Character and Form

human scale

Overview

Indicator name	**Building height**		
Indicator number	30	**Indicator type**	Supplementary
Objective	To measure average height of existing buildings		
Application guidance	Poorly designed tall buildings (over 55 metres in height) on small sites result in unattractive streetscapes with less desirable urban outcomes, including inappropriate proportions, blank side walls, poor public domain amenity, poor occupant amenity and visual privacy, and poor active street frontages. This indicator will support practitioners to understand the character of an area by assessingthe average height of buildings, which can enhance the visual interest for users and contribute to their enjoyment, comfort, sense of safety and wellbeing. Based on the outcomeof the assessment, practitioners can determine the existing built density and whether any new development fits within the character of the built form. Practitioners can use the *average building height* metric to measure the average building height within a mesh block.		

Metric

Average building height

Recommendation

N/A

Related indicators

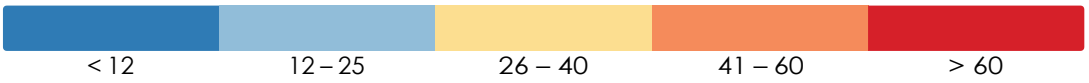
Amenity and Use

14 Mix of uses
15 Population density

Character and Form

31 Street enclosure
34 Land division
36 Building density

Metric – Average building height

Metric unit	Metres (m)
Description	To measure the average building height within each mesh block
Spatial coverage	Applicable to all NSW
Spatial application	This metric is most suitable for area-based analysis based on the mesh block level
Calculation methodology	Obtain building footprint data 1. Select the building footprint data based on mesh block land use types including: • Primary production • Industrial • Commercial • Education • Hospital/medical • Residential • Transport Calculate average building height 2. Identify each building footprint existing average eave height (H^i) and its footprint (A^i) based on the Geoscape Buildings dataset 3. For each ABS mesh block, calculate the weighted average building height of buildings within its boundary by the formula: $Average\ Height = \frac{\sum_{i=1} H_i A_i}{\sum_{i=1} A_i}$ Data representation 4. Assign colour based on the classification below • <12m = 0-4 storeys • 25m = approximately 9 storeys Unit: Metres (m) 
Assumption	• Only the height and building footprint are considered in this analysis. Parkland, water and other land types are excluded. • The formula provided is a weighted average which considers the building footprint as a proportion of total mesh block area. Influence of each building's height on the average height of the mesh block is therefore proportional to the area it takes up in the mesh block.
Limitation	N/A
Data source	• Geoscape® Buildings: geoscape.com.au/ • ABS Mesh Block 2021: https://www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026/access-and-downloads/digital-boundary-files/MB_2021_AUST_SHP_GDA2020.zip

Reference

NSW Department of Planning, Apartment Design Guide Part 2: Developing the controls (2015): planning.nsw.gov.au/-/media/Files/DPE/Guidelines/apartment-design-guide-part-2-developing-the-controls-2015-07.pdf?la=en