

LEGISLATIVE ASSEMBLY ENVIRONMENT AND PLANNING COMMITTEE

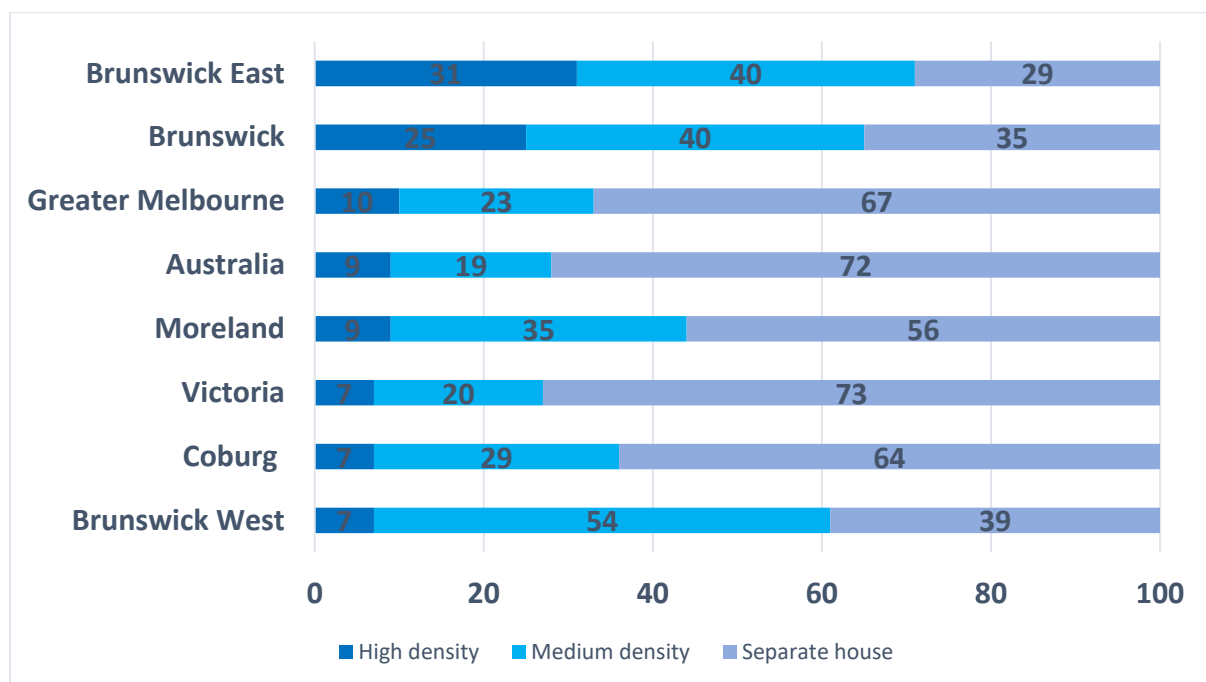
INQUIRY INTO APARTMENT DESIGN STANDARDS

Submission by Moreland City Council – officer submission

Introduction

Moreland is a municipality located between 5 and 14km from the CBD. It is a municipality with strong housing diversity and significant apartment development activity, particularly within the Activity Centres closest to the CBD.

Dwelling diversity by typology



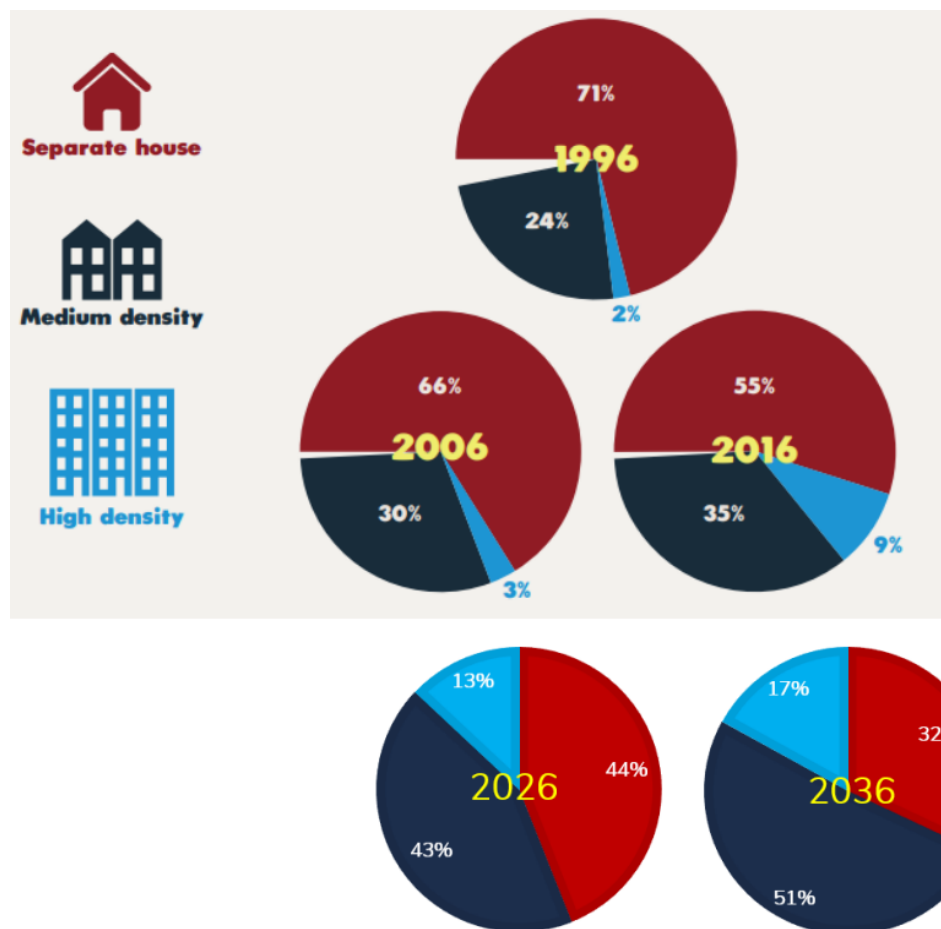
Source: ABS, Census of Population and Housing 2016

The population of Moreland is forecast to grow by 78,600 people over the next two decades, which is an annual increase of 1.9 percent. It is estimated that the number of new households which need to be housed in Moreland over the next 20 years is 35,200 households.

This means that around 38,400 more dwellings are required (occupied and unoccupied), which is around 1,920 per year. This represents 50% growth in population and households over a 20-year period. Because there are no greenfields, and little brownfields land, these new homes will mainly be apartments and units.

In 1996 2% of the homes in Moreland were apartments. By 2016 this had grown to 9% and by 2036 it is forecast that 17% of homes in Moreland will be apartments.

Moreland dwelling structure (% of total occupied dwellings)



Source: ABS, Census of Population and Housing 1991 to 2016 and Supplying Homes in Moreland

The number of apartments in Moreland has increased from 1,324 in 1996 to 6,472 in 2016, and by 2036 it is forecast that apartments will be home to 19,289 Moreland households.

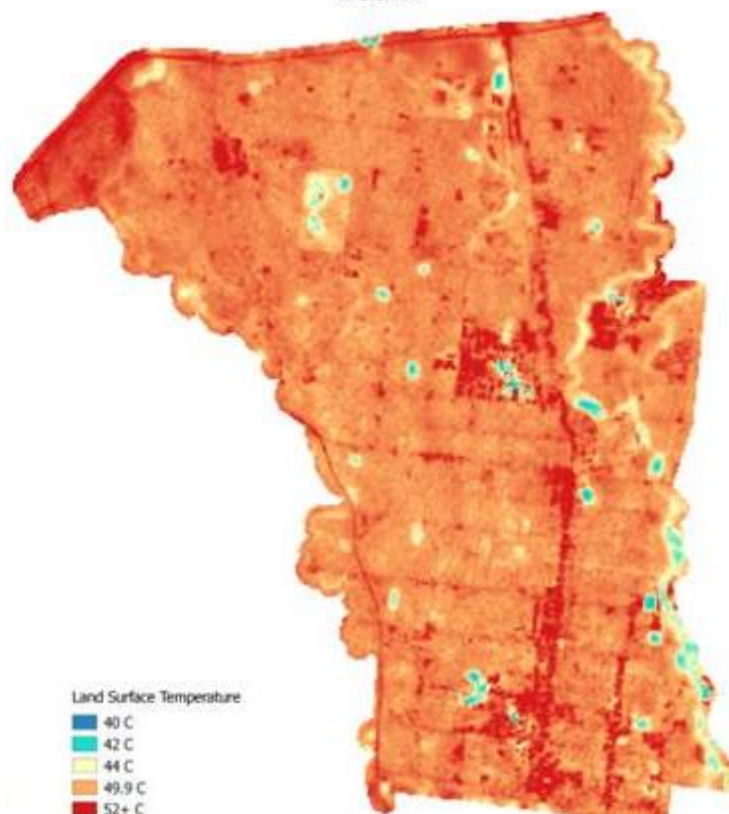
In this context the quality of apartment development really matters in Moreland. Council has undertaken significant [research into housing](#) demand, supply and affordability. Between 2015 and 2017 Council developed the Moreland Apartment Design Code which it sought to include into the planning scheme via [Amendment C142more](#). Much of the code was incorporated into the Victoria Planning Provisions as the Better Apartment Design Standards (BADS) at Clause 58. A key issue not addressed in BADS is building separation. Building separation requirements have been included into the Moreland Planning Scheme at Clause 15.01-2L [Apartment developments in Moreland](#). More recently Council has trialled a voluntary [Moreland Design Excellence Scorecard](#) which sought to further improve the quality of apartment development in Moreland.

Current apartment living standards in Victoria

In 2019 the Department of Land, Water, Environment and Planning (DELWP) released the *Better Apartments in Neighbourhoods* discussion paper. It proposes changes to the Better Apartment Design Standards (BADs) that relate to the relationship between new apartment developments and the amenity of existing neighbourhoods. DELWP has released submissions, responses to submissions and has had a 'soft' launch of the updated standards. The Victoria Planning Provisions are yet to be amended to implement the outcomes of this review. The proposed changes are welcomed and include positive improvements to BADs. The positive effects of these changes are yet to be seen on the ground.

Urban heat and canopy tree planting were not addressed in the review. A significant unresolved issue for Moreland, is the soil requirements within the proposed updated landscaping standard. It is Council's adopted goal in the *Zero Carbon Action Plan*, for Moreland to be a 'zero carbon' community by 2040 to respond to the urgent challenge of the climate emergency. The Urban Heat Island Effect is a significant issue for Moreland due to the highly urbanised environment. Factors including climate change and many Moreland residents are particularly vulnerable to extreme heat. Moreland's *Urban Heat Island Effect Action Plan* looks to reduce overall temperatures. As illustrated in the image below, the linear Activity Centres of Brunswick and Coburg are amongst the hottest areas of Moreland and we are looking to cool our municipality through increasing canopy coverage. Moreland City Council is taking significant action to achieve this goal.

Moreland City Council Thermal Image
14 January 2014
10am



The *Cooling the Upfield Corridor Action Plan* found that competing space demands and the complexity of stakeholders on arterial roads, limits the possibilities to mitigate the impacts of the urban heat island effect through street tree planting. Powerlines, tram lines and the volume of

underground services, significantly limits opportunities to plant canopy trees to cool linear Activity Centres. Hence planting canopy trees on private land is even more crucial.

We remain concerned that the minimum plan dimensions and soil volume standards fall well short of the requirements for trees of the desired sizes to reach maturity and create the shade intended. The proposed objective to provide landscaping that reduces urban heat will not be achieved when canopy trees are planted in planter boxes that are too narrow and contain too little overall volume for trees to reach their desired size.

In general terms, a tree's root spread mirrors the canopy spread. The proposed Clause 58.03 standard envisages small trees with a canopy spread of between 4 and 8 metres being grown in a planter of 2.5 metres width; medium trees with a canopy spread of between 8 and 12 metres being grown in a planter of 4.5 metres width; and large trees with a canopy spread in excess of 12 metres being grown in a planter of 6.5 metres width. The minimum plan dimensions in the standard need to be doubled for trees to achieve their mature canopy spread.

Likewise, the soil volume standards fall significantly short of what is required for trees to reach their mature height and spread. The draft updated Apartment Design Guidelines outline that the minimum soil volume for a small tree is up to 23m³, while the soil volume required by the Clause 58 Standard is 12m³; the minimum soil volume for a medium tree is between 30 and 57m³, while the soil volume required by the Standard is 28m³ and the minimum soil volume for a large tree is between 68 and 92m³, while the soil volume required by the Standard is 64m³. The soil volume requirements in the standard need to be increased in accordance with the minimum required planter soil volumes within the revised Guidelines.

We would welcome further revision of these requirements so that the objective to reduce urban heat by planting canopy trees will be met.

Revised Clause 58 and Apartment Design Guidelines for Victoria landscaping requirements analysis

Tree size	Height at maturity	Mature canopy width	Canopy diameter at maturity	Mature canopy area (or area covered by climbing plants)	Minimum required planter soil volume	Soil volume standard	Minimum planter soil depth	Minimum deep soil area required	Min deep soil standard	Minimum plan dimension	Min plan dimension standard
Small	6 – 8 metres	4m – 4.9m	≥4 metres	12.6m ² – 19.8m ²	7.54m ³	12m ³	0.8m	12m ²	12m ²	2.5m	2.5m
		5m – 5.9m		19.7m ² – 28.2m ²	11.78m ³		0.8m	16m ²		3m	
		6m – 6.9m		28.3m ² – 38.4m ²	16.96m ³		0.8m	25m ²		3.5m	
		7m – 7.9m		38.5m ² – 50.2m ²	23.09m ³		0.8m	36m ²		4m	
Medium	8 – 12 metres	8m – 8.9m	≥8 metres	50.3m ² – 63.5m ²	30.16m ³	28m ³	1.0m	49m ²	49m ²	4.5m	4.5m
		9m – 9.9m		63.6m ² – 78.4m ²	38.17m ³		1.0m	64m ²		5m	
		10m – 10.9m		78.5m ² – 94.9m ²	47.12m ³		1.0m	81m ²		5.5m	
		11m – 11.9m		95.0m ² – 113.0m ²	57.02m ³		1.0m	100m ²		6m	
Large	12 – 18 metres	12m – 12.9m	≥12 metres	113.1m ² – 132.6m ²	67.86m ³	64m ³	1.5m	121m ²	121m ²	6.5m	6.5m
		13m – 13.9m		132.7m ² – 153.8m ²	79.64m ³		1.5m	136m ²		7m	
		14m and greater		Above 153.9m ²	92.36m ³		1.5m	144m ²		7.5m	

Further, a key shortcoming with the existing landscaping standard is the lack of guidance about alternative responses to canopy tree planting such as green roofs or green walls, and this remains unaddressed. There is nothing within the decision guidelines currently, or proposed, to guide decision making about reasonable equivalents to the canopy tree sizes and numbers within the standard. Some interesting work has been undertaken by the City of Melbourne in their Valuing Green Guide, regarding the benefits of green roofs, walls, and façades on the thermal comfort of buildings. Nightingale housing is applying these techniques to their development in Moreland.

There are also examples of equivalency measures for façade and roof planting from Germany, Singapore, and the UK. Opportunities for offsets for landscaping on public land, as part of the equivalency, could potentially also be explored. For canopy trees, the existing and proposed Table D2 in the landscaping standard, guides designers and decision makers about what is required to meet the objectives. There is no numerical guidance about reasonable equivalents, which adds uncertainty to the assessment, for applicants, Councils and VCAT, and results in inconsistency between local government areas. Where landscaping is to be provided on roofs, it would be desirable for the standard to require consideration of wind impacts on the likely success of the proposed landscaping. The [City of Melbourne's Green Factor Tool](#) incorporates a more robust urban greening and urban heat design response and could inform the VPPs.

Improvements that could be made to the liveability in apartments and apartment building developments, including examples from other jurisdictions

Key issues arising in apartment developments in Moreland, not adequately addressed by the VPP are:

- Affordable housing
- Commercial floor space within Activity Centres
- Environmental performance of new buildings
- Quality of design and materials
- Building separation
- Apartment sizes
- Waste management
- Single aspect, south facing apartments
- Design detail
- Accessibility.

Affordable housing

Core to the liveability of apartments is the issue of affordability to those on very low, low, and moderate incomes. Access to appropriate housing in locations close to services and social infrastructure is important, and the freedom to make choices about where you live is fundamental to creating a healthy, productive life. Victorian housing supply does not reflect the needs of the community, and this has been recognised by all levels of government. Housing costs impact negatively on many in the community, affecting people with both rental and home ownership tenures. Furthermore, it has the most significant, socially determined impact for those on low incomes, those suffering disadvantage and people who are homeless, or at risk of becoming homeless.

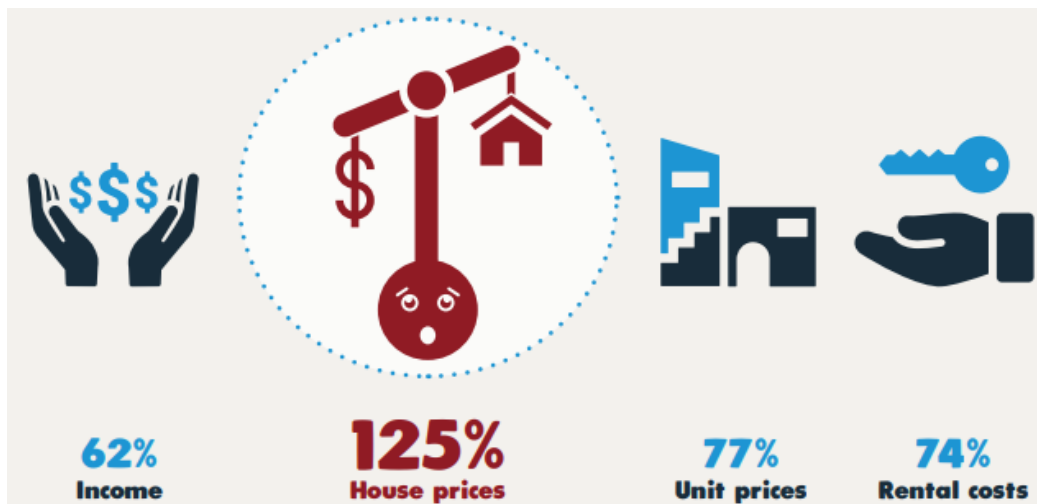
The housing system is not supplying enough safe, affordable and appropriate homes for the Moreland community. We have a higher than metropolitan average number of people who are unhoused, with no safe shelter to call their own. There were 770 people experiencing homelessness

in Moreland in 2016 and this number is likely to have continued to worsen as a result of the impacts of COVID-19.

For many others, being in housing stress means that paying for housing comes at the cost of other necessities like nutritious food or transport. There are more than 9,900 households in Moreland in housing stress (15.3% of households). Housing stress has increased since COVID-19 with one third (34%) of respondents to the Moreland Covid-19 Secondary Impact Analysis survey experiencing heavy or moderate stress on finances from mortgage or rent within the next 6 months.

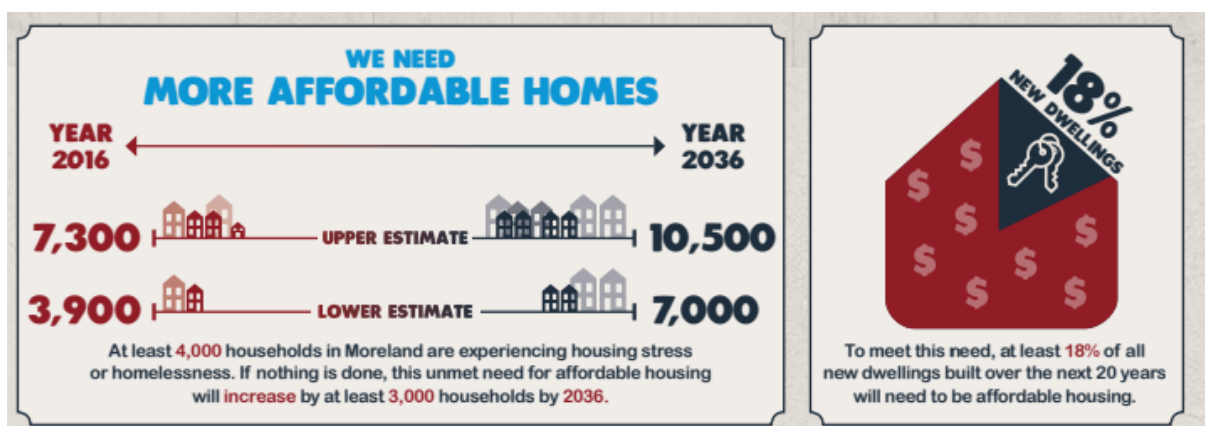
Historically Moreland has been a more affordable place to live than other parts of inner Melbourne. But the shift of work from manual work to office and essential service jobs has seen employment growth concentrate in the inner city. The past two decades show that strong rates of new residential development have not been enough on its own to curb the escalation in Moreland’s house prices.

Income growth and housing cost growth - % change 2006 to 2016 - Moreland



Source: ABS, Valuer General Victoria 2016, DHHS

There is a significant gap between the supply and need of social and affordable housing. There were at least 3,900 households with an unmet need for affordable housing in Moreland in 2016. Moreland needs up to 10,500 affordable dwellings by 2036. On the most conservative estimates, 18% of new dwellings built over the next 20 years will need to be affordable housing.



Consistent with its policy position for many years, the Moreland Affordable Housing Action Plan calls for the state government to include mandatory affordable housing contributions in the VPP.

The current voluntary agreement system does not work, and mandatory affordable housing planning provisions are long overdue. Numerous councils have been advocating for a mandatory affordable housing mechanism in planning scheme for the past 20 years and over the past five years many Councils have undertaken significant evidence-based work regarding affordable housing demand and supply and what a planning mechanism could deliver.

In September 2019 the Planning mechanisms for affordable housing Ministerial Advisory Committee was charged with the task of identifying ‘What does a larger social and affordable housing system look like in 10 years’ time?’ with the objective of the planning system enabling and facilitating the provision of social and affordable housing. The output of the Ministerial Advisory Committee has not been released and there is no information of the role of the planning system in meeting social, and more particularly affordable housing need in the recent *Ten-Year Social and Affordable Housing Strategy for Victoria* discussion paper released by Homes Victoria.

Commercial floor space within Activity Centres

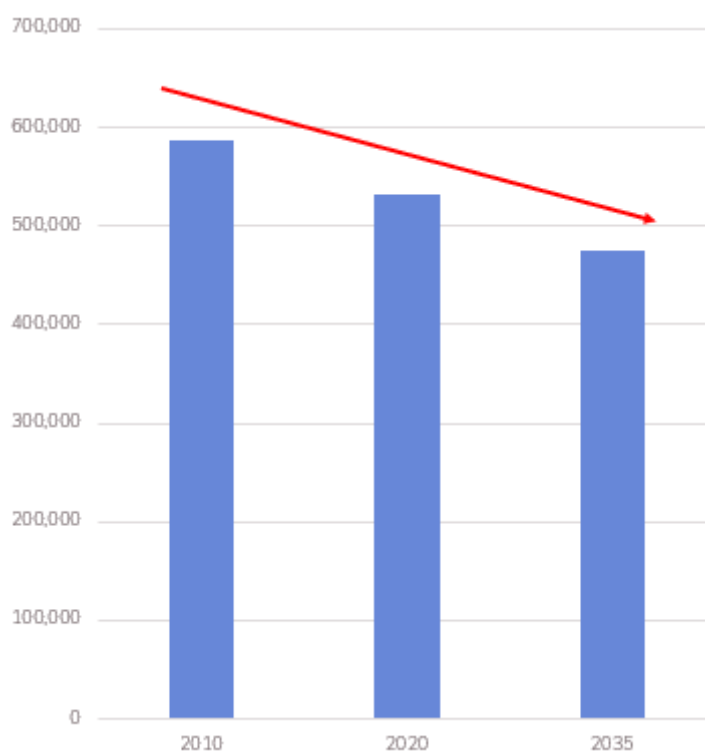
Much land in Activity Centres across Melbourne, including within Moreland, is in the Commercial 1 Zone. Key purposes of this zone are to create vibrant mixed-use commercial centres for retail, office, business, entertainment, and community uses and to provide for residential uses at densities complementary to the role and scale of the commercial centre. These purposes reflect the Plan Melbourne aspirations to improve access to jobs across Melbourne and closer to where people live by supporting the development of a network of activity centres, linked by transport and deliver more housing closer to jobs and public transport by supporting new housing in activity centres.

In the Commercial 1 Zone however, a dwelling is a Section 1 use that does not require a planning permit and there are no requirements within this zone to guide decision making about the provision of employment floorspace to satisfy the zone purposes.

Analysis by Moreland City Council of the Brunswick Activity Centre shows the centre is losing employment floor space as sites are redeveloped. Almost always new buildings in the Brunswick Activity Centre have less commercial employment floor space than prior to redevelopment.

Over the past 10 years the commercial precinct of the Brunswick Activity Centre has lost 55,078sqm of commercial employment floor space; a 9% reduction in commercial employment space. If this trend continues, over the next 15 years the commercial area of the Brunswick Activity Centre will lose a further 57,000sqm of commercial employment floor space. On current trends, by 2035 Brunswick Activity Centre is forecast to have almost 20% less commercial employment floor space than it had in 2010. At the same time, the population and demand for jobs and services is growing.

Commercial floorspace Brunswick Activity Centre



Source: Moreland City Council, NIEIR

It is suggested that the Commercial 1 Zone requires review to ensure that the liveability of apartments in Activity Centres is not threatened by the decline in shops and services and the vitality of centres.

As a matter of detail, design guidance on layouts for successful commercial spaces would also be helpful. Ground floor commercial spaces are rarely thoughtfully designed and are often left-over spaces which require tenants to negotiate oddly placed pillars or floor to ceiling glazing onto the street, which often result in cold, awkward fit outs unable to adapt to the needs of future businesses.

Environmental performance of new buildings

Integral to the liveability of all housing, including apartments, is its environmental performance.

Environmentally Sustainable Development is a keystone principle in Victoria's planning system, embedded in the strategic objectives of State and Local Planning Provisions. However, there is a disconnect between these higher order objectives and achieving on the ground ESD outcomes. Many Councils, including Moreland, have been advocating through the Council Alliance for a Sustainable Built Environment (CASBE), for inclusion of ESD requirements in the VPP for the past 17 years.

Victoria's Climate Change Act 2017 establishes a long-term target of net-zero greenhouse gas emissions by 2050, with five-yearly interim emissions reduction targets. Victoria's Climate Change Strategy sets out the Victorian Government's current action on climate change.

Progress on the introduction of state-wide ESD requirements for apartments has been slow and unambitious.

Moreland City Council, along with many others introduced best practice ESD requirements for all development in 2015. With changing technologies and the declaration of a Climate Emergency, Moreland City Council is well progressed with work to implement Council's Zero Carbon 2040 Framework and Action Plan in the planning scheme. This work focusses on:

- Better roofs - to address the current shortfall with new developments committing to the installation of solar photovoltaic systems and/or address the urban heat island effect.
- Zero Waste Infrastructure - to improve waste infrastructure to target zero waste to landfill by 2030.
- Future proofing buildings for electric charging infrastructure - to give guidance for the installation of specific electric infrastructure in new developments.

Key issues that have emerged through Moreland City Council's research include:

- Competing interests for roof space to accommodate solar and the need to align planning requirements with the new National Construction Code 2022 changes in relation to green roofs, solar, rainwater collection and heating, ventilation, and air conditioning systems.
- Provision for electric vehicle infrastructure. Retrofitting existing builds will be costly to incorporate such infrastructure. BADS is silent on catering for future transport needs.
- For multi storey development not enough space is provided in the basement to fit rainwater tanks and associated infrastructure such as pumps and treatment. If tanks are located several storeys below functional spaces, additional pumping is required, and this may reduce the number of dwellings connected to the rainwater tank. There is a need to include guidance on the location and layout of Integrated Water Management Systems, particularly rainwater tanks.
- Consideration could also be given to the integration of landscaping and harvesting of stormwater within communal areas and maximising solar energy production to power communal areas/facilities, including lighting, lifts, and automatic doors.

VPP guidance on these matters would be helpful.

For the Inquiry's information, Moreland City Council has developed [Zero Carbon Development Guidelines](#). They encourage development to incorporate Solar PV, EV, and Green Infrastructure, with technical metrics to apply to new development.

A key question for this inquiry is what role do apartment developments across Victoria play in achieving the Victorian government's target of net zero greenhouse gas emissions by 2050 and what guidance is needed within the VPPs to deliver this outcome?

Quality of design and materials

Moreland City Council receives repeated feedback from the Moreland community about the quality of apartment development, with a focus on the external design and quality of building materials.

The Better Apartments in Neighbourhoods review of BADS includes new provisions relating to the quality of building facades and engagement with the street. It remains to be seen what influence these requirements will have on the ground, however on paper at least they address many of the issues Moreland sees with the external design of apartments.

A further change which could be considered is a requirement for apartment developments to be designed by an Architect and a model condition requiring the Architect to be retained throughout the construction phase.

Building separation

Key factors in the liveability of apartments are outlook and access to daylight and sunlight. Adequate separation between buildings allows:

- Adequate daylight to living rooms and bedrooms
- Opportunities for open space and landscaping areas
- Reduction of overlooking into habitable rooms and private open space areas through location and design
- A reasonable outlook from living areas
- Reasonable future development opportunities of adjoining sites
- Management of the amenity impacts to adjoining sites
- A greater level of privacy and higher levels of daylight compared to bedrooms.

Moreland has included building separation requirements at Clause 15.01-2L of the Moreland Planning Scheme. [NSW](#) also has clear requirements and how they are measured.

Ideally building separation requirements should be included into the VPPs to improve the liveability of apartments state-wide.

Related to building separation is outlook from apartments versus privacy, and the overuse of screening and opaque glazing. More guidance is needed about what the balance should be, to reduce the over-use of screening. Internal amenity needs to be more carefully considered in relation to screening and frosted glass screens should be avoided. The use of planter boxes (meaningful depth/width) and or louvered screens that allow airflow/pleasant outlook are preferable to the creation of fishbowl apartments.

Further guidance would also be helpful on the application of equitable development principles for matters such as daylighting to habitable spaces and overshadowing to solar and communal spaces.

Apartment sizes

A persistent issue with liveability of apartments in Victoria is their small overall size, which has not been addressed by the 2017 introduction of room dimension requirements. Work on this issue undertaken by the [City of Melbourne](#), [City of Yarra](#), [Moreland City Council](#), as well as in [NSW](#) is informative. Better outcomes would be achieved if the VPPs specified minimum apartment sizes, as well as minimum room dimensions.

Waste management

Waste management from apartment buildings can result in:

- Proliferation of bins on street
- Lack of recycling and composting
- Illegal dumping of hard rubbish.

Management of these issues is tied to the physical design of the building. The [City of Melbourne's Waste Management Guidelines](#) are a good example of best practice management of waste in apartments. It includes requirements for onsite collection within the building, building design for separation of waste streams as well as provision for hard rubbish, eWaste and charity goods.

Early last year the Victorian Government announced that all local council waste services will transition to a [four-bin service](#) to reduce waste to landfill and improve the quality of recyclables. The four bins or streams will separate:

- garbage (red lid)
- recycling (yellow lid)
- food and garden organics (FOGO) (light green lid)
- glass (purple lid).

Within 15 years, more than 15% of Moreland households will live in apartments and this trend will be common across inner and middle ring municipalities. Reduction of waste to landfill and improving the quality of recyclables from apartments needs addressing.

The Apartment Design Standards should be amended to include a requirement for disposal, storage, and collection of waste from these four streams. In high rise apartment buildings this includes inbuilt design features such as elephant foot waste chutes, lazy-Susan type mechanisms to move various bins underneath chutes and designing accessways and basements to facilitate onsite emptying of bins. With the introduction of a four-stream system, larger bin storage areas are also likely to be required.

Single aspect, south facing apartments

South facing apartments have a baseline of lower amenity with no access to direct sunlight. Almost all apartment developments then load up this baseline with single aspect, smaller apartment sizes, outlook to a light court and balconies which further reduce the amount of daylight which penetrates apartments. This produces apartments which are small, dark, and cold, often with little or no outlook.

The VPPs would benefit from guidance specific to single aspect south facing apartments.

Design detail

Internally there are many aspects of apartment design which could do with improvement. These include:

- Minimum widths to circulation areas – i.e. foyers, lifts, around dwelling entries to allow for furniture movement
- Improved building entry area / around intercom area to accommodate better online deliveries (here to stay during and after pandemic) which tend to be small.
- Access to bike storage which accommodates diverse types of bikes. E.g. encouraging children's bikes to be accessed via alternatives to the basement ramp.
- Requiring loading bays for removal trucks to avoid double parking on the street.
- Common circulation areas (stairs, hallways etc.) typically have little to no access to natural light and are considered as sole use spaces. Consideration of these spaces as 'habitable' and an opportunity for positive space - outlook, ventilation, circulation, with better integration of these common thoroughfares with light courts and building separation to improve the amenity and safety of these spaces.
- Interface of units on the podium courtyard tends to be quite poor and need improvement. Larger terraces for these units will allow some buffer area for privacy.
- Ensure car parking areas are safe for various users, pedestrians, cyclists, vehicles, waste collection - appropriately separated.
- Waste management arrangements can affect outdoor dining areas.

Accessibility

Whilst the inclusion of requirements for accessible housing in the Better Apartment Design Standards is positive, there are a couple of issues with the existing requirements. They include lack

of clarity in the functional layout standard and the absence of requirements for buildings to be accessible from the street and within the building including lifts and service areas.

The National Construction Code 2022 mandates the Livable Housing Design Silver Level as a standard for all new housing. The [Victorian government has committed](#) to implementing this requirement in Victoria.

Accessibility requirements will need to be updated in Clause 58 and Clause 55, as well as in the Building Code.

General

Other issues of a general nature include:

- Clause 58 does not apply to some types of accommodation including student accommodation and residential village. Clause 58 should be updated to apply to all types of accommodation.
- Design of apartment buildings should consider building scale in relation to the sense of community with consideration to a potential cap the number of apartments per entry or lift access.
- Consideration of communal spaces designed to enhance sense of community within developments to foster discrete communities within larger developments.

Conclusion

Across Victoria we are still grappling with planning requirements to deliver adequate outcomes for those who live in apartments and the broader community. Moreland City Council has been at the forefront of seeking ways to improve the quality and liveability of apartment development. This submission sets out the many ways in which the State Government could implement changes to the Victorian Planning Provisions to deliver improved living standards and more affordable housing across the State.