

Private Open Space for High Density Living

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Introduction

Victoria's metropolitan planning strongly encourages higher density, even while our traditions have been based in suburban building forms. The population of metropolitan Melbourne is forecast to increase by 1.8 million residents to exceed five million by the year 2030, requiring an additional 600,000 dwellings. Policy in *Melbourne 2030: Planning for Sustainable Growth* and more recently *Melbourne @ 5 million* directs that over half of these new dwellings will be delivered via infill development in Melbourne's established suburbs, suggesting that high-density housing will be a key source of Melbourne's residential growth in the near future. Consideration of housing density raises the issue of open space (Woolley, 2003). The literature suggests that three interrelated elements constitute a definition of open space: *physical properties* (Gold, 1980); the *activities onsite*, such as recreation (Gehl, 1987); and *user perception* (Wooley, 2003). Open space delivers a host of environmental, social, economic, psychological and physical benefits, including children and youth groups, providing children and youth with a set of non-materialistic experiences (Yuen, 1996), functioning as a "safety valve where children can burn off energy" (Burgess, 1988 pg 462). As housing densities increase the need to plan for and provide quality open space intensifies. This research addresses the current need to improve the quality of policy relating to communal open space provision at high density in Australia.

The Policy Context

The tradition of low-density suburbia poses significant challenges to both the application and acceptance of a compact city model, particularly if the needs of all groups in our communities are not catered for in this relatively new way of living.

- The majority of high density households (40 per cent) are aged between 29-44 years (Randolph, 2006);
- Only 10 per cent of persons living in this urban form are aged less than 15 years (Australian Bureau of Statistics, 2001);
- High density housing is primarily a rental market; 55 per cent of flats in Australia's three largest cities are rented from a private landlord, contrasted to 14 per cent of separate houses (Australian Bureau of Statistics, 2001).
- The majority of this stock is of 1-2 bedrooms; only 13 percent of dwellings contain more than three bedrooms (Randolph, 2006)

Fincher (2004) argues that Melbourne's high-density housing stock is market primarily at 'child-free lifestylers', being households pre- or post- children. "There have been no statutory regulation that prohibits children; however the developers are providing a market with specific consumers in mind – one's without children" (Costello, 2005 pg 57).

The requirements of open space provision in Melbourne's high density housing stock are currently dictated by Clause 52.35 and the *Guidelines for Higher Density Residential Development* (Department of Sustainability and Environment, 2004). These provide little direction and there is no statutory planning requirement that necessitates the provision of open space in Melbourne's high density housing stock. The *Guidelines for Higher Density Residential Development* Objective 6.1: "*Ensure access to open space for all residents*" addresses the functionality, form and orientation of open spaces in high density residential developments. Typical of performance based approaches to urban planning, no minimum requirement is stipulated. As such, the provision of open space in Melbourne's high density housing stock may vary from nil to abundance. This study investigates how these planning provisions are typically interpreted by the private sector and administered by planners, examining the extent to which

such applications are appropriate and reflective of the perceived needs of families living at high density.

How Families Use Open Spaces

The study examined high-rise residential developments located in inner-city Melbourne. This study focuses upon communal spaces within high rise developments. While other space provided in the public realm is important, this study focuses upon that provided within high rise development sites. Open space areas were examined and 26 Melbourne households living in high density dwellings were interviewed, using a standard questionnaire containing 17 questions. Respondents were recruited via a snowballing method from inner city Melbourne areas with significant amounts of high rise residential developments: Docklands; CBD; and Southbank. A combination of Likert scale (1 – 5) and open ended questions were administered in interviews typically lasting 20 minutes each. The interviews of families dwelling in high density housing within Melbourne were complemented by analysis of the actual open spaces of the respondents via field study. While the overall number of interviews is insufficient to generalize to the population, it provides a basis for examining the physical qualities of the case studies and to act as a pilot study. Further, the results of the field study examining actual open space provision demonstrate that current performance-based standards allow a wide range of different open spaces within high density residential developments – focused upon non-children ‘lifestyle’-oriented amenities. Photograph 1 below shows communal open space in the Arkley in Melbourne’s Docklands.



Photo 1 – The Arkley, Docklands, Melbourne

As Table 1 indicates swimming pool and gym facilities were the most frequently reported open spaces provided. 77 per cent (n=20) of respondents had access to the former and 73 per cent (n=19) to the latter. Private balconies were the third most frequently provided open space with 69 per cent (n=18) of respondents reported their dwellings possessed this type of private open space. Current Victorian planning policies allow variance from having access to nil or an abundance of open space.

Table 1- Provision of Open Space in Surveyed Households of Melbourne’s High Density Housing

Communal Open Space	Frequency	Percentage
Swimming Pool	20	77
Gym	19	73
Private Balcony	18	69
Garden	10	38
Sun Deck	7	27
Tennis Court	4	15
Private Courtyard	4	15
Terrace	1	4
Ground Floor Atrium	1	4
None	1	4

Communal open space are used at varying frequencies by families, stemming from the provision above. Figure 1 shows swimming pools are the most regularly used (and provided) provision, accounting for 38 percent (n=10) of responses. The gym and sundeck are the next most frequently employed communal open space, respectively accounting for 19 percent (n=5) and 15 percent (n=4) of respondents usage.

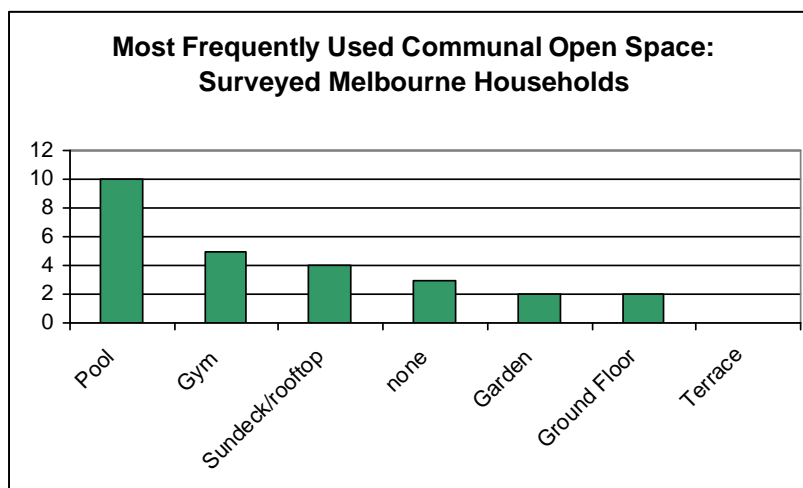


Figure 1 - Most Used Communal Open Space Provision, Surveyed Melbourne Households

The most common for family use of communal open space within high density residential development was “recreation” 56 percent (n=18). Exercise was 32 percent (n=9). These findings generally correspond with the type of facilities typically provided.

Melbourne families rarely engage communal open space for purposes of ‘Entertaining Guests’ (n=3), ‘Contact with nature’ (n=1), or ‘Passive Recreation’ (n=1), suggesting current communal open space does not provide for the full scope of benefits possible, and that this is a corollary of the type, attributes and quality of the communal open space provisions provided.

Just under half (46 percent, n=12) of participants cited that they their most frequently engaged communal open space provision is typically utilized with their children. 35 percent (n=9) of participants use such provisions by themselves and only 8 percent (n=2) of respondents indicated that they typically enjoyed their most commonly used communal open space with their family and friends (Figure 2).

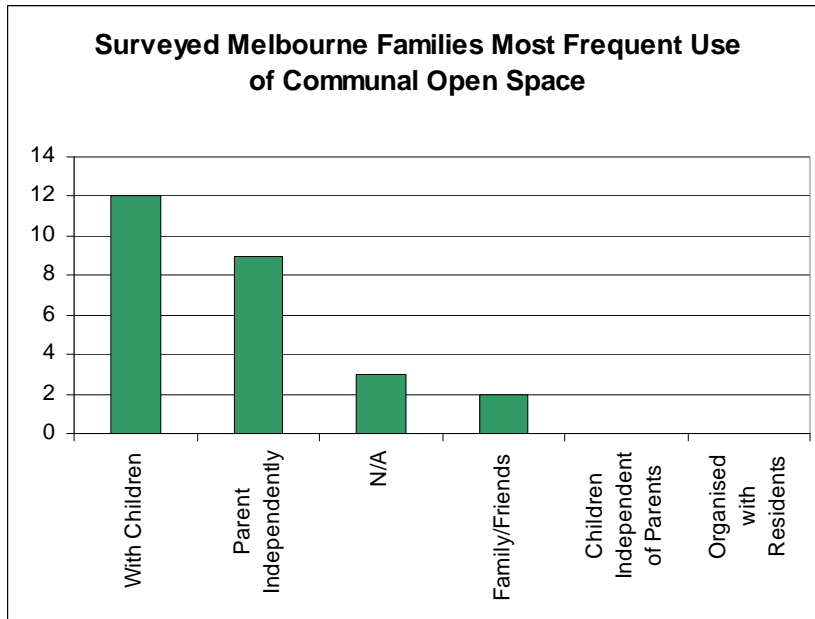


Figure 2 - Experience of Communal Open Space Provision, Surveyed Melbourne Households

While good communal open space is said to engender interaction between residents (Randolph, 2006) and to facilitate greater independent child mobility (Prezza et al, 2001), the survey suggests this is not being achieved in new high density housing. No children employ their residence's communal open space provisions alone. Rather, extant communal open spaces facilitate limited experiences and benefits.

Perceived Importance of Open Space

The frequency of the most used communal open space provision was extremely variable between sampled households (Figure 3), perhaps due to small sample size. Nevertheless 35 percent (n=9) of study participants indicated that their most frequently engaged communal open space is utilised two to three times per week. 19 percent (n=5) of respondents cited that such provisions are employed once monthly. 15 percent (n=4) of families use their most regularly used provisions once weekly.

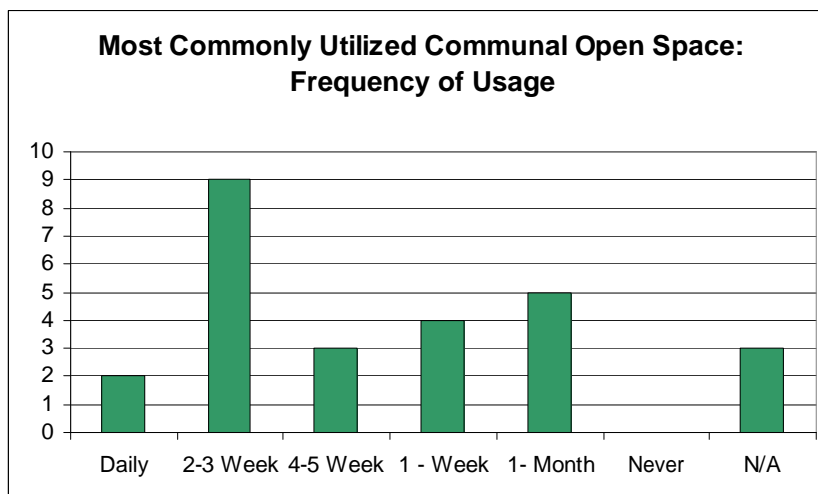


Figure 3 - Most Commonly Used Communal Open Space: Frequency of Usage, Melbourne households

A five-point rating by respondents of the importance of open space in their family life (1 most important) indicated a mean score of 2.1, demonstrating that communal open space is generally perceived as valuable to these families, despite any shortcomings.

Aspects of Open Space Valued by Families Living at High Density

Three open-ended survey questions were posed to participants to determine the characteristics of communal open space important to families, presented in Table 2.

Table 2 - Aspects of Open Space Important to Families Living at High Density

Theme	Sub-Factor
Design and Comfort	Layout and Size
	Microclimate
	Physical Features
	Accessibility
Diversity and Opportunity	Scope of potential uses
	Appeal to different user groups
	Aesthetic Quality
Safety	Surveillance
	Physical Features
	Maintenance of Communal Open Spaces
Sociability	Facilities
	Accessibility

Design and Comfort

The most recurrent perceived need of families that emerged from the study findings relates to the design and comfort of communal open space provisions. This aspect is partially addressed by Victoria’s current planning policy; however the indistinct language used make application of policy problematic. Surveyed families indicated that there is a need for communal open spaces to be conveniently located and constructed to a size that allows a wide scope of activities and uses to occur. Microclimate emerged as a key factor.

The physical features provided impacted on communal spaces’ perceived importance and actual usage levels. Sampled families identified a number of factors:

- Facilities;
- Materials;
- Lighting;
- Extent and type of greenery; and
- Useability throughout year

Accessibility was found to be highly important. 35 percent (n=9) said their communal open spaces were underemployed by their children, being “inappropriate” (Participant MU). Problems related to accessibility and physical design features unsuitable to children emerged in many of the spaces examined.

Diversity and Opportunity

The second aspect important to families relates to the potential range of activities and uses possible in communal open spaces. This is inadequately addressed by Victoria’s current policy. Uses desired by families ranged from “burn[ing] off energy” (Participant MA) to “spiritual growth” (Participant MT). Where respondents desired aesthetic variety and “a rich and varied environment, with ranges of colour, texture, shape and smell” (Cooper Marcus and Sarkissian, 1990 pg 115), highly limited aesthetic experiences were actually provided in many instances.

Safety

Current Victorian planning policy is practically silent regarding safety beyond issues such as pool fencing. Further, safety references are suggestions only. Families themselves desired surveillance, safe physical features and proper maintenance. As such communal open spaces should be equipped with seating, tables, windows and so forth so as to facilitate active and passive surveillance. Many participants didn't "feel comfortable" in facilities leading to underutilization. Finally, levels of cleaning, repair and maintenance were key factors for families.

Sociability

Communal open spaces may facilitate contact and relations between residents of high density residential developments (Randolph, 2006), but is not addressed at all by extant policy. The findings show that sociability was influenced by particular design aspects of the facilities. The extent and orientation of seating and tables was usually key. Participant SH commented that communal open spaces provide "a place where kids and adults can gather and make friends".

Conclusion: Towards an Open Space Policy for Families

The research suggests that families possess particular open space needs in higher density settings. Specifically, the research identified four aspects of open space provision perceived as important to the interviewed families living at high density in inner city Melbourne: design and comfort; diversity and opportunity; safety; and sociability. The study demonstrates the importance of further investigating the particular design qualities of communal open space that can fulfill the perceived needs of families dwelling at high density. That is, some high-rise development's communal open spaces, based on their physical and intangible qualities, are better suited to the pursuits of family life than others.

However, current communal open space provision in much of Melbourne high-density housing stock does not meet the open spaces needs of families. Victoria's performance-based planning policy is being interpreted to favour provision of private open space, gym and swimming pool amenities. Overall, Victoria currently possesses something of a laissez-faire approach to open space planning, perhaps reflective of an overall market tendency (March and Low, 2007). It is argued that the *Guidelines for Higher Density Residential Development* require modification to address families' open space needs. Specifically, Objective 6.2 of the Victorian Guidelines for Higher Density Development requires modification to require that open space be provided in ways that meet the needs of a wide range of occupants. This adaptability will better serve the interests of the many groups that live in high rise, including families.

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