

The City of Swan would like to acknowledge HASSELL for the preparation of the Midland Activity Centre Master Plan, which has been adapted to form this Structure Plan. The City acknowledges that many of the principles that form the base of this Structure Plan were initiated by the Midland Activity Centre Master Plan and therefore are representative of the work completed by HASSELL on the Cities behalf.

HASSELL

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Version	Date Issued	Approved	Modifications
2.0	Jun 2016		MC
2.1	May 2017		ВЈ
3.0	Dec 2017 (V2.1 and Schedule of Modifications)		AF



This structure plan is prepared under the provisions of the City of Swan Local Planning Scheme 17. IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON: 30 January 2018 signed for and on behalf of the Western Australian Planning Commission an officer of the Commission duly authorised by the Commission pursuant to section 16 of the Planning and Development Act 2005 for that purpose, in the presence of Date of Expiry





Amendment No.	Summary of Amendment	Amendment type	Date approved by WAPC

Executive Summary

The Midland Activity Centre Structure Plan (the Structure Plan) has been prepared to provide an over arching framework to guide and facilitate the development of Midland's City Centre - some 180 hectares of land. The structure plan relates specifically to that land controlled by the City of Swan under the City of Swan Local Planning Scheme No. 17. However it also draws upon the principles for development; consistent with State policy objectives, over land administered by the Metropolitan Redevelopment Authority (MRA) established by the Midland Activity Centre Master Plan. In that regard, this Structure Plan provides a strategic direction for the future of Midland as a whole.

This Structure Plan has been formulated by the following team:

- City of Swan Strategic and statutory planning
- HASSELL Town planning and urban design
- Cardno Transport engineering Servicing infrastructure
- GHD Local water management strategy
- Colliers Market Research

Overview

The Structure Plan Area is in the north-east sub-region of the Perth Metropolitan Area, approximately 16km from the Perth Central Business District. The Structure Plan is bound by Lloyd Street to the east, Helena River foreshore to the south, Amherst Road and Morrison Road to the west and Morrison Road to the North. Midland, as a Strategic Metropolitan Centre, with excellent public transport and arterial highway accessibility, is well placed to provide high density housing, employment and retail.



The Structure Plan for Midland provides for its long-term growth and development, with that happening over a long period of time, subject to public and private investment in development, infrastructure and amenity assets. It will show the following principle components:

- High density housing opportunities, often within mixed use contexts with provision for approximately 6,955 dwellings over time;
- Employment, retail and other commercial uses consistent with Midland's designation as a strategic metropolitan activity centre;
- A new train station with bus interchange at Cale Street;
- The need for enhanced connectivity at Cale Street connecting Midland's north and south; and
- Improved public realm, with tree-lined streets and reinforced connections to the Swan and Helena Rivers.

The Structure Plan seeks to build on Midland's earlier success with intensified development around the proposed train station, development of Midland's new public and private hospital, rejuvenated area around Juniper Gardens and the former Railway Workshops.

This structure Plan has been prepared to be consistent with State Planning Policy 4.2 Activity Centres for Perth and Peel and other Western Australian Planning Commission guidelines. The Structure Plan has undergone continual reflection with a focus on allowing for good urban design outcomes. It also builds on significant community input through past design charrettes and engagement processes.

Table 1. Structure Plan Summary Table

Item	Data
Total area covered by the structure plan	180 Ha
Area of each land use proposed:	 Residential: 55.12 Ha Industry: 3.78 Ha Commercial: 42.4 Ha Retail: 20.6 Ha
Estimated number of Dwellings	6955 dwellings
Estimated residential site density	The predominant code will be R-ACO with density determined by building bulk provisions - height, setbacks and plot ratio.
Estimated population	13,000 to 14,000 people
Estimated commercial floor space (for activity centres if appropriate)	Total Floorspace: 977,259sqm Bulky Goods: 37,828sqm Office: 423,590sqm Education Culture: 254,350sqm Shop Retail: 206,960sqm Restaurant Cafe: 54,531sqm
Estimated amount of public open space	Public Gardens: 2 HaNative Parklands/Reserves: 5 HaPublic Plazas: 1 Ha

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- b) Addendum to Review of Parking Rates

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1.1 Structure Plan Area

This Structure Plan shall apply to the Midland Activity Centre being the land contained within the inner edge of the broken line shown on the Structure Plan Maps and excludes the area, illustrated on the Structure Plan Maps, comprising the land that is in the redevelopment area for the purposes of the Metropolitan Redevelopment Authority Act 2011.

1.2 Structure Plan Content

The Structure Plan has been drafted in the manner and form outlined in the Planning and Development (Local Planning Schemes) Regulations 2015 and accompanying Structure Plan Framework (Aug 2015) and shall be given due regard to when making decisions on the subdivision and development of land within the structure plan area.

- Part One: Comprises the structure plan maps and planning provisions.
- Part Two: To be used as a reference guide for the interpretation and implementation of Part One.
- Appendices: Contains technical reports and other supporting information used to inform the structure plan.



1.3 Interpretation and Scheme Relationship

Unless otherwise specified in this part, the words and expressions used in this Structure Plan shall have the respective meanings given to them in the relevant City of Swan Local Planning Scheme including any amendments gazetted thereto. In this Structure Plan:

"Activity Centre Code": is defined as set out by the Map 5. Plot Ratio and Density to outline the intended scale and form of development that should occur on that land (in accordance with RAC-0 as defined by the State Planning Policy 3.1 - Residential Design Codes).

"Active Edge": means street frontages that promote activity between those in the street and those on ground floors of buildings.

"Business Services": means premises used for the provision of services which are predominantly administrative in nature and which –

- Are dependent on direct access to the public; and
- Generally have a retail shop front and includes (but is not limited to)
 a bank or building society, post office, real estate agency and travel
 agency.

"Entertainment": means premises used for the purpose of amusement, entertainment or similar purposes, operated generally on a commercial basis including: amusement parlour, betting agency, cinema/theatre, club, function centre, nightclub, and tavern.

"Landmark": means prominent visual features (including buildings, elements of buildings or other attractions) that enhance definition and identification of the urban environment, which will act as points of reference for pedestrians, cyclists and vehicles. Landmarks must be recognisable from street level and from a distance to facilitate pedestrian orientation.

"Loft": means a space contained wholly between the roof pitch and the top of the ceiling of the storey immediately below it. A loft may include space served by dormer windows but cannot have a balcony or terrace. A loft does not represent or resemble an additional storey.

"Mixed Use": means buildings that contain commercial and other nonresidential uses in conjunction with residential dwellings in a multiple dwelling configuration.

"Mixed Use: Residential\Commercial": means a mixed use development area where development contains primarily residential development and complementary retail, office/business services. Residential uses may be developed either in combination or separately, in a compatible manner.

"Mixed Use: Retail/Commercial": means a mixed use area where development contains primarily retail, office/business services together with a range of complementary uses – residential uses may only be developed in combination with commercial and retail uses in a compatible manner.

"Precinct": means the areas delineated by the Precinct Plan to outline the intended character of development that should occur on that land.

"Plot Ratio": means

- Residential Development: as per the definition of 'Plot Ratio' within the Residential Design Codes of Western Australia.
- Non-Residential Development: The ratio of the gross total area of all fully covered areas of a building(s) on a site to the area of land in the site boundaries, excluding areas for:
 - toilets and bathrooms:
 - lift shafts, stairs and stair landings;
 - machinery, air conditioning, storage, equipment and plant rooms;
 - lobbies and circulation spaces common to two or more tenancies;
 - staff tea preparation, lunch areas or amenities;
 - staff change room/locker facilities;
 - areas used for the unpaid parking of vehicles at or below ground level;
 - balconies, verandahs, roof terraces and courtyards, and space that is wholly below natural ground level.

 The area of land required for the purposes of a new public road or access way shall be included in the site area for the purposes of calculating plot ratio for the development.

"Short Term Residential": means a building or buildings, which include self-contained units, for temporary accommodation of less than 3 months.

"Small Bar": means licensed premises on land or buildings used for the onsite consumption of alcohol as outlined in Clause 4 (1aa) of the the Liquor Control Act 1988.

"Storey": means a space within a building which is situated between the top of any floor and the top of the floor next above it (or if there is no floor above, between the top of the floor and the ceiling or roof above) and does not include basement car parking or storage areas wholly underground or where its ceiling is less than one metre above natural ground level at any point, mezzanines, lofts or rooftop areas.;

"Streetscape": is the combination of elements within a street which create the urban form of that street. It includes (but is not limited to) elements such as building forms and styles, landscaping, street furniture and pavement.

Pursuant to Clause 5A of the Scheme, the purpose of the Structure Plan is to:

- a) Guide the preparation of Amendments to the Local Planning Scheme.
- b) Coordinate subdivision and development in the Midland Activity Centre Structure Plan area.
- c) This Structure Plan shall be given due regard when considering applications for subdivision or development.
- d) In the event of there being any variations or conflict between the provisions, standards or requirements of the applicable Scheme and the provisions, standards or requirements of Part One this Structure Plan, then the provisions, standards or requirements of the Scheme (Clause 5A 1.12.2) shall prevail.
- e) Provisions, standards or requirements of Part One of the Structure Plan that are not otherwise contained in the Scheme, shall be given due regard when considering an application for subdivision or development.
- f) Part Two of this Structure Plan and appendices are to be used as reference to clarify and guide the interpretation and implementation of Part One.

1.4 Operation

In accordance with Part 5A of the Scheme, this Structure Plan shall come into operation on the day on which it is endorsed when it is certified by the Western Australian Planning Commission (WAPC) pursuant to clause 5A.1.10 'Endorsement by Commission' of the Scheme.

Any variation to this Structure Plan shall be in accordance with Clause 5A.1.14 'Variation to Structure Plan' of the Scheme.

This Structure Plan shall have effect for a period of 10 years in accordance with the provisions of the *Planning and Development (Local Planning Schemes)* Regulations 2015.

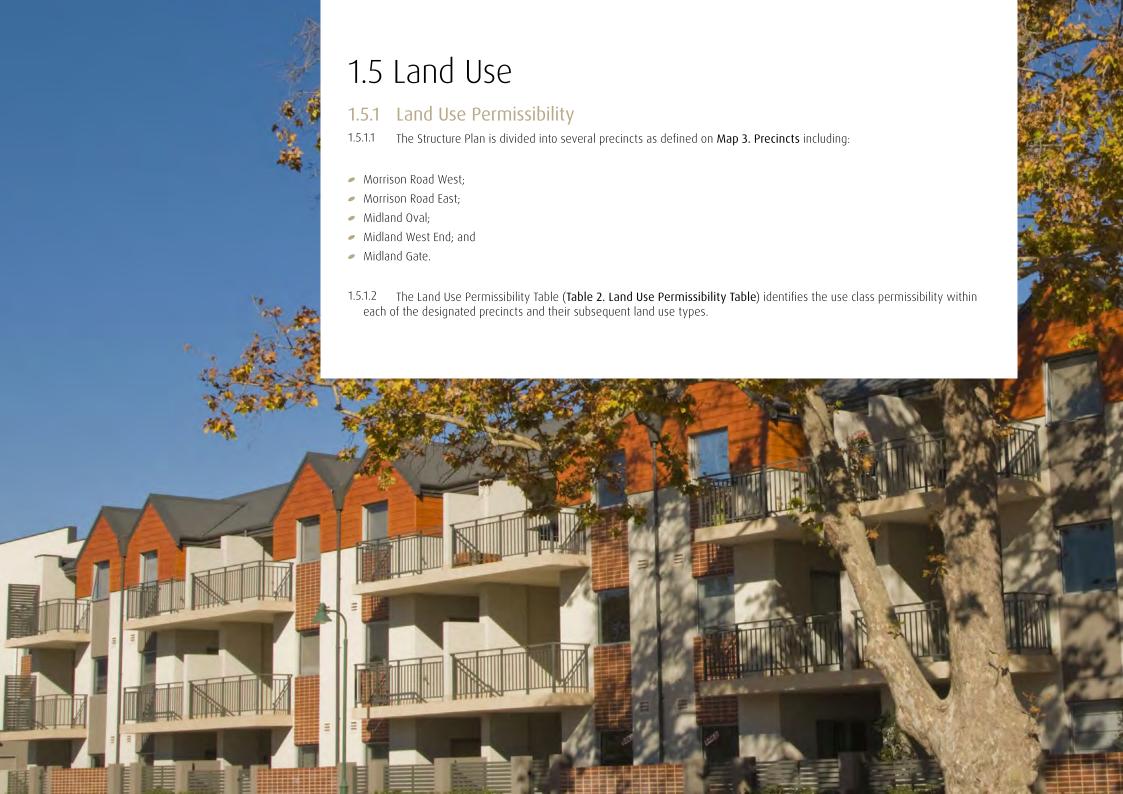


Table 2. Land Use Permissibility Table

Midland Strategic Regional Centre								
Precincts								
Land Use	Morrison Road West		Morrison Road East	Midland Oval	Midland West End	Midland Gate		
zana osc	Residential	Mixed Use Retail/ Commercial	Residential	Mixed Use Residential/ Commercial	Mixed Use Retail/ Commercial	Retail/Regional Shopping		
Aged or Dependent Persons Dwelling	Р	Р	Р	A	D	X		
Agriculture - Extensive	X	X	Χ	X	X	X		
Agriculture - Intensive	X	X	X	X	Χ	X		
Agroforestry	X	X	X	X	X	X		
Amusement Parlour	Х	X	X	X	Χ	D		
Ancillary Accommodation	X	X	X	D	D	X		
Animal Establishment	X	X	X	Χ	Χ	X		
Animal Husbandry - Intensive	X	X	X	X	X	X		
Bed and Breakfast	D	Р	D	Р	Р	X		
Betting Agency	X	X	X	Α	Р	Р		
Cabin or Chalet	X	X	X	X	X	X		
Camping Area	X	Χ	Χ	X	X	X		
Car Park	X	X	Χ	Α	A	A		
Caravan Park	X	X	X	X	Χ	X		
Caretaker's Dwelling	X	D	X	D	D	X		
Child Care Premises	A	Р	А	Р	Р	Р		
Cinema/Theatre	X	X	Χ	D	D	Р		
Civic Use	X	D	X	Р	Р	D		
Club Premises	X	X	X	A	Α	X		
Community Purpose	X	А	X	D	Α	Р		
Consulting Rooms	D	D	D	D	D	D		
Convenience Store	X	А	Χ	D	D	D		
Corrective Institution	X	Χ	Χ	X	Χ	Χ		

	Midland Strategic Regional Centre								
		cincts							
Land Use	Morrison Road West		Morrison Road East	Midland Oval	Midland West End	Midland Gate			
Edild Osc	Residential	Mixed Use Retail/ Commercial	Residential	Mixed Use Residential/ Commercial	Mixed Use Retail/ Commercial	Retail/Regional Shopping			
Educational Establishment	D	D	D	D	D	D			
Equestrian Facility	X	X	X	X	X	X			
Exhibition Centre	X	D	X	D	D	A			
Family Day Care	D	P	Р	D	D	D			
Fast Food Outlet	Χ	D	X	D	Р	Р			
Food and Beverage Production	X	X	X	X	X	A			
Fuel Depot	Χ	X	X	X	X	X			
Funeral Parlour	Χ	X	X	X	X	Χ			
Garden Centre	Χ	Χ	X	X	X	D			
Grouped Dwelling	Р	Χ	Р	X	X	X			
Home Business	D	D	D	D	D	D			
Home Occupation	A	Р	A	Р	Р	Р			
Home Office	D	Р	D	Р	Р	Р			
Home Store	Χ	A	X	D	A	A			
Hospital	Χ	X	X	X	X	X			
Hotel	A	X	Χ	D	D	A			
Industry - Cottage	Χ	X	X	Χ	X	Χ			
Industry - Extractive	Χ	X	Χ	Χ	Χ	Χ			
Industry - General	Χ	X	Χ	Χ	Χ	Χ			
Industry - Light	X	X	Χ	Χ	Χ	Χ			
Industry - Mining	X	X	Χ	Χ	Χ	Χ			
Industry – Noxious	X	Х	Χ	Χ	Χ	Χ			
Industry - Rural	Χ	Χ	Χ	Χ	Χ	Χ			

Midland Strategic Regional Centre							
Land Use	Precincts						
	Morrison Road West		Morrison Road East	Midland Oval	Midland West End Midland G		
	Residential	Mixed Use Retail/ Commercial	Residential	Mixed Use Residential/ Commercial	Mixed Use Retail/ Commercial	Retail/Regional Shopping	
Industry - Service	X	Χ	Χ	Χ	Χ	D	
Lunch Bar	X	D	Χ	D	D	Р	
Marine Filling Station	X	Χ	X	X	X	X	
Market	X [see note (a)]	X [see note (a)]	X [see note (a)]	X [see note (a)]	A [see note (a)]	D [see note (a)]	
Medical Centre	X	А	Χ	D	D	D	
Motel	X	Χ	X	X	D	X	
Motor Vehicle Repair	X	Χ	X	X	X	X	
Motor Vehicle Wash	X	D	Χ	D	D	D	
Motor Vehicle Repair	X	Χ	Χ	Χ	Χ	X	
Motor Vehicle, Boat or Caravan Sales	X	X	X	D	X	D	
Multiple Dwelling	P (note Clause 1.5.3.1)	P (note Clause 1.5.3.1)	P (note Clause 1.5.3.1)	P (note Clause 1.5.3.1)	P (note Clause 1.5.3.1)	A (note Clause 1.5.3.1)	
Night Club	X	Χ	Χ	A	Α	X	
Office - Professional	X	Р	X	Р	Ground Floor: D Upper Floors: P	Р	
Place of Assembly	Χ	А	Χ	D	D	Р	
Place of Worship	Χ	A	Χ	D	D	D	
Radio & TV Installation Private	Α	D	А	D	D	D	
Reception Centre	Χ	D	Χ	D	D	D	
Recreation - Private	A	D	Χ	D	D	D	
Recreation - Public	Χ	A	Χ	D	D	D	
Residential Building	A	A (note Clause 1.5.3.1 & Clause 1.5.3.2)	X (note Clause 1.5.3.1 & Clause 1.5.3.2)				

Note: a) Provided that 'Market' may be permitted on public land by the Local Government

Midland Strategic Regional Centre							
	Precincts						
Land Use	Morrison Road West		Morrison Road East	Midland Oval	Midland West End	Midland Gate	
	Residential	Mixed Use Retail/ Commercial	Residential	Mixed Use Residential/ Commercial	Mixed Use Retail/ Commercial	Retail/Regional Shopping	
Restaurant	A	D (note Clause 1.5.3.3)	X	P (note Clause 1.5.3.3)	P (note Clause 1.5.3.3)	P (note Clause 1.5.3.3)	
Restricted Premises	X	Χ	Χ	A	A	A	
Roadhouse	X	Χ	Χ	X	Χ	X	
Rural Pursuit	X	X	Χ	X	Χ	X	
Service Station	X	X	Χ	D	Χ	D	
Shop	X	D (note Clause 1.5.3.3)	X	P (note Clause 1.5.3.3)	P (note Clause 1.5.3.3)	Р	
Short Term Residential	D	D (note Clause 1.5.3.2)	D	A (note Clause 1.5.3.2)	A (note Clause 1.5.3.2)	A (note Clause 1.5.3.2)	
Showroom	Χ	Χ	Χ	А	Α	D	
Single Bedroom Dwelling	Χ	P (note Clause 1.5.3.2)	Р	P (note Clause 1.5.3.2)	P (note Clause 1.5.3.2)	P (note Clause 1.5.3.2)	
Single House	X	X	D	X	Χ	X	
Small Bar	X	Χ	X	D	D	D	
Storage	X	Χ	Χ	X	X	X	
Tavern	X	Χ	Χ	D	D	D	
Telecommunications Infrastructure	Х	X	X	A	A	А	
Tourist Facilities	X	X	X	D	D	D	
Trade Display	X	Χ	Χ	X	Χ	X	
Transport Depot	X	Χ	Χ	X	X	X	
Vehicle Wrecking	X	Χ	Χ	X	Χ	X	
Veterinary Centre	X	Χ	Χ	A	Χ	X	
Warehouse	X	Χ	Χ	X	Χ	Χ	
Winery	X	Χ	Χ	X	Χ	Χ	

- 1.5.1.3 The symbols used in the cross reference in **Table 2. Land Use Permissibility Table** have the following meanings:
 - **'P'** means that the use is permitted by the Structure Plan enacted by the Scheme providing the use complies with the relevant development standards and the requirements of the Structure Plan:
 - **'D'** means that the use is not permitted unless the local government has exercised its discretion by granting planning approval;
 - **'A'** means that the use is not permitted unless the local government has exercised its discretion by granting planning approval after giving special notice in accordance with Clause 9.4 of the Scheme: and
 - 'X' means a use that is not permitted.

1.5.2 Interpretation of the Land Use Permissibility Table

- 1.5.2.1 The Land Use Permissibility Table (Table 2. Land Use Permissibility Table) indicates, subject to the provisions of the Structure Plan, the permissibility of uses in the Structure Plan area in the various precincts. The permissibility of any uses is determined by cross-reference between the list of use classes on the left-hand side of the Land Use Permissibility Table and the list of precincts at the top of the Land Use Permissibility Table.
- 1.5.2.2 Where a specific use is mentioned in **Table 2. Land Use Permissibility Table**, it is deemed to be excluded from the general terms used to describe any other use.
- 1.5.2.3 Where a person proposes to carry out on land any use that is not specifically mentioned in the **Table 2. Land Use Permissibility Table** and cannot reasonably be determined as falling within the type, class or genus of activity of any other listed use class, the local government may:

- a) determine the use to be consistent with the general objectives
 of the Midland Strategic Regional Centre and/or the intent of
 the particular Precinct and thereafter follow the advertising
 procedures as set out by Clause 9.4 in the Scheme in considering
 an application for planning approval; or
- b) determine that the use is not consistent with the general objectives of the Midland Strategic Regional Centre and/or the intent of the particular Precinct and is therefore not permitted.

1.5.3 Ground Floor Land Use

- 1.5.3.1 Ground floor land use shall be non-residential at the street frontage for buildings along areas identified as:
 - a) Main Street Edge;
 - b) Semi-Active Edge; and
 - c) Service Edge

as defined by **Map 6. Active Edges**, unless otherwise approved by the local government.

- 1.5.3.2. Ground floor of development may contain residential uses within 'Commercial and Residential Front Door' street frontages as defined by Map 6. Active Edges.
- 1.5.3.3 Shops and Restaurants shall only be allowed in conjunction with commercial and/or residential uses within the 'Commercial and Residential Front Door' street frontages as defined by Map 6. Active Edges.





1.6 Residential Development

- 1.6.1 Residential density shall be in accordance with the allocated Western Australian Residential Design Codes R-Coding as indicated by the Map 5. Plot Ratio and Density
- 1.6.2 For residential development, the provisions of this Structure Plan and associated Local Planning Policy: Midland Activity Centre Design Guidelines shall prevail over the Residential Design Codes where they are in conflict.

1.7 Subdivision, Strata Subdivision, Survey Strata Subdivision and Development

1.7.1Subdivision, Strata Subdivision, Survey Strata Subdivision and Development

- 1.7.1.1 When considering an application for subdivision, strata subdivision, survey strata subdivision and/or a development regard shall be given to:
 - a) The intended function of the land and the activities carried out on it;
 - b) The intended character of the area;
 - c) The intended amenity of the area;
 - d) Built form implications of subdivision having regard to Midlands urban design framework;
 - e) The established scale and grain of development; and
 - f) Implications on vehicle access and servicing.

1.7.2 Notifications on Title

- 1.7.2.1 At subdivision and/or development approval stage of any development with a residential component, notifications may be placed on the title pursuant to section 70A of the Transfer of Land Act 1893, together with section 165 of the Planning and Development Act 2005 to inform prospective future residents of the likelihood of higher noise levels due to the mixed use nature of the locality.
- 1.7.2.2 Notwishstanding clause 1.7.2.1, land within the 20-25 ANEF as identified in SPP 5.1 (Land Use Planning in the vicinity of Perth Airport) may be subjected to aircraft noise at any time by the 24 hour a day, 7 day a week passenger and freight aircraft flight operations arriving and departing Perth Airport. The frequency of aircraft movements and the size of aircraft are forecast to increase indefinitely into the future. It is desirable for landowners to noise attenuate their property to ensure their amenity.



1.8 General Development Requirements

1.8.1 General Objectives of the Strategic Metropolitan Centre (inclusive of MRA land)

The following general development objectives pertain to all precincts forming part of the Structure Plan and should be read in conjunction with the objectives of the Development Standards outlined in Part 1 of MACSP.

- a) Provide attractive, pedestrian-oriented streets and public spaces that create an environment for positive community engagement and business exchange.
- b) Activation at ground level retail and hospitality uses in key streets.
- c) Enable buildings and public realm to engage with pedestrians and facilitate a comfortable and safe urban environment.
- d) Intensification of development near the new Midland Train Station to establish mixed use neighbourhoods and maximise access to and benefit of public transport.
- e) Redevelopment of land along the railway spine.
- f) Optimise residential development potential whilst maintaining the intended character of Midland's historic core.
- g) Minimise the impact of car parking on the pedestrian experience and quality of the public realm.
- h) Promote the use of sustainable modes of transport and a healthy way of living through active engagement with the urban environment.

The Precinct Specific requirements are contained within Clauses 1.8.2 and 1.9 respectively.

1.8.2 Midland Strategic Regional Centre Zone Objectives

The following zone objectives should be read in conjunction with the general development objectives of the Strategic Metropolitan Centre (Clause 1.8.1) and the precinct specific requirements contained in Clause 1.9 of the Structure Plan.

- a) To ensure development of the centre accords with the WA Planning Commission's Policy as it applies to activity centres.
- b) To facilitate the creation of employment within the centre so as to reduce the demand for travel, and enhance the level of self-sufficiency within the sub-region.
- c) To promote the development of a wide range of commercial facilities and services including major offices, retailing and a mix of entertainment, recreation and community facilities to meet the needs of the subregional community.
- d) To facilitate the complementary development of housing so as to enhance the vibrancy of the centre, improve the viability of businesses and provide a wider choice of accommodation within the district.
- e) To promote a high degree of accessibility to and within the centre, for users of all modes of transport (bus, rail, private car, cycle and pedestrian) and to avoid fragmentation of commercial development.
- f) To enhance pedestrian connectivity within the centre, so as to facilitate movement between sites and from public and private transport nodes.
- g) To encourage mixed uses and complementary development within the centre so as to enhance the viability of business and the efficient use of facilities and services.
- h) To ensure future development and re-development accords with activity centre design principles as referred to in State Planning Policy No. 4.2, providing an integrated, attractive, safe and vibrant focus for the community.
- i) To ensure car parking and access facilities do not disrupt the continuity of development or reduce pedestrian connectivity within the centre.
- j) To ensure development and re-development within the centre affords appropriate recognition of heritage values and the character of existing streetscapes, with reference to scale, form and design.

1.8.3 General Development Standards

The following Development Standards apply to all areas within the Structure Plan.

Activity

1.8.3.1 Street Interface

a) Active Edges

Development within the Structure Plan will establish a positive relationship to the street and public spaces, including the delivery of active edges at specific locations consistent with **Map 6. Active Edges** have the following characteristics:

- i) Areas of greatest activity and interest, and public placed to front onto public streets, priority pedestrian routes and public places;
- ii) Ground floor building articulation maximising the relationship with the street through extensive areas of windows frequent doors and limited blank walls;
- iii) Narrow frontage buildings providing opportunities for more frequent and mixed-uses;
- iv) Pedestrian awnings for weather protection; and
- v) Uses visible from the outside, or spilling onto the street.

b) Ground Floor Levels

- i) The finished floor level of the ground floor shall be at the same level of the adjacent footpath except where semi-basement parking is proposed. Where semi-basement parking is proposed the ground floor may be raised to a maximum 1.0 metre above the public footpath level to accommodate such parking.
- ii) Where the ground floor is elevated above finished footpath level to accommodate a semi-basement or where a basement is proposed, ramps that facilitate access to the building shall be accommodated within the building to reduce their visual impact and disruption to safe pedestrian movement.

1.8.3.2 Building Entrances

- **a)** A minimum of one entrance to a building shall be clearly visible and directly accessible from a street or pedestrian mall.
- **b)** Separate entrances shall be provided for residential and non-residential components of a mixed use development

1.8.3.3 Reserves

a) Development on land identified as a reserve on **Map 2. Structure Plan Zoning** and **Boundaries** shall be consistent with Part 3: Reserves of the relevant City of Swan Local Planning Scheme.

1.8.3.4 Noise Attenuation

a) Each Development Application over 500 square metres for non-residential development or for more than 10 dwellings and for all mixed use development shall require the preparation of a noise management plan to ensure that noise levels inside residences (including adjoining and nearby residences) will not exceed established limits as prescribed in the Environmental Protection (Noise) Regulations 1997.

This noise management plan shall be prepared by a suitably qualified consultant and shall include:

- i) Sound proofing measures used in the design and construction of the development;
- ii) Predictions of noise;
- iii) Control measures to be undertaken (including monitoring procedures); and
- iv) A complaint response procedure (for commercial activities within a mixed used building/or contained as part of a land use management plan).

All sound attenuation measures, identified by the noise management plan or as additionally required by the local government, shall be implemented prior to occupancy of the development or as otherwise required by the local government, and the requirements of the noise management plan shall be observed at all times.

- **b)** All mixed-use buildings that include a residential component must be designed to minimise structural noise transfer between ground floor commercial or retail uses and the residences above. In addition, where significant noise generators are anticipated as part of the project, double glazing of windows and sliding doors shall be considered to reduce noise impact on residents. Appropriate methods of construction are to be employed to limit the intrusion of airborne and impact noise into dwellings from adjacent dwellings and public areas to within the limits set out in the Building Code of Australia.
- c) Residential or mixed use development containing a residential use within the 20 and above Perth Airport ANEF contour should be accompanied by an acoustic report prepared by a suitably qualified consultant, demonstrating compliance with AS2021-2000 Indoor Design Sound Levels for determination of aircraft noise reduction.



Movement

1.8.3.5 New Street Connections

- a) New public roads shall be provided in the areas identified on Map 1. Midland Activity Centre Structure Plan
- **b)** Where a public road, Pedestrian Access Way or Right of Way is provided as part of development, in accordance with Clause 1.8.3.5 (a) the local government may grant a development bonus in accordance with Clause 1.8.3.9.

1.8.3.6 Vehicle Parking and Access

- **a)** Multi-storey car parks shall be sleeved by appropriate land uses/ development or well-designed screening systems that may include public art, such that the car parking area is not directly visible from the primary street/s or other public spaces.
- **b)** Basement parking is encouraged. Semi-basement parking may be supported where it is deemed by the local government to be part of the base of the building and does not protrude more than 1 metres above natural ground level.
- **c)** At-grade parking areas shall include a minimum 2 metre wide natural landscaping strip along all street boundaries and shall be visually attractive from the street and other public spaces.
- **d)** Car parking bays shall be provided <u>on-site</u> in accordance with the rates specified in **Table 3**. **Car Parking Standards**, provided that any parking shortfall shall be provided as cash in lieu.
- **e)** Where a land use is not identified in **Table 3**. **Car Parking Standards**, car parking rates shall be determined by the local government and based on a site specific parking management plan prepared by a qualified transport engineer.
- **f)** Car Parking rates as specified in **Table 3**. **Car Parking Standards** may be reduced at the discretion of the local government where reduced car parking demand is justified through speciific public transport access or other alternative parking measures in a site specific parking management plan, prepared by a suitably qualified professional.

Table 3. Car Parking Standards

Land Use	Minimum Car Parking Rates
Residential: Aged and Dependant Persons Dwelling, Single Dwelling Grouped Dwelling, Multiple Dwelling, Residential Building, Single Bedroom Dwelling, Short Term Residential	As per the R-Codes
Civic Use and Community Purpose	To be determined by the local government based on site specific parking management plan
Education: Educational Establishment, School, University, Family Day Care, Child Care Premises	To be determined by the local government based on site specific parking management plan
Health: Medical Centre, Consulting Room, Hospital	To be determined by the local government based on site specific parking management plan
Office	2.5 bays per 100sqm gross letable area
Restaurant, Reception Centre	4 bays per 100sqm gross letable area
Serviced Apartment, Bed and Breakfast, Hotel, Motel	1 bay per accomodation unit
Fast Food, Lunch Bar	1 bays per 10sqm gross letable area plus 1 bay for 6 seats
Entertainment: Amusement Parlour, Betting Agency, Cinema/Theatre, Club Premises, Night Club, Restricted Premises, Recreation - Private and Public, Small Bar, Tavern	To be determined by the local government based on site specific parking management plan
Exhibition Centre, Markets, Place of Worship, Place of Assembly,	To be determined by the local government based on site specific parking management plan
Shop	5 bays per 100sqm gross letable area Where a Shop or combination of Shops in a building exceeds 10,000m2 Gross Leasable Area (GLA) parking is to be determined by the local government based on a site specific parking management plan
Showroom	2 bays per 100sqm gross letable area
Convenience Store, Home Store	5 bays per 100sqm gross letable area
Other uses listed in the Scheme	As per the Parking Policy associated with the Scheme
Other uses not listed in the Scheme	To be determined by the local government based on site specific parking management plan

Notes: See Clause 1.8.3 (d) and (f)

See Clause 2.7.5.4 for Change of Use concessions.

1.8.3.7 Bicycle parking

- a) Employee/long-term bicycle parking facilites shall include a lockable, sheltered enclosure where the cyclist is able to store a bicycle throughout the day.
- **b)** Visitor/short-term bicycle parking shall include bicycle rails or racks to which bicycle frames or wheels can be locked.
- **c)** Where a significant component of non-residential development is proposed, bicycle parking for visitors shall be provided close to the main public entrance at ground level. Design shall incorporate a good level of natural lighting and passive surveillance opportunities.
- **d)** Development shall be provided with end of trip facilities in accordance with the following minimum standards.

Table 4. End of Trip Facilities

Building Type and Land Use	Number and type of Bicycles Parking Facilities
Commercial buildings less than 500 square metres in floor area	Minimum 2 spaces
Commercial buildings more than 500 square metres in floor area	 Secure bicycles storage for 10% of building staff (based on 1 person per 15m2 of Net Lettable Floor Area
	Accessible Showers shall be provided at the following rate:
	 A minimum of two female and two male showers, located in separate changing rooms, for the first 10 bicycle parking bays.
	 Where less than 10 bicycle parking bays are required, 1 unisex shower and change room shall be provided.
	 Additional shower facilities shall be provided at a rate of one male and one female shower for every 10 bicycle bays in addition to the first 10 provided.
	Provision of Secure Lockers: Secure Lockers at a rate of 1 for each bicycle parking bay shall be provided.
	Visitor Bicycle Storage: A minimum of 1 bay per 750m2 of Net Lettable Floor Area. Bays shall be located and appropriately signed near the main public entrance to the building
Residential	Bicycle parking facilities for multiple dwellings, short stay accommodation and serviced apartments shall be provided at a minimum of 1 bay for every three units



Urban Form

1.8.3.8 Plot Ratio

a) The plot ratio of development is to comply with the plot ratios specified in Table 5. Development Standards and indicated on the Plot Ratio and Density Plan, unless the development is able to achieve a plot ratio bonus as outlined in Clause 1.8.3.9 of this Structure Plan.

1.8.3.9 Development Bonuses

- a) A development bonus in the form of additional height (storeys) may be approved by the local government where a site is identified as a landmark site on Map
- 4. Building Height provided that in granting additional height the local government may approve plot ratio above the maximum plot ratio identified in Table 5. Development Standards.
- **b)** The local government may agree to amending the Structure Plan to provide additional landmark sites where

- ii) enables high quality design outcomes; and
- iii) contributes to the intended character and amenity of the Precinct.
- c) Notwithstanding Clause 1.8.3.9(a) and Clause 1.8.3.9(b) a development bonus in the form of additional height and/or plot ratio may be granted where, in the opinion of the local government, one or more of the following criteria are met:
 - i) Residential development designed in accordance with Universal Design standards; or
 - ii) A new road/widening or pedestrian access way is provided through the site where it has been identified as desirable by the Structure Plan; or
 - iii) A publicly accessible plaza or publicly accessible open space is provided.

1.8.3.10 Bulk and Scale

a) Architectural design shall ensure variation in building plane, as well as materials, colours and textures to reduce

- c) Any street façade of development shall be designed to promote surveillance of the street through good visual connection between public and private spaces and shall include windows, doors and balconies at upper levels.
- **d)** Where facades are abutting, the abutting walls are not required to be detailed if they are constructed simultaneously. An appropriate interim treatment to the satisfaction of the local government shall be required when construction does not occur simultaneously.

1.8.3.11 Building Height

- a) Building heights shall be consistent with Table 5. **Development Standards**
- **b)** Where land has been identified as a landmark site on the Map 4. Building Height, the maximum building height may be increased consistent with allowances provided for in Table 5. Development Standards.
- c) Notwithstanding Clause 1.8.3.11(b) developments exceeding the prescribed building heights shall be referred to Perth Airport with accurate heights and





1.8.3.12 Lift Over-runs and Rooftop Plant Rooms

- **a)** Lifts over-runs and rooftop plant rooms shall be designed to not significantly increase the bulk of the building.
- **b)** All building plant and service equipment shall be screened from public view from the street and areas of open space.

1.8.3.13 Buildings built up to side boundaries

a) Buildings are permitted to the built up to a side boundary where nil side setbacks are described in **Table 5**. **Development Standards**.

1. 8.3.14 Material and finishes

- **a)** Architectural design shall ensure variation in building plane, as well as materials, colours and textures to reduce the overall bulk and scale of any development.
- **b)** All external finishes of a building shall be constructed of high quality materials, including but not limited to masonry, timber or glass.
- c) External walls shall be provided with an articulated or detailed finish.
- **d)** Extensive blank walls, facades and featureless glazing which are visible from any part of a street or public space shall not be permitted.
- **e)** A window in an external wall of a building which faces north, east or west shall be protected from direct summer sun.

1.8.3.15 Local Development Plans (formerly Detailed Area Plans)

- **f)** Where the local government considers it desirable to enhance, elaborate or expand the details or provisions contained on Map 7. Sites Requiring Local Development Plans in the Structure Plan for a particular lot or lots, and/or where shown on , a Local Development Plan pursuant to Clause 5A1.1.15 of the Scheme, may be prepared by the local government or shall be required to be prepared by an owner of the land in accordance with Clause 5A1.15.2 of the Scheme.
- **g)** A Local Development Plan for the land within the Morrison Road West precinct as identified on **Map 7. Sites Requiring Local Development Plans** will focus on restricting access to Morrison road through application of amalgamation of lots.

1.8.3.16 Building Service Areas

- **a)** A Storage area for refuse and recyclable material must be provided on site and the area must not be visible from any street.
- **b)**Facilities and manoeuvring areas for the loading and off-loading of service and delivery vehicles shall be provided on site, unless the local government has exercised its discretion and allowed alternative arrangements that vary this provision.

1.8.3.17 Landscaping

- **a)** Uncovered car parking at ground level shall be provided with one shade tree per four car parking bays.
- **b)** Rooftop gardens and green walls with natural landscaping are strongly encouraged.



Resources

1.8.3.18 Stormwater Management

- **a)** Post-development, the first 16mm of rainfall shall be detained on-site where possible.
- **b)** All runoff from the 1 year ARI storm (16mm) event shall be retained onsite for all new development.
- **c)** Piped drainage networks for minor flows to be designed to cater for 10 year ARI event, and designed in accordance with the current industry standards.
- **d)** The post-development flow shall not exceed the pre-development flow in the 100 year ARI event and shall be designed in accordance with the current industry standards and City of Swan Engineering requirements
- **e)** Road reserves and public open space to be designed to cater for flow and storage of storm events up to the 100 year ARI event.
- **f)** Provision of freeboard shall be made to habitable floor levels of at least 300mm above flowing water and 500mm above standing water in the 100 year ARI flood event.
- **g)** 100 year flood paths going through or stored in private property to be provided with a Drainage Easement vested in the City of Swan.
- **h)** Should off-site stormwater disposal be considered then modelling/ Urban Water Management Plan, completed by appropriately qualified engineer shall be provided for approval by the Department of Water and City of Swan, to justify the proposal.
- **i)** Should dewatering be required for the placement of footings or onsite storage tanks, a Dewatering Management Plan shall be prepared addressing both environmental aspects and physical activities for submission to the Department of Water, Department of Parks and Wildlife and City of Swan.

1.8.3.19 Groundwater Management

- **a)** Development shall provide adequate separation of new buildings from groundwater levels of 1.2 metres (based on City of Swan existing engineer requirements) or as specified and agreed by relevant approving authorities for the proposed development.
- **b)** Groundwater level management is required where the maximum groundwater level is within 2 metres of the current surface level.
- **c)** Where groundwater level management is required, developers shall liaise with Swan River Trust to manage runoff and meet the appropriate design and performance criteria for the Swan and Helena Rivers.
- **d)** Where clean fill is imported onto a site to maintain adequate clearance to groundwater, the fill shall contain a band of material that will reduce phosphorous export via soil leaching, whilst also meeting soil permeability and soil compaction criteria specified by the City of Swan. If controlled groundwater level is proposed for a development it shall be designed to ensure:
 - i) Water dependent ecosystems are protected;
 - ii) Free draining outlets; and
 - iii) Adequate separation between the development surface and groundwater.

1.9 Structure Plan Precincts

1.9.1 Precinct Intent

This structure plan is divided into several precincts as shown on Map 3. Precincts. The intent of each precinct is refined below and further detailed through the development standards contained within the Table 5. Development Standards. These development standards are in addition to those provisions listed within the General Development Requirements (Clause 1.8).

1. 9.1.1 Midland West End

The Midland West End is the focus for retail (outside of Midland Gate), restaurant and entertainment functions within a pedestrian oriented main street environment. It will contain a diverse mix of uses, including residential and office functions and provide public spaces for community activities. The area will transition from an intense retail/restaurant main street environment to a more office and commercial oriented area north of The Crescent.

Buildings will be built to the boundary, address the streets and public spaces and support active ground floor uses. Building heights will be three to five storeys to the street interface, with potential for an additional level, setback from the street boundary. Within the historic core area, along Helena Street and Old Great Northern Highway, development will complement the historic grain and character of the existing buildings, being generally two levels at the street boundary – higher development will be set back from the street to ensure a clear separation of building forms. This will promote a comfortable, pedestrian scaled street environment, promoting activity and the desired intensity of development.

New north – south local streets (within the MRA area) will be created to improve connectivity and circulation through the precinct, including the extension of Keane Street to Railway Parade. These streets are to be located to create permeability through the long street blocks and coincide with gaps in the built fabric. Land will need to be resumed from private landowners to create these north-south connectors.

1. 9.1.2 Midland Oval (Detail design of precinct is subject to approved Midland Oval Masterplan)

The Midland Oval precinct offers one of the greatest opportunities in the activity centre to establish a more intense residential presence whilst also

bolstering the commercial office offer. Over two thirds of the precinct is owned by the City and zoned to allow for mixed use development. An urban green is proposed within the precinct to provide amenity for future residents and workers. Midland Oval will aid in the revitalisation of the city centre and become an iconic destination point for Midland residents and visitors.

Taller development up to twelve storeys will be accommodated across the precinct, containing a mix of office, civic, entertainment, residential, retail and restaurant land uses.

New link roads will connect to the existing street pattern of Midland and allow vehicular, cycle and pedestrian access into Midland. The broader precinct will be mixed use in nature, reflecting the extension of surrounding retail, office and residential areas. Service lanes will be provided throughout the precinct, enabling crossovers to be minimised along the street front. This will improve accessibility options to development lots as well as enhancing pedestrian amenity. To provide a shared approach to car parking, a site has been identified for a long-term commuter car park on Morrison Road and 'sleeved' with development. The peripheral location is suitable for long-term car parking, given its location on a distributor road and being away from the pedestrian core.

1. 9.1.4 Morrison Road West

Morrison Road West is an important future high density housing precinct, providing a mix of housing opportunities close to Midland's core. The precinct is to be supported by the retention of the existing defunct Governor Stirling School site. Given the projected increase in population, it is important to retain sites that can contribute to Midland's community infrastructure. Future design of the primary school site must consider how its open spaces can contribute to the overall amenity of the Morrison Road West Precinct – particularly having regard to sharing oval space with the community. The existing green space on the primary school site provides amenity for the Morrison Road West precinct and it is desirable that this is retained and public accessibility provided to support increased densities.

Buildings throughout the precinct will be generally up to six levels in height. Site consolidation will be promoted to provide for the intended building form and potential for basement car parking.





There are two sites nominated for taller development, up to eight storeys in height. These taller buildings relate to an important connection between the city centre and Swan River Regional Park, proposed as a well treed street, contributing to shared open space. These two neighbourhood elements will act as points of amenity to promote a greater intensity of development.

In order to provide a direct connection to the Swan River Regional Park, land will have to be resumed. A single lot is noted for this purpose at the end of Poynton Avenue. This will provide pedestrian and vehicle access to the regional playground facility and the Swan River foreshore. A new link is also proposed between Spring Park Road and Old Great Northern Highway to improve connectivity.

Buildings will be set back from the street to provide a landscaped setting. Side boundary walls will be permitted to a height of five storeys (to both boundaries). Car parking will generally be to the rear of buildings and screened from public view. Car parking may also be accommodated in basements, semi basements and decked parking structures integrated into the building design.

There are a number of existing single dwellings that contribute character to the precinct and help to tell Midland's development story. These buildings are grouped along Byers Road, with some also on Spring Park Road. This Structure Plan promotes the retention of these dwellings, whilst allowing development potential to the rear. To reflect an appropriate development form cognisant of the domestic character of these buildings, a setback to taller development is proposed along Byers Road, whereby development of two storeys is appropriate to the street frontage and taller development is set back by at least 10 metres.

Morrison Road west of Keane Street will be widened up to 7 metres, allowing for a 30 metre road reserve. Some land has already been resumed as part of site redevelopment. A 30 metre road reserve will allow Morrison Road to function as an 'Integrator B – outside centres' road as nominated by Liveable Neighbourhoods. Importantly, Morrison Road is to be planted as a boulevard to improve the approach to Midland and enhance the character of this road. Access to lots from Morrison Road shall be restricted and minimised through the promotion of amalgamation of lots.

Burgess Street is proposed to be extended to connect onto William Street. The existing 10 metre road reserve returned to William Street to provide development frontage and a more legible road pattern. This new road will be required as part of additional detailed area planning as identified in the implementation chapter of this report.

1. 9.1.5 Morrison Road East

Morrison Road East is a residential precinct at the north eastern corner of the Activity Centre. The precinct is largely developed, containing a mix of single and grouped dwellings between one and two storeys in height. There is little development potential to be gained from this precinct given the relatively recent construction of buildings and the strata ownership pattern.

Improvements to the public realm should be made within the precinct to ensure an attractive and safe pedestrian environment. In particular, the existing street tree planting needs to be improved to ensure regular planting and consistent shade cover. Any new development should present an attractive and complementary built form to the street, consistent with the provisions of this Structure Plan and the State Planning Policy 3.1: Residential Design Codes.

1. 9.1.6 Midland Gate

The Midland Gate Shopping Centre will continue to provide the bulk of interior focused retail space, including supermarkets, speciality stores and discount department stores. Approval for expansion to 75,000 square metres has been granted by the City of Swan and Western Australian Planning Commission. There is potential in the future to allow development of a full range department store, completing the spectrum of retail offer within Midland.

The Midland Gate Shopping Centre also contains restaurants and a limited amount of business services activity, such as banks, insurance and health services shop fronts. Future development of the Midland Gate Shopping Centre must ensure that the street environment is protected as a pedestrian friendly and safe environment. Built form should address the surrounding streets through active shop fronts, pedestrian scale and facade articulation, with the exception of Lloyd Street, which will be a busy traffic thoroughfare. Along the Lloyd Street interface, landscape planting should complement its intended character as a well treed boulevard.

A Western Power electricity Zone Substation is located at the intersection of The Crescent and Lloyd Street. This large piece of infrastructure is important for Midland and the surrounding region, however it presents a poor interface along these key traffic routes. Improved landscape screening should be sought around the switch yard to create a more visually attractive barrier.

1.9.2 Precinct Specific Development Requirements

Development within each of the precincts shall be developed according to **Table 5**. **Development Standards** and the associated provisions in this part.

Table 5. Development Standards

	Morrison Road West		Morrison Road East	Midland Oval	Midland West End	Midland Gate
Sub-Precinct	Mixed Use	Residential				
R-Code	R-AC0		R100	R-ACO	R-ACO	R-ACO
Maximum Plot Ratio	1.25:1(d)	1.25:1(d)	1.25:1	3:1	1.5:1	No maximum plot ratio
Minimum Plot Ratio	0.6:1	0.6:1	No minimum	1:1	0.6:1	No minimum
Minimum Wall Height (at street interface)	Two storeys and 6 metres	Two storeys and 6 metres	Two Storeys and 6 metres	Three storeys and 10 metres	Two storeys and 6.5 metres (e)	6.5 metres (f)
Maximum Building Height	As per Map 4. Building Height (a) (b) (c) (h)	As per Map 4. Building Height except where landmark sites are noted, and except along Byers Road (a) (b) (c) (h) (g)	As per Map 4. Building Height (a) (b) (c) (h)	As per Map 4. Building Height (a) (b) (c) (h)	As per Map 4. Building Height (a) (b) (c) (h) (i)	As per Map 4. Building Height (a) (b) (c) (h)
Maximum Boundary Wall Height	Three storeys and 9.5 metres	Three storeys and 9.5 metres	As per the Residential Design Codes	Four storeys and 13.1m	Two storeys and 6.5m	Five storeys and 17.5m
Maximum Boundary Wall Length	Two thirds the length of the boundary	Two thirds the length of the boundary	As per the Residential Design Codes	No limit	No limit	No limit
Street Setback (minimum)	Refer to Table 6	Refer to Table 6	As per the Residential Design Codes	Nil setback up to four storeys, then a 4m setback to upper floors	Nil setback up to five storeys, then a 4m setback to upper floors	Nil setback up to four storeys, then a 4m setback to upper floors
Side Setback (minimum)	Refer to Table 6	Refer to Table 6	As per the Residential Design Codes	Nil setback up to four storeys, then a 3m setback to upper floors	Nil for first two storeys and 3 metres for upper floors	Nil
Rear Setback (minimum)	Refer to Table 6	Refer to Table 6	As per the Residential Design Codes	Nil setback up to four storeys, then a 3m setback to upper floors	Nil for first two storeys and 3 metres for upper floors	Nil

Table 6. Morrison Road West Precinct Building Setbacks Standards (see note j)

	Byers Road	Morrison Road	Landmark Sites	Rest of Precinct
Street Setback (minimum)	4m (for 3rd storey and above a further 4m setback from the building face)	4m setback from the road widening alignment	4m (8m for above 5th storey)	4m
Side Setback (minimum)	Nil (except where adjoining character building (refer to Figure 1. below) - nil setback up to 1st storey, 1m setback up to 2nd storey, 3m from 3rd floor and above)	Nil setback	Nil (8m for above 5th storey)	Nil setback
Rear Setback (minimum)	4m	4m setback	4m (8m for above 5th storey)	4m



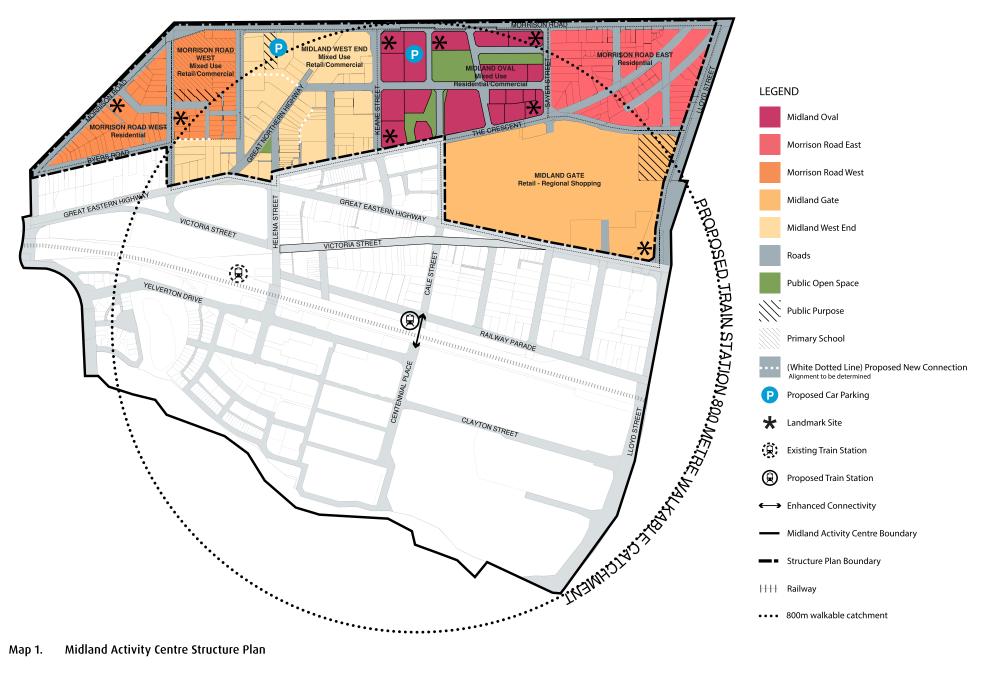
Figure 1. Byers Road Character Buildings

Note:

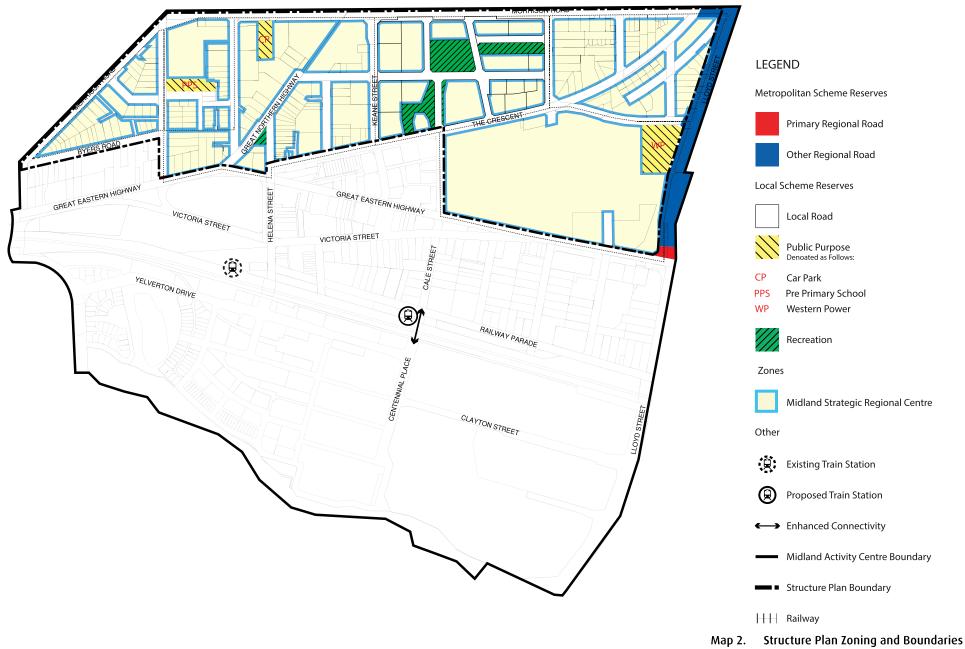
- a) Lifts over-runs and rooftop plant rooms are excluded from the maximum height provisions, but must not extend more than 3.5 metres above the stated maximum height.
- b) Architectural features may extend above the maximum height subject to approval by the local government.
- c) Minor projections as defined by the Residential Design Codes are excluded from the maximum height calculation.
- d) Development in Morrison Road West can achieve a plot ratio of 1.25:1 only where multiple dwellings are proposed to at least the prescribed minimum height.
- e) Within the historic core on Old Great Northern Highway and Helena Street, the minimum wall height fronting the street is established by the parapet height of the existing buildings and subject to design guidelines or local planning policy controls.
- f) Minimum wall height controls apply to Cale Street, Great Eastern Highway and Morrison Road and not to Lloyd Street.
- g) Morrison Road West maximum height is six storeys except for the identified landmark sites where eight storeys is permitted and except for Byers Road where only two storeys is permitted for the first 10m.
- Building Heights may be increased at the discretion of the Local Government.
- i) Within the historic core area, along Helena Street and Old Great Northern Highway, development shall complement the historic grain and character of the existing buildings, being generally two storeys at the street boundary. Additional storeys shall be setback from the street boundary to ensure a clear separation of building form.
- j) Setbacks in the Byers Road and Morrison Road columns in Table 6 apply to lots fronting the respective road. Setbacks in the Landmark Sites column in Table 6 applies to lots indentified as landmark sites (refer to Map 1). Setbacks for all other lots are applicable to the Rest of Precinct column in Table 6.

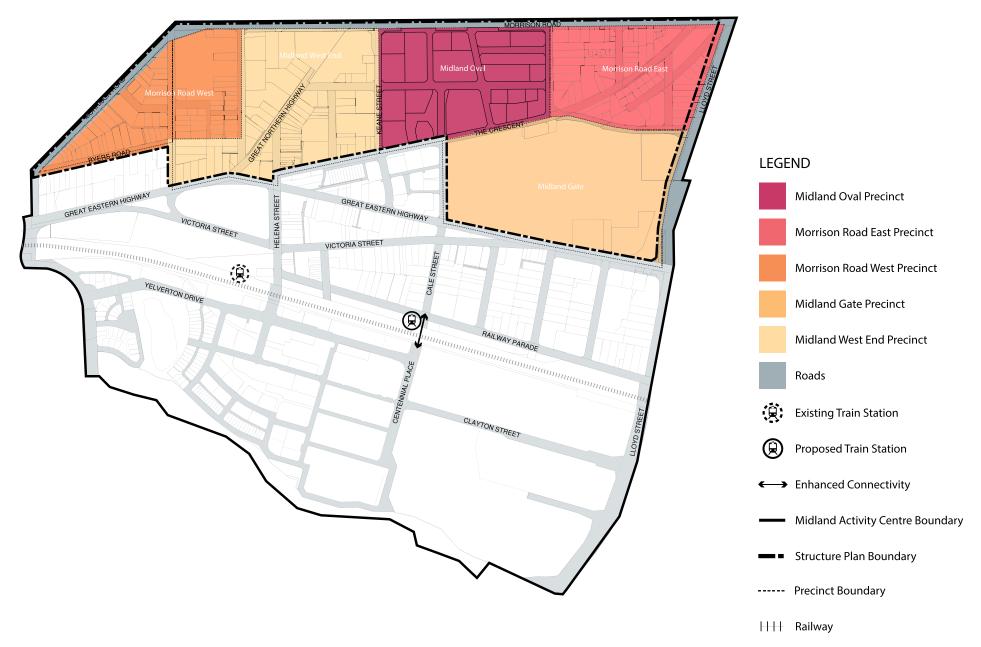
Structure Plan Maps



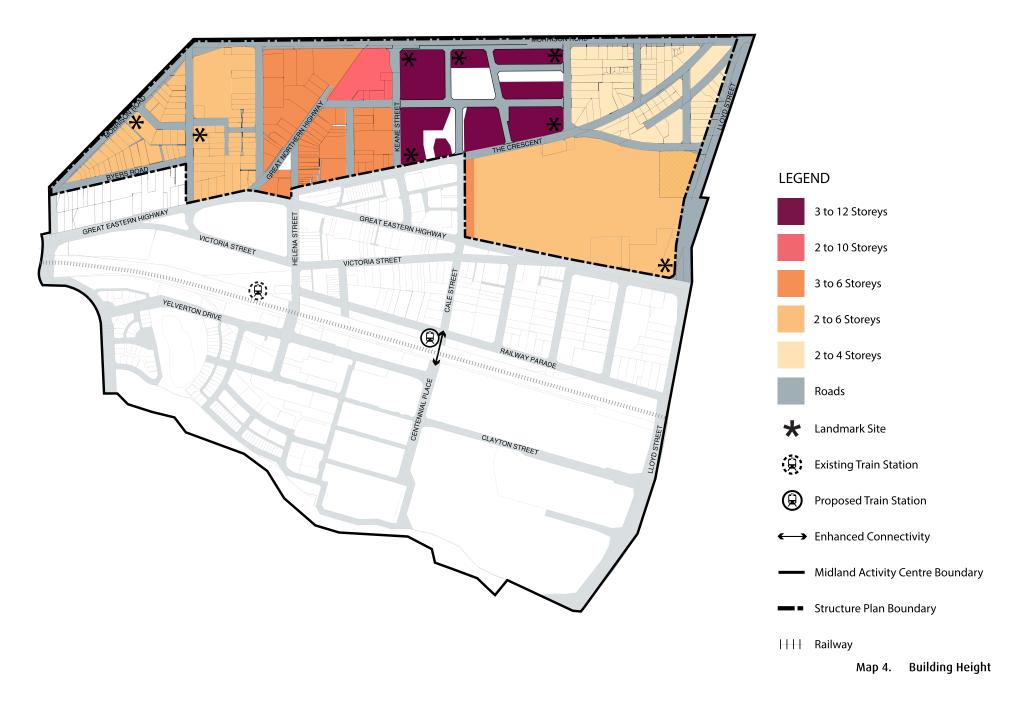


Midland Activity Centre Structure Plan Map 1.

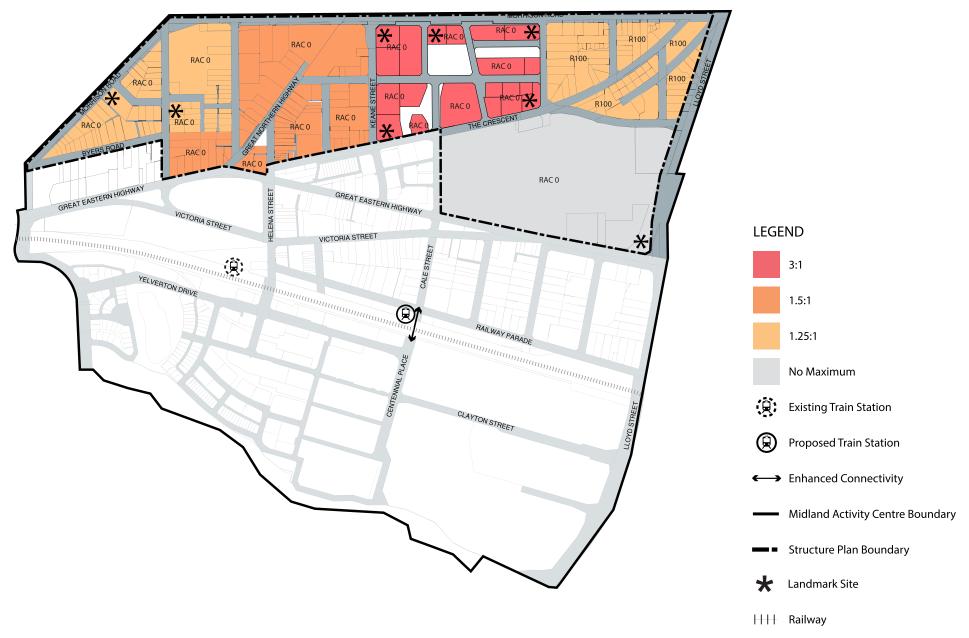




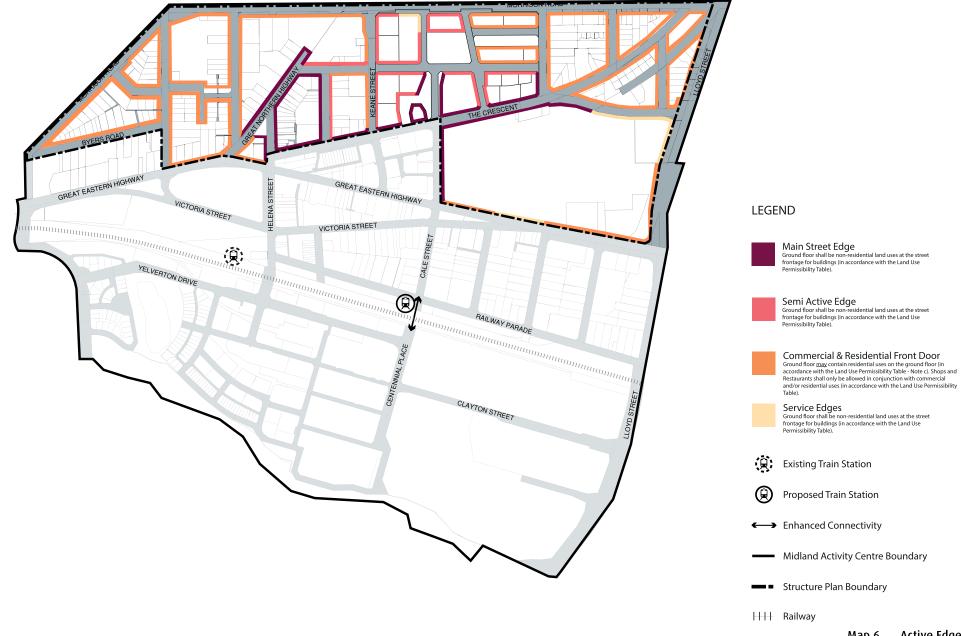
Map 3. Precincts



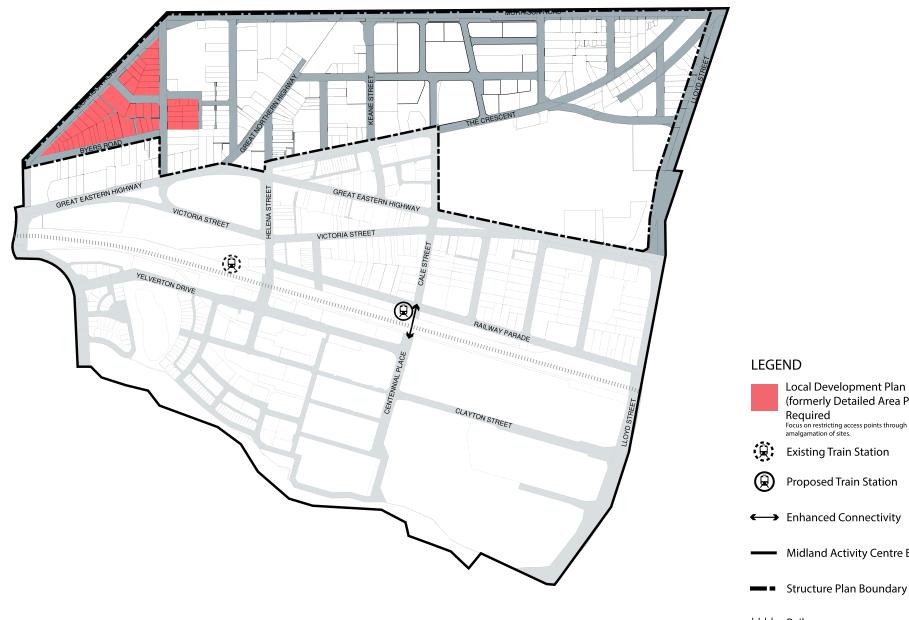
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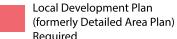
Map 5. Plot Ratio and Density



Map 6. Active Edges



Map 7. Sites Requiring Local Development Plans







← Enhanced Connectivity

Midland Activity Centre Boundary

■■ Structure Plan Boundary

├├├ Railway



2.1 Introduction

2.1.1 The Drivers of Change

Midland as a Strategic Metropolitan Centre is a CBD undergoing significant revitalisation and change. In 2007, an Enquiry by Design was jointly held by the City of Swan and the Midland Redevelopment Authority (now the Metropolitan Redevelopment Authority), in consultation with relevant government agencies and the community that resulted in a strong vision for Midland's revitalisation and key outcomes required in order to realise this vision.

The purpose of this Structure Plan is to utilise previous work undertaken in developing the vision for Midland, and provide a mechanism for its implementation through the statutory planning environment, in order to provide clear objectives for landowners and investors regarding the City's future intentions for the Centre. The Structure Plan establishes a long-term strategic vision for the Centre's complete redevelopment.

Since the establishment of the Midland Redevelopment Authority (now the Metropolitan Redevelopment Authority), urban regeneration has occurred as evidenced by key projects such as Juniper Gardens and the Workshops redevelopment. With the establishment of the Midland Health Campus, a new fillip for growth and development is about to occur. The new hospital will provide extended services for the regional area and highlights the importance of health as a key land use and employment generator for Midland.

Complementing this significant investment in Midland by the State Government is the State's policy objectives as established by Directions 2031 and Beyond (Directions 2031)and State Planning Policy 4.2 Activity Centres for Perth and Peel (SPP4.2). In particular, strategic metropolitan centres are required to provide an enhanced level of employment activity, along with intensified residential densities, thereby supporting public transport investment, improving access to jobs and services and allowing for intensified activity within centres.

The new health campus will drive a significant change in the movement and activity patterns throughout Midland. It is a critical item of infrastructure that will drive Midland's regeneration in the future. Traditionally an east – west aligned centre, with major separation caused by the passenger and freight rail lines, the new health campus will create a north – south movement pattern along Cale Street, connecting activity to the Midland Gate Shopping Centre and Juniper Gardens civic node. Additionally, a new train station location at Cale Street (replacing the current station) will strengthen this north – south alignment. The new station will enable greater access to Midland and its services, being central to the Activity Centre and within walking distance of important employment, cultural and retail nodes.

To help achieve State objectives, and those of the community evidenced in Midland 2017 Enquiry by Design, a lift in development potential to support Midland's new structural elements is able to be achieved near to the new Cale Street train station and between Victoria Street and Railway Parade. This area of land is best able to provide for the intended mixed use residential and employment floor space to drive Midland's future prosperity.

The vision statement for Midland's Activity Centre as a Strategic Metropolitan Centre is:

Midland has the opportunity and the ability to become a thriving city in its own right, serving Perth's eastern region, Perth Hills, the Avon Arc and beyond. Midland can deliver an attractive, affordable, productive and sustainable city living environment beside the rivers in the eastern corridor.

2.1.2 The Structure Plan and its Relationship to the broader Midland Activity Centre

The Midland Activity Centre Structure Plan forms part of the greater Midland Activity Centre. The broader Midland Activity Centre is governed by the City of Swan and the MRA and is bound by:

- Lloyd Street to the East;
- Helena River to the South
- Amherst Road and Morrison Road to the West
- Morrison Road to the North

Working in partnership with the MRA, the City of Swan prepared the Midland Activity Centre Master Plan as the strategic document to guide coordinated development in this area. The Master Plan forms the basis of this Structure Plan and the MRAs Midland Master Plan (Draft). In working together the two entities have been able to establish a consistent vision for Midland and coordinate development.

In considering these explanatory guidelines, it is important to acknowledge that this Structure Plan area does not operate as a single entity, but rather that it forms part of the greater Midland Activity Centre area. This explanatory guide therefore discusses the Activity Centre as a whole.

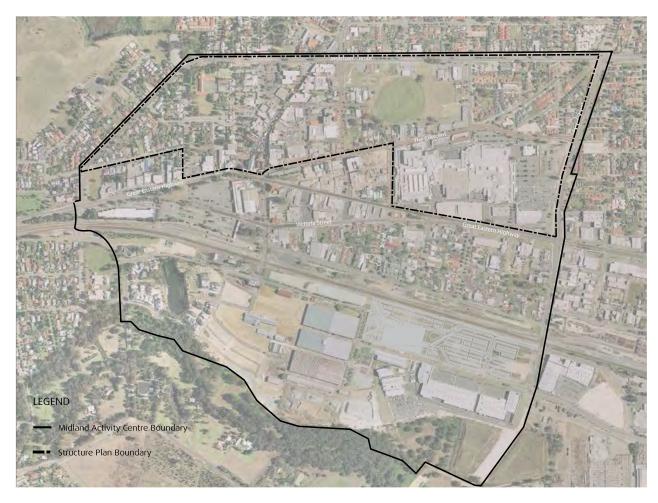


Figure 2. Midland Activity Centre Structure Plan relationship to Midland Activity Centre



Figure 3. The structural model for Midland



2.1.3 The Structure

The Midland Activity Centre Master Plan, prepared in accordance with the framework provided in State Planning Policy 4.2 Activity Centres for Perth and Peel was aimed at achieving this vision and established a planning framework for implementation of the recommendations. The Master Plan was advertised for public comment during April and May 2013 and adopted by Council on 18 December 2013.

Importantly, it should be noted that the boundaries of the Midland Activity Centre as Strategic Metropolitan Centre go beyond the Municipal Boundary of The City of Swan and include land in the jurisdiction of the Metropolitan Development Authority (MRA). The Master Plan therefore provides guidance to both the City and MRA at a strategic level and plays an important role in the coordination of development of an area under different jurisdictions.

However, in accordance with current WAPC policy in interpretation of the provisions of State Planning Policy 4.2 (SPP 4.2) Activity Centres for Perth and Peel, an Activity Centre Structure Plan is required for the part of the Activity Centre within the Swan Municipal area (noting that the MRA jurisdiction is subject to its own legislative controls – which does not require a structure plan for that area). The Structure Plan addresses the elements of centre context, activity, movement, urban form, resource conservation and implementation, under the provisions of State Planning Policy 4.2 (SPP 4.2).

The City utilised this format to prepare the Master Plan and Midland Design Guidelines which have formed the basis of this Activity Centre Structure Plan which will be supplemented by the Midland Design Guidelines (to be adopted as Local Planning Policy) upon adoption of the Structure Plan by the WAPC.

The Activity Centre Structure Plan provides the basis for LPS17 amendments to establish an appropriate zoning for the Midland Activity Centre, in a manner that is consistent with the Metropolitan Region Scheme and activity centre hierarchy, as set out in SPP 4.2. The Structure Plan also presents an opportunity to establish the framework for implementation of the Midland Oval Master Plan.

The Midland Activity Centre Master Plan is intended to provide advocacy and guidance for the Midland Centre. To facilitate growth and acknowledge the investment decisions of the public and private sectors, the Activity Centre Master Plan for Midland is based on a new structural model. The model identifies existing and new nodes of intensity (be they civic, employment or retail), seeks to link them through logical movement lines and provides for new development opportunities in areas that can accommodate change.

For the new Midland, Cale Street will become the most important movement corridor, linking the Midland Health Campus, the potential university, the new Cale Street train station, Midland Gate and other peripheral uses. Enhanced connectivity of this north – south corridor is vital.

The structural model conceptually identifies other points of amenity and focus throughout Midland – redevelopment opportunities at Midland Oval, the traditional centre at Old Great Northern Highway, and the emerging cultural centre in the Workshops precinct. The Avenue and Clayton Street extension through the workshops provide important east – west connections, whilst Helena Street provides an alternative north – south connection. The points of amenity at these nodes will be enhanced by appropriately scaled development opportunities as well as an emphasis on quality public realm.

2.1.4 Implementation: Explaining why density targets are a long-term outcome

Midland is required to achieve minimum residential densities across the activity centre area of 30 dwellings per hectare; 45 dwellings per hectare is desired. This equates to approximately 7,000 dwellings across the centre area, meaning a residential population of around 8,800 to 11,900 people. However, as Midland is an established centre and it competes against other parts of the metro area for residents, employment and status, the likelihood of achieving the density targets in the short to medium-term is small.

Estimates of land use mix and new residential dwellings across the activity centre have been undertaken for this project. There is potential to accommodate the 7,000 dwellings in the Master Plan area, however this is not a target, but an estimated projection only at full build out and assuming that proportion of residential development.

To achieve the density targets, there needs to be significant public investment, not only in the public realm, but also in generating substantially more employment in Midland, and subsidising the development of desirable housing products. The strategy to achieve the minimum densities over time should be to work with the location benefits, the strategic employment locations and the natural movement patterns between identified nodes. For this reason, the areas to concentrate on relate primarily to those areas between Midland Oval, the Midland Gate Shopping Centre, the future transit station on Cale Street and the Midland Hospital. Cale Street becomes a key movement line in this regard and this further emphasises the need for enhnaced connectivity at Cale Street, allowing easy movement between these locations.

The areas to increase densities will need to be within the Railway Core and in areas that are easy to develop, such as the vacated transit site in the western part of the activity centre. Enabling mechanisms will need to be put in place for the redevelopment areas. For the Railway Core, this means overcoming the fragmented land ownership and setting minimum development standards. The fractured land ownership will need to be overcome by amalgamating sites and/or setting minimum frontage standards. The desirable land area would require a minimum of two or three lots being amalgamated to achieve the appropriate development types. Development individually on the small lots will not achieve the required outcomes.

2.1.5 Promoting the Desired Development Outcomes

To enable amalgamations, development bonuses can be put in place, however this would only work in a bullish market. Indeed, any development of the type sought would only occur in a bullish market, unless there is specific government intervention to purchase lots and demonstrate particular outcomes within the railway core, or even to partner with developers to minimise the risk and leverage opportunities.

Within the vacated transit site, development is perhaps more easy because of the larger area and its government ownership. Government ownership should be retained until such time as there is certainty as to the development outcome. This could be achieved by retaining the redevelopment authority provisions across the site and also requiring minimum development standards in any contract of sale to developers. Time limits should also be put on any development requirements.

2.1.6 Report Structure

The Structure Plan structure is consistent with State Planning Policy (SPP) 4.2 Activity Centres for Perth and Peel. It's content is guided by the Centre Plan Framework within the SPP.

The report is set out in the following manner:

- Introduction
- Context
- Activity
- Movement
- Urban Form
- Resources
- Implementation

Separate but related design guidelines have been prepared for the Activity Centre area to provide more detailed development standards. The design guidelines will be adopted as a local planning policy under the provisions of parts 2 and 5 of Local Planning Scheme No. 17 upon endorsement of the Structure Plan by the Western Australian Planning Commission.





2.2 Context



 Table 7. Activity Centre Functions, Typical Characteristics and Performance Targets

Typical Characteristics	Strategic Metropolitan Centres	Midland Activity Centre	Comment
Main role/function	Strategic metropolitan centres (SMC) are the main regional activity centres. They are multipurpose centres that provide a diversity of uses. These centres provide the full range of economic and community services necessary for the communities in their catchments.	Midland provides for the major activities within the north-eastern corridor, with a reasonable diversity of land use. Midland Activity Centre provides employment, commercial, residential and service industrial uses.	Provision of the full range of economic and community services is an important goal of planning for Midland.
Transport connectivity and accessibility	Important focus for passenger rail and high frequency bus networks.	Midland currently has a bus interchange and train station, which is presently the last station on the Midland train line.	Being at the end of the line, there is a significant catchment to the east and north that does not presently have easy access to passenger rail or high frequency bus services.
Typical retail types	 Department store/s Discount department stores Supermarkets Full range of speciality shops 	 Midland does not currently have a department store - Myer or David Jones. Midland already has all of the three major DDS operators - BigW, Target, Kmart - and a few smaller DDS such as Best and Less. Midland has all of the three major supermarkets Coles, Woolworths and IGA including two Woolworths in the same centre precinct. Midland does not have a full range of speciality shop tenants, but these would normally be attracted by the introduction of a department store. 	 Given that most of the Secondary and District Centres have at least one Derpartment Store (DS), the DS is a key retail determinant differentiating Midland from other smaller centres. The limited catchment and the proximity to Morley and Cannington will limit opportunities to attract a Department Store to Midland.
Typical Office development	 Major offices State government agencies 	 As with any other SMC at present, Midland does not boast a major corporate enterprise. Midland is one of only three SMC which has a significant State Government agency office. The Landgate complex comprises 23,000sqm of office space. Police Operational Facilities, and City of Swan administration are the other major public offices in Midland. 	 The attraction of major corporate offices remains the single biggest challenge for Strategic Metropolitan Centres. Federal, State and local government create the highest single employment opportunity in Midland.

Future indicative service population (trade) area	150,000-300,000 persons	 The sub-region's population total of 203,000 (ABS, 2009), including 110,100 in the City of Swan is expected to increase substantially by 2031. The extended catchment depicted in the Midland Retail Sustainability Assessment (Urbis 2011) shows a population of 210,000 growing to 270,000 by 2021, highlighting the limited population base caused by the elements listed below. A smaller catchment deducing Ellenbrook and Ashfield produces a catchment of over 100,000 people increasing to 120,000 in 2021 A 150,000 person catchment is typically contained with a 7.5km radius and a 300,000 person catchment is typically contained within a 10km radius. Midland has a dedicated catchment of 5km to the west toward Morley and Belmont. It is the proximity to major tenants which will determine retail trading patterns. Cannington and Morley are Midland's nearest competitors and will effectively define the catchment area. The inclusion of second and third discount department stores at Ellenbrook (and/or Albion) to the north will ultimately provide a similar 5km dedicated catchment to the north. Smaller Hills settlements will continue to restrict opportunities for DDS operators to the east. The intensity of population in the catchment is further restricted by the: urban fringe location; semi-rural nature of the Swan Valley; and vast undeveloped land area at Perth Airport.
Walkable Catchment for residential density target	800m	The 800 metre arch of the relocated train station will cover the activity centre.
Residential density target per gross hectare	Minimum 30 Desirable 45	Due to Midland's historical setting as a major commercial centre, there is limited residential development within the activity centre. Residential zones north-west and north-east are zoned R100 and R80. Residential zones south of the rail are R60 and R80. Densities in excess of these are being considered, however fragmented land ownership including strata titles in some precincts will present a challenge to comprehensive redevelopment at higher densities.

Table 8. Diversity performance target - mix of land uses

Centre size: Shop/Retail floor space component	SPP 4.2 target mix	Midland performance*	Comment
>100,000 sqm >50,000 sqm >20,000 sqm >10,000 sqm <10,000 sqm	50% 40% 30% 20% N/A	In determining diversity performance target, retail commercial (PLUC 5) is assessed against non-retail commercial (PLUC 6, PLUC 7, PLUC 9). The breakdown is as follows: PLUC 5 Shop/Retail - 68,385 sqm; PLUC 6 Other/Retail - 14,245 sqm; PLUC 7 Office/Businesses - 56,552 sqm; and PLUC 9 Entertainment/Recreation- 15,389 sqm. This gives an overall floorspace of 68,385 sqm of retail and 86,186 sqm of non-retail commercial. The Midland Activity Centre provides a mix of land use floorspace - well in excess of the 40% target under the policy. The proposed redevelopment of Midland	By 2031, the mix of retail / commercial land use floorspace is expected not to meet the current minimum ratio due to the growth in non-retail commercial associated with the Midland Health Campus and potential tertiary education facilities, outstripping growth in retail commercial floorspace.
		86,186 sqm of non-retail commercial. The Midland Activity Centre provides a mix of land use floorspace - well in excess of the 40%	

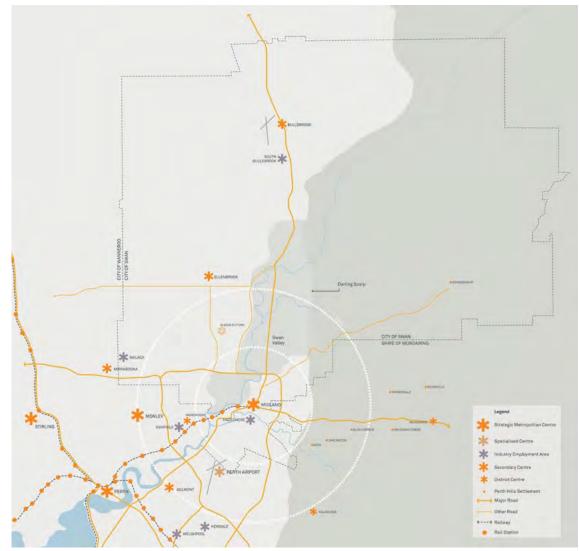


Figure 4. Midland Regional Context

2.2.2 Regional Context

The Midland Activity Centre is located in the north-east sub-region of the Perth Metropolitan Region, approximately 16 kilometres from the Perth Central Business District. Midland has a historical town centre that grew around the junction of three railway lines that were established from the late 19th Century, and ran to Kalamunda and Karragullen, Walkaway, Northam and the eastern states. The railway from Midland also connected to the port of Fremantle. Transporting both passengers and goods to and from settlements along their routes, the railways played an essential role in the development of the State's agricultural districts and the Eastern Goldfields. The establishment of the State Government Railway Workshops in 1904 was a huge catalyst for development of Midland.

Midland today remains an important centre for service, retail and freight movement. Industrial functions such as the Midland Railway Workshops have declined, however, providing opportunities for reclamation of the former industrial land for development that will ensure Midland's future as an important centre in Perth's east.

Midland is connected to Perth city and the wider Metropolitan area by Great Eastern Highway and Roe Highway. Great Northern Highway links Midland to northern Western Australia.

Midland Station is the present terminus of the Midland passenger rail line which provides access to significant north-eastern suburbs. Access from Midland is provided to destinations such as Mount Lawley, Maylands, Bayswater, Bassendean and Guildford as well as the wider metropolitan area through the rail network and feeder bus services.

Major attractors within close proximity to Midland include the Swan and Helena Rivers, Whiteman Park (7km north-west), Walyunga National Park (19km north), John Forrest National Park (6km east), Swan Valley viticulture and tourism (3km north-west) and the scenic Perth Hills to the east. The SpeedDome at nearby Midvale is a velodrome that hosts international, national and local cycling competitions.

Perth Airport is 6km away to the south.

2.2.2.1 Strengths

- Midland is a well established activity centre which is highly connected
 to the regional transport network and services surrounding industrial,
 commercial and residential land uses. It already contains a diversity
 of functions appropriate to a Strategic Metropolitan Centre. Major land
 uses include:
 - Midland Bus Interchange/Train Station;
 - City of Swan Administration Centre;
 - Landgate;
 - Midland Court House and Police Station;
 - Midland Gate shopping centre;
 - Future Midland Health Campus (construction commencing 2012 for 2015 opening);
 - Polytechnic West (formerly Swan TAFE);
 - Police Operational Support Facilities;
 - Midland GP Super Clinic;
- Juniper Gardens; and
- Midland Oval.
- It has a traditional catchment that extends east to areas beyond the Metropolitan Region (refer to Figure 4).

- Midland has a fairly strong established character as a result of remaining heritage buildings such as the Midland Town Hall, former Post Office and the Midland Railway Workshops, amongst others. These contribute to a sense of place.
- The West End centre has a tight, walkable structure.
- Midland is in close proximity to a range of regional attractors, high
 quality natural landscapes, and a wide range of specialist food and
 beverage producers.
- A number of places in Midland are identified on the State Register of Heritage Places, offering contributions to Midland's story, and where they are retained, to the character of Midland:
 - Midland Railway Workshops (Place No. 3273);
 - Midland Courthouse (fmr) (Place No. 2511);
 - Midland Post Office (Place No. 2513);
 - Council Club Hotel Site (Place No. 2510);
 - Old Midland Junction School (Place No. 2505); and
 - Western Australia Bank (fmr) (Place No. 2529).
- As future development affecting these sites occurs, it will need to demonstrate that the heritage significance of these places is retained, as per clause 7.1A of Local Planning Scheme 17.



2.2.2.2 Weaknesses

Visual Amenity

Poor visual amenity in parts of the centre, particularly on traffic dominated streets such as Morrison Road, Great Eastern Highway and Lloyd Street, detracting from Midland's attractiveness as a destination and as a location for new business.

Physical Barriers

Midland is blighted by some significant barriers to both pedestrian and local traffic movement.

In particular, the railway line and Great Eastern Highway/Victoria Street make movement between the north and south parts of the centre problematic.

The use of the rail line by freight trains causes noise and vibration and limits opportunities for safe and convenient pedestrian and vehicle crossings. This in turn limits the potential of new development south of the railway on the old workshops land to properly integrate with the rest of the city centre. Unless the freight rail route is relocated as has been proposed, this situation will be exacerbated as it is anticipated that the frequency and length of freight trains will increase.

The Great Eastern Highway/ Victoria Street one-way pair funnels traffic through the city centre and has created excessive pedestrian waiting times at signalised intersections, reduced vehicle circulation throughout the city centre, poor vehicular access and limited on-street parking opportunities for local businesses relying on pedestrian activity. Currently pedestrian movement is not prioritised.

Large format retail

Centrepoint and more particularly Midland Gate Shopping Centres have drawn customers away from traditional street based retail shops, reducing pedestrian activity in the public realm, and the West End. These retail nodes also attract high volumes of private motor vehicles and are surrounded by large expanses of car parking that further separate pedestrian activity from the public realm.

Land Ownership

Fragmented ownership presents a challenge for coordinated and optimal redevelopment. Land owner readiness to develop will be dependent on various external and internal factors such as property market cycles and the owner's financial capacity to redevelop and desire to do so.

Legibility and Intensity

The Midland Activity Centre is very large and exhibits an overall lack of intensity. There are several nodes within the centre - such as the West End centre, Midland Gate and Centrepoint, that effectively compete with one another rather than differentiate themselves in a manner that would complement the centre as a whole.

A lack of legibility resulting from a somewhat convoluted one-way street network, variable pedestrian amenity and public realm quality, and a general neglect of view lines to urban land marks and significant destinations, discourages pedestrian movement between key activity nodes.

2.2.2.3 Opportunities

- Midland is rich with opportunities to reinforce existing strengths and develop new activities and environments that will position it strongly to perform as a successful metropolitan centre.
- The multiple existing nodes within Midland could form the basis for a series of unique and complementary precincts that together would make Midland a compellingly attractive destination for shopping, living, working and investment.
- The decision to build a major new public and private hospital in Midland on a site immediately south of the railway will serve as an important catalyst for redevelopment and the introduction of a variety of supporting businesses and services. The opportunity to guide this new investment to complement objectives for the activity centre will be significant.
- The significant amount of built heritage fabric provides an excellent basis upon which to create a centre with a distinctive and attractive sense of place. Coupled with this, the area's diverse and long standing multi-cultural heritage provides opportunities for place making and community building that set it apart from other strategic metropolitan centres.
- Midland Gate and Centrepoint Shopping Centres already generate significant customer traffic. The on-going success of these centres will be in the best interests of Midland as a whole, and expansion should be encouraged and managed to generate future movement relationships within the activity centre. Expansion of the shopping centres can anchor major department stores to attract new businesses, generate employment and increase the customer catchment area.
- There are a number of large sites with potential for redevelopment for high density commercial, mixed use and residential purposes. These

- include the Midland Oval and numerous expansive surface parking lots. Redevelopment will benefit the centre's vitality and economic performance.
- Redevelopment of the Midland Oval, a substantial proportion of which is owned by the City of Swan, has potential to create an activity node and generate movement between the Midland Train and Bus Interchange to the northern edge of the activity centre.
- The proposed relocation of the Midland Train Station and Bus Interchange to Cale Street will not only free up a substantial site for redevelopment, but provides the opportunity for a better designed and more centrally located transit interchange to serve the centre.
- The potential to link Midland to nearby secondary centres such as Ellenbrook by public transport and regional roads will enable greater accessibility to the centre.
- The close proximity of the Helena River to the activity centre provides an opportunity to enhance the Midland's recreational assets, increase awareness of surrounding natural resources, and the capacity for cultural and community activities through the establishment of visual and physical links, directional signage and interpretive material.
- Midland Oval is currently under utilised and provides a large expanse
 of largely City of Swan owned land. Development of this asset could
 provide catalyst for development and the opportunity to develop an
 appropriate bookend to Cale Street.



2.2.2.4 Constraints

- Neighbouring strategic centres, fragmented landholdings in multiple ownerships, and physical barriers are the key constraints that threaten to inhibit redevelopment and pedestrian movement.
- Midland's ability to attract the major retailers typically associated with other Strategic Metropolitan Centres will be challenged by the proximity of Morley and Cannington, and the low population density of much of its eastern trade catchment.
- The continued development of Morley and Cannington, with the potential to attract customers from Midland's catchment area, remains the greatest risk to Midland.
- Fragmented land ownership within the Activity Centre may prevent land from achieving its intended development potential. In addition, significant existing strata titled development that is considerably below the permissible density in some precincts means that achieving redevelopment potential in these areas is unlikely for many years.
- Noise and vibration from the movement of freight trains will mean that development on land directly adjacent to the rail reserve will require special measures to mitigate the associated negative impacts unless the line is re-routed. In addition, parts of the Midland Activity Centre will be within the 20-25 ANEF band of aircraft noise from the proposed future runway at Perth Airport. This too will require noise attenuation for buildings accommodating sensitive land uses, and may create a disincentive for development.



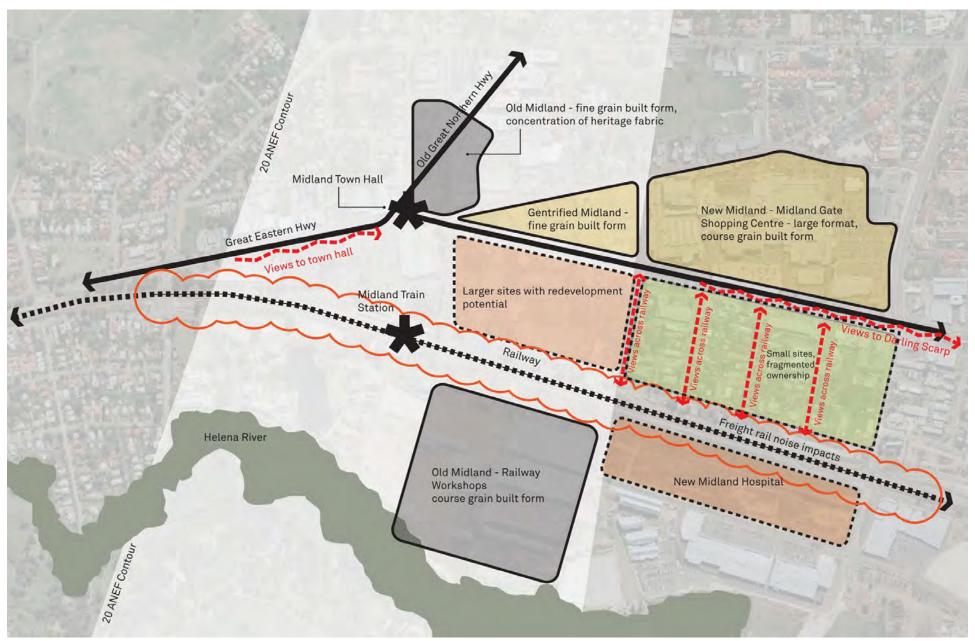


Figure 5. Local Context and Characteristics

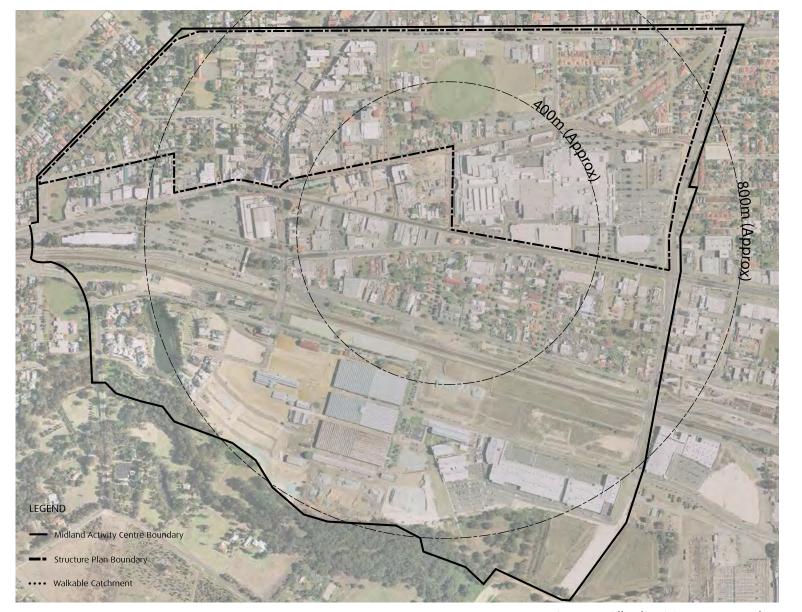


Figure 6. Midland Activity Centre Boundary

2.2.3 Local Context

2.2.3.1 Centre Boundary

The Midland Activity Centre is bound by:

- Lloyd Street to the East
- Helena River to the South
- Amherst Road and Morrison Road to the West
- Morrison Road to the North

The activity centre has an area of approximately 1.8 square kilometres (180 hectares) and incorporates the major functions, attractions and activities of Midland. As illustrated in Figure 6, an 800 metre radius from what is presently the most intensive part of Midland (adjacent to Midland Gate shopping centre) covers most of the centre.

The Structure Plan area forms part of the Midland Activity Centre as shown on Figure 6: Midland Activity Centre and Structure Plan Boundary.



2.2.3.2 Centre Characteristics

Midland Activity Centre Demographic Summary

Urbis (2011) prepared a demographic overview of the Midland Activity Centre based on collector districts from the 2006 Census of Population and Housing that most closely matched the Midland Activity Centre boundary. The area examined was bound by Morrison Road in the north, Amherst Road in the west, Helena River in the south and Lloyd Street in the east.

In 2009 id. (the population experts) undertook a demographic study of a wider area extending to Koongamia in the east and Viveash in the north. As that area is considerably larger than the activity centre, the Urbis data is cited here, however where relevant, trends identified by id. (the population experts) are also noted.

At the 2006 Census the area had a population of 1,081 which was a decrease of 1,191 from 1991.

Using building approvals as a guide, the 2011 residential population was estimated at 1,127 people.

The average age of the population was 43.4, which is older than the Perth average of 36.7 years. 30% of persons in the central area were over 60, compared with the average age of metropolitan Perth at 36.7 years and only 16.5% of persons over 60 within central Perth. This can be explained in part by the presence of a number of aged persons' complexes within Midland.

A predicted significant increase in people aged over 60 years will create a substantially greater demand for service and facilities required by this age group.

45% of Midland residents were employed in 'blue collar' professions compared with the Perth average of only 32%. At \$45,278 per annum household incomes are also 37% less than the Perth average of \$72,280. This lower spending power has the potential to affect the types of businesses that will be attracted to locate in Midland.

Within the activity centre 75% of households have no or one car. Within the wider area examined by id. (the population experts), the dominant modes of travel to work were private vehicles (69.8%) whereas public transport and walking and cycling were significantly lower (8.6% and 5.2% respectively). This would be partly because areas east of the current train station are not well served by public transport, however clearly there is opportunity to influence this modal split in favour of walking, cycling and public transport.

Average household size, at 1.88 persons, is significantly lower than the Perth average of 2.55 persons. This indicates a higher proportion of single person and couple-without-children households. Single person households represent almost 50% of households within the area, double that of the metropolitan area.

The wider area examined by iD consulting is characterised by single dwellings (74.6%) and medium and high density housing is significantly lower (14.9% and 1% respectively) than the Perth average. The activity centre has more than 54% of households renting and more than double the average proportion of public housing tenants, with over 8% of households in this category. There is clearly a need for more medium and high density housing, affordable housing options, and housing suitable to smaller households.

Residential Retail - Midland Gate Midland Railway Bulky Goo Recreation/

Figure 7. Predominant existing land use area

2.2.3.3 Defining Characteristics

The key character areas within the activity centre are:

- West End characterised by the historic commercial and retail development along Great Eastern Highway and Old Great Northern Highway, Town Hall, Landgate and City of Swan administration centre
- Residential areas south of Morrison Road at the west and east ends of the centre, occupied primarily by medium and low density, strata titled housing
- Centrepoint Shopping Centre
- Midland Gate Shopping Centre
- Midland Oval

Not within the Structure Plan Boundary but forming part of the Midland Activity Centre area:

- Former Midland Railway Workshops
- Woodbridge Lakes residential estate
- Future Midland Health Campus on former rail yards
- Bulky goods showrooms on Great Eastern Highway and south of the railway within the redevelopment area
- Police Services Operation Support Facility

2.2.4 Land Use

The Midland Activity Centre has a reasonably large catchment population and adequate capacity to support the functions of a strategic metropolitan centre.

The broad concentrations of land use are illustrated in Figure 7.

As indicated in Table 7. Activity Centre Functions, Typical Characteristics and Performance Targets to Table 8. Diversity performance target - mix of land uses Midland has over 150, 000 sqm of commercial floor space which is consistent with the average of other Strategic Metropolitan Centres. The office sector represents 36% of all commercial floor space, however most of this is occupied by government institutions and not by the private sector.

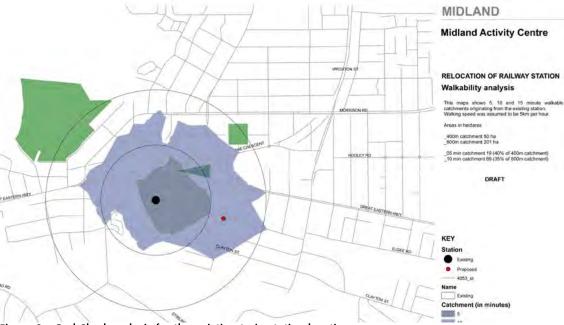


Figure 8. Ped-Shed analysis for the existing train station location



Figure 9. Ped-Shed analysis for the proposed train station location

2.2.4.1 Walkable Catchment

SPP 4.2 defines targets for Strategic Metropolitan Centres such as Midland within an 800 metre radius of rail stations or major bus transfer stations or high frequency bus stops. An analysis of this catchment assists with the definition of centre boundaries.

Based on the existing location of the train station and bus interchange, a ped-shed analysis **Figure 8**. **Ped-Shed analysis for the existing train station location** indicates that over a half of the Midland Activity Centre is accessible within the 800 metre or 10 minute walk catchment.

Areas beyond the Midland Oval and Cale Street are beyond a 10 minute walk from the current train station.

The proposed relocation of the train station will result in almost all of the activity centre being within the 800 metre catchment or 10 minute walk catchment Figure 9. Ped-Shed analysis for the proposed train station location. The exceptions would be part of the north-east and north-west residential areas. The main areas of activity along Great Eastern Highway would be within the 400 metre or 5 minutes walk catchment. The administrative and civic land uses will still be within a 10 minute walk.

The proposed Midland Health Campus will be well within 400 metres or 5 minutes walk of the train station, which will be very important for encouraging workers at the hospital to use public transport.

The proposed train station location will therefore serve a greater portion of the Midland Activity Centre within a walkable catchment.

2.2.5 Accessibility

2.2.5.1 Regional Roads

Great Eastern Highway, Great Northern Highway and Lloyd Street are major roads that link Midland with the greater metropolitan area, regional Western Australia, and the eastern States.

2.2.5.2 Public Transport: Trains

The main locus of public transport is the Midland Train Station and Bus Interchange. At present this is situated just west of Helena Street.

The Midland Train Station provides passenger rail services within the metropolitan area and long distance passenger services through to the north-east such as the Prospector, MerredinLink and AvonLink Regional passenger train services (WAPC, 2010). The Midland freight rail line provides goods from the Fremantle port to the wheatbelt, and brings produce including iron ore from other parts of the State and Australia.

LEGEND

LEGEND

* Proposed Train Station Existing Train Station Commuter Rail Line

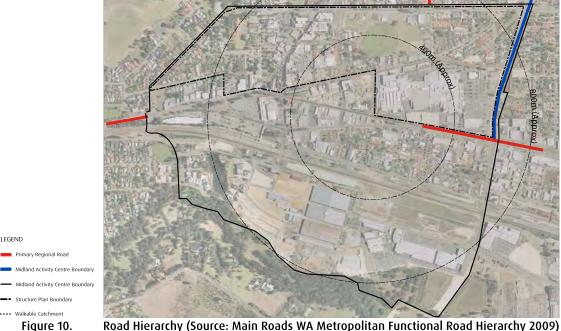
 Midland Activity Centre Boundary Structure Plan Boundary · · · Walkable Catchment

Primary Regional Road

Structure Plan Boundary

Figure 10.

· · · · Walkable Catchment



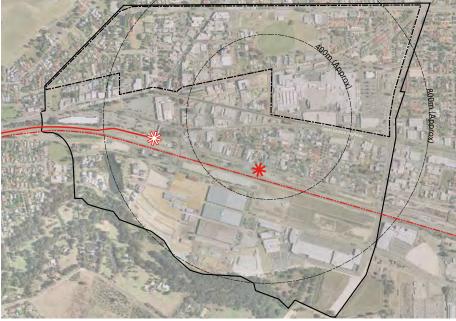


Figure 11. **Public Transport: Trains** MIDLAND ACTIVITY CENTRE STRUCTURE PLAN

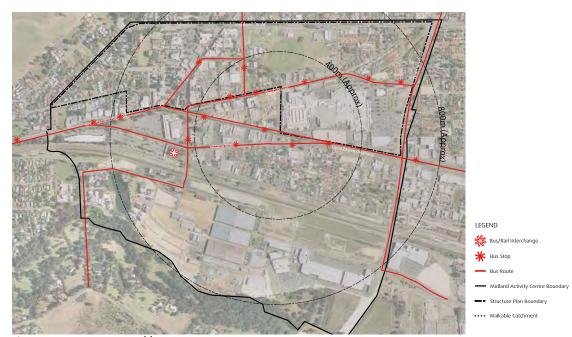


Figure 12. Bus routes and bus stops



Figure 13. Cycle Network

2.2.5.3 Public Transport: Buses

Buses travel along Great Eastern Highway and Victoria Street, Morrison Road, Keane Street, The Crescent and Lloyd Street, providing connections to the region. These significant routes accommodate 10 public bus stops. An addition is the free Midland Gate Bus Shuttle, which circulates from Helena Street, Great Eastern Highway, Lloyd Street, The Crescent, The Avenue and Keane Street to the bus interchange.

2.2.5.4 Path and Cycle Network

The Activity Centre is well serviced by footpaths, although the pedestrian amenity of some of these paths could be improved. However it lacks adequate and well connected cycling paths. The main cycling paths are located along Railway Parade, Helena Street, Yelverton Drive and Clayton Street Figure 13. Cycle Network.

There are bicycle lockers provided at the bus interchange and train station.

The existing and proposed movement network serving Midland is discussed more fully in Section **2.4 Movement**.



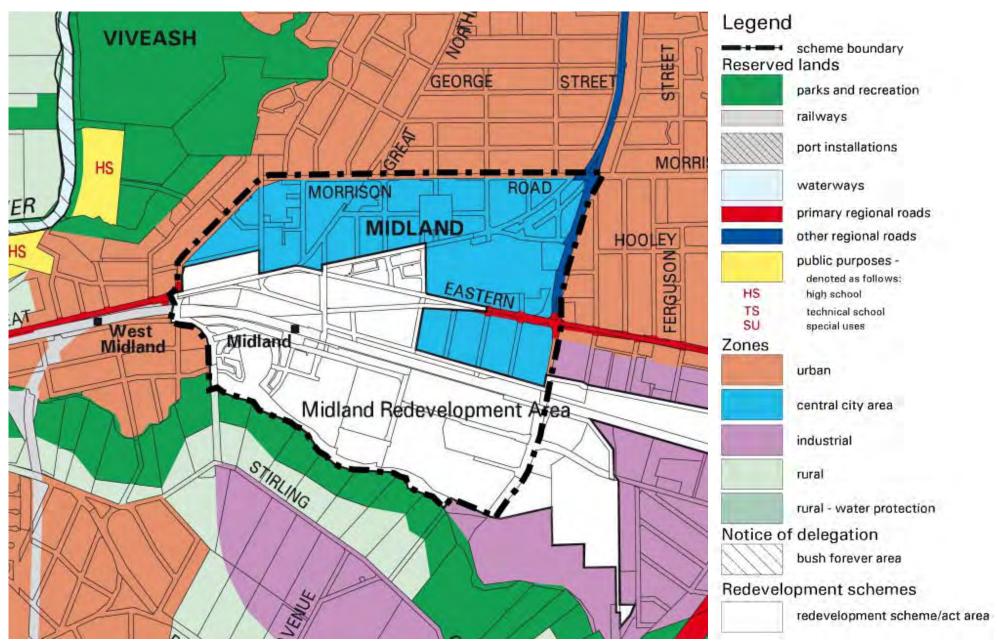


Figure 14. Extract from the Metropolitan Region Scheme Map with the Activity Centre boundary (Source: WAPC)

2.2.6 Relevant Regional Framework

2.2.6.1 Metropolitan Region Scheme (MRS)

The Metropolitan Region Scheme (MRS) is a statutory State Government planning instrument which broadly guides the distribution of land use throughout the Perth metropolitan region by designating 'zones' and 'reserves'. These are further defined in Local Planning Schemes and other planning tools such as development control policies.

The Midland Activity Centre north of the railway is zoned 'Central City Area' (Figure 14. Extract from the Metropolitan Region Scheme Map with the Activity Centre boundary (Source: WAPC)), a zone intended to facilitate strategic regional centre development for major retail, commercial and office facilities as well as employment, civic, business and residential uses. The railway itself is reserved for Railway Purposes, and part of the project area is subject to the Midland Redevelopment Act.

2.2.6.2 Directions 2031 and Beyond

Directions 2031 is the State Government's strategic planning instrument that establishes a hierarchy of activity centres throughout the Perth metropolitan region. The centres are places which provide housing, services, employment, entertainment and recreation. Under Directions 2031, Midland has been designated as a Strategic Metropolitan Centre (WAPC, 2010).

2.2.6.3 State Planning Policy 4.2 – Activity Centres for Perth and Peel

Consistent with Directions 2031, Midland is designated as a Strategic Metropolitan Centre in SPP 4.2.

The purpose of SPP 4.2 is to guide development of new activity centres and redevelopment and renewal of existing centres in the Perth and Peel regions. The policy addresses the distribution, function, broad land use, urban design criteria of activity centres, integration of activity centres with public transport and coordinate land use with infrastructure.

The preparation of this Structure Plan is a requirement of SPP 4.2 and in conjunction with the Master Plan, the Midland Activity Centre is expected to be consistent with typical characteristics of a Strategic Metropolitan Centre and satisfy performance targets.

2.2.6.4 Outer Metropolitan Perth and Peel Sub-regional Strategy (Draft)

The draft Outer Metropolitan Perth and Peel Sub-Regional Strategy was released in November 2010 pursuant to Directions 2031. The strategy has identified areas for urban infill and expansion across the metropolitan area and forecasts that the Midland Activity Centre will accommodate between 2,300 to 2,700 residents (WAPC, 2010).

2.2.6.5 Liveable Neighbourhoods

Liveable Neighbourhoods is an operational development control policy of the Western Australian Planning Commission. It guides the design and assessment of Structure Plans and subdivision applications. The policy sets out a range of design principles for developing the urban structure to achieve well defined, compact, and sustainable communities. The policy is mainly applicable to new areas, however it contains many principles that can be applied to planning for existing centres.

Urban design principles outlined in Liveable Neighbourhoods that are relevant to Midland Activity Centre include:

- Main street-fronting retail layouts should predominate, instead of enclosed or parking lot-dominated retail formats;
- The key focus of the centre planning is the quality of the public realm with the street being the main organising element for centre design;
- Centres capitalise on, relate to and address arterial roads rather than just using them for access;
- Centres are designed to facilitate and encourage walking, cycling and public transport access, and not just car access;
- Off-street parking is sleeved by buildings to screen the vehicle from the public realm and shared between different centres;
- Most commercial and business uses are integrated into a mixed-use centre, rather than segregated in single-use business parks; and
- To achieve good streetscapes, appropriate building types or forms are needed, with a particular focus on the ground floor to support adaptability, economic change, and amenity over time.

2.2.6.6 Transit Oriented Development (TOD)

Transit Oriented Development - Development Control policy 1.6 was prepared to complement a range of planning policies to achieve greater urban sustainability in accordance with the State Planning Strategy and Statement of Planning Policy 3 Urban Growth and Settlements (SPP 3).The objectives of TOD are:

- Maximise walkability to a number of relevant destinations, not just to transit locations;
- Maximise safety to encourage people to visit and stay in the area outside of peak times;
- Minimise the number and duration of private vehicle trips;
- Provide public and private car parking in a strategic manner;
- Enhance activity levels across the day and night; and
- Provide logical and convenient connections by walking and transit.

The Midland train station and bus interchange is a major transport node in a central location and close proximity to the administrative, residential, commercial, retail and medical land uses. The Activity Centre already displays fundamental elements of TOD and achieving the full potential of TOD is realistic



LEGEND

Metropolitan Scheme Reserve

Primary Regional Road

Other Regional Road

Local Scheme Reserves

Public Purpose

Pre Primary School

Existing Train Station Proposed Train Station ←→ Enhanced Connectivity Midland Activity Centre Boundary ■ ■ Structure Plan Boundary

HH Railway

Midland Strategic Regional Centre

Local Road

CP Car Park

2.2.7.1 Local Planning Scheme No. 17

City of Swan Local Planning Scheme No. 17 (LPS 17) controls the development of land within Midland City Centre, and surrounds, excluding land which is administered by the Metropolitan Redevelopment Authority (MRA) under the Midland Redevelopment Scheme 2005.

Existing Zoning

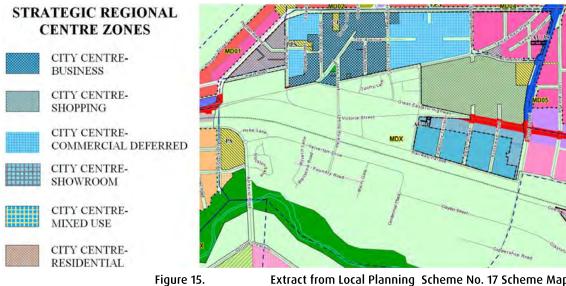
Under LPS17 the Midland City Centre comprises a number of City Centre Zones. Figure 15. Extract from Local Planning Scheme No. 17 Scheme Map shows the existing zones.

Under LPS 17, Midland Activity Centre is defined as a 'Strategic Regional Centre'. The objectives for this zone are outlined in Part 4 of the Scheme Text. Figure 15. Extract from Local Planning Scheme No. 17 Scheme Map is an extract from the LPS 17 map.

Proposed Zoning

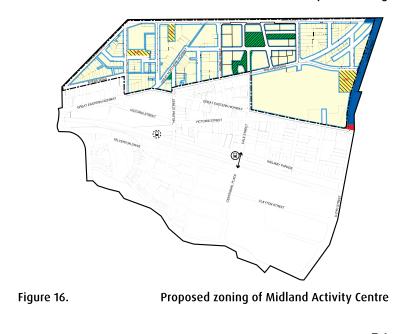
In response to the designation of the Midland Activity Centre being a 'Strategic Metropolitan Centre', an amendment to LPS17 is required to create an impetus for the redevelopment and renewal of the Midland City Centre.

The portion of the Strategic Metropolitan Centre within LPS17 is proposed to be zoned 'Midland Strategic Regional Centre'. The objectives, land uses and specific development requirements are outlined for this zone in Part 1 of this Structure Plan and are to be generally consistent with the amendment to LPS17. Figure 16. Proposed zoning of Midland Activity **Centre** shows the proposed zoning of the Midland Activity Centre as the 'Midland Strategic Regional Centre' zone.



Extract from Local Planning Scheme No. 17 Scheme Map

Proposed Zoning



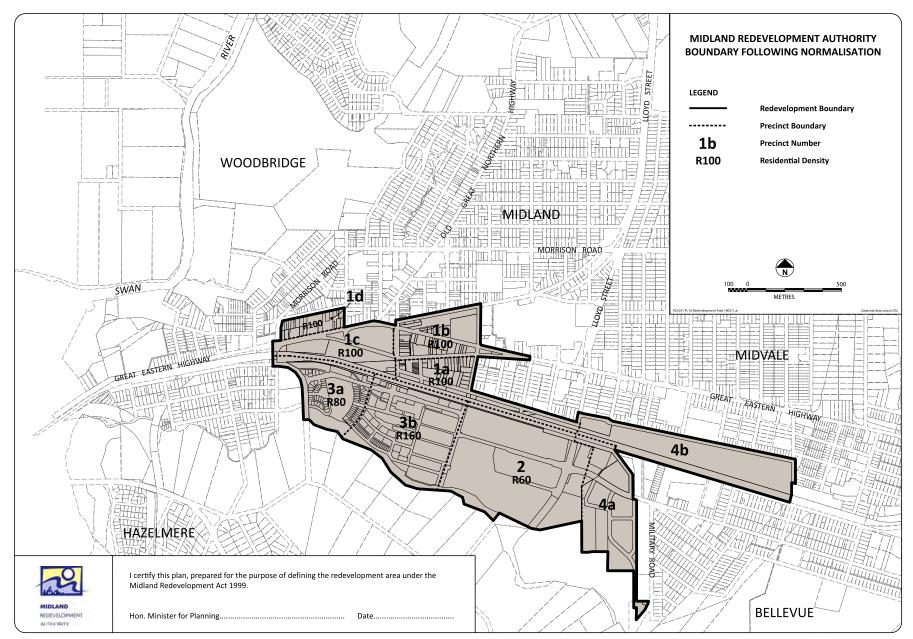


Figure 17. Extract from Midland Redevelopment Scheme - Appendix 1: Scheme Map

2.2.7.2 Metropolitan Redevelopment Authority

The MRA is the agency established to administer the Metropolitan Redevelopment Act 2011 and has complete authority to plan and redevelop four precincts, all of which are within the Midland Activity Centre boundary.

Midland Redevelopment Scheme 2005 is the statutory scheme created under the Act, guiding development within the Redevelopment Area. It has the effect of suspending City of Swan LPS 17 and the MRS, which do not apply over this area. Figure 17 shows the Scheme Map and the applicable precincts and sub-precincts. The MRA planning framework provides development control and guidance by way of planning policies and design guidelines - each has statutory effect by way of the Redevelopment Scheme. The MRA has recognised the strategic value of the Midland Activity Centre Master Plan and used it as the basis for the preparation of the Midland Master Plan 2015 as endorsed by the MRA.

The precincts (set out by the Midland Redevelopment Scheme) within the activity centre are the City Centre Precinct, Clayton Precinct, and Helena Precinct. The Eastern Enterprise Precinct is not within the Midland Activity Centre, however its proximity and function cannot be ignored as they will have an influence on the activity centre.

Specific design guidelines have been prepared for each precinct to achieve specific character and revitalisation through high quality streetscape and visual amenity. A significant amount of new development has already taken place under the auspices of the Metropolitan Redevelopment Authority (prior to 1 January 2012, the Midland Redevelopment Authority).

2.2.7.3 Relevant Local Planning Documents

A considerable amount of work has already been undertaken in planning for the future of the Midland Activity Centre. Many documents have been prepared and key documents have been reviewed to inform the Master Plan and this Structure Plan.

The primary documents that have been reviewed are:

- Midland City 2041 (2010 Draft);
- Midland 2017 Enquiry by Design (2008);
- Midland 2017 Midland City Centre Zoning Study Report (2010);
- Midland Place Plan 2010-2012 (2010);
- Midland Concept Plan 2010 (2005);
- Midland 2009 Public Space Public Life Study (2010);
- Midland Redevelopment Authority Annual Report (2010);
- MRA Midland Public Space and Public Life Study (2006);
- City of Swan Local Planning Scheme No. 17; and
- Draft Midland Access Strategy 2012.
- Midland Master Plan (2015)





2.3 Activity

Land use mix and diversity is important to support high frequency public transport, and to promote a competitive retail and commercial market that provides employment opportunities for eastern suburbs residents.

This chapter reviews and assesses the existing mix of activity within the Midland Activity Centre as a whole and provides recommendations for the future land use arrangement with reference to the intended role of Midland as a Strategic Metropolitan Centre.

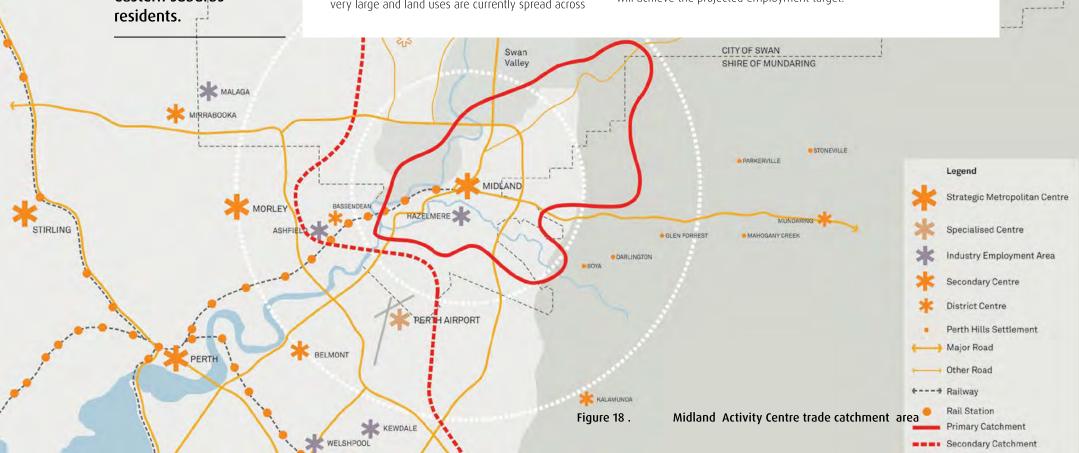
2.3.1 Existing Activity

As a historic centre of long standing, Midland has a well established and diverse land use mix that already exhibits many of the desired attributes of a Strategic Metropolitan Centre outlined in SPP 4.2. The policy states the activity centre must provide sufficient development intensity, a range of employment to achieve employment self-sufficiency targets and land use mix to support high frequency public transport. The challenge facing Midland is not so much diversity, as intensity. The activity centre is very large and land uses are currently spread across

it, so that there are few locations that could be described as 'vibrant and lively during the day and night'.

Ideally, those areas that do have a degree of intensity will be supported to become even more successful, intense and vibrant. Over time, other activities will be naturally attracted to locate close to these 'hot spots', so that eventually the whole activity centre will be functioning well around a series of nodes.

Employment self-sufficiency in the north-east sub-region is currently at 63%. In order to achieve the target of 75% established by the Outer Metropolitan Perth and Peel Sub-Regional Strategy, an estimated 53, 000 to 64, 000 additional jobs will need to be provided. The Midland Activity Structure optimises available land for appropriate diversity and mixture of employment throughout the centre. If a linear relationship between labour force and resident population continue and remain constant, it is expected an additional 18, 000 jobs will be generated and will achieve the projected employment target.



2.3.1.1 Projected Growth for 2031

Directions 2031 and Beyond (2010) provides the following projected growth outcomes for the north-east sub region.

The Outer Metropolitan Perth and Peel Sub-Regional Strategy (2010) indicates that Midland Activity Centre (including the Midland Oval and Redevelopment Authority area) is expected to yield 2, 300 dwellings for 'business as usual' type development and 2,700 dwellings for a 'connected city' development approach. Notwithstanding these figures, SPP 4.2 requires between 5,181 dwellings, and 7,000 dwellings.

The study area currently accommodates 691 dwellings. With changes to density codes and development standards, the activity centre will have capacity to accommodate the required number of dwellings of 5,181; this dwelling yield would be achieved over a considerable number

Employment self-sufficiency in the north-east sub-region is currently 63%. In order to achieve the target of 75% established by the Outer Metropolitan Perth and Peel Sub-Regional Strategy, an estimated 53, 000 to 64, 000 additional jobs will need to be provided. The Midland Activity Structure optimises available land for appropirate diversity and mixture of employment throughout the centre. If a linear relationship between labour force and resident population continue and remain constant, it is expected an additional 18, 000 jobs will be generated and will achieve the projected employment target.

2.3.1.2 Employment

According to Colliers International (2012) the City of Swan's estimated total employment population as a ratio of the resident population is approximately 50% (approximately 34% of the workforce in Swan is derived from the Swan residential base). If a linear relationship between labour force and population growth was assumed (this is in effect a statistical convenience) and the ratio of labour force to resident population remained constant and on current population projections, this implies a growth in the Swan labour force of 80% to approximately 87, 850 by 2026.

Labour force growth will be influenced by the availability of employment in an area which is in turn affected by a range of factors not the least of which is the level of private sector and government investment in employment generating projects and ventures, and the changing profile of industry sectors over time.

An analysis of 2006 employment data for the City of Swan suggests around 38% of the workforce is employed in white collar areas, whilst just over 14% is employed in retail trade and nearly 15% in manufacturing. Without specifying exact percentages, it is reasonable to assume that a significant volume of employment growth will occur in the town centre, particularly as the health precinct develops and demand for retail and commercial space increases over time.

Table 9. Project growth outcomes for the north-east sub region

Growth	2008	2031	Change
Dwellings	73, 000	113, 000	40, 000
Resident labour force	89, 000	131, 000	42, 000
Jobs in the area	56, 000	98, 000	42, 000
Employment self sufficiency	63%	75%	12%

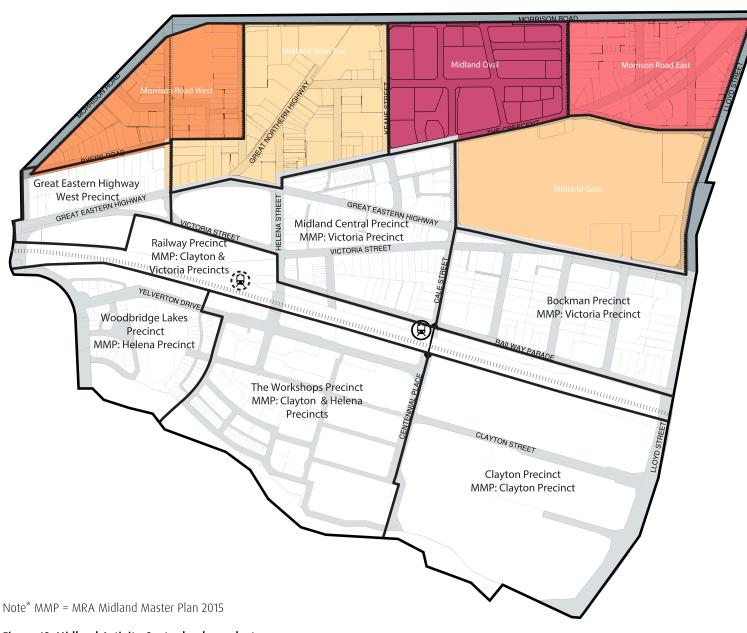


Figure 19. Midland Activity Centre land use clusters

2.3.2 Existing Land Uses

Within the Midland Activity Centre the predominant existing land uses are:

- Retail:
- Office;
- Health related activities:
- Highway businesses and showrooms;
- Residential; and
- Civic.

It is estimated that Midland Activity Centre area currently accommodates:

- 691 dwellings;
- 68,385sqm retail/shop; and
- 50,000sqm office.

Generally Midland is well catered for in terms of diversity of land uses, but each activity has varying extents. There are no evident clusters of larger private firms operating in a business environment as the existing office cluster contains local businesses and government departments servicing the region, with the exception of Landgate. It is also apparent that the centre's retail activity contains few "high end" stores. The lack of department stores compounds this inadequacy in activity type.

2.3.2.1 Existing use clusters and precincts

There are a number of identifiable land use clusters within Midland, which can be loosely described as forming the precincts shown in **Figure 19. Midland Activity Centre land use clusters**. It is neither practical nor desirable for a centre as large as Midland to be uniform in character. The existing land use clusters of Midland Activity Centre are:

- Midland Gate Precinct big box shopping;
- Morrison Road East Precinct residential accommodation in mostly grouped and some single housing;
- Midland Oval Precinct existing sporting field with peripheral commercial functions:
- Brockman Precinct a mix of highway orientated and other commercial uses with a sprinkling of residential buildings (Note: Forms part of the Victoria Precinct as per the MRAs Midland Master Plan 2015);
- Midland Central Precinct retail and commercial functions (Note: Forms part of the Victoria Precinct as per the MRAs Midland Master Plan 2015);
- Midland West End Precinct Midland's traditional centre;
- Morrison Road West Precinct residential accommodation;
- Great Eastern Highway West Precinct highway commercial uses (Note: Forms part of the Victoria Precinct as per the MRAs Midland Master Plan 2015);
- Railway Precinct the Midland Train Station and associated car parking (Note: Forms part of the Victoria Precinct as per the MRAs Midland Master Plan 2015);
- Woodbridge Lakes Precinct mostly single residential houses focused around the Coal Dam Lake (Note: Forms part of the Helena Precinct as per the MRAs Midland Master Plan 2015);
- Workshops Precinct an area containing the heritage listed former railway workshops and associated buildings; expected to accommodate more intense cultural and mixed use areas, in addition to medical facilities and the Midland Health Campus (Note: Forms part of the Helena Precinct as per the MRAs Midland Master Plan 2015); and
- Clayton Precinct containing the new Midland Health Campus, Police complex and showrooms (Note: Forms part of the Clayton Precinct as per the MRAs Midland Master Plan 2015).

The activity centre exhibits areas of similar land uses that have agglomerated to form clusters within the subject site. The core retail is clustered within the Midland Gate and Midland Central Precincts, which occupy the majority of retail floorspace within the activity centre. Additional Bulky Goods Retail is provided within the Clayton Precinct on the edge of the Activity Centre where their car base usage is supported without impacting on the highly walkable core.

The main residential clusters are located in the north-eastern, north-western and south-western edges of the activity centre. The northern residential land uses are characterised by low density single houses and strata development, whereas the southern residential area accommodates new higher density residential development which is complemented by open spaces and rejuvenated areas.

The Workshops Precinct land uses are heritage buildings which will accommodate the Super GP clinic and Railway Square which will contribute to the centres civic component.

Mixed use development exists within the Brockman area where residential land uses, religious facilities and medical consultants are accommodated. The Brockman area is an area of transition and exhibits old housing stock which could be redeveloped for future development to support the major activity nodes such as the Health Campus and new Cale Street train station.



2.3.3 Dwellings

Due to the historical setting of Midland as a major commercial centre, there is limited residential development within the Activity Centre. Overtime as commercial activity declined, additional residential development occurred, however at a low density due to the outer metropolitan location. This has resulted in low dwelling density within the Midland Activity Centre. Some recent development has been undertaken at a higher density.

The base R-Coding within the activity centre isgenerally R-60, with a significant component of R-80 within the Morrison Road East Precinct and a significant component of R-100 within the Morrison Road West Precinct and R-160 within the Brockman Precinct. Additionally, the residential zoned land on the periphery of the Midland Activity Centre is generally included within the R60 classification.

Under the provisions of Part 7 of the R-Codes, there is no density limit associated with residential development for multiple dwellings, with plot ratio being the sole determinant of development intensity.

Within the MRA area, the R-Code provisions only apply where design guidelines are silent. Dwelling density is governed by design guidelines and site specific guidelines, and based on plot ratio and building envelope standards.

2.3.3.1 Residential Density Targets

SPP 4.2 requires that within an 800 metre walkable catchment, a minimum of 30 dwellings per gross hectare is achieved. The desirable level is 45 dwellings per gross hectare.

For the purposes of measuring gross density, the activity centre area measures 172.7 gross hectares and given the building scale and floor areas proposed, the minimum density of 30 dwellings per hectare can be achieved (5,181 dwellings) in the form of distinct residential neighbourhoods and mixed use precincts. In considering the potential residential development standards for Midland, multiple dwellings with an average area of 80 square metres has been assumed. Only a small proportion of single and grouped dwellings have been considered for Midland.

It is important to note that Midland is coming from a low base in terms of dwelling density - currently there are only an estimated 691 dwellings throughout the project area. It is going to take a significant amount of time to increase the dwelling yield to the minimum required by SPP 4.2, and will require significant investment on the part of State and local government, particularly around amenity, community infrastructure and job promotion. Property amalgamations will also be promoted to ensure development achieves the form and density required for Midland.

2.3.4 Community, Civic and Cultural Facilities

The existing significant community, civic and cultural facilities in the Midland Activity Centre are:

- Midland Public Library;
- Governor Stirling Senior High School;
- Midland Town Hall;
- Landgate;
- City of Swan Administration Centre;
- Midland Police Station;
- Midland Court House;
- Midland Police Operational Facilities;
- Midland Junction Arts Centre;
- Coal Dam Park;
- Juniper Gardens; and
- The Heritage Green.

The Midland Activity Centre is continually growing and providing new development such as the Midland Health Campus. The MRA has also proposed cultural facilities around Railway Square.

2.3.4.1 Coal Dam Park

Located in the Woodbridge Precinct, Coal Dam Park is an expansive park adjacent to the historic Coal Dam with access to the nearby Helena River parkland. It features landscaping for passive exercise, picnics and family enjoyment.

2.3.4.2 Juniper Gardens

This park is located within the City Centre precinct and gives Midland a distinctive recreational area within the centre of the activity centre and features artwork that complements the heritage of the location. Juniper Gardens provides a contemporary junction for a variety of entertainment uses and residential and commercial activity.

2.3.4.3 Railway Square

Railway square is directly east of Helena Street and acknowledges the important heritage value of the space through mostly hard landscaping. Mature trees will soften the square and draw attention to the architecture of the surrounding heritage buildings. The Square will be surrounded by mixed use 3-4 storey development creating an urban square full of entertainment and vibrancy.

2.3.4.4 The Heritage Green

The space is adjacent to the Foundry and other heritage buildings. It is an active open space area, a unique environment in a unique setting and a connection point for all activities of the Workshops Precinct. The Heritage Green creates a forum for workers, students, commercial and residential areas where they can interface with heritage buildings and contemporary industries.

2.3.4.5 Future Recreational Activity

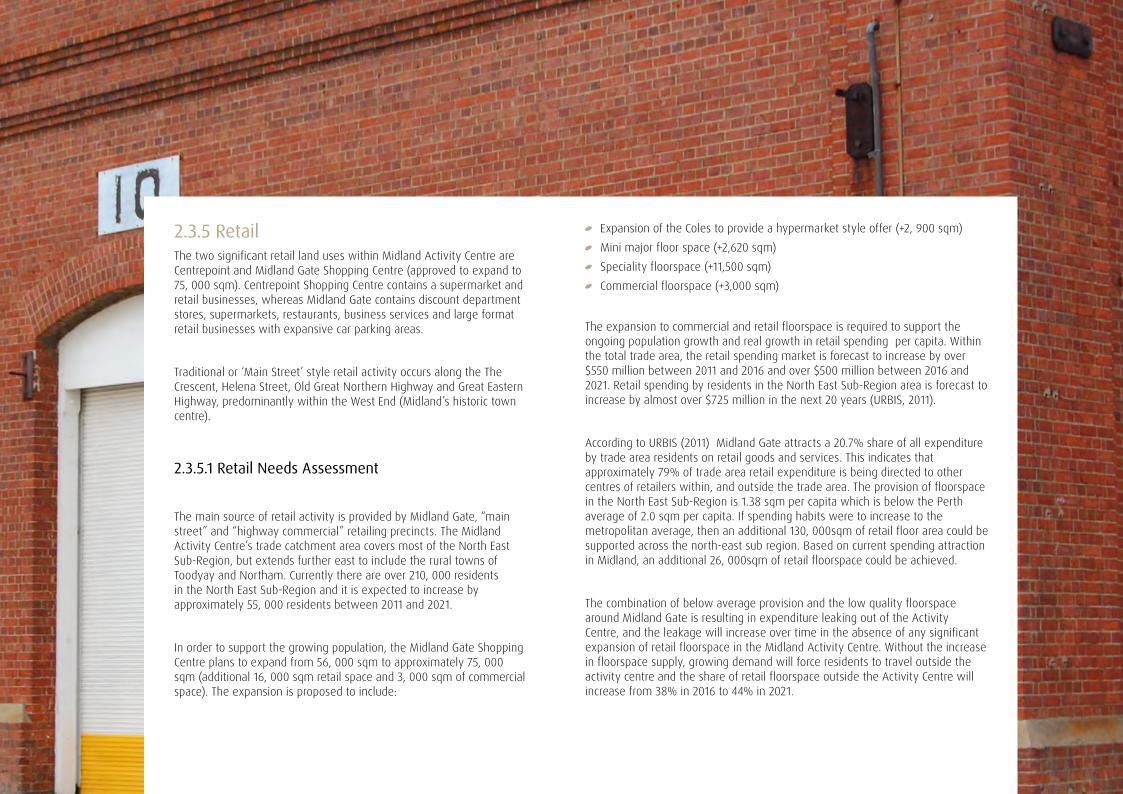
A proposed recreation node and exercise network will follow the Swan River between Morrison Road and Lloyd Street. The node will provide foot paths, seating, playground facilities and barbeque stations for recreational use. The exercise network will integrate with the existing cycle network and provide high quality footpaths for jogging, cycling and exercise equipment to promote a healthy community.

The movement network will be linked to the Swan River Regional Park. The Regional Park provides entertainment for families, connection to the Swan Valley tourism precinct and a wetland. The link will facilitate greater accessibility between the activity centre and the natural resources, improving the amenity of the centre.

2.3.4.6 Midland Oval Development Area

The Midland Activity Centre Master Plan provided the catalyst needed to promote the desire to redevelopment the Midland Oval. The City of Swan has prepared several master plans for redevelopment in the past, with the recent stimulation to development spurring a new Midland Oval Master Plan to be developed. As part of such redevelopment an urban plaza/ civic node is proposed.





2.3.5.2 Retail and commercial supply and demand analysis

Within the main trade area catchment, an estimation of the residential population base approximates a growth trajectory of 266,362 residents by 2026. Based on an assumed average square meterage per employee of 32 sqm for retail and approximately 20 sqm for commercial/office, the demand for floorspace suggests that net new employment space in Midland by 2026 could grow by 2, 000 sqm to 2, 500 sqm in the retail sector and by approximately 1, 800 sqm in commercial/office space by 2026.

Essential Economics reports the current level of retail supply in the Midland Strategic Metropolitan Centre is 134, 500 sqm across four precincts: Midland Gate, Midland Activities Area, Great Eastern Highway and the Midland Railyards.

Midland Gate accounts for approximately 52, 500 sqm and Centrepoint Shopping Centre 8, 830sqm. The primary bulky goods areas at the south eastern end of the Midland railyards precinct is approximately 35, 500 sqm of retail floorspace.

Estimates of retail floorspace are most directly influenced by the extent of household expenditure on retail categories within the trade area, and the extent to which some of that expenditure escapes from the catchment, also the expenditure that comes into Midland Activity Centre. Based on estimated population growth and percentage of expenditure capture for the area, the main trade area aggregate pool of residential expenditure is projected to grow from \$608 million in 2011 to \$960 million in 2026.

The main trade area total supportable floorspace is currently 151, 561 sqm and is expected to increase to 201,094 sqm. The net new supportable floorspace is 17,061 sqm and expected to grow to 66,594 sqm. It is suggested an increase of 3% and 5% respectively in retained household expenditure in the primary trade catchment of the Midland Town Centre main trade area can project net new supportable floorspace to 75,013 sqm and 80, 627 sqm respectively. It is suggested that the activity centre has a shortfall of between 13, 000 sqm and approximately 23, 000 sqm of retail floorspace. This is predicted to rise between 66, 600 and 80, 600 sqm by 2026.

2.3.5.3 Commercial/Office Floorspace Demand

The Department of Planning's data for land use (2008) identifies the (then) supply of floorspace by type. The Midland Floorspace Provision table presents an extract from this database along with an estimate of the ratio of per square metre floorspace by category per City of Swan population at the same period.

The Midland Supportable Commercial Floorspace Demand (indicative) Table 10 and 11 outlines an indicative demand profile for commercial/office floorspace applying the same ratio to projected population growth for the City of Swan . In theory, Midland town centre has a shortfall of around 7, 100 sqm of commercial/office floorspace which is expected to rise to a requirement for approximately 35,500 sqm of net new commercial/office floorspace by 2026.

Table 10. Midland Floorspace Provision (2008)

Floorspace Type	sqm	sqm / population
Manufacturing/process/ fabrication	1, 552	0.01
Storage/distribution	1, 516	0.01
Services	4, 088	0.04
Shop/Retail	68, 385	0.65
Other Retail	14, 245	0.13
Offices/Business	56, 552	0.53
Health/Wellfare/Community	10, 749	0.10
Entertainment	15, 389	0.15
Utilities/Communication	1, 624	0.02
Total	174, 100	1.65

Table 11. Midland Supportable Commercial Floorspace (Indicative)

	2012	2016	2021	2936
Supportable Floorspace	63, 703	72, 144	81, 827	92, 130
Net New Required (sqm)	7, 151	15, 592	25, 275	35, 578

2.3.6 Committed Development

Two major development proposals are committed for the Midland Activity Centre.

2.3.6.1 Midland Gate Shopping Centre Expansion

The Midland Gate Shopping Centre has been approved to expand from its current floor area of 56,000 square metres to 75,000 square metres. The expansion will provide for a reorganisation of the existing supermarkets and discount department stores, addition of a mini-major retailer and additional specialty shops. At present, there are no plans to provide a full service department store within Midland. The centre currently employs approximately 1,120 people, increasing to approximately 1,500 people upon expansion.

2.3.6.2 Midland Health Campus

Stage 1 of the Midland Health Campus is to be opened by November 2015 and will contain a 307 public bed hospital, a 60 bed private hospital, emergency department and other support departments to cater for regional acute health needs. The hospital will employ approximately 900 staff upon its opening. A staged approach to expansion will see the hospital grow over time to provide additional public beds and services as population health needs increase.

Related, though not associated with the health campus, the Midland GP Super Clinic is located within part of Block 1 of the Midland Railway Workshops. In full operation, this provides general and allied health services, consulting rooms, chronic disease management, day surgery, radiology, pathology and pharmaceutical services.

2.3.7 Land use diversity and gaps

The Midland Activity Centre is an historic economic centre and the land uses have matured over time catering to the increasing population and providing a variety of retail, cafe/restaurant and showroom services. In recognition of the increasing population and need for medical services the Midland Health Campus was proposed for the south-eastern sector of the activity centre to service the strategic centre and north-eastern metropolitan region.

Although the commercial and retail services have evolved over time, the residential land uses are characterised by very low density single dwelling residential development which will require a large increase in density at appropriate locations to support the increasing population. In response a significant increase in amenities and other strategies to boost a market for apartment development will be required to cater for the a larger resident population.

In order to achieve the diversity performance target the activity centre will require an increase in office and residential floorspace. The increase in office land uses will contribute to the centre's ability to retain white collar workers within the area and attract more people from surrounding areas which will be supported by the Cale Street transit station. Medical services will be forthcoming due to the establishment of the Health Campus and Super GP clinic which will create opportunities for surrounding land to introduce supporting medical land uses such as physiotherapists, chiropractors and general practitioners.

The Master Plan establishes the supply of floor space for Midland's future residential and non residential floor space. Achieving the desired intensity of development requires an increase in demand and investment sentiment.

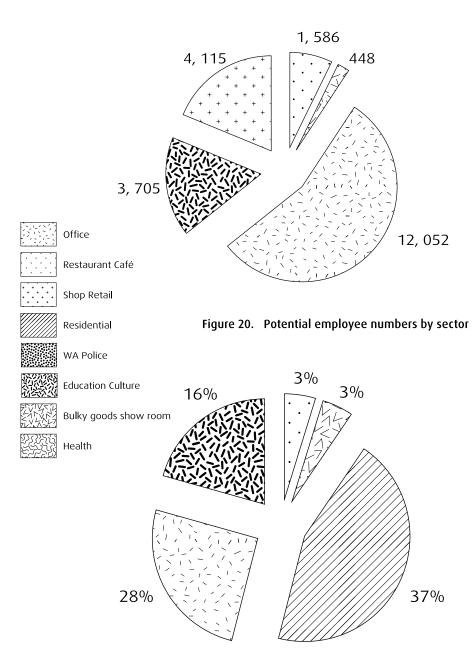


Figure 21. Estimated floor space proportion across Midland Activity Centre

2.3.8 Midland Activity - Capacity Assessment

A capacity assessment has been undertaken for the Midland Activity Centre to consider its maximum floor space potential, taking into account the intended character and built form across the project area. The capacity assessment provides a complete build-out scenario based on a number of assumptions regarding land use mix.

The Master Plan and subsequent Structure Plan (for the smaller component of the Activity Centre) does not seek to provide timing for the development of the floor area – such development is dependent on market demands, broader economic conditions, government investment and any marketing strategies employed by private land owners and government to attract investment to Midland.

The capacity assessment is not to be used as a tool to prescribe the floor space break down across the Activity Centre, indeed the eventual land use mix is likely to be different to that shown in this document. However, the capacity assessment shows the intent for a mix of residential and non residential land uses within the various precincts across the Activity Centre and is useful to consider the potential demand on infrastructure, roads and community services.

2.3.8.1 Overall Development Potential

Based on the intended character and form of new development throughout the broader Midland Activity Centre area, the Midland Activity Centre can potentially accommodate:

- 44,831 square metres of bulky goods retail
- 421,841 square metres of office space
- 240,853 square metres of education, civic and cultural floor space
- 200,000 square metres of retail (note: the Retail Needs Assessment prepared by Essential Economics acknowledges retail floor space of 200,000 square metres in Midland)
- 39,653 square metres of dining and cafe floor space
- 6,955 dwellings

Based on these figures, there is potential for 11,823 permanent residents and 21,907 employees across the broader activity centre area.

2.3.8.2 Diversity Performance Targets

Midland could contain somewhere up to 200,000 square metres of retail floor space, as justified by the Retail Needs Assessment prepared by Essential Economics (2011). SPP 4.2 requires a 50% mix of other employment generating land uses when retail floor space exceeds 100,000 square metres. As shown in the following pie charts (figures 20 and 21), there is sufficient land use mix planned to achieve the diversity targets established by SPP 4.2

2.3.9 Spatial Planning Implications

A key challenge for Midland will be to generate sufficient levels of activity, intensity and diversity over time. A key development that will support this progression is the Midland Health Campus. The Campus will feature a workforce of approximately 3, 000 to 4, 000 when fully operational and service potentially 200, 000 to 300, 000 patient events. In addition to this, the individual patient events are also likely to attract supporting visits from friends and relatives, suggesting that the total throughput of people in the Activity Centre may well exceed 500,000 annually.

The establishment of a transit oriented development (TOD) notionally around the Cale Street/Railway Parade junction can fundamentally change the nature of the Midland town centre and how users (residents, workers and visitors) perceive and interact with it. This development will be complementary to Midland Gate, Centrepoint Shopping Centre and the Health Campus.

High intensity economic development and spatial investment is to be concentrated between the Midland Gate and Cale Street TOD in particular along Cale Street, Padbury Terrace, Sayer Street and Brockman Road. This area of transition has opportunity for high pedestrian movement and activation through the investment of cafes/restaurants, retail, medical services, short stay and long term accommodation. The shopping centre and Health Campus are intense activity nodes which anchor and encourage movement within the activity centre. This movement will promote the development of pedestrian services and supplementary medical services. Midland Oval will play an important role to further intensify development at the northern end of this activity corridor.

2.3.9.1 Floorspace Allocation and Place Purpose (Staging)

A conventional approach to the planning of the Midland town centre would concentrate on the allocation of retail and commercial/office floorspace in and around the Midland Gate complex and effectively consolidate the precinct. The development of the Workshops Precinct, the establishment of the health precinct and potential relocation of the Midland train station to Cale Street will mean a substantial reconfiguration of the Midland town centre.

Not all of the Midland town centre can be activated and revitalised at the same time. Vitality is about the concentration and frequency of economic

and social transactions that occur within a given area and consideration must be given to the areas that most require and will be most suited to activation over the period to 2026. Moreover, the allocation of net new floorspace, or indeed the relocation of existing floorspace, for a town centre is neither formulaic nor prescriptive. The concentration and frequency of economic and social transactions are greatest in areas that demonstrate high public exposure, quality and activation and this guides where to maximise commercial development. These areas include:

- Cale Street/Railway Parade junction;
- Cale Street and Padbury Terrace corridors between TOD and Midland Gate;
- Existing train station site and area adjacent to Midland Centrepoint;
- The Crescent and Keane Street borders of Midland Oval; and
- Midland Gate.

Vibrancy and economic vitality is an interactive and self-reinforcing process that will bolster the performance of a place and make it a desirable place for residents and for commercial and retail tenancies. The planning of the Midland Activity Centre should consider a number of place creation and activation principles which include:

- Purpose of place that is; understanding the reason why the place exists and how often different users will engage with the place;
- Place focal point is the core focus of the place and how this is expressed in a design sense and functional sense;
- Accessibility, connectivity and legibility ease of access to place and mode of access;
- Attraction and amenity provision what are the elements additional to the functional purpose of the place that will attract users and augmentation of major destinations; and
- Governance, priority sites usage and control what are the priority sites within the place and to what extent can a place activation and management strategy control both the nature of development on the sites and the type of tenancies that might be attracted to the location.



2.4 Movement

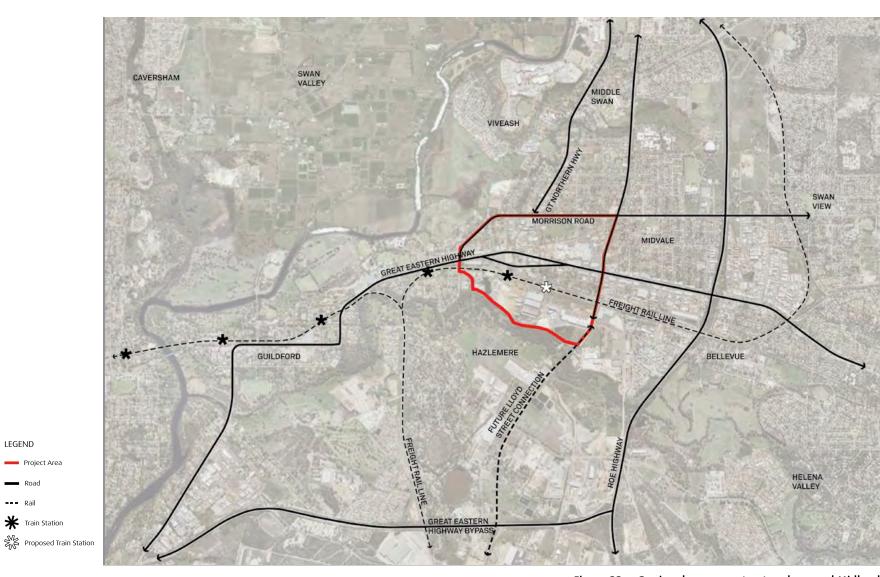


Figure 22. Regional movement network around Midland

LEGEND Project Area

* Train Station

2.4.1 Regional Perspective

The Midland Activity Centre is easily accessed by both road and rail, being located at the end of the Midland rail line and bisected by Great Eastern Highway. Future regional road network upgrades including the Perth-Darwin Highway and Lloyd Street extensions will further improve access to Midland for freight and by car.

However the regional transport routes that give Midland its excellent accessibility also divide it, making efforts to create an urban setting consistent with the community's vision for Midland problematic.

It is therefore highly desirable to achieve a better balance between regional movement and local access by separating regional from destination traffic into and through the Centre.

Cardno was engaged by the City of Swan to examine elements of the movement network relating to Midland in some detail, and to make recommendations that will support State, local and community aspirations for Midland as a Strategic Metropolitan Activity Centre. This section provides an overview of the findings. The full technical report forms Appendix A of this report.

2.4.1.1 Strategic Road Hierarchy

Great Eastern Highway is a Primary Distributor Road under the Main Roads Western Australia (MRWA) Main Roads Functional Road Hierarchy (MRFH). This means it provides for major regional and inter-regional traffic movement and carry large volumes of fast moving traffic. It is managed by MRWA.

Great Eastern Highway, along with its one-way partner Victoria Street in the town centre, bisects the Activity Centre.

Lloyd Street is classified as a District Distributor Road. As such it carries traffic between industrial, commercial and residential areas and generally connects to Primary Distributors. Lloyd Street is a truck route and provides only limited access to adjoining property. It is managed by the City of Swan.

2.4.1.2 Arrival Points

The point of arrival experienced by visitors to the Centre is influenced by their chosen transport mode. As such, the key entrance locations should be designed to accommodate the desired transport modes.

2.4.1.3 Private Vehicles

The main approach routes to the Midland Activity Centre include Great Eastern Highway from the west and east, and Lloyd Street from the north. Great Eastern Highway bisects the Activity Centre and is a preferred route for local traffic accessing the centre. Public car parking is proposed to be located near the point of arrival to minimise the impact of private vehicle traffic on the Centre.

Morrison Road forms the northern boundary of the Activity Centre and is supported as a primary local access route with access to large-scale public commuter and visitor car parking. This redirection of local traffic away from Great Eastern Highway should assist in minimising the impact of regional traffic growth on pedestrian crossing, caused by the existing road form and traffic volumes.

2.4.1.4 Public Transport

The Midland Station operates as a major interchange hub to regional rail services. It also forms a gateway to Midland for commuters and visitors. A relocation of this station is proposed from its existing location west of Helena Street towards a more centralised location near Cale Street with better access to Midland Gate, and to the proposed centre of activity, including the Midland Health Campus and development south of the rail line.

2.4.1.5 Cycling

With the proposed extension of the WABN Principal Shared Path (PSP) network through to Midland Station, this corridor becomes the primary entrance point for commuters to the west of the Centre. The Activity Centre Master Plan and subsequent Structure Plan proposes a fine-grained network of on- and off-street provisions that support cycling as a viable mode choice both for commuters and visitors. Existing on-street cycling routes from the east of the Centre will be supplemented and improved to increase the available route options, including Great Eastern Highway, Clayton Street, the rail corridor and Morrison Road. Each of these routes will tend to cater for a different segment of the population and the interface between route alignment and end-of-trip facilities will be managed to reflect the target demographic.

2.4.1.6 Key Sites

To facilitate access to key sites within the Activity Centre, the Midland Station is proposed to be relocated toward the centre of the City. This will improve accessibility and support the transition towards sustainable transport. Key sites at the Activity Centre core include the Midland Health Campus and the likely ancillary health nexus to the north of Railway Road, Midland Gate Shopping Centre and Midland Oval Precinct. These sites are all generally located along the Cale Street corridor which extends north from the proposed relocated Midland Station to Morrison Road.

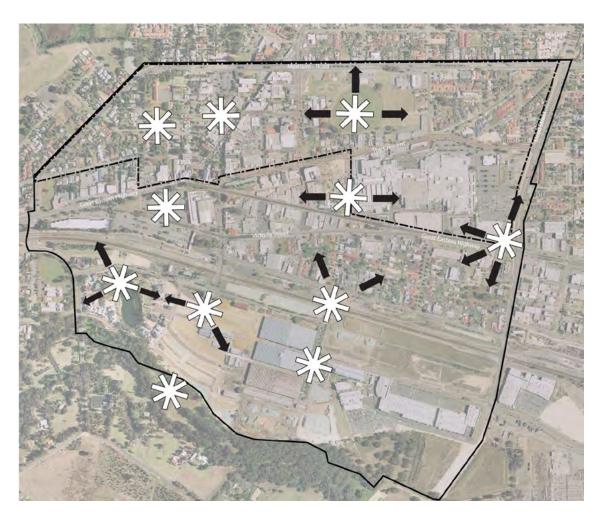


Figure 23. Key Sites

2.4.1.7 Gaps and Deficiencies

From a regional perspective, specific issues affecting the provision, efficiency and choice of access to Midland are:

- Passenger rail services terminate in Midland, however connecting bus services from the eastern hills catchment are infrequent;
- Passenger rail services presently terminate well short of the Midland Health Campus site, which will generate high levels of visitation by staff, patients, visitors and service vehicles;
- Railway crossings for pedestrians and vehicles are very limited;
- Wait times at railway crossings are forecast to increase as the volume and frequency of freight trains increases;
- Great Eastern Highway/Lloyd Street intersection operates at a low level of service;
- Presently no connection of Lloyd Street with the Great Eastern Highway Bypass or Roe Highway (under construction);
- High volumes of fast moving through traffic traverse Midland along Great Eastern Highway/Victoria Street;
- There is no effective bypass for traffic to/from the east and north; and
- Connecting bus services to Hazelmere and the eastern hills are infrequent.

Ways in which these issues can be addressed are discussed in the following pages.

2.4.2 User Hierarchy

A hierarchy of use has been determined for the centre incorporating fundamental SmartRoads principles. In general, private vehicle use is promoted along the periphery of the site and supported through strategic location of peripheral car parking. Regional traffic will be retained along Great Eastern Highway, with local access encouraged along alternative routes. This segregation is intended to disperse traffic in the area and preserve capacity within the internal road network for other transport modes. Local traffic will be slowed through reduced speed limits and Local Area Traffic Management to create a better integration with pedestrian and cycling modes. Car parking is generally located on or near the higher-order road network to minimise the volume of traffic in pedestrian-oriented areas.

The activated central core, including a significant length of Great Eastern Highway will be oriented towards pedestrian accessibility, with wide, attractive pedestrian footways and legible road crossings. Areas nearer to the edge of the Centre, where densities are lower, will not have as significant a pedestrian-focused design. A consistent provision of safe crossing points and high quality pedestrian facilities will be employed across the Activity Centre, particularly focused on identified desire lines from between major transport and land use nodes.

Public transport is a high priority for the centre as it provides regional connection to the Activity Centre and interchange opportunities at Midland Station. These regional coverage services would be contained within higher-order road corridors to minimise delays and promote their existing core function. The Midland Shuttle and other potential local services would run along minor streets to create an internal public transport network that operates at high frequencies. The alignment of these services will be chosen to maximise access to the proposed activity nodes.

Regional freight traffic is not supported along Great Eastern Highway due to the adverse impact on pedestrian and cycling amenity. Instead, Roe Highway and the Great Eastern Highway Bypass will continue to act as bypass routes. Local delivery traffic will be encouraged to utilise Morrison Road, Lloyd Street and Clayton Street, though there will be provision both on-street and within developments for service and delivery as required to ensure effective operation.

2.4.3 Public Transport

Reducing dependence on private vehicles for transport to and from Midland will be heavily reliant on there being attractive, and efficient and convenient public transport supported by good quality public transport infrastructure.

2.4.3.1 Network Provision

The Midland Activity Centre is serviced primarily by the Midland Train Line which runs from Midland to Perth and then on to Fremantle. Services are generally run to a clockface timetable, shown in Table 12. Midland Train Station Frequencies, which is easy for passengers to anticipate. However, the half-hourly service frequency on weekday evenings and on weekend morning and evenings is a disincentive for travel during these periods.

Feeder bus services and coverage services are provided by the Public Transport Authority (PTA) for the surrounding suburbs and terminating at Midland Station. Within the Centre, the majority of the bus services run east-west along either Great Eastern Highway or The Crescent. The existing bus route network and stop locations are shown in Figure 24. Public transport stops for Transperth bus service.

The Midland Train Station is located approximately 1km from the centre of the Study Area (Cale Street) and is considered to be beyond comfortable walking distance for the majority of existing and future land uses. The typical frequency of bus services accessing Midland is summarised in Table 13. Regular Bus Service Frequency.

Midland is also serviced by a number of very low frequency buses that provide public transport coverage for relatively distant residential catchments, as shown in **Table 14. Infrequent Bus Service Frequency**.



Figure 24. Public transport stops for Transperth bus service

Table 12. Midland Train Station Frequencies

Time		Frequency
Weekdays	Peak Periods*	10 mins
	Off Peak	15 mins
	Evening (7:30pm onwards)	30 mins
Weekends	Day	15 mins
	Morning/Evening	30 mins

Table 13. Regular Bus Service Frequency

Route	Peak Frequency	Off-Peak Frequency
Great Eastern Highway		
36 (Midland - Perth)	20 min	60 min
294 (Midland - Westfield Carousel)	60 min	60 min
297 (Midland – Kalamunda)	30 min	60 min
320 (Midland - Mundaring)	20 min	60 min
321 (Midland – Glen Forrest)	20 min	60 min
322 (Midland – Glen Forrest)	20 min	60 min
The Crescent		
308 (Midland – Swan Districts Hospital)	30 min	60 min
310 (Midland - Upper Swan)	30 min	60 min
311 (Midland - Bullsbrook - Muchea)	30 min	60 min
312 (Midland - Baskerville)	30 min	60 min
314 / 324 (Jane Brook - Midland)	10 min	15 min
315 / 325 (Stratton - Midland)	10 min	15 min
323 / 327 (Swan View - Midland)	10 min	15 min
326 (Midland - Midvale)	10 min	15 min
Midland Shuttle		
300 (Midland Gate Shopping Centre)	20 min	20 min

Table 14. Infrequent Bus Service Frequency

Route	Peak Frequency	Off-Peak Frequency
Great Eastern Highway		
307 (Midland - Helena Valley)	2 services	1 service
328 (Midland - Wundowie)	2 services	1-2 services
The Crescent		
52 (Morley - Midland)	2 services	1 service
335 (Ellenbrook - Midland)	2 services	1 service
Via Other Roads		
304 (Midland – South Guildford)	30 min	120 min



2.4.3.2 Modifications to the Core Network

To facilitate mode shift towards public transport, service improvements are proposed for both train and bus modes.

2.4.3.3 Midland Station Relocation

The location of the existing Midland Station, at the western boundary of the Activity Centre, is relatively distant from the local residential and business catchments. This reduces its effectiveness as a transport node and tends to promote a high reliance on park 'n' ride adjacent to the station, even for residents living very nearby. To alleviate this issue, the Midland Station is proposed to be relocated approximately 1km east, near Cale Street and closer to the centre of the activity centre. This will increase the catchment of residents and businesses within 800m and help promote alternative transport modes, as illustrated in Figure 8 and Figure 9 in 2.2 Context.

The PTA also proposes to locate a significant quantum of parking, tied to public transport use, immediately adjacent to the new station. This parking will attract a significant quantity of private vehicle trips into the City Centre, with no associated benefit to the centre. The proposed parking is therefore supported only as a solution prior to the future extension of the rail line further east. However, the location of the proposed parking, adjacent to the Midland Health Campus and at the heart of the Activity Centre provides an opportunity for transition to retail and hospital visitor parking in the longer-term.

2.4.3.4 Bellevue Station

Construction of a train station at Bellevue, east of Midland, would provide a number of significant benefits to the public transport network. This station would facilitate regional commuter transport from residential areas to the east, without park 'n' ride trips adversely impacting the operation of the roads and intersections within the Activity Centre.

2.4.3.5 Midland Shuttle Extension

The Midland Shuttle is a local bus service which provides local-area connections between the Midland Station and Midland Gate Shopping Centre. The existing and potential extension alignment for this service is shown in Figures Figure 25. Existing route for Midland Bus Shuttle and Figure 26. Proposed expansion for Midland Bus Shuttle

2.4.3.6 Local Bus Routes

Analysis of the PTA park 'n' ride license plate survey (2011 data) shows a significant proportion of cars parked at Midland Station have their origin within a 5km radius, primarily to the east and north. While this distance is considered perfect for cycling to the Station, another opportunity is the modification of existing local bus services (such as exist the 314/315, 321/322, 323 and 324/325) to form high frequency two-way circular or paired routes between Midland Station and the surrounding commercial and residential catchments.

One of these local routes could provide high frequency connection between the City Centre and peripheral commuter car parking located outside of the Activity Centre, possibly at the location of the potential Bellevue Station.

Examples of petal routes are shown in Figure 27. Example of 'Petal' route bus services.

2.4.3.7 Impacts of Public Transport

The relocation of Midland Station and additional inner-city public transport services will improve accessibility for commuters into Midland, and residents within and surrounding the Activity Centre. By reducing the reliance on private vehicle transport, parking rates in the Activity Centre can be reduced, freeing up land for more productive uses. The expansions of local public transport services also improves equity in the region, by supporting households to transition away from private vehicle ownership and thereby reduce their vulnerability to external economic impacts.

In the short-term, the proposed location of the Midland Station park 'n' ride would seem at odds with the intended operation of the Activity Centre road network, in particular Great Eastern Highway, by inducing regional trips into the City core. Construction of a park 'n' ride at the Bellevue Station location in the longer-term will assist in redistributing this regional demand to areas outside of the Activity Centre and limit the impact of private vehicle to rail interchange.

2.4.3.8 Integration and Interchange

The proposed expansion services will all be designed to interchange at the central Midland Station and will operate from high quality stops adjacent to significant demand nodes. Local routes and shuttle services would operate on a high-frequency basis to minimise both travel and wait times, ideally with a maximum 10 minute headway at all times, decreasing to 5 minutes during peak travel periods



Existing route for Midland Bus Shuttle Figure 25.

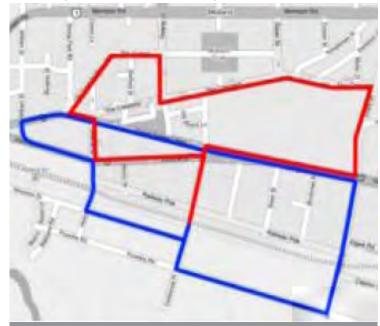


Figure 26. Proposed expansion for Midland Bus Shuttle

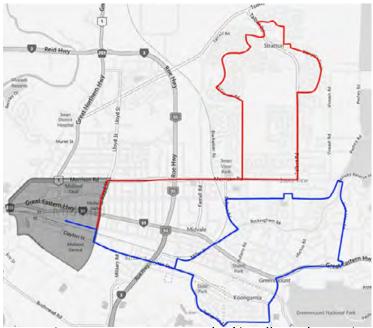


Figure 27. Example of 'Petal' route bus services

2.4.4 Pedestrian Movement and Amenity

Pedestrian activity is a critical factor in the effectiveness and vitality of an Activity Centre. For this reason, the pedestrian environment must be carefully considered, particularly along primary pedestrian routes. This includes construction of high quality paths, shade trees and street furniture to provide amenity. By allocating resources to the pedestrian environment, the use of pedestrian modes will grow, reducing the demand for other modes as well as the requirement for parking.

Parking location is key to determining both traffic and pedestrian movement. The location of car parking towards the periphery limits the impact of parking on trip volumes and land consumption, but requires parkers to travel an additional distance to their destination. The demand for peripheral car parking will be significantly improved where attractive pedestrian facilities are provided.

A Level of Service approach has been considered, which considers the quality of the pedestrian experience across the length of the trip. Therefore, higher-traffic areas with a high concentration of pedestrians require good quality, covered and shaded paths, as do paths which connect areas of high demand across relatively long distances, approaching or exceeding the nominal 400m or 800m walkable catchment.

2.4.4.1 Desire Lines

A desire line analysis has been undertaken for the proposed Activity Centre. This primarily consists of pedestrian routes from major transport nodes (i.e. Midland Station and large-scale public/private car parking) to commercial and retail activity. **Figure 28. Pedestrian Desire Lines** shows the results of this analysis.



Figure 28. Pedes

2.4.4.2 Pedestrian Network Provision

All streets within the Activity Centre will provide some form of off-street pedestrian path, with the quality of this provision improving along critical and high demand links. A fine-grained network of pedestrian paths is proposed to permeate the Centre to more closely match the desire lines of commuters, residents and visitors moving through the network.

Midland Gate, due to its large land area creates both opportunities and barriers to pedestrian connection. During operating hours the wide, airconditioned malls create an attractive pedestrian space full of activity; after hours it becomes impermeable to pedestrian traffic and obstructs north-south flow between the Brockman Precinct and residential areas.

Pedestrian areas are at their most important along activated frontages which rely on pedestrian traffic to retain their commercial viability and 'place-making' appeal. These areas, predominantly in the West End Precinct should attract the best quality infrastructure.

2.4.4.3 Legibility

The existing Midland City Centre is relatively legible, with well-defined boundaries and a defined structure. The expansion of the MRA lands to the south of the railway line will tend to promote additional north-south traffic which should be supported through improved pedestrian crossing facilities and wayfinding signage.

Within active pedestrian areas, vehicle movements will be restricted through infrastructure improvements to reduce speed and volume, promoting pedestrian needs and allowing free-flow pedestrian movement across streets.

Two modifications to the local road structure are proposed to benefit pedestrians: Upgrade of the Great Eastern highway cross-section to increase pedestrian space and minimise crossing distances, and improved connection at the rail line at Cale Street and Lloyd Street, as well as the existing Helena Road intersection.

Local traffic accessing Midland will be encouraged to use Morrison Road, while regional traffic remains along Great Eastern Highway. This will

relocate a proportion of traffic to the edge of the Activity Centre and allow for some streetscape improvements in the core, particularly the removal of on-street parking to allow for verge widening and on-road cycle lanes. This shift will require some minor improvements along Morrison Road to accommodate the additional trips.

The Midland Oval Precinct, which currently creates a moderate barrier between Morrison Road and The Crescent will be opened up through an internal road network, and enhanced north-south pedestrian connectivity of Cale Street will create a legible pathway across the entire Activity Centre area.





2.4.5 Cycling

2.4.5.1 Cycle Network Provision

The Midland Activity Centre's location along strategically important regional transport routes creates opportunities for cycling along these road corridors. This is particularly relevant for commuter cycling trips from locations along the Midland Principal Shared Path, or from the north and south which can be accessed via the sealed shoulders along Clayton Street and Lloyd Street. Midland has a good internal on-road cycling network that is being expanded through the MRA precincts.

On-street paths are preferred along regional corridors to facilitate commuter travel, and through activated spaces to minimise conflicts with pedestrians. For these reasons, the cycling provision in Midland is focused primarily on-street, through dedicated cycle lanes on strategic roads or in car/cycle lanes in the Activated Core.

A network of off-street paths is also represented between Midland Station, retail nodes, education and residential areas and designed to promote casual cycling as well as for school children. As these facilities are constructed for less confident riders, safe crossing facilities are of primary concern.

A core cycling network of on-street facilities, supplemented by off-street dual use paths is shown in **Figure 29. Indicative Cycling Network**.

2.4.5.2 End of Trip Facilities

End of trip facilities consist of bicycle parking, showers, lockers and other ancillary infrastructure designed to support cycling as a comfortable, practical mode choice. The level of end of trip facility provided depends on the target demographic and the available infrastructure funding sources.

For large-scale multi-level buildings with some proportion of undercroft or basement parking, commuter bicycle parking should be provided in secure areas adjacent to vehicular parking, along with shower and locker facilities sufficient to cater for the projected demand.

Precincts which constitute smaller office and retail, such as high-street environments, generally do not have the private infrastructure to enable businesses to provide secure commuter parking, let alone showers. In this instance, public facilities will be of greatest benefit. It is recommended that a large-scale cycle parking facility be investigated in the Activity Centre, ideally located near the core. A similar facility could be provided in the Workshops Precinct to provide public cycle parking for commuters.

Visitor parking can be of a lower scale, consisting of small clusters of bike racks near retail, office and civic buildings. Consideration should be given to utilising on-street parking areas for bike parking, where pedestrian activity, and therefore the risk of conflict, is high.

2.4.5.3 Requirements

The requirements for cycling infrastructure should be mandated through structure planning and design guidelines and for both public facilities and private development. Austroads recommendations and Green Star ratings provide reasonable industry benchmarks for cycling provision and could be used as target provision rates.



2.4.6 Vehicle Movement and Access

2.4.6.1 Traffic Management

There is a significant existing supply of long-term parking within the Midland Activity Centre, either free or priced at a low daily rate. As development intensifies, an unrestrained future parking scenario will not only result in an unsustainable parking demand but also a range of negative traffic and environmental issues within the Activity Centre, such as congestion, noise, pollution and safety. According to Census 2006 data from the Australian Bureau of Statistics, 95% of people travelling to work in Midland do so by private vehicle modes, either as a driver or passenger. If this scenario continues into the future, private vehicles within the Activity Centre will contribute to the congestion as well as being a safety risk for pedestrians and also detract from the desired Activity Centre environment. As such, a balance between providing vehicular access and minimising traffic impact is needed.

A SmartRoads exercise has been undertaken for the Activity Centre, assigning desirable transport modes to individual streets to create a network hierarchy for all modes. The results of this analysis is reflected in Figure 30. Smart Roads Hierarchy for the Midland Activity Centre. For streets with activated street frontages, there will be an emphasis of discouraging private vehicles and cyclists and instead encouraging pedestrian and public transport movement on these streets.

Mode choice is driven by traveller preference and is affected by a number of factors, particularly travel times and costs. As such, any measures intended to decrease the demand for private vehicles within the Activity Centre through supply or demand management measures must be offset by an increase in alternative transport options. This would include such initiatives as increased public transport frequencies and new routes, improved cycling facilities and more attractive pedestrian environments.

For the purpose of determining transport provision, a parking-based approach has been developed which determines the level of unsatisfied demand for a maximum parking supply scenario. This unsatisfied demand is then distributed across the remaining modes according to the likely uptake in mode share. For the purpose of assessment, residential demand has not been included.

Road capacity analysis has also been employed to investigate a theoretical maximum trip generation that can be supported by the existing road

environment, with the proposed function changes. The results of this assessment suggest that trip generation can increase by approximately 50% over existing peak hour rates before intersection Level of Service reaches F

A target mode share proportion has been established for non-resident trips to the Activity Centre, consisting of the following:

- Private Vehicles: 65%;
- Bus: 18%;
- Train: 10%;
- Cycling: 5%; and
- Pedestrian: 2%.

For the purpose of this assessment, all internal trips (trips between land uses within the Activity Centre), are assumed to be taken by non-car modes. A general split for internal trips has been assumed for the purpose of infrastructure provision:

- Pedestrian: 70%;
- Cycling: 10%; and
- Shuttle Bus: 20%.

The anticipated trip generation for the Activity Centre is in the order of 140,000 non-residential trips per day including 48,000 internal trips. The above mode share would create approximately the following two-way demands:

- Private Vehicles: 60,000 trips;
- Train: 9,200 trips;
- Bus: 16,000 trips (plus 9,600 internal);
- Cycling: 4,600 trips (plus 4,800 internal); and
- Pedestrian: 1,800 trips (plus 34,000 internal).

These are approximately the demand that must be catered for by each mode.



2.4.6.2 Road Environment

Significant changes to the internal road environment are proposed to manage traffic flows through the Centre precincts. Vehicular traffic is accommodated within a few key streets and controlled through cross-section and priority measures, as well as the location of large-scale car parking. Modification of road sections will be undertaken with consideration for all modes of transport, and particularly cycling.

2.4.6.3 Speed Zones

To promote the desired safe and legible pedestrian environment, the speed limit within the Midland Activity Centre is proposed to be decreased to 40km/hr on all internal streets, and 50km/hr along Great Eastern Highway as in other Town Centres such as Mundaring. Morrison Road would remain at 60km/hr to facilitate efficient local connections. Streets within the Activity Centre will be kept to a narrow road width to promote low speed, while an additional signalised intersection at the intersection of Great Eastern Highway and Cale Street will reinforce safe pedestrian connectivity along this primary north-south desire line.

To minimise the impact of this additional signal on regional bypass traffic, coordination of this signal with those to the east and west is recommended.

2.4.6.4 Great Eastern Highway

The primary road corridor through Midland consists of Great Eastern Highway, which is generally constructed as an undivided 4-lane road, transitioning to a one-way pair west of Padbury Terrace. This form is consistent with the existing function of Great Eastern Highway as a strategic corridor serving a regional purpose.

The future structure of the Midland Activity Centre includes significant development of the Great Eastern Highway corridor, extending south across the rail line. This will result in a significant proportion of internal trips, primarily pedestrian trips, across Great Eastern Highway. To facilitate this movement, local traffic is proposed to be relocated to Morrison Road and the cross-section of Great Eastern Highway modified to support pedestrian legibility and safety. This would involve construction of wider footpaths, on-road cycle lanes and improved crossing provisions, facilitated through a reduced on-street parking provision.

The road widening initiative currently being undertaken by Main Roads to the east of Padbury Terrace will assist in improving the pedestrian environment by permitted the provision of a wide central median to create a pedestrian refuge. Streetscape improvements along the northern verge resulting from the Midland Gate redevelopment would be complemented by trees and shaded areas on the southern verge.

Further to the west in the one-way sections, the road form would remain similar to existing geometry, with streetscape upgrades to improve the pedestrian environment and provide continuous on-road cycling lanes. These improvements are likely to require removal of some existing onstreet parking.

Notwithstanding the current intent to retain the one-way road environment in Midland, the opportunity for future conversion to a two way traffic system should preferably be retained in any street upgrades.

Development of a Great Eastern Highway Access Strategy is recommended for the Midland City Centre area, focused on achieving the best environment for pedestrians and regional traffic movements.

2.4.6.5 Morrison Road

Traffic along Morrison Road is expected to remain at existing volumes west of Great Northern Highway, while experiencing some additional growth to the east. This is a result of the proposed changes to the regional road network which will redirect a substantial proportion of external traffic north along Great Northern Highway and Lloyd Street. Regional traffic will largely be replaced with the additional local traffic anticipated to use Morrison Road to access car parking and facilities within the Activity Centre. The existing form of Morrison Road is therefore considered sufficient to accommodate future demands, though function will be improved by extending the existing 4-lane form to Great Eastern Highway. Minor improvements, consisting of the installation of right- and left-turning pockets on some major road connections, are advised to ensure local traffic is encouraged to use Morrison Road in preference to Great Eastern Highway.

2.4.6.6 Cale Street / Keane Street

Cale Street will be a major north-south link for pedestrians and cyclists. The effectiveness of this route for private vehicles will be further investigated. Connection through the Midland Oval Precinct to Morrison Road is not supported. As an alternative, Keane Street will form the highest priority north-south link from the City Centre, with existing and proposed private car parking accessed via Keane Street. Keane Street provides direct connection to both Morrison Road and Great Northern Highway, and so minimises the impact of vehicular traffic on local streets.

To mitigate the high demand for trips along Keane Street, an additional significant intersection is proposed to allow access from Morrison Road directly into the Midland Oval development car park. This access should reduce traffic along Keane Street

Cale Street will be redeveloped in concert with the current expansion of Midland Gate to a more activated street consisting of entertainment and retail uses, greater use of public space and a led intrusive parking arrangement.

2.4.6.7 Spring Park Road Link

A new link road is proposed between Spring Park Road and The Crescent, to the south of a large-scale multi-deck car park. This road is intended to improve pedestrian and vehicular connection through the Morrison West Precinct and to support the desireline between this car park and the main activity nodes in the West End Precinct and further to the south and east.

2.4.6.8 Old Great Northern Highway

The existing configuration of Old Great Northern Highway includes a pedestrian-only section between The Crescent and Morrison Road. This creates an attractive pedestrian space adjacent to the existing City of Swan and Landgate buildings. Previous planning in Midland has discussed opening this section back up to traffic to create more passing trade for local business. However, the effect of this modification would be to create an attractive alternative route between Great Eastern Highway and Great Northern Highway for regional traffic. This traffic is unlikely to provide any passing-trade advantages for local business and would instead reduce the amenity for pedestrian traffic. A closure of this section of Old Great Northern Highway is therefore not recommended.

2.4.6.9 Rail Crossings

Connectivity between the existing Midland City Centre and the Railway Precinct is compromised by the location of passenger and freight rail lines that bisect the Activity Centre. Improvements to north-south connections are recommended. The enhanced connectivity at Cale Street and all existing crossings (Amherst Road, Helena Street, Cale Street and Lloyd Street) would greatly benefit from grade separation. However, with the exception of Lloyd Street, traffic and adjacent intersection operations will continue to operate at an acceptable level following the proposed realignment of regional freight rail. In the event that freight rail relocation is significantly delayed, grade separation will become more critical to the function of the Activity Centre.

2.4.6.10 Freight and Delivery

Midland's location along the Great Eastern Highway, as well as its proximity to the Hazelmere industrial area and freight rail terminal, results in a high frequency of bypass freight trips. This is intended to be addressed through relocation of regional freight services away from the Activity Centre, and through long-term investigation of a freight rail bypass to the south of Midland.

Freight and deliveries destined for Midland have the advantage of the high capacity regional road network within the area, including current and future roads such as Great Northern Highway, Great Eastern Highway, Lloyd Street and Roe Highway. Access to the Midland Activity Centre will be supported along these major road links, and restricted through the activated core of the Centre. Deliveries will be enabled through an increase in on-road loading zone areas, particularly in 'main street' precincts and where smaller office/retail development is located. Larger office/commercial buildings will be serviced via on-site docks connected to basement or undercroft parking structures. Access to dock areas through a laneway network is supported to minimise the impact of service/delivery vehicles on pedestrian, cycling and bus modes.

2.4.6.11 Freight Rail

Realignment of the freight rail out of the City Centre remains a priority for both the MRA and City of Swan. The location of the freight line has significant impacts on the centre and this will worsen as freight traffic continues to increase. The City and MRA will continue to lobby government to realign the freight rail around the Midland Activity Centre





2.4.7 Parking

2.4.7.1 Parking Management Principles

Midland operates as a significant strategic centre for both the local community and a wider catchment that extends into the Wheatbelt and to relatively remote residential catchments such as Ellenbrook and Mundaring. For this reason there will always be an important place for private vehicles, as these represent the only viable transport mode for a large proportion of this population. High quality parking will be required to accommodate this demand, as well as that of other visitors, residents and commuters.

However, a higher provision of car parking will result in an increase in demand for private vehicle modes, potentially beyond the capacity of the road network to support it. Car parking management methodologies will need to be introduced to maintain a level of supply and demand which can be sustained by the local road network.

2.4.7.2 Parking Supply Management

The parking assessment completed for this study determined that Midland has a parking supply in the order of 10,500 parking bays, and a peak theoretical demand of 7,700 parking bays. This suggests that even with a 95% inbound private vehicle mode share, the current parking provision is poorly utilised.

Existing parking demands have been used to calibrate the future unrestrained demand scenario. Based on the proposed land uses, a design day unrestrained (free) peak demand of 13,700 bays has been calculated, which is approximately equivalent to the existing supply (including the approved expansion of Midland Gate Shopping Centre). This relatively low number represents the significant impact of shared and reciprocal parking across the precinct which reduces the anticipated peak parking demand by about 50%. Midland Gate's ongoing provision of public parking on site will negate a requirement for the provision of reciprocal parking arrangements.

Road capacity analysis would suggest that the number of occupied parking bays is 50% higher than the existing peak theoretical demand of 7,700 parking bays, or approximately 11,500. If we assume that this represents a

maximum supply scenario, including park 'n' ride parking at the proposed Midland Station, then the future Midland Activity Centre would contain roughly the same number of parking bays as it currently does.

Wayfinding and signage strategies as part of a comprehensive parking management strategy can improve efficiency over the existing scenario, but the proposed parking supply is dispersed across a relatively wide area and is partly private (though the peak parking generation for the major land uses tends to be concurrent anyway), reducing the effectiveness of shared parking scenarios. This would suggest that a maximum efficiency of about 85% is achievable under normal conditions. This reduces the effective supply to 9,775, some of which is consumed by park 'n' ride parking.

This effective supply rate is below the theoretical road capacity limit, which implies that the proposed parking is sustainable on a precinct-wide basis.

2.4.7.3 Parking Rates

It is envisioned that land uses would be categorised according to simple criteria with any other non-standard uses to be assessed with respect to the goals of the City and Department of Planning

Nominal (example) maximum parking rates are proposed in the Department of Transport (DoT) Activity Centres Parking Discussion Paper and provide a benchmark for development as follows:

Retail: 3-4 bays per 100sqm;Office: 1-2 bays per 100sqm;

Showroom: 2 bays per 100sqm; and

Residential: 1 bay per unit.

Calculations show that at the lower end of these rates, the ultimate development would result in approximately the desired parking quantum. However, higher transitional rates which allow parking on a mandated schedule are necessary to reflect the commercial realities of development (noting that the built out scenario will take many years to eventuate). This structure plan includes (in Part One) the transitional rates based on site modelling, DoT requirements, and the Master Plan.

Public car parking allows a more efficient and equitable allocation of parking resources across multiple land uses. Therefore, a proportion of public car parking is beneficial to the operation of the Activity Centre and should be supported by the statutory framework. A public parking quantum of 25% of required bays across the Centre (including on-street provisions) would likely be sufficient to provide the necessary flexibility.

2.4.7.4 Parking Pricing

Parking infrastructure is expensive to construct and maintain. Where unrestrained parking demand rates significantly exceed the supply rate, the market price for hourly or daily parking can support the construction of public car parking on commercial grounds. However, market pricing of parking will have a significant impact on demand, with effects felt at relatively low rates. While there may be localised hotspots where parking is in sufficient demand to justify cost recovery pricing, it is likely that the

majority of public parking will be unable to pay for itself through fees. This suggests that alternative funding methodologies will be necessary.

It should also be noted that parking compliance is essential to the successful implementation of the parking management regime.

2.4.7.5 Cash-in-lieu

Cash-in-lieu of parking is a mechanism by which developers contribute towards public parking and/or sustainable transport initiatives. This mechanism would allow public parking infrastructure to be funded by development, without the requirements for a Development Contributions Scheme.

A model cash-in-lieu scheme is recommended for consideration which combines parking minimums with mandatory cash-in-lieu to ensure that sufficient public parking can be supplied, while maintaining a limit on parking to prevent adverse impacts to the road network.

Mandatory cash-in-lieu for shortfalls of on-site parking would require developers to fund a proportion of their parking requirement in off-site parking to be constructed by the City, and to fund additional sustainable transport initiatives such as cycling infrastructure and public transport improvements. Additional parking could be funded by cash-in-lieu to reduce the development's on-site requirements. Demonstrated synergies within a development which would reduce their parking demand could also be supported to reduce on-site supplies.

2.4.7.6 Parking Priorities

The public parking supply can be segregated to provide parking for a range of needs. The two broadest categories for non-residential parking consist of commuter and retail parking. These have overlapping but separate demand profiles and should be managed in different ways.

Retail and entertainment parking should be provided centrally, close to destination areas and easily accessible from the development. Parking is ideally supplied on street or in decked car parking with a demand responsive parking fee that promotes turnover.

Commuter parking tends to be of lesser value to the Centre and should be supplied on the periphery of the Activity Centre in large-scale parking structures priced to support all-day parking. Commuters tend to arrive during the roadway peak and have significant impact on traffic operations. Removing this demographic from the main Activity Centre improves pedestrian and cycling safety, public transport efficiency and intersection operation. Commuters are also more willing to walk long distances, particularly if the pedestrian environment is attractive.

Other specialised parking categories are also important and should be included in the on- and off-site parking supply. This includes:

- Disabled parking, demand for which will increase markedly over the next 20 years and should represent 2-3%
 of the overall non-residential supply;
- Loading bays adjacent to retail and entertainment or mixed-use developments which do not include on-site
 provision for service/delivery;
- Bus stops along service routes;
- Taxi stands in areas with high demand; and
- Other types of very short-stay parking (ATM, post boxes, emergency service zones, etc.).

2.4.7.7 Parking Location

Preliminary assessment of potential parking structure locations has been undertaken by the City of Swan and reassessed for the proposed development scenario. **Figure 31. Potential Car Parking Locations** shows potential locations for large public and private parking (whether at grade or decked), to be supplemented by smaller-scale parking at the individual development scale. Public car parks are proposed to be accessed primarily from the peripheral roads, avoiding direct links to Great Eastern Highway wherever possible.

Large-scale multi-deck parking is proposed along Morrison Road, accessed via Spring Park Road and a new Midland Oval car park entrance. This parking has the advantage that it is easily accessed from the primary road network without creating congestion through the Activity Centre. The location of these bays also creates a desire line through the Activity Centre, generating passing trade for business along The Crescent and in the West End Precinct. A new road link between Spring Park Road and The Crescent would assist to direct pedestrian traffic and improve legibility within the Morrison West Precinct.

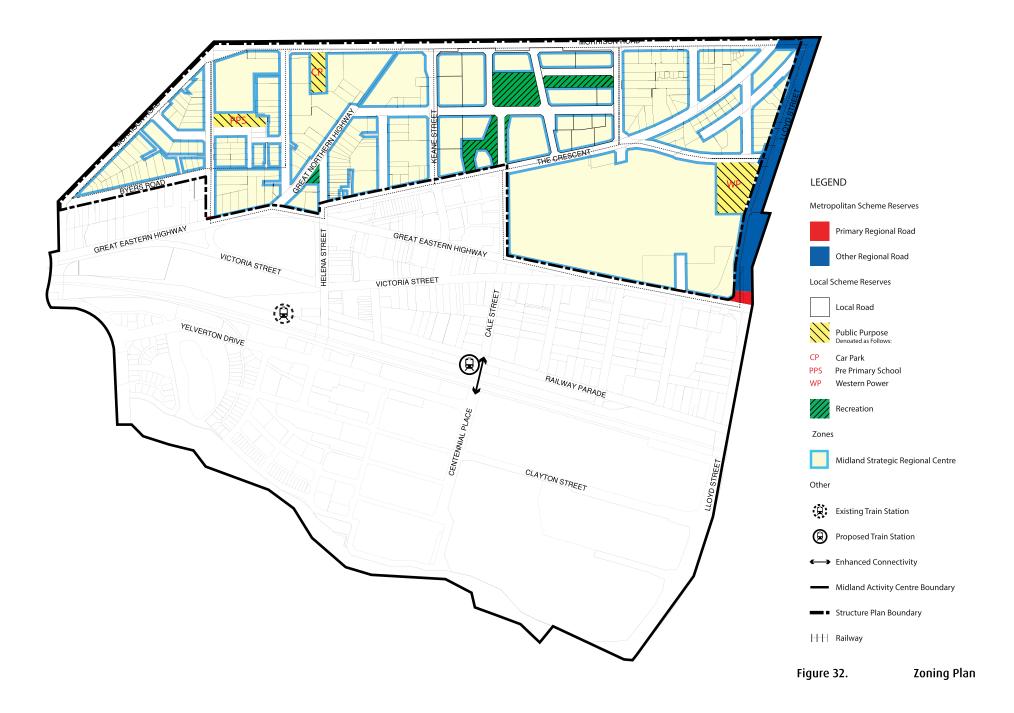


Figure 31. Potential Car Parking Locations

LEGEND

- P Indicative Parking Location
- P Indicative Decked Parking Location
- Existing Train Station
- Proposed Train Station
- Enhanced Connectivity
- Midland Activity Centre Boundary
- Structure Plan Boundary
- ----- Precinct Boundary
- HH Railway

2.5 Urban Form





The Structure Plan establishes the organisational framework for land uses, movement patterns, building form and neighbourhood character based upon the Master Plan framework established by the City of Swan and MRA. The high order principles around these categories have informed design guidelines, which are adopted as local planning policy, and establish the finer grain details informing future development proposals.

The key elements of a future Midland Activity Centre supported by both the Master Plan and therefore this Structure Plan are:

- Recognising the need for more intense development, which will be focused around public transport and points of amenity;
- Creating a new network of green spaces characterised by small to medium urban greens and public squares. These green spaces are a point of focus for each neighbourhood and allow for a focus of community activity and development;

- Relocating the Midland Train Station and Transit Interchange to a more centralised location at Cale Street. This location better serves the future Midland Health Campus, major shopping and restaurant precincts and pedestrian core;
- Creating a spine of taller development along the railway line, south
 of Great Eastern Highway and Victoria Street, up to 12 storeys in
 height and within a landscaped setting including extensive street
 tree planting;
- Formalising a network of pedestrian oriented, activated streets with complementary building form, principally around Midland's West End and linking to the Midland Gate Shopping Centre;
- Improving north south links at Cale Street and reinforcing Helena Street as a complementary north-south connecttion.
- Creating attractive and well-treed entry boulevards along Great Eastern Highway, Lloyd Street and Morrison Road, thus improving the impression and character of Midland;
- Identifying locations for development of public parking facilities, reducing the requirement for on site car parking and allowing more efficient use of car bays; and
- West End Centre revitalisation and heritage building protection.



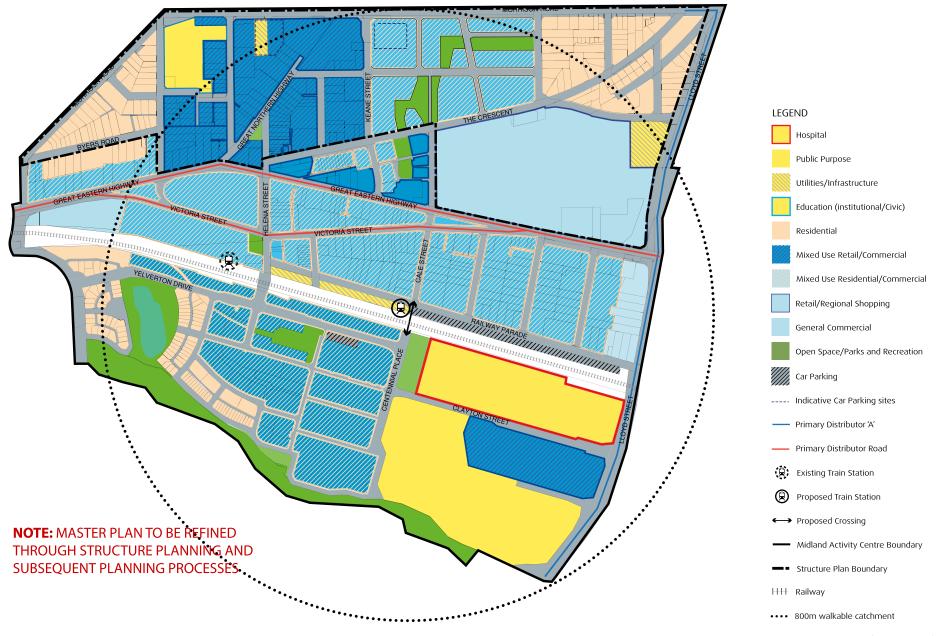


Figure 33. Midland Activity Centre Master Plan (as adopted)

2.5.1 Urban Form Drivers

The Midland Activity Centre will deliver a clearly defined urban structure, based both on historic development patterns and the agreed development framework derived from community intent and State policy.

The historic road network will be enhanced through development of safe and comfortable cycle and pedestrian routes, intersecting at the heart of Midland around Cale, Helena, Great Eastern Highway and The Crescent. The movement network integrates a range of uses and activities providing employment, living and service functions to the region. The street network will foster walkability with strong connections to public transport, centre activities and open spaces. Convenient and direct connections will be made to the surrounding areas and pedestrian and cycle links integrated with the district and regional network.

A mixed-use urban centre will be delivered at the heart of Midland, focused around activated and attractive streets, the historic core and a network of urban spaces. The heart or pedestrian oriented core will sit between and integrate the health, education, office and residential uses. The mix and range of uses and activities will foster a strong sense of place and a level of urban quality that will help attract and retain residents, workers and businesses.

Excellent public transport provision will underpin the urban structure, with the new Midland Station and transit interchange at Cale Street integrated with pedestrian and cycle routes and co-located between Midland's heart, the health campus, future education functions in and around the former Railway Workshops and a more intense office-residential precinct along the railway spine.

Major urban boulevards will establish the vehicle movement framework around Midland. A strong east-west entry axis will be created along Great Eastern Highway, transitioning to a pedestrian focused street in the core. Morrison Road and Lloyd Street will provide alternative routes around the centre, and will be designed as leafy boulevards, giving a positive impression of the centre. Cale and Helena Streets are high quality urban streets providing connection across the rail line and linking the important civic, employment and service functions of Midland.

The remaining road network, categorised as lower order roads will provide a permeable network of routes through the activity centre. This modified grid network will spread traffic loads evenly to optimise the capacity of the network and slow traffic to achieve a balance between pedestrian amenity and road efficiency.

An improved cycle network will connect each of the key activity areas in Midland and allow safe movement to the pedestrian core. As a general rule, local streets will be designed for slow vehicle speeds allowing on street cycle movement; regional streets will include off street cycle lanes where possible.

Improved connections will be made to the forgotten presence of the Swan and Helena Rivers. Leafy streets and pedestrian links will intersect recreation activity nodes at both river edges. Particularly, a new formalised movement network will be created to connect to future recreational development at the Swan River Regional Park. North of Morrison Road, a new road reserve is proposed to be created by acquiring private land at the extension of Poynton Avenue and allowing vehicle and pedestrian access to the Swan River foreshore. The Midland Redevelopment Master Plan allows for improved connections through to the Helena River, however a new riverside road is proposed as part of the Master Plan from Lloyd Street and connecting to Cale Street.

The configuration of the Activity Centre will be geared towards promoting the development of appropriately scaled built form to promote new business opportunities, linking key health, educational and service areas and maximising the benefit of the highly amenable and comfortable public realm.





Figure 34. Illustrative Concept Plan

2.5.2 Illustrative Concept Plan

A concept plan was developed to illustrate the potential outcomes for the Midland Activity Centre. It shows a high quality, street-based public realm which will be the focus for activity, movement and interaction. Importantly, it is the public realm improvements that have the most potential to change the character and impression of Midland to that of a walkable, comfortable and attractive centre. Figure 34. Illustrative Concept Plan.

2.5.2.1 Streets

Midland has a traditional grid pattern of development, which will be enhanced by the Activity Centre Master Plan and the Structure Plan through activation of streets within the core retail areas, ensuring development defines public space through consistent building lines and creation of a comfortable pedestrian scale by setting back taller development.

In areas where there are very long street blocks, and where undeveloped land permits, new north-south connections are proposed. This will improve circulation and permeability throughout the centre, supporting the intention for a walkable city.

2.5.2.2 Public squares and open spaces

In recognition of the increased residential and employee population intended for Midland, a number of new urban greens and open spaces are proposed:

- Hospital Square: a new area of open space is proposed as part of the Midland Health Campus master plan to provide a civic square (note, this space will not be gazetted as public open space and will be retained as part of the health campus site);
- Midland Oval: open space will be retained to create an urban plaza and green space as part of Midland Oval's redevelopment;
- Train Station: upon the train station being relocated, an area of existing vegetation will be retained for character and amenity purposes; and
- Poynton Avenue: the existing school oval will be shared with the community to provide a neighbourhood point of focus.

These will enable creation of amenity, act as urban elements that drive development and allow spaces for respite and calm within the intensified urban environment.

The open spaces are evenly distributed throughout the project area, ensuring equitable access and informal recreation opportunities are available across Midland.

2.5.2.3 Links to River

Through community vision exercises and previous planning strategies, improved links to both the Swan and Helena Rivers are sought. The Master Plan supported by the Structure Plan enables this by creating legible, safe and well-treed links to both of these important assets. In some cases, this requires resumption of private land, however this is justifiable based on the need to better integrate Midland's urban form with its natural environment.

2.5.2.4 Strategic Regional Centre and Relationship to Midland Redevelopment Scheme

A significant proportion of the Midland Activity Centre is within the Midland Redevelopment Scheme Area. The Master Plan is a strategic document, prepared in association with the City of Swan and Metropolitan Redevelopment Authority. For those areas outside the City of Swan planning control, the Metropolitan Redevelopment Authority will need to consider modifications to its planning controls consistent with this document. Figure 35. Midland Activity Centre Precincts and Design Guideline Areas shows the strategic regional centre where new planning controls will be required within the City of Swan's Local Planning Scheme. This Structure Plan and the Midland Activity Centre Design Guidelines will apply development control on a precinct basis.



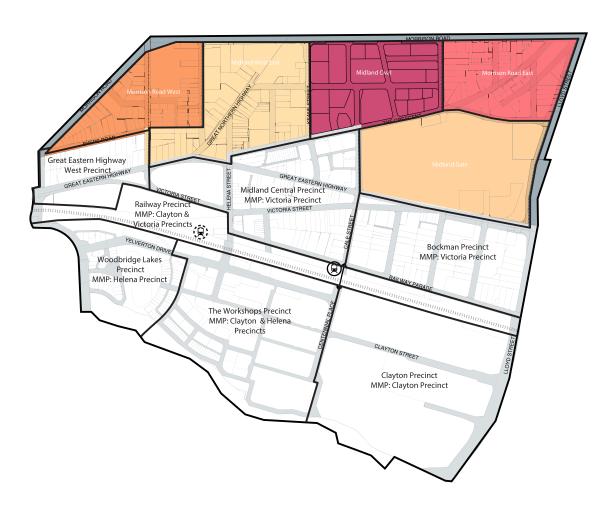


Figure 35. Midland Activity Centre Precincts and Design Guideline Areas

2.5.2.5 Design Guideline Precincts

This Structure Plan and the Midland Activity Centre Design Guidelines provide design principles for the Activity Centre to ensure progressive built form. The precincts which quidelines have been prepared for are:

- Morrison Road West;
- Midland West End; and
- Midland Oval Precinct.

The comprehensive design guidelines and Structure Plan will provide general provisions and specific information on the design intent, indicative street sections, heights, setbacks, landscaping and unique characteristics intended for the precinct.

For the City of Swan controlled areas shown in Figure 34. Midland Activity Centre Precincts and Design Guideline Areas, further to this Structure Plan the guidelines will be adopted as local planning policy under LPS 17. For the Midland Redevelopment Scheme Areas, modifications to existing policy will be required consistent with the guideline document in conjunction with the City of Swan.

2.5.3 Built Form

Building forms will address and reinforce streets to define and activate public spaces as well as foster a sense of enclosure. Midland's existing modified-grid street network establishes strong connections to the town centre. Public transport nodes and buildings are orientated to support shady and comfortable streets and sustainable building performance. An integrated network of public plazas and urban greens will establish breaks in the urban landscape, providing respite and space for communal activities; these public spaces will promote walking and support informal interaction, activity and exchange.

Arrival points and corridors (such as boulevards) are important to reinforce the intended impression and character of Midland. Arrival points, corridors and edge treatments provide opportunities to reinforce the intent for various parts of the Activity Centre. A coordinated and planned approach to landscape and public realm treatments will allow the centre to integrate appropriately with surrounding land uses and strategic movement corridors. It is therefore imperative that high quality public realm treatments, including gateway arrival experiences and key infrastructure items, are treated appropriately.

The arrangement of built form intensity throughout Midland is based on four key drivers:

- Access to public transport
- Character and grain of historic quarters
- Propensity for change and development potential
- Policy objectives for minimum dwelling density

The Central Core will contain the majority of the tallest buildings in Midland, being adjacent to the railway line and having no heritage or character drivers. Pedestrian oriented and activated streets will have a lower scale of development to promote a comfortable, walkable environment. Throughout the activity centre, buildings will promote surveillance and overlooking of the public realm. Within the historic core (West End), built form relates to the established grain and rhythm of development - taller built form elements are set back from the street to emphasise and strengthen the existing place character.

The Midland Oval and area around the existing public transport interchange have the greatest propensity for development, being largely in single ownership and containing no built form impediments to development. These areas will also contain relatively intense built form, helping to achieve policy goals for employment and residential density.

South of the rail line, built form character is established by the Railway Workshops heritage precinct, the former industrial fabric and intent to promote complementary development opportunities. Buildings frame Railway Square, a key cultural plaza for Midland, and frame views towards the historic workshop buildings. The scale of the Midland Health Campus, adjacent to the Railway Workshops, also provides a complementary urban form, whilst also containing an appropriate degree of civic architecture to define it as an important element within the Activity Centre.

Within the residential neighbourhoods, building height and form transitions to a more domestic scale and grain; typically between two and five storeys. Heights should transition to the surrounding areas to ensure the Activity Centre is comfortably integrated with the broader urban form.

2.5.3.1 Building Heights

Building heights help establish the legibility of important places in the urban fabric, as well as supporting more intensive use and activity in a particular location.

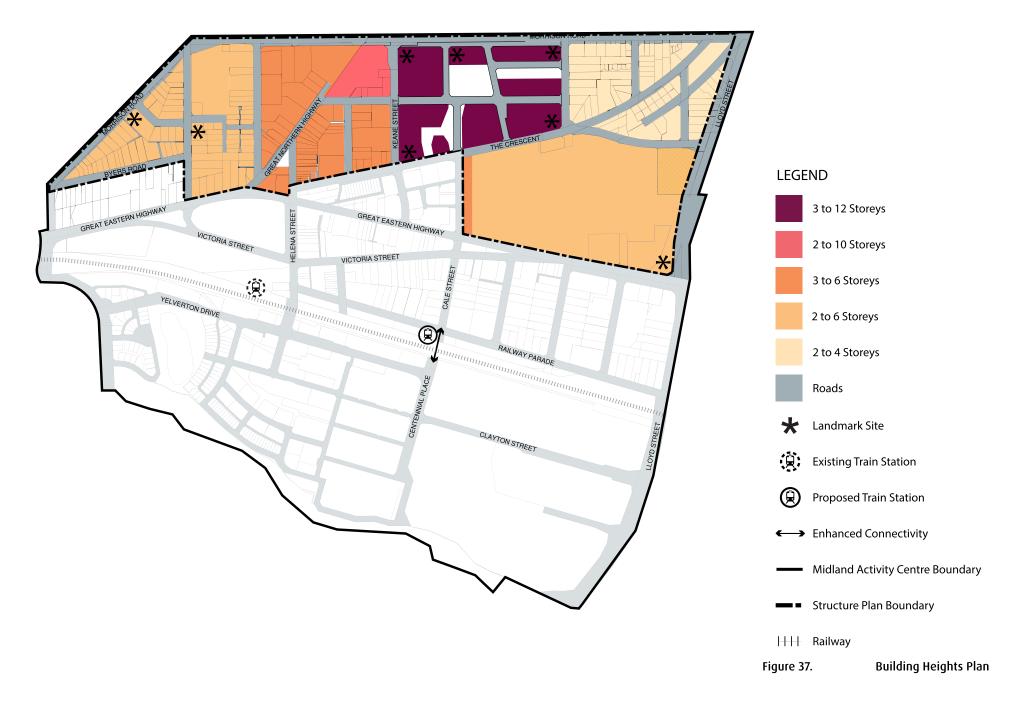
Within the Midland Activity Centre heights should be greatest within the Central Core, adjacent to the new station interchange at Cale Street, to support transit oriented development and maximise potential for increased employee and resident populations. Heights should transition to the surrounding areas to ensure built form in the activity centre comfortably integrates with recognised areas of heritage significance and more sensitive residential neighbourhoods. Heights are described in Figure 37. Building Heights Plan and can be increased at the discretion of Council

Development in the Midland Activity Centre should support the following key outcomes:

- The tallest buildings are located around key public transport nodes within the Central Core;
- Building heights in areas containing significant historic character elements should respect the existing scale and grain; and
- Buildings along pedestrian oriented and activated streets scale down in height to form a more human scaled interface while promoting overlooking and surveillance.



Figure 36. A conceptual model Midland's structure and the Central Core, where height is intended





2.5.3.2 Plot Ratios

Plot ratios are to be commensurate with the intended use, character, density and the overall movement strategy for Midland. Plot ratios are applied in conjunction with building height controls to guide density and the overall quantity of development. They are considered by block or development area with the highest plot ratio areas focused on the Central Core area adjacent to the transport node. Plot ratios should be readily achievable within the nominated building heights. (Figure 38. Plot Ratio Plan)

2.5.3.3 Active Edges

Edge treatments at key locations reinforce places of importance, activity and other dramatic place-making outcomes. Edge treatments will define the quality and character of streets and public spaces, and are the primary element that establishes the sense of place and urban quality of Midland. Edges will be defined to support areas of concentrated activity (retail and other experiential types uses), and reinforce key movement corridors and areas around major transit stops.

Edges are classified in the following typologies (as nominated by Figure 39. Building Frontage Requirements: The approach to activating the streets throughout Midland):

Main Street Edge

These are the most active street frontages that will focus on the provision of retail shops, cafes, restaurants and hospitality functions. Uses should spill onto the streets where possible and internal uses should have a clear relationship with the external environment.

Semi Active Edge

The intensity of activation along these edges is less than a Main Street Edge but still provides an activated frontage. Street frontages are still required to focus on retail shops, cafes, restaurants and hospitality functions with uses spilling onto the street, but not so much that it detracts from the main street.

Commercial and or Residential Front Door

Buildings should be oriented towards the street and be provided with entries at the street frontage and opportunities for overlooking (such as balconies and windows).

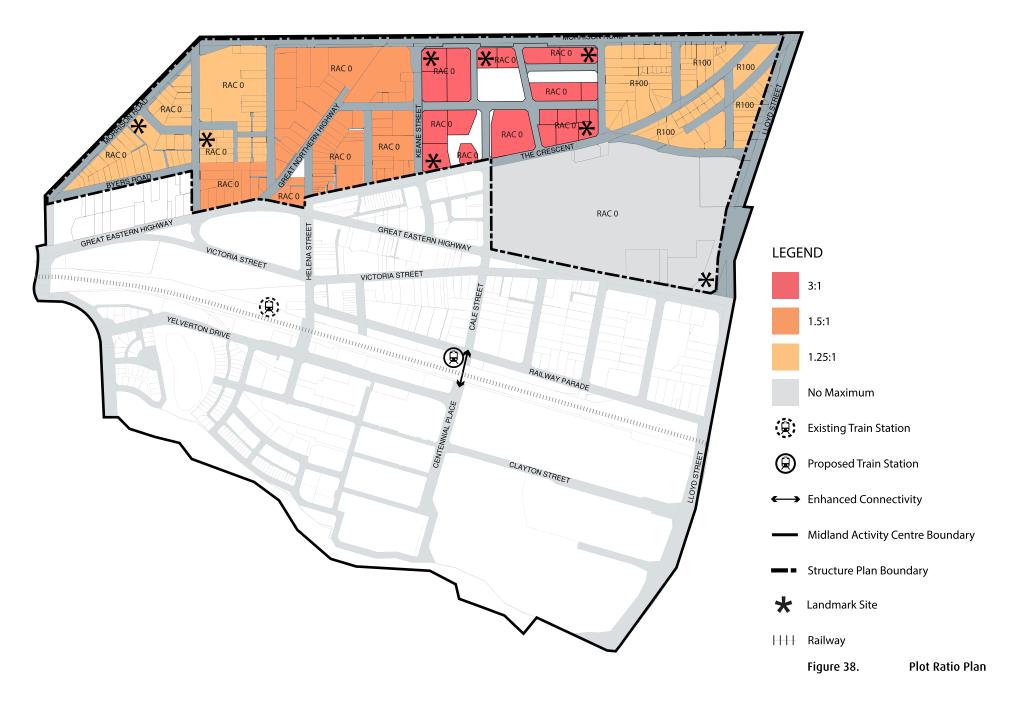
Service Edges

Development fronting service edges should provide opportunities for surveillance where possible.

Development within the Activity Centre will establish a positive relationship to the street and public spaces, including the delivery of activated ground floor uses at specific locations. Active edges have the following characteristics:

- Frequent doors and windows, with few blank walls;
- Narrow frontage buildings providing opportunities for more frequent and mixed-uses:
- Building façade articulation;
- Pedestrian awnings for weather protection; and
- Uses visible from the outside, or spilling onto the street.

In places where active edges are not considered feasible, buildings will establish a strong address and access to the street. Where residential buildings are concerned, they will deliver direct entry from the street to ground floor units. At several locations within Midland, including frontages to regional transport corridors, high quality building edges and, in some cases, a strong landscape or green edge should be presented.



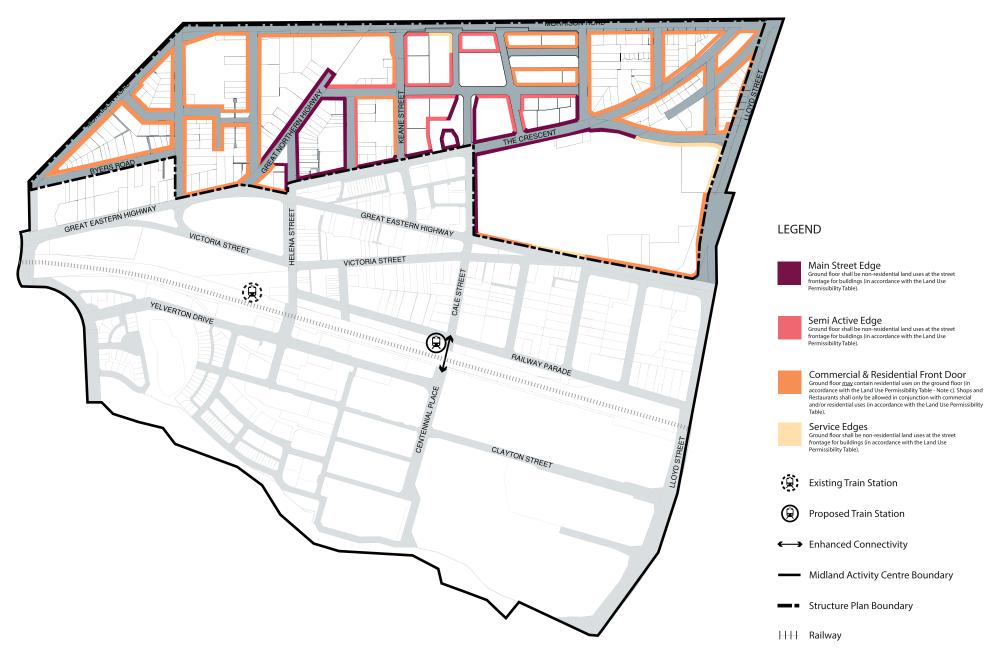


Figure 39. Building Frontage Requirements: The approach to activating the streets throughout Midland



2.5.3.4 Urban Amenity

In recognition of the need to increase the intensity of development throughout Midland, it is important to provide amenity and areas of community focus. Figure 40. These points of amenity will:

- provide respite from continuous built form;
- help to stimulate investment;
- help to link larger environmental features such as the Swan and Helena
- act as community nodes, encouraging positive interaction and informal
- encourage a sense of place for the precincts within the Midland Activity Centre.

2.5.3.5 Site Amalgamation

In order to achieve the development standards intended by the Master Plan and this Structure Plan, site amalgamations are encouraged, particularly in the Morrison Road West & Central Core precincts. Without site amalgamation, the overall development intensity of Midland will be substantially less. Where site amalgamation does not occur, development potential will be mandated at a lower level. Minimum height standards also apply to ensure development meets the intended streetscape outcome.

2.5.4 Precinct Form and Character

The following provides a description of the intended character for each precinct within the Midland Activity Centre, based on land use, built form and activity. The principles established for each precinct will inform design guideline provisions adopted as local planning policy for the Midland Activity Centre.

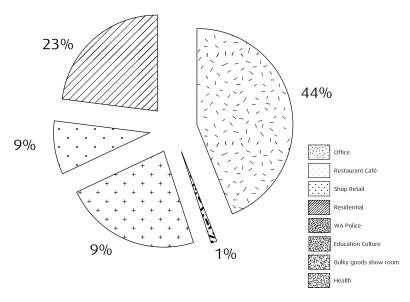


Figure 41. Midland West End Indicative Land use Breakdown

Table 15. Midland West End Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	94, 960 sqm
Education/Culture/Health	2, 500 sqm
Shop/Retail	48, 698 sqm
Restaurant/Cafe	19, 334 sqm
Residential	49, 706 sqm
Dwellings	621

2.5.4.1 Midland West End

The Midland West End is the focus for retail (outside of Midland Gate), restaurant and entertainment functions within a pedestrian oriented main street environment. It will contain a diverse mix of uses, including residential and office functions and provide public spaces for community activities. The area will transition from an intense retail/restaurant main street environment to a more office and commercial oriented area north of The Crescent.

Buildings will be built to the boundary, address the streets and public spaces and support active ground floor uses. Building heights will be three to five storeys to the street interface, with potential for an additional level, setback from the street boundary. Within the historic core area, along Helena Street and Old Great Northern Highway, development will complement the historic grain and character of the existing buildings, being generally two levels at the street boundary – higher development will be set back from the street to ensure a clear separation of building forms. This will promote a comfortable, pedestrian scaled street environment, promoting activity and the desired intensity of development.

New north – south local streets (within the MRA area) will be created to improve connectivity and circulation through the precinct, including the extension of Keane Street to Railway Parade. These streets are to be located to create permeability through the long street blocks and coincide with gaps in the built fabric. Land will need to be resumed from private landowners to create these north-south connectors.

New laneways will provide service access to lots fronting onto Great Eastern Highway and Victoria Avenue. Where possible, these laneways will extend upon existing rights of way, however a width of 6 metres will be required in lieu of the typical 3 metre right of way width.

Precinct Outcomes

- The area is the traditional heart of Midland
- Cale and Helena Streets will be important north south connectors.
- Juniper Gardens will function as a central urban plaza, with surrounding streets creating a 'main street' focus for Midland.
- The West End's fine grain and historic character will be retained and enhanced through new development providing complementary built form, high quality of materials and finishes.
- All streets will be slow vehicle environments allowing for comfortable pedestrian movement and on street parking.
- Streets will have wide pedestrian paths and street trees to enhance pedestrian amenity.
- Intensity and mix of uses provides a variety of experiences that is attractive to workers and businesses including health, education, research, retail, commercial, food and beverage, residential, and community uses.

Land Use Breakdown

The indicative breakdown of uses proposed within the Midland West End precinct are shown at Table 15. It will support an active and vibrant centre in an area of high public transport accessibility.

2.5.4.2 Central Core (Forms part of the MRA area and is therefore not part of Structure Plan)

The Central Core is the most intense area of development within Midland, containing majority of the tallest buildings (up to 12 storeys) with a mix of office and residential land uses, as well as some restaurant and retail floor space. The central core will be a pleasant living and working environment set in leafy surrounds. Buildings will generally be set back from the street (where active frontages are not required), and extensive landscaping and street tree planting will combine to create a soft contrast to the scale of built form throughout the area.

Along Cale and Helena Streets, buildings will extend to the street boundary to provide a greater level of activation and street presence, reflecting the important pedestrian function these streets provide. Victoria Street buildings will also be constructed to the street boundary, however the intensity of retail activity will be less; a continuous street edge and lower scale at the street provides for a complementary scale to the pedestrian core opposite, with commercial land uses at around level.

Redevelopment of the Centrepoint Shopping Centre site offers opportunity for large scale development, stepping down from ten to six storeys at the interface with Great Eastern Highway and Helena Street. It is desirable that a privately owned public car park be included in the redevelopment of this site to support long-term commuter parking for Midland, in recognition of the accessible and peripheral location.

Redevelopment of the current transit interchange site offers an excellent opportunity to bolster the resident population and employment capacity of Midland. The site, upon relocation of the transit interchange to Cale Street, will accommodate a mix of land uses in buildings between three and twelve storeys in height.

Development will promote activity along Victoria Street, but not to the intensity of the retail core, rather office and lower order retail and business services functions will predominate. New access roads will provide the required circulation and opportunity for development frontage - by extension of Keane Street to Railway Parade and Marion Street to Great Eastern Highway.

There is also opportunity to retain some of the large trees around the current transit station to create a small park as a space of respite and amenity that promotes the desired built form character. This park, measuring around 3,000 square metres in area, would complement the network of public spaces throughout Midland to improve the amenity afforded to new residents and employees.

Precinct Outcomes

- The area provides for the most intense form of development, with opportunity for mixed use, residential and commercial buildings.
- Streets and landscaped setback areas will create a highly amenable, leafy setting for living and working.
- Cale and Helena Streets are important north-south connectors and will link the health and cultural precincts south of the railway with the town core to the north. Cale and Helena Streets are to be pedestrian oriented, activated streets.
- Victoria Street will contain a commercial ground floor frontage in recognition of its higher vehicle movements, though ground floor tenancies do not need to be shop retail.

Land Use Breakdown

The following indicative breakdown of uses are proposed within the precinct, noting the intended focus is for residential and commercial (office) development.

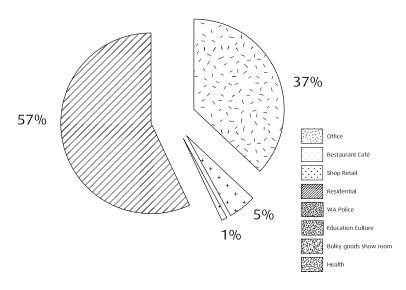


Figure 42. Central Core Indicative Land use Breakdown

Table 16. Central Core Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	166, 160 sqm
Education/Culture/Health	0 sqm
Shop/Retail	24, 435 sqm
Restaurant/Cafe	4, 491 sqm
Residential	254, 211 sqm
Dwellings	3, 177

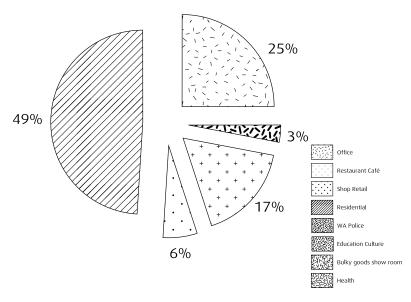


Figure 43. Midland Oval Indicative Land Use Breakdown

Table 17. Midland Oval Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	60, 400 sqm
Education/Culture/Health	6, 000 sqm
Shop/Retail	40, 377 sqm
Restaurant/Cafe	13, 400 sqm
Residential	116, 852 sqm
Dwellings	1, 460

2.5.4.3 Midland Oval Precinct (Note: final design subject to approved Midland Oval Masterplan)

The Midland Oval precinct offers one of the greatest opportunities in the activity centre to establish a more intense residential presence whilst also bolstering the commercial office offer. Over two thirds of the precinct is owned by the City and zoned to allow for mixed use development. An urban green is proposed within the precinct to provide amenity for future residents and workers. Midland Oval will aid in the revitalisation of the city centre and become an iconic destination point for Midland residents and visitors.

Taller development up to twelve storeys will be accommodated across the precinct, containing a mix of office, civic, entertainment, residential, retail and restaurant land uses.

New link roads will connect to the existing street pattern of Midland and allow vehicular, cycle and pedestrian access into Midland. The broader precinct will be mixed use in nature, reflecting the extension of surrounding retail, office and residential areas. Service lanes will be provided throughout the precinct, enabling crossovers to be minimised along the street front. This will improve accessibility options to development lots as well as enhancing pedestrian amenity.

To provide a shared approach to car parking, a site has been identified for a long-term commuter car park on Morrison Road and 'sleeved' with development. The peripheral location is suitable for long-term car parking, given its location on a distributor road and being away from the pedestrian core.

Precinct Outcomes

 Iconic indentity with a connected civic heart, promoting a critical mass of development to the north of the pedestrian core.

- High quality streets and public spaces to allow intense residential development and promote activation of the core parts of the activity centre.
- Providing potential for expansion of the existing commercial office precinct containing Landgate and other such premises.
- Providing potential retail expansion north along Cale Street.
- New access roads connecting into the existing Midland grid.

Land Use Breakdown

Table 17 demonstrates the indicative breakdown of land uses proposed for the Midland Oval precinct, based on the priorities noted above.

2.5.4.4 Entry Streets (Forms part of the MRA area and is therefore not part of Structure Plan)

These entry precincts into the Midland Activity Centre are critical to ensuring the impression of Midland for visitors and locals is positive. A positive impression will improve the desirability of Midland as a place to live and locate businesses.

The nature and character of these precincts is largely governed by the very high levels of traffic that Great Eastern Highway and Lloyd Street carry. These busy road environments are not conducive to high levels of pedestrian traffic; passing trade is by way of private vehicles and land uses in these precincts will be oriented towards highway retail (or showroom) and office functions.

To provide for the vehicle orientation of these precincts, buildings will be set back from the road edge, allowing on-site car parking and ample landscaping to assist in creating a boulevard character. The car parking arrangement will also accommodate shared access across lot boundaries, minimising the need for multiple crossovers. Buildings will be constructed up to five levels in height and include high quality facades with a range of materials and articulation to ensure a positive impression is created.

There is potential for a landmark entry building at corner of Morrison Road and Great Eastern Highway. The building will accommodate non residential uses along its Great Eastern Highway frontage. The building form will need to step down from five to two storeys at its interface to Byers Road to complement the scale of character buildings in that street.

Importantly, Great Eastern Highway and Lloyd Street will be designed as highly landscaped boulevards. Regular tree planting will soften the harshness of these wide traffic corridors and provide a shady environment for off road commuter cyclists and pedestrians.

Precinct Outcomes

- Extensive landscaping treatments to Great Eastern Highway and Lloyd Streets are the highest impact elements that can improve the impression of Midland.
- Shared vehicle access will be required from Great Eastern Highway and Lloyd Street, with a shared access plan to be prepared by Main Roads WA / City of Swan.
- Land uses will be highway oriented.
- Buildings must be designed to a high quality to create a strong corridor entry into Midland's heart.
- Commuter cycle links will be off road and designed to allow safe and comfortable access.
- Residential development is not permitted, taking account of the highway environment.

Land Use Breakdown

Table 18 demonstrates the indicative breakdown of uses proposed within the precinct, noting the intended focus is for highway-commercial businesses.

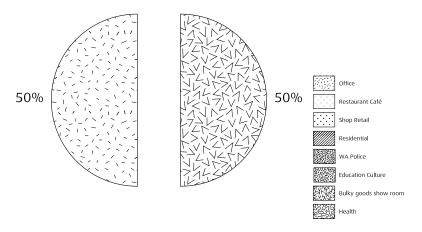


Figure 44. Entry Streets Indicative Land Use Breakdown

Table 18. Entry Streets Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	14, 755 sqm
Office	14, 755 sqm
Education/Culture/Health	0 sqm
Shop/Retail	0 sqm
Restaurant/Cafe	0 sqm
Residential	0 sqm
Dwellings	0

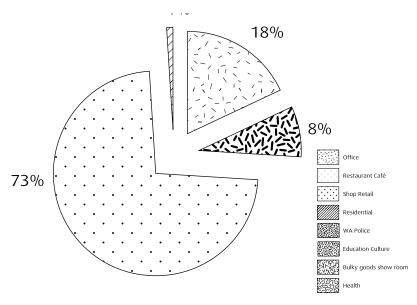


Figure 45. Morrison Road West Indicative Land Use Breakdown

Table 19. Morrison Road West Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	14, 755 sqm
Education/Culture/Health	6, 500 sqm
Shop/Retail	0 sqm
Restaurant/Cafe	0 sqm
Residential	58, 515 sqm
Dwellings	731

2.5.4.5 Morrison Road West

Morrison Road West is an important future high density housing precinct, providing a mix of housing opportunities close to Midland's core.

The precinct is to be supported by the retention of the existing defunct Governor Stirling School site. Given the projected increase in population, it is important to retain sites that can contribute to Midland's community infrastructure. Future design of the primary school site must consider how its open spaces can contribute to the overall amenity of the Morrison Road West Precinct – particularly having regard to sharing oval space with the community. The existing green space on the primary school site provides amenity for the Morrison Road West precinct and it is desirable that this is retained and public accessibility provided to support increased densities.

Buildings throughout the precinct will be generally up to six levels in height. Site consolidation will be promoted to provide for the intended building form and potential for basement car parking.

There are two sites nominated for taller development, up to eight storeys in height. These taller buildings relate to an important connection between the city centre and Swan River Regional Park, proposed as a well treed street, contributing to shared open space. These two neighbourhood elements will act as points of amenity to promote a greater intensity of development.

In order to provide a direct connection to the Swan River Regional Park, land will have to be resumed. A single lot is noted for this purpose at the end of Poynton Avenue. This will provide pedestrian and vehicle access to the regional playground facility and the Swan River foreshore. A new link is also proposed between Spring Park Road and Old Great Northern Highway to improve connectivity.

Buildings will be set back from the street to provide a landscaped setting. Side boundary walls will be permitted to a height of five storeys (to both boundaries). Car parking will generally be to the rear of buildings and screened from public view. Car parking may also be accommodated in basements, semi basements and decked parking structures integrated into the building design.

There are a number of existing single dwellings that contribute character to the precinct and help to tell Midland's development story. These buildings are grouped along Byers Road, with some also on Spring Park Road. This Structure Plan promotes the retention of these dwellings, whilst allowing development potential to the rear. To reflect an appropriate development form cognisant of the domestic character of these buildings, a setback to taller development is proposed along Byers Road, whereby development of two storeys is appropriate to the street frontage and taller development is set back by at least 10 metres.

Morrison Road west of Keane Street will be widened up to 7 metres, allowing for a 30 metre road reserve. Some land has already been resumed as part of site redevelopment. A 30 metre road reserve will allow Morrison Road to function as an 'Integrator B – outside centres' road as nominated by Liveable Neighbourhoods. Importantly, Morrison Road is to be planted as a boulevard to improve the approach to Midland and enhance the character of this road. Access to lots from Morrison Road shall be restricted and minimised through the promotion of amalgamation of lots.

Morrison Road West (Cont)

Burgess Street is proposed to be extended to connect onto William Street. The existing 10 metre road reserve returned to William Street to provide development frontage and a more legible road pattern. This new road will be required as part of additional detailed area planning as identified in the implementation chapter of this report.

Precinct Outcomes

- Formalised connection between Swan River Regional Park and the city centre
- Formalised open space providing amenity to the precinct
- Retention of character buildings and definition of built form envelopes to guide appropriate built form setbacks
- Identification of Morrison Road as an attractive, tree lined boulevard
- New road and laneway connections
- Requirement for additional Detailed Area Planning over nominated areas to encourage site consolidation and shared access

Land Use Breakdown

The indicative breakdown of uses are proposed within the precinct are shown at Table 19., noting the intended focus is for highway-commercial businesses.

2.5.4.6 Morrison Road East

Morrison Road East is a residential precinct at the north eastern corner of the Activity Centre. The precinct is largely developed, containing a mix of single and grouped dwellings between one and two storeys in height. There is little development potential to be gained from this precinct given the relatively recent construction of buildings and the strata ownership pattern.

Improvements to the public realm should be made within the precinct to ensure an attractive and safe pedestrian environment. In particular, the existing street tree planting needs to be improved to ensure regular planting and consistent shade cover. Any new development should present an attractive and complementary built form to the street, consistent with the provisions of this Structure Plan and the State Planning Policy 3.1: Residential Design Codes.

Precinct Outcomes

- Recognise the developed nature of the Morrison Road East precinct.
- Improve the public realm by way of consistent street tree planting.
- Ensure any remaining development complements the intended role and function of the precinct as a residential neighbourhood.

Land Use Breakdown

The following indicative breakdown of uses are proposed within the precinct, noting the intended focus is for highway-commercial businesses.

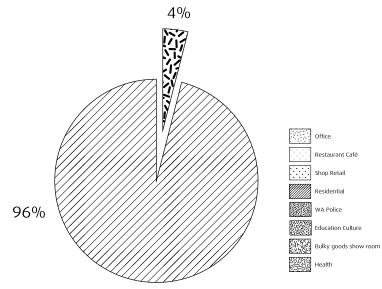
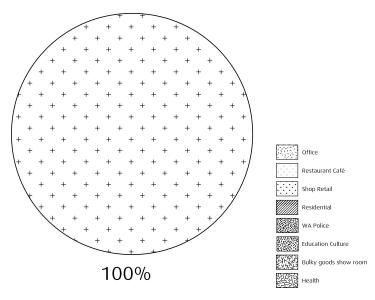


Figure 46. Morrison Road East Indicative Land Use Breakdown

Table 20. Morrison Road East Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	0 sqm
Education/Culture/Health	1, 000 sqm
Shop/Retail	0 sqm
Restaurant/Cafe	0 sqm
Residential	15, 220 sqm
Dwellings	281



Midland Gte Indicative Land Use Breakdown Figure 47.

Table 21. Midland Gate Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	0 sqm
Education/Culture/Health	0 sqm
Shop/Retail	93, 000 sqm
Restaurant/Cafe	0 sqm
Residential	0 sqm
Dwellings	0

2.5.4.6 Midland Gate Precinct

The Midland Gate Shopping Centre will continue to provide the bulk of interior focused retail space, including supermarkets, speciality stores and discount department stores. Approval for expansion to 75,000 square metres has been granted by the City of Swan and Western Australian Planning Commission. There is potential in the future to allow development of a full range department store, completing the spectrum of retail offer within Midland.

The Midland Gate Shopping Centre also contains restaurants and a limited amount of business services. activity, such as banks, insurance and health services shop fronts.

Future development of the Midland Gate Shopping Centre must ensure that the street environment is protected as a pedestrian friendly and safe environment. Built form should address the surrounding streets through active shop fronts, pedestrian scale and facade articulation, with the exception of Lloyd Street, which will be a busy traffic thoroughfare. Along the Lloyd Street interface, landscape planting should complement its intended character as a well treed boulevard.

A Western Power electricity Zone Substation is located at the intersection of The Crescent and Lloyd Street. This large piece of infrastructure is important for Midland and the surrounding region, however it presents a poor interface along these key traffic routes. Improved landscape screening should be sought around the switch vard to create a more visually attractive barrier.

Precinct Outcomes

- Allow for appropriate expansion opportunities for Midland Gate, consistent with growth in resident and employee population.
- Ensure built form presents an attractive, comfortable and active facade to Cale Street. Great Eastern Highway and The Crescent.
- High quality landscape treatments to Lloyd Street
- Landscape screening to the Western Power switch yard.
- Large expanses of car parking should be broken up with shade tree planting and landscaping.

Land Use Breakdown

The indicative breakdown of uses are proposed within the precinct are shown at Table 21.

Note: The 93,000 square metres of retail floor space accounts for the current approval for 75,000 square metres of retail area, as well as development of a 12.000 square meter department store and complementary specialty stores / restaurants / cafes and small business services office space. This Structure Plan does not cap future retail floor space expansion. Therefore expansion beyond 93,000 square metres requires submission of a centre development plan to justify the additional floor space.

No dwellings are envisaged within the Midland Gate precinct; although the development thereof in the longer-term is to be promoted and will be supported.

2.5.4.7 The Workshops Precinct (Forms part of the MRA area and is therefore not part of Structure Plan)

The Workshops Precinct is defined by the large and historically important former railway workshops buildings. These are dominant features within Midland's cityscape and act as cues to development potential within the surrounding area.

The Workshops Precinct is part of the Midland Redevelopment Scheme area, overseen by the Metropolitan Redevelopment Authority. The vision for the precinct is a mixed use urban village with residential, commercial, creative industries, cultural, health, education and hospitality related uses. The focus for the precinct is a cultural, educational and civic hub and so the amount of residential floor area reflects this intent. The creative industries focus is exemplified by the Midland Atelier, led by FORM and providing space for artists, events and cultural dialogue.

There is potential for a new performing arts facility (or similar cultural function) in Block 1 of the former workshop buildings and the associated civic functions will be complemented by Railway Square, a large public open space that will accommodate community events. New buildings up to four storeys containing hospitality, commercial and cultural uses will create an active edge to the square and provide the intended containment of space.

A key aim for the Workshops Precinct is to promote an increased tertiary education presence within Midland. This may be in the form of a university campus or technical school that allows for development of smart city principles. Such land uses may be accommodated within existing historic buildings.

The historic buildings will be celebrated through an improved public space network comprising well treed streets, comfortable and safe pedestrian networks and urban green spaces. New buildings will complement

the existing heritage fabric through sympathetic scale and use of materials.

Pedestrian and road networks will allow improved connection between the Helena River and the core areas of the precinct, helping to complete the Midland community's vision of better integrating the two rivers with the city centre. A recreation hub is planned adjacent to the Helena River, providing a destination or point of focus around which informal gathering and sporting activity can occur.

Precinct Outcomes:

- Provide contemporary built form outcomes complementary to the historic fabric of the Railway Workshops.
- Promote use of the Workshops for creative industries, tertiary education and cultural facilities, or any other appropriate land uses that contribute to Midland life.
- Provide safe and comfortable pedestrian networks linking the city centre and Helena River.
- Focus activity within the precinct around Railway Square, a new public events space.
- Maximise potential for development of creative industries and complementary commercial activities.

Indicative Land Use Breakdown:

The indicative breakdown of uses are proposed within the precinct are shown at Table 22.

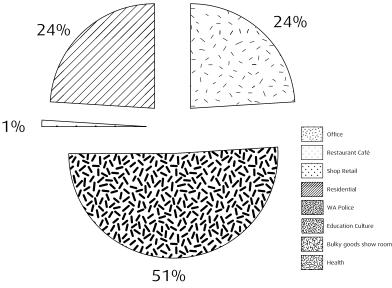


Figure 48. The Workshops Indicative Land Use Breakdown

Table 22. The Workshops Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	43, 167 sqm
Education/Culture/Health	91, 979 sqm
Shop/Retail	450 sqm
Restaurant/Cafe	1, 876 sqm
Residential	42, 291 sqm
Dwellings	528

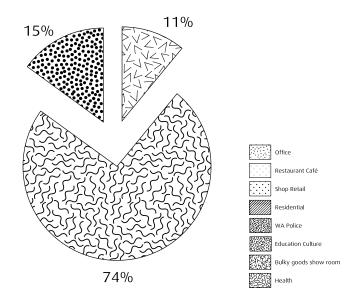


Figure 49.

Clayton Indicative Land Use Breakdown

Table 23. Clayton Precinct Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	23, 073 sqm
Office	29,393 sqm
Education/Culture/Health	146, 371 sqm
Shop/Retail	0 sqm
Restaurant/Cafe	0 sqm
Residential	14, 430 sqm
Dwellings	0

2.5.4.8 Clayton Precinct (Forms part of the MRA area and is therefore not part of Structure Plan)

This precinct principally contains the Police Operations Unit, south of Clayton Street and the Midland Health Campus to the north. A large showroom development also fronts Clayton Street.

The Metropolitan Redevelopment Authority controls this precinct.

The Midland Health Campus will commence construction in 2012 with the first stage providing for a public and private hospital with 367 beds. Planned expansion in 2015/16 will see the public bed hospital grow to 450 beds. At this time, the private hospital will likely vacate the Midland Health Campus and relocate to new facilities within the Railway Workshops precinct. The Midland Health Campus site is envisaged to provide over the longer-term for a 600 bed public hospital and associated health related activities. Buildings up to ten levels in height will address Clayton Street and Lloyd Street, providing a civic statement and landmark entry into the Midland Activity Centre. Parking will be provided on site behind these buildings in decked structures.

In order to accommodate the health campus, a number of road infrastructure upgrades are proposed. These upgrades are considered in more detail within the movement section of this report. The upgrades are:

- Enhanced connectivity at Cale Street linking the northern parts of the activity centre with the southern precincts to be further investigated.
- An underpass to the rail line will allow uninterrupted traffic flow on Lloyd Street.
- Cowie Close will be extended over Lloyd Street, providing direct vehicle entry into the health campus site.

A grand civic square will be created as part of stage 1 of the hospital adjacent to Centennial Place. This

will contribute to the urban green space network throughout Midland and provide respite to the large scale buildings in the surrounding area.

The precinct will be located directly adjacent to the new Cale Street train station, and the health campus' location bears direct relation to investment in that new station. Significant numbers of staff and visitors to the precinct will be encouraged to use the new public transport infrastructure, minimising requirement for travel by private vehicle.

The Police Operations Centre site caters for growth in Police requirements over time, with much of the land currently vacant. Development will be in a campus style and complement the significant heritage buildings on site, particularly the former flanging workshops. Buildings will range in height from single to six storeys and complement the intended street network.

A new link road will be constructed between the Police Operations site and the Helena River reserve, allowing new local network connections that will complement the district function of Clayton and Lloyd Streets. This road will also allow development on the Police Operations site to address the river and create a safe and attractive frontage.

The existing showroom development is considered a temporary site use. The land is in single ownership and will be encouraged to remain as such until development of greater scale and intensity is viable. Particularly, new development on the site will complement the street interface character created by the former flanging workshops and the future Midland Health Campus – nil setbacks to the street, four to six storeys in height and containing materials that provide a contemporary yet complementary façade composition to the heritage buildings.

Clayton Precinct (Cont)

Precinct Outcomes:

- Development of a health campus providing regional health care for the north eastern sub region.
- Creation of a grand civic square complementing the open space network throughout Midland.
- Buildings will have a strong civic presence and complement the historic fabric of the former workshops.
- Buildings will be located to create a consistent and strong street edge to Clayton Street.
- A new local road connection along the Helena River will enhance the local network and complement the function of Clayton and Lloyd Streets.

Indicative Land Use Breakdown:

The indicative breakdown of uses are proposed within the precinct are shown at Table 23, noting the intended focus is for highway-commercial businesses.

2.5.4.9 Woodbridge Lakes Precinct (Forms part of the MRA area and is therefore not part of Structure Plan)

The Woodbridge Lakes precinct is a residential neighbourhood planned and developed by the Metropolitan Redevelopment Authority. The precinct contains mostly single residential buildings two storeys in height. The focus of the precinct is the Coal Dam Lake and surrounding parklands, which provide a grand landscape statement.

Precinct Outcomes

Woodbridge Lakes is largely developed and a peripheral precinct to the Midland Activity Centre. The precinct intends to produce residential development in harmony with natural resources and establish a robust relationship with the Helena River and surrounding parks.

Indicative Land Use Breakdown

The following indicative breakdown of uses are proposed within the precinct.

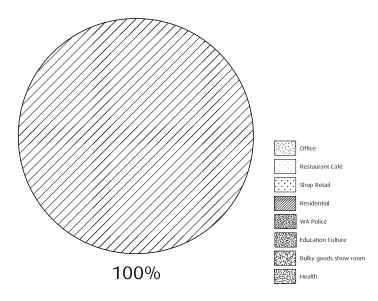


Figure 50. Woodbridge Lakes Indicative Land Use Breakdown

Table 24. Woodbridge Lakes Indicative Land use Breakdown

Land Use Breakdown	
Bulky Goods/Showroom	0 sqm
Office	0 sqm
Education/Culture/Health	0 sqm
Shop/Retail	0 sqm
Restaurant/Cafe	0 sqm
Residential	14, 430 sqm
Dwellings	0



2.5.5 Development Standards

Development standards supportive of the principles of the Master Plan have been included in Part 1 of the Structure Plan.





2.6 Resources



2.6.1 Objectives

The Midland Activity Centre Structure Plan will deliver environmentally sustainable urban development through a consistent environmental management system which improves urban density and design principles which will reduce energy consumption, minimise private car use and maximise public transport opportunities.

2.6.1.1 Review Process

Environmental policies will undergo consistent review and assess sustainability strategies such as maximising access to public transport through transit oriented development (TOD) design principles, developing high quality pedestrian environments, activated shop fronts and passive surveillance from the built environment.

2.6.1.2 Requirement for Management Plans

The primary focus of sustainability for the Master Plan and subsequently this Structure Plan and the Design Guidelines revolve around energy and water efficiency and waste renewal. The corporate and commercial environment will be a key player in leading the preservation of the environment and future developments will incorporate physical mechanisms to reduce consumption and improve efficiency, while energy and staff transport management plans will be introduced through the Design Guidelines to promote resource efficiency and alternative transportation.

2.6.1.3 Green Star Rating for Commercial Buildings

The Building Code of Australia has acknowledged the progression of sustainable buildings and recognised energy, water, materials and indoor environments as key drivers to improve the environmental sustainability of the future. Commercial buildings in Midland Activity Centre will aim to achieve an exemplary star rating for commercial buildings through innovative design that addresses passive solar design, thermal mass, water management, efficient heating and cooling, renewable energy and recycling.

These principles will help to facilitate a sustainable urban environment that optimises energy efficiency and land use opportunities to achieve reduction in energy and water consumption and improved waste renewal.

2.6.1.4 Transit Oriented Development

The Activity Centre's urban density, micro-climate and TOD will become fundamental elements in reducing the reliance of private transport and in effect reduce the consumption of energy and emissions whilst promoting alternative modes of transport such as walking and cycling.

TOD results in high density urban landscapes which create comfortable pedestrian environments for cycling and walking whilst reducing vehicle emissions. The improved accessibility and frequency of public transport supported by the 'greening' or increased presence of vegetation and natural shading will create cooler pedestrian environments and a positive urban outcome.

2.6.2 Energy

2.6.2.1 Passive Solar Design

To reduce the corporate carbon footprint and energy consumption, appropriate building features are required to optimise cooling and heating throughout the building. Passive solar design is a fundamental design principle due to its ability in reducing the consumption of energy.

The operational energy demands of buildings can be reduced through building orientation, thermal mass and walls, windows and doors. Solar oriented developments will be required to allow appropriate sunlight and effective absorption of solar energy to prevent buildings from overheating and reduce the backup heat required during the night whilst providing passive surveillance.

Solar shading will provide protection to windows from the sun by projecting shade devices to north facing and horizontal and vertical to east and west facing areas. These design principles will significantly reduce excess heat and improve the overall energy relationship throughout the building. The integration of solar photovoltaic cells into buildings is highly encouraged which will significantly reduce the consumption of energy for lighting and heating. Some existing heritage buildings may also benefit from the installation of solar photovoltaic cells in discrete locations which are non-visible from the public realm.

Buildings must be designed to be comfortable with little to no assistance from mechanical heating during winter months whereas during summer months, buildings should be designed to contain cooled air. To assist the heating and cooling relationship, buildings must provide extensive shade, promote air movement and reduce direct sunlight.

The use of lightweight materials, adequate ventilation within ceiling spaces and resistive insulation are fundamental qualities for buildings within the activity centre which will reduce energy consumption and improve efficiency. The implementation of appropriate materials and building orientation will significantly increase the efficiency of heating and cooling for buildings and reduce the consumption of energy and contribute in achieving a successful environmental outcome.

2.6.3 Crime Prevention Through Environmental Design

The creation of a comfortable and safe public realm is important to achieve a high quality pedestrian environment which will mean building elements must address the street and encourage major openings and pedestrian cover fronting the primary street whereas excessive large blank walls must be avoided.

2.6.4 Water

2.6.4.1 District Drainage

The Midland Activity Centre is connected to a district drainage system and located above clay soils which reduce the efficiency of soil penetration and increases surface run-off. The Master Plan and subsequently this Structure Plan promote an ecologically sustainable city through Water Sensitive Urban Design (WSUD) which aims to integrate stormwater run-off for aquifer recharge and waterway health.

The stormwater water runoff from private land connects with the City of Swan drainage network and will be supported by sub catchments which will ensure controlled flow rates discharged into the drainage network. WSUD for the activity centre will protect natural waterways, integrate stormwater treatment into the landscape, protect water quality, reduce runoff and peak flows whilst increasing value and minimising development costs.

New urban development can facilitate the improvement of the existing stormwater drainage system by introducing gross pollutant traps which capture large objects and ensure the drain maintains peak flow and minimise contamination. Water efficiency for commercial and residential development will be integrated into resource conservation by introducing water efficient tap and shower heads, toilets and the recycling of grey water for utility purposes.

2.6.4.2 Water Sensitive Urban Design

Opportunities for swales with vegetation to be integrated into streets instead of traditional kerbing can facilitate a more natural approach to filtration and contribute to a green urban environment. The landscaping will involve endemic and native or robust drought resistant plants that will survive with little irrigation after establishment.

Implementation of WSUD principles will enhance water efficiency and promote the rehabilitation of the Activity Centre's existing water resources and enhance the quality of the natural waterways.





The principles of materials and waste management are to re-use materials, annually reduce total waste generated per capita and increase recycling to total waste ratio. These elements indirectly control pollution of air, land, water and sediment which can be managed through corporate practice and social responsibility. These practices have been incorporated in the City's operations through the City's Sustainable Environment Strategy.

2.6.5.1 Construction Management Plans

The conservation of resources and quality of recycling can be achieved through the assessment of construction management plans by the local planning authority and forms part of the Design Guidelines.

2.6.5.2 Serviceability

Innovative design of basement carparks should facilitate the movement of waste removal vehicles within the carpark where possible.

2.6.5.3 Recycling Strategies

Encouraging recycling of construction and demolition materials, minimising on-site pollution can reduce the amount of waste dispatched and promote the re-use of existing buildings and materials, thus reducing the demand for resources.

Reducing materials and waste in urban developments requires the implementation of recycling strategies through the Design Guidelines which encourage reusing materials and the installation of water efficient taps, showerheads, toilets and drainage systems.

The City of Swan and the State Government are working cooperatively to achieve positive environmental, economic and social outcomes. Adherence to an agreed framework for planning and working together through effective communication, consultation and cooperation; and coordination of resources, in the planning and delivery of agreed priority initiatives is vital to the success of environmental sustainability.

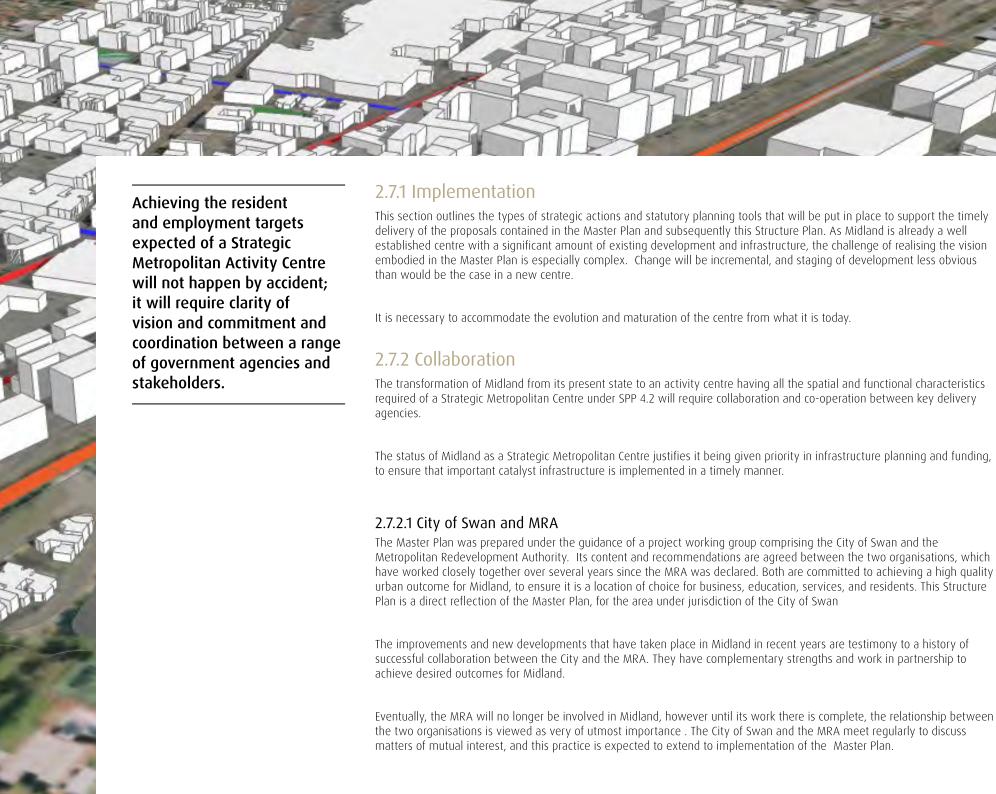
The agreed initiatives are:

- high public transport use;
- high patronage on train and bus services;
- a major destination and point of origin;
- a new train station;
- Transit Oriented Development;
- Substantial reduction in carbon emissions through energy efficiency and use of renewable energy;
- improved water efficiencies;
- use of local materials; and
- recycling expanded.

The collaboration between agencies and different authorities will facilitate effective sustainability outcomes which will require consistent review of the City's Environmental Management System. For environmental policies such as increased vegetation, share of cross relationships between reducing private motor vehicle and improving air quality, it is important to acknowledge all resource policies are intrinsically linked and future environmental sustainability requires a collaborative approach through governance and physical mechanisms. The City's adopted Sustainable Environment Strategy is an adopted tool to facilitate these processes.



2.7 Implementation



2.7.2.2 Transport Agencies

The Department of Transport, the Public Transport Authority and Main Roads WA are all key agencies with responsibility for important elements of the Midland Activity Centre.

Because the integration of land use and transport is fundamental to the success of all activity centres, but especially the high order centres like Midland, it is important that the aspirations of Directions 2031 are given priority by all Government infrastructure agencies. As a minimum, it will be necessary to ensure that transport decisions do not prejudice the functionality of Midland as a Strategic Metropolitan Centre. Ideally, decisions relating to transport infrastructure will in fact aid the realisation of objectives for Midland.

There are a number of transport infrastructure elements to the plan that require agreement. The most critical of these are:

- Relocation of Midland Station;
- Enhanced connectivity at Cale Street;
- Completion of Lloyd Street extension;
- Freight Rail realignment; and
- Location of park-and-ride facilities.

2.7.2.3 Service Agencies

An assessment of the capacity of existing services to accommodate the future development potential of Midland arising from this plan, followed by liaison with the relevant servicing agencies, such as Water Corporation, Western Power and Alinta Energy has been undertaken and is included as Appendix 3 Midland Servicing Report. This report is summarised below.

Electricity

Of note, the report assesses the capacity of the existing zone substation within the Midland Gate Precinct. It is evident that the Western Power supply is a key constraint to redevelopment in the area and will play an important role in the staging and roll out of the development. It is recommended the following key steps are taken to progress further design planning for the area.

Western Power is engaged to carry out more detailed in-depth study and analysis of the area to ascertain more specific requirements of the network extension/reinforcement works for of the proposed redevelopment. This assessment will also include capacity constraints of the redevelopment roll out as compared against their current capital works programme.

- Based on the above findings preliminary electricity supply designs are done for the entire area (including MRA land) to map out full network upgrade works including;
 - i) transformer numbers, sizes and locations;
 - ii) feeder upgrades, sizes and areas requiring new duct runs; and
 - iii) New Zone Substation location.
- Review likely staging options that best integrate findings from the above listed actions along with consideration to the overall redevelopment strategy. Identify the servicing gaps and provide the framework for further discussion with Western Power to negotiate specific timing of network upgrades and cost framework.

Wastewater

The Midland Service Report (Appendix 3) states that the Water Corporation's conceptual planning for the study area has anticipated high density development for the area, and indicates that the sewer reticulation in the study area has shown to have sufficient capacity for the full build-out scenario within the Structure Plan area.

Water

The Midland Service Report (Appendix 3) indicates that current system is capable to service the proposed development however some of the infrastructure has been in situ for a considerable of amount of time and may require upgrading. This infrastructure upgrade is currently being reviewed by the Water Corporation.

Gas

The Midland Service Report (Appendix 3) indicates that the Structure Plan area is currently well serviced by infrastructure supplied by ATCO with all roads containing reticulation mains. It is recommended that ATCO gas is contacted once preliminary design works and likely staging have been completed so that they are able to assess likely demand and schedule their works appropriately.

Telstra Service

The Midland Service Report (Appendix 3) indicates that the Structure Plan area has been well serviced by Telstra optic fibre and copper lines. Once a more detailed staging program of the redevelopment for the precinct is ascertained, Telstra should be notified in advance of works commencing. The report indicates that there are no upgrade issues with regard to the full build-out scenario.



2.7.3 Staging and Monitoring

2.7.3.1 "Must Haves"

Cale Street (MRA Area)

With the construction of the Midland Health Campus, Cale Street will be a key movement corridor connecting the campus with the Midland Gate Shopping Centre. It is imperative that ease of movement is provided for pedestrians along Cale Street so that economic activation can be maximised.

New Midland Station(MRA Area)

Midland Station is presently on the edge of the activity centre. To create true potential for transit oriented development and sustainable transport options, the station must move to a new location identified near to Cale Street. This new location is at the heart of the activity centre and would allow ease of access to the Midland Health Campus, Midland Gate Shopping Centre and the core activity areas of the centre. A preliminary design for a new train station has been completed for the Cale Street location, and an informal agreement reached between State and local government agencies, however, funding is required to secure the new location.

Development Potential of Cale Street Spine (MRA Area)

As Cale Street will be a key activity spine within Midland, it is appropriate to ensure development potential along this spine reflects its purpose and accessibility. Development potential will be maximised to allow mixed use and commercial oriented land uses that support linkages between Midland Gate and the Midland Health Campus. Padbury Terrace and Sayer Street are secondary connectors between these activity nodes and will also support intensified development opportunities.

2.7.3.2 Movement

Keane Street Extension (MRA Area)

Keane Street is to be extended south of Great Eastern Highway and Victoria Street, providing an alternative connection to Railway Parade. This will improve connectivity within the activity centre.

Marion Street Extension (MRA Area)

Marion Street is to be extended north of Victoria Street to Great Eastern Highway, providing improved connectivity within Midland.

Morrison Road

Local traffic accessing Midland will be encouraged to use Morrison Road, while regional traffic remains along Great Eastern Highway. This will relocate a proportion of traffic to the edge of the Activity Centre and allow for some streetscape improvements in the core, particularly the removal of on-street parking to allow for verge widening and cycle lanes. This shift will require some minor improvements along Morrison Road to accommodate the additional trips.

Old Great Northern Highway and Spring Street

A new road extension from Old Great Northern Highway west through the existing public parking area (which is privately owned) and the existing Police car park (in public ownership) to connect with Spring Park Road. This road will also assist with circulation on Old Great Northern Highway and help to bring back some of the traffic lost with the creation of the mall at the northern end.

2.7.3.3 Activity

Economic Development Strategy

In order to promote development of the sort envisioned by this Activity Centre Master Plan, economic activation of Midland is required far beyond that which occurs presently. Midland must become a desirable location for business, thus encouraging new development for commercial and office space and, in turn, for new living opportunities. An economic development strategy must be prepared in addition to a public domain strategy, which focuses on improvements to amenity. Whilst public realm improvements will generate secondary economic benefits, in and of themselves they do not directly influence business location decisions.

The economic development strategy will need to address key goals and actions to encourage business investment and acknowledge the particular locational and economic advantages Midland has compared to other centres.

The Master Plan and this Structure Plan will be used to assist marketing efforts for Midland. By setting down the vision and objectives for Midland, the plan will enable the City to give prospective investors in Midland a clearer idea of the opportunities.

Community Infrastructure Plan

The planning and development of a high quality community infrastructure plan remains a vitally important consideration for the City of Swan given the resultant health and wellbeing, community participation, neighbourhood vibrancy and relationship building outcomes. It is particularly relevant to Midland given the change envisioned by the Activity Centre Master Plan and subsequent Structure Plan. Additional community facilities must be provided in the appropriate location, as nominated in this plan, in order to provide maximum benefites for the community.

Development of a community infrastructure plan will:

- quide the development, timing, design and location of community infrastructure over a nominated period;
- clearly identify services and facilities required by the changing population base; and
- identify the capital costs associated with proposed community infrastructure.

2.7.3.4 Urban Form

Public Domain Strategy

Midland's historic development has provided an individual sense of place and character different to that of other comparable centres across the metropolitan region. For Midland to enhance its competitive position, it must continue to put its identity and place at the centre of its strategic activities. The public domain plays a key role in this. In order to improve the public domain such that it contributes to enhanced amenity and greater investment potential, the following elements must be considered in the development of a strategy:

- provide a clear framework for the delivery and maintenance of high quality, coordinated, connected and coherent public domain;
- acknowledge the importance of landscaped entry and edge roads that contribute to the centre's impression;
- provide attractive, safe and convenient pedestrian links from the centre to nearby regional open space;
- develop priorities for investment in public domain:
- develop an approach to public domain funding and delivery that will allow the strategy to be realised: and
- achieve excellence by following and sharing good practice.

Street Tree Strategy

Streets that are tree lined are of great value to people living, working, shopping, walking and motoring in and through urban places.

Trees are an essential part of the streetscape, providing aesthetic appeal and desirable functional and biological characteristics. They enhance buildings and other structures, screen and/or frame views, and can help to define functional areas such as intersections and traffic control measures. Trees provide shade, cool the air, insulate against cold or hot winds and reduce glare. In addition, trees may provide habitats for indigenous wildlife, filter atmospheric impurities, sequester carbon emissions, reduce stormwater runoff, reduce erosion and contribute significantly to the general quality of the urban environment.

Given street trees require a substantial investment, it is essential that an integrated system of street tree management is developed, including the critical aspects of planning, selection, planting, removal, and care. As part of this process, consideration will need to be given as to where overhead power lines can be put underground.

In the first instance, it is recommended the power lines within the activity centre core are placed underground in order to allow trees to grow to a substantial size. Over time, all power lines throughout Midland should be placed underground.

In addition to considering the location of power lines, there is a need to develop an Access Strategy to set the location of crossovers. This would ensure that street trees would not be required to be removed once planted.

Street Type and Character

Complementing the street tree and public domain strategy is an identification of a range of street types, each of which has a distinct purpose and character.

The most important streets within Midland, where buildings are built to the street edge, natural surveillance is maximised, pedestrian cover is generally provided by way of awnings. Street trees provide pedestrian comfort, on street parking is generally provided and pedestrian comfort is a key priority.

As per Town Centre - People Streets, however the priority of investment (and timing) is not as great.

Central median planting creates an attractive boulevard effect and helps to improve the entry impression into Midland.

Identify planting along streets to highlight access through to the Swan and Helena Rivers.

Attractive, landscaped streets where buildings are set back with landscaped forecourts, street trees provide shade and buildings allow natural surveillance of the public realm.

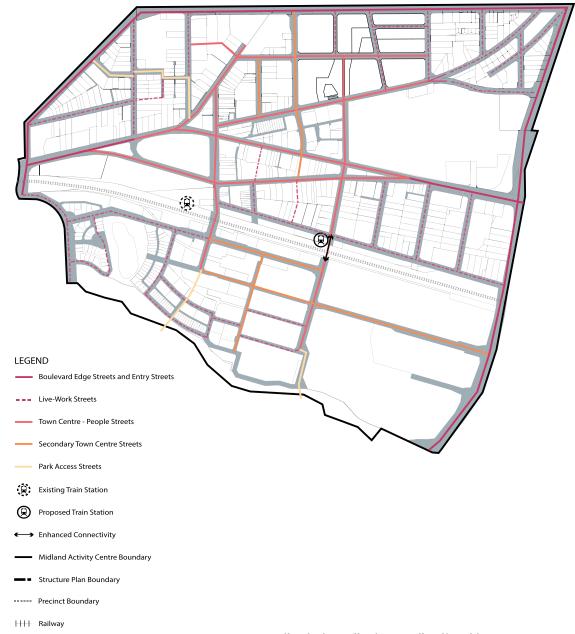


Figure 51.

Street types in Midland. This will inform Midland's Public Domain strategy

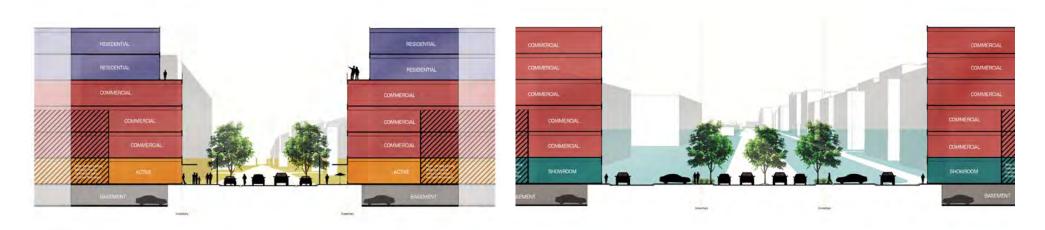
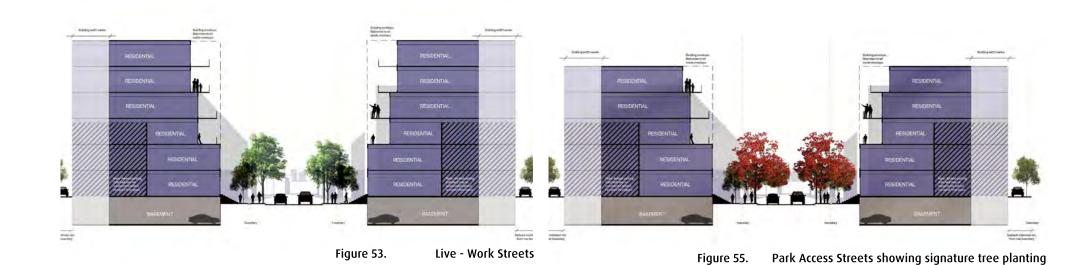


Figure 52. Town Centre - People (and Secondary Town Centre) Streets

(Note: This diagram does not specify building setbacks)

(Note: This diagram does not specify building setbacks)

Figure 54. Boulevard Edge and Entry Streets (Note: This diagram does not specify building setbacks)



(Note: This diagram does not specify building setbacks)

2.7.3.5 Priorities

Review Local Planning Policies

Local planning policy can support the intent and vision of the Midland Activity Centre Structure Plan. A review of the existing local planning policies will identify inconsistencies with the Structure Plan, with appropriate changes progressed via the provisions of the City of Swan Local Planning Scheme 17 . There is a need to prepare additional local planning policies to support the desired outcomes of the StructurePlan.

Local Road Reserves

A number of new road reserves are proposed by the Master Plan. The Structure Plan shows these roads on **Figure 53. Live - Work Streets**. Where necessary, further study by the City of Swan should identify the most appropriate alignment via a land survey prior to initiation. Where possible, existing buildings should be avoided, whilst the road reserve width must take into account the need for slow vehicle traffic movement and pedestrian comfort.

R-Codes

The Residential Design Codes of Western Australia allow the application of the R-AC 0 code within activity centres. The R-AC 0 code requires reference to an adopted Structure Plan. In this case, as significant detail is proposed within the Structure Plan with regard to development standards, supported by an associated local planning policy containing design quidelines.

Plot Ratio

The current scheme provisions specify a plot ratio definition for residential development only. Therefore, as plot ratio is one of the development controls used in this Structure Plan, a non-residential plot ratio definition is required.

Shared / Public Cycle Parking Facility

It is recommended the City of Swan investigates the provision of a public bicycle parking facility that also incorporates high quality end of trip facilities (male and female shower / locker rooms, change room facilities, bicycle maintenance facilities). Such a facility could be incorporated within a public car park and should have excellent access to the broader bicycle network within Midland

2.7.4 Use of Planning Conditions

The City of Swan will make use of planning conditions when determining development applications within the Structure Plan boundary. The planning conditions will deal with those items that reasonably relate to activity centre development and promote improved development outcomes consistent with the intent for the Activity Centre.

2.7.5 Planning Obligations and Incentives

2.7.5.1 Developer Contributions

The City of Swan does not consider it appropriate to initiate a developer contribution plan for Midland. They are typically highly complex and difficult to implement. Moreover, due to the fact that Midland is already fully developed, albeit at a lower intensity in some parts as is proposed by the Master Plan, a significant amount of infrastructure already exists.

Unlike 'greenfields' areas, where existing services are typically minimal, the majority of land stands to benefit from the development potential proposed by the Master Plan, and staging of development is relatively predictable. Specified area rates could be considered to accommodate certain public realm improvements upon completion of detailed studies in this regard. With part of the Activity Centre under jurisdiction of MRA a developer contribution plan for the Swan area cannot be applied equitably.

2.7.5.2 Site Amalgamations

A major challenge in achieving the desired outcomes of the Midland Activity Centre will be encouraging the amalgamation of sites so that appropriate development form and intensity can take place. Land assembly incentives can occur through a combination of the following measures:

- plot ratio development bonuses for the amalgamation of two or three sites; and
- fast tracked development approvals for amalgamated, good quality developments.

2.7.5.3 Cash in Lieu for Car Parking

Cash in lieu for car parking has been recommended for Midland to allow for the provision of shared public parking facilities in key locations throughout the centre.

A nominal contribution rate of 25% of parking requirements would be sufficient to achieve the public parking targets recommended for the Midland Activity Centre.

The cash in lieu for car parking requirements has been translated into of Part 1 of the Structure Plan provisions (Clause 1.8.3.6(d) and (f)).

2.7.5.4 Change of Use

Where a change of use is proposed in an existing building and there is no substantial extension proposed, it is recommended that no additional car parking be required. This will enable ease of investment and encourage the development of small businesses within the activity centre.

GREAT EASTERN HIGHWA VICTORIA STREET (2) **LEGEND** Local Development Plan (formerly Detailed Area Plan) Required Focus on restricting access points through amalgamation of sites. **Existing Train Station Proposed Train Station** Enhanced Connectivity Midland Activity Centre Boundary Structure Plan Boundary HH Railway

Figure 56. Sites requiring Local Development Plans

2.7.5.5 Areas Requiring Additional Planning

Key sites have been identified at the intersection of Cale Street and Railway Parade and Padbury Terrace and Railway Parade. These sites are particularly important for encouraging pedestrian movement between the Midland Health Campus and other nodes along Cale Street. Local Development Plans are required to be prepared for these areas to ensure development is consistent with the intent of the Activity Centre Master Plan particularly with regard to active frontages, building setbacks, minimum building heights, land use mix and car parking arrangements.

These areas require consolidation of lots and access arrangements in order to attain sufficient development intensity considered appropriate by this Structure Plan as well as to account for retention of character buildings and also the identified landmark sites that direct pedestrian movement between the city centre and the Swan River.

2.7.5.6 Widening and Extensions

Some existing Rights Of Ways (ROW) are proposed to be extended and widened, allowing ease of access to a number of properties where busy roads require shared access arrangements. This is principally within the Morrison Road West Precinct. These ROWs will typically be 6 metres in width, requiring a widening of 3 metres in some circumstances, and extensions in others.



Figure 57. New Roads and Rights of Way

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