Mixed Land Use

Definition
Mixed land use enables a range of land uses including residential, commercial, and industrial to be co-located in an integrated way that supports sustainable forms of transport such as public transport, walking and cycling, and increases neighbourhood amenity. Mixed land use developments can enhance the economic vitality and perceived security of an area by increasing the number of people on the street and in public spaces (Smart Growth, no date).

Viaduct Harbour, Auckland, New Zealand
Source: TPG Town Planning and Urban Design
Overview
Mixed land use promotes active transport between different activities by locating origins and destinations close to each other. This reduces travel distances and enables ‘linked trips’ where one trip is used to undertake many activities. The range of activities in each mixed use development also encourages social interaction as people fulfil more of their needs in their local area.

A mixed use neighbourhood should include a diverse mix of uses such as various dwelling types, home businesses, child care centres, schools, medical centres and public open space that promote walking or cycle trips within the neighbourhood.

Ideal neighbourhoods include a range of employment, education, recreation and retail opportunities and regional transport connections within comfortable walking or cycling distances of a dense population base. Without this high population base in a densely compacted area, many of the preferred uses will not survive financially. They also incorporate a mix of housing types and affordability; a mix of civic, institutional and commercial facilities; and a mix of public spaces to cater for a range of users (children through to older adults) with a diversity of needs (Bowe, 2004).

These principles for mixed use development work best in large centres but can equally enhance local centres. Any additional population and employment density in a centre will increase the economic activity and financial viability of the centre. The availability of public transport, cycling and walking facilities is important to facilitate access to and within the centre but over time less car parking is required as people come to appreciate the amenity of walking to and through the centre.

A larger version of mixed use development is commonly called Transit Oriented Development (TOD), particularly where development is centred around major transport nodes such as train stations. TOD makes better use of transport infrastructure to ‘back fill’ high capacity transport corridors and support regional public transport links. TOD leads to a more efficient and equitable cities by reducing travel costs for all residents.

Various good examples of mixed use development can be found in Kreuzberg (Berlin), Fitzroy (Melbourne), Subiaco (Perth) and Pyrmont (Sydney).
MIXED USE
A range of compatible uses co-located within the one building, which improves access to daily conveniences and reduces the requirement for parking.

Source: TPG Town Planning and Urban Design
Why?
Research evidence shows that mixed land use (i.e. the presence of multiple destinations) is a key factor influencing neighbourhood walkability, travel costs and fuel use (Newman and Kenworthy, 1998). In low density neighbourhoods with a few local destinations, fewer people walk and more people drive (Frank, 2004; Wen, 2006). From a health perspective, even a slight increase in physical activity and the prevention of weight gain can lead to significant community benefits. Low density neighbourhoods result in activities being spread out resulting in car dependence and geographic inequity (including stratification of the population) as wealthier people move to locations that minimise their travel.

Encourage
Successful mixed use areas can be achieved through:\(^1\)
- locating development within easy walking distance (400 metres) of high quality public transport corridors or other public transport operating at a frequency of four or more services per hour in the off-peak
- providing a range of development types that allow for a mix of day and night time activities supported by dense residential activity that aids with natural surveillance and provides a ‘base load’ of activity
- ensuring that surrounding transport networks and adjoining development is integrated with the new development
- providing high amenity open space and recreation areas especially for children, and
- ensuring that lighting, street furniture, signage, footpath treatment and safe road crossings provide a safe and convivial urban realm for all users.

Rule of thumb
A mix of land uses, including residential, and access to the shops and services required for daily living that is well integrated with public transport, designed to maximise surveillance and to be safe from traffic will support the use of active forms of transport. A wider range of regional transport services will be supported as density of activity increases.

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\(^1\) The first four dot points have been adapted from the NSW Premiers Council for Active Living: Designing Places for Active Living.
Avoid

- Development that is not integrated with public transport networks and land use activities required to meet daily needs (bakery, supermarket, gymnasium, newsagent).
- Development that is more than 400 metres (a five minute walk) from any dwelling to an area of appropriate public open space that meets the population’s needs (particularly children) in terms of scale and activities.
- Organising the design and funding of development without reference to efficient movement networks.
- Single use developments that rely on people travelling long distances for daily activities (such as office parks that create a third lunch time peak).
REFERENCES


