Guidelines for the Gradient Design of Footpaths in Urban Areas

In Urban Areas, a Footpath is Defined as a Paved Pedestrian & Cyclist Area Between the Edge of Road and the Property Boundary.

- **LONGITUDINAL GRADIENT**
  The longitudinal grade is the percentage of slope running parallel with the direction of the road. The longitudinal grade of a footpath is restrained along one edge to match the longitudinal grade of the road and kerb. To avoid large swings in the cross-fall of the footpath, the level of building entrances must be considered. Best practice ensures that the level of pavement and entrances along the building and property line match the longitudinal grade of the road. When building a long distance pedestrian facility it should be considered as a walkway in accordance with AS 1428.1.

- **CROSS-FALL GRADIENT**
  The cross-fall grade is the percentage of slope in the direction perpendicular to the road. It is best practice to have the cross-fall so that water flows away from building and property lines and towards the road. If this is unachievable the footpath requires to be designed so that drainage flows away from the building line. To allow sufficient drainage footpaths should have minimum grade of 1:100 (1% fall). To allow accessibility the footpaths should have a maximum grade of 1:40 (2.5% fall). The cross-fall grade of a footpath may vary along the length of the road. This variance should be minimised. If higher crossfall up to 4% is required, it will be at the discretion of the City’s Engineer.

**General Notes**

1. For Information on the Standard Paving Details Used Within the City of Perth Refer to Design and Construction Note: BOOK 300.