

Future Options for Box Hill

4

4.1 Opportunities and Constraints for Future Development

The development trends and existing urban conditions examined in the previous section suggest a clear set of challenges to address as part of the strategic review of the Box Hill Metropolitan Activity Centre. The primary challenge is to address the issues of market-led development approaches focussed on the design of individual development sites, with relatively little consideration of the cumulative effect of this development. Higher quality design outcomes are necessary in order to support the significant future growth, which will deliver social, economic and community benefits at a local, regional and metropolitan scale.

There is clear and unambiguous policy support for development intensification in Box Hill based on its existing strategic context and recognition with Plan Melbourne and other metropolitan planning strategies. Its trajectory of change and ongoing metropolitan role for services, employment and housing is supported by the accessibility afforded by the major transport hub. This will potentially increase in time with the addition of the proposed Suburban Rail Loop. This presents constraints and opportunities for strategic planning to coordinate and guide the process of delivering preferred built form outcomes and community dividends that will make Box Hill a great place that is open and welcoming to all.

Constraints

- Inadequate guidance for preferred outcomes from the planning scheme.
- Adverse amenity impacts on the public realm, leading to diminished access and cohesiveness
- Risk of residential development crowding out of employment floorspace.
- Increased pressure on capacity of pedestrian and transport networks and managing car parking.
- Housing affordability and increasing competition for space as result of population and job growth
- The challenges of providing a cohesive public realm that is accessible and enriches the identity of Box Hill MAC.

Opportunities

- Creating a network of distinctive neighbourhoods.
- Managing development density, built form and amenity.
- Creating an enriched and cohesive public realm that is accessible and welcoming to all
- Managing population and job growth through land use mix.
- Managing transport, traffic and car parking.
- Facilitating affordable housing and support delivery of public benefits.

These constraints and opportunities set the context for the options set out over the remainder of this chapter.

4.1.1 Summary of Key Planning Weaknesses Identified

The existing structure plan sets out an ambitious vision for change that requires strong guidance through the planning scheme. Drawing on the observations made above our analysis has indicated weaknesses that require further resolution. In summary, the key planning needs identified include:

- In the absence of specific height limits across much of the activity centre, policy direction is required around ‘how tall?’ and ‘how dense?’ is appropriate for development in the Major Development Precinct (known as the Built Form Precinct F).
- Further policy direction is required to guide decision making when considering applications for increased residential densities in ‘limited’ or ‘natural’ change and Garden Suburban, RGZ and MUZ areas, in the context of evolving character.
- Additional planning mechanisms or policy guidance are needed to ensure the underlying strategic role of individual precincts, as described in the Structure Plan (and as reviewed in this project), is implemented
- Further consideration is needed around how strategically important priority land use outcomes, such as office or health/ education related uses, can be incentivised in preferred locations.
- Significant additional planning work is required to address gaps in planning controls and provide the required policy guidance around appropriate built form outcomes relating to:
 - Locations for greatest height.
 - Approach to ‘gateway’ development.
 - Appropriate response to height in an evolving context.
 - Achieving a transition in height.
 - Considering overshadowing impacts.
 - Preferred built form typologies – i.e tower/ podium, campus-scale, institutional buildings, hybrids.
 - Street wall height and relationship to street function.
 - Appropriate upper level setbacks.
 - Appropriate side and rear setbacks and building separation.
 - Appropriate amenity at street level and key public places.
- A need to establish an appropriate planning policy framework for affordable housing within the scheme, underpinned by assessment of housing need in Box Hill, and supported by:
 - Establishment of an explicit policy position around incentives to development to negotiate an agreed outcome.
 - The need for a public benefit/development uplift regime to be unambiguous, transparent, and consistently applied.
- Consideration of mechanisms to deliver public benefits:
 - A clear policy position is required regarding development uplift for the provision of open space or pedestrian links as a public benefit.
 - List of eligible public benefits, which could include public art contributions and provision of space for community uses.
 - Any public benefit requirement needs to be strategically justified by the structure plan or other supporting policies.
 - Development uplift regime needs to be unambiguous, transparent, and consistently applied.
- There is a role for council to consider cumulative traffic impacts of development across the centre and plan for works accordingly. A development contribution mechanism, other than reliance on permit conditions on individual developments, is one possible approach.
- Implementation of parking rates more consistent with the Central City, to align with policy direction to support walking, cycling and public transport use in Box Hill. This approach could include the introduction of maximum, rather than minimum, car parking ratios for Box Hill via the Parking Overlay.
- Clear policy direction is required regarding off site provision of car parking. If this was a preferred approach, development incentives could be explored to facilitate this outcome and ensure car parking is delivered in optimal locations.

4.1.2 Creating a Network of Distinctive Neighbourhoods

In providing clearer guidance of the preferred future outcomes across private development, major institutions and the public realm, it is important that future planning guidance provides an integrated vision of distinctive neighbourhoods that are linked together in a network. Box Hill has always been composed of multiple different parts that each contribute towards the whole centre.

The differing boundaries of 'Activity Precincts' and 'Built Form Precincts' in the 2007 Structure Plan raise some confusion as preferred built-form outcomes appear disconnected from preferred land-use outcomes. This key issue is demonstrated by the broad scale application of 'Built Form Precinct F - Major Development Precinct' across parts of all 'Activity Precincts' where no height limit is specified. Another element contributing to its confusion is the use of letters A-F in the identification of boundaries across both diagrams. It is further exacerbated by the use of a standard regime of land use zones that provide little opportunity to provide a nuanced approach to guiding land use outcomes appropriate for activity centres.

An analysis of existing built form (Section 3.3) demonstrates how Box Hill has inherently distinctive urban 'parts' with each having distinctive strategic land use (such as BHI, Box Hill Central, Town Hall and Box Hill Hospital etc.) and built form characteristics (such as availability of developable land, street width, orientation and access etc.).

Together, they introduce particular opportunities and constraints with respect to future use and development which will be explored in detail on pages 129-137 of this report.

There is an opportunity to resolve this inconsistency, and provide greater clarity by delineating a consistent set of boundaries indicating a 'network of distinctive neighbourhoods'. Built form controls would then be introduced at a granular level of control in order to account for particular contexts within each neighbourhood. The use of a single set of boundaries across the structure plan would ensure that its operation and application is simpler and easier to understand for users.

Figure 4.1 proposes an option outlining a set of boundaries that provide a clear and legible vision of Box Hill as a network of coherent urban units with recognisable individual characteristics. For the purpose of clarify and ensuring a smooth transition, Table 4.1 outlines the transition from 'Activity Precincts' (*as contained in the 2007 Structure Plan*) to 'Neighbourhoods'.

Table 4.1 2007 Structure Plan Activity Precincts to Neighbourhoods conversion table

2007 Structure Plan 'Activity Precinct'	Proposed 'Neighbourhood'
Precinct A	Central Neighbourhood
Precinct B	Prospect Street Neighbourhood
Precinct C & F	Civic & Cultural Neighbourhood
Precinct D	Health & Education Neighbourhood
Precinct E & G	Garden Neighbourhood
Precinct F	Enterprise Neighbourhood
Precinct H	Residential Transition Areas

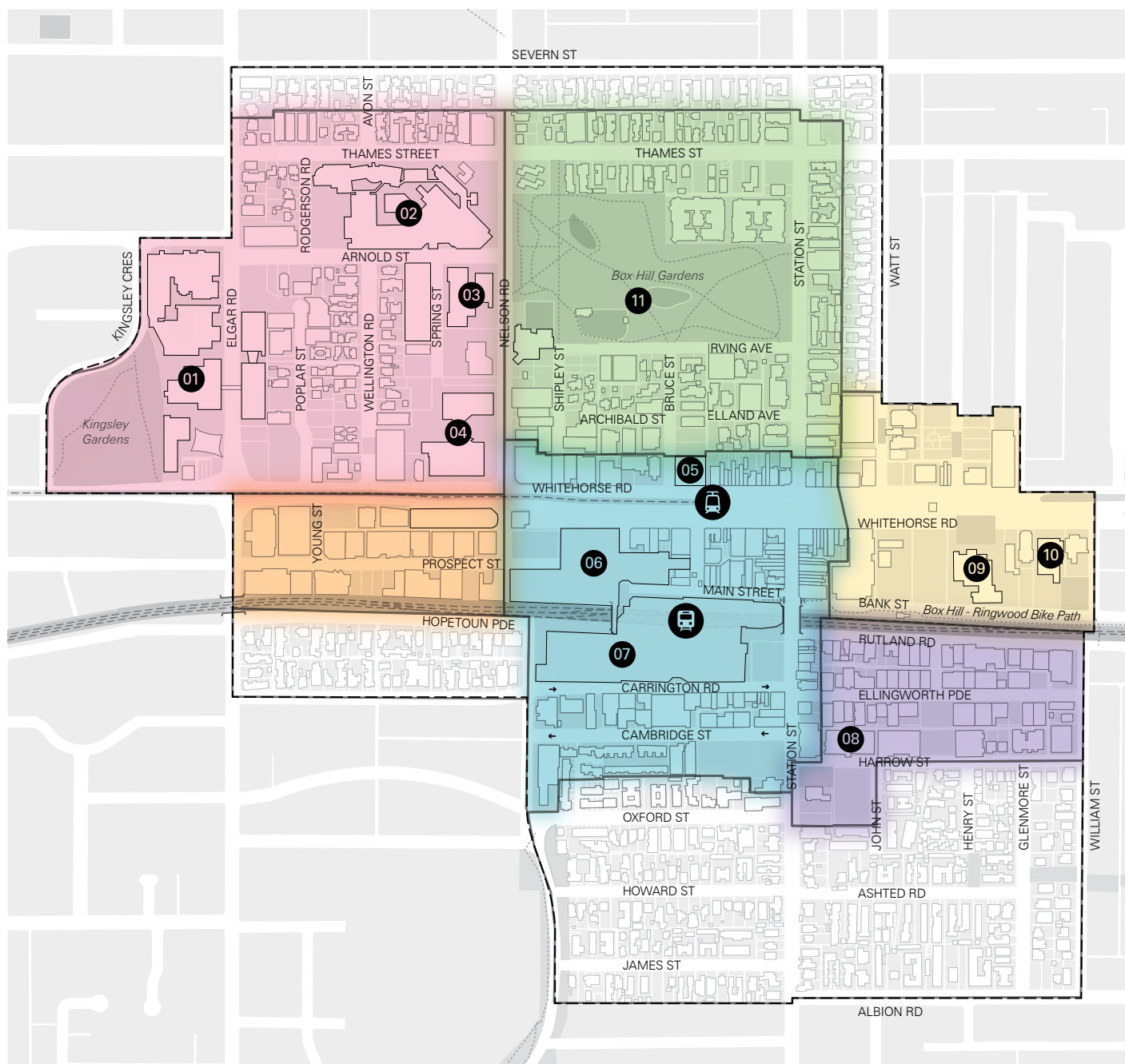


Figure 4.1 Creating a network of distinctive neighbourhoods

Legend

Structure Plan (Activity Centre) Boundary

Neighbourhoods

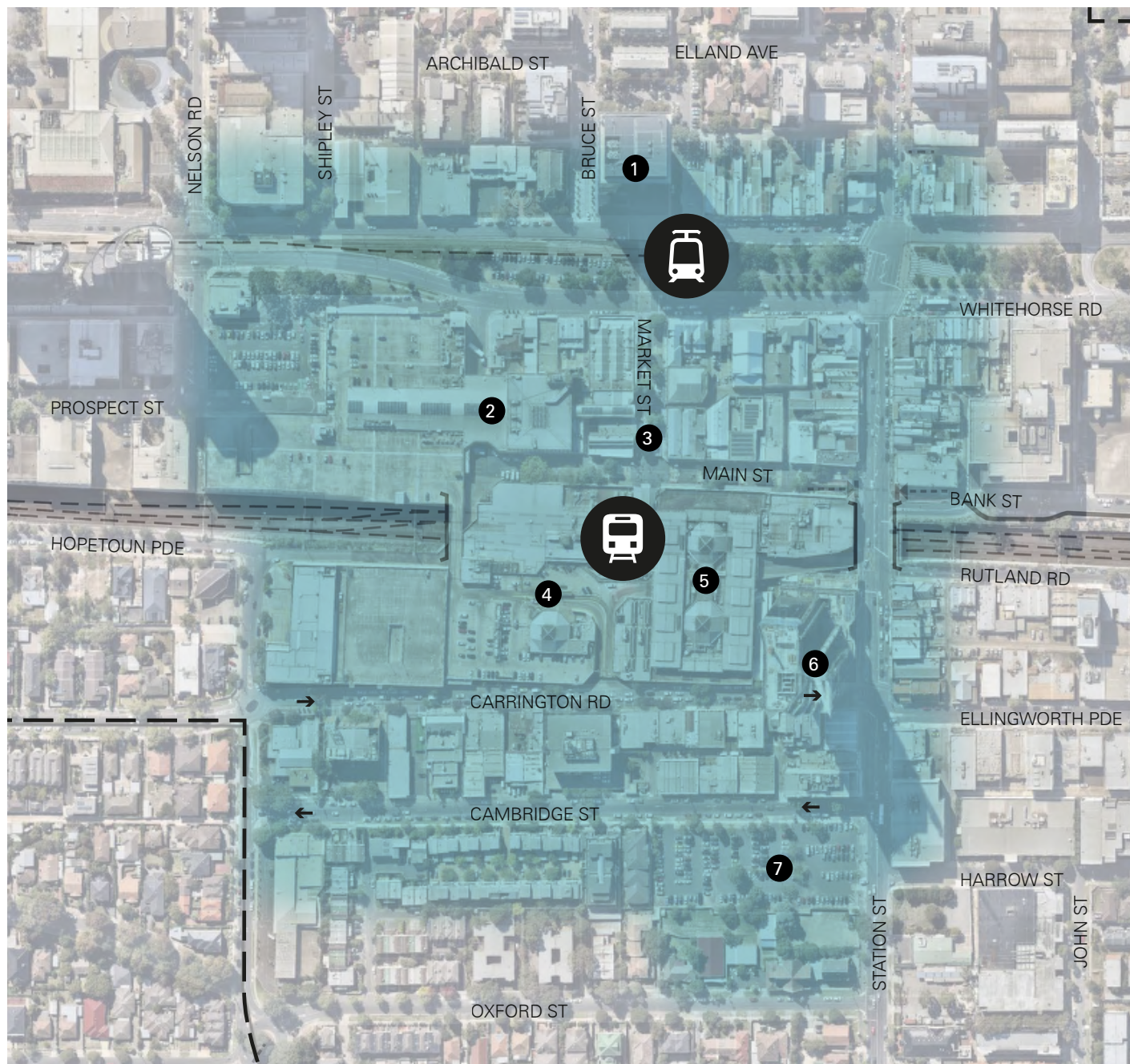
- Precinct 1: Central
- Precinct 2: Health & Education
- Precinct 3: Prospect
- Precinct 4: Garden
- Precinct 5: Civic & Cultural
- Precinct 6: Enterprise
- Precinct 7: Northern and Southern Residential Transition Areas
- Tram 109 terminus
- Box Hill Station

Key Places

- 01 Box Hill Institute | Elgar campus
- 02 Box Hill Hospital
- 03 Epworth Hospital
- 04 Box Hill Institute | Nelson campus
- 05 Australian Tax Office
- 06 Box Hill Central North
- 07 Box Hill Central South
- 08 Centrelink & Medicare
- 09 Box Hill Town Hall
- 10 Box Hill Library
- 11 Box Hill Gardens

Legend

- 1 ATO
- 2 Box Hill Central | North
- 3 Box Hill Mall
- 4 Box Hill Central | South
- 5 Box Hill Transit Interchange
- 6 SkyOne | 545 Station Street
- 7 517 Station Street (former council carpark)



4.1.3 Central Neighbourhood

2007 Statement:

"Precinct A: Retail sustained throughout the area complemented by entertainment, hospitality, commercial and other uses with extended hours of activity creating a central focus for Box Hill."

2019 Challenges:

- The neighbourhood remains the retail core of the activity centre with increasing emphasis on entertainment (primarily restaurants and hospitality).
- The Vicinity site is the largest consolidated landholding but is currently relatively underdeveloped compared to some emerging development sites within the centre. The site has substantial capacity to accommodate a wide mix of uses (retail, entertainment, employment, residential and community uses) but needs to deliver commensurate public space and place making opportunities.
- The transport interchange role for the entire activity centre is concentrated in this neighbourhood. This maximises transport accessibility but means that all bus services must come into the core of the centre.
- Large concentration of car parking in the Central Neighbourhood is at odds with the preferred pedestrian-priority role, because roads are configured to deliver cars to the centre.
- North-south pedestrian and cyclist permeability is hampered by the train line and configuration of the shopping centre. Cyclists have no option but to travel directly on Station Street which does not have on-road bicycle lanes. East-west connections for cyclists is similarly challenging with Carrington Road (one-way towards west) constrained for those travelling towards the west.
- The traditional town centre area between Main Street and Whitehorse Road has largely retained its fine grain fabric and heritage buildings. This is similarly mirrored on the north edge of Whitehorse Road east of the ATO building.
- Emerging taller podium-tower built form is currently isolated to a few buildings, including the ATO and notably the 36 storey building under construction at 545-563 Station Street. New development is site focused and has developed in isolation from adjoining sites.
- Box Hill Mall (Market Street and Main Street) are relatively undersized for their important civic role as the main urban public space for the centre.
- The green public space in the centre of Whitehorse Road has poor accessibility due to the road lanes on either side and is configured more as a median than as a key open space resource. The 60m wide road reserve for Whitehorse Road presents a substantial barrier to north-south movement.
- The impact of overshadowing on Whitehorse Road and the mall needs to be considered. Height limits that protect the amenity of these spaces need to be investigated.
- The primary pedestrian focus of this area should be supported through encouraging the active use of laneways as public spaces, by encouraging active interfaces for development and managing parking and servicing access.
- Restrictive covenants relating to height and dwellings on some land in this neighbourhood (and North neighbourhood) is a constraint for future development. This is particularly relevant where change in use and built form is needed to achieve desired outcomes contained in the structure plan. It is noted that Council has directed land owners to undertake removal of covenants instead of Council undertaking this process.

Legend

1 Whitehorse Towers | The Chen Art Series Hotel



4.1.4 Prospect Neighbourhood

2007 Statement:

"Precinct B: Consolidation as the primary office precinct in the activity centre."

2019 Challenges:

- New development has not reflected this land use priority. Recently constructed major development has delivered predominately residential and hotel accommodation. Approved permits continue this pattern of use.
- Street level activation is relatively poor due to boxy existing built form, uneven building setbacks and level changes to building entries and facades. New development presents relatively inactive podium interfaces dominated by large car parks, resulting in a poor presentation to Whitehorse Road. Prospect Street contains established street trees within the road reserve but poor pedestrian space.
- Fairbank Lane is a narrow service lane generally less than 3.5 metres in width with a 1.5m carriageway easement on both sides, allowing it to become a two way road. It is taking an increasingly large traffic role due to the number and size of car parks serviced from this lane.
- This neighbourhood is constrained by the rail corridor and Box Hill Central with access currently via Whitehorse Road, Elgar and Nelson. This is a significant constraint with respect to providing car access to the area.
- Development of sites between Prospect Street and the rail line have no rear access, meaning that all car access and servicing must come from the front via crossovers to Prospect Street. This already makes a significant impact on the quality of the street and forms a major constraint on the developability and capacity of these lots.
- Overall, very poor quality of footpaths, spaces and streetscapes that is at odds with the need for high amenity to attract business.

Legend

- 1 Box Hill Town Hall
- 2 Salvation Army site
- 3 Box Hill Library
- 4 Box Hill Police Station
- 5 Box Hill Institute



4.1.5 Civic & Cultural Neighbourhood

2007 Statement:

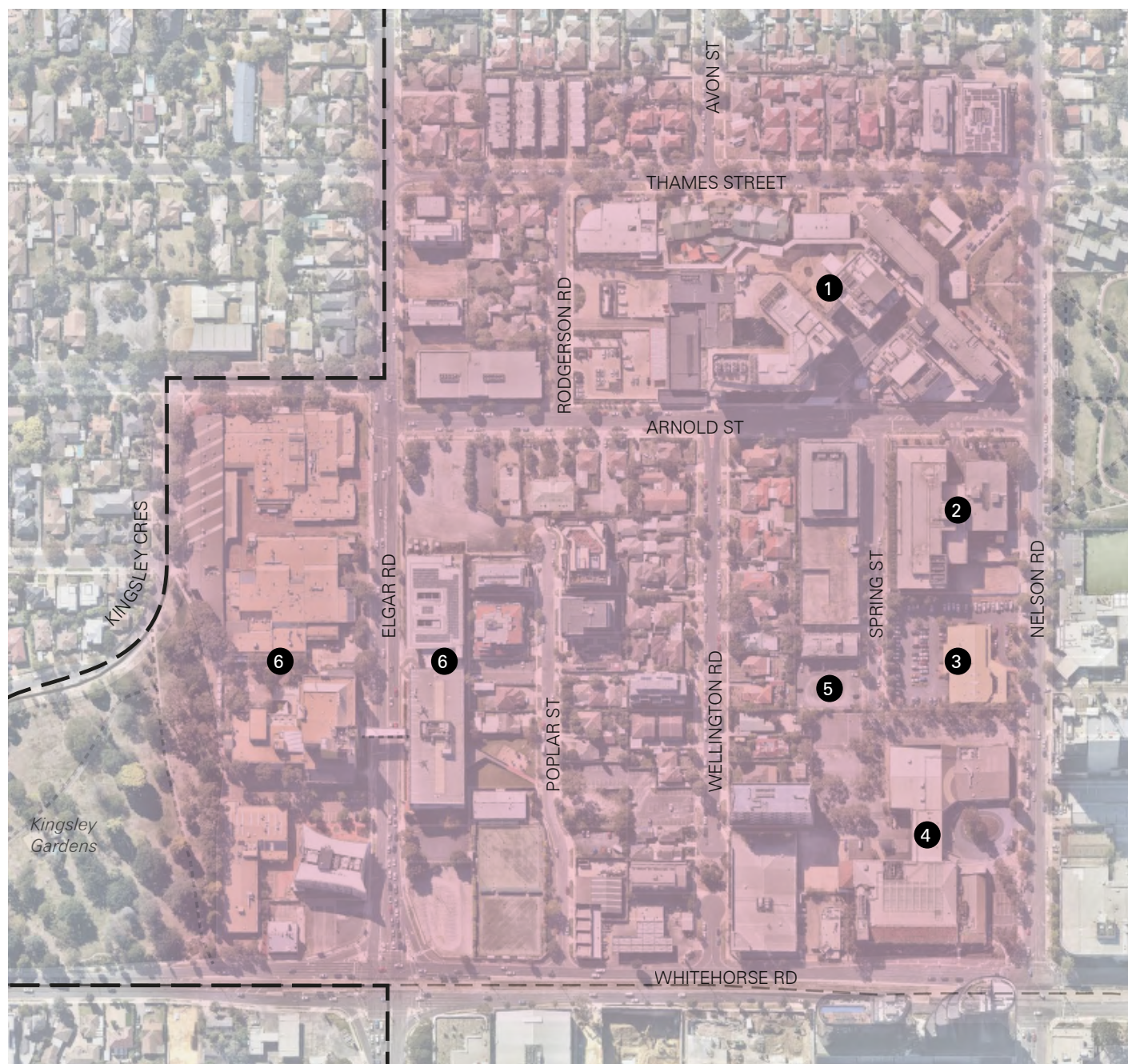
"Precinct C: Consolidation as cultural, community and educational facilities."

2019 Challenges:

- Box Hill Town Hall remains the most prominent heritage feature of the neighbourhood, and Community Hub within the Town Hall, Arts Space, the Box Hill Library, neighbouring church, childcare and other services provide a distinct concentration of community uses.
- However the Box Hill Institute campus on Whitehorse Road is now substantially smaller and the future role of the institute within the neighbourhood is diminished.
- A key challenge is the perceived distance and disconnection of the community infrastructure from the 'natural' civic centre of Box Hill Central, the interchange and Market Street Mall.
- Constrained neighbourhood with poor pedestrian permeability due to large land parcels with single land uses without accessible north-south pedestrian thoroughfares provided
- Bank Street is treated as an access lane and is dominated by on-street car parking and access to off-street car parking to the rear of lots on Whitehorse Road. In addition, there is no activation facing the rail corridor towards Rutland Road. The proposed development at 1000 Whitehorse Road (Salvation Army) will reinforce this character with 128 car parks provided at grade and accessible via Bank Street.
- The northern edge of Whitehorse Road and the land near to Box Hill Police Station is currently disconnected from the rest of the activity centre.

Legend

- 1 Box Hill Hospital
- 2 Epworth Eastern
- 3 Salvation Army
- 4 Box Hill Institute | Nelson Campus
- 5 16 Spring Street (Epworth Eastern)
- 6 Box Hill Institute | Elgar Campus



4.1.6 Health & Education Neighbourhood

2007 Statement:

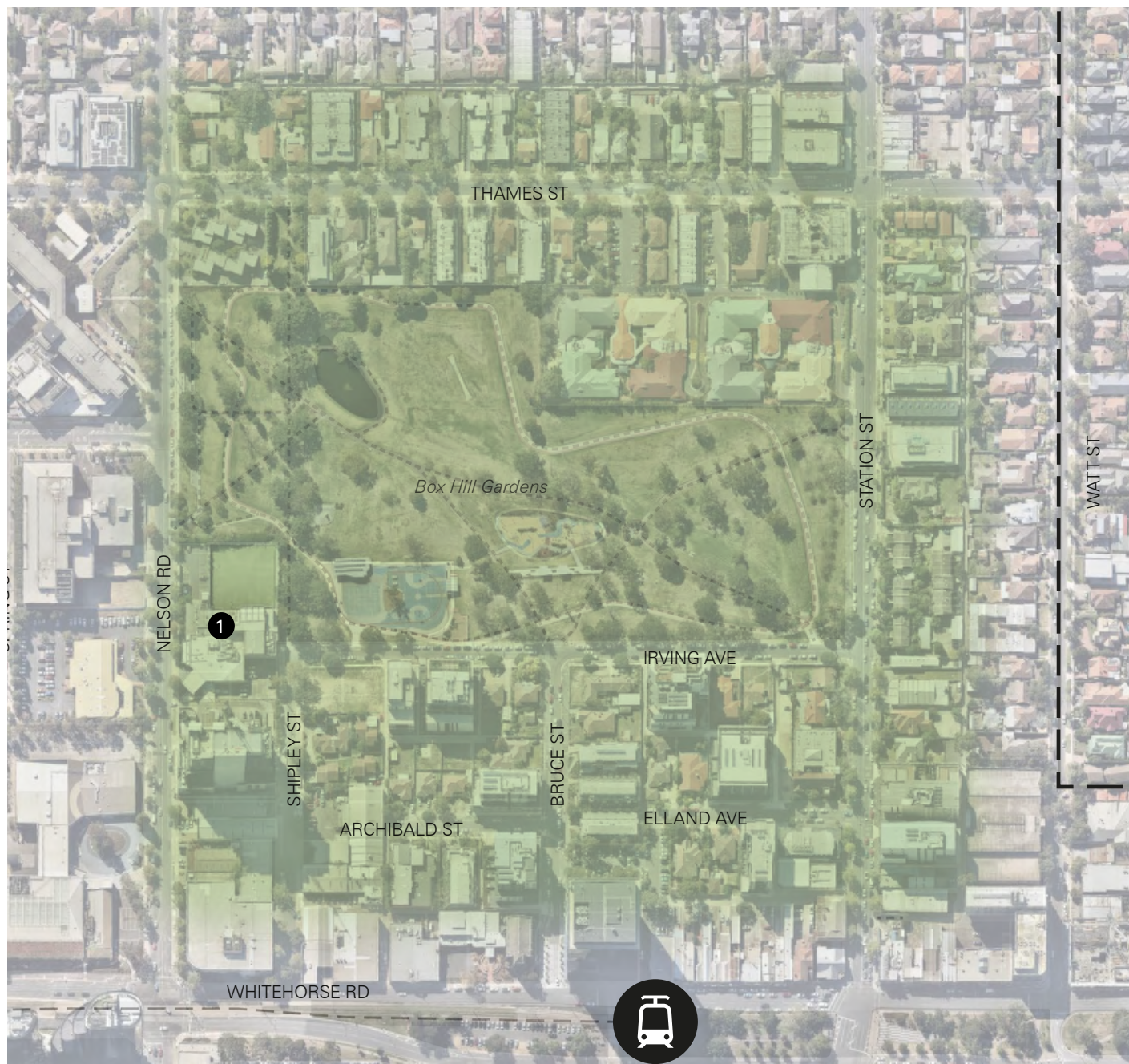
"Precinct D: Growth and enhancement of educational and medical institutions and support for related businesses and services, plus high density residential (including student housing)"

2019 Challenges:

- The health and education facilities and institutions (BHI, Eastern Health and Epworth Eastern) are a major feature of this precinct and all have expanded over recent years. Proposed major health and education developments in the short-term include the following;
 - A 14 storey redevelopment proposed at the Epworth Hospital.
 - A proposed Eastern Clinical Trials and Research Centre by Eastern Health in partnership with Monash University
- All constructed or approved health and educational buildings have been less than 15 storeys tall.
- Other approved development has predominately been for high density residential uses. There is currently a cluster of approved but not yet activated permits (mid to high rise), inviting the question as to whether they are speculative or real proposals.
- Increasing competition between residential and health & education land uses has resulted in a cumulative impact on policy directions for supporting growth of education and medical related uses. There is a real risk that health and education uses will be increasingly displaced from the precinct.
- Potential adverse amenity impacts on the public realm if valid permits are acted upon. The public space is still configured like a suburban street rather than an urban street that can support the densities possible in the future.
- Risk of priority east-west pedestrian corridor identified in *2007 Strategic Plan* becoming impeded by proposed development. In particular, there is an urgent need to co-ordinate a pedestrian link from Spring Street to Wellington Road. There is an opportunity to co-ordinate the proposed development applications at 16-18 Spring Street and 14-22 Wellington Road to ensure a pedestrian link is achieved between the two applications.
- Poor overall quality of public realm on key streets, particularly along Elgar Rd and the north side of Whitehorse Road. Poor streetscape treatment combined with dominance of vehicular movement results in a constrained and hostile environment for pedestrians and cyclists. This is a key challenge particularly given the importance of high pedestrian and cycling amenity for students, staff and visitors for BHI and health institutions.
- This is compounded by the lack of formal pedestrian permeability within the neighbourhood with Poplar Street constrained as a dead-end street and with Spring Street providing limited (informal) permeability through BHI's Nelson campus.
- The Box Hill Bowls Club is no longer an open space asset, this underscores the particular lack of linking open space within the neighbourhood, specifically in between Box Hill Gardens and Kingsley Gardens. There is an opportunity to co-ordination future development towards addressing this shortfall.

Legend

1 Box Hill RSL



4.1.7 Garden Neighbourhood

2007 Statement:

"Precinct E: Provision for significant high to medium density residential growth with small scale offices, limited retail and community services and retail to activate ground level street frontages." (Area south of Irving Avenue)

"Precinct H: The areas' residential role and amenity protected but medium density residential development encouraged." (Area north of Irving Avenue)

2019 Challenges:

- This neighbourhood has been the location for many completed mid-rise residential projects, generally up to 3 storeys north of Box Hill Gardens and 6-7 storeys between the gardens and Whitehorse Road. This has largely established the new character for the neighbourhood.
- Limited development opportunities remain within this precinct. The sites that are currently undeveloped will create infill opportunities that should be constructed to a scale and character that is broadly consistent with the newly established character.
- Major challenge for future development is to ensure that the street interface provides appropriate engagement with the public realm. This might include more non-residential uses than currently provided, though changes of use are likely to be modest. This includes future development along the periphery of Box Hill Gardens, for example, the Box Hill RSL or Uniting AgeWell, appropriately engages with this significant community asset and that access is enhanced.
- Poor quality of streetscapes and pedestrian pathways, suburban in quality and design, have not been upgraded to provide higher levels of amenity and capacity for growing numbers of residents.
- Managing car parking for small sites is challenging where the scale of development grows larger. Lower car parking rates, basement car parking and consolidated parking nodes will be important to ensure the street interface is not dominated by parking.
- Restrictive covenants relating to height and dwellings apply to some land in this neighbourhood (and Central neighbourhood), particularly on Irving Avenue. These covenants will act as a constraint for future development for affected sites but will need to be removed from each site individually.

Legend

- 1 Centrelink & Medicare
- 2 Harrow Street multi-deck carpark



4.1.8 Enterprise Neighbourhood

2007 Statement:

"Precinct F: Mix of office and retail uses responding to prominent Whitehorse Road and Station Street frontages, and mixed use (residential) as transition to purely residential precincts."

2019 Challenges:

- The Enterprise Neighbourhood has seen less recent development than most other precincts. This may be related to the relatively small lot sizes and the relative flexibility of the existing built form in accommodating a range of employment uses without requiring redevelopment.
- The majority of completed redevelopment has been along Harrow Street. These new 4-5 storey predominately residential developments provide an appropriate increase in scale from existing residential areas.
- Council's Harrow Street car park is currently under construction and provides an appropriate consolidated parking node at the southern gateway to the activity centre.
- The street interfaces within the precinct are poor in many cases, with high fences, multiple crossovers and new buildings demonstrating an inconsistent ground floor height relationship with the street.
- Stronger and more consistent street frontages that provide continuous activation (or habitable uses in the case of residentially zone areas) will improve the street interface.
- Rutland Road is specifically constrained by the rail corridor with no footpaths on the north side of the road, resulting in a car dominated streetscape.
- All streets in this neighbourhood have very narrow footpath widths and limited street tree planting. Footpaths should be widened, more trees planted and no new crossovers permitted to the street, in order to generate a more positive pedestrian experience.

-
- The existing east-west rear laneways are relatively narrow and will present more of a congestion challenge as they perform a larger role in providing access to individual lots. Their current configuration is relatively irregular with informal passing locations created where fences are missing or not aligned to the property boundary. Future development is likely to make this interface more regular, reducing the opportunities for passing. Widening opportunities into private land should be identified.
 - The at-grade car park between Harrow Street and Ellingworth Parade was noted as a public open space opportunity in the 2007 structure plan but has not yet been implemented. This would still be a valuable open space resource for the neighbourhood, however it is noted this is highly utilised by the community for car parking.
 - Development over the rail corridor is highly unlikely and unrealistic due to the complexity of resolving the level differences across the corridor. In order to deck the airspace the rail would need to be lowered or there will be substantial changes in levels from the adjoining streets, resulting in poor connections to the decked section of the corridor. This option may be theoretically possible in the very long term in the context of the Suburban Rail Loop which may significantly change the configuration of the rail infrastructure.

4.2 Alternative Options to Consider

The *2007 Box Hill Structure Plan* itself does not provide adequate statutory planning tools to manage the range of issues that have emerged within Box Hill. It will be necessary to introduce new planning approaches and mechanisms in order to guide appropriate outcomes. The approach to this work has involved a review of the best practice planning approaches and lessons for achieving key planning outcomes with specific focus on:

- Managing development density, built form and amenity
- Providing for employment outcomes
- Providing affordable housing
- Supporting delivery of infrastructure and public benefits

It has involved a review of:

International approaches to managing high density development and delivering affordable housing, including:

- **Churchill Fellowship Report: hyper-dense, high-rise residential environments** - USA, Canada, Hong Kong, Japan, South Korea, Leanne Hodyl 2014
- **Churchill Fellowship Report: Inclusionary Zoning requirements to support delivery of affordable housing**, USA, Canada, UK, Kate Breen, 2014

These reports offer useful insight into approaches being used to support wider social, environmental and economic outcomes consistent with high level planning objectives for Victoria, and an exploration of the factors underpinning successful use of different planning tools.

Interstate approaches to managing employment growth and using development density bonuses to incentivise specific land use outcomes, including:

- **Central Sydney Strategy City of Sydney 2016** – with a particular focus on planning approaches for supporting employment growth
- **City of Perth Bonus Plot Ratio Policy and Transfer of Plot Ratio Policy 2017** – which establish a regime for encouraging special uses or provision of public benefits/facilities that meet an identified strategic need.

These offer insights into use of particular planning tools (plot ratio, density bonuses, and transferable development rights) to achieve specific land use outcomes. These models operate within different legislative contexts to Victoria, however they demonstrate the potential of different planning tools in operation.

Local approaches recent planning scheme amendments and lessons learnt in responding to key planning challenges within a Victorian Planning context, including:

- **Activity Centres Pilot Program DEWLP 2018** – use of mandatory and discretionary height limits and need for strategic justification and transparency to support delivery of public benefits
- **Central City Built Form Review (Melbourne Amendment C270)** – use of general floor area controls to manage built form, and floor area uplift to incentivise delivery of a range of public benefits
- **Fishermans Bend Framework 2018 (Melbourne and Port Phillip Amendment GC81)** – use of dwelling density and floor area controls to manage land use to achieve residential and employment targets and density bonus to incentivise delivery of affordable housing
- **Arden Macaulay Structure Plan 2012 and Arden Vision 2018 (Melbourne Amendment C190)** - strategic justification for population and job targets, delivery of residential and employment growth leveraging off major investment in rail to transform the area into a major transit oriented destination. Use of height limits to trigger delivery of public benefits.
- **West Melbourne Structure Plan 2018 (Melbourne Amendment C309)** - use of special use zone and floor area ratios to prescribe land use mix outcomes and manage residential pressure on employment outcomes. Proposed requirement for affordable housing without density uplift.
- **Moreland Employment Areas Local Policy 2017 (Moreland Amendment C158)** – use of local policy to support employment and mixed use development outcomes and support transition to knowledge based economy and avoid net loss of employment floorspace.

- **Chapel Revision Structure Plan 2015 (Stonnington C172)** - use of Activity Centre Zone include vertical zoning permit triggers to facilitate mixed use development outcomes. Provision for discretionary height limits to be exceeded where 'significant public benefits' are delivered in addition to meeting built form requirements.

The specific transferable lessons for Box Hill will be highlighted in each case.

4.2.1 Managing development density, built form and amenity

Key findings of the *Activity Centre Pilot Project* (DEWLP 2018) included:

- Discretionary height controls – that is, preferred maximum height controls – are generally an effective tool for facilitating development and administering height in activity centres and should continue to be the preferred way in which height controls are applied in activity centres.
- Floor area ratios can guide preferred built form outcomes in activity centres where there is a strategically justified need to manage development density. The coupling of floor area ratios and height controls is an approach that can allow flexibility in design while providing guidance on the appropriate height within the site context.

The Hodyl report, *“Churchill Fellowship Report: hyper-dense, high-rise residential environments”*, articulated a role for density controls (in the form of floor area ratios), used in conjunction with built form controls to ensure high density development in Melbourne, delivered appropriate amenity outcomes for residents and the streets below.

Consistent with these findings, the Central City Built Form Review (Amendment C270) led to the implementation of mandatory maximum Floor Area Ratio (FAR) of 18:1 over most of the CBD. These controls were primarily a response to concern about emerging development trends in regards to overall visual and amenity impact of the building itself, rather than as a population or dwelling density control. They were accompanied by a regime of predominantly discretionary height controls, with mandatory upper level setback, building separation, and overshadowing and wind impact controls.

In special character areas, where mandatory heights were justified, floor areas were derived from built form capacity analysis.

A similar approach has been adopted in Fishermans Bend (Amendment GC81), which utilises a combination of density controls and built form controls to deliver appropriate built form outcomes. Similar to the approach adopted in Central City, upper level setbacks varied in relation to overall building heights.

In terms of providing appropriate street level amenity, both Amendment C270 and GC81 establish a relationship between street wall heights and street widths, with numeric measures in GC81 generally reflecting a 1:1 to 1:1.5 street wall to street width ratio. This approach is also apparent in the Arden Structure Plan Area (Amendment C190).

The Hodyl Report also recommends exploring the introduction of two planning streams for large scale development approvals – an ‘as-of-right’ approval for meeting the density (if applied), height and other built form and amenity controls, or a negotiated outcome (with community review) if the controls are exceeded.

There is a clear transferability of learning from these amendments for Box Hill. Application of these learnings in Box Hill would suggest a role for a planning regime that includes:

- Mandatory overshadowing and wind impact controls to protect amenity of key public open spaces.
- Discretionary height controls with mandatory height controls only used in exceptional circumstances.
- Clear development parameters for upper level setbacks (related to overall building height) and building/tower separation.
- Street Wall height controls that relate to street width and role to achieve an appropriate street level amenity and sense of enclosure that responds to the scale and function of the street.
- Provision for a streamlined assessment approach for developments that comply with height, built form and amenity controls.
- Floor area controls in conjunction with height control *if there is a strategic imperative to manage overall density of development.*

4.2.2 Managing population and job growth

In Box Hill, the centre is expected to see population growth of around 9,000 people and an additional 8,000 to 10,000 jobs. This represents significant demand for additional residential and employment floorspace, and potential planning challenges in managing competing demand for floorspace between different uses. In Box Hill, there is a clear strategic role for land use controls to be used as a tool to manage population and job growth, and to assist in directing appropriate land use and development outcomes.

Density controls

Notably, the Central City FAR controls did not distinguish between residential or commercial uses within the building and were not underpinned by population and job projections. These controls were primarily a response to concern about emerging development trends, the overall visual and amenity impact of the building itself, rather than to manage or support projected growth. To this extent, there has been a recent call by the Property Council to review C270 amidst a growing concern about a lack of employment floorspace in the CBD.¹

In contrast, Fishermans Bend density controls were directly linked to a population target of 80,000 residents and 80,000 jobs – expressed as maximum dwelling density controls for residential and minimum floor area controls for ‘non-dwelling’ uses. Floor Area Ratios are also proposed for West Melbourne Structure Plan (Amendment C309) to meet population and job projections of 5,500 dwellings and 4,500 jobs. These approaches rely on demographic and economic projections to derive dwelling and commercial floorspace demand and provide the strategic justification for density controls. In each case, the planning approach seeks to respond to the potential for residential crowding out of employment uses.

The City of Perth has planning provisions in operation which allow bonus plot ratio (density bonus) to be granted where a development includes hotel use or special residential use (usual built form and amenity outcomes must still be met). Bonus plot ratio obtained may also be transferred to an alternate site to facilitate efficient use of land. The

Central City (Amendment C270) also provides for a density bonus (Floor Area Uplift) where ‘Office (or desirable education or community related use as agreed with the responsible authority)’ is provided. In this example, the development rights are not transferable to other sites.

It is also important to highlight the potential for a dual purpose of density controls – be it primarily about managing population and dwelling numbers, or about built form and amenity impacts. The role of density bonuses in incentivising employment uses is also important, with potential for transfer of density bonuses a useful tool for facilitating both broader policy objectives and efficient use and development of individual sites.

Critically, the best practice examples of density controls are underpinned by strategic economic analysis and forecasts of future employment requirements, translated into job numbers and floor areas. Without this form of robust strategic work it would be difficult to strategically justify introduction of prescribed minimum floor areas for employment uses.

However, density/floor area controls are not the only tool available for managing employment and residential development, and the potential role for different permit triggers embedded within the land use zone should be considered.

‘No net loss of jobs’

Other best practice planning approaches adopted in Sydney Central Strategy 2016, and Moreland Employment Areas Local Policy represent a ‘net loss’ of jobs approach – requiring a minimum amount of employment generating floor area as a 50% proportion of overall development (Sydney) or equal to the total ground and first floor area (Moreland). However, the Sydney approach has been criticised for prioritising employment uses across the entire central city area at the cost of other broader metropolitan strategic planning objectives to increase supply of residential dwellings in activity centres in locations with good access to jobs, transport and services.

¹ https://www.propertycouncil.com.au/Web/Content/Media_Release/VIC/2018/New_report_a_stark_warning_for_jobs_in_Melbourne_CBD_s_future.aspx

Vertical zoning

The Stonnington C172 example establishes a 'vertical zoning' control to establish permit triggers for residential uses at lower levels of development. This approach sends a clear signal to the development industry about preferred outcomes, whilst also enabling decision makers to balance planning objectives on a site by site basis, guided by policy, when determining planning applications.

There is also a need to balance different, potentially competing planning objectives for achieving both residential and employment growth. This may require tailored responses in different precincts and use of both permit triggers and policy guidance, to allow decision making to achieve a balanced outcome across the centre as a whole and on a site by site basis. Provision for transfer of density bonuses associated with different types of land uses may also be useful in achieving a balanced outcome across the centre.

Commercial 3 Zone

The purpose of the recently introduced Commercial 3 Zone (C3Z) is to manage residential uses to ensure that employment uses remain the primary function of the area where it is applied. This is achieved by including a permit requirement for accommodation uses, and specifies that the combined gross floor area of accommodation uses must not exceed a maximum allowable percentage. This is supported by further guidance within policy to guide decision making where an application seeks to exceed the maximum allowable percentage. The purpose of the

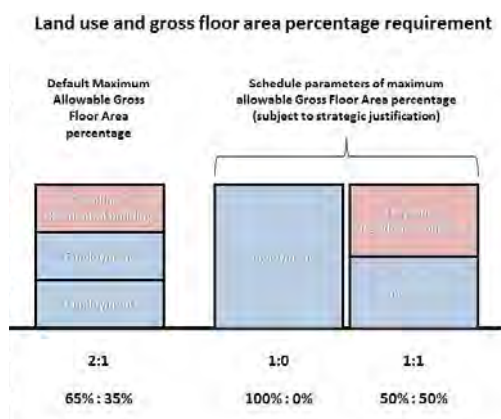
C3Z zone is specifically oriented towards industrial, commercial, office and other employment-generating uses. In essence, it is a mixed-use employment zone which is intended to facilitate the establishment and growth of creative industries, small manufacturers and start-up businesses.

This approach could be adapted in an Activity Centre Zone (ACZ) schedule on a centre-wide basis to prioritise employment floorspace in preferred locations. This approach would be highly suitable if there is no strategic justification to restrict development density and where achieving a particular mixture of uses is the primary land use imperative.

Potential features of a planning regime that adopted a best practice approach to managing employment and residential growth in Box Hill could include:

- Adapting the Commercial 3 Zone mechanism in an Activity Centre Zone schedule to prioritise employment uses in preferred locations.
- Land Use Zone permit triggers for residential and employment uses, tailored for different locations or precincts.
- Floor Area Controls, underpinned by robust strategic forecasts for residential and employment floorspace demand could be appropriate if there is a clear need to restrict development density.
- Density Bonuses to incentivise high priority land uses, potentially accompanied with provision for transfer of density bonuses to alternate sites, providing built form and amenity outcomes are not compromised.
- Clear policy guidance about preferred and priority land use outcomes, to guide decision making on a site by site basis and in the context of achieving a balanced outcome across the centre as a whole.

Figure 4.2 Tailored maximum allowable percentage for gross floor area for accommodation uses



4.2.3 Facilitating affordable housing

The Breen Report, *“Churchill Fellowship Report: Inclusionary Zoning requirements to support delivery of affordable housing”*, explored a range of planning approaches to facilitating delivery of affordable housing in international contexts. This included mandatory and voluntary land-use policies that require developers to deliver a percentage of affordable housing within their market development, commonly referred to as ‘inclusionary zoning’, and policies that require developers to provide a financial contribution towards affordable housing. The Breen Report makes a strong case for inclusionary zoning provisions, noting that while they have not solved the affordability crisis in the international cities studied, they are important tools in supporting greater housing supply and affordable housing choice.

Recent changes to the Planning and Environment Act 1987 (P&E Act) have introduced a legislative framework to facilitate delivery of affordable housing in Victoria. The legislative framework emphasises the role of voluntary negotiated agreements via Section 173 of the P&E Act between a landowner and the responsible authority. There is currently inadequate legislative power in the Victorian context to mandate inclusionary zoning requirements.

To achieve affordable housing outcomes on privately owned land, the Breen Report specifically recommends ‘a voluntary, incentive base option across all designated areas where affordable housing is sought’. It also notes international experience demonstrates the need for ‘certainty, consistency and transparency, developing policies that are prescriptive to the degree that requirements are clear and equally applied, but offer a level of flexibility in how outcomes are delivered.’

Within this context, best practice approaches are those that will incentivise the delivery of affordable housing and facilitate negotiated agreements, and where incentives offered are unambiguous. Amendment C270 (Central City) and Amendment GC81 (Fishermans Bend) both introduced ‘uplift’ mechanisms which achieve this purpose, which specify prescribed ratios of development uplift to public benefit:

- In Central City, the agreed public benefit to be provided should be equal to or greater than the total value of Floor Area Uplift. The value of Floor Area Uplift is measured as 10% of the gross realisation value per square metre for all additional floor area above the 18:1 base level FAR. (i.e. a 10:1 ratio).
- In Fishermans Bend, a ‘social housing uplift’ applies that allows for eight additional private dwellings (e.g. market rate) to one social housing dwelling (e.g. a ratio of 8:1) where the dwelling density exceeds the base level dwelling density.

In both instances, the requirements are unambiguous. The extent to which the ratios vary is a result of analysis of land values and development feasibility testing. Such testing is imperative to the effective operation of any such ratios.

The scope for flexibility in delivery also varies between the two examples. In the Central City, the Affordable Housing units must be ‘gifted’ at no cost to a registered housing association or provider and there is limited scope for flexibility for delivery. By contrast, in Fishermans Bend there is greater scope for the terms of provision to be negotiated by agreement with the housing association/provider and responsible authority.

The Breen Report also highlighted the need to be clear about the affordable housing outcomes to be achieved, and that there are a range of policy options that also need to be considered in developing an inclusionary zoning response including:

- Whether to allow off-site delivery options, cash-in-lieu of delivery, of allowance for additional density to be utilised on another site (e.g. transferable density bonus) and what are the benefits and trade offs of each mechanism.
- What are the opportunities to utilise or leverage government owned land to support delivery of affordable housing? What should be the Council’s policy in regards to requiring and supporting delivery of affordable housing outcomes as a condition of sale or redevelopment of Council assets?

Examples of different policy responses include:

- In Fishermans Bend, a policy direction has been set via Amendment GC81 that at least 6% of dwellings should be provided as Affordable Housing, (as broadly defined in the P&E Act). Any social housing uplift is provided in addition to this base level of affordable housing provision. This policy responds to the broad definition of affordable housing, with flexibility to provide various housing models that meet the needs of very low, low and moderate income households.
- In West Melbourne Amendment C309 proposes that ‘at least 6%..should be provided as affordable housing...’ gifted to an Affordable Housing provider. This policy response is expressed as a pre-condition of use of land for dwellings, and is prescriptive in stating a particular delivery model. It potentially represents a shift in emphasis to being a ‘requirement’, rather than a voluntary negotiated agreement. The legal validity of this approach will no doubt be tested during the course of exhibition and panel hearing for this amendment.

Potential features of a planning regime that adopted a best practice approach to facilitating affordable housing in Box Hill should be:

- Legal - able to operate effectively within a legislative framework that provides for voluntary negotiated agreements, and does not yet provide a legislative head of power for mandatory inclusionary zoning requirements.
- Incentive based – with clear, certain, consistent and unambiguous parameters for determining affordable housing and development uplifts.
- Informed by analysis of land values and development feasibility testing.
- Flexibility in allowing different delivery models that can respond to local needs for affordable housing.
- Underpinned by clear policy direction about affordable housing outcomes to be achieved, including clear policy positions on:
 - Provision for off-site deliver, cash in lieu or transfer of density bonuses.
 - Affordable housing outcomes to be achieved on Council owned land.

4.2.4 Support Delivery of Public Benefits

The Hodyl Report identifies that incentivising developers to deliver public benefit through density bonuses is common practice in many international cities, and has effectively delivered parks, plazas, community facilities like childcare and cultural facilities such as cinemas or performing arts spaces. Hodyl recommends that Melbourne would benefit from the introduction of policies that:

- Establish appropriate density controls in central Melbourne.
- Establish density bonuses to link development to public benefit and incentivise the delivery of new open spaces, affordable housing and other community facilities.

In the Central City, Amendment C270 requires public benefits to be provided when the floor area ratio (FAR) exceeds the base level, with prescribed ratios of public benefit to development uplift (equivalent to a 10:1 ratio). The Public benefits that could be provided as outlined in an accompanying guidelines document include:

- Public open space and laneways on site.
- Plazas, laneways, required setbacks and parks directly accessible from public street or public area.
- Office use (or desirable educational or community related use, agreed with the Responsible Authority).
- Publicly accessible space in the building suitable for community or not-for-profit use.
- Affordable housing within the building.
- Competitive design process for design of proposed building.

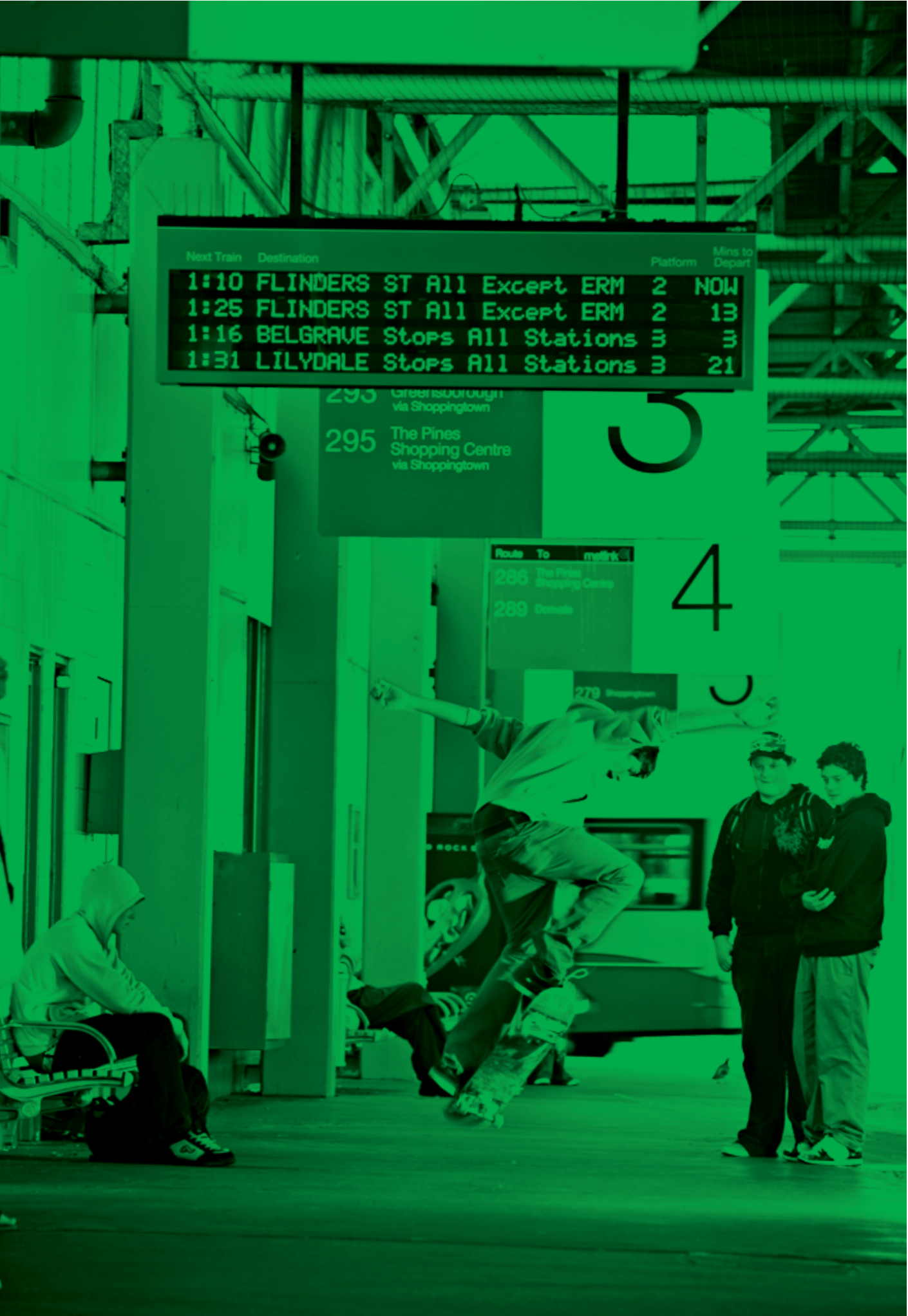
This prescriptive approach to extracting public benefits is more transparent and certain than the approaches used in Arden Macaulay and Stonnington. These amendments allowed for base level height controls to only be exceeded where the development delivers 'demonstrable' or 'significant' public benefits. This approach provides broader scope for negotiation and subjective decision making. This approach does not respond to the pilot project recommendations that requirements for public benefits need to be unambiguous and strategically justified.

The City of Perth Bonus Plot Ratio policy allows for density bonus of up to 20% for delivery of public benefits that respond to the city's Urban Design Framework, including:

- Public spaces, plazas, courts, public squares, pedestrian retreats and parks on private land that is accessible to the public.
- Pedestrian facilities that promote and enhance pedestrian movement and permeability within the city, including through block links, paths, walkways and laneways.
- Conservation of heritage facilities to encourage retention, enhancement and maintenance of places of cultural heritage significance.
- Provision of specific facilities that meet a significant or demonstrated community or public need such as public toilets, end of trip facilities, child care, public information or cultural facilities.

Potential features of a planning regime that adopted a best practice approach to facilitating delivery of public benefits in Box Hill could include:

- Strategically identified and justified scope of eligible public benefits linked to analysis of community need and/or urban design frameworks.
- Density bonuses to incentivise delivery of priority public benefits.
- Potential for provision for transfer of density bonuses to alternate sites, providing built form and amenity outcomes are not compromised.
- Clear, certain, consistent and unambiguous parameters for determining development uplifts.



4.3 Specific Opportunities for Intervention

The preceding section outlined a series of tools that can be incorporated within the planning scheme to guide preferred development outcomes. This section outlines a range of complementary actions for consideration that deliver change responding to issues detailed in Chapter 3. They differ from the preceding section in that they require a mix of statutory and non-statutory approaches to achieving change, and would require additional actions by Council or other agencies that sits outside the powers of the planning scheme to effect change. Many of these options will require direct capital investment or the coordinated involvement of multiple agencies. These options set out specific opportunities for intervention that Council can undertake towards the success of Box Hill's transformation over time.

4.3.1 Delivering Major Community Benefits

Box Hill is transitioning from a suburban centre to a metropolitan precinct, as Section 3 demonstrates, and the quality of places and infrastructure needs to match. The anticipated level of change in Box Hill would need to be supported by significant improvements to the public realm and community infrastructure.

There are many opportunities for interventions to deliver major community benefits. Some to consider include:

Whitehorse Road

An ambitious transformation of Whitehorse Road would help to create place for people rather than an arterial road with median landscape. Whitehorse Road could be reconfigured to reduce the number of lanes and provide a significantly enlarged public space along the southern side of the road reserve.

A similar idea was examined in the *2011 Boulevard Strategy*, but not implemented to date. This plan identified the opportunity for a major new public space extending from the Town Hall to Nelson Road which would nearly double the width of the existing median and significantly improve access between the existing interchange and the Tram Terminus. This would provide a place comparable in scale to Docklands Boulevard or North Terrace in Adelaide.

Station Street

A second major opportunity for transformation is the section of Station Street between Whitehorse Road and Harrow Street. The street could be transformed into a high quality place by significantly widening the footpath area available for pedestrians and improving the connections available for cyclists at the core of the activity centre. It forms a logical extension of the pedestrianisation of Market Street and Main Street in the 1980s.

Box Hill Mall

Box Hill Mall is another key opportunity for future improvements. The existing mall at Market Street is a key open space at the core of the Central Neighbourhood, however it still has the same dimensions as it did when the road reserve was closed to traffic in the 1980s. The space is already the focus for community events during festivals and major events. This space would benefit from widening and reconfiguration so that it is dimensioned more appropriately for a genuine public event square. This square would be activated by new development engaging directly with the space.

In addition, there is an opportunity to link together these key public spaces (Whitehorse Road, Station Street and Box Hill Mall) with neighbourhoods across the activity centre and to surrounding areas with a network of high quality links — a primary pedestrian network — extending across all the neighbourhoods of the centre (refer to Section 4.3.6 of this report). This network would in turn link up smaller pocket spaces and smaller urban squares distributed across the whole centre.

These propositions for change are consistent with change that have occurred in other comparable centres across Melbourne. Major upgrades have been delivered in places like Dandenong and Ringwood MACs, where significant reconfigurations of major roads have calmed traffic speeds and delivered significantly improved landscape treatments. Both centres have also received new community infrastructure such as town squares and new community library facilities. The Cato Square redevelopment currently underway within Chapel Street, Prahran will also significantly improve the amount and quality of open space available within this densifying activity centre context.

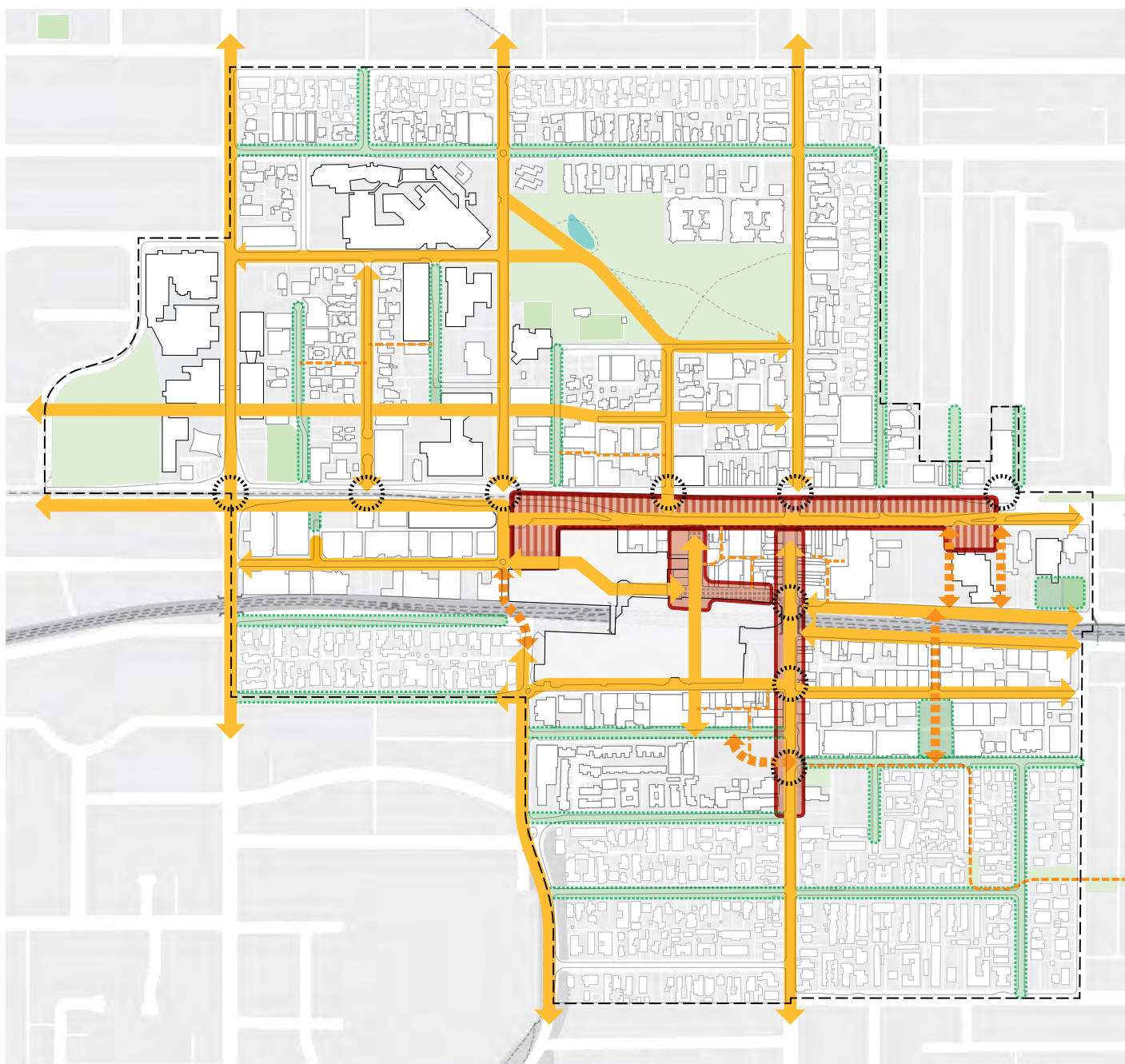


Figure 4.3 High-level overview of opportunities to create a primary pedestrian network, provide new and improved public spaces and green infrastructure.

Legend

[] Structure Plan boundary

Potential interventions

↔ Primary pedestrian network

--- Potential links

--- Potential green infrastructure

▨ Potential key urban spaces

○ Upgraded pedestrian priority crossing

4.3.2 Major Transport Interventions

Box Hill is a distinctly regional destination and is more similar to Melbourne's Central Business District (CBD) than it is to other suburban activity centres. For instance, more than half the people in Box Hill on a given day have come from beyond 10km away. Box Hill has historically held this role as a central node in the eastern metropolitan region.

With Box Hill anticipated to nearly double in population and commercial floorspace over the next 20 years the pressure on the transit network will significantly increase. This presents a clear need for coordinated action across all levels of government, including statutory authorities such as VicRoads and Vic Track, to ensure the future prosperity, liveability and functionality of Box Hill (and Melbourne's east) is protected and enhanced.

The network could be reimagined to reflect key aspects of the Melbourne CBD transit network. In this example, routes are not directed to a single interchange, nor does the network rely on all routes terminating within the CBD and the provision of vehicle lay-over bays for each route. There is an opportunity to build on the successes of the train line and bus route 903 (the two routes that do not terminate in Box Hill) and create a grid-like network of routes that have high frequency on arterial corridors and provide seamless connections from one side of Box Hill to the other.

The recently announced Suburban Rail Loop (SRL) is a major government project that will support Box Hill's growth. However, it will take ten years to bring SRL into service and the project as announced will only link to suburbs south of Box Hill in its first stage.

Other possible major transport interventions to consider in addition to above might include:

- Preparing for a full rebuild of the train station and transit interchange.
- Implementing a 40km/h speed limit in the whole of Box Hill.
- Simplifying the bus network to provide more through connections.
- Extending the tram to Middleborough Road would provide enhanced accessibility to schools and existing recreation facilities.

- Extending the tram to Mitcham would support intensification and local connectivity along the entire Whitehorse Road / Maroondah Highway corridor.

It should be noted that trams typically serve a different catchment area and distance trip than rail. They are important for commuting shorter distances than rail i.e. between neighbouring suburbs. In this respect, they serve a complementary role to the rail line.

4.3.3 Rebalancing Transport Modes in Favour of Pedestrians and Cyclists

It is noted that a separate review of the Integrated Transport Strategy (ITS) is occurring concurrently with this Structure Plan review. The significant implications of transport on the urban form and the strategic vision for Box Hill mean that it critical that this transport review to consider options towards rebalance transport modes and manage car parking.

Over the past decade, studies have recognised the need to allocate more space to pedestrians in the core of Box Hill. However, little change has occurred with the allocation of space being nearly identical to 1983. This is likely to have contributed to increasing difficulties for businesses as footfall past their business is not what it should be. Observers have stated that on several occasions during peak commercial periods such as lunch and dinner time, several businesses on major roads close to the centre do not experience much foot traffic. These include businesses along Whitehorse Road on the North side, particularly in the Civic district and also those along streets such as Rutland, Ellingworth, and Harrow Streets. This underscores the need for a rebalancing of transport modes to release the potential economic activity that Box Hill has to offer and to cope with the additional residential population in Box Hill and keep pedestrians safe.

An example of such a change is a "road diet", which would see the capacity of arterial roads through the centre reduced to match the capacities of those roads as they approach the centre. For example, Whitehorse Road has only one lane in each direction as it passes tram stops near High Street, Mont Albert. It has only two lanes at 40km/h in each direction as it passes the schools to the east of Box Hill. Yet it currently has nine lanes in total, and a

60km/h speed limit between the Box Hill Town Hall and Clisby Court.

A four lane road that transitions into a nine lane road and rapidly constricts into to a two lane road over a distance of 1.5km is going to experience safety and congestion issues as drivers accelerate, decelerate, change lanes and merge again. As a result, there is a specific opportunity to address this distinct issue on Whitehorse Road by reconfiguring the road space to reduce the overall width of the road, improve pedestrian safety and modulate the traffic flow through the area (which is chaotic as a result of having too many lanes).

4.3.4 Managing Car Parking

Car parking in Box Hill is managed by a wide range of organisations and as a result, it is difficult to count how many car parking spaces there are in Box Hill and determine how they are used. Furthermore, the distribution of small parking areas and the access arrangements mean that often cars are being dragged into and through the activity centre just in order to get to the specific space that each particular driver has access to. There are opportunities to improve the management of car parking in Box Hill, they include the following:

A key option for Council to consider is the consolidation of car parking supply to reduce the number of car movements entering Box Hill in order to access car parking. A key element of this consolidation would be new parking facilities provided on the edge of the current core area. An example of this is the Council's new car park in Harrow Street. Additional parking nodes would be required in the Health and Education Neighbourhood (providing a logical gateway from the north) and within the Civic and Community Neighbourhood (providing for people entering from the east).

Council's parking supply should be managed with regard to core principles that Council is trying to achieve for the centre:

- Adequate supply of parking that suits all visitor's needs.
- Differentiation between car storage (> 4 hours) and parking (< 4 hours).

- Recognising that everybody "pays" for parking (for instance, through rates/general taxation regardless of whether they require car parking).
- Providing certainty about parking availability and clarity about pricing.

To support this outcome, Council could implement a planning requirement to restrict the construction of car parking areas with fewer than 100 car spaces within neighbourhoods where there will be significant intensification. This would seek to encourage consolidated parking nodes rather than the provision of parking on individual sites. This would result in improved pedestrian amenity as there would be fewer driveways to smaller car parking facilities, and the cumulative impact on traffic congestion and safety from such facilities would be improved. In addition, Council should ensure that these car parking areas are available for public use 24 hours per day.

Clauses such as 52.06 - Car Parking and 52.34 - Bicycle Facilities in the Planning Scheme discuss State averages and are not helpful in areas like Box Hill. Areas of intensity like Box Hill have:

- Lower demands for parking relative to the State average
- Higher requirements for bicycle storage relative to the average
- Demand for motorcycle parking also occurs in commercial centres that also have congestion on arterial roads or paid parking (the VPP does not include any motorcycle parking requirement)

To this end Council could consider a mix of the following options:

- In the immediate future, work with the State and Vicinity Centres to install smart gates at the Box Hill commuter car park so that only people using public transport can access free spaces.
- Over the longer-term, work with the State government to move the 500 commuter car parking bays at Box Hill Station to an alternative location such as Nunawading, Mitcham or Laburnum.
- Install parking sensors in all on-street car parking spaces within the activity centre to gather an accurate record of how the spaces are being used and to facilitate more appropriate time and fee-based restrictions.

- Establish an internal position at Council which is responsible for parking provisions in Box Hill CBD with full control over restrictions and pricing of all parking including cars, motorcycles and bicycles with clear objectives related to increasing visitation (regardless of mode) and length of stay (regardless of mode).
- Review the actions in the Parking Strategy and continue implementation in light of the current ITS review and this document.
- Develop a new overarching parking strategy that covers all car parking, freight loading, bus layovers, bicycle and motorcycle parking needs for the CBD.
- No crossovers should be permitted on key road links (even local roads) – in order to preserve the amenity of the public realm and safety of footpaths.
- Appropriate use on the lower floors of all buildings is particularly important – to ensure there is adequate passive surveillance of the public realm. This will require all new parking to be located underground or completely sleeved on all sides by habitable uses at all public interfaces.
- Reduce the parking required per apartment to zero. There is public parking available in many locations throughout the centre, and each of these facilities will be safer if they are utilised 24 hours per day by a wider range of people.

A key way to make housing more affordable in Box Hill and reduce traffic congestion is to reduce the parking requirement for new apartment buildings to zero. Currently, more than 24% of households in Box Hill do not own a car. A further 47% of households in Box Hill own only one car. Only 25% of dwellings in Box Hill need more than one car space.

Owning a car space (as part of a dwelling) is known to be a key determinant of car ownership. Car ownership directly causes local congestion. Any new apartments within 400 metres of the Box Hill Train Station do not need a car space. It is considered appropriate for people to walk 400m from their house to access to a bus stop, tram stop or train station. A private vehicle provides a much better journey time and quality to those public

transport modes, so people can easily be expected to walk 400 metres to get to their car. There are over 3,000 car spaces right around the train station mostly unused at night. That is ample parking supply for the new apartments expected to be built within 400m of the station. There are already 13,000 car spaces within that area, many of which are vacant overnight.

Every car space that is required as part of an apartment adds between \$60-90,000 to the cost of the apartment (depending on how it is constructed and financing costs). Removing the requirement to provide any parking is a key way to improve housing affordability in Box Hill. Not requiring parking for every apartment does not mean that none will be provided just that only those occupiers who really need a car space will have to pay for one.

4.3.5 Improving Amenity within the Public Realm

Increasing the provision of public space and the quality of all public spaces should be a priority for Box Hill in order to help deliver the amenity benefits sought by the community and needed by the future residents, workers and visitors to the centre.

There is a need to identify new or expanded open space opportunities within each neighbourhood, as well as linear vegetated links back to other existing open space resources in the area surrounding the activity centre. In this way the open space within the centre forms part of a wider network, providing habitat opportunities and accessibility links for the wider community.

The provision of additional public space might take different forms for each neighbourhood. For example, within the North Neighbourhood the Box Hill Gardens already provides a significant open space resource that has been improved through investment by Council in implementing the Box Hill Gardens Masterplan. There is a limit to how intensively this space can be programmed within its existing boundaries.

Improvements to the quality and amenity of existing public space will help support more intensive future use. Protecting solar access to major open spaces through key times of the day would support the amenity of the space for users and ensure that the

vegetation is verdant and reaches its full potential. For critically important spaces such as Market Street, Main Street and Box Hill Gardens this should include using the winter solstice as the benchmark day for measuring solar amenity. It might more appropriate to use an equinox control for protecting less sensitive public spaces, such as the southern footpath of priority pedestrian links and alfresco dining areas.

Increasing the amount of green infrastructure within the centre will help mitigate community concerns, improve local microclimates and heat island effects. Targets for canopy coverage have been implemented through planning scheme policy in the City of Melbourne and City of Moonee Ponds amongst other local government areas. The current Council urban forest strategy, *City of Whitehorse Urban Forest Strategy* sets tree planting and replacement targets for residential properties. The relatively limited space available within Box Hill means that an urban forest strategy would need to encourage green walls and vertical planting integrated into new development regardless of land use, in addition to street canopy trees as a key approach for increasing canopy provision within the centre.

There is potentially a role for the provision of Water Sensitive Urban Design (WSUD) in appropriate locations in Box Hill subject to suitability of local drainage requirements. Where suitable, WSUD measures would be a secondary and complimentary streetscape improvement consistent with BHURT Type F typology for transitional residential areas where there is less pedestrian traffic and competition for space.

Improvements to the public realm are essential to achieving an efficient transport network. This is because the public realm dictates how far people are willing to walk, explore and linger in the environment. The quality of the public realm influences how safe people feel and how far they are willing to walk through the CBD or from their mode of transport (parking or transit stop).

Key actions that Council could take to improve the public realm include rebalancing mode priorities in the core (improve pedestrian and cycle access) and simply providing wider footpaths on almost every street. Planting additional street trees is a

simple but potentially transformative initiative that will benefit the entire centre. A more ambitious approach would be to remove on-street parking in appropriate locations to provide additional planting opportunities. Within the core it would be beneficial to reconfigure key laneways (Birds Lane and Bamford Lane, for example) to prioritise pedestrian activation while managing service access at times with low utilisation. Across the majority of the other neighbourhoods it is important to maximise the use of rear laneways for access and services rather than main street crossings through the progressive increase in capacity of these networks in width and role.

4.3.6 Improved Pedestrian Connections

The neighbourhoods in Box Hill are relatively disconnected and it is difficult to move between due to major barriers including Elgar Road, Whitehorse Road, Station Street and the railway line. There is a variety of mechanisms that can be employed to reduce the scale and impact of these barriers or remove them altogether.

North-south pedestrian access is severely constrained, as there is only two pedestrian paths crossing the railway line in the core of the centre (Market Street and Station Street). The other two pedestrian connections across the railway line are at each edge of the activity centre (Elgar Road and Linsley Street). This concentrates pedestrian movements into Market Street and Station Street. Footpaths on Station Street would need to be widened to accommodate current pedestrian volumes. In the absence of widening Station Street greater emphasis is placed (by pedestrians) on Market Street. This results in greater emphasis (by pedestrians) on the crossing of Whitehorse Road at Market Street and the east-west movement along Whitehorse Road (particularly in the direction of Station Street).

It is reasonable to expect that the SRL project will increase the need to rethink how pedestrian access into the existing station could work in the future. The SRL planning team should be encouraged to examine rebuilding Box Hill Station (making it DDA compliant and facilitating the redevelopment of the Vicinity Shopping Centre).

As part the redevelopment of the existing shopping centre it would be highly beneficial to introduce several new direct pedestrian links between Station Street, Carrington Road and Whitehorse Road. These laneways would provide further opportunities for pedestrian flow, economic interaction and exploration in the Box Hill activity centre.

The development of a primary walking network throughout the centre would encourage a transition for Box Hill from a car-focussed to a pedestrian-focussed activity centre. This would establish a legible network of pedestrian accessibility across the centre. This should include appropriately scaled footpaths for these walks (nominally 5-6m) and new and improved green infrastructure alongside treatments specified in BHURT guidelines.

Development abutting the primary walking network could contribute their open space contributions as part of meeting these objectives, instead of allowing contribution by cash-in-lieu. In these locations, the contribution would be non-transferable.

In addition to linking neighbourhoods together, it should be a priority for the primary walking network to increase the overall permeability within each neighbourhood. This is particularly important in neighbourhoods that are dominated by roads aligned in one direction. For example, where the existing roads are aligned predominately north-south (as in the Health and Education Neighbourhood) it is critical that high quality, legible and direct east-west links are delivered. Similarly, where existing roads are predominately east-west (as in the Enterprise Neighbourhood) it will be important to deliver north-south links. These networks should be achieved through a combination of linking up land already in Council ownership with links delivered through negotiation or through the rearrangement of development potential within the site to provide for the links. Direct acquisition of is another possible option.

There are a variety of smaller scale links to surrounding parkland, however, in each case the link is disjointed or difficult to navigate. For example,

links to the following green spaces should be improved:

- Whitehorse Reserve
- Box Hill City Oval
- Kingsley Gardens
- Hagenauer Reserve
- Bushy Creek
- Gardiners Creek
- Surrey Park

Several of these links can be improved with amenity and priority treatments along specific road corridors including Avon Street, Nelson Road, Saxton Street, Surrey Drive and Thurston Street (providing a north-south corridor from Bushy Creek to Gardiners Creek).

Specific pedestrian priority improvements include:

- An additional crossing for pedestrians across Whitehorse Road is necessary between Elgar Road and Nelson Road. Logically this should be located at either Wellington Road or Poplar Street as development intensifies.
- Rutland Road should be enhanced as a key cycle and pedestrian link, with the pedestrian role of Ellingworth Parade and Harrow Street enhanced. No vehicle crossovers to private car parks should be permitted on any of these streets.
- A new path across Kingsley Gardens from George Street to Box Hill Institute.
- A pedestrian operated signal across Station Street at Harrow Street.
- A shared zone on the Vicinity car park ramp from Hopetoun Parade to Main Street.
- A new pedestrian path on the east side of Thurston Street.
- A “wombat crossing” of Rutland Road at the Linsley Street – William Street railway crossing.
- A new “wombat crossing” across Bank Street at the western end of the Ringwood-Box Hill Shared Trail near Station Street.

There are a large number of signalised pedestrian crossings in Box Hill with the majority devised and operated to separate pedestrians from through traffic. Within the core of Box Hill, the priority given

to through traffic is not reflecting the priorities of road users or the strategic intent espoused by VicRoads.

To appropriately reflect the VicRoads intent for pedestrian priority in the core of Box Hill and the dominant road user desires, the pedestrian crossings within Box Hill should be set to shorter cycle times (no greater than 60 seconds long). In particular this applies to the crossing of Whitehorse Road at Market Street which should be set to always provide swift movement for pedestrians rather than trying to work in with downstream traffic signals to benefit through traffic. This should be a key consideration for the current study of the ITS for Box Hill.

4.3.7 Creating a more inclusive centre

The importance of creating a more open, inclusive and accessible centre has been repeatedly raised during stakeholder conversations. This is consistent with the current vision for the activity centre expressed in the *2007 Structure Plan*.

Creating an inclusive centre involves supporting and facilitating diversity in housing and employment outcomes. The application of affordable housing strategies and inclusionary zoning principles including transferable obligations or cash-in-lieu contributions has already been discussed.

Separately, the development of a community infrastructure strategy and associated contributions scheme with an initial focus on investment in developing the existing civic and community precinct will help provide the infrastructure necessary for a growing community to develop as a cohesive and integrated one.

Genuine and on-going community engagement and participation in Box Hill is an important factor towards a more inclusive centre. This should include place management and community engagement strategies to ensure the community is actively, and broadly represented and involved in placemaking, curation and events. This would further enrich the community life in Box Hill and facilitate a positive and cohesive sense of community ownership and identity of place in Box Hill.

An area of particular sensitivity for stakeholders is ensuring that Box Hill remain welcoming for all cultures and celebrates Box Hill's particular opportunities to support cultural diversity. This is a challenging area for a planning strategy to address, since many of the issues of cultural identity and expression of dominant cultures are not controlled by the planning system. One aspect raised by stakeholder and community respondents was the use of languages other than English in shop signage. Currently there are no statutory requirements or policy guidance on the use of languages in signage within the City of Whitehorse, nor in equivalent local government areas in Melbourne. Some local authorities in Sydney (such as Ryde and Strathmore) have attempted to regulate the use of English in public signage but received significant negative feedback from their communities and relevant experts in multicultural policy and multilingualism. This is not an approach that should be investigated for Box Hill.

The centre should be very accessible for a diverse range of people. This includes cultural diversity and people with disabilities. There are significant gaps in the accessible network and wayfinding. Some of these must be addressed in order to become compliant with Commonwealth legislation. A full accessibility audit of Box Hill will be required to determine the exact deficiencies and how to rectify them. Examples of improvements that Council could make include:

- Strict enforcement of clear footpath regulations (local laws) related to maintaining a clear building line for people with vision impairments.
- Clear guidance for building designers to improve the orientation of each new building to the street from a disability access perspective.
- Improved lighting and activation particularly within the central area and around the hospital and Box Hill Institute to create a greater perception of safety in the public realm.
- Use of CCTV may be considered as a complementary part of a broader strategy to improve safety and perceptions of safety, in consultation with key stakeholders such as Victoria Police.

4.3.8 Encouraging design excellence

Whitehorse City Council regularly and repeatedly engages with developers and land owners to advocate for higher quality design outcomes in planning permit applications. *The Urban Design Guidelines for Victoria* and the provisions of the Whitehorse Planning Scheme allow for a level of discussion and enforcement that prevents poorly resolved development proposals from proceeding. At the moment, however like many Victorian councils, Council does not have an explicit design excellence policy or framework for formally reviewing design proposals that would promote more positive outcomes.

This is a common challenge for many local governments both in Victoria and interstate. There are precedents that could help inform the City of Whitehorse in creating a design excellence policy. For example, the City of Sydney and City of Parramatta have both implemented policies that require architectural design reviews and support the important role of design competitions in ensuring the most prominent and substantial buildings receive an appropriate level of design scrutiny and best practice. The City of Melbourne has long supported similar approaches, and is currently investigating improved design requirements and processes through the C308 Planning Scheme Amendment to implement the “Central City Design Guide” policy.

An important aspect of each of these policies (and similar ones from other jurisdictions) is that design excellence cannot be reduced to a checklist approach towards meeting individual standards. It requires processes that incentivise the use of experienced design teams and involve expert design review at key stages during the design process. This ensures that planning applications for substantial buildings receive detailed scrutiny long prior to lodgement of planning applications. This benefits all participants in the process through reducing contestation and ensuring that the design response more closely reflects the preferred strategic outcomes from the structure plan.



4.4 Benchmarking: Renewal Precincts and Activity Hubs

These precedents demonstrate best practices in urban renewal in activity centres and provide examples of possible intervention outcomes for Box Hill across different scales.

4.4.1 Urban Block Redevelopment



QV

The QV development in Melbourne delivered a full city block (2 hectares) of renewal incorporating a very wide mix of uses, typologies and spaces within a highly permeable urban form. The single site was divided into multiple parts with laneways providing 24-hour access between the major streets. Retail uses and hospitality opportunities activate the laneways and provide multiple fine grain frontages, with bulkier retail anchors such as supermarkets or department stores located below ground level or at first floor. A significant heritage building was retained and a public square provided at the core of the site. The towers provide a notably diverse range of uses, including a 30 storey commercial office tower, medium rise large floorplate offices, prestige residential, denser residential and community uses such as childcare and a women's health centre. The design of the precinct contains the work of multiple architects, providing visual and typological diversity within a masterplanned development.

4.4.2 Contemporary Mixed Use Precincts



Cremorne

Early this decade, market speculation in the Cremorne area emerged around the potential rezoning of commercial 2 zoned land to residential zoned land with an absence of height limits seeing proposals for alternative high density proposals developed on a number of older industrial land holdings. Carparking analysis provided to VCAT hearings indicated that this development would very quickly undermine access to the precinct for remaining employment related enterprises and impact on the amenity of the Yarra River Corridor as an environmental and recreation zone. Representations to the new Planning Minister resulted in clear direction that rezoning amendments would not be supported whilst Yarra River protection provisions curtailed heights of towers. The result of this has been significant refocus on Cremorne as an employment hub for innovation enterprises with top 200 organisations committing to new headquarters and emerging as a key area of jobs growth for Melbourne.



Lyon

The Confluence in Lyon is located on the island peninsula between the old town of Lyon and the newer town. The redevelopment of a 150-hectare site will consist of 34% social housing out of 16,000 dwellings upon completion. The redevelopment is expected to support over 25,000 jobs with 860 enterprises already in place. Robust height controls are a key feature of the redevelopment with the aim of developing desired built form character while ensuring high levels of amenity and integration with surrounding districts.



Rive Gauche Paris

The Paris Rive Gauche project is a transit enriched urban regeneration project of a 130-hectare site located in the east of Paris, on the banks of the Seine including 10 hectares are open space. The aim is to create a mixed-use network of neighbourhoods around landmarks such as the national library and Paris Diderot University, through redevelopment of the industrial and rail located around the Austerlitz train station and with a high focus on employment and ensuring that Paris remained an accessible location for 21st jobs and workplace requirements.



This was achieved with the application of the concerted development zone, or ZAC (zone d'aménagement concertée), bought in 1991. This zone allows for a mix of uses (office, housing, local retail and services, green spaces). The project resulted in the accommodation of 15,000 residents, 30,000 students and staff along with 50,000 employees. This had exceeded both student and employment targets with over 40% of the development area providing diverse housing including affordable and key worker housing. Height controls established were consistent with Paris, typically set at 31 metres and scaling up to 100 metres at the freeway interface. The project includes Station F, the largest start-up facility in Europe containing 1800 micro and small enterprises.

4.5 Benchmarking: Public Open Space and Infrastructure

4.5.1 Squares



Dandenong Civic Centre Square, Melbourne by Rush Wright Associates

This space is located adjacent to the Dandenong Municipal Building and serves as an important link between Dandenong's main street and the railway station and bus interchange. The space supports both though movement and occupation by Council and library staff and visitors. Richly detailed forms and varied materials reflect the vibrancy and variety of the local community. A program of events has established the Square as an important space for civic activities.



The Plaza at Harvard University, by STOSS

This project creates a new gathering space and heart for the university – located above a busy vehicular underpass. As well as a delivering new meeting spaces and a programmable event venue, the project is an exemplar of high performing public realm and delivers both social and hard infrastructure. The design integrates temperature management within the furniture elements and collects storm water through the articulated ground plane.

4.5.2 Boulevards



North Terrace, Adelaide by TCL

Through the delivery of a generous pedestrian spine on the North side of the street, the project provides a unifying and singular space linking a series of civic buildings. Within this bold gesture, the detailing allows for specific responses to each institution and also provides a series of new urban spaces for the public. Planting, paving, furniture and lighting combine to create a durable and iconic environment for this important space within the City of Adelaide.

4.5.3 Malls



Passeig De St Joan Boulevard, Barcelona by Lola Domenech

This project provides valuable social spaces within one of Barcelona's established, historic boulevards. The wide street includes a separated cycle path within the centre median as well as a separated pedestrian path to the sides. Seating areas, children's play spaces and outdoor dining are accommodated in the generous buffer between traffic and footpath spaces. Double rows of deciduous trees provide shade in the summer and allow solar access during winter and understory planting breaks up the long, linear street edge.



Rundle Mall, Adelaide by Hassell and Arup

This project was a redevelopment of the existing pedestrian Mall designed to create a space that supports shared community experiences. The realised design encourages visitors to stay in the space longer, thereby contributing to the local economy. Event infrastructure supports a well-curated program of pop-up installations, festivals and events, performances and art installations - and will easily accommodate change, as the specific needs of the community change over time. The design includes re-profiling of the space to move away from its street-like character. A variety of bespoke seating types, the inclusion of canopy shade trees and the introduction of catenary lighting make it a comfortable place for lingering during the day as well as after dark.



Pitt Street Mall, Sydney by Tony Caro Architects

A restrained design featuring materials that are part of Sydney's established language and knit the space into its context. Generous amounts of seating, shade trees, and technology-enabled infrastructure make it a well-used space for incidental stopping by visitors, as well as a venue for planned events. The central drain, serves an obvious practical purpose and also artfully reveals the memory of Tank Stream which once ran under the space.

4.5.4 Streetscapes



Jellicoe Street, Auckland by TCL + Meghan Wraight and Associates

Part of the North Wharf revitalisation project, the design of Jellicoe Street establishes a new public realm language for this grand boulevard. Incorporating a centrally located tram-line, the design breaks down the vast scale of the space through the use of textured paving materials and the integration of 'fingers' of vegetation which visually break up the linearity of the street, creating comfortable and human-scaled circulation routes. The elimination of kerbs facilitates the integration of water sensitive urban design (WSUD) initiatives through the creation of rain gardens, which capture and filter storm water.



Greville Street, Melbourne by City of Stonnington

The de-prioritisation of vehicles through this well-known busy street, has aided its transition to a shared space and popular outdoor dining destination. Finely crafted, façade to façade paving unifies the space and signals its function as more than merely a street for vehicle movement. New furniture and planting are designed to guide traffic, while catenary lighting and artwork marks the street's junction with Grattan Gardens. When closed to vehicular traffic, street and garden combine to create a flexible space for programmed events.

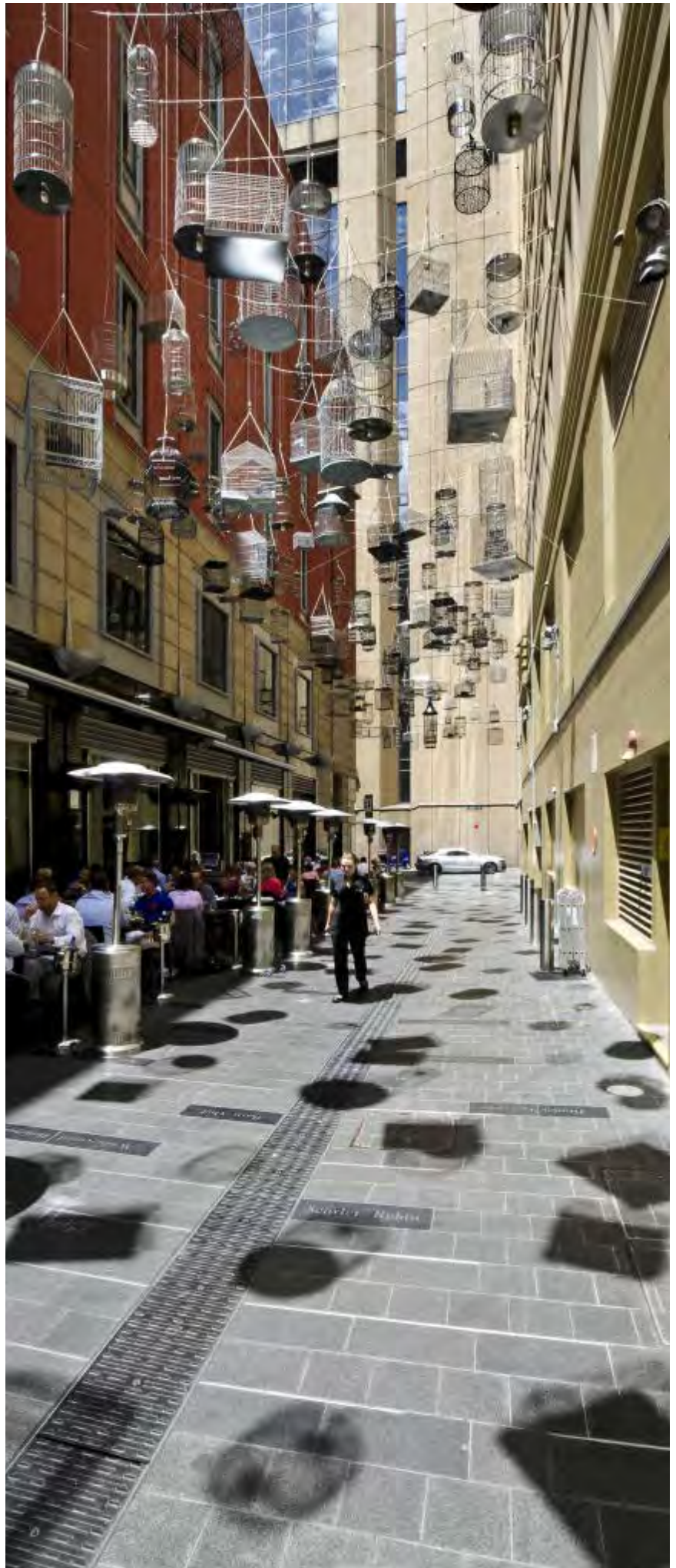


Afghan Cultural Precinct, Melbourne by Hassell

This project delivers a distinctive place that is emblematic of the local community. The design is informed by deep consultation with the traders and the community to ensure broad support. Adopted seating configuration supports established modes of socialising and the selected colours, materials and patterns are familiar and much loved. 'The Lantern', an integrated art piece by Afghan-Australian Aslam Akram heralds arrival to the space both day and night.

Angel Place, Sydney by Aspect Studios

The redevelopment of Angel Place has revitalised this historic laneway and transformed it from service access to comfortable and intriguing pedestrian space. A restrained palette of high quality paving introduced few other elements, in order to maintain the functionality of laneway. Paving and steel inlays are used to subtly reveal the subterranean Tank Stream. Integrated lighting and public artwork, 'Forgotten Songs' by Michael Hill, Dr Richard Major, Richard Wong and David Towey, adds further interpretation of the sites history and adds visual interest to the pedestrian experience.



4.5.5 Small Open Spaces



Holland Street, Adelaide by JPE
Design Studio + City of West Torrens

This project features a re-prioritisation of street 'real estate' to favour pedestrians and cyclists and includes a part street closure. Defined as a key meeting place, the design provides space for congregation and celebrates the location of Holland Street's meeting with the River Torrens. Integrated water sensitive urban design (WSUD) initiatives harvest and treat stormwater, which is reused for irrigation. Bespoke streetscape elements celebrate newly created community space.



Richmond Terrace Park, Melbourne by Hansen Partnership

Formed by closing a section of road at the intersection of Docker Street and Richmond Terrace, this new park has become a well-used passive recreation space as well as a green connector through the neighbourhood. High quality paving materials and bespoke seating elements differentiate the space from the surrounding street environment. Integrated lanterns illuminate the park and provide a comfortably lit link for both pedestrians and cyclists.



Oxford Street, Melbourne by
Urban Initiatives City of Yarra and
Leanne O'Shea

The closure of a short length of road allowed the creation of a new urban park. Visually distinctive detailing has been employed to give this small space an attractive and vibrant personality. Seating is integrated into platform edges, which support different modes of occupation by visitors. Water sensitive urban design (WSUD) and flood control measures are integrated, as is low energy lighting for after dark security.



