Place Coordination

ENGINEERING ADVISORY NOTE

Title: Kerb Ramp Design

Background

Kerb ramp is the Australian Standard term for “pram crossing”, the term previously used in the ACT. ACTSD-0515 and 0516 are to replace the current Standard Drawing DS3-02.

Details for “pram ramps”, as shown on DS3-02, to be referred to as kerb slots have been updated and are shown on ACTSD-0517.

Summary of Amendments

• Consideration of development context

ACTSD-0515 provides details for kerb ramps to be constructed in areas identified as suburban land use context and ACTSD-0516 for kerb ramps in inner-urban land use context.

Typically inner-urban refers to Territory Planning areas zoned as RZ3, RZ4, CZ1 to CZ6, and IZ1 & IZ2 or any area where a fully paved verge or path at the back of the kerb is present or likely to for future construction.

Suburban typically refers to Territory Planning areas zoned as RZ1 and RZ2 but may include inner urban areas where there is no likelihood of a fully paved verge in the future.

• Why the need for the ACTSDs in addition to AS1428?

The ACTSDs provide additional guidance on aspects of kerb ramps that are not well covered in AS1428 to assist in assuring the consistency of constructed assets in meeting the desired intent. The ACTSDs include key design principles and details that clearly define the transition requirements for kerb ramps on a horizontal curve and the grades required between the gutter lip and ramp. Details of other kerb ramp elements relating to use by people with a vision impairment such as the inclusion of Tactile Ground Surface Indicators, the ramp as a single plane and creases (or folds) in concrete surfaces are also shown on the ACTSD.
• **Differences from AS1428**

*Suburban kerb ramp:* ACTSD-0515 differs from AS 1428.1 as it has reduced splay widths that match the 0.6m splays as used traditionally in Canberra and shown previously for “pram crossings” on DS3-02. It also provides additional detail on the tool joint separating the splays from the ramp and grade requirements in the area between the gutter lip and ramp.

*Inner-urban kerb ramp:* ACTSD-0516 shows a kerb ramp very similar to AS1428.1, however details are provided on the tool joint separating the splays from the ramp. The details include a sharp transition edge to provide a physical cue on the direction of travel for people with a vision impairment using a cane. The grade requirements in the area between the gutter lip and ramp are also detailed.

• **Why are there two different kerb ramp types (inner-urban and suburban?)**

There are two types of kerb ramps to respond to an evolving urban environment where people with different needs are to be catered for within limited spaces. The choice to use either an inner-urban and suburban kerb ramp is dependent on the current and future verge use guided by the adjacent land use.

The inner-urban kerb ramp allows safer access for people walking along the back of kerb when there is fully paved verges or paths along the back of kerb. As fully paved verges or paths are not normally to be provided immediately behind kerbs in suburban land use context areas, the flatter and larger slope length of the inner urban kerb ramp are not required. This reduces the cost, land take and visual impact of kerb ramps in these areas.

The suburban kerb ramp is similar in size to the previous DS3-02 pram crossing but with updated details to make it more amenable to vision and mobility impaired people.

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**Example:** A suburban kerb ramp should be used in inner-urban areas where there is no future likelihood of the verge becoming fully paved or a path installed at the back of kerb.

**Example:** An inner-urban kerb ramp located where there is future likelihood of the verge becoming fully paved or a path installed at the back of kerb.

![Suburban Kerb Ramp – Hall Street, Turner](image)

![Inner-Urban Kerb Ramp – Forbes Street/Condamine Street, Turner](image)
• **What are the major differences between the two types and their context of use?**

The major difference between the kerb ramps is the width of the kerb ramp splay. The inner urban kerb ramp is to be used in inner urban land use context areas where there is or may be a fully paved verge or if there is a footpath immediately behind the kerb that will connect to the kerb ramp splay. The suburban kerb ramp is a smaller, modest cost ramp that is also suitable for constrained locations in retrofit.

• **Should Tactile Ground Surface Indicators (TGSI) be used on kerb ramps?**

TGSI should only be applied systematically to paths on identified Accessible Pedestrian Routes (APRs). In these circumstances TGsIs shall be installed in accordance with AS/NZS1428.4.4:2009. Directional TGsIs should never be applied on kerb ramps because they can be a slip hazard. Warning TGSI may only be installed within the kerb ramp following TCCS approval. For further detail refer to MIS05 and the associated standard drawings.

• **What if an inner urban kerb ramp cannot be installed due to site constraints?**

The inner-urban design requires a significant length of kerb and verge (typically around 3m plus the path width) and due to site constraints (sumps, hydrants, trees, driveways etc) it may not be possible to install the required design at the location of an inner-urban path crossing.

In such instances a designer should consider if the crossing locations is the most desirable, and if possible could the crossing be relocated. If this is not suitable then a suburban kerb ramp may be installed with approval from the Road Authority. Refer to the ACTSDs for guidance on replacement of existing kerb ramps.

**Example:** An inner-urban kerb ramp where the splay angle has been modified to suit an existing manhole
• Importance of aligning ramp kerb ramps across the road

A vision impaired person with a cane will generally use the edge of paths or other edge features as a “shoreline”, the sharp folded edge between the ramp and splay of the kerb ramp provides a cue there is a road crossing. The joint between the ramp and splay also provides a linear indicator on the alignment required to cross the road. It is critical that the direction of the centrelines of kerb ramps align with each other, this includes kerb slots. Smooth curves may be included in the horizontal alignment of kerb slots to account for any change in the crossing alignment required through an island.

• Importance of not including kerb ramps within curves or skews

Kerb ramps should not be located within the kerb return radius or on placed on a skew wherever practicable. This is to avoid the resultant need for special care, both in design and construction, to address the risk of drainage issues in the area between the ramp and the kerb lip.

Attachments

Attachment A - Suburban Kerb Ramps (ACTSD-0515)

Attachment B – Inner Urban Kerb Ramps (ACTSD-0516)

Attachment C – Kerb Ramps in islands and Kerb Slot details (ACTSD-0517)

Administrative Arrangement

This Engineering Advisory Notice takes effect from date of endorsement by the Director below.
Administrative Arrangement

This Technical Direction will take effect from the latest date of endorsement by the Authorised person/s.

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