Background

The AS5100 Bridge Design standard has increased the minimum height of pedestrian rails to 1.1m from the top of the pedestrian way, except where cyclist may use the pedestrian way, in which case the minimum height shall be 1.3m.

The AS 1428.1 Design for Access and Mobility requires that an additional hand rail to be provided at a maximum height of 1m.

To minimise pathway width and overall bridge widths, MRWA has considered the feasibility of combining the handrail planar with the parapet railing and not ‘proud’ from it. However, this arrangement would not satisfy the following AS 1428.1 requirements:

1. The clearance between a handrail and an adjacent wall surface or other obstruction shall be not less than 50 mm. This clearance shall extend above the top of the handrail by not less than 600 mm.
2. Handrails shall be constructed and fixed so that there is no obstruction to the passage of a hand along the rail.

Hence the use of a combined handrail / parapet would be restricted to situations wherein those requirements were not important considerations.

An appropriate situation that may be suitable to use a combined handrail / balustrade is when the approaches and bridges are practically flat.

Action

The interim balustrade Drawing Nos. 0530-1087 and 0530-1307 are prepared for use on level bridges and approaches with the gradient lower than 1 in 50.

A/Senior Engineer Structures

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TYPICAL BALUSTRADE INSTALLATION DETAIL

1. FOR NOTES REFER TO DRAWING N° 5330-1067.

NOTED:
- CONCRETE PLANTED IN TRENCH
- Expansion Joints locations and gap settings refer to project specific drawings showing the railing and balustrade layout and installation details.