

Metro Central Joint Development Assessment Panel Agenda

Meeting Date and Time: 23 June 2015; 10am

Meeting Number: MCJDAP/110

Meeting Venue: Town of Bassendean

Attendance

DAP Members

Mr Ian Birch (A/Presiding Member)
Mr Clayton Higham (A/Deputy Presiding Member)
Cr Jennie Carter (Local Government Member, Town of Bassendean)
Cr Gerry Pule (Local Government Member, Town of Bassendean)

Officers in attendance

Mr Christian Buttle (Town of Bassendean) Mr Brian Reed (Town of Bassendean)

Local Government Minute Secretary

Ms Amy Holmes (Town of Bassendean)

Applicants and Submitters

Mr Carlo Famiano (Urban and Rural Perspectives)

Members of the Public

Nil

1. Declaration of Opening

The Presiding Member declares the meeting open and acknowledges the past and present traditional owners and custodians of the land on which the meeting is being held.

2. Apologies

Mr Charles Johnson (Presiding Member)
Mr Luigi D'Alessandro (Specialist Member)

3. Members on Leave of Absence

Mr Charles Johnson (Presiding Member)

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4. Noting of Minutes

The Minutes of the Metro Central JDAP Meeting No.109 held on 17 June 2015 were not available at time of Agenda preparation.

5. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

6. Disclosure of Interests

Nil

7. Deputations and Presentations

7.1 Mr Carlo Famiano (Urban & Rural Perspectives) presenting for the application at Item 8.1. The presentation will seek deletion/amendment to Condition 2, 16, 18 and 32.

8. Form 1 - Responsible Authority Reports – DAP Application

8.1 Property Location: Lot 54 (Nos. 72-74) Railway Parade,

Bassendean

Application Details: 14 Multiple Dwellings

Applicant: Urban & Rural Perspectives
Owner: Mark & Sandra Hammond
Responsible authority: Town of Bassendean

DoP File No: DAP/15/00740

9. Form 2 – Responsible Authority Reports - Amending or cancelling DAP development approval

Nil

10. Appeals to the State Administrative Tribunal

Nil

11. General Business / Meeting Closure

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Form 1 - Responsible Authority Report (Regulation 12)

Property Location:	Lot 54 (Nos. 72-74) Railway Parade, Bassendean
Application Details:	Proposed 22 Multiple Dwellings
DAP Name:	Metro Central JDAP
Applicant:	Urban & Rural Perspectives
Owner:	Mark & Sandra Hammond
LG Reference:	DABC/BDVAPPS/2015-030
Responsible Authority:	Town of Bassendean
Authorising Officer:	Christian Buttle, Senior Planning Officer
Department of Planning	DAP/15/00740
File No:	
Report Date:	11 June 2015
Application Receipt Date:	19 February 2015
Application Process Days:	112 Days
Attachment(s):	Annotated Location / Aerial Plan
	 Plans of the proposed development date stamped received 13 May 2015 comprising: (i) A1.01: Proposed Site Development Plan (with aerial underlay) – Revision 2. (ii) A1.02: Proposed Site Development Plan – Revision 2. (iii) A2.01: Proposed Site / Ground Floor Plan (Part A) – Revision 2. (iv) A2.02: Proposed Site / Ground Floor Plan (Part B) – Revision 2. (v) A2.05: First Floor Plan – Revision 2. (vi) A3.01: Elevations – Revision 2. (vii) A3.02: Elevations – Revision 2. Plans of the proposed development date stamped received 20 February 2015 comprising: (viii) A4.01: Perspectives – Revision 1. Applicant's written documentation provided under the cover of their correspondence dated 18 February 2015 comprising: (i) Cover letter; (ii) Design Principles Submission Table; and (iii) Waste Management Plan Applicant's written documentation provided under the cover of their correspondence dated 13 May 2015 comprising: (i) Cover letter; (ii) Energy Efficiency Policy Checklist (provided on Drawing No. 2.02 Rev 2); and (iii) Water Sensitive Design Policy Checklist
	5. Drawing Titled "22 Bins Verge Pickup Plan" – Drawing No. A0.00 – Rev 3 provided by email 18

May 2015.
Extract of Clause 5.3 from the Town of Bassendean Local Planning Scheme No. 10.
7. Town of Bassendean Local Planning Policies: (i) No. 2 – Energy Efficient Design; (ii) No. 3 – Water Sensitive Design; (iii) No. 8 – Parking Specifications; (iv) No. 15 – Percent for Art Policy; and (v) No. 18 – Landscaping with Local Plants
Town of Bassendean Local Planning Strategy updated February 2015.
Town of Bassendean Energy Efficiency Assessments for each dwelling

Officer Recommendation:

That the Metro Central JDAP resolves to:

Approve DAP Application reference DAP Dap/15/00740 and accompanying plans:

Dwg No.	Drawing Name	Rev No.	Dwg Date
A0.00	22 Bins Verge Pick Up Plan	3	18.05.2015
A1.01	Proposed Site Development Plan (with aerial underlay)	2	11.05.2015
A1.02	Proposed Site Development Plan	2	11.05.2015
A2.01	Proposed Site / Ground Floor Plan (Part A)	2	11.05.2015
A2.02	Proposed Site / Ground Floor Plan (Part B)	2	11.05.2015
A2.05	First Floor Plan	2	11.05.2015
A3.01	Elevations	2	11.05.2015
A3.02	Elevations	2	11.05.2015

in accordance with Clause 10.3 of the Town of Bassendean Local Planning Scheme No. 10, subject to the following conditions:

- 1. The design/extent of roof cover to balconies of units 12-19 and 22 being modified in order to facilitate the provision of direct solar access to the Living Room windows of the respective units, to the satisfaction of the Town, unless an alternative arrangement, such as the provision of solar hot water systems along with low water use landscaping for the development, can be provided to the satisfaction of the Town (see footnote).
- 2. Upper floor unit 19 being set back from the left hand (western) side boundary generally in accordance with the Deemed-to-comply provisions of the R-Codes and this side of the building being detailed architecturally in a manner which is generally consistent with that of other dwellings within the development, while also allowing for casual surveillance in the manner described within the Officer report (non-major size fixed openings) to the satisfaction of the Town.

- 3. Outdoor living areas / Balconies for units 5, 19 and 20 being modified in order that a usable area of 10 sq. metres minimum with width and / or length dimensions of 2.4 metres minimum being provided as measured in any direction.
- 4. The provision of a pedestrian path which provides wheelchair accessibility connecting the main pedestrian entrance to building 'block 4' with the public footpath.
- 5. A detailed and professionally prepared landscape plan being submitted prior to or with the application for a Building Permit for the Town's approval which provides full detail of the scope of works to be undertaken in both the private and public realms adjoining the development site, including, but not limited to:
 - (a) the location, type and size of proposed trees, shrubs and ground cover to be planted; and
 - (b) reticulation methods, including arrangements incorporated into the design to minimize water use.

Landscaping design and species selection shall pay particular attention to provisions contained within the Town of Bassendean Local Planning Policy No. 18 – Landscaping with Local Plants, and shall not include the use of artificial turf.

- 6. The site shall be landscaped in accordance with the approved landscaping plan and shall be maintained thereafter.
- 7. Submission of a plan detailing the location of all external lighting, to the satisfaction of the Town prior to or in conjunction with the application for a building permit. The lighting plan shall take particular account of the need to for lighting to be provided to pedestrian paths, car parking areas, bicycle parking locations, and the right-of-way within the vicinity of the pedestrian and vehicular entrance to the development and subsequent lighting installed must demonstrate that any light spill to adjoining properties is minimised to acceptable levels. Lighting in accordance with the approved plan is to be installed prior to occupation or strata titling of the building(s), whichever occurs first.
- 8. The following works shall be completed within the Railway Parade road reserve to facilitate the proposed development:
 - (a) Existing 1m wide concrete apron associated with redundant crossover forward of No. 74 Railway Parade shall be removed and replaced with barrier kerb and brick paving to match the remainder of the footpath;
 - (b) Existing Paved crossover forward of No. 74 Railway Parade shall be removed and replaced with paving to match the remainder of the footpath (both in material and paving pattern). This includes the removal of the white header course of paving (which defines the alignment of the existing crossover) and replacement to match the remainder of the footpath;
 - (c) The proposed crossover to Railway Parade shall have a 1m concrete apron adjacent to the kerb line. The crossover shall be centrally positioned in line with the access aisle between the visitor car parking spaces and shall be a maximum 6 metre width;

- (d) The proposed crossover from Railway Parade shall be constructed of heavy duty trafficable brick pavers, the material and colour of which shall match the adjoining footpath. The crossover shall have a cream coloured header course which delineates the crossover from the adjoining footpath; and
- (e) Prior to the issue of a Building Permit, the applicant shall pay the Town a sum of \$682 to cover the removal and streetscape contribution associated with the loss of existing vegetation within the Railway Parade road reserve to facilitate bin storage.
- 9. Prior to the issue of a Building Permit for this development, a 1.0m strip of land shall be excised from the rear of the lot for the purposes of widening the adjoining right-of-way, or the own shall enter into a legal agreement with the Town prepared by the Town's Solicitors at the owner's cost requiring excision of this land to be completed within twelve months of the issue of a Building Permit, or prior to the completion of the development, whichever occurs earlier.
- 10. The strip of land to the rear of the site which is excised for right-of-way purposes shall be paved, drained and kerbed to the specifications of the Town prior to occupation of the dwellings.
- 11. The sealing and kerbing of all car parking areas and access ways to the Town's specifications.
- 12. The on site car parking spaces and access ways being constructed and maintained thereafter to the Town's satisfaction.
- 13. Each dwelling being provided with one car parking space. Such arrangement shall be reflected on any subsequent strata plan for the property.
- 14. Visitor parking spaces being clearly marked for "Visitors Only" and used as such.
- 15. A minimum of 8 bicycle parking spaces shall be provided for residents, and a minimum of 3 bicycle parking spaces shall be provided for visitors. The resident bicycle parking spaces shall be located in a secure weather protected compound, details of which shall be provided to the Town in advance of, or in conjunction with the application for a building permit, and be constructed in accordance with the provisions of AS 2890.3 (as amended), while visitor bicycle parking spaces shall be relocated close to main pedestrian access points to the development to the satisfaction of the Town as advocated within As2890.3.
- 16. Access aisles within the car park shall be increased from 5.8m, 5.85m and 5.9 metres respectively to 6.2 metres minimum in accordance with the Town's Local Planning Policy No. 8 Parking Specifications.
- 17. The width of visitor car parking bay No. 3 shall be increased to 2.4m minimum.
- 18. The height of filling and associated retaining adjacent to the left hand (western) side property boundary being reduced to an extent that it does not exceed 500mm above existing ground levels.

- 19. All storm water being contained and disposed of on site. Details of the method of storm water containment and disposal being included with the drawings submitted for a Building Permit.
- 20. The street number being prominently displayed at the front of the development.
- 21. The provision of side and rear fences, behind the street setback line, of 1.8 metres in height, unless higher fencing is shown on the approved drawings. Where the ground levels vary on either side of the fence, the required height shall be measured above the higher ground level. Fencing along the common boundary with the adjoining commercial premises at Lot 51 (No. 76) Railway Parade shall be constructed of brick unless otherwise approved by the Town.
- 22. Any fencing which is situated between a building and the Railway Parade or right-of-way frontages of the development site demonstrating compliance with the following requirements:
 - (a) The overall height of fencing not exceeding 1.8 metres above natural ground levels as viewed from outside of the development site; and
 - (b) Infill panels above base level solid components which are shown on the approved drawings being visually permeable.
- 23. External fixtures, including but not restricted to air-conditioning units, satellite dishes and non-standard television aerials, but excluding solar collectors, are to be located such that they are not visible from the street. Prior to the issue of a building permit, details being submitted of all proposed ventilation systems, including the location of plant equipment, vents and air conditioning units for the Town's approval. All equipment must be adequately screened to the satisfaction of the Town.
- 24. External clothes drying is prohibited on any of the balconies unless screened from view of the street or other public place.
- 25. Each dwelling shall be provided with an electric clothes dryer.
- 26. A Waste Management Plan (WMP) is to be submitted for the Town's approval prior to or in conjunction with the application for a Building Permit. The WMP shall address matters including, but not necessarily limited to, the following:
 - (a) Measures to be implemented for the purpose of minimising the delivery of waste to landfill during occupation, including: the onsite separation of materials for recycling and the expectations of owners and /or tenants;
 - (b) Site Plan showing the location and size of the on-site rubbish disposal area(s), including the number of general rubbish and recycling bins to be provided for the development, including sharing arrangements where the number of bins is less than the number of dwellings:
 - (c) An estimation of the volume of waste to be generated by the proposed development and the capacity of this volume of waste to be accommodated by on site bin storage capacity;
 - (d) Details of intended method of collection;

- (e) Details of where the bins would be located when waiting collection;
- (f) Details of advice to be provided to owners and occupiers regarding the WMP; and
- (g) Details of how the WMP will continue to be applied in perpetuity across the life of the development, including the WMP being incorporated into the strata by-laws for the proposed development.

27. The bin storage areas are:

- (a) To be increased in size to cater for bulky rubbish storage while awaiting collection to the satisfaction of the Town;
- (b) To be surrounded by a 1.8 metre high minimum wall with a self-closing gate;
- (c) To be provided with 75mm min thickness concrete floors grading to a 100mm industrial floor waste, connected to sewer, with a hose cock to enable both the bins and bin storage area to be washed out; and
- (d) To be provided with internal walls that are cement rendered (solid and impervious) to enable easy cleaning.
- 28. Bins shall be stored only in an approved, designated location, and shall not be stored within any of the approved car parking bays or associated access aisles.
- 29. The surface finish of boundary walls on the common boundaries with adjoining properties to be the same finish as the external wall finish for the remainder of the dwelling, unless otherwise approved by the Town.
- 30. Prior to the issue of a building permit the applicant shall lodge a Construction Management Plan to the satisfaction of the Town of Bassendean that provides details of the following:
 - (a) Estimated timeline and phasing of construction;
 - (b) Dust control measures:
 - (c) Noise control measures:
 - (d) Access points for heavy vehicles during demolition and construction; and
 - (e) 24 hours contact details of staff available to deal with either an emergency situation or to respond to complaints.
- 31. The incorporation of public art into the proposed development or a cash-inlieu payment of one percent of the construction cost of the proposed development in accordance with the Town's adopted Local Planning Policy No. 15 "Percent for Art Policy". Detailed arrangements and agreement with respect to art to be provided on site or alternatively payment of the required fee shall be made prior to or in conjunction with the application for a Building Permit.
- 32. Prior to the issue of a building permit, a development bond for the sum of \$11,000 being lodged with Council to ensure the satisfactory completion of all works associated with landscaping, car parking, access ways, screen walls, and other associated works.
- 33. Prior to the issue of a building permit, an acoustic report shall be submitted to the Town for approval which shall:

- (a) be prepared by an acoustic consultant with relevant qualifications and experience equivalent to those required for admission as a Member of the Australian Acoustical Society (to the satisfaction of the Town's Health Services):
- (b) include the presence of tonal components, amplitude or frequency modulations or impulses to ensure noise emissions received at the proposed noise sensitive premises are in compliance with the requirements of the Environmental Protection Act 1986.
- (c) to satisfaction of the Town, address all matters that are required to demonstrate that acceptable noise criteria will be achieved including:
 - the identification of all noise sources to be addressed from adjacent road and rail infrastructure as well as private properties at Lot 51 (No. 76) Railway Parade and Lot 4 (No. 6) Ivanhoe Street, including, but not limited to: noise emissions from refrigeration motors, air-conditioning units, vehicular movements (including customers and delivery vehicles) and rubbish disposal and collection;
 - determination of noise source levels and character;
 - acoustic data to be in octave bands where noise sources are internal;
 - the establishment of Assigned Levels for noise sensitive premises in the vicinity in accordance with the Environmental Protection (Noise) Regulations 1997; and
 - incorporate the following data:
 - (i) date, time and results of measurements and or modelling used to represent the noise associated with live bands;
 - (ii) assigned Levels determined for adjacent areas/noise sensitive premises in the vicinity; and
 - (iii) recommendations for construction and noise control.
- 34. Measures recommended within the acoustic report shall be implemented to the satisfaction of the Town, and any costs associated with such implementation shall be the responsibility of the owner/applicant.
- 35. The building hereby approved shall not be occupied until all of the conditions of planning approval have been complied with to the satisfaction of the Manager Development Services, unless the applicant has entered into an agreement with Council to comply with those conditions within a specified period.
- 36. This decision constitutes planning approval only and is valid for a period of 2 years from the date of approval. If the subject development is not substantially commenced within the 2 year period, the approval shall lapse and be of no further effect.

Advice Notes:

1. Council's Local Planning Policy No. 2 (LPP2), read in conjunction with Clause 5.3 of the Town's Local Planning Scheme No. 10, requires that each dwelling achieve a minimum 70 point score against the checklist contained within LPP2 to facilitate the density of development which has been proposed.

Options available to the applicant to facilitate an increased points score for units 12-19 and 22 include:

- (a) Cutting back the roof cover to balconies by approximately 1.0m in order to facilitate direct winter sun penetration to living areas of these units (increasing the points score for each dwelling from 57.5 to the minimum required 70 point score); or alternatively
- (b) Providing a solar hot water system for each of these dwellings (increasing the points score for each dwelling from 57.5 to 67.5) along with provision of a detailed landscaping plan which demonstrates low water use for the development as a whole (which would increase points score for each dwelling by a further 5 points to 72.5 points per dwelling).

The applicant is requested to incorporate solar hot water systems into the proposed development.

- 2. The applicant is advised that in relation to the requirement for a 1% Public Art contribution to be made that the Town can consider on site art works subject to Council approval and demonstration of equivalent value and public access.
- 3. Please liaise with the Town's Operational Services Directorate in relation to obtaining detailed specifications for works associated with widening of the right-of-way to the rear of the site, prior to undertaking any works on site.
- 4. The applicant is advised that the central median island within the Railway Parade road reserve allows for only left in / left out vehicle movements from the visitor parking bays on the Railway Parade frontage of the development site.
- 5. The issue of a Building Permit is required prior to the commencement of any works on site.
- 6. Dial Before You Dig:

Underground assets may exist in the area that is subject to your application. In the interests of health and safety and in order to protect damage to third party assets please telephone 1100 before excavating or erecting structures. If alterations are required to the configuration, size, form or design of the development upon contacting the Dial Before You Dig service, an amendment to the development consent (or a new development application) may be necessary. Individuals owe asset owners a duty of care that must be observed when working in the vicinity of plant or assets. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via Dial Before You Dig "1100" number in advance of any construction activities.

7. Telecommunications Act 1997 (Commonwealth):

Telstra (and its authorised contractors) are the only companies that are permitted to conduct works on Telstra's network and assets. Any person interfering with a facility or installation owned by Telstra is committing an offence under the Criminal Code Act 1995 (Cth) and is liable for prosecution. Furthermore, damage to Telstra's infrastructure may result in interruption to the provision of essential services and significant costs. If you are aware of any works or proposed works which may affect or impact on Telstra's assets in any way, please contact Telstra's Network Integrity Team on 1800810443.

- 8. If the planning approval lapses, no development shall be carried out without further approval having first been sought and obtained.
- 9. If an applicant is aggrieved by this determination there is a right of review under Part 14 of the *Planning and Development Act 2005*. An application for review must be lodged within 28 days of the determination.

Background:

Insert Property Address:		Lot 54 (Nos. 72-74) Railway Parade,		
. ,		Bassendean		
Insert Zoning	MRS:	Urban		
	TPS:	Residential (R20/40)		
Insert Use Class:		Multiple Dwelling ('P' or permitted land use)		
Insert Strategy Policy:		Not applicable		
Insert Development Scheme:		Town of Bassendean Local Planning Scheme		
·		No. 10.		
Insert Lot Size:		2560 sq. metres		
Insert Existing Land Use:		Vacant (Permits for the demolition of former		
-		single houses at each of Nos. 72 & 74 Railway		
		Parade were issued in 2013)		
Value of Development:		\$3.3 million		

Nos. 72 and 74 Railway Parade were each previously developed for the purpose of a single house and the owner of these properties also owns an adjoining property which is developed with a BWS bottle shop. A demolition permit was issued for the removal of the single houses in 2013 and the entirety of the development site has now been cleared.

In January 2013 an application for planning approval was submitted to the Town for the development of 11 grouped dwellings on the same land parcel as that which is the subject of the current application for planning approval. That application was subsequently cancelled in advance of a formal determination being made at the request of the property owner in May 2013.

In October 2013, Danmar Homes on behalf of the property owner, submitted an application for planning approval for the development of 22 multiple dwellings. That application was subsequently cancelled in February 2015, having regard to a lack of required information.

In February 2015, Urban and Regional Perspectives on behalf of the property owner submitted a further application for planning approval for the development of 22 multiple dwellings. This report results from the assessment of this most recent application for planning approval.

Details: outline of development application

The application proposes the construction of 22 multiple dwellings in what is described on the plans as four separate two storey buildings (blocks 1-4 as shown on plans). Blocks 1-3 each face a rear right-of-way while block 4 faces Railway

Parade. Four visitor car parking spaces are located on the Railway Parade frontage of the development site while a further two visitor car parking spaces and all 22 occupier car parking spaces are accessed from the rear right-of-way.

Legislation & policy:

- (a) Town of Bassendean Local Planning Scheme No. 10, including:
 - Clause 4.2.1 Objectives of Residential Zone;
 - Clause 5.2 Residential Design Codes;
 - Clause 5.3 Special Application of Residential Design Codes; and
 - Clause 10.2 Matters to be Considered by Local Government.

Local Planning Scheme No. 10 can be accessed via the following link: http://www.bassendean.wa.gov.au/7_info_feedback/pdfs/10-Lps-No10-gazetted.pdf

- (b) Local Planning Policies
 - Local Planning Policy No. 2 Energy Efficient Design;
 - Local Planning Policy No. 3 Water Sensitive Design;
 - Local Planning Policy No. 8 Parking Specifications;
 - Local Planning Policy No. 15 Percent for Art Policy; and
 - Local Planning Policy No. 18 Landscaping with Local Plants.
- (c) Town of Bassendean Local Planning Strategy updated February 2015.
- (d) Town of Bassendean Strategic Plan

The following components of the Town's adopted Strategic Plan are of relevance when considering the application for planning approval:

Town Planning and Built Environment

Objective:

• Ensure Town provides choice in housing types.

Strategies:

- Plan for the highest densities to be centred in railway stations, the Town Centre, and major transport routes
- Strive to ensure that higher density housing will have excellent design to ensure that development is people friendly and attractive.
- Strive to ensure that new housing, and particular high density housing has high environmental standards.
- Plan for the availability of a broad range of housing types and affordability

State Government Policy

The following state government policies are of relevance when considering the application for planning approval:

- (a) Directions 2031 (Bassendean is an identified District Centre).
- (b) State Planning Policy 3.1 Residential Design Codes of Western Australia.

(c) State Planning Policy 4.2 – Activity Centres for Perth and Peel.

Local Policies

The application for planning approval must be assessed against the Town's adopted Local Planning Policy No. 2 "Energy Efficient Design" and Local Planning Policy No. 3 Water Sensitive Design". These policies are referenced by Clause 5.3 of Local Planning Scheme No. 10 and must be suitably addressed in order for the applicant to gain development entitlements at the higher R40 density code, as proposed.

Additionally, Local Planning Policy No. 8 – Parking Specifications; Local Planning Policy No. 15 – Percent for Art Policy and Local Planning Policy No. 18 – Landscaping with Local Plants are of relevance when considering the application for planning approval.

Local Planning Strategy

The Town has recently prepared an updated version of its Local Planning Strategy, and over the longer term, the land which is the subject of this application for planning approval is intended to be assigned a higher density code of R60/100.

A copy of the Local Planning Strategy has been provided as an attachment to this report.

In considering this proposal at its special meeting on 8 June 2015, Council expressed concern that approval of the proposed development would undermine the density of development which is contemplated within the Strategy into the future. Refer also to the section of this report titled 'Council Recommendation'.

Consultation:

Public Consultation

The application was referred to adjoining / nearby property owners for information purposes only (written comment was not sought, notwithstanding certain variations being identified) as described below:

6 Ivanhoe Street, Bassendean (Bassendean Church of Christ)

The property on the opposite side of the right-of-way to the rear (north) of the development site is owned by the Bassendean Church of Christ and is developed with their church.

The most recent application for planning approval dealt with by the Town had incorporated variations to the Deemed-to-comply provisions of the R-Codes relating to visual privacy and the new application maintains similar variations. Additionally, the current application for planning approval incorporates variations to the Deemed-to-comply provisions of the R-Codes relating to wall height, and while this variation was identified in the letter sent to the church, comment was not sought in relation to this matter.

In response to the correspondence from the Town, a representative from the Church contacted the assessing officer and advised that a submission made by the Church

in response to the most recent application for multiple dwellings on the development site held good. The content of that earlier submission is summarised below:

- Seek assurance from the Town that it will not seek to resume any church property to widen the right-of-way which runs between the development site and the church, that any widening of the right-of-way will be on the property developers side, and that the church will not be responsible for any ongoing maintenance of the right-of-way; and
- Advice that the church has 170 members and holds events 7 days a week, both
 within buildings and associated external surrounds. The developer and future
 apartment owners should be aware of noise impacts which may result from
 church activities.

The need for an acoustic report is detailed toward the end of this report and it is possible for the acoustic report to address concerns raised by the church.

<u>Left Hand (western) side – Nos. 2 & 2B Broadway</u>

The property to the rear left hand (western) side of the development site houses two single storey grouped dwellings which were constructed in 1983 and which are held in single ownership.

The Town's letter to this adjoining property owner highlighted the similarity in the current design concept to the most recent application for planning approval dealt with by the Town for the same site, noted the proposed variation to the Deemed-to-comply provisions of the R-Codes relating to wall height and went on to advise that the Town's correspondence sought to inform the adjoining property owner of the proposed development, but was not seeking written comment on the development proposal.

The property to the front left hand (western) side of the development site at No. 76 Railway Parade is developed with a BWS bottle shop which is held in the same ownership as the development site which is the subject of this application for planning approval.

Right Hand (eastern) – side – No. 70 Railway Parade

The property to the right hand (eastern) side of the development site holds a single house, the earliest records for which the Town has relate to a garage addition in 1927. The Western Australian Planning Commission have recently referred a subdivision application for this property to the Town for comment which incorporates the retention of the existing house and creation of a vacant lot facing the rear right-of-way.

The Town's letter to this adjoining property owner highlighted the similarity in the current design concept to the most recent application for planning approval dealt with by the Town for the same site, noted the proposed variation to the Deemed-to-comply provisions of the R-Codes relating to wall height and a proposed boundary wall and went on to advise that the Town's correspondence sought to inform the adjoining property owner of the proposed development, but was not seeking written comment on the development proposal.

The relationship of the development site to the other properties described above can be seen on the 2014 aerial photography extract which is provided below (development site is highlighted red):



The decision to inform adjoining property owners of the proposed development without inviting comment from them is consistent with the approach advocated within Clause 4.1.3 of the R-Codes where a merits based assessment of an application will show that adjoining property owners are not adversely impacted. The body of the report will explain how the proposed development is seen to be acceptable in terms of matters flagged in the information letters to adjoining property owners relating to:

- Visual Privacy;
- Lot Boundary Setbacks; and
- Building Height.

<u>Consultation with other Agencies or Consultants</u> Nil.

Planning assessment:

The development site is zoned Residential with a dual density coding of R20/40 under the provisions of the Town's Local Planning Scheme No. 10. The objectives of the Residential Zone are:

- (a) to maintain life long or long-time residents as an integral component of the Bassendean community;
- (b) to continue and increase the attraction for young families to reside and raise their families in the Bassendean community;
- (c) to recognise the role of Bassendean as a middle metropolitan area that is well placed to contribute meaningfully to sustainable urban development for the Perth Region, and therefore facilitate the planned gradual increase in

- population growth in a manner that provides net environmental, social and economic benefit:
- (d) to make provision for housing types that respond to the demands of an ageing population and declining occupancy rates;
- (e) to limit non-residential activities to those of which the predominant function is to service the local residential neighbourhood and for self-employment or creative activities, provided such activities have no detrimental effect on the residential amenity;
- (f) to ensure that the density of development takes cognisance of the availability of reticulated sewerage, the effluent disposal characteristics of the land and other environmental factors; and
- (g) to ensure that subdivision and development comply with the Local Planning Strategy and the principles of any Local Planning Policy adopted by the Council.

The form of development which has been proposed is appropriate having regard to the location of the development site and its proximity to services and infrastructure. In this respect the development which has been proposed assists in accommodating population growth (2 dwellings replaced with 22 dwellings) while also providing a form of dwelling type that is not well represented within the Town and which caters for a lower occupancy ratio to that of a traditional family dwelling.

A summary of the technical planning assessment is provided below:

Density of Development

Clause 5.3 of the Town's Local Planning Scheme No. 10 (LPS10) is titled 'Special Application of Residential Design Codes'.

Clause 5.3.1.1 of LPS10 states that:

Where a Split Density Code is depicted on the Scheme maps, any development shall conform to the lower density code applicable to the lot, unless Council determines that development up to the middle or higher density code is acceptable, having regard for sub-clause 5.3.1.2.

Clause 5.3.1.2 of LPS10 states that:

Subdivision or development in excess of the lower density coding shall be considered to be acceptable to Council where:-

- (a) in the opinion of Council the lot has a road frontage sufficient to allow at least two homes and a shared accessway, where required to service development to the rear:
- (b) There is due regard for relevant Local Planning Policies;
- (c) Identified heritage objectives are not compromised;
- (d) The proposal demonstrates elements of water sensitive urban design; and

(e) The existing streetscape is being preserved.

An assessment of the proposed development against the provisions of clause 5.3.1.2 of LPS10 is provided in the Table below.

	eme Requirement cained within clause 1.2 of LPS10	Officer Comment on Scheme Requirement
(a)	In the opinion of Council the lot has a road frontage sufficient to allow at	Scheme provision satisfactorily addressed. The proposed development incorporates eight dwellings facing Railway Parade (four ground floor and
	least two homes and a shared accessway, where required to service development to the rear.	four upper floor). There is no need for an accessway to be provided to service development at the rear as the dwellings which are located to the rear (northern) portion of the site are provided with access from a paved right-of-way.
(b)	There is due regard	Scheme provision not satisfactorily addressed.
	for relevant Local Planning Policies.	The Town's Local Planning Policy No. 2 – Energy Efficient Design contains a checklist against which the application must be assessed and against which each dwelling must score a minimum score of 70 points out of an available 100 points.
		A copy of the assessment and associated score for each of the dwellings has been provided as an attachment to this report.
		Units 1 – 11 and 20 - 21 each achieve the minimum required score of 70; and Units 12-19 and 22 achieve a score of 57.5.
		It is possible for the design of units 12-19 and 22 to be refined in order that they each achieve the minimum 70 point score specified by the Policy.
		Each of the dwellings in question is located on the upper floor and the most significant design flaw which has prevented each achieving a 70 point score is linked to the depth of the balconies and associated roof cover which prevents direct sun penetration to living area windows during the winter months for each of these apartments. If the extent of roof cover were cut back to an extent that would facilitate an acceptable level of winter sun penetration to the living area of each apartment (by approximately 1.0m) or if the solid roof forms over the balconies to these dwellings were converted to a solar pergola style roof,

		the point score for each dwelling would increase from 57.5 to the required 70 point minimum.
		Alternatively, each of the dwellings could be provided with a solar hot water system which would increase their points score by 10 to 67.5 in conjunction with the provision of low water use landscaping for the development as a whole which would increase the points score for each of these dwellings by a further 5 points, thus achieving the minimum required 70 point score.
(c)	Identified heritage objectives are not compromised.	Scheme provision satisfactorily addressed. The development site is vacant and there are no relevant heritage considerations that need to be taken into account in the assessment of the application for planning approval.
(d)	The proposal	Scheme provision satisfactorily addressed.
	demonstrates elements of water sensitive urban design.	The Town's Local Planning Policy No. 3 – Water Sensitive Design provides the matters against which the application must be assessed.
(e)	The existing streetscape is being preserved.	Scheme provision not satisfactorily addressed. The concern which is held in relation to streetscape is the blank two storey high boundary wall which has been proposed alongside the left hand (western) boundary of the development site. While a boundary wall which was single storey in
		height would be commensurate with other development within the locality, the proposed two storey boundary wall:
		 Adversely affects the appearance of the development (building to the boundary does not permit openings to be incorporated into this side of the building and does not allow the design to be 'resolved' as it is on other sides of the development which are set back from lot boundaries; The two storey wall with a zero side setback incorporates a bulk and scale which is out of keeping with the character of other development within the locality; The wall is monolithic and blank in its appearance; The two storey wall boundary limits opportunities for natural and cross ventilation to be provided to unit 19 which would otherwise be available; The two storey boundary wall prevents opportunities for casual surveillance of an adjoining car park which could otherwise be provided if a

standard side setback were provided, contrary to established Crime Prevention Through Environmental Design (CPTED) principles (it is noted that such casual surveillance would have to be provided by fixed windows of a size that did not constitute major openings as defined by the R-Codes in order that other requirements contained within LPS10 and the R-Codes were not unduly compromised); and

 The wall does not demonstrate compliance with the building height limits set down within the Deemedto-comply (DTC) provisions of the R-Codes and sits on top of a filling and retaining which also do not demonstrate compliance with the DTC provisions of the R-Codes and which act to exacerbate the bulk and scale of this highly visible component of the development.

If the left hand (western) side of unit 19 (upper floor of development) were provided with a standard side setback (1.5m approx.) and the design of this side of the building were detailed in a similar manner to other upper floor side boundary facing portions of the development (while also incorporating 'minor' sized fixed openings into each of the bedrooms for this dwelling which would enhance the level of casual surveillance afforded to the car park of the adjoining commercial development), this would satisfactorily address the concerns that are currently held in relation to streetscape.

Unless the concerns identified above were addressed via the provision of suitably revised drawings or conditions of approval, it has been established that the development, as submitted, does not qualify for development at the higher R40 density code and accordingly should not be approved as currently presented and that development of the site would be limited to the base R20 density code. At an R20 density code the site would be limited to the development of 5 dwellings as opposed to the 22 dwellings which are proposed.

Notwithstanding the comments provided above, a summary of the assessment against the provisions of the R-Codes as they relate to development at an R40 density code is provided below, taking account of the ability of the Scheme related concerns to be addressed via the provision of suitably revised drawings linked to conditions of approval.

R-Codes assessment:

Design Element	Residential Design Codes	Compliance / Officer Comments
6.1.1 Building size	Maximum permissible plot ratio of 0.6 at R40 density code.	· •

6.1.2	Top of external wall 6m.	Acceptable in part only - refer to
Building		detailed comments below.
height	Top of pitched roof 9m.	

6.1.2 – Building Height – Detailed Comments

The buildings comprising blocks 1-3 facing the right-of-way each incorporate a skillion (single pitch) roof design, while the dwellings contained within what is referred to as block 4 incorporate a traditional pitched (hipped) roof form.

Where a two storey building with a skillion roof form is proposed, there will invariably be non-compliance with the Deemed-to-comply provisions of the R-Codes relating to wall height (as the wall on the high side exceeds the 6m DTC allowance) but compliance will be demonstrated in relation to the permissible top of roof (or ridge) height. The plans which are the subject of current consideration are no exception to this rule, having wall heights ranging from 7.0 metres (block 1) to 7.1 metres (block 3) to 7.2 metres (block 2) on the high side of each respective building. In the case of such a building design, the proposed wall height and top of roof height almost become one and the same, having regard to how each must be calculated, so the top of roof height for each of these buildings is fully compliant.

The building which faces Railway Parade (block 4) incorporates a wall height of 6.7 metres which compares with the DTC allowance of 6.0 metres and the height which is proposed results primarily from the fact that the design incorporates 1.0m of filling and retaining to the left hand side (western) property boundary.

The Design principle for building height requires that the proposed development present a design which creates no adverse impact on the amenity of adjoining properties or the streetscape, and where appropriate maintains:

- Adequate access to direct sun into buildings and appurtenant open spaces;
- Adequate daylight to major openings into habitable rooms;
- Access to views of significance:
- Buildings present a human scale for pedestrians;
- Buildings facades designed to reduce the perception of height through design measures; and
- Podium style development is provided where appropriate.

The proposed heights of the skillion roof buildings facing the right-of-way are supported for the following reasons:

- The default building height limits within this locality are intended to accommodate two storey buildings, and it is two storey buildings which are proposed;
- Upper floor side setbacks of these buildings demonstrate compliance with the Deemed-to-comply provisions of the R-Codes, meaning that there is no adverse impact on occupants of the proposed dwellings or those in neighbouring buildings in relation to matters such as access to daylight and sun;
- The increased wall height has no adverse impact on access to any views of significance; and
- The perception of the height of the walls in question is reduced through the use of differing materials for the uppermost portion of the walls in question.

The proposed heights of the pitched roof building facing Railway Parade is not supported for the following reasons:

- Unnecessary fill and retaining beneath the building exacerbates the height of the building;
- The zero setback to the two storey boundary wall is out of keeping with the context of other development within the locality (there are presently very few two storey developments on the northern side of the railway line and certainly none which incorporate similar built form);
- The zero setback to the two storey boundary wall prevents the opportunity for natural venting of two bathrooms; and
- The two storey wall is blank and monolithic in its design and appearance and will be highly visible within the streetscape, owing to its positioning alongside a car park.

6.1.3 Street	As prescribed by Table 4 (4m minimum primary street to	<u>.</u>	to	detailed
setback	Railway Parade). 1.5m minimum to right-of-way			

6.1.3 – Street Setback facing right-of-way – Detailed Comments

There is somewhat of a void in the R-Codes in terms of specifying setback requirements for the buildings facing the right-of-way. The right-of-way is logically a street boundary but cannot be described as such noting that the Railway Parade is the designated Primary street (as defined by the R-Codes "unless otherwise designated by the local government, the sole or principal public road that provides access to the major entry (front door) to the dwelling") and secondary street is defined as "in the case of a site that has access from more than one public road, a road that is not the primary street but which intersects with or adjoins that road."

(For development which is assessed under Table 1 of the R-Codes this problem is addressed as there is a notation which clarifies that secondary street includes a communal street, private street and right-of-way as street, but there is no such notation within Table 4 of the R-Codes against which this application is assessed)

Notwithstanding the comments provided above, the applicant has treated the rightof-way as a 'secondary street' in the written submission which accompanied their application, and the Town agrees with this approach.

Buildings in blocks 1-3 are generally provided with setbacks of 1.5 metres or greater with exceptions for small triangular portions comprising an 87mm protrusion for unit 2, 375mm for unit 4 and 277mm for unit 7 on the ground floor and 87mm for unit 13, 375mm for unit 15 and 277mm for unit 18 on the upper floor.

The building is articulated and the built form is superior to that which could otherwise have been proposed with a straight edge along a 1.5m setback line. Given the small projections in question, and the majority of the building structure within blocks 1-3 having a setback of 1.5m or greater, the setbacks as proposed are supported.

6.1.4	As set	out in	Tabl	es 2	a and	Acceptable.	Refer	to	detailed
Lot boundary	2b.	No	'as	of	right'	comments belo	ow.		

setbacks	entitlement	to	walls	on
	boundary.			

<u>6.1.4 - Lot boundary setbacks – Detailed comments</u>

Right hand (eastern) side boundary alongside No. 70 Railway Parade

The development incorporates a boundary wall to a parking structure associated with car parking bays 11-14, 17-18 and store 7. This boundary wall has a total length of 17.4 metres (side boundary length between Nos. 72 and 70 is 59.26 metres) and a height of 2.3 metres as viewed from the adjoining property. There are no Deemed-to-comply entitlements for a zero side setback where multiple dwellings are proposed at an R40 density code.

The wall on boundary is commensurate with that which is permitted for development at an R20 density code where the R-Codes provide a Deemed-to-comply entitlement for development of a wall on boundary within the following parameters:

- Maximum height of 3.5 metres and average height of 3.0 metres; and
- Maximum length of the greater of 9m or one-third the length of the balance of the lot boundary behind the front setback, to one side boundary (i.e. wall length of 17.75 metres).

Given the orientation of the lots (lot boundary running north/south) the proposed boundary wall will not result in overshadowing of the adjoining property, and the wall is situated alongside an area of extensive rear garden.

As the wall fits within what could otherwise be Deemed-to-comply development at an R20 density code and noting the relationship between the proposed development and what exists on the adjoining property, this setback variation is supported.

<u>Left hand (western) side boundary alongside Nos. 2 & 2B Broadway</u> Setbacks to the boundary adjoining the property at No. 2 Broadway meet those set down within the Deemed-to-comply provisions of the R-Codes

Southern boundary adjoining rear of BWS site at No. 76 Railway Parade

Bin store No. 2 and stores 13-16 and 19 are built to the southern boundary of the development site which abuts the rear of the BWS bottle shop. The area to the rear of the shop contains air-conditioning plant and the like and the single storey boundary wall in this location assists in providing separation between noise generating sources on the adjoining property and noise sensitive premises on the development site. A single storey boundary wall height is consistent with the size and scale of boundary walls expected at an R40 density code and for the reasons identified above this boundary wall is supported.

<u>Left hand (western) side boundary wall adjoining BWS site at No. 76 Railway Parade</u>

A two storey boundary wall is proposed in conjunction with units 8 (ground floor) and 19 (upper floor) adjoining the BWS bottle shop. A two storey boundary wall does not meet the Deemed-to-comply provisions of the R-Codes and accordingly this setback must be considered against the associated Design Principles which

require:

Buildings set back from boundaries or adjacent buildings so as to:

- Ensure adequate daylight, direct sun and ventilation for buildings and the open space associated with them;
- Moderate the visual impact of building bulk on a neighbouring property;
- Ensure access to daylight and direct sun for adjoining properties; and
- Assist with the protection of privacy between adjoining properties.

As the adjoining property is developed for commercial purposes, no concerns are held in relation to the potential of this wall to adversely affect the amenity of the adjoining property.

Concern is, however, held in relation to the bulk and scale of this wall and the negative impact that it would have as viewed from the public realm noting the following:

- There are few two storey buildings located north of the railway line (as the development site is) and none with a similar built form;
- The wall is blank and monolithic and unrelieved, increasing the visual impact of building bulk as viewed from both the adjoining property and the public realm;
- Two storey blank boundary walls are not consistent with the established, nor desired, character of development within the locality; and
- Two storey boundary walls are not contemplated by the R-Codes in conjunction with development at an R40 density code.

6.1.5 Open space	As set out in Table 4 (45% of site)	Complies.
6.2.1 Street surveillance	Street elevations of building to address the street, with facades generally parallel to the street and clearly definable entry points. Habitable room windows or balconies that face the street.	Complies.
6.2.2 Street walls and fences	Front fences within the primary street setback area that are visually permeable to 1.2m above natural ground level.	Not Acceptable. Refer to detailed comments, below.

6.2.2 – Street walls and fences - Detailed comments

While it is noted that the height of the solid portion of fencing within the street setback area on the Railway Pde frontage of the development has been reduced from that which was originally proposed, the overall height of fencing within the street setback area remains at up to 2.5 metres in height overall above existing ground levels, well in excess of the 1.8 metre maximum which is ordinarily accepted. This height results directly from the extent of filling and retaining which is proposed. As proposed, the overall height of fencing is seen to be excessive and is not supported.

6.2.3 Sight lines	Walls, fences or other structures truncated or reduced to no higher than 0.75m within 1.5m of where such structures adjoin vehicle access points where a driveway meets a street.	Complies.
6.2.4 Building appearance	Buildings which comply with the provisions of a special control area or local planning policy.	Not Acceptable. Refer to detailed comments provided in relation to comments on compliance with Clause 5.3 of the Town's Local Planning Scheme No. 10 for further comment in this respect.
6.3.1 Outdoor living areas	Each dwelling to be provided with at least one balcony or equivalent accessed directly from a habitable room.	Acceptable with the exception of arrangements for units 5, 19 and 22. See detailed comment below.

6.3.1 – Outdoor living areas (OLA's) – Detailed comments

Arrangements for all units with the exception of units 5, 19 and 22 are unacceptable. Concerns with the OLA's for these units are described below:

- Unit 5 undersize (beneath 10 sq. metres) generally;
- Unit 19 undersize due to impact on usable area from positioning of airconditioning plant; and
- Unit 22: undersize due to impact of air-conditioning plant and siting of column.

6.3.2	Landscaping of open spaces	Generally acceptable with the
Landscaping	in accordance with the following:	exception of pedestrian path provision.
	(i) Street setback max 50% hard surface and no cars save for visitors bays;	Extent of hard surface within street setback requires consideration against the Design principles.
	(ii) Separate wheelchair accessible pedestrian paths connecting entries to buildings with the public footpath and car parking areas;	See detailed comments below:
	(iii) Landscaping between each 6 consecutive external car bays to include shade trees;	
	(iv) Lighting to pathways, communal open space and car parking areas;	

and

(v) Clear line of sight at pedestrian and vehicle crossings.

6.3.2 - Landscaping - Detailed comments

Landscaping:

Landscaping within the prescribed 4m front setback area on the Railway Parade frontage is slightly less than the 50% minimum prescribed by the Deemed-to-comply provisions of the R-Codes, however, landscaping which sits forward of the buildings on the Railway Parade frontage (and which will 'read' as the setback area to any casual observer) overall equates to an area which is more than 50% of the area contained within the prescribed street setback. On this basis the proposed arrangements are supported.

Pedestrian Path

While the design provides a satisfactory arrangement for pedestrian access within the site and to the rear right-of-way, the plan does not provide a pedestrian path from the public street to the main entrance to the development (between units 9 and 10 on the ground floor). The absence of a pedestrian path linking the front entrance of the development to the pedestrian path is not acceptable.

6.3.3
Parking

Car and bicycle parking at the following ratios:

Parking is provided at the following ratios:

Occupier car bays:

0.75 bays per small dwelling (< 75m² or 1 bedroom)

(Note: As the plot ratio of all dwellings is under 75 sq. metres, each dwelling has a prescribed parking requirement of 0.75 bays per dwelling).

Visitor car bays: 0.25 bays per dwelling

Bicycle Parking:

1 space per 3 dwellings for occupiers; and

1 space per 10 dwellings for visitors designed in accordance with AS2890.3 (as amended).

Occupier car bays

Each dwelling is provided with 1 car parking bay (22 in total) which exceeds the 0.75 per bay (17 in total) required under the R-Codes.

Visitor Car Bays

6 bays required and 6 bays provided.

Bicycle Parking

While the number of bays is acceptable, siting and design is not. See additional comments below.

6.3.3 - Parking - Detailed comments

Bicycle Parking

Clause 6.3.3 C3.2 of the Residential Design Codes states that bicycle parking is to be provided in accordance with the relevant Australian Standard (AS 2890.3) at a ratio of one space per ten dwellings (3 spaces) for visitors and one space per three dwellings (8 spaces) for occupiers.

Although the design references two bike racks which notionally would provide storage for the required number of bicycles, there are a number of deficiencies associated with the arrangement as follows:

- Lack of weather protection (required for occupier spaces);
- Lack of security (at a minimum a secure compound is required for occupier spaces);
- Siting (bike racks located beyond acceptable distance from entry to premises and visitor bays not located close to main pedestrian access points as specified within the Australian Standard).

Having regard to the deficiencies identified above, bicycle parking arrangements are not acceptable as currently proposed.

6.3.4 Design of car parking spaces	(i) Spaces and manoeuvring areas as per AS 2890.1.	(i) Not acceptable. See detailed comments below.
	(ii) Visitor bays marked for visitor use only, located close to or visible from the point of entry to the development and outside security barriers.	(ii) Acceptable.
	(iii) Car parking areas comprising 6 or more spaces provided with landscaping & shade trees.	(iii) Not applicable. No uncovered car parking areas comprising 6 of more bays proposed.
	(iv) All bays except visitors' fully concealed from the street or public place.	(iv) Acceptable.

6.3.4 – Design of car parking spaces - Detailed comments

Council's Local Planning Policy No. 8 – Parking Specifications identifies a requirement for access aisles between rows of car parking bays to incorporate a minimum width of 6.2 metres. This is the minimum specified by Australian Standard AS2890.1 to allow single movement entry into car parking bays. The three access aisles within the main car parking area incorporate dimensions of 5.8 metres, 5.85 metres and 5.9 metres.

The reduced width access aisles further results in the design not demonstrating compliance with requirements contained within clause 2.5.2 (c) of AS2890.1 which requires car parking areas to be designed so as to allow two vehicles (one B99

design standard vehicle and one B85 design standard vehicle) to pass each other at intersecting parking aisles.

Visitor car parking bay 3 is under width at 2.335m as shown on the approved drawings.

6.3.5 One opening per 20m (i) Complies. (i) Vehicular street frontage. access (ii) Access to be taken (ii) Proposed arrangement accepted. See detailed (where available) first from right-of-way; comments below. second from secondary street; or third from primary street. (iii) Driveways designed for (iii) Complies (subject to design two way vehicle access. modifications discussed in point 6.3.4, above). (iv) Complies. (iv) Driveways be to adequately paved and drained.

<u>6.3.5 – Vehicular Access - Detailed comments</u>

Clause 6.3.5 (C 5.2) would ordinarily expect that access to on site car parking spaces in this instance would be provided solely from the right-of-way at the rear of the site, and while the majority of car parking spaces (all occupier spaces and two visitor spaces) are accessed from this location, it is also proposed the an access point be provided from Railway Parade to serve four visitor car parking spaces. The Design principle associated with this matter requires "vehicular access to be provided so as to minimise the number of crossovers, to be safe in use and not detract from the streetscape".

The proposed configuration is supported for the following reasons:

- The majority of car parking spaces (including all occupier spaces) are accessed from the right-of-way as called for within the Deemed-to-comply provisions of the R-Codes:
- Provision of visitor car parking spaces accessed from the public street provides the most practical siting for visitors; especially those who have not previously been to the site and are relying on a physical public street address to locate the property; and
- Siting visitor car parking bays adjacent to the main pedestrian entrance to the development is a standard and established design approach which is advocated by the R-Codes.

6.3.6	(i) Excavation or filling	Not Acceptable. See detailed
Site works	between street and	comments below.
	building or within 3m o	
	street alignmen	
	(whichever is the lesser)	
	not exceeding 0.5m.	

- (ii) Excavation or filling within a site and behind street setback line limited by compliance with building height limits and building setback requirements.
- (iii) All excavation or filling behind a street setback line and within 1m of a lot boundary not more than 0.5m above natural ground level.

6.3.6 – Site Works - Detailed comments

The proposed development incorporates filling and retaining to 1000mm in height adjacent to the left hand (western) side property boundary with the BWS bottle shop. This exceeds the 500mm maximum which is allowed by the Deemed-to-comply provisions of the R-Codes and accordingly must be considered against the associated Design Principles which require:

- Development that considers and responds to the natural features of the site and requires minimal excavation/fill; and
- Where excavation/fill is necessary, all finished levels respecting the natural ground level at the boundary of the site and the adjoining properties and as viewed from the street.

The locality within which the development is proposed is essentially flat, each original lot upon which the development is proposed having a cross fall from side to side of approximately 400-500mm. However, the cross fall for the development site as a whole now exceeds this figure as it is formed from the amalgamation of a number of original lots (as viewed from the rear right-of-way the development site is four original lots wide and as viewed from Railway Parade the development site is two original lots wide).

On the right-of-way frontage of the development site the designer has responded to natural topography by stepping the floor levels of the buildings over three levels (Block 1 has a finished floor level (FFL) of 9.972, block 2 incorporates a FFL of 10.486 and block 3 incorporates a FFL of 11.00).

However, on the Railway Parade frontage of the development site, the design incorporates a single floor level of 11.00 across the entirety of the development site.

The approach which has been taken on the Railway Parade frontage of the development site is not acceptable for the following reasons:

- Selecting the highest point of natural ground level and then simply filling across
 the development site (as is proposed) does not consider and respond to the
 natural features of the site, contrary to the Design principle;
- Selecting the highest point of natural ground level and then filling across the site

- does not result in a development with minimal excavation/fill, contrary to the Design principle:
- The 1000mm high filling which is proposed is highly visible from both the adjoining property and the street, having regard to the nature of development on the adjoining property, contrary to the Design principle;
- No other property within proximity of the development site incorporates filling and retaining as proposed with this development, so the arrangement is out of context with other development within the locality; and
- The 1000mm high filling sits immediately beneath a proposed two storey boundary wall. The extent of filling which is proposed contributes to the development not complying with prescribed building heights and exacerbates the bulk and scale of this component of the development, adversely impacting the streetscape and amenity of the locality.

6.3.7	Retaining walls of less than	Not Acceptable.	See detailed
	0.5m high built up to lot boundary.	•	as well as
		above.	

6.3.7 – Retaining walls - Detailed comments

The proposed development incorporates a retaining wall of 1000mm in height which is built to the left hand (western) side property boundary with the BWS bottle shop. This exceeds the 500mm maximum which is allowed by the Deemed-to-comply provisions of the R-Codes and accordingly must be considered against the associated Design Principles which require:

Retaining walls that result in land which can be effectively used for the benefits of residents and do not detrimentally affect adjoining properties and are designed, engineered and adequately landscaped having regard to clauses 6.3.6 and 6.4.1.

Refer to comments provided in reference to Site Works, above, as the planning considerations are the same.

6.3.8 Stormwater management	All storm water contained on site where possible.	Complies.		
6.4.1 Visual privacy	Major openings and unenclosed habitable spaces raised more than 0.5m above natural ground level and overlooking any other residential property behind its street setback set back in accordance with Table within cl 6.4.1 or are screened.	Acceptable. comments below.	See	detailed

<u>6.4.1 – Visual Privacy - Detailed comments</u>

The proposed development incorporates a number of major openings and unenclosed active habitable spaces which have a floor level more than 0.5m above natural ground level which overlook the BWS bottle shop site behind its street

setback line and which are not set back from a lot boundary in accordance with the distance identified within the Deemed-to-comply provisions of the R-Codes. These areas must be considered against the associated Design principles with the openings in question being:

- Rear facing Bedroom window and Balcony to Unit 19; and
- Habitable room windows and associated external areas to Units 13-15.

The property which can be viewed from the openings and spaces referred to above is the BWS bottle shop site, and while overlooking of this site is not problematic at the present time, consideration against the specified Design principles must be made as this site is zoned Residential and therefore a site upon which future residential development is permitted.

The arrangements which are proposed relative to the BWS bottle shop site are considered acceptable from a visual privacy perspective for the following reasons:

- While the BWS remains on the adjoining property the ability for there to be casual observation from the proposed development is actually a positive outcome from a Crime Prevention Through Environmental Design (CPTED) perspective;
- Views from Unit 19 provide an oblique, rather than direct, view into the adjoining property;
- Bedroom windows to upper floor units 14 and 15 are set back 4.3 metres from the common boundary which varies only minimally from the 4.5m setback prescribed by the DTC provisions;
- The elevated walkways forward of units 13-15 are spaces which will not be used for extended periods of time; and
- If the BWS site is redeveloped for residential purposes in the future, site planning for any such development can be undertaken having regard for what has been approved and developed on the adjoining property.

The proposed development also incorporates a number of major openings to active habitable spaces (balconies) facing the Bassendean Church of Christ on the opposite side of the right-of-way to the rear of the development site which are set back, in a direct line of sight to the lot boundary with the church site less than the 7.5 metre minimum dimension specified within the Deemed-to-comply provisions of the R-Codes.

The arrangements which are proposed in relation to church site are considered acceptable from a visual privacy perspective for the following reasons:

- While the church remains on the adjoining property the ability for there to be casual observation from the proposed development is actually a positive outcome from a Crime Prevention Through Environmental Design (CPTED) perspective;
- If the church site is redeveloped for residential purposes in the future, the Town
 would look for right-of-way widening in the same manner as that which has been
 called for in conjunction with this development, and the resultant right-of-way
 width would be 6m. This width, combined with setbacks of dwellings on each
 side would likely result in a scenario which was virtually 'Deemed-to-comply'
 compliant;
- The likely configuration of any future residential development on the church site

would incorporate dwellings facing the right-of-way in the same manner as is proposed with this development. This would result in balconies facing balconies in a 'public' setting as opposed to balconies from one development site overlooking areas of private open space in a 'non-public' setting within the second development; and

• If the church site were redeveloped for residential purposes in the future, site planning for any such development can be undertaken having regard to what has been approved in conjunction with this development proposal.

6.4.2 Solar access for adjoining sites	Shadow cast from proposed development at noon on 21 June not to exceed 25% of R20 coded land or 35% of R40 coded land.	Complies.		
6.4.3 Dwelling size	Diversity in unit types and sizes as follows: 1 Bedroom Dwellings 20% min & 50% max (5 minimum / 11 maximum) 2 Bedroom Dwellings 40% minimum (9 minimum) Min dwelling size of 40m² plot ratio floor area.	Acceptable. comments below.	See	detailed

<u>6.4.3 – Dwelling Size – Detailed Comments</u>

All dwellings within the development incorporate a minimum plot ratio floor area of 40 sq. metres.

The proposed development incorporates the following mix:

- 16 x two bedroom / two bathroom dwellings;
- 2 x dwellings which have two rooms with the capacity to be used as bedrooms along with 1 bathroom; and
- 4 x one bedroom / one bathroom dwellings.

The DTC provisions of the R-Codes specify a requirement for 4.4 (5) one bedroom dwellings, while the associated Design principles require the development to provide "diversity in dwellings to ensure that a range of types and sizes is provided".

The proposed development provides the following mix of dwelling types:

18% one bedroom (marginally below the 20% DTC minimum) 73% two bedroom dwellings (comfortably meeting the 40% DTC minimum) 9% with two rooms which can be used as bedrooms and one bedroom.

The two dwellings which incorporate two habitable rooms along with one bathroom do provide a dwelling type which differs from the two bed / two bath and one bed /

one bath dwellings. As such, a diversity of dwelling types is provided as required by the specified Design Principle and the dwelling mix which has been proposed is supported.

6.4.4	Outbuildings in accordance	Acceptable.	See	detailed
Outbuildings	with prescribed criteria	comments below.		
	(points (i) to (viii)).			

6.4.4 – Outbuildings – Detailed comments

The Deemed-to-comply provisions of the R-Codes permit the development of outbuildings which:

- i. Are not attached to a dwelling;
- ii. Are non-habitable;
- iii. Do not exceed 60m² in area or 10 per cent in aggregate of the site area, whichever is the lesser:
- iv. Do not exceed a wall height of 2.4m;
- v. Do not exceed a ridge height of 4.2m;
- vi. Are not within the primary or secondary street setback area;
- vii. Do not result in the non-compliance with open space set out in Table 4; and
- viii. Are set back in accordance with Tables 2a, 2b and Figure Series 3.

On outbuilding is defined by the R-Codes as "an enclosed non-habitable structure that is detached from any dwelling, but not a garage". As such, the various outbuildings which are incorporated into this development include:

- The building containing bin store 1 and stores 9 11 adjacent to the right hand (eastern) side property boundary;
- The building containing stores 8 and 20-22 which is built up to the left hand (western) side property boundary;
- The building containing stores 7 and 18 which is built up to the right hand (eastern) side property boundary;
- The building containing stores 13-16 and 19 which is built up to the boundary with the BWS bottle shop; and
- The building containing stores 1-6, 12 and 17.

As the outbuildings described above incorporate variations to the Deemed-to-comply provisions of the R-Codes (approx. 123 sq. metre total floor area; wall height which exceeds 2.4m; and built to boundary in some locations) they must be considered against the associated Design principle which requires:

"Outbuildings that do not detract from the streetscape or the visual amenity of residents or neighbouring properties."

The arrangements which have been proposed in relation to proposed outbuildings are considered acceptable for the following reasons:

- The outbuildings in question are not visible from the street and as such do not detract from the streetscape; and
- The outbuildings are designed and constructed of materials which match the remainder of the development meaning that they will not detract from the visual amenity of residents or neighbouring properties.

6.4.5 External fixtures	(i) Solar collectors Although there is only limited information provided in relation to this matter, the proposal is seen to
intuios	(ii) Std TV aerials; essential plumbing vent pipes & external rain water down pipes. this matter, the proposal is seen to be acceptable (appropriate conditions would have to be included to suitably address this matter in the event that the proposed development were to be
	(iii) Other external fixtures approved). which are screened.
	(iv) Antennae & satellite dishes not visible from street.
6.4.6 Utilities and facilities	(i) 4m² store with 1.5m min internal dimensions for each dwelling.
	(ii) Communal rubbish pick up area(s) which are conveniently located; accessible; adequate in size; and screened from view.
	(iii) Clothes drying areas screened from view. (iii) Complies. Communal clothes drying area provided which is located adjacent to the boundary with Nos. 2 & 2B Broadway. To be supplemented on any approval granted by the Town by conditions requiring any other clothes drying to be screened from view of the street.

6.4.6 - Utilities and Facilities - Detailed comments

The development has been provided with two bin stores. Bin store 1 is located adjacent to building block 4 while bin store 2 is located within the vicinity of building block 1.

Bins are provided at a ratio of 1 bin shared between 2 units, meaning that the development is provided with 22 bins in total (11 x 240 litre general rubbish bins which will be collected weekly and 11 x 240 litre recycling bins which will be collected fortnightly). This level of provision accords within the recommended level of capacity advocated within the "Guide to Best Practice for Waste Management in Multi-unit Developments" October 2010 prepared by Sustainability Victoria which states, at page 40:

"Examples of best practice waste management in low-rise developments include: Option 1: Use of mobile garbage bins (MGBs) for garbage and recyclables, with bins stored in a communal storage area. Council's waste management unit will be able to advise what the allocation of bins will be. However, a rule of thumb is one 240L bin of each type (i.e. garbage, recycling) shared per two units."

The level of provision offered by the sharing of 1 bin per 2 units also provides a level of capacity which is similar in total to that advocated within the "Draft Multiple Dwelling Development Waste Management Planning Guidelines – A Toolkit for Western Australian Local Government and Developers" 2013 prepared by WALGA.

Bin store 1 is designed to accommodate 7 general waste bins and 7 recycling bins and is designed to serve the 8 dwellings in block 4 which front Railway Parade and the 6 dwellings in block 3 which front the rear right-of-way. It is located conveniently for use by the residents within the dwellings fronting Railway Parade and an acceptable distance from the residents within block 3 facing the right-of-way.

Bin store 2 is designed to accommodate 4 general waste bins and 4 recycling bins and is designed to serve the 8 dwellings in blocks 1 and 2 which front the rear right-of-way. It is located an acceptable distance from the residents within these dwellings.

With modification to existing verge treatment (there is a specifically developed and maintained verge planting treatment which sits forward of the development site which would currently prevent the placement of bins and which would need to be removed and replaced with brick paving to accommodate placement of bins while awaiting collection) there is just enough verge space available to accommodate the placement of 22 bins for collection.

A deficiency in the design of the rubbish storage areas for this development is the absence of storage capacity for bulky rubbish disposal. Best practice requires the provision of space within or immediately adjacent to bin storage areas to allow residents to temporarily store unwanted bulky items while awaiting disposal. This is said to be important to stop residents illegally dumping this material on the footpath, which detracts significantly from the quality and appearance of the development, and is of increased relevance noting that the likelihood of dwellings such as those which are proposed being used for rental accommodation and subject to a higher turnover of occupants. The design should be modified to build in capacity for bulky rubbish storage / disposal and all waste management arrangements should be addressed within an updated and refined waste management plan to be separately approved by the Town.

Noise:

When the application for grouped dwellings was made on behalf of the same landowner in 2013, the Town confirmed the need for an acoustic consultants report to be prepared which addressed the matter of potential noise impacts on the proposed dwellings, particularly from the adjoining bottle shop.

The applicant was advised that the report should address noise emissions from No. 76 (Lot 51) Railway Parade, including all existing installations, activities and processes, giving actual sound level measurements of plant, both individually and in combination.

The need for the report to include the presence of tonal components, amplitude or frequency modulations or impulses to ensure noise emissions received at the proposed noise sensitive premises are in compliance with the requirements of the Environmental Protection Act 1986 was identified, along with the need for the report to include assessments of:

- Noise emissions from refrigeration motors;
- Noise emissions from air-conditioning units:
- Noise emissions from vehicular movements to and from site (include customers, deliveries, and staff at various times of the day);
- Noise emissions from the use of the bin store including waste collection activities;
- Noise emissions from customers / patron activity.

The applicant was advised of the need for this report to be provided in conjunction with the assessment of the application for planning approval, as its recommendations may influence the design of the development.

When the application for 22 multiple dwellings was submitted by Danmar Homes on behalf of the same land owner in late 2013 the same advice was re-conveyed as it was for a third time when the current application for planning approval was made in 2015.

It is not apparent as to why the property owner has been so reluctant to have the required noise report commissioned, especially noting advice from the Town's Environmental Health staff confirming that:

- (a) there is a definite noise conflict which exists on site; and
- (b) the recommendations contained within the noise report may influence the design and layout of dwellings on the development site.

The need for an acoustic report to be produced remains outstanding and the applicant has been informed accordingly. They have requested that this matter be dealt with by way of a condition of approval.

Additionally, the noise report can also cover the church site to address concerns which have been raised by the church in their submission and should also address road and rail infrastructure which may impact occupants of proposed dwellings.

Right-of-way

The rear of the development site is adjoined by a paved and drained right-of-way. This right-of-way is 4.02 metres in width which is insufficient to accommodate two way vehicle movements. In circumstances where development adjoining such a right-of-way is proposed, it is standard planning practice for land to be excised from abutting properties on either side of the right-of-way in equal amounts in order that the overall width of the right-of-way can eventually be increased to 6.0 metres.

In this instance, the desire to see an eventual overall right-of-way width of 6.0 metres would mean that a 1.0 metre strip of land would need to be excised from the rear of the development site. The applicant is conscious and accepting of this requirement and a 1.0 metre strip of land to be excised for right-of-way widening is shown on the plans accordingly.

The Town's records show that the portion of the right-of-way which adjoins the development site is privately owned by the Church of Christ which owns the land on the opposite side of the right-of-way and that the owners of the development site would have the ability to claim 'user rights' in relation to vehicle access.

Public Art

The proposed development is subject to the provision of provide public art in accordance with the provisions described within the Town's Local Planning Policy No. 15 "Percent for Art Policy" which has been provided as an attachment to this report.

The Policy requires that the cost of public art be no less than one percent of the value of the development, and a condition of approval has been incorporated to this effect.

Options/Alternatives

If the Development Assessment Panel believes that:

- (a) areas which need to be addressed under clause 5.3 of the Town's Local Planning Scheme No. 10 to enable a determination to be granted at an R40 density code; and
- (b) the areas of concern which have been identified which are linked to the R-Code assessment:

can respectively be addressed via conditions of approval, it could approve the application in accordance with the recommendation contained within this report.

If the Development Assessment Panel believes that the areas of concern that have been identified can not suitably be addressed, then it could refuse the application subject to specifying appropriate reasons linked to non-compliance with the provisions of the Town's Local Planning Scheme and R-Codes.

Council Recommendation:

The Council of the Town of Bassendean considered this proposal at a special meeting held 8 June 2015, at which time it resolved as follows:

"That Council:

- 1. Endorses the Senior Planning Officer's report and recommendation to the Metropolitan Central Joint Development Assessment Panel for the Proposed 22 Multiple Dwellings on Lot 54 (Nos. 72-74) Railway Parade, Bassendean.
- 2. Expresses its concern that approval of this development undermines the site's proposed R100 development potential as the property is directly opposite the Bassendean railway station and about to be the subject of structure planning to achieve this higher outcome."

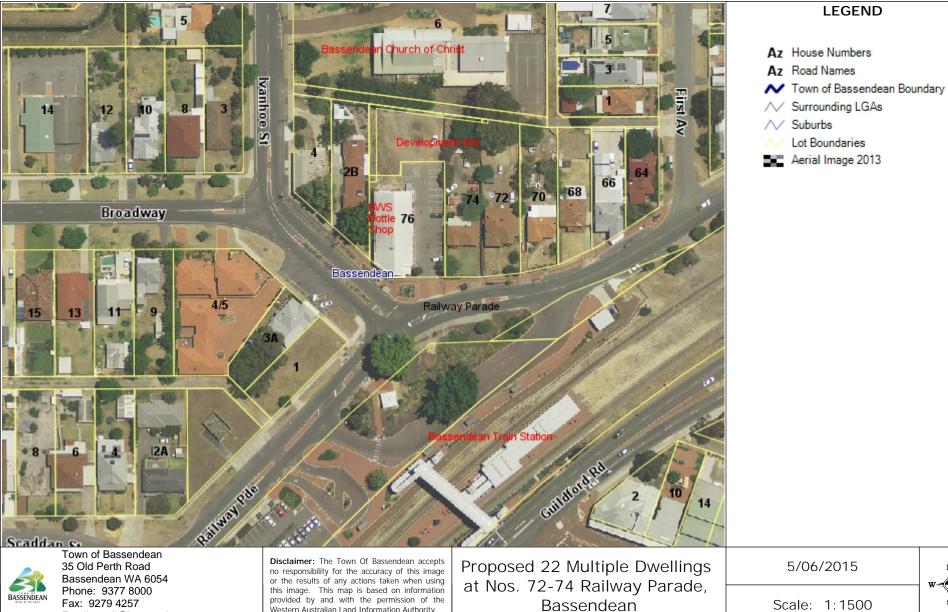
Conclusion:

As identified within this report, the development site is allocated a split residential density coding of R20/40 under the provisions of the Town's Local Planning Scheme No. 10, and some refinement is required to facilitate development at the R40 density

code as proposed. The required changes are relatively straightforward in terms of the design adjustments which need to be made.

In addition to changes required to facilitate approval of the development at an R40 density code, there are also a range of refinements which are required to address the numerous R-Code concerns which were detailed within this report.

Where a recommended condition of approval requires a design change to be effected, all parties need to be aware of the potential for one design change to have other 'knock on' implications. In this respect the applicant needs to be mindful that in making a design change to address an imposed condition of approval that the change which is made does not result in a new area of non-compliance being generated with respect to a new or unrelated matter.



Western Australian Land Information Authority.

Email: mail@bassendean.wa.gov.au

Scale: 1:1500

PROPOSED MULTIPLE DWELLING DEVELOPMENT LOTS 54 (No.72) RAILWAY PARADE, BASSENDEAN, (Town of Bassendean)

TOWN OF BASSENDEAN

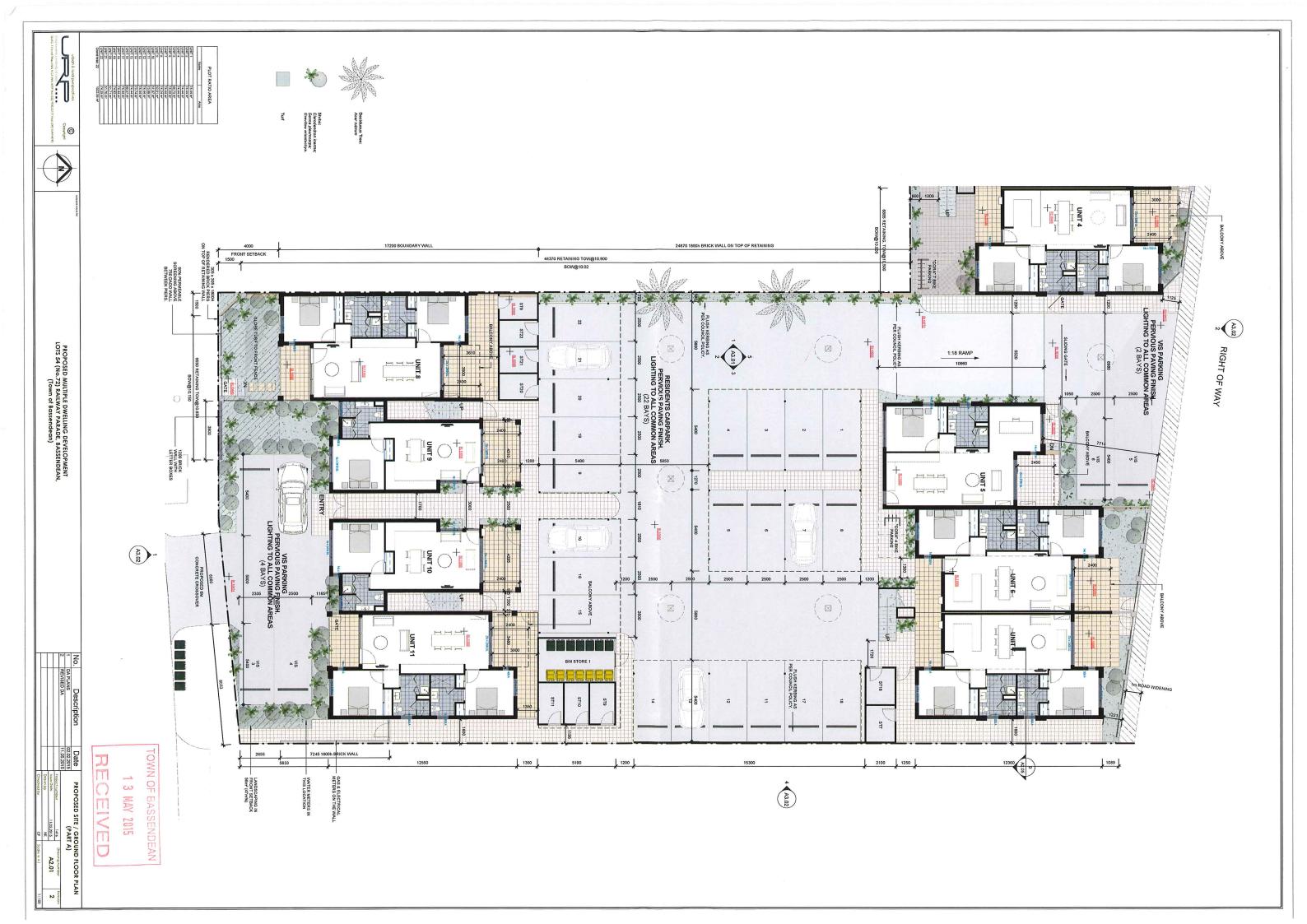




RECEIVED

Scription Date PROPOSED SITE DEVELOR 1105-2015 Interest Control Proposed SITE DEVELOR

PROPOSED MULTIPLE DWELLING DEVELOPMENT LOTS 54 (No.72) RAILWAY PARADE, BASSENDEAN (Town of Bassendean)



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PROPOSED MULTIPLE DWELLING DEVELOPMENT LOTS 54 (No.72) RAILWAY PARADE, BASSENDEAN (Town of Bassendean)

PROPOSED SITE / GROUND FLOOR PLAN
(PART B)

Shrbs: Clerodendron inerme; Senna pleurocarpa; Grevillea eriostachya. Ę

Deciduous Tree: Acer rubrum

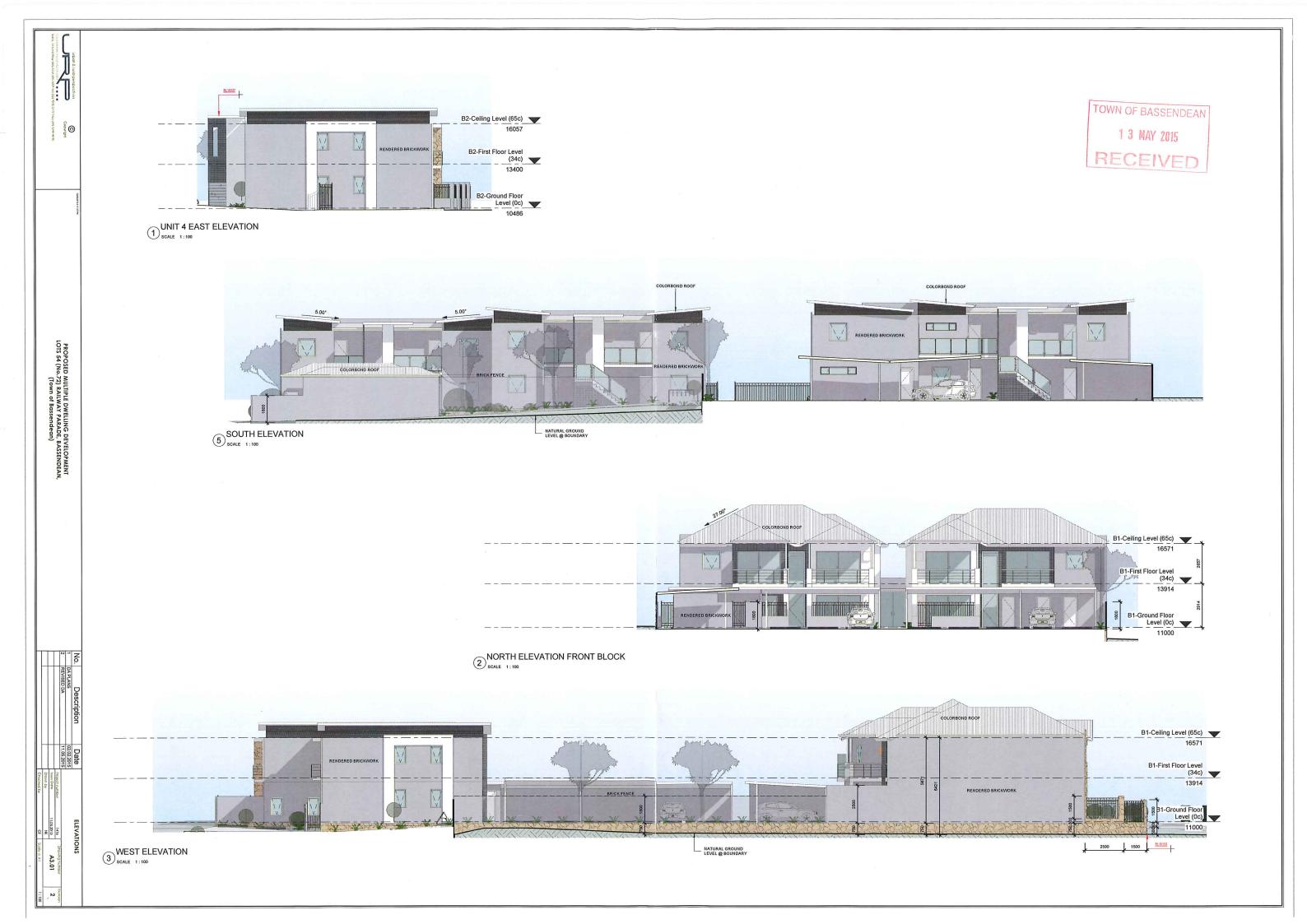
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UNIT
ORIENTATION (LONGEST AXIS FACING NORTH)
NORTH FACING COURTYARD AND LIVING AREA WINDOWS 50% OF
BED WINDOWS MINIMISED IN AREA AND NORTH FACING (1BED SOUTH FACING)
EAST AND WEST FACING WALLS BLANK
60% ROOMS CROSS VENTILATED
SOLAR HOT WATER UNIT OR SOLLER PERGOLA
LANDSCAPE DESIGN COPLIANCE
TOTAL

BED WINDOWS
MINIMISED IN AREA
AND NORTH FACING
(1BED SOUTH FACING)











2) RAILWAY PARADE VIEW 1





RIGHT OF WAY 1













PROPOSED MULTIPLE DWELLING DEVELOPMENT LOTS 740 & 52 (No.72 & 74) RAILWAY PARADE, BASSENDEAN (Town of Bassendean)



18 February 2015

Chief Executive Officer Town of Bassendean PO Box 87 BASSENDEAN WA 6934

Attention: Mr Brain Reed – Manager, Development Services

Dear Brian

APPLICATION FOR APPROVAL TO COMMENCE DEVELOPMENT PROPOSED TWENTY TWO (22) NEW MULTIPLE DWELLINGS LOTS 740 & 52 (NOS.72 & 74) RAILWAY PARADE, BASSENDEAN TOWN OF BASSENDEAN

Urban & Rural Perspectives, on behalf of the current landowners, hereby submits an application for planning approval to construct twenty two (22) new multiple dwellings on Lots 740 & 52 (Nos.72 & 74) Railway Parade, Bassendean.

Please find enclosed the following information to assist the Town and the Joint Development Assessment Panel's consideration and processing of the application:

- Completed and signed 'Application for Approval to Commence Development' form;
- Completed and signed 'Development Assessment Panel (DAP) Form 1';
- A current copy of the Certificate of Titles for Lots 740 & 52;
- Remittance of \$12,312.00 being the application fee payable to the Town of Bassendean and Metro Central Joint Development Assessment Panel (JDAP);
- One (1) copy of the Waste Management Plan prepared in support of the application;
- Three (3) copies of plans prepared in support of the application, including a completed *Energy Efficient Deign Policy* checklist (shown as table on plans);
- Completed 'Water Sensitive Design Policy' checklist;
- A 'Design Principles Submission Table' addressing the relevant 'design principles criteria' of the R-Codes and relevant development standards of the Town of Bassendean Local Planning Scheme No.10, for those elements/standards of the design layout that do not comply with the 'deemed to comply requirements'; and
- Two (2) copies of the application documentation and plans in electronic format.

We request that a receipt in respect of the abovementioned application fee be forwarded to this office at **PO Box 2507 MALAGA WA 6944** at the Town's earliest convenience.

In assessing the application we ask that the Town and the Metro Central Joint Development Assessment Panel (JDAP) give due consideration to the following to the following matters:



- 1. The subject land is legally described as:
 - Lot 740 on Plan 3262 on Certificate of Title Volume 1034, Folio 862; and
 - Lot 52 on Deposited Plan 29525 on Certificate of Title Volume 2535, Folio 762.

Lots 740 & 52 are currently owned in fee simple by Mark & Sandra Hammond (see Appendix 1 – Record of Certificates of Title).

- 2. Lots 740 & 52 are located approximately 150m-200m north-west of the traditional Bassendean town centre main street (Old Perth Road), on the northern side of Guildford Road and the railway line and adjacent to the Bassendean train station (see Appendix 2, Plan 1 Location Plan).
- 3. Lots 740 & 52 are irregular in shape, cover a total area of 2,561m² and comprise a fall in the natural ground levels from approximately 11 metres AHD along its eastern side boundary to approximately 9.46 metres AHD along its western side boundary.
- 4. Lots 740 & 52 are currently vacant/unused land, with direct frontage and access to Railway Parade along its southern boundary and access from a right of way along its northern rear boundary (see Appendix 2, Plan 2 Existing Lot Configuration & Plan 3 Aerial Site Plan).
- 5. The subject land is currently classified 'Urban' zone under the provisions of the Metropolitan Region Scheme (MRS). The following definition is provided as a guide to its stated purpose/s in the MRS:
 - "**Urban Zone** Areas in which a range of activities are undertaken, including residential, commercial recreational and light industry."
- 6. The proposed development is considered to be consistent with the defined intent of the land's current 'Urban' zoning classification under the MRS and may therefore be approved.
- 7. The subject land is classified 'Residential' zone under the Town of Bassendean's current operative Local Planning Scheme No.10 (LPS No.10) with a split residential density coding of R20/40.
- 8. Under the terms of LPS No.10 the development and use of any land classified 'Residential' zone for 'multiple dwelling' purposes is listed as a permitted ("P") use.
- 9. Council's stated objectives for any land classified 'Residential' zone under LPS No.10 are as follows:
 - a) to maintain life long or long-time residents as an integral component of the Bassendean community;
 - b) to continue and increase the attraction for young families to reside and raise their families in the Bassendean community;
 - c) to recognise the role of Bassendean as a middle metropolitan area that is well placed to contribute meaningfully to sustainable urban development for the Perth Region, and therefore facilitate the planned gradual increase in population growth in a manner that provides net environmental, social and economic benefit;



- d) to make provision for housing types that respond to the demands of an ageing population and declining occupancy rates;
- e) to limit non-residential activities to those of which the predominant function is to service the local residential neighbourhood and for self-employment or creative activities, provided such activities have no detrimental effect on the residential amenity;
- f) to ensure that the density of development takes cognisance of the availability of reticulated sewerage, the effluent disposal characteristics of the land and other environmental factors; and
- g) to ensure that subdivision and development comply with the Local Planning Strategy and the principles of any Local Planning Policy adopted by the Council.
- 10. It is contended that the proposed development and use of the subject land for 'multiple dwelling' purposes is consistent with Council's stated objectives for land classified 'Residential' zone in LPS No.10 for the following reasons:
 - It will provide opportunity for the development of an attractive and safe residential environment comprising modern, affordable, high quality housing within a well established urban area;
 - It will add to the diversity of housing stock and provide a variety of housing choice for future potential residents in the Bassendean locality;
 - It is unlikely to compromise the existing character, amenity or compatibility of land usage in the immediate locality; and
 - It will result in the provision of additional residential dwellings and in so-doing help satisfy the current strong demand for housing in the Bassendean locality and the Perth Metropolitan Region generally.
- 11. Clause 5.3.1.1 of LPS No.10 states that where a split density code is depicted on the Scheme Maps, development shall conform to the lower density code applicable to the lot unless Council determines that development up to the middle or higher density codes is acceptable, having regard for Clause 5.3.1.2.
- 12. Clause 5.3.1.2 states that development in excess of the lower density, in this case R40, shall be considered acceptable to Council where:
 - a) in the opinion of Council the lot has a road frontage sufficient to allow at least two homes and a shared accessway, where required to service development to the rear;
 - b) There is due regard for relevant Local Planning Policies;
 - c) Identified heritage objectives are not compromised;
 - d) The proposal demonstrates elements of water sensitive urban design; and
 - e) The existing streetscape is being preserved
- 13. It is contended that the proposed new multiple dwelling development on the subject land is capable of being considered at the higher density coding of R40 for the following reasons:
 - The subject land is located adjacent the Bassendean train station and town centre. As such it is contended that the design of the new multiple dwelling development is consistent with the built form and bulk of numerous existing



two storey buildings within the immediate locality and is therefore unlikely to have a detrimental impact upon the local streetscape;

- The land is current vacant/unused and therefore does not comprise any heritage value;
- The new multiple dwelling development on Lots 740 & 52 have been designed with due regard for and generally meets the 'deemed to comply requirements' of the R-Codes;
- The new multiple dwelling development has been designed with due regard for the Town's Local Planning Policy No.2 'Energy Efficient Design' (LPP No.2). It is significant to note that each apartment within the proposed development achieves the minimum credit points (i.e. 70 points) required by LPP No.2 (see checklist on drawing A2.02);
- The new multiple dwelling development has been designed with due regard for the Town's Local Planning Policy No.3 – Water Sensitive Design' (LPP No.3)(see attached checklist);
- The design of the new multiple dwelling development is interesting and articulated and provides for the integration of high quality materials which will make a positive contribution to the amenity and character of the local streetscape; and
- The design of the new multiple dwelling development on Lots 740 & 52 will result in a positive contribution to the streetscape, allowing for improved passive surveillance of Railway Parade and the adjoining right of way.
- 14. The design of the new multiple dwelling development on the subject land has been formulated with due regard for the relevant 'deemed to comply requirements' of the Residential Design Codes (2013) and the Town of Bassendean's current operative Local Planning Scheme No.10 including all associated local planning policies, with the exception of the following:
 - i) R-Code Element 6.1.3 C3.1 'Street setback':
 - ii) R-Code Element 6.1.4 C4.1 'Lot boundary setbacks' (i.e. buildings on boundary);
 - iii) R-Code Element 6.3.2 C2 'Landscaping' (hardstand);
 - iv) R-Code Element 6.3.6 C6.3 'Site works'; and
 - v) R-Code Element 6.4.1 C1.1 'Visual privacy'.

A 'Design Principles Submission Table' addressing the relevant 'design principles criteria' for those elements of the design layout that do not meet the 'deemed to comply requirements' of the Residential Design Codes (2013) is attached herewith for review and consideration by the Town and the Metro Central JDAP (see Appendix 3).

- 15. A Waste Management Plan has been prepared in support of the proposed development on the subject land (see Appendix 4 Waste Management Plan).
- 16. The Town is advised that the landowner has made the necessary arrangements to amalgamate Lots 740 and 52 into one (1) new separately titled lot to accommodate the proposed development. As such, it is anticipated that the Metro Central JDAP will make any planning approval for the project conditional



upon the amalgamation process being finalised prior to the Town's issuance of a building permit or prior to occupation of the multiple dwellings.

CONCLUSION

In light of the information and justifications attached herewith, we respectfully request the Town and Metro Central JDAP's favorable consideration and conditional approval of the application at their earliest possible convenience.

Should you have any queries or require any additional information please do not hesitate to contact me on 9248 8777 or carlo@urp.com.au.

Yours faithfully,

Carlo Famiano Town Planner

Urban & Rural Perspectives

Encl. Completed & Signed 'Application for Approval to Commence Development' form & 'DAP Form 1'

Planning Application Fee of \$12,312.00 (Cheque)

Certificates of Title for the subject land

Three (3) copies of the site development plans

`Energy Efficient Deign Policy' and `Water Sensitive Design Policy' checklists

'Design Principles Submission Table'

Two (2) electronic copies of the application documentation & plans

cc: Mark & Sandra Hammond (Landowners)



	DI	ESIGN PRINCIPLES SUBMISSION TABLE
R-CODE DESIGN ELEMENT	PROPOSED VARIATION TO 'DEEMED TO COMPLY REQUIREMENTS'	DESIGN PRINCIPLES JUSTIFICATION
Element 6.1.2 C2 - 'Building height'	The application proposes that: i) a portion of the new multiple dwelling development (i.e. Apartments 8 & 19) comprise a maximum building height of 6.421 metres from natural ground level (NGL) in lieu of a maximum wall height of 6 metres from NGL permitted by the 'deemed to comply requirements' of the R-Codes for a pitched roof structure; and ii) various portions of the new multiple dwelling development (i.e. Apartments 12 to 18) contain a skillion-type roof structure that will comprise a maximum wall height ranging from 6 metres to 6.994 metres from the 'natural ground level' (NGL) in lieu of a maximum allowable wall height of 6 metres from NGL permitted by the 'deemed to comply requirements' of the R-Codes.	consistent with the maximum permitted wall height of a pitched roof structure. Furthermore, the high side the skillion roof structure comprises a maximum height of 6.994 metres from NGL, which is lower than the maximum permitted height of a concealed roof structure. 3. In light of the above point, it is contended that a skillion roof structure has less of an impact on the streetscape and the adjoining properties in terms of bulk and scale than a development comprising a concealed roof structure with a maximum wall height of 7 metres from NGL.
		side boundary. Given this significant variation in the NGL across the entire site, the proposed finished floor levels applicable for the new development have been designed to avoid steps between the

Unit 8 / 16 Kent Way MALAGA, W.A. 6090

■ Tel: 08 9248 8777 ■ Fax: 08 9248 4040 ■ Email: enquiries@urp.com.au ■ Website: www.urp.com.au



		dwellings, pedestrian access ways and the entry points for each dwelling, in order to accommodate the physical needs of any disabled and aged occupants of the development. 10. The R-Codes do not take into consideration lots with excessive fall. Given the significant natural fall across the width of the subject land (i.e. 1.5 metres) it should be recognised and acknowledged that there is a predisposition to greater variations to the building height arising from the land's future possible development. Notwithstanding this argument, the proposed variations to the proposed building heights are considered minor and therefore unlikely to have any detrimental impacts upon the local streetscape or amenity of any adjoining residential properties. 11. The 'view of significance' enjoyed by the subject land and all adjoining residential properties is the Darling Scarp to the east. Despite the proposed variations to the maximum permitted wall heights for the new development on Lot 740 & 52, the variations are considered minor in scale and therefore unlikely to compromise or in any way diminish the 'view of significance' currently enjoyed by any adjoining residential property. 12. Element 6.1.2 C2 ('Building height') of the R-Codes allows a maximum ridge height of 9 metres. The proposed maximum ridge height of the new development on Lot 740 & 52 is 9 metres. As such it is contended that where 'views of significance' are a valid consideration, the proposed development is permitted to have a higher roof line resulting in potentially greater impacts on the adjoining properties. Having regard for all of the above it is contended that the proposed building heights for the new multiple dwelling development on Lot 740 & 52 satisfy the 'design principles criteria' Element 6.1.2 of the R-Codes and may therefore be approved by the Town and the JDAP.
'Street setback'	The application proposes that a minor portions of the new multiple dwelling development (i.e. Apartments 2, 4, 7, 13, 15 & 18) comprises a minimum setback to the right of way boundary (i.e. secondary street) 1.125 metres in lieu of a minimum secondary street setback of 1.5 metres as required by the 'deemed to comply requirements' of the R-Codes.	 The proposed setback variations to secondary street boundary (i.e. between 87mm & 375mm) are considered minor and will not result in the new development having a detrimental impact on the right of way streetscape or the amenity of any adjoining properties. It is significant to note that the setback to the secondary street of the proposed development has been calculated having due regard for the 1 metre widening of the right of way. It is contended that if the widening was not required, the proposed development would meet the 'deemed to comply requirements' of Element 6.1.3 C1.1 ('street setback') of the R-Codes. Those portions of the upper floor Apartments comprising a reduced setback from the right of way are considered an 'architectural feature' (i.e. balconies). The proposed development has been designed with a variable setback along its right of way frontage to help provide an interesting and articulated front facade. The proposed development has been designed to make a positive contribution to the right of way



		streetscape, with the balconies, outdoor living areas and major opening to various Apartments
		providing an 'active frontage' to the right of way.
		6. The proposed development will not have any adverse impacts on the right of way streetscape in terms of its overall bulk and scale.
		7. The proposed development will significantly improve current levels of passive surveillance over the right of way.
		8. The proposed minor setback variations to the right of way boundary will not have an adverse impact on any major openings to habitable rooms or any outdoor living areas associated with any existing dwellings on the adjoining properties.
		 Lots 740 & 52 are irregular in shape and comprise an angle along its frontage to the right of way resulting in portions of the proposed development comprising a secondary street front setback of less than 1.5 metres.
		10. Other than the various minor intrusion, setback of the proposed development to the right of way boundary meets the 'deemed to comply requirements' of Element 6.1.3 C1.1 ('Street setback') of the R-Codes.
		Having regard for all of the above it is contended that the proposed minor variations to the building setback to the right of way boundary (i.e. secondary street) for the new multiple dwelling development on Lots 740 & 52 satisfy the `design principles criteria' of Element 6.1.3 of the R-Codes and may therefore be supported and approved by the Town and the JDAP.
Element 6.1.4 C4.1 – 'Lot boundary setbacks' (buildings on boundary)	The application proposes that a portion of the proposed multiple dwelling development (i.e.	1. The proposed development meets the 'deemed to comply requirements' of Element 6.4.2 C2.1 ('Solar access for adjoining sites') of the R-Codes as it does not overshadow or detrimentally impact access to light and ventilation for the existing dwellings on any adjoining properties.
	Apartments 4 & 19 and storerooms) be built up to western and southern boundaries in lieu of the R-Codes	2. The proposed development makes effective use of all available space and provides for the creation of adequate internal and external living areas of each Apartment which will benefit all future occupants.
	not containing any 'deemed to comply requirements' relating to the construction of a building on a	3. It is contended that those portions of the proposed development to be built up to the western and southern boundaries will not have any adverse impacts on the local streetscape in terms of its bulk and scale.
	boundary for a multiple dwelling type development within the on land classified 'Residential R40'.	4. Other than the balconies pertaining to those dwellings orientated towards the rear right of way, the proposed development meets the 'deemed to comply requirements' of Element 6.4.1 C1.1 ('Visual privacy') of the R-Codes.
		5. With respect to any potential impacts the new development on Lots 740 & 52 may have on the amenity



		of adjoining Lot 51 (No.76) Railway Parade, the following points are submitted in support of the proposal:
		i) Those portions of the proposed development built up to the western and southern boundaries abut an existing commercial development (i.e. liquor store) on adjoining Lot 51. Given this adjoining land use, the proposed development could not reasonably be expected to have any adverse amenity impacts on adjoining Lot 51;
		i) Those portions of the proposed development to be built up to the western and southern boundaries will assist with screening any adverse amenity impacts (i.e. noise, light spillage etc) generated by the existing commercial development on adjoining Lot 51 on the future occupants of the development on Lots 740 & 52; and
		ii) The current owner/s of Lots 740 & 52 also own adjoining Lot 51. As such, the owners of adjoining Lot 51 raise no objections to the proposed multiple dwelling development on Lots 740 & 52.
		Having regard for all of the above it is contended that those portions of the proposed new multiple dwelling development on Lots 740 & 52 to be built up to the western and southern boundaries satisfies the 'design principles criteria' of Element 6.1.4 of the R-Codes and may therefore be approved by the Town and the JDAP.
Element 6.3.2 C2 – 'Landscaping' (hardstand)	The application proposes that the new multiple dwelling development will comprise 39% (i.e. 47m²) of the	1. The proposed variation to the maximum permitted hardstand area (i.e. 11% or 13m²) within the street setback area of the new development is unlikely to have a detrimental impact on the amenity of the local streetscape or any adjoining properties.
	front setback area being landscaped in lieu of 50% (i.e. 60m²) required by the 'deemed to comply requirements' of the R-Codes.	2. The Railway Parade verge area adjoining Lots 740 & 52 comprises a width of approximately 3.5 metres and is currently landscaping and maintained by the Town (i.e. hedges & street trees). The current landscaping treatment within the Railway Parade verge area will help soften any potential negative visual impacts that the proposed hardstand may have on the local streetscape.
		3. The proposed development has been designed to provide vehicle access to the residents car parking area from the existing right of way adjoining the rear boundary of the subject land, therefore reducing any potential visual impacts the car parking area may have on the Railway Parade streetscape.
		 The proposed development will be professionally landscaped and paved throughout to ensure it makes a positive contribution to the local streetscape and provides an attractive and safe environment for future occupants and visitors.
		5. The proposed driveway crossover, vehicle and pedestrian accessways and on-site parking bays for the development have been sited and designed to ensure safe and convenient access for vehicles and pedestrians.



	set	aving regard for all of the above it is contended that the extent of proposed hardstand within the front tback area of the new multiple dwelling development on Lots 740 & 52 satisfy the 'design principles teria' of Element 6.3.2 of the R-Codes and may therefore be approved by the Town and the JDAP.
'Site works' portions or and fill to western side a maximum natural group a maximum 500mm at the 'de	4. 6. 5.	The proposed retaining wall height and fill variation (i.e. 380mm max) along the land's western side boundary is considered minor and unlikely to have any detrimental impacts on the amenity of any adjoining residential properties. Lots 740 & 52 are characterised by a 1.5 metre fall from its eastern side boundary to the land's western side boundary. Given this significant variation in the natural ground level across the entire site, the proposed finished floor levels applicable for the new development have been designed to avoid steps between the dwellings, pedestrian access ways and the entry points for each dwelling, in order to accommodate the physical needs of any disabled and aged occupants of the development. A 1.8 metre high solid dividing fence will be constructed on top of the new retaining wall along the western side boundary to prevent direct overlooking of the adjoining property. That portion of the new retaining wall and fill along the western side boundary in excess of 500mm above NGL is unlikely to have any detrimental impacts on the local streetscape in terms of their design, bulk and scale. Other than the balconies pertaining to those dwellings orientated towards the rear right of way, the proposed development meets the 'deemed to comply requirements' of Element 6.4.1 C1.1 ('Visual privacy') of the R-Codes. The proposed development meets the 'deemed to comply requirements' of Element 6.4.2 C2.1 ('Solar access for adjoining sites') of the R-Codes as it does not overshadow or detrimentally impact access to light and ventilation for the existing dwellings on any adjoining properties. The proposed retaining wall and fill will make effective use of all available space and provides for the reaction of adequate internal and external living areas which will benefit all future occupants of the new development. With respect to any potential impacts the new development on Lots 740 & 52 may have on the amenity of adjoining Lot 51 (No.76) Railway Parade, the following points are submitted in support o



		 ii) That portion of the proposed retaining wall and fill to be built up to the western side boundary will assist with screening the new development from the existing commercial development on adjoining Lot 51. Furthermore, the combined height of the retaining wall and dividing fence will assist with providing improved security for the proposed residential development on Lots 740 & 52; from the car parking area on Lot 51; and iii) The current owner/s of Lots 740 & 52 also own adjoining Lot 51. As such, the owners of adjoining Lot 51 raise no objections to the proposed multiple dwelling development on Lots 740 & 52. Having regard for all of the above it is contended that those portions of the new retaining walls and fill to be built up to the western side boundary in excess of 500mm above NGL satisfies the 'design principles criteria' of Element 6.3.6 of the R-Codes and may therefore be approved by the City and the JDAP.
Element 6.4.1 C1.1- 'Visual privacy'	The application proposes a portion of the 7.5 metre 'cone of vision' from Apartments 12, 13, 14, 15, 17 & 18 will extend over the adjoining property to the north (i.e. Lot 4 Ivanhoe Street).	 The proposed development has been designed to effectively locate all major openings to habitable rooms in a manner which avoids overlooking and maintains the visual privacy of all adjoining residential properties. With the exception of the balconies, the proposed development on Lot 740 & 52 meets the 'deemed to comply requirements' of Element 6.4.1 C1.1 ('Visual privacy') of the R-Codes. Those portions of the 'cones of vision' extending over all immediately adjoining property are not considered to be excessive or detrimental in terms of visual privacy impacts. The balconies for Apartments 12 to 18 will be of significant benefit in terms of improving current levels of passive surveillance over the right of way (i.e. secondary street). That portion of the 'cones of vision' from the upper level rear apartments of the proposed development will extend over the side setback area of the existing church on the Lot 4 (No.6) Ivanhoe Street to the north. This proposed 'overlooking' arrangement is unlikely to have any detrimental impacts in terms of visual privacy given this land's current usage as a public building and could be expected to be of significant benefit in terms of improving current levels of passive surveillance. Having regard for all of the above it is contended that those portions of the 'cones of vision' extending from the proposed multiple dwelling development on Lots 740 & 52 over the adjoining northern property satisfies the 'design principles criteria' of Element 6.4.1 of the R-Codes and may therefore be approved by the City and the JDAP.



Waste Management Plan

Proposed Twenty Two (22) Multiple Dwellings Lots 740 & 52 (Nos.72 & 74) Railway Parade, Bassendean

Town of Bassendean



Prepared for:

Mark & Sandra Hammond

Prepared by:

Urban & Rural Perspectives

Town Planners & Building Designers Unit 8 /16 Kent Way MALAGA WA 6090 PO Box 2507 MALAGA WA 6944 (Tel) 9248 8777



Background

This Waste Management Plan has been prepared in support of the application for planning approval submitted to the Town of Bassendean and the Central Joint Development Assessment Panel (JDAP) for the construction of twenty two (22) new multiple dwellings on Lots 740 & 52 (Nos.72 & 74) Railway Parade, Bassendean.

Purpose of Plan

The Waste Management Plan has been submitted in support of the planning application for the construction of twenty two (22) new multiple dwellings on Lots 740 & 52 (Nos.72 & 74) Railway Parade, Bassendean.

The aim of this Plan is to:

- 1. Identify the indicative volume of waste.
- Ensure adequate facilities are provided to serve the future occupants of the proposed multiple dwelling development on the subject land.
- 3. Demonstrate the proposed design meets industry best practice.
- Develop the framework of operational procedures required from the strata management company to ensure that the management of waste is to best practice.

Key Reference Material

The key references are:

- Guide to Best Practice for Waste Management in Multi-unit Development published in June 2010 by Sustainability Victoria; and
- Town of Bassendean Rubbish and Recycle Collection information.

Estimated Volumes and MGB Type

Volume

The proposed multiple dwelling development on the subject land consists of 6 x single bedroom units and 16 x 2 bedroom units.

The Guide to Best Practice for Waste Management indicates that on average, each multiple dwelling (i.e. 'apartment') will generate

- · 80L of rubbish per unit per week
- 40L of recycling per unit per week

In light of the above requirements, the proposed development on the subject land will generate the following demand:

- General refuse 1,760L rubbish per week
- II) Recycling 880L recycling material per week

Bin Type

Given the relatively small volume of waste being generated per dwelling, it is proposed as part of this application that the development be supplied with eight (8) 240 litre mobile bins for general refuse and four (4) 240 litre mobile bins for recycling.



This will provide for the total weekly capacity of 1,920L for general refuse and 960L for recycling, which exceeds the estimated total weekly volume of rubbish/recycling generated by the twenty two (22) multiple dwellings.

In light of the above, it is contended that the provision of eight (8) general waste mobile bins and four (4) recycle mobile bins, including associated storage facilities, is sufficient to accommodate the needs of the future occupants of the development.

Collection Frequency and Provider

The Town of Bassendean (via Cleanaway) is the rubbish collection service provider. The following collection services are provided to residential properties within the municipality:

- · Weekly 240 litre general refuse bin collection.
- Fortnightly 240 litre recycling bin collection.
- Annual bulk rubbish/junk collection.
- Annual collection of tree prunings.

All bins will be collected by the Cleanaway along the verge area abutting the subject land (i.e. Railway Parade) as part of its standard weekly & fortnightly waste collection service undertaken within the immediate locality.

An appointed site manager (i.e. resident) will be responsible for transferring the bins from the bin storage areas to the street verge the night prior to pick up and returning the bins on the evening of collection day.

Location, size and features of bin storage area

Bin storage areas will be located in two (2) separate locations within the development to facilitate ease of access (see Appendix 1 – Site Development Plan).

It is significant to note that the two (2) storage areas consist of a main facility located abutting the common driveway/car parking area within the central eastern part of the development with the smaller secondary bin storage area being located within the western part of the development abutting the storerooms.

The proposed location of the bin storage areas will:

- i) Be screened from the public realm;
- ii) Minimise odour levels commonly associated with a single larger compound; and
- iii) Provide easy access to all future occupants of the development.

Key design points of the common bin storage areas are as follows:

- The bin storage areas will comprise a tap for wash-down purposes.
- The bin storage areas within the common area will be secure and screened from the future occupants of the development.
- The bin storage areas will allow for easy access and movement to the verge area
 on pick up days via a dedicated access way along the land's eastern boundary.
- A bin pick up area provided within the Railway Parade verge area.



Noise, odour & minimizing landfill

It is anticipated that the disbursement of the bin storage areas throughout the development will provide easy access by the occupants of each individual dwelling and minimize disruption to neighbors and residents.

Noise

The common bin storage areas are screened and located within the common areas abutting the storeroom structures. It is expected that these storage areas will generate minimal vertical and horizontal noise transfer during use. As such, it is contended that the noise generated from the bin storage areas will not generate any undue noise that would not be consistent with that generated by the adjoining properties.

In light of the above, it is contended that there will be no notable impacts on the residential dwellings on the adjoining properties from the development on the subject land in terms of waste management.

Odour

Strategies to minimize odour are:

- · Separation of bin storage areas.
- · Screening the bin storage areas.
- Allowing for natural ventilation of the bin storage areas.
- · Regular washing of the bins and storage areas.

Minimising landfill

Given that the Town of Bassendean provide two (2) separate bins (i.e. general waste and recycling), it allows occupants of the development to sort rubbish accordingly. The provision of recycling bins will enable occupants of the development to place the following items for recycle collection:

- Glass bottles and jars (excluding broken glass, plates, pottery etc).
- All plastic bottles.
- Newspapers and glossy magazines, paper, envelopes
- Cardboard boxes, cereal boxes, pizza boxes, egg cartons etc.
- Cans steel and aluminum, including aerosols cans.
- Milk and juice cartons.

Furthermore, the Town of Bassendean provides an annual bulk junk and greens pick up to reduce the amount of waste being placed within the general waste bin.

In light of the above services, it is contended that adequate measures are available for the future occupants of the development to minimize disposal of rubbish within the general waste bin resulting in long term reduction of landfill.

Screening and blending of storage area/s

The bin storage areas will be purpose built compounds specifically designed and screened from the public realm (i.e. Railway Parade). The materials and finishes of



the bin storage compounds will harmonise with those materials to be used for the proposed development.

Impact on adjacent properties

The adjoining properties comprise a mix of single detached dwellings and a commercial development (i.e. liquor store). The proposed multiple dwelling development on the subject land has been designed to provide an adequate setback between the main bin storage area and the existing single dwellings on the adjoining properties. Whilst the secondary bin storage area located in the western part of the development has been designed to be small and consistent with a bin storage area akin to a conventional residential development (i.e. grouped dwelling development).

In light of the above, it is contended that any potential impacts on the adjoining properties from the proposed bin storage areas is expected to be minimal and would be consistent with the waste disposal activities of a typical grouped dwelling development within the immediate locality.

Strata Management Company Requirements - Waste Management

The appointed Strata Management Company contracted to manage the multiple dwellings on the subject land will be responsible to:

- Appoint a site manager (i.e. a resident) to coordinate the occupants of the complex to arrange cleaning of the bins and bin storage areas every two (2) to three (3) weeks;
- Ensure litter is cleaned up through regular landscape maintenance; and
- Deal promptly with any issues or complaints relating to hygiene, noise, odour or other inconvenience.

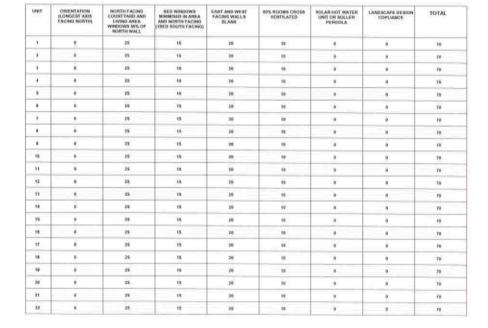
The future prospective purchases/occupants of the complex will be provided with a copy of the Waste Management Plan on occupancy of a dwelling.



APPENDIX 1 – SITE DEVELOPMENT PLAN









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LOTS 740 & S2 (No.72 & 74) RAILWAY PARADE, BASSENDEAN (Town of Squandean)	ion	740 & 52 (No. 72 & 74)	
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No. De	scription	Date marana	PROPOSI	PROPOSED LITE / GROUND FLOOR PLAN (PART B)			
			THE DEEP	750	A2.02	1	



13 May 2015

Chief Executive Officer Town of Bassendean PO Box 87 BASSENDEAN WA 6934 Document #: IPA-8758015 Date: 13.05.2015

Officer: 13.05.2015
CHRISTIAN BUTTLE

Officer: CHRISTIAN BUTTLE
File: DABC/BDVAPPS/2015-030

Attention: Mr Christian Buttle – Senior Planning Officer

Dear Christian

APPLICATION FOR APPROVAL TO COMMENCE DEVELOPMENT PROPOSED TWENTY TWO (22) NEW MULTIPLE DWELLINGS LOT 54 (NO.72) RAILWAY PARADE, BASSENDEAN TOWN OF BASSENDEAN (REF: DAP/15/00740 & DA 2015-030)

We refer to the Town's email correspondence to this office dated 1 May 2015 regarding the abovementioned application wherein it:

- i) advised that the proposal does not comply with clause 5.3(e) of the Town's Local Planning Scheme No.10;
- ii) advised that the new multiple dwelling development does not satisfy the provisions of the Town's Local Planning Policy No.2 entitled 'Energy Efficient Design', as the proposal does not achieve a minimum score of 70 of 100 credit points;
- iii) advised that the new multiple dwelling development has not addressed the requirements of the Town of Bassendean Local Planning Policy No.3 entitled 'Water Sensitive Design';
- iv) advised that the new multiple dwelling development does not satisfy the 'deemed to comply requirements' of various design elements of the Residential Design Codes of Western Australian ('R-Codes');
- v) advised that the bin storage and collection areas are insufficient for the new development;
- vi) requested the preparation and submission of an acoustic report for the development; and
- vii) requested the preparation and submission of amended plans addressing those matters listed above.

Having regard for the abovementioned matters amended plans are enclosed herewith in support of the application for the new multiple dwelling development on the subject land. In addition we hereby submit the following information for the Town's consideration in determining the application:

Town of Bassendean Local Planning Scheme No.10 - Clause 5.3 (e)

Amended plans have been prepared (see copies enclosed herewith) illustrating the provision of additional landscaping within the Railway Parade frontage and reduction of the entry portico height to reduce the overall bulk and scale of the building.



The existing streetscape along Railway Parade contains an eclectic mix of housing, commercial type developments and a railway station. It is significant to note that the subject land is located approximately 150m-200m north-west of the traditional Bassendean town centre main street (Old Perth Road), which comprises various two (2) storey commercial developments.

Given the close proximity of the railway station and the Bassendean townsite, it is contended that the current housing stock along Railway Parade will be redeveloped in the short term future to accommodate residential developments at a higher density (i.e. multiple dwellings), therefore replacing the current single storey built form.

In light of the above, it is considered reasonable to conclude that the streetscape along this portion of Railway Parade is poor, not uniform, comprises little character and is in a transition stage. As such it is contended that the proposed construction of a new multiple dwelling development on the subject land is unlikely to have a negative impact on the existing character and amenity of the local streetscape for the following reasons:

- i) The new multiple dwelling development in consistent with the built form and bulk of numerous existing two storey commercial development located within the nearby Bassendean townsite;
- ii) The design of the new multiple dwelling development on the subject land is interesting and articulated and provides for the integration of high quality materials which will make a positive contribution to the amenity and character of the local streetscape;
- iii) The design of the new multiple dwelling development on the subject land will result in a positive contribution to the streetscape, allowing for improved passive surveillance of Railway Parade and the train station opposite the subject land;
- iv) The application provides the opportunity for the development of an attractive and safe residential environment comprising modern, affordable, high quality housing within a well established urban area; and
- v) The proposed development is unlikely to compromise the existing character, amenity or compatibility of land usage in the immediate locality.

Town of Bassendean Local Planning Policy No.2 - 'Energy Efficient Design'

Amended plans have been prepared (see copies enclosed herewith) illustrating compliance the Town of Bassendean Local Planning Policy No.2 ('Energy Efficient Design').

Town of Bassendean Local Planning Policy No.3 - 'Water Sensitive Deign'

Amended plans have been prepared (see copies enclosed herewith) illustrating compliance the Town of Bassendean Local Planning Policy No.3 ('Water Sensitive Design'). A copy of the 'Water Sensitive Design Policy Checklist' is attached herewith for the Town's assessment.

R-Codes Element 6.1.2 C2 - 'Building height'

We respectfully request the Town and Metro Central JDAP to consider the building height for the proposed development under the 'design principles criteria' of the R-Codes. Written justification regarding this matter was submitted with the Town as part of the original submission dated 18 February 2015.



R-Codes Element 6.1.4 C4.1 – 'Lot boundary setbacks'

We respectfully request the Town and Metro Central JDAP to consider the variations to the lot boundary setbacks for the proposed development under the 'design principles criteria' of the R-Codes. Written justification regarding this matter was submitted with the Town as part of the original submission dated 18 February 2015.

R-Codes Element 6.2.1 C1.1 - 'Street surveillance'

Amended plans have been prepared (see copies enclosed herewith) illustrating the provision of a main communal entry point clearly visible along the land's Railway Parade frontage and entry points for Units 8 and 11 in accordance with the 'deemed to comply requirements' of Element 6.2.1 C1.1 of the R-Codes.

R-Codes Element 6.2.2 C2 – 'Street walls and fences'

Amended plans have been prepared (see copies enclosed herewith) reducing the solid portion of the retaining wall and front fence to a maximum height of 1.2 metres, with visually permeable fencing above.

R-Codes Element 6.2.4 C4 - 'Building appearance'

It is noted that the Town does have a local planning policy in respect to building appearance. As such, no further information is required to address this matter.

R-Codes Element 6.3.1 C1 - 'Outdoor living areas'

Amended plans have been prepared (see copies enclosed herewith) illustrating the provision of outdoor living areas for each unit in accordance with the 'deemed to comply requirements' of Element 6.3.1 C1 of the R-Codes.

R-Codes Element 6.3.2 C2 - 'Landscaping'

Amended plans have been prepared (see copies enclosed herewith) illustrating the provision of additional landscaping within both the Railway Parade and right of way frontages.

Notwithstanding the above, the application proposes that the new multiple dwelling development will comprise 47% of the front setback area (i.e. Railway Parade) being landscaped in lieu of 50%. As such we respectfully request the Town and Metro Central JDAP to consider the minor variation under the 'design principles criteria' of the R-Codes. Written justification regarding this matter was submitted with the Town as part of the original submission dated 18 February 2015.

In regards to the Town's request for the submission of a landscaping plan prepared by a qualified landscaping architect, we respectfully request that the Town and Metro Central JDAP impose a condition on any planning approval issued requiring the submission of a landscaping plan with the Town for approval prior to the issuance of a building permit.

R-Codes Element 6.3.3 C3.2 - 'Parking'

Amended plans have been prepared (see copies enclosed herewith) illustrating the provision of additional bicycle parking bays to accommodate the needs of the future



occupants of the proposed development in accordance with the 'deemed to comply requirements' of Element 6.3.3 C3.2 of the R-Codes.

R-Codes Element 6.3.4 C4.1 – 'Design of car parking spaces'

Amended plans have been prepared (see copies enclosed herewith) illustrating the design of the on-site car parking bays in accordance with Australian Standards AS2890.1.

R-Codes Element 6.3.6 C6.2 & C6.3 - 'Site works'

We respectfully request the Town and Metro Central JDAP to consider the retaining wall and fill heights for the proposed development under the 'design principles criteria' of the R-Codes. Written justification regarding this matter was submitted with the Town as part of the original submission dated 18 February 2015.

R-Codes Element 6.3.8 C8 – 'Stormwater management'

Amended plans have been prepared (see copies enclosed herewith) illustrating compliance the Town of Bassendean Local Planning Policy No.3 ('Water Sensitive Design').

R-Codes Element 6.4.1 C1.1 – 'Visual privacy'

Amended plans have been prepared (see copies enclosed herewith) relocating the bedroom window and screening the terrace area for Unit 18 in accordance with the 'deemed to comply requirements' of Element 6.4.1 C1.1 of the R-Codes.

R-Codes Element 6.4.3 C3.1 - 'Dwelling size'

It is our view, that the proposed development comprises six (6) single bedroom dwellings in accordance with the 'deemed to comply requirements' of the R-Codes (i.e. the Town has made an error in its assessment of this component of the proposed development).

R-Codes Element 6.4.5 C5.3 – 'External fixtures'

Amended plans have been prepared (see copies enclosed herewith) illustrating the location of various services in accordance with the 'deemed to comply requirements' of Element 6.4.5 C5.3 of the R-Codes.

R-Codes Element 6.4.6 C6.1 – 'Utilities and facilities' (storerooms)

Amended plans have been prepared (see copies enclosed herewith) illustrating the provisions of storerooms for each dwelling in accordance with the 'deemed to comply requirements' of Element 6.4.6 C6.1 of the R-Codes.

R-Codes Element 6.4.6 C6.2 – 'Utilities and facilities' (rubbish bins)

Amended plans have been prepared (see copies enclosed herewith) illustrating the provisions of additional bins to service the proposed development, increase size of bin storage areas and sufficient area along Railway Parade verge abutting the subject land to adequately accommodate the bins during collection days.



Acoustics report

The proposed development has been designed to provide adequate separation between the multiple dwellings on the subject land and existing commercial development on adjoining Lot 51. Notwithstanding this, it is contended that any issues regarding noise emulating from the existing commercial development on adjoining Lot 51 needs to be dealt with independently from this application (i.e. a compliance issue with the commercial development).

In light of the above, we request that the Town withdraw its request for an acoustic report and address any noise issues associated with the existing commercial development on adjoining Lot 51 independently to this application.

In the instance that the Town does favour our request in this matter, we respectfully request that the Town and Metro Central JDAP impose a condition on any planning approval issued requiring an acoustics report be prepared and submitted with the Town prior to the issuance of a building permit.

CONCLUSION

In light of the details contained within the enclosed amended plans and the written information provided above, we respectfully request the Town and Metro Central JDAP's favorable consideration and conditional approval of the application at their earliest possible convenience.

Should you have any queries or require any additional information please do not hesitate to contact me on 9248 8777 or carlo@urp.com.au.

Yours faithfully,

Carlo Famiano Town Planner

Urban & Rural Perspectives

Encl. Three (3) copies of amended plans (scale plans)

One (1) copy of colour amended plans (A3 - not to scale)

One (1) electronic copy of the plans 'Water Sensitive Design Policy' checklists

cc: Mark & Sandra Hammond (Landowners)





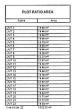




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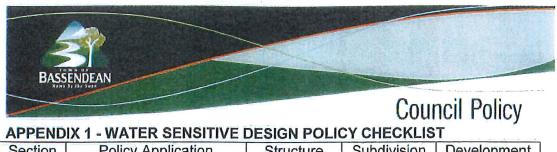
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UNIT	ORIENTATION (LONGEST AXIS FACING NORTH)	NORTH FACING COURTYARD AND LIVING AREA WINDOWS 50% OF NORTH WALL	BED WINDOWS MINIMSED IN AREA AND NORTH FACING (1BED SOUTH FACING)	EAST AND WEST FACING WALLS BLANK	60% ROOMS CROSS VENTILATED	SOLAR HOT WATER UNIT OR SOLLER PERGOLA	LANDSCAPE DESIGN COPLIANCE	TOTAL
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2	0	25	15	20	10	0	0	70
3	0	25	15	20	10	0	0	70
4	0	25	15	20	10	0	0	70
5	0	25	15	20	10	0	0	70
6	0	25	15	20	10	0	0	70
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20	0	25	15	20	10	0	0	70
21	0	25	15	20	10	0	0	70
22	0	25	15	20	10	0	0	70







Section	Policy Application	Structure	Subdivision	Development Application
E 4	Fault in a superstiant of	Plan		Application
5.1	Early incorporation of			
	water resource issues in			
	planning			
5.2	Drainage design based			
	on sub- catchments			
5.3	Treatment Train	MARKET AND LONG		
	approach from top of			
	catchment			
	Stormwater management			
	components follow			
	natural contours			
	Detention capacity able			
	to retain first flush			
	Detention capacity to	THE RELEASE OF THE PARTY OF THE		
	meet appropriate			
	hydraulic and detention			
	time criteria		BESTERN TO SET	
	Car park runoff to	,		Stormuske
	landscaped detention			runett
	swales			From Carporles
	Sediment less that 100			130
	microns trapped			
5.4	Floor levels >500mm			/ FFL
	above 1:100			V increased
	Waterway batter slopes			
	maximum 1:8			
	Waterway reserve			
	adequate width			
	AAMGL calculation			
	meets W&RC			
	requirements			
	Drainage at or above			
	AAMGL and soil surface		E ATT THE RES	
	>1.2m above AMGL		100000000000000000000000000000000000000	
5.5	Hydrological study			
	undertaken for protected		一类加州	
	wetlands			
	Post development flows			
	approximate pre			
	development flows			
	through adequate			
	detention			

Website: www.bassendean.gov.au Email: mail@bassendean.wa.gov.au Tel: (08) 9377 8000

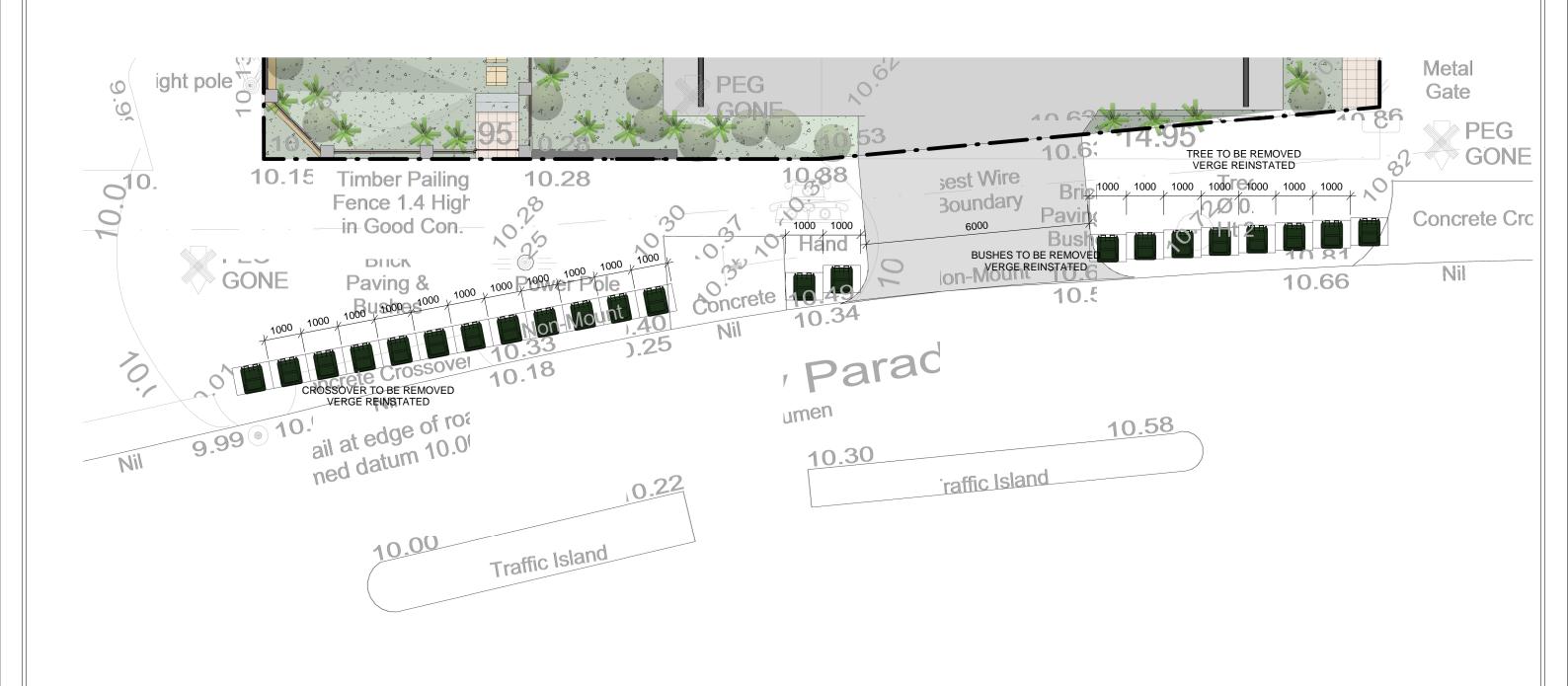
Town of Bassendean Council Policy

Local Planning Scheme No. 10 Amendments made to the policy (OCM2-7/6/11):

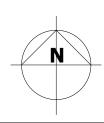
LOTS4 (NO. 72) RASCWAY PARANE, BASSENDEAN.



			Cour	icii i olicy
Section	Policy Application	Structure Plan	Subdivision	Development Application
	Runoff from paving directed to garden or lawn areas			/ Reforts Plans
	Encourage use of pervious paving materials			Provided
5.6	Natural features incorporated into stormwater design (eg native vegetation, riffles & pools)			
	Easily maintained sediment traps included			V Sodewells Provided
5.7	Existing fringing vegetation protected		- 64	,
	Fringing vegetation rehabilitated (10 or 15m)			
	Passive recreation catered for along foreshores			
	No net loss of open drain habitat			
	Potential for Multiple Use Corridors evaluated			
5.8	Multi Use Corridors zoned			
	Management plans for Multiple Use Corridors prepared			







PROPOSED MULTIPLE DWELLING DEVELOPMENT LOTS 54 (No.72) RAILWAY PARADE, BASSENDEAN, (Town of Bassendean)

No.	DESCRIPTION	DATE	
3	VERGE PICK UP PLAN	18.05.2015	
			Pr
			Iss

22 BINS VERGE PICKUP PLAN

	Project number	1416	Drawing number	Revision/Issue
	Issue Date	18.05.2015	A0.00	3
	Drawn by	NK	A0.00	
	Checked by	CF	Scale @ A3	1:100

PART 5 - GENERAL DEVELOPMENT REQUIREMENTS

5.1 COMPLIANCE WITH DEVELOPMENT STANDARDS AND REQUIREMENTS

Any development of land is to comply with the provisions of the Scheme.

5.2 RESIDENTIAL DESIGN CODES

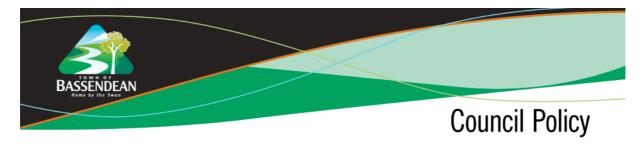
- 5.2.1 A copy of the Residential Design Codes is to be kept and made available for public inspection at the offices of the local government.
- 5.2.2 Unless otherwise provided for in the Scheme, the development of land for any of the residential purposes dealt with by the Residential Design Codes is to conform with the provisions of those Codes.
- 5.2.3 The Residential Design Codes density applicable to land within the Scheme area is to be determined by reference to the Residential Design Codes density number superimposed on the particular areas contained within the borders shown on the Scheme Map or where such an area abuts another area having a Residential Planning Code density, as being contained within the area defined by the centre-line of those borders.

5.3 SPECIAL APPLICATION OF RESIDENTIAL DESIGN CODES

5.3.1 Split Density Code and Corner Lots

- 5.3.1.1 Where a Split Density Code is depicted on the Scheme maps, any development shall conform to the lower density code applicable to the lot, unless Council determines that development up to the middle or higher density code is acceptable, having regard for sub-clause 5.3.1.2.
- 5.3.1.2 Subdivision or development in excess of the lower density coding shall be considered to be acceptable to Council where:-
 - (a) in the opinion of Council the lot has a road frontage sufficient to allow at least two homes and a shared accessway, where required to service development to the rear;
 - (b) There is due regard for relevant Local Planning Policies;
 - (c) Identified heritage objectives are not compromised;
 - (d) The proposal demonstrates elements of water sensitive urban design; and
 - (e) The existing streetscape is being preserved.
- 5.3.1.3 The Council may permit the development, or support the subdivision of an existing R17.5 or R20 coded corner lot to a maximum density of R25 provided the original lot has frontage to two constructed roads and any new lots created or new dwellings constructed shall have their own frontage to a constructed road.
- 5.3.1.4 The amalgamation of abutting lots with an existing corner lot in order to create a larger lot for the purpose of development and/or subdivision at a higher density is not consistent with the intent of clause 5.3.1.4 and the original R17.5 or R20 code shall apply to the abutting amalgamated lot.

Town of Bassendean LPS 10



LOCAL PLANNING SCHEME NO. 10

LOCAL PLANNING POLICY NO. 2 - ENERGY EFFICIENT DESIGN

1.0 OPERATION OF THIS PLANNING POLICY

- (a) This planning policy has been prepared in accordance with Part 2 of the Town Planning Amendment Regulations 1999.
- (b) This policy does not bind the Council in respect of any application for planning approval but the Council will have due regard to the provision of the policy and the objectives which the policy is designed to achieve before making its determination.
- (c) If a provision in this policy is inconsistent with the:
 - (i) Building Code of Australia, then the higher provision shall prevail.
 - (ii) Residential Design Codes this Policy shall prevail in respect of Development at the higher density.
- (d) This policy applies only to split density coded land as designated on the gazetted Scheme map.
- (e) This policy may also be used by landowners wishing to construct energy efficient dwellings.

2.0 PURPOSE OF THIS POLICY

The purpose of this policy is to:

- 1. Clearly outline the criteria Council regards as having energy efficient benefits in the design of residential dwellings.
- 2. To provide a basis to encourage those building Residential Dwellings in Bassendean to design energy efficient building(s).
- 3. State the design standards Council will have regard to when considering higher densities on land zoned with split density code under its Town Planning Scheme.

3.0 APPLICATION OF THE POLICY

This policy shall be applicable where to all land where split density codes prevail and the application for the highest density code is being considered by Council.

4.0 BACKGROUND

4.1 Energy Efficient Design Principals

There are several advantages to living in an energy efficient home – saving money on energy costs being the most obvious. Other benefits include reducing the impact on the environment through the decreased use of fossil fuels, the increased comfort of effective natural lighting and ventilation and the improved resale value of dwellings due to lower power bills they create.

The principal means to ensure energy efficiency is to design dwellings to suit the local climate. By taking advantage of free natural warmth from the winter sun and cooling from breezes, it will reduce the costly use of fossil fuel energy for heating and cooling. Careful building design can easily achieve internal temperatures 5°C warmer in winter and 10°C degrees cooler in summer than in typical, poorly designed homes in the southwest.

Any style of home can be designed for energy efficiency, to ensure savings on future energy costs, and to assist the environment. The main features of energy efficient housing relate to:

- Building orientation
- Internal room layout
- Window placement, sizing and shading
- Use of insulation
- Ventilation
- Draught proofing
- Use of heat absorbing building materials
- Landscaping
- Use of energy efficient appliances.

Most features such as improved layout, appropriate window placement and sensible garden design, will make little difference to initial building cost. Although insulating a house will add initially to construction costs, the savings in energy and carbon emissions will make for a positive return over the life of the building. It would be false economy to do otherwise.

4.2 Project Homes -vs- Individual Designs

While it is easier to incorporate energy efficiency features if dwellings are designed specifically to a particular lot of land, Council recognises that this could significantly add to the cost of construction. However, in some cases this is unavoidable and economic cost does not justify a relaxation of this policy where higher density codes are being sought by applicants.

Nevertheless there are excellent opportunities to meet basic energy efficient principals even with a stand project house. There are many standard house designs available which would allow good energy efficiency, provided they are built facing the right direction. A minor modifications such as moving or reducing the size of windows or relocating the carport, along with good insulation, may be all that's needed to reduce unnecessary and expensive energy use and act to noticeably create increased internal comfort levels.

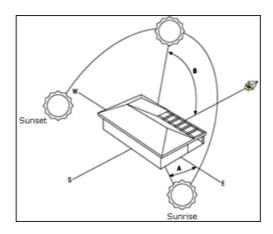
5.0 POLICY PROVISIONS

5.1 Orientation

One of the major principles of energy efficient building design is to allow the sun's heat into a building in winter while excluding it during the long hot days of summer. This can be achieved because the angle of the sun changes from season to season.

In summer the sun rises earlier, south of due east and climbs high in the sky before setting south of due west. Major summer heat gain occurs through the roof and through the east and west windows and walls of the home. In winter the sun rises later, north of due east and stays low in the northern sky before setting north of due west. North facing windows and walls receive maximum winter sun and warmth.

The Sun's Movement during summer (Dec)

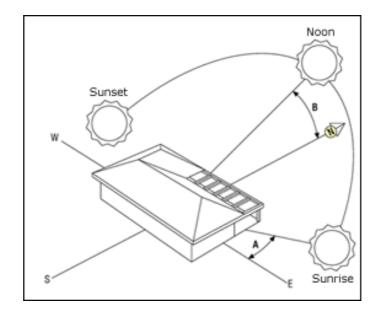


Legend:

Horizontal Rise Noon Altitude (B)

	/Set Angle (A)	
Perth	28.5° south	80.7°

The Sun's Movement during winter (Jun)

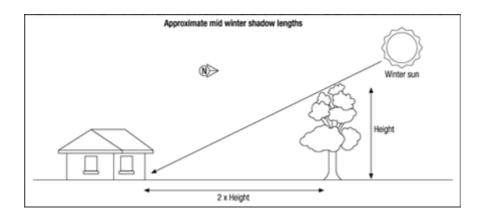


Legend:

J	Horizontal Rise/ Set Angle (A)	Noon Altitude (B)		
Perth	27.8° south	34.2°		

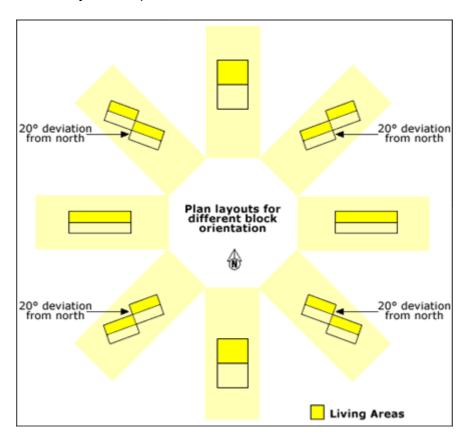
For residential development, it is recommended that land which permits the living areas of the dwelling to face north, be free of obstructions such as buildings or evergreen trees on this side of the home. Orientation is the key factor in achieving energy efficient design. While items such as pergolas, shutters and insulation can often be retro-fitted at a relatively low cost, the orientation of a building is often set in `concrete' and if poorly orientated it is virtually impossible to correct.

Objects cast a shadow southwards approximately twice their height in midwinter, and it is therefore essential that sufficient allowance is made between tall objects and the north side of a dwelling to ensure that winter solar access is maintained.



The ideal lot layout is one with the rear courtyard/garden facing north.

However, there are a number of ways of varying the design of a house and its interior layout to optimise solar orientation.



To achieve the design goal of optimal energy efficiency, an effective rule of thumb for a house in the southwest is to have north and south facing walls 1.5 to 2.0 times the length of east and west facing walls. This allows reasonable access to the winter sun from the north of the home, while reducing the exposure of walls and windows to early morning and late afternoon sun on the east and west sides of the home.

True north is the ideal orientation for windows. However, if the eaves are designed correctly, windows oriented between approximately 20° east or west of north still allow good solar penetration in winter while excluding most of the direct summer sun.

5.2 Internal Room Layout

Indoor living and entertaining areas should be oriented on the north side of the home where possible, with other rooms to the south. This will create warm and bright living areas in winter since north facing windows and walls receive maximum winter sun. The south side of a house receives a small amount of direct sun in summer, and therefore by locating bedrooms to the south, will be more comfortable for sleeping in summer.

Rooms should be grouped with similar uses together to create zones and doors be used to separate these zones. This type of design is more energy efficient than open plan living because you can close off rooms which are cooled or heated from those that are not.

It is recommended that the kitchen, laundry and bathrooms be grouped together in order to minimise the need for long hot water pipes. This will reduce the amount of heat lost from the pipes.

5.3 Windows and Shading

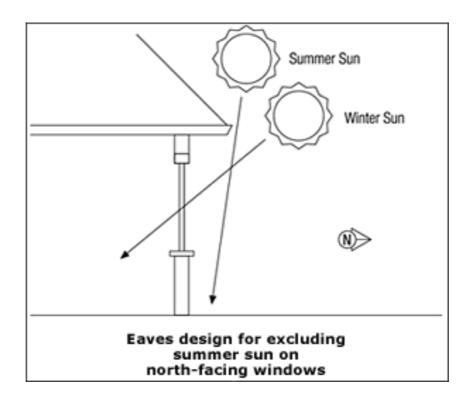
Appropriate window placement, sizing and shading are key elements to energy efficient design. Windows can act as solar collectors trapping heat from the sun, which is useful in winter but not in summer. They ventilate during summer, funnelling cool late afternoon and night time breezes to remove heat accumulated during the day and are an important source of light.

A balance needs to be struck between controlling the sun's access and allowing adequate cross ventilation from breezes, as well as allowing natural light to enter.

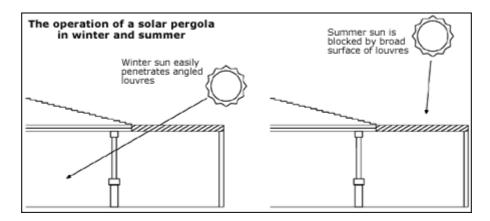
5.4 North Facing Windows

It is recommended that around a third to a half of the north face of the dwelling be glass, as it is very effective at trapping winter warmth and can be easily shaded from summer sun with correctly designed eaves.

To calculate the overhang needed, multiply the distance from the eavesline down to the bottom of the window by 0.7. This will ensure the glass is adequately shaded from September until March. For cooler regions, multiplying by 0.4 will provide suitable shade from October until February.



Deciduous trees and shrubs or creepers growing on an open pergola on the north face of a home can also provide window shading in summer, while allowing the sun through to warm your home once they've lost their leaves in winter. Alternatively, a solar pergola is designed to achieve the same result.



It is important that shading devices, whether in the form of eaves, pergolas or appropriate landscaping, do not block the sun's access to the interior of your home during winter.

5.5 East and West Facing Windows

East and west facing windows can provide unwanted solar heat gain during the summer months and therefore, if excessive, can contribute significantly to an inefficient house design.

To minimise heat gain during the summer months, a house should be designed with the majority of rooms facing either east or west being non habitable i.e. either laundries or garages etc and that the areas of windows are kept to the absolute minimum.

External shading devices provide some protection from the summer sun, with complete protection achieved only with full vertical screening, such as outside blinds or shutters. This is due to the fact that the angle of sun will be close to horizontal early in the morning (east) and in the late afternoon (west), and only vertical screening can block the sun at these angles. Deciduous trees or vines growing on a trellis can also provide shading during summer.

5.6 South Facing Windows

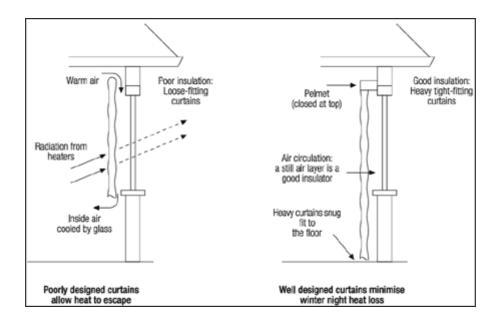
South facing windows receive no direct sun in winter but will receive a few hours of morning and afternoon sun in summer months. For this reason, they lose heat in winter and gain some undesirable heat in summer. South facing windows should be large enough to allow good ventilation and light to enter the home without losing too much heat in winter.

Vertical elements such as external screening or landscaping in conjunction with internal blinds will be most effective at shading south facing windows, since the majority of this sun is at low angle. Basic 'eaves overhang' in combination with internal window treatments will also assist solar control to south facing windows. In mid summer the sun can fall on an unshaded southern façade for approximately 4 hours in the morning and 4 hours again in the afternoon. For the more northerly latitudes (eg Geraldton) provision of shading to south facing windows is even more important. This is because at this latitude there can be an additional 45 minutes of mid summer sun falling on the south face of a building, morning and afternoon.

5.7 Internal Window Treatments

While external window treatments are the best way to reduce summer heat gain, internal window treatments are most important for reducing winter heat loss. A window can lose heat five to ten times faster than an equivalent area of wall. This heat loss can be minimised by keeping warm air inside the room away from cold windows.

Closed curtains can be effective insulators and should be made from a heavy fabric with insulating backing for maximum effectiveness. They need to be long enough to reach the floor and should include a closed pelmet. The pelmet is an integral part of the curtain as it reduces air circulation and consequent heat loss through the window glass during winter and heat leakage into the home during summer when the curtains are drawn.



5.8 Skylights

Skylights can reduce your daytime lighting needs. However, a typical Perth home consumes approximately six times as much energy for heating and cooling than for lighting, and heat can be lost from your home through skylights on winter nights and gained during hot days. To reduce this problem, position your skylight so it is shaded in summer or consider buying one with special glazing that minimises heat transfer and can be closed at night. Non-vented ducted skylights lose less heat in winter, as the air trapped in the duct acts as a thermal buffer.

5.9 Tinted Glass and Reflective Films

Tinted glass and reflective films absorb and reflect heat, keeping your home cooler. However, be aware that using them reduces the amount of light and heat entering rooms in winter as well as in summer. During summer the glass itself becomes hot as it absorbs energy, which will cause some heat to be radiated into the room. These products may be useful where large areas of east and west glazing are unavoidable due to design reasons. However, tints and films will generally not reduce heat gain as much as external shading.

5.10 Double glazing

Two panes of glass separated by at least 10 mm can reduce winter heat loss but is generally only cost effective in situations with high heating requirements. Double glazing can also reduce conductive summer heat gain. However, when exposed to sun double glazed windows will still allow significant heat transfer, which means that full shading is still required.

5.11 Other window products

Windows are also available with other features, such as special coatings on the glass, which can offer improvements in thermal performance.

Insulation acts as a barrier to heat flow. It can make your home more comfortable by reducing the amount of warmth escaping in winter and reducing the amount of heat entering in summer. By insulating you can significantly reduce your heating and cooling bills and help to reduce greenhouse gas emissions.

In an uninsulated house most heat is lost or gained through the ceiling and roof – this is the most important part of the home to insulate. Insulating external walls can bring further benefits. Sealing air gaps will also help.

Opening and closing windows and window coverings at appropriate times to control air flows and heat transfer will also increase your comfort levels. This is particularly important in summer to prevent your house overheating. If you allow too much direct summer sun into your home through windows then insulation may act to keep the home warmer for a longer period of time.

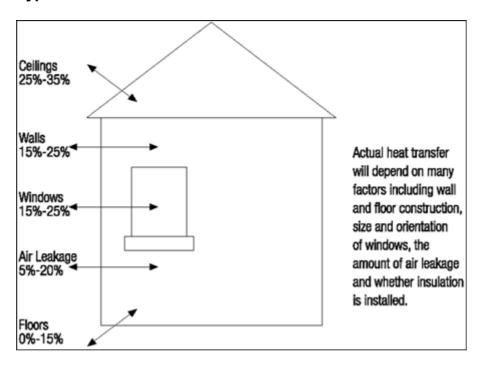
5.12 Insulation Works

The two main types of insulation are bulk insulation and reflective insulation.

Bulk insulation works by trapping small cells or layers of air within the insulating material. Many pockets of still air are very effective at retarding heat transfer.

Reflective insulation works by reflecting significant proportions of light and heat. Some reflective foils can be used both as a vapour barrier and to reduce heat transfer.

Typical Areas of Heat Transfer



5.13 Construction Materials

Building materials make a significant difference to the performance and comfort of dwellings. Dense materials such as brick, stone, concrete and rammed earth heat up and cool down slowly – they have what is called a high 'thermal mass'. Lightweight materials such as weatherboard and fibre cement allow the home to heat up and cool down quickly. These materials have a low thermal mass.

Thermal mass is simply the ability of a material to store heat. A 200 square metre home in the south west with good solar access to the north needs about 20 cubic metres of concrete and 20 to 30 cubic metres of internal brick or equivalent depending on your location (30 cubic metres for Perth) to adequately store winter daytime warmth and gradually release it at night.

Thermal mass is most beneficial in homes which have good solar access to north facing windows. If solar access is limited, large amounts of thermal mass can increase a dwellings heating requirements during winter.

During summer, thermal mass will act to keep your home cooler during the day, provided the dwelling is ventilated overnight. The aim is to allow the night air to cool down the mass inside your home, resulting in more comfortable conditions the next day.

5.14 Masonry Walls

Double brick walls heat up slowly and stay warm for long periods. This is an advantage during short periods of hot weather, but can make your home uncomfortable over extended hot spells. Insulating double brick walls will add to initial costs, but will help to prevent heat transfer to the interior of the home during summer and help to retain heat during winter.

Brick veneer walls consist of a single external layer of brickwork, with a lined stud frame inside. These walls have less thermal mass than double brick walls and therefore respond more quickly to temperature changes. Homes with brick veneer walls are better at cooling down during extended periods of hot weather – making conditions more comfortable at night during summer. Brick veneer walls are also easier to insulate.

Reverse brick veneer walls have the brickwork inside and lightweight frame and cladding outside. This has the advantage of providing the thermal mass on the inside of your home which will retain any heating used in winter. Conversely the external lightweight cladding (weatherboards etc) will not absorb and store summer heat in the same way as masonry wall are know to do.

With both double brick and brick veneer walls (or any type of wall for that matter), it is important to ventilate your home in summer once the temperature outside becomes cooler than the temperature inside. This will help cool your home down and make conditions more comfortable. Retained night time coolness achieved through ventilation can also keep your home cooler during the day.

5.15 Lightweight Walls

Weatherboard, fibre cement and other lightweight walls get hot quickly in the sun, but also cool down quickly once shaded and after sunset. During winter, they lose heat far more quickly than brick walls. The thermal performance of lightweight walls will improve significantly with insulation, which is cheaper and easier to install at the building stage.

5.16 Floors

Concrete floors store heat from the sun shining through northern windows in winter and return some of that heat during the evening. Laying dark tiles where the low angle winter sun hits the floor will maximise the absorption of heat to be re-radiated. It is important that this thermal mass is not exposed to direct solar energy during summer, as this can lead to uncomfortably warm internal conditions.

Timber floors do not have the high thermal mass of concrete floors. This means that a home with a timber floor will lose far more heat than one with a concrete floor. For homes on stumps which are open at the sides, it is recommended that insulation be installed to the underside of all exposed floorboards. Another solution is to fully enclose the area between the ground and the floor with a solid material like brick, but this will not be as effective as using insulation. An enclosed space under the floor will also require some permanent ventilation to control subfloor dampness.

5.17 Colour of External Building Materials

As a general rule, light colours tend to reflect the sun's heat while darker colours absorb it. You can take advantage of this fact when selecting the colour of your roof and wall materials. In summer, lighter coloured materials will help to keep your home cooler by reflecting heat from the sun. However if your home is properly insulated, which is a much more effective method of controlling heat transfer, the effect of external building colour on your comfort will be greatly reduced.

5.18 Ventilation

Doors and windows should be positioned to achieve cross ventilation in summer. A larger opening on the leeward side of the home will maximise the airflow through rooms. If this has been allowed for in the design of your home, doors and windows opened late on a summer's day will make use of cooling late afternoon and night time breezes to rid your home of heat accumulated during the day.

5.19 Draught Proofing

Air leaks and draughts can add significantly to your heating and cooling bills by allowing cold air into your home during winter and warm air during summer. You can prevent these unwanted leaks by installing draught excluders on the bottom edge of doors and sealing strips around doors and windows.

These are easy to fit and can be purchased from your local hardware store. When draught proofing you should also check for spaces between walls and skirtings and block off any unused fireplaces. Note that homes with heaters that burn a fuel inside are required by law to have fixed ventilation for safety reasons. (NB this is for information only and is generally a requirement under the Building Code of Australia)

5.20 Landscaping Design and Planting Selection

Gardens can provide significant climate modification effects, and have the ability to further enhance or detract from the other factors influencing energy efficient design mentioned above.

For example, deciduous trees or vines which provide shade in summer but allow the winter sun to shine through. When their leaves have dropped they provide an effective and simple option.

Deciduous creepers can keep west facing walls cool on hot summer afternoons. Shrubs or trees to the south can be placed to direct southwesterly sea breezes into and through your home.

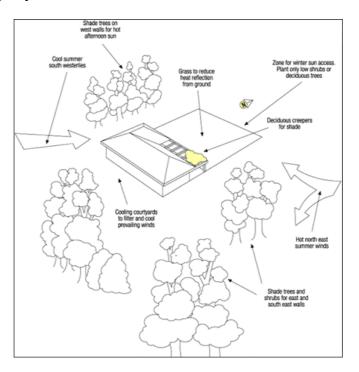
Plantings to the west and north-west can shield houses from winter storms, but close plantings may lead to damage in certain circumstances.

Unshaded paving to the north, east and west of your home should be avoided as it can cause heat to be reflected into windows during summer. Lawns and other ground covers will help reduce this problem.

South facing courtyards with moist cool ferneries will also assist summer cooling.

Overall plant selection should adhere to water wise gardening principals to minimise water usage

The diagram below indicates wind patterns for the Perth region. You should investigate the 'wind regime' particular to your location, to make the most of desirable cooling summer breezes, or to reduce the impact of hot summer or gusty winter winds.



6.0 Assessment Procedure

Under its current Town Planning Scheme, Council is able to permit higher density developments in the Split Density Coded residential areas where it can be demonstrated that the design of the residential dwelling is energy efficient.

To ascertain the energy efficiency of the dwelling, Council has assigned a relative value to each of the design criteria listed in the body of this policy.

In order to qualify for the higher density code a score of 70 out of a possible 100 efficiency points is required to establish an acceptable degree of intrinsic energy efficient housing design.

In grouped or multiple dwelling developments each individual unit must achieve the minimum score in order to be eligible. There is considered to be sufficient scope within the points allocation for a number of design solutions.

Council will only support the subdivision of a site where such a density increase has been granted following the completion of the houses/units in accordance with this policy.

The following are the assigned values given to each design element of energy efficiency:

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10		
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	25		
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15		
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20		
5.	60% of all habitable rooms shall be cross ventilated.	10		
6.	The provision of either a solar pergola or solar hot water heating system;	10		
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	10		
	TOTAL	100		Require min 70 out of 100 to qualify for higher density code

Additional Provisions – Amended 28 June 2011

In submitting an application, the developer is to submit a letter indicating the features provided and the number of credit points and demonstrate how the credit points may be achieved.

Where a proposal that relies on this Policy for the higher density on land with split coding retained dwellings are to be modified to meet the points required by this Policy.

Where an existing residence either does not comply or cannot be made to comply with the points required by this Policy, the Council shall not grant planning consent.

LOCAL PLANNING SCHEME NO. 10

LOCAL PLANNING POLICY NO. 3 - WATER SENSITIVE DESIGN

POLICY OUTLINE

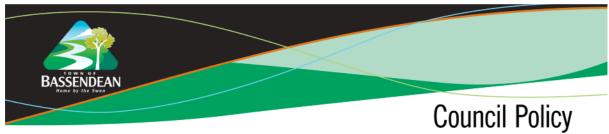
- 1. Operation of this Policy
- 2. Statement of Intent
- Definitions
- 4. Policy Objectives
- 5. Application of the Policy

1. OPERATION OF THIS PLANNING POLICY

- (a) This planning policy has been prepared in accordance with Part 2 of the Town Planning Amendment Regulations 1999.
- (b) This policy does not bind the Council in respect of any application for planning approval but the Council will have due regard to the provision of the policy and the objectives which the policy is designed to achieve before making its determination.
- (c) If a provision in this policy is inconsistent with the:
 - (i) Environmental Protection (Swan Canning Rivers)Policy 1998, the Environmental Protection Policy Prevails; and
 - (ii) The Town of Bassendean Town Planning Scheme, the Scheme prevails.
- (d) This policy applies to rezonings, structure plans, subdivisions and development proposals and applies throughout the Town of Bassendean.

2. STATEMENT OF INTENT

There is concern about the quality of water discharging from drains into water bodies such as the Swan and Canning Rivers. Stormwater runoff carries sediments and pollutants such as nutrients and heavy metals from impervious surfaces. The Swan-Canning Cleanup Program (1999) highlights the need to address water quality in drainage from rural and urban land uses. A mechanism to address water quality of stormwater runoff from developed areas is through Water Sensitive Urban Design.



The principles are the detention and retention of stormwater to increase filtration of pollutants by soil, vegetation or other physical means rather than direct conveyance to a water body.

The Bayswater Main Drain Catchment Management Strategy (1994) recommends the adoption, where practical, of water sensitive urban design for new development and redevelopment within the catchment by local Government authorities. The Eastern Metropolitan Regional Environmental Strategy (RES) (2000) recommends that member councils adopt Water Sensitive Design Planning principles, develop drainage plans and adopt Stormwater Quality Management Guidelines.

The Environmental Protection (Swan-Canning Rivers) Policy 1998¹ requires that all government agencies including local government, when making decisions, ensure that drainage systems are designed, constructed and operated:

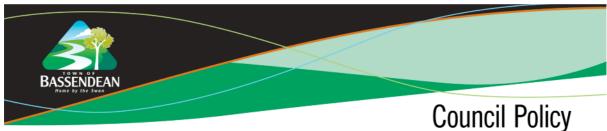
- (i) in accordance with best management practice; and
- (ii) "in order to prevent and mitigate land degradation (Clause 17 (a) (ii)).

The Local Government Guidelines for Subdivisional Development, produced by the Institute of Municipal Engineering WA Division in 1998 promotes the adoption of Water Sensitive Urban Design principles.

The Community Codes (*Liveable Neighbourhoods*) published by the Ministry for Planning in 2000 emphasises Water Sensitive Urban Design (nutrient stripping, swales, incorporation of drainage in public open Space) and provides incentives of up to 3% credit in the 10% Public Open Space (POS) requirement for the adoption of Water Sensitive Urban Design.

3. DEFINITIONS

"Best Management Practice" means best management practices developed under clause 11 of the Environmental Protection (Swan and Canning Rivers) Policy 1998, and assessed in the context of this policy.



Until such time as best management practices are published by the Environmental Protection Authority the use of interim best management practices as published by the Water and Rivers Commission's "A manual for managing urban stormwater quality in Western Australia" dated August 1998 will be used in conjunction with the Principles for design and assessment of best management practices (ie, Section 5 of this policy) and the Towns engineering specifications and conditions relating to developments and subdivision.

"AAMGL" Average Annual Maximum Groundwater Level

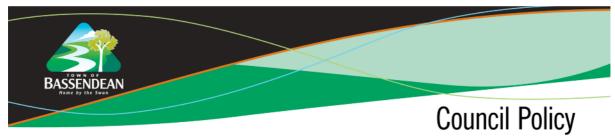
"Multiple Use Corridor" linear reserve which integrates drainage function as well as conservation and recreation values.

"Treatment Train" means application of several types of physical stormwater best management practices in line in a series to achieve improved drainage water quality output to water bodies.

"Xeric Landscape" landscape consisting of native or adapted plants which require nil or minimal watering

4. POLICY OBJECTIVES

- (a) This Water sensitive Design Policy is to assist in protecting the beneficial uses of the Swan and Canning River and watercourses, consistent with the requirements of the Environmental Protection (Swan and Canning Rivers) Policy 1998. The beneficial uses include:
 - * as habitat for the maintenance of the diversity and abundance of locally indigenous fauna and flora species;
 - to maintain ecological processes;
 - * as an important recreational element; and
 - as natural landscape.
- (b) Ensure water sensitive design best management practices are implemented for all new development proposals so as to minimise nutrient and other pollutants exported to the Swan-Canning rivers;
- (c) Protect and where possible restore and enhance the environmental and social (ie, recreation and scenic) values of waterways and protected wetlands; and



(d) Retain or enhance open drains by converting them to "living streams' in multiple use corridors that provide habitat for wildlife and passive recreation opportunities wherever possible.

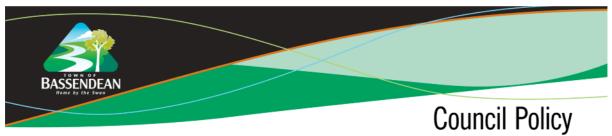
5. APPLICATION OF THE POLICY

The principles of Water Sensitive Urban design are to be incorporated into urban development through the application of best management practices. The extent to which the various best management practices are selected for implementation will depend on the scale of development. For example, there will be greater opportunities to incorporate structural best management practices at the structure planning or subdivision scale than at the single lot level. For approval at a split or higher R-Code, developments will be required to meet these design guidelines.

Principles for design and assessment of best management practice.

The application of water sensitive planning and management principles involves:

- i) incorporation of water resource issues early in the land use planning process;
- ii) addressing water resource management at the catchment and sub-catchment level:
- iii) storage and stormwater reuse and stormwater treatment occur as high as possible in the catchment- use of a treatment train approach with the components of stormwater management located so that they follow the natural contours;
- iv) property is protected from flooding or damage by surface water or groundwater;
- v) post urban development conditions in watercourses approximate pre urban conditions (ie, water level and flow regimes are maintained);
- vi) stormwater system design incorporates as much as possible features of waterways that improve water quality;
- vii) the use of vegetation (particularly indigenous vegetation) in stormwater management to promote filtering and slowing of runoff to maximise settling of particulate-bound pollutants; and
- viii) multiple use corridors are used when appropriate.



The following are examples of structural best management practices which encompass the above principles:

- Onsite detention:
- · Stormwater infiltration systems;
- Buffer strips;
- Pollutant traps (eg, Continuous Deflection Separators);
- Grass or reed swale drains;
- · Broken or flush kerbing;
- · Ponds and wetlands; and
- Native or Xeric landscaping.

Selection of best management practices should follow that suggested in the Water and Rivers Commission's *Manual for Managing Urban Stormwater Quality in Western Australia.* (Stormwater best management practice selection chart to be included in appendices)

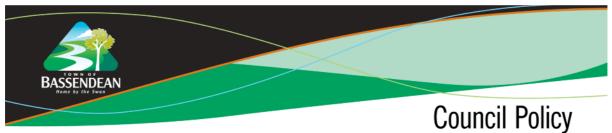
5.1 Non- structural best management practices

A comprehensive approach to storm water management also involves the promotion of non-structural best management practices. These include source controls such as:

- education of residents on appropriate plant species, fertiliser and water use;
- street sweeping regimes; and
- improved waste and stormwater management for industrial premises.

5.2 Incorporation of water resource issues early in the land use planning process

The earlier that stormwater management is addressed in the land use planning process the more opportunity there generally is for integration of structural mechanisms to ensure water quality. Ideally it should form part of the initial site analysis prior to structure planning and sub-division. For small residential subdivisions (<5ha) and redevelopments in which ponds or wetlands may not be feasible inline controls such as pollutant traps may be more appropriate.



5.3 Addressing water resource management at the catchment and subcatchment level

Sub-catchments should be used to determine drainage system design. Developments low in the catchment should be designed with due regard to existing and proposed land use as reflected in the Town Planning Scheme and the volumes and quality of stormwater or subsoil drainage water likely to be generated upstream.

5.4 Storage, stormwater use and stormwater treatment occur as high as possible in the catchment, a treatment train approach is used and components of stormwater management are located so that they follow natural contours

Stormwater treatment such as detention should occur at source or on-site if practicable. Structural best management practices are most effective when they can be combined in a series, as a treatment train preferably connected by grass or reed swales or multiple use corridors (through public open space). Storage areas should be an integral part of the landscape, wherever possible. The use of the treatment train can increase pollutant removal effectiveness, allow for filtration of suspended solids, or overcome site factors that limit the effectiveness of a single measure.

The detention capacity of the treatment train should be capable of retaining the first flush and constructed according to the design criteria provided by the Water and Rivers Commission hydrological effectiveness graphs (*Manual for Managing Urban Stormwater Quality in Western Australia pp 20, 21*)

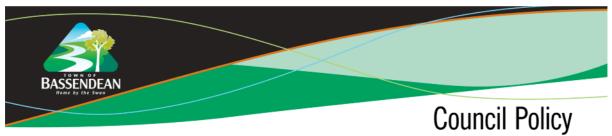
Wherever possible use should be made of stormwater runoff. Car parks in commercial developments should direct runoff water into landscaped swales by use of flush or broken kerbing to reduce the irrigation requirement and filter stormwater pollutants. Porous paving materials should be encouraged, especially for parking areas that are infrequently used or are low traffic volume areas.

Mechanisms to trap sediment should be in place to remove sediment 100 microns or more.

5.5 Protecting property from flooding

5.5.1 Water Courses and main drains

All development along watercourses, main drains and overland flow paths for the 100 year storm recurrence interval shall have floor levels at 500mm above the 100 year flood level.



Watercourses and main drainage reserves should be of sufficient width to allow for 1:6 batters, appropriate access for maintenance or 1:8 (for revegetation) and the floodway associated with the 100 year event. This would normally result in a minimum reserve width of 30m. However, to allow for natural meandering of a watercourse and the floodplain a 50m reserve width is preferred.

5.5.2 Groundwater levels

To protect housing from flooding and damage from groundwater, development in areas where the Average Annual Maximum Groundwater Level (AAMGL) is at or within 1.2m of the surface, the importation of clean fill will be required together with the provision of sub surface drainage placed at the AAMGL. In areas where the AAMGL is more than 1.2m from the surface, subsurface drainage may still be required to restrict the rise in groundwater and ensure that adequate separation of building floor slabs from groundwater is achieved.

The AAMGL should be determined to the satisfaction of the Water and Rivers Commission.

5.6 Maintaining water level and flow regimes

5.6.1 Water levels -Protected wetlands

Where it is deemed that a proposal is likely to have a potential impact on the hydrological regime of a protected wetland a hydrological study will be required to determine how the water level regime of the wetland can be maintained.

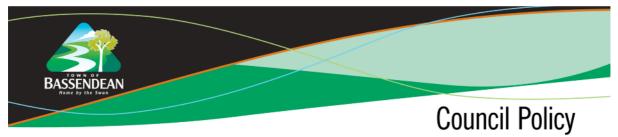
As a general guideline, a hydrological study is likely to be required where drains that alter groundwater levels (eg, subsoil drains) are used within 100m of a protected wetland, or if drainage into a wetland is proposed.

5.6.2 Water flows –Watercourses

In order to prevent instream erosion, peak flows in water courses should not exceed pre-development conditions for the particular storm average recurrence interval (eg, the peak flow reaching the water course from the catchment in a 10 year event should remain the same after development).

Longer duration low-level flows in watercourses to maximise detention times in detention ponds consistent with the advice in the Water and Rivers Commission *Manual For Managing Urban Stormwater Quality in Western Australia* are acceptable to enable increased water volumes to be discharged off-site.

Adequate on site detention is required to ensure this criterion can be met.



5.6.3 Development of Private Open Space

Drainage from paved areas should be directed to garden beds or lawn or use of porous paving surfaces encouraged.

Low water and nutrient requiring plants should be required in landscaping such as native or adapted xeric plants to reduce the need for artificial fertilisers and watering.

5.7 Incorporating landscape enhancing features to improve water quality

Features that improve water quality that should be incorporated into stormwater drainage systems include:

- Native vegetation-in particularly reeds and rushes should be to promote filtering of nutrients and sediments;
- Boulders or riffles improve aeration and oxygenation;
- Ponds, pools or stormwater gullies designed as sediment traps; and
- Drain or watercourse profiles that provide a range of fauna habitats.

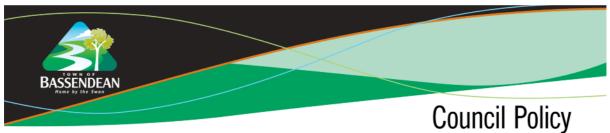
5.8 Retaining and rehabilitating protected wetland and watercourse fringing vegetation

Fringing vegetation should not be removed from within the following buffer zones:

Watercourses with permanent water or protected wetlands				
Seasonally flowing watercourses				
Watercourses which flow in response to specific rain	10m			
events				

Removal of non-native vegetation in a manner that replaces it with native vegetation and minimises potential soil erosion is encouraged, except where the non-native vegetation has identified landscape or heritage value.

Foreshore management proposals are assessed in terms of the achievement/ replication of natural processes, and integration of passive recreation whilst maintaining conservation values.



As a minimum watercourses should be revegetated with native vegetation for 10m either side of watercourses which flow in response to specific rain events and 15m either side of other watercourses.

As a minimum, protected wetlands should be revegetated consistent with vegetation zones that would naturally occur in a wetland to at least 15m from the high water mark or 1m higher than the high water mark whichever is the smaller.

Batters and reserve widths are addressed under "Protection of property from flooding" above.

5.9 Using Multiple use corridors and open drains

Existing open drains should be assessed for their potential to provide for the multiple uses of recreation, stormwater management and the restoration and maintenance of environmental values through conversion to meandering streamlined channels.

There should be no net loss of existing open drain habitat, based on the extent (ie area) of open water and wetland vegetation provided by the drain. Transfer of habitat to a multiple use corridor/streamlined meandering channel is acceptable, but timing to minimise the period when habitat is not available should be considered.

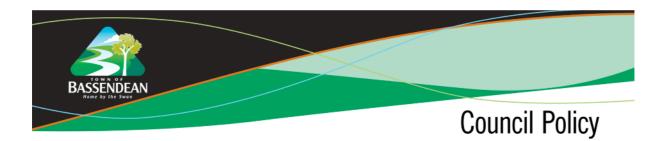
Multiple use corridors width may vary according to site characteristics. However a minimum of 50m is recommended with additional width if needed for recognising floodway characteristics and protection of foreshore vegetation.

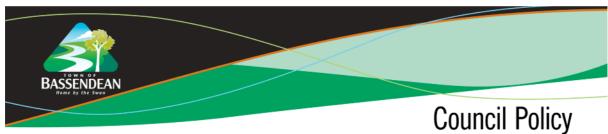
Management plans should be prepared for multiple use corridors. Multiple use corridors should be divided into zones or priority use areas for management purposes.



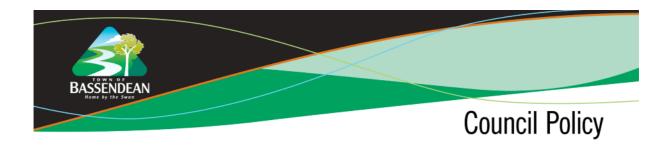
Section	Policy Application	Structure Plan	Subdivision	Development Application
5.1	Early incorporation of water resource issues in planning			
5.2	Drainage design based on sub- catchments			
5.3	Treatment Train approach from top of catchment			
	Stormwater management components follow natural contours			
	Detention capacity able to retain first flush			
	Detention capacity to meet appropriate hydraulic and detention time criteria			
	Car park runoff to landscaped detention swales			
	Sediment less that 100 microns trapped			
5.4	Floor levels >500mm above 1:100			
	Waterway batter slopes maximum 1:8			
	Waterway reserve adequate width			
	AAMGL calculation meets W&RC requirements			
	Drainage at or above AAMGL and soil surface >1.2m above AMGL			
5.5	Hydrological study undertaken for protected wetlands			
	Post development flows approximate pre development flows through adequate detention			

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Section	Policy Application	Structure Plan	Subdivision	Development Application
	Runoff from paving directed to garden or lawn areas			
	Encourage use of pervious paving materials			
5.6	Natural features incorporated into stormwater design (eg native vegetation, riffles & pools)			
	Easily maintained sediment traps included			
5.7	Existing fringing vegetation protected			
	Fringing vegetation rehabilitated (10 or 15m)			
	Passive recreation catered for along foreshores			
	No net loss of open drain habitat			
	Potential for Multiple Use Corridors evaluated			
5.8	Multi Use Corridors zoned			
	Management plans for Multiple Use Corridors prepared			



LOCAL PLANNING SCHEME NO. 10

LOCAL PLANNING POLICY NO 8

PARKING SPECIFICATIONS

OBJECTIVE

To ensure a high standard of construction of car parking bays in all developments within the Town, and to ensure that all parking bays and manoeuvre areas are constructed to an adequate size.

APPLICATION

This policy applies to all land within the Local Planning Scheme No. 10 area.

POLICY

Where provision of parking bays is required as a condition of planning approval, the following minimum construction requirements shall apply:

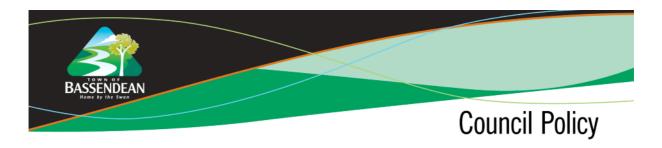
	DEVELOPI	MENT TYPE		
Material Type	Residential	Other		
Asphalt	25mm of 7mm high bitumen asphalt over: a) 150mm crushed rock roadbase (CRRB); or b) 50mm CRRB above 150mm crushed limestone.	 25mm of 10mm asphalt over: 200mm CRRB or 75mm CRRB above 200mm crushed limestone. 50mm of 14mm asphalt over 250mm crushed limestone. 		
Concrete	100mm (preferably reinforced with one layer of F63 mesh) over a minimum thickness of 150mm compacted clean sand.	125mm reinforced with F62 mesh over a minimum thickness of 150mm compacted clean sand.		
Brick- paving	50mm (minimum) thick solid paving bricks over 25mm bedding sand and 100mm CRRB or crushed limestone. All 'free' edges to be supported by a header course on a 250mm x 50mm mortar bed.	80mm thick solid paving bricks paid in accordance with manufacturer's specifications (to be supplied with a Building Licence Application).		

The dimension of car parking bays and manoeuvre areas shall be as follows:

Parking Angle	Width of Bay metres	Depth of Bay metres	1 Way	Width y 2 Way etres	Distance Along Kerb	Kerb Overhang metres	1 Way	Depth 2 Way tres
					metres			
90°	2.5	5.4	6.2	6.2	2.5	0.7	11.6	11.6
	2.7	5.4	5.8	5.8	2.7	0.7	11.2	11.2
	2.9	5.4	5.4	5.8	2.9	0.7	10.8	11.2
60°	2.5	5.7	4.6	5.8	2.9	0.6	10.3	11.5
	2.7	5.7	4.2	5.8	3.1	0.6	9.9	11.5
	2.9	5.7	4.0	5.8	3.3	0.6	9.7	11.5
45°	2.5	5.3	3.7	5.8	3.5	0.5	9.0	11.1
	2.7	5.3	3.3	5.8	3.8	0.5	8.6	11.1
	2.9	5.3	2.9	5.8	4.1	0.5	8.2	11.1
30°	2.5	4.4	2.9	5.8	5.0	0.3	7.3	10.2
	2.7	4.4	2.9	5.8	5.4	0.3	7.3	10.2
	2.9	4.4	2.9	5.8	5.8	0.3	7.3	10.2
0°	2.5	2.5	3.0	5.8	6.3	0.0	5.4	8.3
	2.5	2.5	3.3	5.8	6.1	0.0	5.8	8.3
	2.5	2.5	3.6	5.8	5.9	0.0	6.1	8.3

Requirements

- 1. Bays situated adjacent to walls or other obstructions which affects door opening, shall be increased in width by 0.3 metres on the side of the obstruction.
- 2. The length of parallel parking bays may be reduced to 5.4 metres for end bays where free access is available.
- 3. For dead-end aisles, an aisle extension of 2 metres shall be provided to facilitate access.
- 4. Where access aisles intersect, adequate truncations shall be provided to facilitate the simultaneous movement of vehicles to and from the access aisles (Refer AS 2890.1 85 percent to vehicle swept path with 300mm clearances each side).



Local Planning Policy No 15 Percent for Art Policy

1.0 Preliminary

1.1 Citation

This Policy is adopted by the Town of Bassendean as a Planning Policy pursuant to Section 2.4 of Local Planning Scheme No .10.

1.2 Purpose

The Town of Bassendean considers there is a need to protect and enhance the utility, amenity and identity of the public domain of places such as centres, main streets, squares and parks within its municipality.

The purpose of this Policy is to assist in achieving the following objectives:

- a) improving legibility by introducing public art which assists in making streets, open spaces and buildings more identifiable,
- b) enhancing a sense of place by encouraging public art forms which provide an interpretation and expression of the local area's natural physical characteristics and social values,
- c) improving interpretation of cultural, environmental and built heritage,
- d) improving visual amenity by use of public art to screen unattractive views and improve the appearance of places, and
- e) improving the functionality of the public domain through the use of public art to provide appropriate street furniture functions

1.3 Guidelines

Interpretation and implementation of this Policy shall be in accordance with the guidelines for Percent for Art Policy which is provided in Appendix A to this document)

2.0 Application

2.1 Public Art to be Required

The Town of Bassendean shall require eligible proposals to provide public art in accordance with the described method for determining Public Art contributions described hereunder.

2.2 Proposals Eligible for Public Art Contributions

2.2.1 Projects Eligible

All development proposals for multiple dwellings, mixed use, commercial, civic, institutional, educational projects or public works with a value greater than \$1,000,000* shall be regarded as eligible proposals under this Policy.

2.2.2 Area of Application

This Policy applies throughout the Town.

The Policy should be read in conjunction with Planning Policy No 1 – Bassendean Town Centre Area Strategy and Guidelines which requires a public realm contribution of 2% of building construction costs for all development in the Town Centre which includes provision for Public Art.

2.2.3 Proponents

This Policy shall apply to all proponents, with the exception of those exempt from obtaining Local Authority planning approval under other legislation. Those proponents/projects so exempted should utilise this Policy and associated Guidelines as a guide for the implementation of their respective Percent for Art Policy obligations where applicable.

3.0 Method of Determining Public Art Contribution

3.1.1 Method of determining Public Art Contribution

The cost of any Public Art provided under this Policy shall be no less than one percent of the value of the eligible proposal.

3.1.2 Form of Public Art Contribution

Public Art required pursuant to this policy shall be provided in kind. Where requested by the proponent, the Council may alternatively accept a cash-in-lieu payment in accordance with the Town of Bassendean guidelines for Percent for Art Policy.

^{*} Value as used for determining Building Licence fees

3.1.3 Location of Public Art Contribution

Public Art provided in-kind pursuant to this Policy shall be provided on site, or on crown land immediately adjacent to the site.

3.1.4 Separate Approval Generally Not Required for Public Art

Public Art provided under this Policy, in fulfillment of a condition of Planning Approval, shall not require a further Development Application.

TOWN OF BASSENDEAN GUIDELINES FOR PERCENT FOR ART POLICY

1.0 Operation and Intent

These Guidelines are adopted by the Town of Bassendean for the purpose of direction for the interpretation and implementation of the Town's Percent for Art Policy.

2.0 Implementation of Universal Percent for Art

2.1 Prescribed Areas

The Town of Bassendean has prepared a Public Art Master Plan which divides the Town into precincts, and shows the location of proposed public art works.

2.2 Cash In Lieu

Where the proponent elects, the public art contribution may alternatively by cash-inlieu based on the rate described in the Town of Bassendean's Universal Percent for Art Policy. Such cash-in-lieu are to be:

- a) paid to the Town of Bassendean's Public Arts Fund (Percent for Public Art); and
- b) expended on a public art project within the prescribed area in the Public Art Master Plan within which proposal is situated.

Individual funds contributed within a prescribed area may be accrued for more comprehensive or detailed art projects and/or areas as outlined in the Town of Bassendean's Public Art Master Plan.

2.3 Eligible Costs

For the purpose of cash in lieu contributions, costs associated with the production of an art project may include:

- i) professional artist's budget, including artist fees, Request for Proposal, material, assistants' labour costs, insurance, permits, taxes, business and legal expenses, operating costs, and art consultant's fees if these are necessary and reasonable.
- ii) Fabrication and installation of artwork,
- iii) Site preparation,
- iv) Structures enabling the artist to display the artwork,
- v) Documentation of the artwork, and
- vi) Acknowledgment plaque identifying the artist, artwork and development.

2.4 Equity, Safety and Universal Access

Public art should be made accessible to all members of the community, irrespective of their age and abilities. While art in public spaces might be considered primarily a visual experience, it can provide a range of sensory experiences for people with disabilities - artwork can be tactile, aural and give off pleasant smells as well as being visual. Artwork need not be monumental, but can be at heights suitable for people in wheelchairs to touch, move through and explore. Artwork can be interactive play objects for family groups and children. Interpretive signage in an easy to read format, including Braille, will ensure that artworks are inclusive of all members of the community. Where feasible and appropriate to the site and community, the Authority will commission artworks that can be enjoyed as an interactive experience, irrespective of age, mobility or ability.

2.5 Exclusions to Public Art

Art projects ineligible for consideration include:

- i) Business logo.
- ii) Directional elements such as supergraphics, signage or colour coding.
- iii) 'Art objects' which are mass produced such as fountains, statuary or playground equipment.
- iv) most art reproductions.
- v) landscaping or generic hardscaping elements which would normally be associated with the project.
- vi) services or utilities necessary to operate or maintain artworks.

2.6 Design Documentation

The artist will be required to prepare detailed documentation of the artwork at various stages of the commission, design, fabrication and implementation processes. Depending upon the project, the documentation may include concept drawings, maquettes, structural and other engineering drawings, photographic images of works in progress, photographic images of completed and installed work and a maintenance schedule.

2.7 Approval of Artwork

The approval of the Council shall be required prior to the creation and installation of the Public Art. It is preferable that the Council delegate authority to grant approval to the Public Art to an appropriate Officer, or duly appointed panel.

2.8 Clearance Process

The public artwork must be completed and installed prior to the first occupation of the new development, and maintained thereafter by the owner(s)/occupier(s).

Alternatively, Council may accept a suitable agreement prepared at the applicant's expense binding the proponent to complete the works within a specified timeframe.

3.0 Maintenance

3.1 Maintenance and Resistance to Vandalism

Artworks that are low maintenance, robust, durable and resistant to Vandalism will be encouraged. Artists will be required to present the Town with a maintenance schedule at the completion of the commission.

3.2 Recording

The public artwork will be registered in the Town's Public Art Inventory once the artwork is completed.

3.3 Decommissioning

The proponent (or Town where the public art is situated on Crown Land) may decide to remove an artwork because it is in an advanced state of disrepair or damage, because the artwork is no longer considered suitable for the location or for other reasons. In such cases, the Town will prepare a documented archival record of the artwork prior to its removal.

The proponent (or Town where the public art is situated on Crown Land) must make a reasonable attempt to contact the artist at least 28 days ahead of any relocation, sale, alteration or removal of an artwork.

4.0 Creative Development Process

4.1 Creative Design Process

The proponent will commission artists and coordinate and manage the process by which they work alongside architects, landscape architects, planners and engineers. There will be a variety of approaches resulting in some easily identifiable artworks, and others that will be merged as an integral part of construction. While there is certainly a place for sculpture and civic landmark, there is also room for colour, movement, whimsy and theatre. This policy gives equal value to the purely aesthetic and to the functional.

4.2 Consultation with Stakeholders

Where appropriate, an invitation should be extended to community members to participate in the artwork process.

Some groups in the community are not comfortable with the expression of interest and tender processes, and will not enter into them without assistance. While artists from these groups will be encouraged to apply for all publicly advertised commissions, there may be opportunities for designating specific commissions for them. In such cases, the selection processes outlined above may be modified and more assistance given to the artists submitting Expressions of Interest or Requests for Proposals.

4.3 Collaboration

There is an expectation that commissioned artists will work in collaboration with other consultants engaged by the Proponent (most commonly, but not exclusively, landscape architects, urban planners and engineers) and that the conceptual and technical requirements of these professionals will be duly regarded by the artist when designing and installing the artwork.

There is an equal expectation that the artists' aesthetic judgement will be respected by other consultants engaged by the proponent. Changes to an artwork, even at concept stage, can only be made with the full knowledge and approval of the artist.

5.0 Artists Rights

5.1 Definition of Artist

Only professional artists will be eligible to carry out public art commissions. As the term 'artist' is self-referencing, for the purposes of this policy a professional visual artist can be defined as a person who fits into at least two of the following categories:

- A person who has a university degree or minimum 3 year full time TAFE Diploma in visual arts, or when the brief calls for it, other art forms such as multi media;
- A person who has a track record of exhibiting their artwork at reputable art galleries that sell the work of professional artists;
- A person who has had work purchased by major public collections, including (but not limited to) the Art Gallery of Western Australia, any of the university collections or Artbank;
- A person who earns more than 50% of their income from arts related activities, such as teaching, selling artwork or undertaking public art commissions.

Sometimes it will be appropriate to be more flexible and seek people other than professional artists to carry out artwork commissions. This may apply in instances when young, emerging and indigenous artists or students may be considered appropriate.

5.2 Artist Contract

The proponent will be required to forward copies of the artist's contract, maintenance schedule and artist contact details to the Town at the commencement of the project. In the case where the proponent is the Town, it shall satisfy itself that these requisites have been satisfied.

5.3 Moral Rights

Since 2000 moral rights legislation has protected artists. In brief, an artist's moral rights are infringed if:

- Their work is not attributed or credited;
- · Their work is falsely attributed to someone else; or
- Their work is treated in a derogatory way by distorting, modifying or removing it without their knowledge or consent.

In practical terms this means that all artworks should have the artist's name on or attached it, that the Town cannot change an artwork in any way without seeking the artist's permission; likewise, cannot remove or re-locate the artwork without seeking the artist's permission. It may be that an artist has moved and the Town cannot find them, but evidence that a reasonable attempt to find the artist must be provided.

The Town will take special care to ensure that acts of restoration or preservation (of artworks) will be conducted in a sensitive manner with prior consultation with the artists. Wherever possible, preservation or restorative works should be carried out by professional conservators.

Special care will also be taken with the moral rights associated with works created by more than one artist, in that it is acknowledged that collaborators on artistic creations can take different views on issues such as relocation and restoration.

5.4 Acknowledgement of Artwork

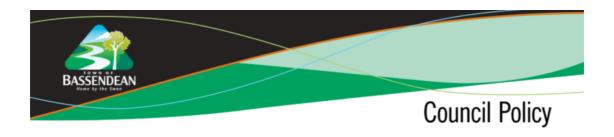
In line with moral rights legislation, the proponent will install a plaque or plate near each artwork, acknowledging the name of the artist, and the name of the person, agency or company who funded the artwork.

5.5 Copyright of Artwork

Once an artwork has been completed and accepted by the Town, copyright will be held jointly by the Town and the artist. In practical terms this means that the Town has the right to reproduce extracts from the design documentation and photographic images of the artwork for non-commercial purposes, such as annual reports, information brochures about the Authority and information brochures about the artwork. The artist will have the right to reproduce extracts from the design documentation or photographic images of the artwork in books or other publications associated with the artist or artwork.

5.6 Fees to Artists

A fee may be paid to artists invited to submit a Request for Proposal (RFP) and this may be credited to the value of the Public Art required under the Policy. The amount will be at the discretion of the proponent and in proportion to the overall artwork budget. The fee will be paid after the proposal had been submitted, deemed to comply with the requirements and the artist has attended their interview.



LOCAL PLANNING POLICY NO. 18 LANDSCAPING WITH LOCAL PLANTS

Background

Landscaping is the term used to describe any vegetation and associated structures such as rockeries, ponds, sleepers and walls. It includes turf and grasses. Landscaping can enhance privacy, act as a natural cooling system for homes, soften the built form, create visual relief and generally improve the aesthetic appeal of new and existing developments. In addition to this, landscaping with local native vegetation can help to protect biodiversity and natural heritage values and contribute to a 'sense of place' for the area.

Landscaping can be a major component of urban renewal programs providing a boost for the local economy by stimulating business. Local plant themes can be incorporated into the landscaping of major roads, shopping centres, public transport routes, civic buildings and new developments.

The replacement of local native vegetation with exotic landscaping, coupled with the associated increase in water and fertiliser use, has an impact on water quality and the health of the Swan-Canning catchment.

1.1 Citation

This policy is adopted by the Town of Bassendean as a Planning Policy pursuant to Section 2.4 of Local Planning Scheme No. 10.

1.2 Purpose

The purpose of this policy is to assist the Town of Bassendean to promote the protection and enhancement of natural resources within the region by prescribing minimum standards for landscaping with local native plants.

1.3 Application of this policy

This policy applies to all applications that require planning consent under the Local Planning Scheme and require landscaping to be provided.

This policy has limited effect to applications based on Council's Energy Efficient Design Policy which encourages deciduous trees and plants to be provided in certain circumstances to aid summer shading.

Website: www.bassendean.gov.au Email: mail@bassendean.wa.gov.au Tel: (08) 9377 8000

1.4 Objectives

The objectives of the Town of Bassendean's 'Landscaping with Local Plants Policy' are to:

- provide development applicants with guidance as to the standard of landscaping expected by Council;
- build pride in the Town of Bassendean's natural environment and foster a 'sense of place' in the community through appropriate landscaping;
- Reduce threats to biodiversity by avoiding plant selection that may lead to future environmental weed problems;
- create visual stimulus and contrast between natural and built features;
- soften the impact of the built form;
- maintain and further promote the amenity and resultant quality of life provided for residents of the Town of Bassendean;
- promote better utilisation of water resources and the development of practices which conserve water; and
- minimise the extent of fertilisers leaching into drains and waterways, and in turn maintaining water quality within the Town.

1.5 Requirements

Landscape plans illustrating all landscaped areas must be prepared ideally by a professional landscape designer or qualified horticulturalist or landscape architect and submitted for Council's approval. Plans must focus on the use of local species and are to be prepared to a scale of not less than 1:200 and should show:

- street frontages, neighbouring buildings and fence lines;
- contours both within the site and for the adjoining verge;
- reticulation details (type and method of operation);
- details of ground treatment for all common areas (for example; grass, paving, ground covers, mulch);
- plant legend, including the number of plants and species name including pot-size of plants at the time of planting; and
- accurate details of existing tree positions, with further detail for trees over 2m in height (species, trunk diameter, drip line and crown height).

Vegetation should be of sufficient size and spacing to meet the objectives of the policy within two years and landscaped areas must be developed in accordance with the approved plan and maintained thereafter for a period of twenty-four months

The following web site is one useful resource that shows local plants that are endemic to the area http://www.apacewa.org.au/nursery.

1.6 Relationship to LPS

This policy complements the Local Planning Scheme No. 10, the Residential Design Codes of Western Australia. This policy should be read in connection with:

- Council's Street Tree Removal and Replacement Policy, Amenity Tree Evaluation Policy which controls trees within the verge area adjoining development sites;
- 2. Council's Verge treatment policy; and
- 3. Council's policy on the Retention of Trees on Development Sites.

Under the Local Planning Scheme No. 10, each application for planning approval is to be accompanied by:

- The existing and proposed ground levels over the whole of the land the subject of the application and the location, height and type of all existing structures, and both the structures and vegetation proposed to be removed; and
- 2. The nature and extent of any open space and landscaping proposed for the site.

Under the Residential Design Codes each application for planning approval is required to be accompanied by an existing site analysis plan showing:

- 1. The position, type and size of any tree exceeding 3m in height; and
- 2. The street verge, including footpaths, street trees, crossovers, power poles and any service such as telephone, gas, water and sewerage in the verge.

Website: www.bassendean.gov.au Email: mail@bassendean.wa.gov.au Tel: (08) 9377 8000



TOWN of BASSENDEAN

LOCAL PLANNING STRATEGY

June 2008

(Updated February 2015)

Prepared by Harley Dykstra

This report has been prepared in accordance with the scope of services described in the contract or agreement between Dykstra Planning and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client and Dykstra Planning accepts no responsibility for its use by other parties.

EXECUTIVE SUMMARY



- 1. The Town of Bassendean Corporate Plan promotes careful planning involving simultaneous consideration of environmental, social and economic impacts, and balancing these three to create a sustainable future.
- 2. The purpose of this Local Planning Strategy is to enable Council and the community to set out the vision for the Town of Bassendean for the next 15 20 years, with particular emphasis on the areas of population and housing, industry and commercial.
- 3. The Town of Bassendean Local Planning Strategy includes a summary and update of information already researched and presented through Local Planning Scheme No. 10. The Local Planning Strategy was initially prepared and adopted simultaneously with the preparation and adoption of Local Planning Scheme No.10 in 2008, and indeed provided the strategic context and focus for the Local Scheme.
- 4. Early in 2011 the Town of Bassendean resolved that it would undertake a partial review of its Local Planning Strategy, with a focus on reviewing the residential densities and the extent of Town Centre Zoning under the Scheme. The 2011 update of the Local Planning Strategy acknowledges the vision of the Western Australian Planning Commission as detailed under Directions 2031, and provides the strategic focus and rationale to drive future changes to the Local Planning Scheme.
- 5. The Town of Bassendean comprises a middle metropolitan suburb positioned adjacent to both the eastern railway line and the Swan River, only 10 kms north east of the Perth Central Area. Whilst primarily a low density residential area, Bassendean boasts numerous local, commercial and public facilities, and accommodates a significant industrial area servicing district and regional needs. Almost the entire municipality is serviced with all the regular infrastructure, although some localised residential street blocks remain unsewered. Road and rail networks in the area are excellent, with the Fremantle to Midland railway passing centrally through the municipality, and Guildford Road and Morley Drive linking Bassendean to the nearby Tonkin Highway.
- 6. Population growth shows a declining trend before 2001, followed by an 8% increase over the subsequent decade. Population is also aging, well above national and state trends, highlighting a limited ability to attract young families to the area. Other significant population trends include declining occupancy rates, increasing sole occupancy homes and a high proportion of single parent households. In response to these trends, and in recognition of the role of Bassendean as a middle metropolitan area, the Local Planning Strategy provides population objectives that seek to:
 - Maintain existing residents within the Bassendean community;
 - Attract young families to reside in Bassendean; and
 - Facilitate gradual population growth that assists the Perth Metropolitan Region in accommodating the level of growth anticipated under Directions 2031.
- 7. The population objectives are promoted through specific strategies namely:
 - Accommodate more housing and population;
 - Focus on infill development;

EXECUTIVE SUMMARY



- Targeted approach to increased density;
- Focus on transport routes; and
- Consolidate Activity Centres.
- 8. Consistent with the key theme of Directions 2031, the vision for Bassendean when considering the future of its residential areas is to achieve:
 - A liveable town that is safe, comfortable, and enjoyable;
 - A prosperous town that builds on its current prosperity;
 - An accessible town where all people meet their needs reasonably close to home;
 - Sustainable growth within the constraints of the environment; and
 - Responsible and efficient management of urban growth and infrastructure.
- 9. The Local Planning Strategy (Summary Map at Figure 1) incorporates a population and housing strategy, and broadly the direction of the Strategy for the various housing precincts is summarised as follows:
 - T.O.D Housing Precinct generally includes all residential land within an 800m walking distance of the three (3) railways stations. The area within 400m is considered suitable for high density housing, where inefficient densities are to be avoided and hence minimum density levels established. The area of residential land between 400m and 800m walking distance from the three (3) railway stations considered suitable for medium density housing, although maximising density is not so critical here. A range of improved servicing and amenity requirements will need to be identified and planned for prior to implementing density changes.
 - North Bassendean Housing Precinct 1 occurs north of the Railway and West of lolanthe Street, generally in the Western part of Eden Hill, where the existing housing quality provides limited redevelopment prospect in the short to medium term. This area is suited as a single residential housing area, although some of the larger or vacant lots may present marginal opportunity for additional housing density.
 - North Bassendean Housing Precinct 2 occurs in a single area north of the railway and east of Ivanhoe Street, where housing stock is generally smaller, older, and ready for redevelopment. The suitability of this precinct for medium density housing is further confirmed by its strategic location to major roads, the railway and the Eden Hill Shopping Centre site.
 - South Bassendean Housing Precinct occurs immediately south of the Town Centre area, extending towards the River Front Precinct and Ashfield. The housing stock within this area comprises a mix of larger homes, older homes of a good standard and character homes on larger lots. The clay soil types in the southern part of the precinct will make development at higher density difficult. Further, the quality of housing confirms the suitability of this area as a single residential housing area in the short to medium term, with marginal density change and no dramatic change to character.

EXECUTIVE SUMMARY



- Ashfield Housing Precinct area occurs between the Ashfield railway station
 T.O.D area and the River Precinct. There is evidence of urban decline in parts
 and the area is suited to incremental redevelopment for a variety of medium
 density housing types. The State Government Ashfield Precinct Plan initiative
 could be contemplated, however, unless all elements of this Plan are given
 commitment, it is important to maintain a difference between land that is within
 the 800m walkable catchment of the Ashfield Railway Station and the land
 beyond this walkable catchment.
- Riverfront Housing Precinct includes riverfront locations where predominantly larger homes on larger lots have been established as long term prospects.
 Several areas along the river front contain quite large lots adjacent to small lot subdivision nodes, and hence may be suited to redevelopment or subdivision, subject to careful planning in the context of future rezoning proposals.
- 10. The Local Planning Strategy incorporates an Industrial Strategy that examines the very diverse mix of business and lots sizes within the industrial zone, located generally north of the railway and westward along Collier Road. The Bassendean industrial area is in a prime location within the regional context and hence it is important to maintain the diverse mix of industries and lot sizes. The Industrial Strategy also addresses the need for a suitable interface between industrial and residential land uses, and the promotion of Collier Road as the central spine road in terms of its traffic function and commercial exposure. The strategy further seeks to facilitate the remediation and development of the vacant industrial land planned as "Tonkin Park Stage 2".
- 11. The Local Planning Strategy incorporates a Commercial Strategy, which in the first instance confirms the Bassendean Town Centre as the primary commercial retail and civic centre of the municipality. The strategy promotes the "Enquiry by Design" initiatives for the "main street" pedestrian retail area adjacent to the railway, whilst also ensuring that the overall importance of the Bassendean Village Shopping Centre is not undermined. The Bassendean Town Centre is divided into three (3) distinct subprecincts, each having a different but complimentary function that contributes to the overall vitality of the town centre. The other commercial areas dispersed beyond the Town Centre are to be contained as local centres only.
- 12. The Town of Bassendean Local Planning Strategy is to be used as a planning tool to assist Council, State Government and the community in their respective roles in land use decision making. Many of the Local Planning Strategy recommendations will be implemented progressively through the Local Planning Scheme and associated policies. The Local Planning Strategy represents an evolving strategy that will be subject to regular review, thereby ensuring that planning keeps ahead of changing land use demand, rather than simply reacting in hindsight.

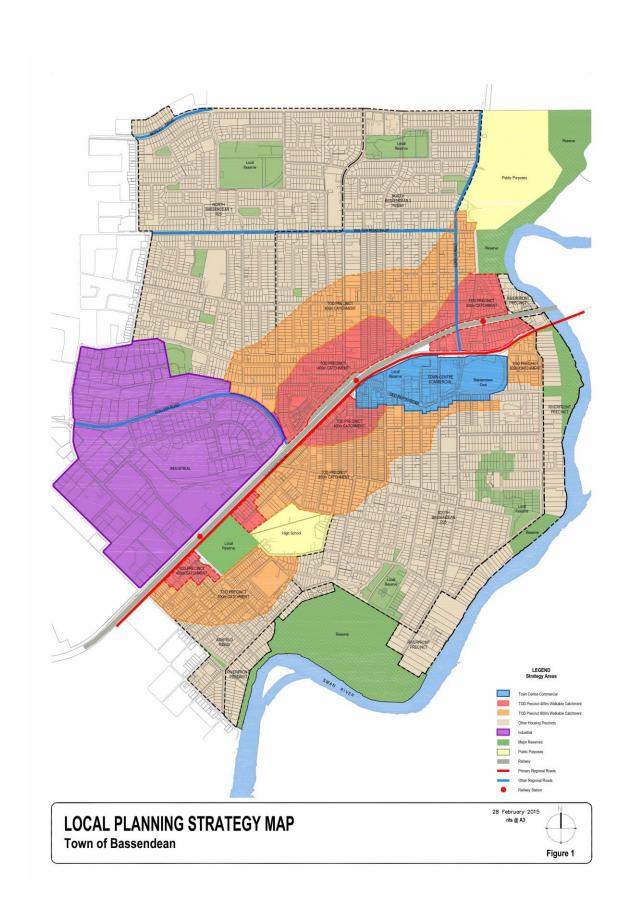


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1.1 Requirement for Local Planning Strategy

Following the gazettal of the amended Town Planning Regulations 1967 on the 22 October 1999, to incorporate the Model Scheme Text, the legal and administrative provisions of future Local Planning Schemes were required to accord with the Model Scheme Text. The Model Scheme Text introduced a more strategic planning focus by requiring the preparation of a Local Planning Strategy to drive the outcomes through the Local Planning Scheme. The requirement for a Local Planning Strategy in many ways supplements and replaces the traditional "Scheme Report".

In 2008 the Town of Bassendean decided to prepare a Local Planning Strategy to assist it and the community in setting out the strategic direction for the sustainable provision of Housing, Commercial, and Industrial land development opportunities. The Town of Bassendean Local Planning Strategy was prepared as a summary and supplementary document accompanying and giving direction to, Local Planning Scheme No. 10 and the Scheme Report. Much of the information and strategic direction provided within the Town Bassendean Local Planning Strategy was derived from the data that had been researched and presented within the Scheme Report accompanying Local Planning Scheme No. 10.

Early in 2011 the Town of Bassendean resolved that it would undertake a partial review of its Local Planning Scheme No.10, with a focus on reviewing the residential densities and the extent of Town Centre Zoning under the Scheme. The 2011 update of the Local Planning Strategy acknowledges the vision of the Western Australian Planning Commission as detailed under Directions 2031, and provides the strategic focus and rationale to drive future changes to the Local Planning Scheme.

1.2 What is a Local Planning Strategy?

The Town of Bassendean Local Planning Strategy is a strategic planning tool that enables the Council and community to set out its vision for the municipality, and to establish short, medium and longer term directions for sustainable land use and development.

The Town of Bassendean Local Planning Strategy establishes a municipal profile focusing essentially on the areas of environment, infrastructure, population and housing, industry and commercial land use and development. The visions and outcomes promoted by the Local Planning Strategy essentially focus on three (3) key areas namely:

- Population and Housing;
- Industry; and
- Commercial

The Town of Bassendean Local Planning Strategy is in the first instance an expression of Council and the community vision for the Town of Bassendean over the next 15 – 20 years. This longer term planning horizon allows Council and the community to strive for the health, diversity and productivity of both current and future generations.

As a public document, the Town of Bassendean Planning Strategy provides opportunity for government agencies and the community to also have input into strategic planning for the locality. The vision and planning philosophy outlined within the Local Planning Strategy continues to form the basis for evolving land use, zoning, subdivision and development throughout the municipality. This vision is to be implemented over time through the statutory planning system, and may include amendments to Council's Local Planning Scheme from time to time.

The Town of Bassendean Local Planning Strategy is incorporated into the Local Planning Scheme by reference, and as such has the status of a Local Planning Policy under the Scheme without actually forming part of the Scheme.

Changes to the Local Planning Strategy do not require formal amendments to the Scheme but rather the Scheme Text sets out procedures for review and modification of the Local Planning Strategy.



1.3 Prior to Local Planning Scheme No.10.

The Town of Bassendean Local Planning Scheme No. 3 was gazetted on 18 March 1983. Council examined the operation of the Scheme by way of a report to the Minister in 1992 and consequently in January 1993, the Minister gave approval to review Local Planning Scheme No. 3.

The development of a new Local Planning Scheme No. 10 evolved over a number of years and initially preceded the promulgation of the Model Scheme Text. Subsequently, one of the key changes to the new Scheme included a reduction in the number of zones from 17 zones down to 5 zones. The Town Centre Zone, encompassing the Bassendean Main Street from Bassendean Village Shopping Centre to the west end of Old Perth Road, had been the subject of an "Enquiry by Design" workshop coordinated by the Department for Planning and Infrastructure in conjunction with the Town of Bassendean and the Western Australian Government Railways. The outcomes of the "Enquiry by Design" workshop (May 2002) were formally adopted by Council for inclusion into the Local Planning Strategy and new Local Planning Scheme No. 10

1.4 Planning Initiatives since Adoption of Local Planning Scheme No. 10

Directions 2031 represents a Department of Planning document, which is a framework for the detailed planning and delivery of housing, infrastructure and services needed to accommodate anticipated growth of the Perth Metropolitan Region. Directions 2031 superscedes Network City, Metro Plan and other Metropolitan Strategies.

The Perth Metropolitan area is anticipated to accommodate 2.2 million people by 2031, requiring an additional 328,000 dwellings, and ultimately 3.5 million people by 2056. The Metropolitan Plan under Directions 2031 establishes a network of activity centres, movement systems, and recreation areas. The focus is on key transport routes, fewer centres and a targeted approach to higher density residential rather than a "blanket" approach. By 2031, 47% of new dwellings are envisaged to

be undertaken by infill development, and new urban expansion areas are proposed to achieve a minimum of 15 homes per hectare (gross).

The Central Metropolitan Perth Sub-Regional Strategy includes the Inner Metropolitan areas from Stirling in the north through to Melville in the south, Bassendean in the north – east and Canning in the south - east. This Inner Metropolitan area is targeted to accommodate an additional 205,000 people in 121,000 homes by 2031. Bassendean is shown as requiring 3000 new dwellings, with 2300 of these contemplated in Ashfield.

The Activities Centres Policy for Perth and Peel has also been prepared under the Directions 2031 Planning Initiative, and it replaces the Metropolitan Centres Policy which focused primarily on retailing activities. The Activity Centres envisaged under this current policy are accessible and vibrant nodes of economic and social activity that include commercial, health, education, entertainment, culture, recreation and community facilities. Higher density housing is to be incorporated both within and adjacent to these centres

The Ashfield Precinct Plan (January 2010) is a non – binding document prepared to give both of the adjoining Local Authorities of Bassendean and Bayswater and the WAPC a common basis for future planning decisions. Directions 2031 includes Ashfield as a potential Activity Centre due to its strategic location, areas of under – utilised land, and well located industrial land.

Key elements of the Ashfield Station Precinct Plan, as it affects Bassendean, include the following:-

- Possible relocation of Ashfield Train Station;
- Downgrading of Guildford Road in parts, and realignment of Guildford Road in other parts;
- New road connection across the railway line;
- Pearson Street and Vincent Street to become a new main street commercial area; and



 Consolidate, upgrade and expand Colstoun Road Commercial Precinct, along with increasing residential densities focussing on this area and the Ashfield Reserve.

Other planning studies have been prepared as non – binding precinct plans for the Bassendean Oval Precinct, and for the Eden Hill Shopping Precinct.

Council acknowledges that its strategic planning is constantly evolving in response to dynamic issues and changing philosophies and policies that impact on the municipality. Hence, it is now timely to review and consolidate the various local and regional planning initiatives and community aspirations undertaken to date, and crystallise a vision that is able to be progressively implemented, and in time may also be reviewed to respond to changing circumstances.

1.5 Local Planning Scheme No.10

Local Planning Scheme No.10 has evolved over a number of years and was adopted in May 2008 following an extensive period of consultation with the local community and other stakeholders various including government agencies. Local Planning Scheme No.10 is based largely on the Model Scheme Text, and in terms of the residential densities and zonings, these are based predominantly upon the Residential Precinct analysis and directions provided in the Town of Bassendean Local Planning Strategy. Currently under Local Planning Scheme No.10, the residential housing densities range from Residential R5 along the river foreshore precincts, through to Residential R17.5 and Residential R20 in the single residential housing areas. A limited number of precincts have been designated with density codings of R20/30 or R20/40 to reflect the strategic location of such housing areas or the quality of housing stock that is in need of redevelopment.

Where residential housing densities have a split coding, (eg. R20/40), the Local Planning Scheme Provisions allow for development and subdivision at the higher density coding where: the lot is served with a wide road frontage suitable for two homes to address the street; the

proposal complies with Planning Policy; heritage objectives are considered; water sensitive urban design is incorporated; and existing streetscapes are preserved. Further, in the single residential housing areas, the Scheme provides for a maximum density of R25 on corner lots, provided the new dwellings address the streets.

1.6 Relationship to State, Regional and Local Planning

of Bassendean located The Town is approximately 10 km north east of the Perth Central Area, and in the context of the Perth Metropolitan Region comprises a middle suburb positioned along the eastern railway line and adjacent to the Swan River with convenient access to the Perth Central Area. metropolitan context, Bassendean comprises predominantly urban development with regional parks and recreation areas along the Swan River Foreshore and a regional industrial area positioned strategically adjacent to the eastern railway line in the western most part of the municipality.

The State Planning Strategy 2050 is the Government Strategic Planning response to the challenges Western Australia is likely to face during a period of sustained growth. contemplates a future in which high standards of living, improved public health and an excellent quality of life are enjoyed by present and future generations of Western Australians. The Strategy proposes that diversity, liveability, collectiveness and collaboration must be central to the vision of sustained growth and prosperity. It envisages that by 2050 Western Australia will double its current population and will have a diverse range of well-connected and vibrant communities and regional centres that are resilient, active and respectful of cultural difference.

The planning implications for the Town of Bassendean from the State Planning Strategy 2050 are very broad and general, and are shared with all other Local Governments in the metropolitan region. This Local Planning Strategy contains the following outcomes that are designed to meet the requirements of the State Planning Strategy 2050:



- Making land available for future development;
- Encouraging affordable housing;
- Encouraging a model shift towards public transport and cycling through the provision of high density and Mixed Use precincts close to train stations;
- Encouraging built forms that continue to be energy efficient;
- Encouraging housing diversity through a range of housing densities; and
- Protection of the natural environment and areas of high conservation value.

A range of regional planning initiatives and policies, which provide the context for the preparation for the Bassendean Local Planning Strategy, influence the study area.

The State Planning Policy No.1 – State Planning Framework Policy, provides the proper framework for the various policies and strategies under the following hierarchy:

- State Planning Policies
 - Residential Design Codes;
 - State Industrial Buffer Policy;
 - Activity Centres for Perth and Peel;
- Regional Strategies Directions 2031 and Beyond
- Sub-Regional strategies-Central Metropolitan Perth Sub Regional Strategy (Draft)
- Strategic Policies
 - Regional Residential Density Guidelines for Perth Metropolitan Region (1994);
 - Government Sewerage Policy, Perth Metropolitan Region (1995);
 - Liveable Neighbourhoods;
 - Bush Forever.
- Operation Policies
 - DC Policy 1.6 Planning to support transit use and transit oriented development;
 - DC Policy 4.1 Industrial Subdivision.

1.7 Regional Planning Objectives

In accordance with the State Planning Framework Policy of the Western Australian Planning Commission, Directions 2031 is the principal Regional Strategy that provides the major policy framework for land use and development of the Perth Metropolitan Region. Directions 2031 represents a Department of Planning document, which is a framework for the detailed planning and delivery of housing, infrastructure and services needed to accommodate anticipated growth of the Perth Metropolitan Region. Directions 2031 superscedes Network City, Metro Plan and other Metropolitan Strategies.

The Vision Statement for Directions 2031 is that:-

By 2031 Perth and people will have created a world class liveable city, green, vibrant, more compact and accessible with a unique sense of place.

The Perth Metropolitan area is anticipated to accommodate 2.2 million people by 2031, requiring an additional 328,000 dwellings, and ultimately 3.5 million people by 2056. The Metropolitan Plan under Directions 2031 establishes a network of activity centres, movement systems, and recreation areas. The focus is on key transport routes, fewer centres and a targeted approach to higher density residential rather than a "blanket" approach. By 2031, 47% of new dwellings are envisaged to be undertaken by infill development, and new urban expansion areas are proposed to achieve a minimum of 15 homes per hectare (gross).

The abovementioned Vision Statement and supporting strategies outlining how this vision will be achieved can be applied specifically to Bassendean in terms of the following key strategic elements:-

- Accommodate more housing and population;
- Focus on infill development;
- Targeted approach to increased density;
- Focus on transport routes; and
- Consolidate Activity Centres.

Other more specific plans and policy statements affect the planning of the Town of Bassendean from a regional level, and a number of these are summarised as follows:

1. <u>Central Metropolitan Perth Sub Regional</u>
<u>Strategy (Draft)</u> - This particular Strategy includes the Inner Metropolitan areas from



Stirling in the north through to Melville in the south, Bassendean in the north-east and Canning in the south-east. This inner metropolitan area is targeted to accommodate an additional 205,000 people within 121,000 homes by 2031. Bassendean is shown as requiring 3000 new dwellings, with 2300 of these to be provided in Ashfield.

- 2. DC Policy 1.6 Planning to support transit use and transit oriented development; focuses on land within an 800m radius around railway stations and seeks to optimise land use within this area by promoting medium to high density urban development, with a presumption against low intensity land uses (eg low density residential).
- 3. Activities Centres Policy for Perth and Peel has also been prepared under the Directions 2031 planning initiative, and it replaces the Metropolitan Centres Policy which was focussed primarily on retailing activities. Under the Activities Centres Policy, activity centres are proposed to:-
- a) Evolve into more accessible and vibrant nodes of economic and social activity, enabling the community to work, shop and play without travelling too far;
- b) Include commercial, health, education, entertainment, cultural, recreation and community facilities, and higher density housing;
- Promote land uses that generate activity beyond normal business hours, and discourage lower intensity uses such as showrooms; and
- d) Incorporate higher densities of housing both within and adjacent to these centres.

Under the hierarchy of activity centres, Perth is identified as the capital city, Midland as the strategic metropolitan centre, with Ashfield and Bassendean both district centres.

For district centres the focus is on daily and weekly needs of residents, with a greater community focus and a focal point for a bus or train network. A district centre is to accommodate department stores, supermarkets, convenience goods, some speciality shops, offices and professional services. District centres should cater for

approximately 20,000 – 50,000 people, with a 400 walkable catchment and a desirable gross residential density of 20 – 30 homes per hectare. The urban form within district centres should incorporate a network of streets and public spaces, and also include:-

- A clear structure of small walkable streetblocks for accessibility;
- Buildings addressing streets and public spaces;
- A mix of uses along streets to maximise pedestrian flows;
- Zone of large scale retail and car parks to maintain active building frontages to streets; and
- Attractive and well located civic spaces that are integrated with the activity centre uses.
- 4. <u>Bush Forever</u>; which identifies the Ashfield Flats and Bennett Brook as important area for conservation (ie, sites 214 and 305 respectively). These areas have already been reserved as Parks and Recreation under the Metropolitan Region Scheme, and will be subject to future plans for its conservation and management.
- 5. <u>Liveable Neighbourhoods</u>; which embraces the following key objectives and principles in terms of residential and urban development:
- promotes walkable neighbourhoods with good access to services;
- ii) seeks to foster a sense of community;
- iii) ensures an active street and land use interface;
- iv) seeks to increase population accessibility to public transport;
- v) Promotes mixed use developments;
- vi) Promotes a variety of housing types.

The Town of Bassendean Local Planning Strategy provides a critical link between the establishment of the above mentioned regional objectives, and the local planning that is necessary to provide and manage the actual implementation of these objectives.

At the local level, the Town of Bassendean has developed a Corporate Plan in order to promote a strategic approach to the sustainable management of the Town's resources. The Corporate Vision is for the Town of Bassendean



to thrive as a cohesive, vibrant and diverse community. The Corporate Plan promotes careful planning involving simultaneous consideration of environmental, social and economic impacts, and balancing these three to create a sustainable future.

The Town of Bassendean Local Planning Strategy provides Council with the framework to set out its vision, and progressively implement this vision through the Local Planning Scheme, rezoning proposals, subdivision assessments, and development control mechanisms.

The Local Planning Strategy provides Council with a planning tool to assist in the day to day decision making and will also inform the community of Council's philosophy and direction on localised land use and development proposals. In many ways, the Town of Bassendean Local Planning Strategy underpins the direction and planning controls of the Local Planning Scheme and associated policies.

1.8 Methodology

The Town of Bassendean Local Planning Strategy has been prepared based upon an evaluation of numerous influences including:

- · Regional planning policies and initiatives;
- Local planning policies and initiatives;
- · Population trends;
- Survey of existing land uses and development quality;
- Identification of development constraints (eg. servicing, flooding etc); and
- Community participation in local planning initiatives.

The Local Planning Strategy has been developed on the basis of three (3) key land use outcomes, namely:

1. Population and Housing

This required analysis of population trends, particularly in terms of numbers, age and occupancy rate. The impact of these trends in the medium to long term was measured against the current housing stock and current residential redevelopment trends. Whilst it is necessary for housing to respond to housing trends, population trends can to some extent be redirected based upon housing strategies.

2. Industry

This involved assessment industry types and distribution trends throughout the Bassendean industrial area. Close inspection of the industrial area sought to identify opportunities and constraints in terms of industry type and its interface with adjacent non industrial land uses and strategic road systems. The importance of retaining the true industrial function of the area was examined, and the specific opportunities in respect of the existing vacant industrial land was also explored.

3. Commercial

Using the "Enquiry by Design" initiative and the Ashfield Precinct Plan as a source documents, the existing commercial hierarchy of the study area was examined and the different functions of the various town centre components was identified. The development of strategies obviously also held regard for Council's acceptance of the staged implementation of various aspects of the "Enquiry by Design".

For each of the above key areas, the Local Planning Strategy provides an overview of the current situation and identifies the key issues demanding a response. Based on the various identified issues, objectives are proposed. These objectives provide direction for the establishment of specific strategies and actions.

The strategies are sufficiently specific to enable actions to be carried out in terms of the Local Planning Scheme, preparation of Local Planning Policies or Structure Plans, or indeed actual implementation through Council's works program.



2.1 State and Regional Context

The Town of Bassendean comprises a middle metropolitan suburb of some eleven (11) square kilometres, and is positioned approximately ten (10) kilometres north east of the Perth Central Area (Figure 2 refers). In addition to being strategically located in proximity to major district and regional employment centres, education facilities, institutions and recreational areas, Bassendean boasts numerous local commercial and public facilities. Whilst primarily residential area, Bassendean accommodates a significant amount of industrial land servicing local, district and regional demands.

Other regionally significant features within the Town of Bassendean include the eastern metropolitan railway link and the Swan River.

2.2 Environment

Bassendean is located some 20 kilometres from the coast and its eastern boundary and portions of its southern boundary adjoin the Swan River. Several significant areas of land adjacent to the Swan River represent good agricultural soils that are low lying and hence subject to inundation. In other parts, the margin of river front land is well elevated and hence suited for development. Further back from the river the more elevated land is characterised by poorer quality soils and dunes with interdune swales that are potentially waterlogged and swampy in areas.

Past industrial activity has resulted in contamination and leaching issues within parts of the industrial area.

Whilst in proximity to Perth Airport, Bassendean is not affected by noise contours that would constrain or prohibit development.

There are a number of sites within the study area that are recorded as having Aboriginal and cultural heritage significance.

2.3 Infrastructure

Reticulated water, power, gas, drainage and telecommunication infrastructures are available to all areas within the municipality. Much of the municipality is also serviced with reticulated sewerage, although a large part of the industrial area and several localised residential street blocks remain unsewered. Due to the proximity of sewer and the government sewer infill programme, the absence of sewer in some areas places localised constraints on development.

The Fremantle to Midland Railway passes through the middle of the Town of Bassendean, providing commuter links to Perth and Midland, whilst also servicing the Bassendean industrial area with small spur lines.

Guildford Road runs parallel to the railway line, and represents the major traffic thoroughfare, although Morley Drive at the northern town boundary also performs a primary distributor road function. Tonkin Highway is aligned marginally west of the municipal boundary, with strong linkages into the areas. The existing road hierarchy is very defined and most areas have a very traditional grid pattern of roads.

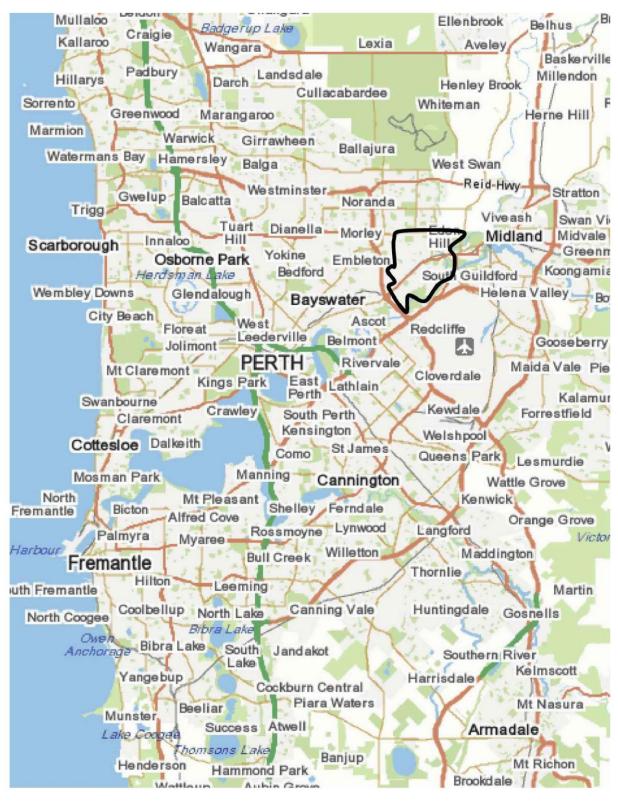
In terms of infrastructure capacity and possible upgrades to cater for future development demands, consultation with relevant service providers has revealed the following:-

- In terms of electricity distribution, Western Power has acquired a site in the north-west quadrant of the intersection of Guildford Road and Tonkin Highway (Bayswater) to secure a zone substation. At this time, Western Power does not have specific plans to establish a zone substation on the site (or on another site in the general vicinity). Western Power will continue to monitor and forecast load requirements for the area, and will take actions as appropriate to ensure sufficient supply capacity.
- The sewerage system operated by Water Corporation may require some upgrading for the Bassendean Sewer District in the long term if dwelling growth exceeds about 6500 dwellings in the suburb about 2500 Bassendean (i.e. more The Water dwellings than existing). Corporation will monitor the existing water supply system and make adjustments as necessary to accommodate demand.



- The gas distribution network operated by WA Natural Gas may need strengthening with the new installation of two Pressure Regulating Stations (PRS) subject to suitable sites being identified and available. In addition, the pressure of gas supply in some portions of the study area may need to be increased.
- Main Roads WA recommends a traffic impact assessment to be undertaken to properly assess the capacity and adequacy of the road network in the study area. Further, Main Roads WA also recommends undertaking a comprehensive study and ultimate design concept for Guildford Road.
- The Public Transport Authority will adjust its operations in line with increases in demand for public transport services, subject to funding. Additional railcar capacity may be provided if a rail extension from Bayswater to the Perth Airport is established.
- The Department of Education and Training advises that existing high schools servicing the Municipal area have significant capacity to accommodate additional students generated by additional dwellings planned for the area. The Cyril Jackson School Facility could be re–activated as a high school if required. Primary schools within the area have very limited capacity to accommodate more students, and hence this constrain requires further investigation and resolution.





LOCATION MAP
Town of Bassendean

Town of Bassendean



2.4 Population

The 1996, 2001, and 2011 Australian Bureau of Statistics (ABS) census data indicates a residential population for Bassendean of 13,893; 13,305; and 14404 respectively. This represents a historic declining population with an 8% increase in population over the last 10 years.

Western Australia Tomorrow- Population Report No7, 2006 to 2026 uses a series of simulations to estimate population growth over the period. Band A based on the lowest growth indicates a 2026 population of 14,500, Band E based on the highest growth indicates a population of 17,400 at 2026, whilst the median growth is estimated at 15,900.

The age structure of the Town of Bassendean population in 2011 (refer to table 1), indicates an ageing population that is in keeping with national and regional trends. Similar to the results in the 2001 ABS Census, again in 2011 the 35-44 age group comprised the highest percentage of all the age groups in the Municipality.

TABLE 1 AGE/SEX CATEGORIES – TOWN OF BASSENDEAN (2011ABS Census)

Age groups:	Male	Female	Total	%
0-4 years	526	436	962	6.68%
5-14 years	809	787	1,596	11.08%
15-19 years	449	396	845	5.87%
20-24 years	542	431	973	6.76%
25-34 years	997	1,006	2,003	13.91%
35-44 years	1,096	1,079	2,175	15.10%
45-54 years	981	1,062	2,043	14.18%
55-64 years	892	865	1,757	12.20%
65-74 years	461	554	1,015	7.05%
75-84 years	320	436	756	5.25%
85 years and over	<u>101</u>	<u>178</u>	<u>279</u>	1.94%
<u>Total</u>	<u>7,174</u>	7,230	14,404	100.00%

2.5 Housing

The predominant housing stock within the municipality comprises middle aged to older single residential family homes, with the areas of middle aged homes being predominantly of a good quality having little prospect of redevelopment. The older homes comprise

two distinct areas, namely well maintained homes with limited short term redevelopment potential, and the older homes of a lower quality with interspersed evidence of redevelopment potential occurring in the short term.

In addition to the limited number of medium density grouped housing developments strategically positioned throughout the municipality's residential areas, the two remaining key housing types include the older Ashfield housing area and its ongoing redevelopment, and the larger river front properties with predominantly substantial homes where there is little prospect for redevelopment.

A more detailed assessment and analysis of the various housing types and precincts is provided within the Population and Housing Strategy, under Section 3.0 of this document.

2.6 Industry

The Bassendean Industrial Area is positioned generally between the railway line and Collier Road, forming a triangular shaped area of approximately 135 hectares that extends further west up to the Tonkin Highway within the adjoining locality of Bayswater. This industrial land is also zoned for industry under the local and regional planning Schemes. The southern part of this industrial precinct, adjacent to the railway line, comprises larger older industries and also includes the Railway Museum. The area immediately south of Collier Road represents more recent industrial development accommodating newer industries and service industries. The industrial area north of Collier Road, at the interface to the urban areas, comprises more light and service industrial developments.

The Bassendean industrial area is very accessible both to the local community and to the broader region due to key access points onto Tonkin Highway, Collier Road and Guildford Road, hence the industry types reflect local and regional catchments.



2.7 Commercial

The Bassendean Town Centre is characterised by retail, commercial and civic uses extending along some 800 metres of Old Perth Road in three quite distinct precincts (refer to *Figure 4*), namely:

- Traditional "Main Street" pedestrian based commercial/retail at the interface of Old Perth Road with Guildford Road and the railway station;
- "Drive-by" commercial with interspersed retail and civic uses (including a school and aged person's accommodation) between Wilson and Whitfield Streets; and
- Car based retail in the Bassendean Village Shopping Centre at the corner of Old Perth Road and West Road.

It is noteworthy that the town centre commercial precinct along Old Perth Road is also interspersed with various civic and community buildings and infrastructure.

Other smaller commercial nodes that occur outside the town centre include:

- Eden Hill Shopping Centre along Morley Drive (currently not operating);
- Ida Street Local Shops;
- · Small row of shops in Walter Road; and
- Ashfield local shops.



3.1 Population

3.1.1 Population Overview

Statistics show that while the population of Bassendean has been in decline for a number of years, the population of the Town has increased by 8% over the last 10 years. The population is likely to increase by a further 1500 – 3000 persons by 2026 dependent on the rate of growth. This population growth is likely to exceed these estimates if 3000 new dwellings are provided in the Town by 2031 as outlined in the Sub Regional Strategy for Central Metropolitan Perth. The median population age is 38 years for Bassendean, in contrast to Perth at 36 years and nationally Australia at 37 years. Bassendean therefore represents an older established area with an ageing population.

The occupancy rate as at 2011 was 2.19 persons per dwelling and declining. On the basis of 2011 ABS data it is apparent that almost 29% of households have sole occupancy, compared with a national average of almost 24%. Sole occupancy households have increased by 5% between 1991 and 2011 for Bassendean.

3.1.2 Issues

- Statistics, population trends and forecasts indicate a relatively static population growth with very limited long term growth anticipated.
- Overall, Bassendean has an aging population by comparison with adjoining localities, where new developing areas are able to attract population across the age spectrum, including young families. In time this current ageing population trend will bring about a change to housing and servicing requirements.
- Consistent with Metropolitan trends, Bassendean is experiencing declining home occupancy rates and a relatively high proportion of households as sole persons. Declining occupancy rates contribute to the overall static population growth trend and the increased demand for different housing types (eg. smaller lots, housing size).
- Bassendean experiences a relatively high proportion of single parent households, with

a consequential demand for different housing types and community facilities.

3.1.3 Objectives

In response to the above mentioned local issues, and the regional aims conveyed through policies under the State Planning Framework Policy, the following specific objectives have been developed:

- To maintain life long or long-time residents as an integral component of the Bassendean community.
- To continue and increase the attraction for young families to reside and raise their families in the Bassendean community.
- To recognise the increasingly high level of sole occupancy households, relative to state and national trends and ensure suitable housing choice to accommodate this trend.
- To recognise the role of Bassendean as a middle metropolitan area that is well placed to contribute meaningfully to sustainable urban development for the Perth Region, and therefore facilitate the planned gradual increase in population growth in a manner that provides net environmental, social and economic benefit.
- Continue to provide for family accommodation through the retention of appropriate housing stock within the single and residential areas, examine opportunities for limited single subdivisions.

3.1.4 Strategies - Population

- Maintain an ongoing respect for the urban structure, character and facilities that attracted existing residents to Bassendean in the first instance.
- Identify suitable existing residential areas for infill or redevelopment and make provision for housing types that respond to the demands of an ageing population and declining occupancy rates.
- Continue to provide for family accommodation through the retention of appropriate housing stock within the single residential areas, and examine



opportunities for limited single lot subdivisions.

3.2 Local Housing

3.2.1 Overview

The 2008 Local Planning Strategy broadly identified housing precincts based upon housing type, age, quality, street scape, lot size and prospect of redevelopment. Although sub precincts were also identified at that time, essentially the housing areas of Bassendean can still be characterised in 5 (five) precincts, as illustrated on the plan at **Figure 3** and described below:

- 1) North Bassendean 1 comprising predominately larger homes on good size single residential lots. The homes are generally not more than 20 to 30 years old, and there is evidence of some upgrading and refurbishment to existing homes;
- 2) North Bassendean 2 where in general the existing housing stock is smaller, older and ready for redevelopment;
- 3) South Bassendean comprising a mix of larger homes, older homes of a good standard and character homes on relatively good size single residential lots;
- 4) Ashfield the majority of housing comprises middle aged homes of an average quality. Some redevelopment has already occurred albeit to a relatively low density and standard. In some parts the housing is relatively new and of reasonable quality, therefore making redevelopment of these homes a longer term option; and
- 5) River Front which currently comprises larger river front lots of approximately 2000 m², some with substantial homes.

Whilst each precinct has been selected on the basis of similar housing characteristics, there will undoubtedly be properties dispersed through each precinct that do not necessarily have characteristics identical to those which identify the precinct (eg. ad hoc grouped housing sites, character home in new housing area, etc).

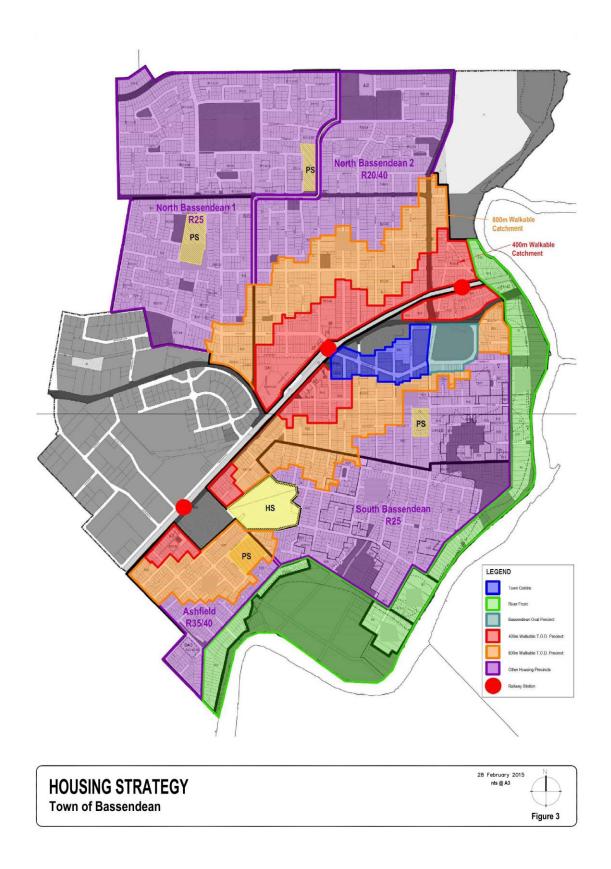
In addition to the five (5) housing precincts detailed above, a Transport Orientated Development Precinct is also depicted on Figure 2.

An overview for each of the housing precincts and the relevant issues, objectives and strategies is detailed in further sub-sections of this document.

3.2.2 Issues

- The housing areas within the Town of Bassendean are generally quite distinct, with quite identifiable precincts reflecting similar lot size and housing age, type and quality.
- Whilst the Town of Bassendean housing areas are predominantly single residential, there is also significant interspersion of medium density development and grouped housing. Other middle metropolitan suburbs have concluded that too much medium density development within single residential areas is a concern, in that:
 - a) The single residential character is incrementally undermined;
 - b) It creates uncertainty and potential apprehension for the various residents (eq. Families); and
 - c) Establishing a dispersal ratio for grouped housing is difficult to administer and raises questions about equity (eg. first in, first served).
- Given the population trends for Bassendean. particularly the aging population and declining occupancy rates, marginally increasing residential densities will broaden housing choice but in itself is unlikely to result in a significant increase population. However, major increases in density (eg. R50 and above) is likely to facilitate increased population growth.







- Many of the single residential housing areas of Bassendean maintain lot sizes and housing types suited to families. Other middle metropolitan suburbs have concluded that to allow for families the residential density should not exceed the maximum under the low density category under the R Codes. This creates certainty and provides for community interaction of persons with similar lifestyles.
- Whilst in general most of the housing precincts, including some of the older housing areas, comprise well maintained and quality homes, some distinct areas are showing increasing signs of urban decline. Unless these areas are provided with redevelopment incentives, this urban decline will continue to affect entire street blocks and housing precincts.
- The Municipal Inventory for the Town of Bassendean identifies a number of buildings throughout the housing areas, with three (3) of these also being included on the Heritage List. The review of the Municipal Inventory and Heritage List may identify additional buildings, places or even residential streetscapes.
- The structure of Bassendean's housing areas is based largely upon motor cars as a primary means of transport. Opportunity therefore exists to further promote use of public transport, cycleways and pedestrian networks within and beyond the housing areas. The idea of Transit Oriented Development (T.O.D), as promoted by the Western Australian Planning Commission under Directions 2031 and other supporting policies, offers a good model for pursuing higher density housing development in proximity to Bassendean's three (3) railway stations.

3.2.3 Objectives

- To ensure that the various housing areas continue to be recognised for their differences and unique qualities, and be maintained as generally homogeneous and integrated precincts.
- To ensure that areas identified for single housing in medium to long term are not undermined by too much medium density housing.

- To ensure the ongoing provision of a variety of housing types and densities in a manner that responds to the specific community needs and equally, provides for population growth (eg. families).
- To respond to the potential threat of urban decline on a broad precinct basis.
- To ensure that the heritage values of Bassendean's housing areas, as identified within the Municipal Inventory and Heritage List are recorded, promoted, maintained or protected.
- To promote increased use of public transport, cycleways and pedestrian networks within and beyond the housing areas.
- To promote Transit Orientated Development (T.O.D) in proximity to the three (3) railway stations, as a means to achieve increased housing stock and variety and a more sustainable and vibrant community.
- To address issues of affordable housing in accordance with the State Affordable Housing Strategy 2010 – 2020.

3.2.4 Strategies - Local Housing

- Following examination of the various housing precincts and relevant issues within each precinct, develop, maintain and implement specific objectives and strategies for each identified housing precinct.
- In housing precincts where the housing type, age, quality, streetscape and lot size do not offer a redevelopment prospect for the medium to long term, utilise the Local Planning Scheme and associated policies to protect such precincts from being undermined by the over encroachment of medium density housing.
- In specific areas, which based on housing type, age and or proximity to public transport and other facilities may be suited to redevelopment at medium and/or high densities, make provision for housing choice that responds to population trends and community needs.
- In areas and precincts where urban decline is increasingly evident, establish various strategies and policies to encourage the redevelopment and improvement of quality within these housing areas.



- Review and maintain the currency of the Town of Bassendean Municipal Inventory and make provision in Local Planning Scheme No. 10 for the Heritage List and possible Heritage Precincts. Where appropriate, develop specific policies to address heritage values in the context of increased housing densities and redevelopment.
- Introduce a Transit Orientated Development (TOD) Precinct within a 400m and 800 m walkable catchment from the three (3) railway stations, and undertake more comprehensive planning for higher density housing in this area.
- Undertake a local open space study that examines the opportunities and adequacy of pedestrian based open space and recreation within the housing areas, including a review of the open space land that is not currently reserved under the Local Planning Scheme.
- Establish Local Planning Policies and provisions that make provision for local corner stores within walkable catchments, and home based businesses in residential area.

3.3 Transit Oriented Development (TOD) Housing Precinct

3.3.1 Overview

The vision of Directions 2031 is for Perth to be a world class liveable city, green, vibrant, more compact and accessible, with a unique sense of place. This vision also applies to Bassendean as an inner suburb of Perth. Directions 2031 sees Bassendean accommodating 3000 additional dwellings over the next 20 years. In addition to establishing a network of activity centres, movement systems and recreation areas, the focus of Directions 2031 is on key transport routes, fewer centres and a targeted approach to higher density residential rather than a "blanket" approach.

3.3.2 Issues

Bassendean is well serviced with three (3) railway stations equally spaced along a single central railway network. These stations each coincide with an activity area, namely; Bassendean Oval (Swan Districts Club); Bassendean Town Centre; and Bassendean Industrial Area.

- Strategically it makes good planning sense to target the walkable catchments of each of the railway stations for medium and high density housing development. Confining the majority of population growth and development to these catchments will improve the vibrancy of the adjoining activity areas, facilitate improved public use and amenity associated with the railway network, and protect the character of other residential areas of Bassendean.
- The walkable catchments naturally do not have boundaries coinciding neatly with street block boundaries. Decisions will need to be made regarding defining logical boundaries for the TOD precincts.
- To date the maximum residential density considered for residential land within Bassendean has been R100, and this was part of the Ashfield Precinct Plan prepared primarily as a state government initiative. Such a density was considered an appropriate maximum adjacent to the railway station.
- Within the 400m walkable catchment it is important to ensure target densities are achieved and inefficient densities are avoided. The use of a split residential density coding could be implemented, where the lower density code is established as a minimum density requirement. Such a mechanism would not take away any landowners existing right of developing a single house on a single lot.
- For the 800m walkable catchment (i.e. 400m - 800m from railway stations) it is not considered as critical that target densities are achieved. A medium density housing code, without stipulating a minimum density, would still achieve a variety of housing types and densities. It is acknowledged that a minimum density requirement within the 400m walkable catchment may limit the level redevelopment within this area in the short term, due to the feasibility of land assembly, building, and servicing. Therefore the medium density coding with no minimum requirement for the 400m - 800m catchment is considered appropriate to stimulate short term redevelopment.
- Within the 400m and 800m walkable catchments an assessment has been made



in respect of the existing housing stock and the likely number of additional dwellings that would result based upon various suggested R-Code densities. Conservatively applying an average density of R80 and R40 respectively to the 400m and 800m walkable catchments results in a total of 9090 dwellings within the entire TOD precinct. Assuming the removal of the 2417 existing dwellings, this potentially provides a total of 6673 additional dwellings within the TOD precinct of Bassendean. In order to achieve the Directions 2031 target of 3000 new dwellings for Bassendean, 45% of the TOD redevelopment opportunities would need to be built within the next 20 years. This excludes any assumptions about housing opportunities beyond the **TOD Housing Precinct.**

Servicing and Amenity improvements within public realm are an essential component of creating a more intense urban form for Bassendean that is safe, accessible, prosperous, and sustainable. Within the TOD areas in particular, upgrading requirements including: footpath networks; street trees; rubbish bins; public street lighting upgrades; pedestrian crossings; pedestrian ramps; railway station upgrades and public open space upgrades, and new strategic pedestrian links, are all essential. These improvements, will need to be identified prior to making statutory changes to residential density codes. Such upgrading requirements could become part of a Neighbourhood Community Redevelopment Implementation Plan, and works can be funded and implemented via conditions of planning approval, use of a contribution scheme mechanism, and/or publically funded project initiatives.

3.3.3 Objectives

To confine the majority of Bassendean's population growth and housing redevelopment by targeting walkable catchments around the three (3) railway stations, and thereby: improve the vibrancy of the adjoining activity areas; facilitate improved public use and amenity of the railway; and protect the character of other housing areas.

- To make provision for medium and high density housing forms in a manner that ensures efficient use of land and infrastructure, whilst also facilitating a variety of housing types and time frames of redevelopment.
- To ensure that any planned increase in population and housing density within the walkable catchments around railway stations is serviced with an appropriate level of infrastructure and amenity, implemented in a timely and orderly manner.

3.3.4 Strategies TOD Housing Precinct

- Prepare Neighbourhood Community Redevelopment Implementation Plans for the areas within an 800m walkable catchment of the three (3) railway stations to stipulate development requirements, and in particular details of the upgrades to amenities and infrastructure that are an essential component of creating a more intense urban form for Bassendean that is accessible. prosperous sustainable. Such a plan may include upgrading requirements such as; footpath networks; street trees; rubbish bins; public benches; street lighting improvements; pedestrian crossing/ramps; railway station upgrades; additional public open space land and improvements; and new strategic pedestrian links. The Neighbourhood Community Redevelopment Implementation Plans should also detail how works can be funded and implemented via conditions of planning approval, use of a contribution scheme mechanism, and or publically funded project initiatives.
- Establish a more accurate cadastral boundary definition for the TOD Housing Precinct, having due regard for actual walking distance from railway stations, natural and physical boundaries, infrastructure boundaries, and other details provided in the Neighbourhood Community Redevelopment Implementation Plans.
- Commencing with the Bassendean and Success Hill railway station walkable catchments, apply a residential density code of R60/100 to the 400m walkable catchment and a density code of R60 to the 400m-800m walkable catchment area. The



use of the split residential density coding is to be established in a manner whereby the lower coding becomes the minimum residential development density requirement, although this would not take away any land owners existing right of developing a single house on a single lot.

- Simultaneous with any scheme amendments to modify the residential density code for the TOD Housing Precinct, implement the various Scheme changes, funding mechanisms, policies, and or works programmes detailed within the relevant Neighbourhood Community Redevelopment Implementation Plan for the specific precinct area.
- The preparation of a Neighbourhood Community Redevelopment Infrastructure Plan and Scheme Amendment to affect the residential density changes in the proposed T.O.D's should:
 - occur in consultation with the Public Transport Authority, having regard to the long term viability of Success Hill Station; and
 - include the preparation of a Movement and Access Strategy.

3.4 North Bassendean Housing Precinct 1

3.4.1 Overview

This precinct occurs in a single area north of the railway and west of Iolanthe Street, where the housing is characterised by middle age homes of a good quality, generally comprising single residential lots of $700\text{m}^2-800\text{m}^2$ in area. The housing type predominantly represents middle sized family homes, although throughout the precinct there are a limited number of grouped housing complexes disbursed. Homes are generally not more than 20-30 years old, and there is evidence of upgrading and refurbishment to existing homes.

This precinct combines the previous housing precincts A and C3 from the 2008 Local Planning Strategy. The northern portion of the precinct has a current base residential coding of R17.5 and the southern part of the precinct has a R20 coding under the current scheme.

3.4.2 Issues

 The age and quality of homes and other infrastructure within this precinct, and its

- predominance as a single residential area, provide limited incentive for redevelopment at a higher density in the medium to long term.
- Some scatterings of redevelopment possibilities of "house behind a house" may be suitable in this precinct to maintain growth and revitalisation, whilst also promoting refurbishment and improvement of dwellings and street scape. This will still provide for a variety of population profile, including families, whilst also responding to changing household types.
- The continuation of a density bonus applicable to corner sites, along with the planned modifications to the minimum lot size standards under the Residential Design Codes, will provide further limited opportunities for redevelopment of new and existing homes within this precinct.

3.4.3 Objectives

- To retain North Bassendean Housing Precinct 1 as predominantly a single residential housing area in the medium to long term.
- To make provision for the limited number of larger and/or vacant lots to be developed for medium density housing in a manner that does not undermine the integrity of the precinct as a single residential area.

3.4.4 Strategies- North Bassendean Housing Precinct 1

- For all land with a Residential Density Coding of R17.5 and R20, apply a residential zone with a coding of R25 under local planning scheme No 10.
- Continue to apply a residential coding of R30 to existing grouped housing complexes and larger vacant lots suited to grouped housing development.
- Amend the Local Planning Scheme to allow Council to permit development or support the subdivision of an existing R25 coded corner lot to a maximum density of R30, provided the original lot has frontage to two constructed roads and any new lots created or new dwelling constructed shall have their own frontage to a constructed road.



3.5 North Bassendean Housing Precinct 2

3.5.1 Overview

This precinct occurs in a single area north of the railway and east of lolanthe Street, where housing stock is generally smaller, older, and ready for development. In some parts of this precinct there is evidence of interspersed development occurring at increased densities.

A sub-area in the central part of this precinct already comprises older small lots of less than 500m² in area, and an adjoining large lot area comprising predominantly of medium density grouped housing development. The majority of this precinct comprises single residential housing types on lots of approximately 700m² through to 1000m² in area.

The area south of Walter Road is currently coded R20/40 whereas the northern part of the precinct is R20/30. The current scheme requirement, that development at the higher density code can only occur on lots that have a double width frontage, has limited the rate of redevelopment within this precinct.

In the northern part of this precinct the Eden Hill Shopping Centre property that adjoins the hotel site along Morley Drive has been the subject to a redevelopment Concept Plan prepared on behalf of Council. This Concept Plan envisages the redevelopment of this commercial site as predominantly a medium density housing area comprising grouped housing and smaller lot residential subdivision.

3.5.2 Issues

- The age and quality of homes within this precinct, show evidence of imminent urban decline that has a high potential to worsen unless real incentives for residential redevelopment are provided in the short term.
- A central margin within the precinct comprising a number of entire street blocks has already been developed for medium density residential purposes, including small lot residential subdivision and grouped housing developments. This is further evidence that the location of the majority of this precinct in proximity to major road and railway systems, and it's existing

- infrastructure and street pattern, are suited to medium density residential development.
- The Eden Hill Shopping Centre site is the subject of urban decline and is strategically placed for redevelopment opportunities at medium densities, and has already been subject to a redevelopment concept plan under a Council planning initiative.
- By providing density incentives, including deleting the requirement for redevelopment on double width frontage land only, and simultaneously establishing high standards for the refurbishment of older homes that are retained within redevelopment approvals, the demolition of old housing stock will become more attractive and feasible within this precinct.
- The use of the current split residential coding system was designed to encourage higher quality residential development, with a particular focus on matters such as solar design, energy efficiency and sensitive water use and management. These higher standards of development have increasingly become part of standard practise in terms Building Code requirements and engineering standards for storm-water. Accordingly, the original purpose of the split coding has been somewhat supersceded by changing standards and this trend is expected to continue, in terms of Grouped Dwellings and Single Houses. However, it is considered that the use of the split coding and ensuring that multiple dwellings are only developed on larger lots is appropriate within this precinct.

3.5.3 Objectives

- To promote North Bassendean Housing Precinct 2 as an area suitable for redevelopment and revitalisation for medium density housing in the short to medium term.
- To make provision for a quality and mix of housing types that will attract population across the age spectrum, including family housing.
- To ensure that the site planning for Multiple Dwellings does not undermine the attractiveness of the area for traditional family housing.



3.5.4 Strategies – North Bassendean Housing Precinct 2

- Apply a residential zone with a coding of R20/R40 to the entire area within this housing precinct.
- Review current scheme split density code provisions. Specifically, modify the current scheme by removing the requirement for Grouped Dwellings and Single Houses at the higher code to only be permitted on lots that have double width frontages.
- Promote, facilitate and undertake the preparation of relevant Local Planning Policies, to guide the design and implementation of medium density housing proposals within this precinct, including concepts such as:
 - i) Corner lot subdivisions for residential Homes on smaller lots;
 - ii) Encourage housing design that achieves high standards of energy efficiency and streetscape; presentation; and
 - Density development incentives for High quality design and or Refurbishment of existing character homes.

3.6 South Bassendean Housing Precinct

3.6.1 Overview

This precinct occurs immediately south of the Town Centre area and extends towards the River Housing Precinct and the Ashfield Housing Precinct. The Cyril Jackson school site occurs in the Western Part of this housing precinct, and the Ashfield river flats adjoin the south – western edge of the precinct. Clay soil types dominate the southern parts of this precinct.

The housing within this precinct is characterised by a mix of larger homes, character homes and older but well maintained homes, predominantly of a good quality, with many homes spanning almost the entire width of the property frontage. Particularly in the eastern part of the precinct, towards the Swan River, there is evidence of interspersed grouped housing development.

Although predominantly the lot sizes within this precinct comprise 1000m², there are a number of street blocks where subdivision has occurred

with lot sizes of $400\text{m}^2 - 600\text{m}^2$ in area. Under Local Planning Scheme No. 10 this precinct is allocated for Residential zoning with codings of R15, R20 and R25. The R25 coded areas reflect the requirements of Town Planning Scheme 4A whereas the R15 coded areas reflect the desire to protect a special housing character homes street in and around Devon Road.

3.6.2 **Issues**

- The quality of homes within this precinct and its predominance as a single residential area currently provide only a limited incentive for redevelopment at a higher density, at least for the short to medium term.
- There are a limited number of larger lots with lower quality older homes within this precinct, with the opportunity for some medium density housing or subdivision whilst still maintaining the integrity of the precinct as a single residential area.
- The application of a base R25 code to this precinct will not substantially alter the character and built form, although it will facilitate some limited infill development in parts. An R25 base code will also rationalise the existing mix of residential density codings within this precinct.
- Portions in the southern part of this precinct are affected by clay soils and the flood fringe, where development and redevelopment will be required to meet certain criteria in relation to development levels, geotechnical suitability and stormwater management.
- The protection of housing character in Road can be achieved via Devon application of scheme provisions and local planning policy, rather than by simply limiting the ability of these properties to achieve some form of redevelopment potential. With appropriate planning policy, the development of a "house behind a house" scenario can often afford protection to the original character building at the front, also opportunities and provide refurbishment and enhancement of such original character buildings.
- The continuation of a density bonus applicable to corner sites, along with the planned modifications to the minimum lot



size standards under the residential design codes, will provide further limited opportunities for redevelopment of new and existing homes within this precinct.

3.6.3 Objectives

- To retain South Bassendean Housing Precinct as predominantly a single residential housing area in the short to medium term.
- To make provision for a limited number of larger housing lots, ripe for development to be redeveloped for medium density housing in a manner that does not undermine the integrity of the precinct as a single residential area.
- To marginally increase residential density codings across the precinct, whilst also providing suitable planning controls that protect the housing character in Devon Road and respond to the site suitability constraints in the southern part of the precinct.

3.6.4 Strategies – South Bassendean Housing Precinct

- For all land currently zoned residential R15, R20 and R25, apply a residential zone with a coding of R25 under Local Planning Scheme No.10.
- Amend Local Planning No.10 to allow development or subdivision of R25 coded corner lots to a maximum density of R30, provided the original lot has frontage to constructed roads and any new lots created or new dwelling constructed shall have their own frontage to a constructed road.
- Promote, facilitate or undertake the preparation of relevant Local Planning Policies addressing:
 - a) design and implementation of medium density housing proposals, being subject to higher quality performance criteria.
 - b) the protection of housing character in Devon Road; and
 - c) development on land effected by flood fringe of clay soil types.

3.7 Ashfield Housing Precinct

3.7.1 Overview

This precinct occurs in a single area, in the south western most part of the municipality in the locality generally known as Ashfield, and occurs between the Ashfield Railway Station. T.O.D area and the River Precinct.

The majority of this housing precinct comprises middle age homes of an average quality and some prospect of redevelopment, as already evidenced in redevelopment projects undertaken by The Department of Housing. Redevelopment has generally taken the form of duplex grouped housing type at densities of R20 to replace poorer housing stock. There are still parts of this precinct where housing stock is of a reasonable quality and redevelopment would be more of a medium term proposition.

Lot sizes in this precinct are predominantly 700m^2 - 800m^2 however, the areas in closer proximity to the riverfront are characterised by generally larger lot sizes of 1000m^2 and upwards.

Under Local Planning Scheme No. 10 this precinct was allocated almost entirely for residential zoning with a coding of R20. The previous Ashfield Tavern site also occurs in the western most part of this precinct and has been redeveloped for medium density housing, in accordance with the R20/30/40 coding under the Scheme.

3.7.2 Issues

- The age and quality of homes within this precinct show interspersed evidence of imminent urban decline that has a potential in the medium term to worsen unless incentives for residential redevelopment are provided.
- The Ashfield Station Precinct Plan recommends R40 and R60 densities for this particular part of the precinct. To differentiate this area from the T.O.D area an R40 coding could be adopted, however, a mechanism would be required to ensure that older housing stock was removed as part of redevelopment rather than being retained. This may include a specific clause



- in the scheme or setting a minimum housing density of R35.
- The State Government Ashfield Precinct Plan Initiative could be contemplated, however, unless all elements of this plan are given commitment it is important to maintain a difference between land that is within the 800m walkable catchment of the Ashfield railway station, and the land beyond this walkable catchment.

3.7.3 Objectives

- To promote Ashfield Housing Precinct as an area suitable for incremental redevelopment and revitalisation for medium density housing in the short to medium term.
- To make provision for larger housing lots, affected by urban decline, to be redeveloped for medium density housing
- To make provision for a quality and mix of housing types that will attract population across the age spectrum, including family housing.

3.7.4 Strategies – Ashfield Housing Precinct

- Await adoption of a Neighbourhood Community Redevelopment Implementation Plan for the Ashfield railway station T.O.D before considering applying a residential R35/40 coding to the entire precinct under Local Town Planning Scheme No.10.
- Examine opportunities for additional public open space and recreation links within the precinct.
- Maintain an open view on the potential implementation of the Ashfield Precinct Plan Initiative as prepared by the State Government, provided all elements of the plan are given commitment, in particular the relocation of the train station, realignment and downgrading of Guilford Road, new road connection across the railway line, and the new main street commercial concept.
- Promote revitalisation of the Colstoun Road interface with the Ashfield reserve by allowing planned introduction of Mixed Use/Residential zonings to facilitate more intensive redevelopment and land use.

3.8 Riverfront Housing Precinct

3.8.1 Overview

This precinct comprises the majority of riverfront properties in the municipality. The housing within this precinct comprises large riverfront homes on relatively large residential lots where, due to the extent of development on the lots, and the quality of existing development, there is little prospect for short to medium term redevelopment.

Generally the lot sizes range from 1000m2 to 2000m2 and upwards. Under Local Planning Scheme No. 10, this precinct is predominantly zoned Residential R5, with the exception of the riverfront Success Hill which is zoned R10 and R25, and the riverfront of Ashfield which is zoned R20 and 25/30.

3.8.2 **Issues**

- The quality of large riverfront homes within this precinct and its predominance as a single residential area currently provide limited incentive for redevelopment at higher densities, at least for the short to medium term.
- The larger riverfront lots within this precinct, offer opportunity for some medium density housing or subdivision, however, the quality of such development will need to be cognisant of this prestigious river front location.
- The largest riverfront lot in this precinct accommodates a vineyard and winemaking facility, which will require adjoining potential developments to respond to required setbacks and buffer issues.
- Due to the location adjacent to the Swan River environs, it is important that any potential for Residential redevelopment does not occur in an ad hoc manner on a lot by lot basis, but rather occurs on the basis of (small) precinct planning. This would include specific design criteria and community consultation given its context within a predominantly single residential housing area.
- The majority of land south of Villiers Street (east) lies within the floodway of the Swan River and is therefore constrained from more intense development.



3.8.3 Objectives

- To retain the Riverfront Housing Precinct as predominantly a single residential housing area with larger river front housing lots in the short to medium term.
- To make limited provision for the planned redevelopment of small sub precincts for the purpose of high quality medium density housing and or subdivision in a manner that does not undermine the precinct as a single residential area, but recognises the unique qualities of the Swan River environs.

3.8.4 Strategies – The Riverfront Housing Precinct

- Maintain current Residential Density Codings under Local Planning Scheme No. 10, which comprised of R5 for the majority of the precinct.
- Consider an alternative Residential Density
 Coding for the Sub- Precinct within the
 floodway to reflect the existing lot size
 pattern, and further, develop specific
 requirements for properties in the flood
 fringe, and exclude further development in
 the floodway or that would restrict flows
 within the floodway.
- Require sub precinct planning and rezoning proposals prior to supporting medium density housing development or subdivision within any part of this precinct.
- Examine opportunities for additional Public Open Space and foreshore recreation links within the precinct. It is recognised, however, that this examination will require a detailed foreshore study to be undertaken in conjunction with State and Local Government authorities to examine some of the practical applications of such foreshore recreation links within river precincts.

4.0 INDUSTRIAL STRATEGY



4.1 Overview

The Bassendean Industrial area occupies approximately 135 hectares of land positioned generally between Collier Road and the railway line, extending westward up to Tonkin Highway, and hence is extremely accessible both to the local community and to the broader region.

One of the striking aspects of this entire industrial area is the diverse mix of lot sizes that has enabled a range of businesses to agglomerate and function together as a diverse industrial precinct of regional significance. This characteristic highlights the fact that with industrial land it is not necessarily subdivision potential that drives change and redevelopment. Industrial change and location are the prime causes for redevelopment of industrial areas such as Bassendean. There is also evidence throughout the Bassendean industrial area that very large industries on large lots have presented extremely well to the street in terms of built form, car parking, landscaping and signage.

Broadly, the Bassendean industrial area comprises some five (5) precincts, each characterised by industry scale, industry type, age and quality of development. (*Figure 4* refers) These precincts are summarised as follows:

- A group of large older industries fronting the railway line on large land holdings comprising distribution 90 centres, mining, Detroit Diesel, older warehousing etc;
- The new Tonkin Park Industrial area which commences at the junction of Collier Road and Railway Parade and comprises quite new and predominantly light and service industrial developments on smaller land holdings;
- c. Vacant industrial land adjoining the new Tonkin Business Park, which, due to past landfill activities has been subject of remediation works to satisfy the contaminated sites criteria in accordance with the EPA guidelines;
- The general industrial area flanking either side of Collier Road to the western side of the overall industrial area, comprising a

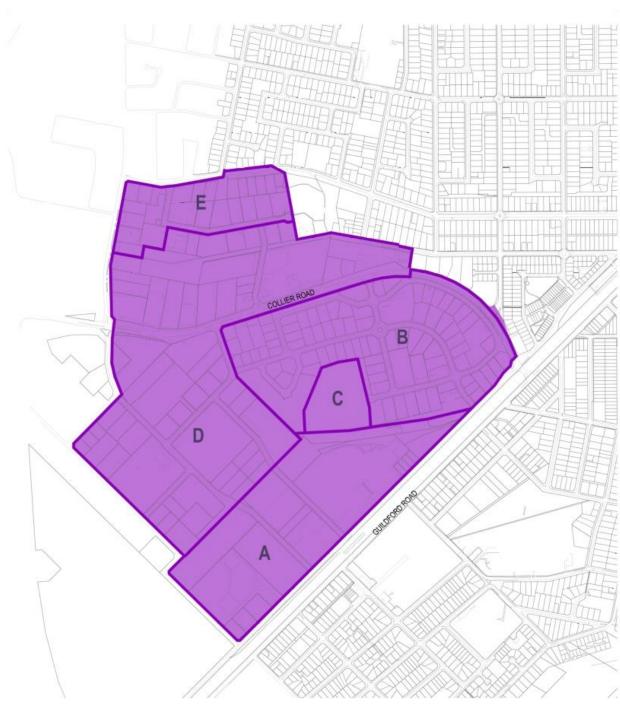
mix of manufacturing industries, service industries, transport industries, offices and warehousing located on small to medium size lots and including both older and new redeveloped sites. There are a minimal number of vacant landholdings within this precinct and some opportunities for redevelopment of older sites;

e. The light industrial area to the north interfacing with the residential areas on the opposite side of Grey Street and Broadway. This area comprises predominantly light industries, smaller factories, office and warehousing on relatively small lots.

The Grey Street frontage shows evidence of redevelopment for newer office and warehousing type developments, whereas Broadway still accommodates some smaller older factories with potential for short to medium term redevelopment opportunities

4.0 **INDUSTRIAL STRATEGY**





LEGEND Strategy Areas

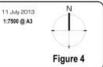


Industrial

Industrial Industrial A: A group of large older industries fronting the railway line. Industrial B: Tonkin Business Park, comprising never light and service industrial developments on small land holdings. Industrial C: Confaminated land incapable of development without remediation. Industrial D: General industrial area, comprising a mix of industries. Industrial E: Light industrial area to the north, interfacing with the residential areas to the north and east of it.

INDUSTRIAL STRATEGY MAP

Town of Bassendean



4.0 INDUSTRIAL STRATEGY



4.2 Issues

- The mix of lot sizes has served the Bassendean industrial area very well to date and has made provision for a wide range of industrial activities, including large industries such as manufacturing, engineering and transport based industries. Given the strategic positioning of the Bassendean industrial area in the context of the wider region, and the limited opportunities to achieve a similar industrial location in the future, it is important to maintain the integrity of the Bassendean industrial area as a true industrial area and further ensure that the diverse mix of industries is not overtaken by overemphasis on commercial and showroom retail floor space.
- The street block within the Tonkin Park industrial precinct, that interfaces with the residential area on the opposite side of Collier Road, maintains a light industry and general industry zoning. Although the recently established industries within this street block have predominantly been light industry, service commercial warehousing, there is a very real potential more general industrial and for manufacturing activity to occupy premises within this street block, to the detriment of the adjacent residential zoned areas.
- The light industrial precinct interfacing with residential land in Grey Street and Broadway shows signs of some quality redevelopment with very low impact uses such as service commercial, warehousing and office. However, some of the light industrial premises in Broadway show signs of potential decline that could result in a land use and or visual impact on the adjoining residential properties.
- The vacant industrial land, that represents the planned Stage 2 of the Tonkin Park industrial area, which due to past landfill activities has been subject of remediation works to satisfy the contaminated site criteria in accordance with EPA guidelines. The successful outcome and the ultimate land value of the Tonkin Park Stage 1 industrial area would indicate that a similar development within Stage 2, would be quite feasible.

 Collier Road presents opportunities for service industry and commercial exposure, however, pressure for multiple additional access points would undermine the function of this road as a primary traffic route.

4.3 Objectives

- To retain the Bassendean Industrial area as true industrial area incorporating a mix of industrial land uses including core industrial activity, warehousing, transport industries, service industry, showroom and office.
- To ensure a suitable interface between industrial and residential land use both in terms of visual impact and potential amenity impact resulting from land use activity.
- To facilitate the suitable remediation and most appropriate ultimate land use of the vacant industrial land that is planned as Tonkin Park Stage 2 and is currently affected by contaminated materials.
- To promote Collier Road as the "central spine" to the Bassendean Industrial Area, both in terms of its traffic function and its commercial exposure and presentation potential.

4.4 Strategies

- Maintain a General Industry zone for the majority of the Bassendean Industrial area, with the exception of two (2) street blocks allocated for Light Industrial purposes.
- Establish Local Planning Scheme provisions and/or policies that seek to maintain a variety of general industrial lot sizes, with 2000m² minimum and 4000m² average in any given subdivision.
- Review the Zoning Table for the General Industry zone under the Local Planning Scheme to ensure an emphasis on general industrial activities and avoid the over representation of other competing land uses of a more commercial nature.
- Maintain a Light Industry zone to the street block within the Tonkin Park Industrial precinct which interfaces with the residential area on the opposite site of Collier Road, and to Lots 500, 501 and 502 Collier Road and maintain the existing Light Industrial precinct indicated under Local

4.0 INDUSTRIAL STRATEGY



- Planning Scheme in the Grey Street and Broadway locality.
- Review the Zoning Table for the Light Industry zone under the Local Planning Scheme to ensure that the general industrial type activities that have potential for conflict with nearby residential uses are either excluded from the zone or controlled at the discretion of Council.
- Establish Local Planning Scheme provisions and/or policies that promote shopfront industries (eg service industry) adjacent to Collier Road whilst also restricting and limiting access to Collier Road to maintain its function as a primary traffic route.
- Examine the practicalities and opportunities in respect of additional landscaping, bunding or other screening measures to improve the interface between the light industrial land and the residential area along Broadway.



5.1 Overview

The Bassendean Town Centre represents the major retail and commercial hub of the municipality.

Geographically, the Bassendean Town Centre is located quite central to the municipality. Strategically, it's position adjacent to the railway station and Guildford Road enables the town centre to interface with both urban areas on the north and south side of the railway line, whilst also accessing excellent district and regional transport links.

The Bassendean Town Centre is characterised by retail, commercial and civic uses extending along some 800 metres of Old Perth Road in quite distinct precincts (refer to *Figure 5*), namely:

- Traditional "Main Street" pedestrian based commercial/retail at the interface of Old Perth Road with Guildford Road and the railway station;
- "Drive-by" commercial with interspersed retail and civic uses (including a school and aged person's accommodation) between Wilson and Whitfield Streets;
- Car based retail in the Bassendean Village Shopping Centre at the corner of Old Perth Road and West Road; and
- Bassendean Oval redevelopment precinct.

In addition to the commercial and civic uses, a large area of the town centre that interfaces with Guildford Road is used for parks and organised recreation activities.

Other smaller commercial nodes that occur outside the town centre include:

- Eden Hill Shopping Centre and adjoining Hotel/Tavern and Service Station along Morley Drive; (currently not operating)
- Ida Street Local Shops;
- Small row of shops in Walter Road;
- Ashfield local shops;

In the hierarchy of commercial centres, Bassendean Town Centre functions as a district centre, with regional shopping centres at nearby Morley and Midland. According to the findings of the original Scheme Report for Local Planning Scheme No. 10, and reflected in the "Enquiry by Design" workshop for the Town of Bassendean (May 2002), Bassendean Town Centre contains about three times the commercial floor space needed to service the local population.

Surplus floor space is quite evident particularly at the west end of the Old Perth Road. The "Enquiry by Design" initiative attributes this decline to the closure of Old Perth Road and the presence of the Bassendean Village Shopping Centre at the opposite end of the Town Centre, which attracts some 30,000 shopping trips per week.

5.2 Hierarchy of Activity Centres

Both Bassendean Town Centre and the future Ashfield main street (under the Ashfield Precinct Plan) are identified in Directions 2031 as District Centres. State Planning Policy 4.2 - Activity Centres for Perth and Peel, refers to District Centres as servicing catchments of 20,000 – 50,000 people. Neighbourhood Centres are referenced as having commercial floor space larger than 1500 m² and servicing a population of 2,000 – 15,000 persons (indicative service area of 1 km radius).

The population of Bassendean currently sits at around 13,000 people, and with 3,000 additional dwellings planned under Directions 2031 the total population would approach 20,000 people. It is apparent therefore the two district centres would represent an oversupply for the Bassendean area, whereas one district centre would be ideal.

In terms of neighbourhood centres, currently there are four neighbourhood centres (zoned) that have an indicative service catchment of 1 km covering portions of the Bassendean locality, namely:-

- Bassendean Shopping Centre;
- Eden Hill Shopping Centre (not currently functioning);
- Ida Street/Walter Road Centre:
- Walter Road/Beechboro Road Centre (in Bayswater); and
- · Ashfield Shops.



The Activities Centres Policy of the WAPC acknowledges that neighbourhood Centres often have 1 km catchments that overlap, and this is accepted given that neighbourhood centres vary in size and vary in catchment size. What is apparent when viewing the 1km service catchments' on a plan is that the relocation of the Neighbourhood Centre for Ashfield to the alternative train station location would create a gap in the catchment, where the neighbourhood catchments would no longer overlap. The current location of the Ashfield Local shops (recommended for retention under the Ashfield Precinct Plan) will actually offer improved catchment coverage for Bassendean and will also provide for some overlapping of other neighbourhood centre catchments.

5.3 Ashfield and/or Bassendean as District Centres

As mentioned previously, both Ashfield and Bassendean are identified as District Centres in Directions 2031.

Ashfield is dependent upon nearby industrial redevelopment, is linked to the train station relocation, and is largely driven by the Department of Housing Initiatives of the State Government. Ashfield redevelopment needs to be accompanied by amenity improvements that would attract residents (eg. There is no strong link to the river foreshore). Ashfield does have a large public open space sports field and is also affected by some uncertainties surrounding the Cyril Jackson School although this site is to be retained by the state government for future school needs. Currently Ashfield is not a real commercial centre but more a local shop.

Bassendean is the real commercial centre (District Centre) and provides opportunities for traditional main street commercial based upon its current status. These opportunities could be enhanced and revitalized by increased demand and population surrounding the Bassendean Town Centre. The Bassendean Town Centre is a high amenity area with numerous commercial and community facilities already in place, and access to two train stations. The Bassendean oval and the proximity to the river foreshore are also high amenity opportunities.

The preferred direction would be that the development of Bassendean as the District Centre to serve the entire community would occur first. Future rezonings and infrastructure development would initially focus on this district centre to facilitate its revitalization. Bassendean Town Centre has the potential to be regarded regionally as a desirable place to live at higher densities (similar to places such as Fremantle or Subiaco).

Ashfield could also develop as a District Centre in response to additional employment opportunities and focus created by redevelopment of the industrial landholdings. Ashfield and Bassendean could be seen as complementary rather than competing District Centres, as they would be developed over different time scales, and with different focus.

Prioritising Bassendean as the District Centre in the short term will include promoting the following:-

- Bassendean Oval redevelopment plans;
- · Connecting the river to the main street;
- Extending mixed uses along the main street towards the river; and
- Prioritising all the other actions under the TOD's Implementation Plan.

Under this particular direction, Ashfield shops could be allowed marginal expansion as part of mixed use/residential zonings around the existing shops.

The more ambitions main street option for Ashfield (as per the Ashfield Precinct Plan) would need to wait until decisions are made about the train station relocation, or until the State Government becomes more active in the implementation of the Ashfield Precinct Plan. The concept of a new "main street" on Pearson Street would require the support and coordination with the City of Bayswater as the boundary between the two municipalities runs down the middle of this street. In future, the main street option along Pearson Street, Ashfield, may deliver a District Centre level of commercial activity. At this time the function of such a centre would be more associated with its position in relation to the Bassendean/Bayswater Industrial/Employment Precinct, and accordingly the role of such a centre would differ from the Bassendean Town Centre (District Centre).



In the event that the Bassendean Oval redevelopment plans come to fruition, and a more intense form of development takes shape on one side of Old Perth Road in this location, there would be merit in allowing a more intense and higher level of development adjacent to the oval on the opposite side of Old Perth Road, between West Road and Briggs Street. The next level of detail addressing the scale of built form (etc.) can be evolved through Scheme Amendments, infrastructure plans and subsequent Policy development.

5.4 Other Issues

- The traditional "Main Street" pedestrian based commercial retail at the west end of the town centre has suffered decline due to the impact of Old Perth Road closure, Bassendean Village Shopping Centre and the apparent oversupply of commercial floor space.
- The Bassendean railway station could have improved integration with the town centre by making the pedestrian route more "userfriendly".
- The Bassendean Village Shopping Centre currently performs effectively in terms of offering car based retail to local residents and represents a key commercial node at the eastern end of the town centre. The long term success of this centre is paramount in maintaining the feasibility of Bassendean Town Centre as a district centre.
- The "drive-by" commercial/civic strip that connects the major east and west commercial/retail nodes of the town centre, shows evidence that civic and residential land uses can equally compete for floor space. This further supports the claim that Bassendean Town Centre currently has excessive retail and commercial floor space.
- The improved accessibility of road and rail links into the west end of Old Perth Road, as envisaged by the outcomes of the "Enquiry by Design" initiative, will have a marked impact upon traffic flow and car parking in this area of the town centre. Maintenance of traffic flows and convenient car parking is important, particularly at the west end of the town centre. Wilson Street

- car parking still performs an important function, whilst James Street still presents challenges in terms of parking and congestion.
- Eden Hill Shopping Centre has had its growth and trading capacity restricted due to the impact of other shopping facilities, including the relatively new local centre along Morley Drive in the City of Swan. The decline of this centre is further acknowledged by a redevelopment concept plan, prepared as a Council initiative. This plan illustrates a mix of medium density housing and localised commercial uses integrated with the adjoining hotel/tavern site:
- The Ashfield local centre has limited scope for expansion and car parking, however, it continues to provide a service to the catchment that is also experiencing redevelopment and growth;
- The Walter Road local centre is well developed in relation to its local catchment, although opportunities exist to upgrade the appearance of its built form and signage.

5.5 Objectives

- To prioritise and promote the importance of the Bassendean Town Centre as the commercial, retail and civic activity District Centre for the municipality, and facilitate its sustainable growth and vitality;
- To promote and facilitate the revitalisation of the traditional main street pedestrian based commercial retail precinct at the west end of Old Perth Road, without undermining the overall importance of the Bassendean Village Shopping Centre as a car based retail centre servicing the district.
- Promote the development of Bassendean Town Centre area as a District Centre that has the potential to be regarded regionally as a desirable place to live at higher densities (similar to places such as Fremantle or Subiaco).
- To recognise the prospect for a potential complementary district centre at Ashfield in accordance with the Ashfield Precinct Plan, where the time frame and focus of commercial development does not compete with Bassendean as a District Centre.



 To promote the improvement of amenity and services of Local shops at an appropriate scale and facilitate integration with medium density housing development where suitable.

5.6 Strategies - Commercial

- Actively pursue Scheme Amendments and infrastructure plans that focus on the revitalisation of Bassendean Town Centre in the short term, including the following;
 - a) Bassendean Oval redevelopment plans;
 - b) Connecting the river to the main street:
 - c) Extending mixed uses (non retail) along the main street towards the river; and
 - d) Prioritising the actions under the T.O.D's implementation plans associated with the Bassendean and Success Hill railway sections.
- Establish distinct policy precincts within the proposed town centre zone with supporting policies to identify and promote the specific intent and function of each precinct, namely:
 - **Precinct A** Traditional "Main Street" pedestrian based commercial retail, west of Wilson Street;
 - **Precinct B** Civic, "drive-by" commercial and town centre living uses between Wilson and Whitfield Street;
 - **Precinct C** Car based retail in the Bassendean Village Shopping Centre.
 - Precinct D Bassendean Oval Redevelopment and Mixed Uses reconnecting main street to river; and
 - **Precinct E** Town Centre Park and Recreation area.
- Confine the extent of Town Centre development to the existing Town Centre zone and identified policy precincts, with the exception of the area south of Old Perth Road (generally between Kenny and Wilson Streets as illustrated by dashed lines on Figure 5) planned for redevelopment under the "Enquiry by Design" initiative.
- Identify the Eden Hill, Walter Road and Ashfield local centres as local shopping zones under the Local Planning Scheme and make provision for limited retail and

- commercial uses to service local needs only;
- Require and/or develop Activity Centre Structure Plans for Bassendean and/or Ashfield Centres in the event that floor space proposals for these centres exceed 20,000m²;
- To have due regard to the findings and recommended outcomes of Bassendean 'Enquiry by Design' (May 2002) and facilitate the staged implementation thereof, including the following agreed priorities;

1. Implemented

- Opening of Old Perth Road at its intersection with Guildford Road, and including two way traffic along this section of road.
- ii Rearrange sporting clubs to the eastern end of the BIC Reserve
- iii Construction of new Library

2. Short Term

- Modification of car parking within Wilson Street, and the redevelopment of the existing Wilson Street car park to a combination of residential and commercial uses
- ii. Review the development options for the BIC Reserve and Council complex in terms of creation of a town park; expansion of civic facilities; providing multiple use paths; and review of traffic and parking adjacent to the school;

3. Medium Term

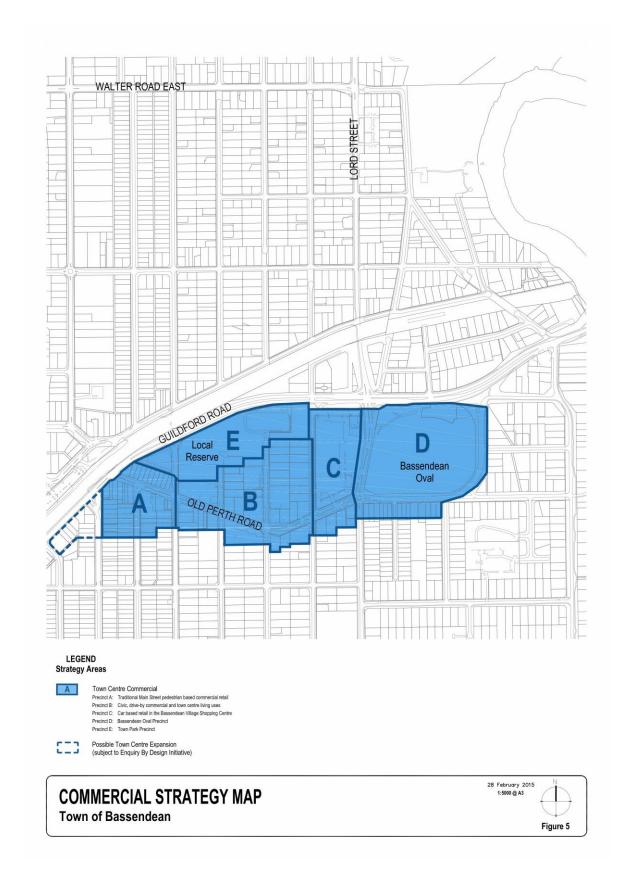
i. Redevelopment of land south of Old Perth Road, between Kenny and Wilson Street, to expand commercial development and thereby incorporate additional car parking, including a through road linking Kenny and Parker Streets parallel to Old Perth Road. Redevelopment is to be planned and implemented through an Outline Development Plan and associated policies.



4. Long Term

- i Promote limited commercial/ business opportunities along Guildford Road, (south) to the West of the proposed new Kenny Street intersection.
- ii. Promote the establishment of commercial and home based business land uses immediately north of the railway line adjacent to the intersection of Broadway with Railway Parade.





6.0 IMPLEMENTATION & REVIEW



6.1 Implementation

The Town of Bassendean Local Planning Strategy is used as a planning tool to assist Council, the State Government and the community in their respective roles in land use decision making.

The Bassendean Local Planning Strategy in its adopted form has the status of a Local Planning Policy. Many of the strategy recommendations will continue to be implemented through the adoption of other Local Planning Scheme policies, or indeed through the zonings and special provisions under the Local Planning Scheme.

The following implementation times are anticipated:

- Short term (within 2 years) changes to Housing Precinct No. 2 with split coding of R20/40 and introduction of the new base Residential R25 Coding;
- Short to Medium term (3 5 years) –
 Ashfield Precinct beyond the TOD area;
- Medium to longer term (beyond 5 years) TOD Precincts;
- Bassendean Oval Precinct following the redevelopment of Bassendean Oval commencing.

As a planning tool, the Town of Bassendean Local Planning Strategy must be used within the statutory framework of the Town of Bassendean Local Planning Scheme and the Metropolitan Region Scheme. It is not intended that the Bassendean Local Planning Strategy will be the cause for instant and major changes to zoning and land use, although some changes may be proposed to reflect specific strategies. Where changes to zonings or land use are contemplated, the local and state governments and the community shall be guided by the objectives and recommendations of the Town of Bassendean Local Planning Strategy.

6.2 Review

Whilst the Town of Bassendean Local Planning Strategy is designed to provide a vision for the potential land use and development opportunities over the next 15 – 20 years, it is inevitable that in the context and framework of

the strategy, the many land use issues and pressures affecting the study area will no doubt change over time.

To ensure that the strategy can recognise and respond to the ever changing land use issues and demands, it is important that the vision outlined in the strategy is constantly evolving and planning ahead rather than simply reacting to change in hindsight.

Accordingly, in addition to having an adopted strategy that provides a level of certainty to both the state and local authorities and the community, it is equally important to establish a timeframe for the regular review of the strategy. Any departure from the Bassendean Local Planning Strategy is not to be considered in the context of the current strategy but is to be listed for consideration for a strategy review. Such a review should be undertaken every five (5) years, preferably simultaneously with the Local Planning Scheme review, unless, Council determines that an earlier review is warranted.

The review of the Bassendean Local Planning Strategy should follow a formal procedure which also recognises the protocol for modification to Local Planning Policies, as outlined in the Local Planning Scheme. Any revisions to the Town of Bassendean Local Planning Strategy should also be presented to the Western Australian Planning Commission for endorsement.



ADV	/ERTISING
The Dece	Town of Bassendean Local Planning Strategy certified for advertising on 9 ember 2014.
Sign	ed for and on behalf of the Western Australian Planning Commission
	andrew Trevor
an oi (purs	fficer of the Commission duly authorised by the Commission suant to the Planning and Development Act 2005)
Date	
ADO	PTED
The TOO Ording 20 .	Town of Bassendean hereby adopts the Local Planning Strategy, at the nary meeting of the Council held on the day of
MAY	DR
CHIE	F EXECUTIVE OFFICER
ENDO	DRSEMENT
Endoi 2014	rsed by the Western Australian Planning Commission on 9 December
	andrew Drever
an off (pursu	ficer of the Commission duly authorised by the Commission uant to the Planning and Development Act 2005)
Date	

Postal address: Locked Bag 2506 Perth WA Street address: 140 William Street Perth WA 6000 Tel: (08) 655 19000 Fax: (08) 655 19001 TTY: 655 19007 Infoline: 1800 626 477 corporate@planning.wa.gov.au www.planning.wa.gov.au ABN 35 482 341 493



DEVELOPMENT ADDRESS

Unit 1, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		25	Courtyard: North Wall length: 4m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: Bathroom and ensuite
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	10 (Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 2, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		25	Courtyard: North Wall length: 4m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	20	East: No openings West: Bed 1 (<1m ²) and bed 2 (<1m ²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 3, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	25 (Courtyard: 12.5 Windows: 12.5)	25	Courtyard: North Wall length: 4m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: No openings
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.		0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 4, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		25	Courtyard: North Wall length: 4m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	20	East: Bathroom and ensuite West: Bed 1 (<1m²) and bed 2 (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 5, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(0 1 1 10 5	25	Courtyard: North Wall length: 3.9m Windows: 2.7m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and west Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms		20	East: Bed 2 (<1m²) West: Bed 1 (<1m²) and bathroom
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 6, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		25	Courtyard: North Wall length: 4m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/5t	20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: No openings
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 7, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		25	Courtyard: North Wall length: 4m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F==4=U: 40	20	East: Bathroom and ensuite West: Bed 1 (<1m²) and bed 2 (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 8, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(0.1.1.0.5	25	Courtyard: North Wall length: 4m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F==t= 40	20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: No openings
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living, bed 1 and bed 2: Yes
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 9, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		25	Courtyard: North Wall length: 4.9m Windows: 3m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F==t===#: 40	20	East: Entry and living (<1m²) West: Bed 1 (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living and bed 1: Yes
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 10, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(011.40.5	25	Courtyard: North Wall length: 4.9m Windows: 3m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F==t=lb 40	20	East: Bed 1 (<1m ²) West: Entry and living (<1m ²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living and bed 1: Yes
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 11, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(0) 1 (0 "	25	Courtyard: North Wall length: 4.1m Windows: 2.9m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F==+= 40	20	East: Bathroom and ensuite West: Bed 1 (<1m ²) and bed 2 (<1m ²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living, bed 1 and bed 2: Yes
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 12, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		12.5	Courtyard: North Wall length: 4m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: Bathroom and ensuite
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system ;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 13, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		12.5	Courtyard: North Wall length: 4m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F t II . 40	20	East: No openings West: Bed 1 (<1m²) and bed 2 (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 14, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		12.5	Courtyard: North Wall length: 4m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms		20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: No openings
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 15, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		12.5	Courtyard: North Wall length: 4m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms		20	East: Bathroom and ensuite West: Bed 1 (<1m²) and bed 2 (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 16, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		12.5	Courtyard: North Wall length: 3.9m Windows: 2.7m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and west Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/Ft	20	East: Bed 2 (<1m²) and entry West: Bed 1 (<1m²) and bathroom
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 17, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		12.5	Courtyard: North Wall length: 4m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F	20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: No openings
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 18, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall		12.5	Courtyard: North Wall length: 4m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	, -	15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	20	East: Bathroom and ensuite West: Bed 1 (<1m²) and bed 2 (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Bed 1 and bed 2: Yes Kitchen/dining/living: No
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 19, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(01	12.5	Courtyard: North Wall length: 4.1m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and east Bed 2: North (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	20	East: Bed 1 (<1m²) and bed 2 (<1m²) West: No openings
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living, bed 1 and bed 2: Yes
6.	The provision of either a solar pergola or solar hot water heating system;	10	0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	10 (Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 20, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(0 1 1 10 5	25	Courtyard: North Wall length: 4.9m Windows: 3m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/Fast wells 40	20	East: Living (<1m ²) West: Bed 1 (<1m ²) and entry
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living and bed 1: Yes
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 21, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(0 1 1 10 5	25	Courtyard: North Wall length: 4.9m Windows: 3m Direct light reaches the main living area.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north		15	Bed 1: South (main opening) and east
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	(Ft	20	East: Bed 1 (<1m²) and entry West: Living (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living and bed 1: Yes
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	70	Require min 70 out of 100 to qualify for higher density code

DEVELOPMENT ADDRESS

Unit 22, Nos. 72-74 Railway Parade, Bassendean

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments
1.	Orientation (longest axis east west)	10	0	Longest axis is north south
2.	North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall	(Ott-10.5	12.5	Courtyard: North Wall length: 4.1m Windows: 2.9m Direct light does not reach the main living area due to the balcony roof cover.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	Bed 1: South (main opening) and west Bed 2: North (main opening) and west
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	/F t 10 - 4.0	20	East: Bathroom and ensuite West: Bed 1 (<1m²) and bed 2 (<1m²)
5.	60% of all habitable rooms shall be cross ventilated.	10	10	Kitchen/dining/living, bed 1 and bed 2: Yes
6.	The provision of either a solar pergola or solar hot water heating system;		0	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.	(Shading: 5 Low water use: 5)	0	Shading: No Low water use: No
	TOTAL	100	57.5	Require min 70 out of 100 to qualify for higher density code