Character and Form

distinct

Overview 👁

Indicator name	**Building density**		
Indicator number	36	Indicator type	Supplementary
Objective	To measure the density of buildings within a study area, to ensure that new buildings are appropriate for the character, amenity and intended use of a neighbourhood		
Application guidance	Higher density can enhance economic productivity and encourage more sustainable patterns of travel. Higher values of floor space ratio (FSR) indicate higher density, and typical FSR ranges from 0.2:1 in areas that are environmentally constrained, to 8:1 within the CBD. This indicator will support practitioners to understand how densely packed buildings are in a given study area. Based on the outcome of the assessment, practitioners can determine the total gross floor area within buildings on a block and ensure all new development is appropriate to the character of the existing built environment. Practitioners can use the *average floor space ratio* metric to measure the density of buildings in a particular area.		

Metric 🎛

Average floor space ratio (FSR)

Recommendation ☆

- Development applications or other data sources that show the as-built (ie. existing) FSR of buildings could be utilised to enrich the accuracy of the analysis, where possible
- Some councils do not use FSR, and guidance for a manual calculation methodology using building height and lot/site area from a cadastre could be incorporated

Related indicators ☞

Amenity and Use

16 Housing diversity
17 Local jobs
18 Economic development and regeneration

Character and Form

30 Building height
31 Street enclosure
34 Land division

Metric – Average floor space ratio (FSR)

Metric unit	Ratio
Description	To measure the building density of an area, by assessing the FSR
Spatial coverage	NSW eastern area
Spatial application	This metric is most suitable for area-based analysis based on the mesh block level
Calculation methodology	**Obtain FSR data** 1. Obtain FSR data from DPIE **Calculate average floor space ratio** 2. For each lot within the study area, identify the maximum allowable FSR (Fi) and the footprint (Ai) according to council LEP data 3. For each ABS mesh block, calculate the weighted average maximum allowable FSR of buildings within its boundary by the formula: $$Average\ FSR = \frac{\sum_{i=1}^{n} F_i A_i}{\sum_{i=1}^{n} A_i}$$ **Data representation** 4. Assign colour based on the classification below Unit: Ratio < 0.2:1 0.2:1 – 3:1 3.1:1 – 6:1 6.1:1 – 10:1 > 10:1
Assumption	Developed building height is equivalent to maximum allowable building height in LEP
Limitation	• The assumption that developed building FSR is equivalent to maximum allowable FSR is likely true for metropolitan and suburban areas. However, in rural areas with larger lots of undeveloped open space, this assumption may not hold true. • FSR is not able to differentiate between land uses within the zoned area. For example, a single storey building consuming the entire lot would have the same FSR as a two-storey building standing over 50% of the lot, with the remaining half allocated to green public space. • Council FSR requirements do not cover areas dedicated for greenspace. Areas zoned for this must be filtered out when calculating average FSR over the travel zone.
Data source	• Department of Planning, Industry and Environment, Floor Space Ratio: datasets.seed.nsw.gov.au/dataset/environmental-planning-instrument-floor-space-ratio • ABS Mesh Block 2016: abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.001July%202016?OpenDocument

Reference
N/A