# Moorabbin Eastern Edge Urban Design Analysis City of Kingston



# Company details

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## Description

Moorabbin Eastern Edge Urban Design Analysis

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#### Client

City of Kingston

## **Client Representative**

Justin Kelly

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# Introduction



# **BACKGROUND**

In 2012, MGS Architects were engaged by the City of Kingston to provide an urban design analysis of Precinct D of the Moorabbin Activity Centre. The analysis included recommendations on opportunities for improving the layout and character of the precinct as well as preferred design outcomes for future development.

Since then, the precinct has been gazetted as an activity centre zone and various developments and approvals have occurred within the area.

As such, the City of Kingston engaged MGS in 2018 to update the earlier analysis and provide additional guidance for implementing the public realm improvements. This document makes recommendations for built form, access and wayfinding, public open space and built form interfaces within the precinct.

#### PRECINCT ANALYSIS

The Precinct is located on the eastern edge of the Moorabbin Activity Area, within the boundaries of the structure plan area. The Issue Paper provides a more comprehensive analysis of the existing conditions, but a few key points on built form and spatial structure should be noted:

- The precinct encompasses a number of recent approvals that will shape its future form and uses.
- The precinct presents an anomalous set of uses compared to the rest of the local context. It is a small pocket of light industrial uses and large format retail in an otherwise residential and retail focussed centre.
- These uses occupy comparatively anomalous built form. The large footprint warehouse-type retail is at odds with the finer grain buildings around it, as well as the preferred future form of the centre expressed in the structure plan.
- The network of roads and subdivision pattern presents an anomalous urban form. The precinct is largely separated from the rest of the activity area and more strongly links to South Road and Linton Street. It forms a blockage between the centre and the open space reserve.
- The precinct currently has a poor quality public realm, with oversized road reserves and few street trees or other landscape improvements. For instance, Horscroft Place is much wider than is necessary for the traffic it carries and provides relatively poor amenity for pedestrians.

- The precinct is effectively split into two portions, one addressing South Road and the other around 5 Horscroft Place. There currently is no integration between the north and south of the precinct.
- The precinct has sensitive interfaces to surrounding residential dwellings on abutting properties. These interfaces need to be controlled and mediated through future development.
- There is a heritage listed church, protected by an overlay, abutting the precinct on South Road.



# **EXISTING PUBLIC REALM**



View from Horscroft Place towards the reserve to the east, showing significant trees in the public reserve.



View along Linton Street, looking north. The large format warehouse retail presents an inactive frontage to the street.



View along Horscroft Place, looking west. The overscaled road reserve presents a vehicle-dominated public realm.



View along South Road, looking east. The frontage to the street is dominated by car parking and vehicle services such as a petrol station and car wash.



Heritage listed St James Lutheran Church, located immediately adjacent to the South Road boundary (protected by a heritage overlay HO 118)



View along Central Avenue, looking east. The established trees and landscaped road reserves provide a strong precedent for future street landscapes.

# **APPROVALS WITHIN THE ACTIVITY CENTRE ZONE (ACZ3)**

In 2015, the Activity Centre Zone (ACZ3) was adopted for the precinct around Moorabbin Station. The objective of this zone is to create a pedestrian focused gateway precinct for the City of Kingston. It provides for a mix of housing, employment, recreational, social and cultural uses.

The area of study falls into Precinct 4 of the Activity Centre boundary. The precinct prescribes a building height limit of 5 storeys (17 metres) subject to sufficient site consolidation. This height may be exceeded where it can be demonstrated that the precinct objectives and guidelines are met.

The objectives of the precinct include:

- To regenerate the precinct from industrial and restricted retail land uses to a contemporary mixed use environment with an office, residential and service focus.
- To discourage land use activities such as a retail premises that would undermine the retailing role of the Retail Core Precinct.
- To encourage well integrated apartment/office/community service opportunities with transitions in height down to adjoining residential areas.
- To encourage active frontages with community service uses along the South Road frontage.

To strengthen the connectivity and walkability of the precinct to the retail core and public transport opportunities of the Moorabbin Activity Centre.

The following guidelines apply to Precinct 4:

- Develop landmark building outcomes in the precinct in key locations with high exposure to South Road and the Moorabbin Reserve.
- New development should provide a transition in height down to the existing heritage church to provide a buffer and retain view lines to the place.
- Create a new road through the precinct to provide east west links from the railway station to Linton Street reserve.
- Development should enable an east-west linkage from the Railway Station via Central Avenue to Moorabbin Reserve.
- Create active surveillance and pedestrian friendly interfaces from the precinct to Moorabbin Reserve.



# Urban design strategies



# **VISION**

The vision for the Moorabbin Activity Centre as defined in the structure plan is:

To actively engage to bring Moorabbin to life by complementing its strong cultural role with a living population that calls it home.

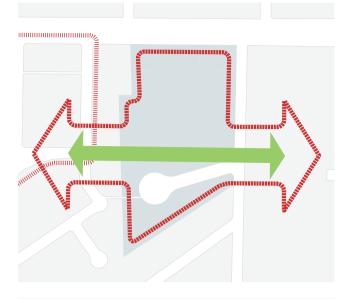
In order to implement this activity centre vision within the precinct, the following vision statement to guide development responses within the precinct is proposed:

To implement the Moorabbin Activity Centre structure plan vision by developing an integrated, pedestrian-oriented residential neighbourhood, adding vitality and housing growth in support of the core retail precinct.

# **Objectives**

- To facilitate the redevelopment of the Precinct and allow the orderly shift of land uses from industrial to predominantly residential.
- To ensure that the development of the Precinct does not detract from the vitality and economic development of the core.
- To strongly integrate the Precinct into the Moorabbin Activity Centre and create a permeable and accessible subdivision pattern.
- To limit the extent of disruption for existing landholders and tenants during the redevelopment process by undertaking an incremental development process.
- To mitigate the impact of higher residential densities, particularly on residential dwellings outside the Activity Area boundary.
- To encourage the incorporation of environmentally sustainable design approaches for both the subdivision layout and building design.
- To encourage contemporary buildings that demonstrate architectural design excellence.
- To encourage high-quality landscape design to create public open spaces for the benefit of the whole community.

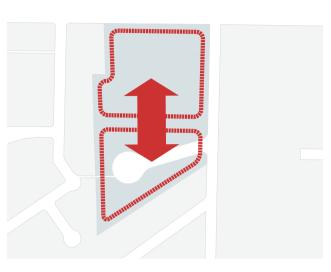
# FRAMEWORK PRINCIPLES



# **Strategy 1**

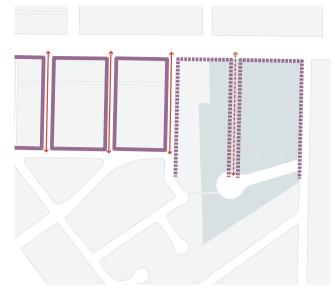
Create a strong connection between the existing areas of activity and the park.

Strongly integrate the development precinct into the activity centre to promote pedestrian based TOD and greater vitality in the activity centre core. This should include integration with an off road connection along central avenue.



# **Strategy 2**

Strongly integrate northern and southern halves of the precinct to encourage the comprehensive transition of the whole precinct to nonindustrial uses.



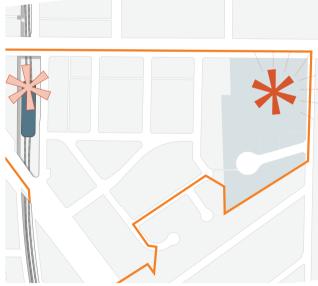
# **Strategy 3**

Encourage north-south permeability by continuing the block rhythm set up by the existing subdivision pattern.



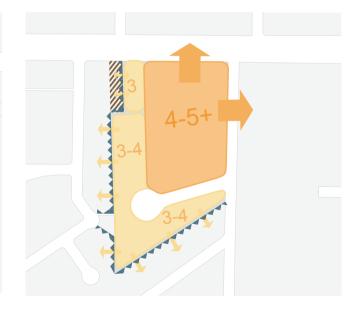
## Strategy 4

Encourage built form interfaces and street treatments that promote the relationship between the precinct and the adjoining public open space, especially promoting increased safety through increased pedestrian activity and passive surveillance.



# **Strategy 5**

Create a landmark within the site to mark the entry to the activity centre from the east. Encourage high quality design detail and materiality to reinforce the significance of this precinct.



# **Strategy 6**

Ensure that the highest built form addresses South Road and the park, at a comparable scale to the station precinct. Ensure that buffer zones create a scale transition to existing residential areas, especially the heritage significant church. Provide planning controls at the interfaces to existing residential areas.

## SITE SPECIFIC DESIGN OPPORTUNITIES

There are a number of site specific design opportunities. These include:

- Extend the pedestrian and cycle axis along Central Avenue to create accessible routes through the Precinct to the park reserve.
- Extend the landscape from the reserve into the Precinct through landscape treatments that create fingers of green public space.
- Improve the landscape treatment and number of street trees in Horscroft Place, incorporating water sensitive urban design treatments.
- Create opportunities for permeable urban form through north-south pedestrian links.
- Extend the existing pocket park on Healey Street to open up a stronger visual link between the Precinct and the existing residential areas.

- Identify an opportunity to integrate road access between the Precinct and the core areas.
- 7. Key opportunity for a significant residential development. Locate more prominent built form towards South Road to act as a gateway marker.
- 8. Potential early residential development opportunity with north frontage to parkland, extending the existing residential character into the Precinct.
- Opportunities for incremental change in character from industrial to residential.
- 10. Potentially allow for moderately increased heights where sites have been consolidated and off-site impacts are managed effectively.
- 11. Opportunity for development that integrates with the heritage significant church on South Road



# **Precinct land use and structure**



## PREFERRED OPTION

# **Option update**

In 2012, an urban design analysis was undertaken to recommend opportunities for the improvement of the layout, character and preferred design outcomes for Precinct D of the Moorabbin Activity Centre. Since then, changes have occurred within the precinct. Therefore, the recommendations have updated accordingly.

The updated preferred option achieves similar outcomes to the Moorabbin Structure Plan configuration with less need for acquisition and a less disruptive approach to development. This option also presents more opportunities for incremental implementation and more certainty for landholders and tenants.

The preferred option requires the parceling of development sites to create pedestrian routes through the precinct and additional connections between the Harvey Norman site, Healey Street and Horscroft Place.

The updated layout also incorporates the internal connectivity proposed for the redevelopment of the Harvey Norman site. Opportunities:

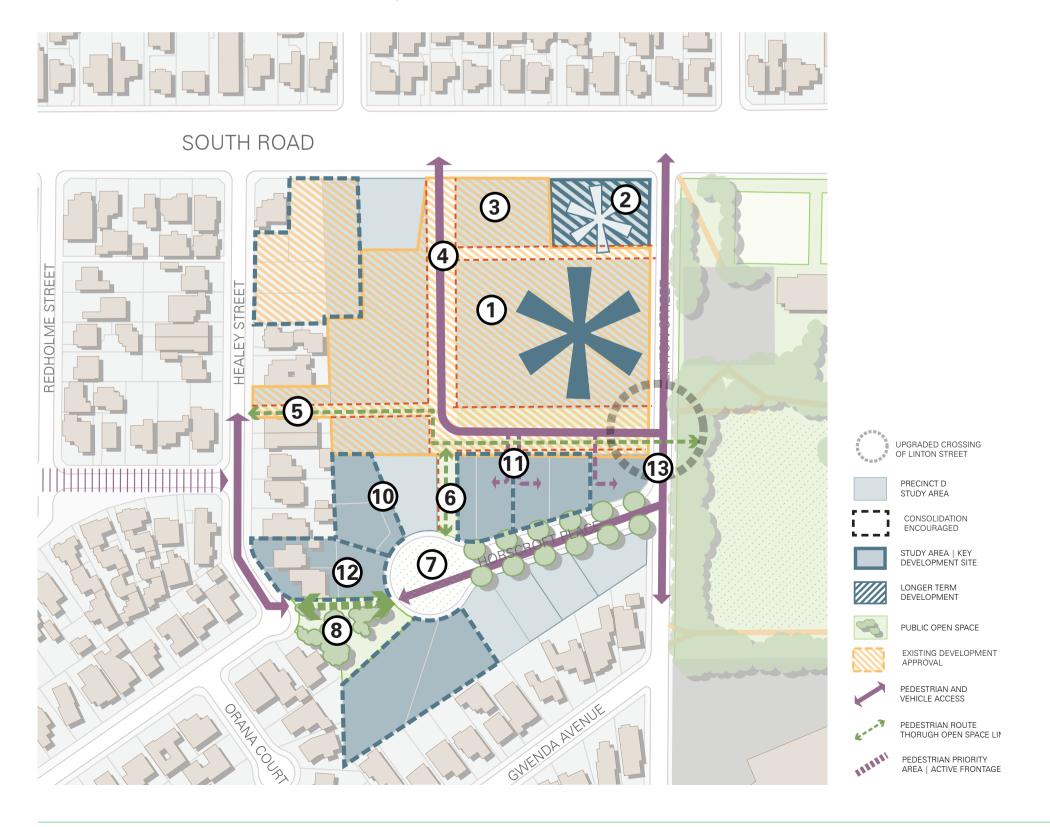
- Allows for incremental implementation through multiple smaller catalytic projects.
- Create a clear and highly permeable circulation network for the Harvey Norman site, strongly integrated with the activity centre.
- Strongly integrates Horscroft Place into the activity centre without requiring significant disruptions to existing land uses.
- The existing council owned public open space becomes pivotal to encouraging the development of Horscroft Place.
- By including a requirement for pedestrian access, a northsouth link could be facilitated between the two portions of the precinct.
- Allows for the significant streetscape improvements to Horscroft Place, to extend the green landscape of the park deeper into the precinct to connect with Central Avenue via Healey Street.

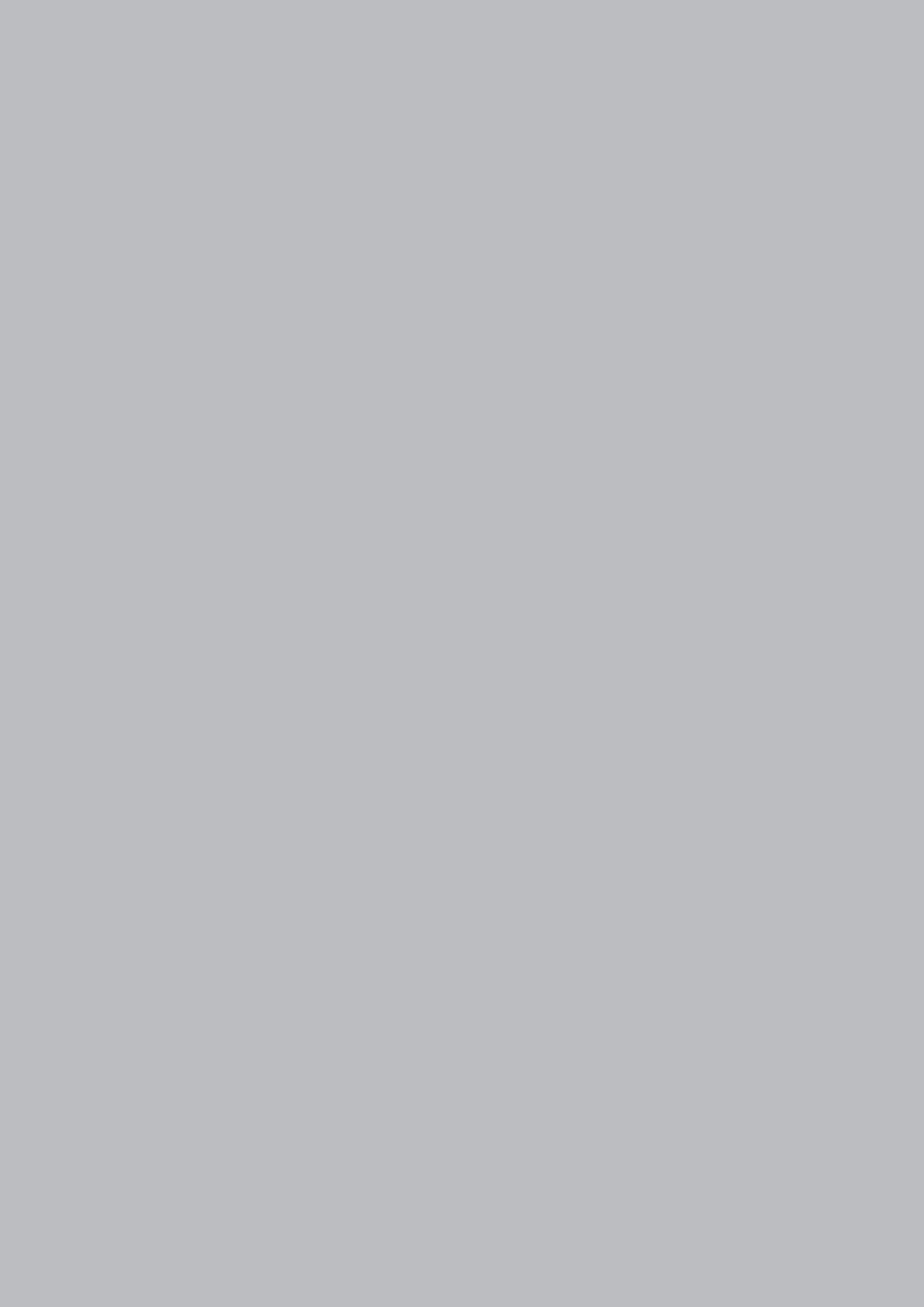
# Key design principles

- 1. Redevelop the Harvey Norman site as a significant opportunity for contemporary residential design. This site has sufficient scale and proximity to the amenity of the park reserve to support larger built form as well as opportunities for publicly accessible green areas within the development site itself. There is an opportunity here for a landmark built form addressing the parkland interface. At ground level, a small convenience retail and cafe use may be appropriate.
- 2. Allow for the possible medium-term redevelopment of the petrol station site on the corner of Linton Street and South Road. While the redevelopment of this site into housing and potentially convenience retail should be encouraged over the longer term, the current use is likely to remain in the interim. Any future change of use on this site will need to consider the potential need for remediation.
- 3. Built form along the South Road frontage can be scaled to respond to the width of the road reserve and present a well-articulated frontage to the road. The highly visible location will mean any built form here will act as a landmark, so high-quality architectural design is strongly encouraged.
- 4. A road link through the site is an integral part of the development of the Harvey Norman site, ensuring strong integration between the development and its surroundings.
- 5. An east-west pedestrian and bike oriented landscape corridor at 34 Healey Street will increase the pedestrian permeability of the site and effectively extend the landscape character of the park reserve into the development site. Solar access to the corridor should be maximised through appropriate orientation and building setback. Gated open space should be avoided to ensure the free permeability of the development.
- 6. A north-south open space link should be provided to help integrate the larger northern development site with Horscroft Place to the south. It is preferable that the proposed link is provided as an extension of the northsouth street within the Harvey Norman site, however this link may be provided at another location along Horscroft Place by agreement with Council.

- 7. Horscroft Place should change in character to accommodate many more street trees, landscaping and allow for formalised on-street parking. Crossovers should be consolidated to retain on street car parking.
- 8. The existing pocket park on Healey Street is being expanded to link to Horscroft Place, allowing an open view down the street terminating at the park on Linton Street. This can be achieved through the parceling of development sites to provide a link and catalyst site for residential development featuring a long northern frontage to the new open space.
- 9. Greater heights and higher quality design outcomes are facilitated by the larger sites created through lot consolidation. This should be encouraged, allowing for more efficient development.
- 10. Existing sites along Horscroft Place can transition gradually to residential uses as the properties become available for redevelopment. The consolidation of sites in this area should be encouraged where this will lead to a more efficient and amenable residential development.

- 11. Where there are development sites that have dual street frontages, new development should provide habitable façades oriented towards both interfaces. Vehicle access from the new street should be consolidated between developments to reduce the number of crossovers and to improve the street address.
- 12. Development abutting new open space should be encouraged, to frame the open space with residential frontages on all sides.
- 13. In the longer term, narrow Linton Street at its intersection with the new road link through the development. Introduce a signalised bicycle and pedestrian crossing that allows for the continuation of the bike and pedestrian corridor into Moorabbin Reserve.





# Accessibility



#### VEHICLE ACCESS

#### Street character

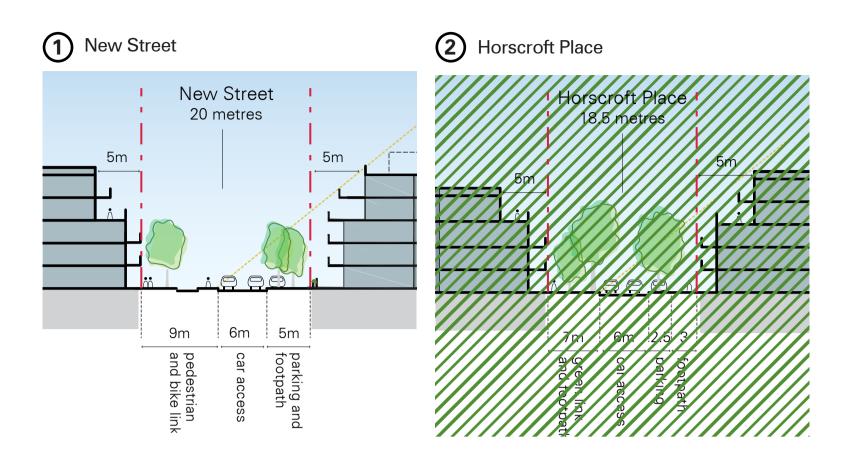
The road network proposed here is provisional. It could potentially be modified to suit the objectives of a future proposal, if acceptable to Council. Some important characteristics that any future road network should include:

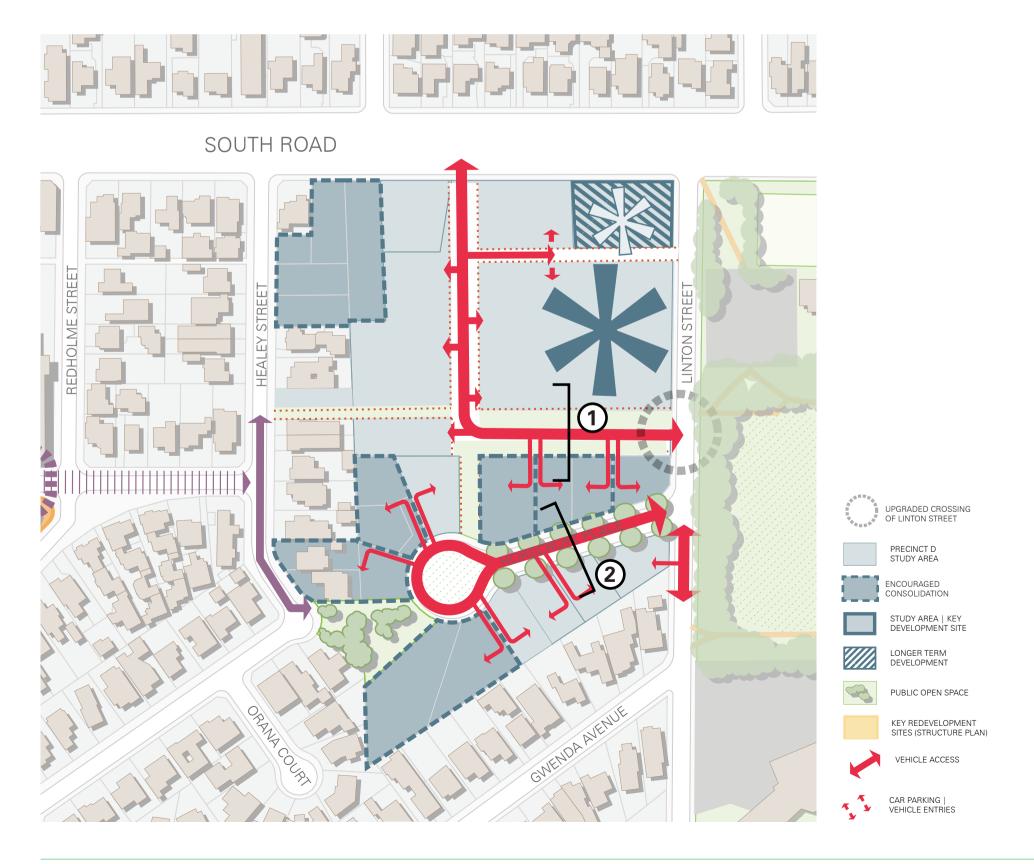
- 1. A new street through the Harvey Norman site should encourage access to Linton Street.
  - The new street should encourage public pedestrian and bicycle connections through the site and avoid a configuration that promotes its sole use as an internal vehicle access road for the Harvey Norman development site.
  - The pedestrian and bike link through to Healey Street should be integrated into the design of the new street.
  - The cycle path and wider landscape strip should be placed on the south side of the road reserve to maximise solar access.
  - Street trees, generous landscaping and water sensitive urban design should be incorporated in the design.
  - Allows for rear access to properties facing Horscroft Place. Access to these properties should be consolidated between developments.
- 2. Horscroft Place should be reconfigured within the width of its existing 18.5m road reservation according to a preferred landscape concept.
  - The carriageway should be narrowed by installing a 2.5m wide outstand incorporating street trees into a parking lane on the north of the road reserve and allowing for a 7m wide landscaped pedestrian path and green link on the south side of the road reserve.
  - Existing crossovers should be consolidated and minimised where possible to increase the amount of onstreet parking.
  - Overhead wires should be placed in underground conduits.
  - The landscape design should be consistent with the concepts specified in Section 6 of this report.
- 3. Additional road intersections on South Road should be avoided if possible. It is preferable that the internal road network of the Harvey Norman site connects to Linton Street instead.
- 4. Linton Street should have a leafy, residential interface with the limited potential for other active uses such as a cafe at ground level. The street should allow for safe pedestrian crossings.

# **Parking**

All car parking and garage entries should be screened from view from the public realm and designed to recede from the building line. Continuous blank facades are not acceptable in public areas.

- 1. Parking access for larger developments should be located on secondary roads where possible, eg. the east-west road in preference to Linton Street. Entries should be located away from significant street corners.
- 2. Driveways and crossovers for larger garages should be consolidated where possible.
- 3. As has already been approved, parking access for properties on the northern side of Horscroft Place can be provided from the access road, to encourage higher quality street frontages.
- 4. Properties south of Horscroft Place will require crossovers from the street.
- 5. Traffic lights at the intersection of Linton and South Roads should be installed.
- 6. Pedestrian connections should align and integrate with the path network in Moorabbin Reserve.

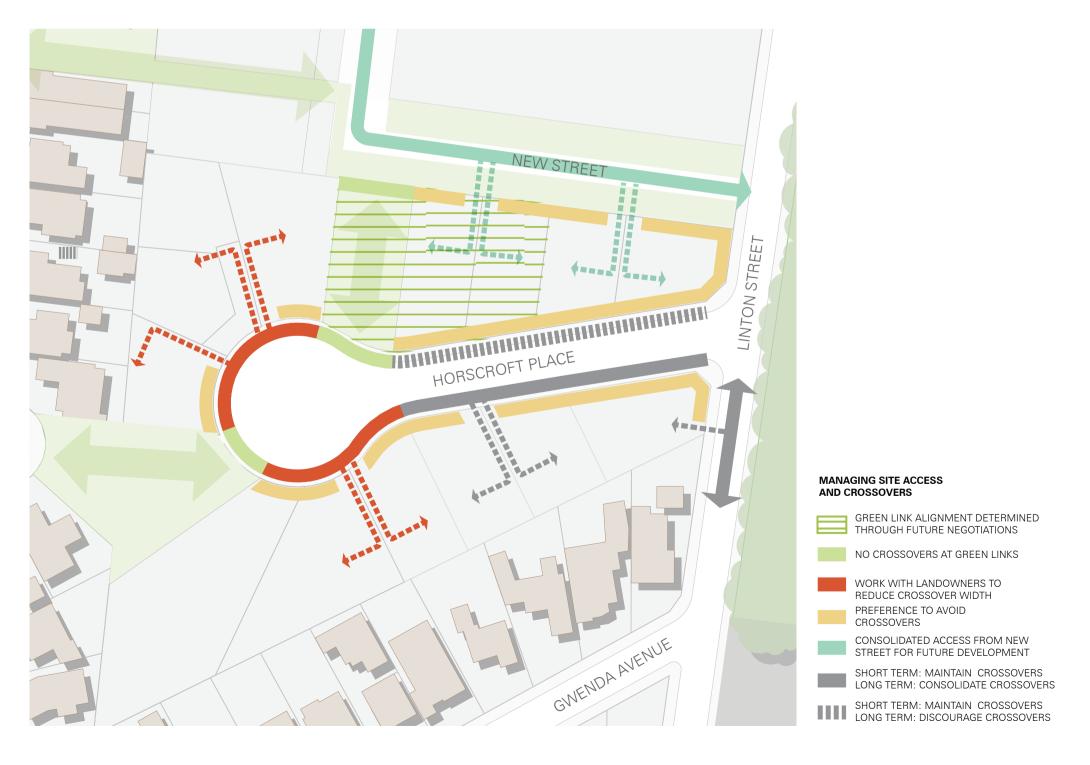




# MANAGING SITE ACCESS AND CROSSOVERS

New development should have an identifiable sense of entry from the street or internal path network with visible entry features. Preference should be given to development with active interfaces along streets by providing clearly defined entry points at a human scale and a sense of address. Parking, utility structures, bin enclosures and obtrusive signage should not be allowed to dominate the entry or address of the development. A key aspect to managing future site access is the consolidation of vehicle crossovers. Therefore:

- Council should work with landowners to consolidate crossovers and to reduce their width.
- Crossovers should be configured to avoid conflict with green links. The alignment of crossovers should be determined through negotiations with future development applicants.
- All new development that occurs on Horscoft Place should be required to reduce the number and size of crossovers.
- Over the longer term, Council should discourage access from Horscroft Place for development with dual frontage to Horscroft Place and the new east-west street.



# **Built form and interfaces**



#### **BUILT FORM AND INTERFACES**

# **Built form and height**

All built form in the precinct should demonstrate architectural design excellence through approaches to building articulation, massing, the choice of high quality materials, internal amenity, efficient internal layout and environmental performance.

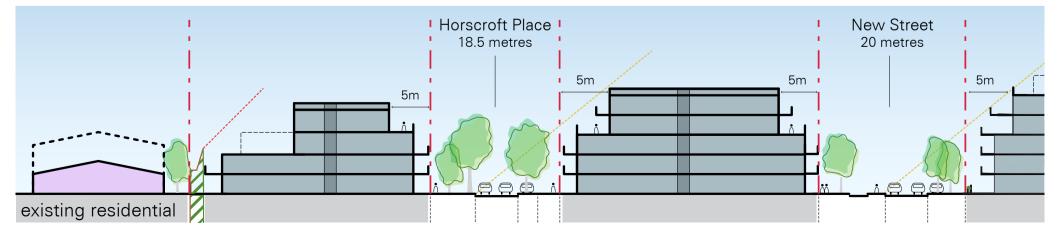
All development proposals should be led by passive design strategies for solar access and ventilation, both for lot layout and architectural design. These should include:

- Where there is built form above 3 storeys, Council should encourage a setback from the boundary of 3.5 metres for inactive facades and 4 metres for active facades.
- Preferably configure built form so that the energy efficiency and solar access of future neighbouring developments are not unreasonably reduced.
- Living areas and open space should be located on the north side of the dwelling if practicable. Elevated decks can ensure that private open space will not get overshadowed.
- Provision should be made for the installation of solar hot water and solar PV panels. Roof forms and structures should allow for the easy retrofit of these systems if they are not initially installed.
- Ensure that in higher density building typologies that all bedrooms have adequate access to natural light and ventilation. Borrowed light for bedrooms is not appropriate.
- Ensure that the gaps between built forms are adequate to provide privacy and outlooks that do not overlook neighbouring private spaces.

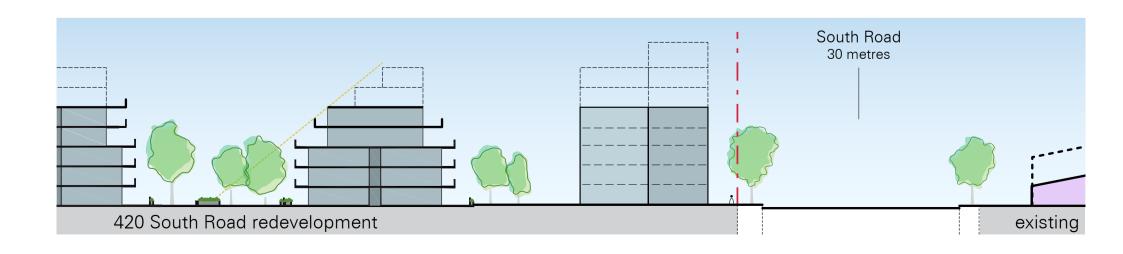
Visual screening should be used as a last resort to ensure privacy, as these can limit access to light and ventilation for residents.

The overall heights for Precinct 4 have been specified by ACZ3 as 5 storeys, subject to sufficient site consolidation. Additional height over 5 storeys may be acceptable where the built form proposal delivers precinct benefits, such as in the delivery of publicly accessible mid-block landscape links. However, consideration should be given to the amenity of the public realm and open space, particularly as regards overshadowing. In addition, consideration should be given to sensitive interfaces to existing residential uses. In this case, ResCode setbacks should be applied.

# (A) North-south section







#### **BUILT FORM AND INTERFACES**

#### **Interfaces**

The following types of property interfaces apply within the Precinct:

#### 1. Sensitive Residential Interfaces

Built form adjacent to the interface between the Precinct and surrounding residential areas should respond sensitively to the existing dwellings, while recognising that development within an activity centre will involve higher density residential forms. The height of abutting built form should step down in proximity to the interface, with the massing of the built form arranged away from the sensitive interface. Development of up to 3 storeys may occur within 10 metres of the boundary and opportunities for deep soil planting within 2 metres of the boundary should be encouraged. The standard ResCode setback (B17) should define the envelope for appropriate setbacks at each height level. The angle defined by the ResCode standard should be extended to the maximum height shown in the height map. Other ResCode standards relating to overshadowing and daylight access to existing north facing windows or habitable spaces should apply at this interface, as appropriate.

#### 2. Local Internal Roads

Internal roads within the Precinct will have a narrower width and more consistent setbacks. Buildings should be set back 4 metres from the property line to allow for a landscaped interface with trees primarily located in the public realm. Above 3 storeys, the upper levels should be set back 5 metres from the street wall. Fences should be discouraged.

#### 3. Park and Open Space Corridors

The interface to public open space should ensure the openness and continuity of front yards, while clearly distinguishing between public and private spaces. If fences are required they should be low and substantially transparent. Buildings should be set back a minimum of 2 metres to allow for some front yard landscaping. Habitable or active frontages with ground floor access and appropriate articulation should be encouraged.

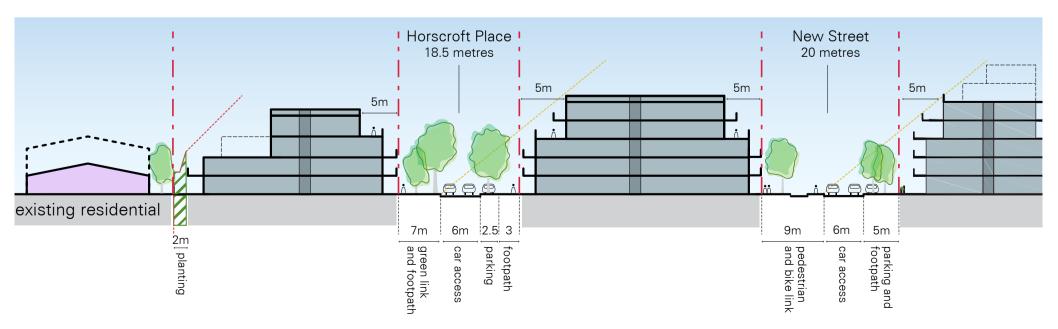
#### 4. Major Roads

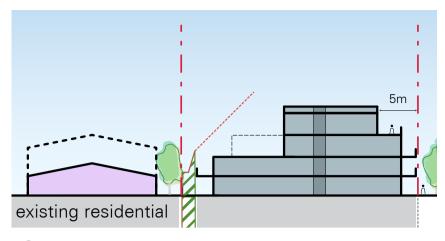
The setbacks at South Road and Linton Street should be scaled to respond to the local context and match surrounding setbacks. A setback of 6m is sufficient to allow for a front yard landscape buffer planted with canopy trees. No additional upper level setbacks are required. No fences should be allowed. The built form address to the interfaces should ensure the passive surveillance of the public realm through the orientation of living areas towards the street.

#### 5. Separation between buildings

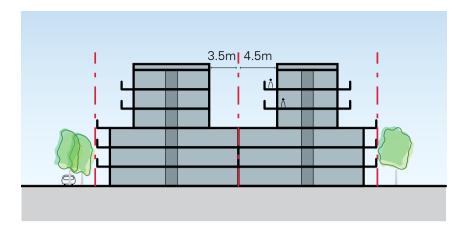
Where there is built form above 3 storeys, Council should encourage a setback from the boundary of 3.5 metres for inactive facades and 4.5 metres for habitable facades. This is to allow sharing of development potential between sites, as well as for internal amenity and privacy.

# North-south section

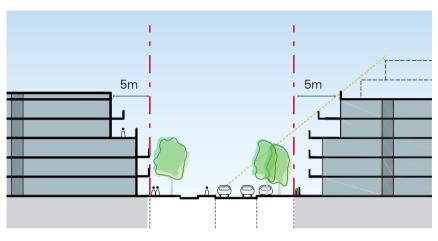




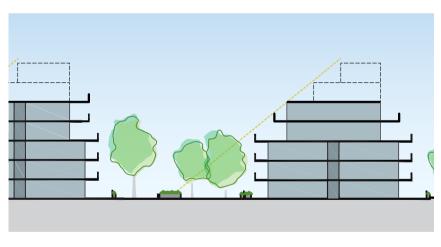
1 Sensitive residential interface



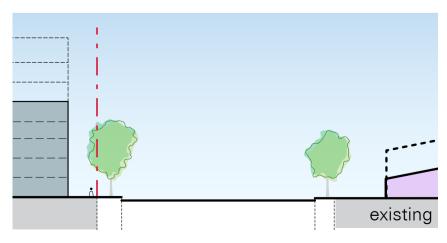
**5** Separation between buildings



2 Local internal roads



3 Park and open space corridors



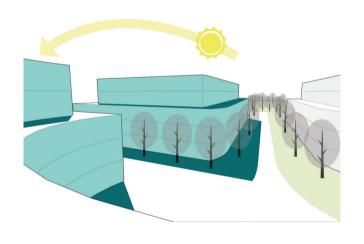
4 Major roads

# **BUILT FORM AND INTERFACES**

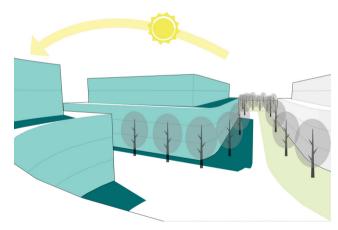
# **Overshadowing**

All built form should take into consideration overshadowing of neighbouring properties, streets and open spaces. This should include:

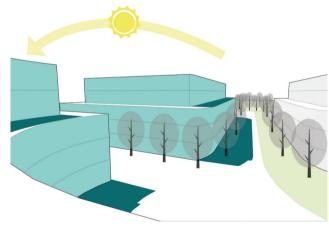
- Ensuring solar access to habitable areas through north facing windows, while ensuring summer shading is provided.
- Ensuring solar access to 50% of publicly accessible open spaces between 10.00am and 2.00pm on the 21 September. This may include utilising the building setback of 5 metres above 3 storeys to achieve this.
- Building forms should limit winter overshadowing of open space.
- Ensuring solar access to landscaped areas and open space corridors on the south side of street reserves running between 10.00am and 2.00pm on the 21 September.
- Park interfaces should not have additional overshadowing above the three storey street wall betwen 10.00am and 2.00pm on the 21 September.



VIEW TO MOORABBIN RESERVE **10.00am** 21 September



VIEW TO MOORABBIN RESERVE 11.00am 21 September



VIEW TO MOORABBIN RESERVE **12.00pm** 21 September



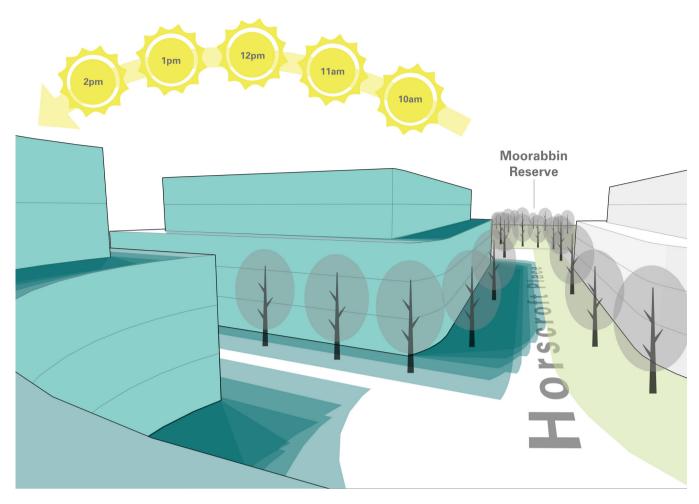
**PLAN** 10.00am 21 September



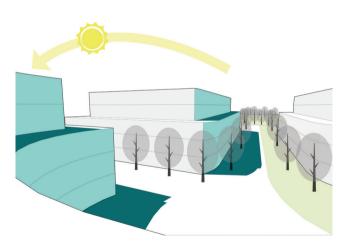
**PLAN 11.00am** 21 September



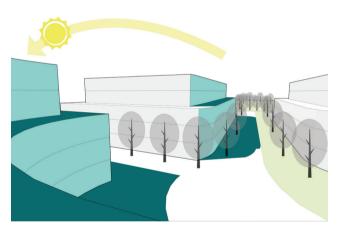
**PLAN 12.00pm** 21 September



VIEW OF HORSCROFT PLACE LOOKING EAST TOWARDS MOORABBIN RESERVE **10.00am- 2.00pm** 21 September



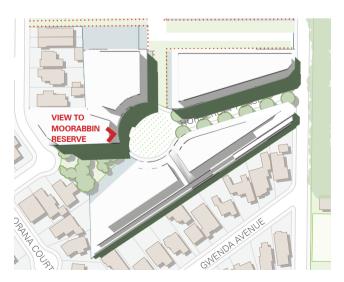
VIEW TO MOORABBIN RESERVE **1.00pm** 21 September



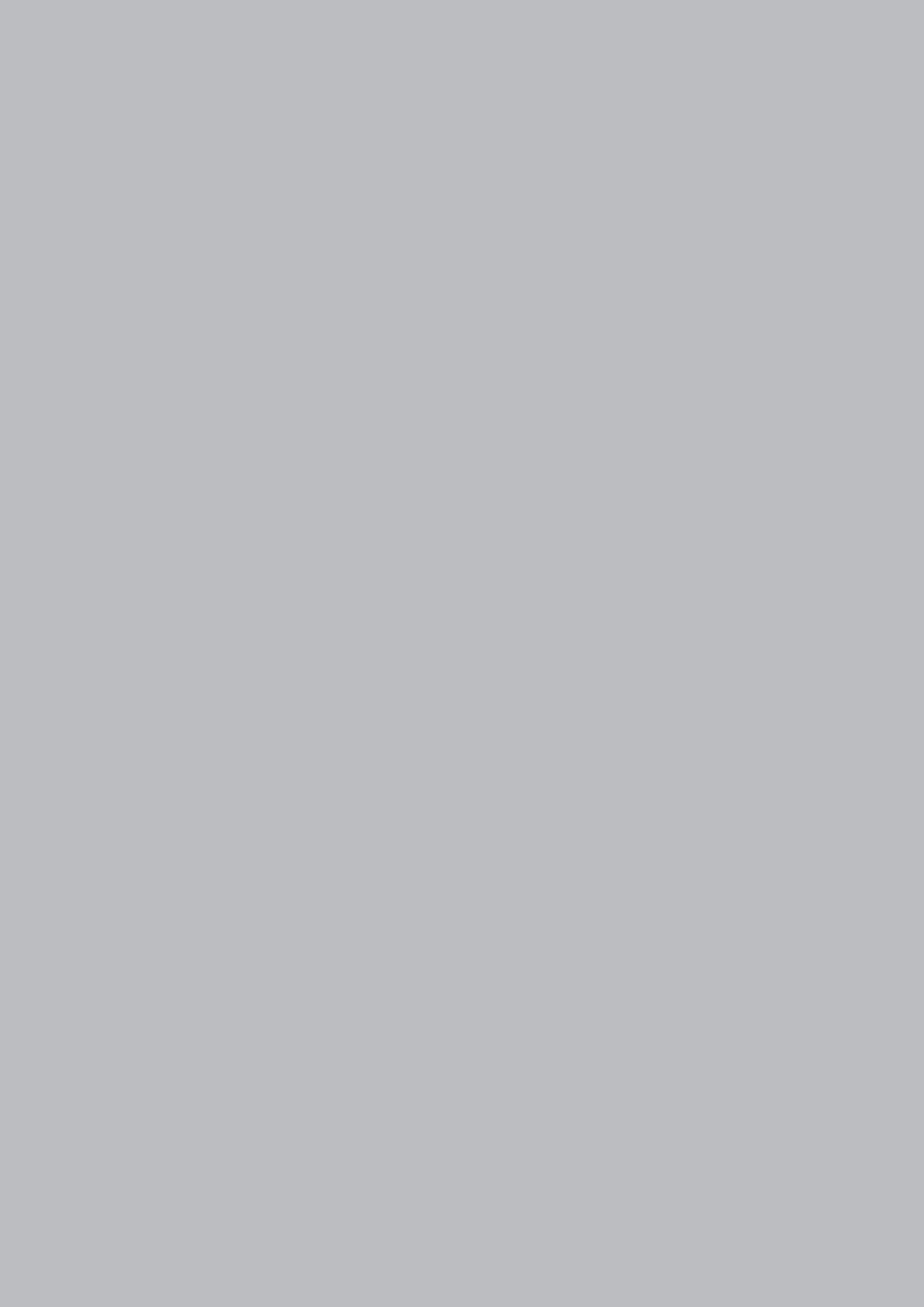
VIEW TO MOORABBIN RESERVE **2.00pm** 21 September



PLAN **1.00pm** 21 September



PLAN **2.00pm** 21 September



# Landscape design



#### LANDSCAPE DESIGN

# Open space and landscape character

The landscape character of road reserves and public open spaces should draw on the strong existing character of other parts of the Moorabbin Activities Area. The large flowering Eucalypts and other native species planted in Central Avenue provide a strong precedent for the future street landscape in the Precinct.

Open space corridors should have a secondary and supportive role compared to the major public open space to the east of the Precinct. The design of the open spaces within the Precinct should complement and extend rather than drawing activity out of the reserve. For this reason the corridors are likely to support passive, unprogrammed uses only. Walking paths and outdoor seating within designed landscape settings would be appropriate.

All public realm spaces should be designed to encourage safety through the application of CPTED principles. Passive surveillance should be encouraged by orienting the windows of living areas of surrounding developments towards the open space and ensuring all fencing if present, is low and transparent.

# Open space corridor framework

An open space corridor framework has been provided, the main features of which are outlined below:

- 1. A series of pocket parks and plazas for enhanced public realm amenity and to support urban cooling.
- 2. On street bike path on Central Avenue.
- 3. Raised crossing on Healey Street.
- 4. An off street pedestrian and bike oriented path that will increase the permeability of the site and effectively extend the landscape character of the park reserve.
- 5. Extension of public open space for additional passive recreation.
- 6. Integrated seating and green space to support urban coolina.
- 7. Raised crossing and road narrowing.
- 8. Shared use path currently being delivered at Moorabbin Reserve.
- 9. Continue the pedestrian and bike path into Moorabbin Reserve and, in the longer term, explore treatment options on Linton Street at its intersection with the new road link.



# **Design options for Horscroft Place**

The reconfiguration of Horscroft Place as a key public open space presents an opportunity to develop a high amenity and distinctive landscape node. This will dramatically change the street character of Horscroft Place and will support the renewal of the precinct as a high quality mixed use precinct.

Two stages have been prepared for consideration.

#### Stage 1: Incremental development plan

The incremental development plan retains a more traditional arrangement of court bowl and road carriageway with the landscape component configured as a repeated and adaptable kit of parts. This option can be delivered in multiple stages, potentially by individual landowners making a direct contribution to the street at the time of each property's redevelopment.

#### Stage 2: Preferred ultimate outcome

The preferred ultimate outcome redevelops the court bowl of Horscroft Place as a shared zone, greatly extending the usable space of the existing open space reserve. This option is most easily delivered as a single stage of works. It will rapidly and dramatically change the character of the precinct.

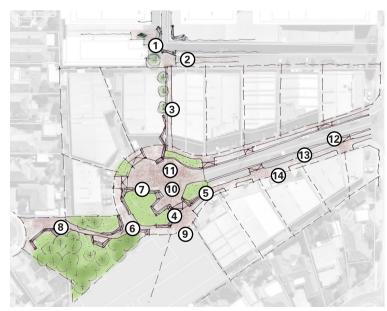
# Key elements of the design options

- 1. Smaller public space in the same 'language' helps to link the precinct and assist legibility.
- 2. Proposed shared user path to be considered.
- 3. North/south pedestrian path connection with tree planting or shared street to accommodate vehicular access.
- 4. Integrated seating and planting creates a welcoming and comfortable shared space where people are prioritised while access requirements continue to be met.
- 5. Integrated water sensitive urban design opportunities.
- 6. Extension of public open space for additional passive recreation.
- 7. Integrated seating and green space to support urban cooling.
- 8. Generous paved connection able to support shared use by cyclists and pedestrians.
- 9. Opportunity for active and/or articulated built form and or/ public realm interface.
- 10. Consistent surface treatment links to the park and plaza and provides a 'people focus' to the street.
- 11. Detailed design should accommodate 'three point' turns for vehicles.
- 12. Road carriageway offset towards north and consolidation of vehicle access points, crossovers and double driveways maximises public realm dimensions on south side of the street.
- 13. Shade trees in streetscape with integrated WSUD.
- 14. Three metre wide shared use path.
- 15. Generous linear public realm link on south side of the street.

#### Incremental development plan



#### Preferred ultimate outcome



#### WATER SENSITIVE URBAN DESIGN

Water Sensitive Urban Design (WSUD) has two main aims, to sustainably manage stormwater flow and to increase the level of water harvesting and reuse. This limits the impact of severe storm events and improves stream quality, as well as leading

reduced potable water use by improving overall water efficiency. WSUD involves multiple levels of water management initiatives in a hierarchy spanning both the public and private domains. It will involve the coordinated participation of many parties to fully implement across the whole precinct: local and possibly state government, water authorities, road authorities and private landowners.

The City of Kingston has developed an extensive array of documentation on water sensitive urban design strategies which should be referred to in any development application. Some specific strategies for consideration include the strategies outlined below.

# Raingardens and wetland systems

Raingardens are small water filtration systems (up to around 5m wide) that use a combination of plants and highly permeable soil media to filter contaminants and slow down the passage of water into waterways. After passing through the raingarden, the water can flow to a storage for reuse or into standard drainage systems.

Raingardens can be linked to small wetland systems to encourage the further detention and filtration of stormwater runoff where there is sufficient space. Wetlands differ from raingardens in retaining water.

Raingardens and wetland systems could be considered for the open space corridors, especially if linked to a larger scale water management strategy incorporating the open space reserve.

# **Tree pits**

Tree pits are a special kind of rain garden designed to accommodate a street tree. Generally, these systems divert a proportion of the kerbside runoff over the street tree root zone before allowing the overflow to drain into the stormwater pipe system. They can be integrated with the kerb and footpaths to provide a very small scale and easily implemented WSUD system.

Tree pits should be encouraged along Horscroft Place within the parking lane of the road reserve, to introduce street trees into the public realm and demonstrate best practice water management. This area is particularly appropriate for WSUD strategies because of the existing large areas of impervious paving and poor visual amenity.

#### **IMPLEMENTATION**

The redevelopment of Precinct 4 is intended to be an incremental process implemented through the actions of many stakeholders. The implementation of this vision should be led by Council but involve the progressive engagement with landholders, developers and the wider community.

# **Key projects**

#### Short term:

- The development of the former Harvey Norman site is a key project that will change the character of the precinct, facilitate many of the design objectives and encourage further development. Development should encourage and not hinder development at Horscroft Place by providing adequate access opportunities.
- Realising the park and green link between Horscroft Place and Healey Street should be a priority project.
- Further development of the ultimate landscape design should be pursued in a way that can allow for a hybrid of options and allow development to occur in the interim.
- Engage with current business owners as a part of the wider stakeholder engagement strategy.

#### Longer term:

- Encourage incremental development throughout Horscroft Place in response to the emerging residential character of the precinct.
- Encourage the consolidation and development of the site north of the pocket park to frame either side of the open space and link the precinct to existing residential.
- The petrol station site is likely to be developed over a longer timeframe than other sites within the Precinct.

#### Key public space projects:

- Improve streetscape through the planting of street trees and implementation of WSUD strategies.
- Create corridors of publicly accessible open space to facilitate east-west and north-south interconnectivity within the Precinct.
- Explore treatment options on Linton Street at the intersection with the new road proposed as part of the Harvey Norman redevelopment and create a signalised pedestrian crossing that continues the bike and pedestrian corridor into Moorabbin Reserve.

