

- **Engineering**
- **Roads and Transport**

### Key Benefits

Public safety  
Guidance for engineers and designers  
Reduction of design and maintenance costs  
Increased knowledge from committee participation

**“The Standard provides design loads for projected increases in legal loads to make sure that the bridges we are building now can carry road and rail traffic well into the future.”**

Ray Wedgwood

Standards Australia is recognised by the Government as Australia's peak standards body. It develops Australian Standards® of public benefit and national interest and supports excellence in design and innovation through the Australian Design Awards.

[www.standards.org.au](http://www.standards.org.au)

Ray Wedgwood worked with the Roads and Traffic Authority (RTA) for 45 years. Prior to retiring in 2004 he was General Manager of Technical Services. Ray was also Chairman of the AS 5100 Bridge Design Committee.

“Have you ever wondered whether the bridge you are driving across is strong enough to carry the heavily laden semi trailer and B-Double travelling beside you?

“Although you may not know it, the Australian Standard for Bridge Design (AS 5100) plays an important part in allowing traffic over water, flood plains, other roads and railways; it exists to provide engineers with the specifications for bridge designs that meet nationally acceptable levels.

“Introduced in 2004, the AS 5100 series reflects the latest in bridge design technology and applies Australia wide. It provides requirements for the design of road, rail, pedestrian and bicycle path bridges; specific application of concrete, steel and composite steel/concrete construction; assessing the load capacity of existing bridges; and procedures for determining barrier performance levels and the design of road bridge barriers.

“Designers now have to use geotechnical engineering methods that are suitable for the relevant foundation together with appropriate characteristics, values and factors.

“The Standard provides design loads for projected increases in legal loads to make sure that the bridges we are building now can carry us well into the future.

“At the moment there are a number of existing bridges that may have to be replaced or strengthened because they were not designed to take the increased loads of today.

“And just in case you are worried about that old bridge you are driving on, AS 5100 provides a rating procedure for existing bridges to evaluate their safe carrying load.

“Every now and again we find a bridge that requires maintenance and the guys in the field ask for a process to rate these bridges so they know what's good, what's bad and what can take the current legal load. AS 5100 allows us to do that.”