Government of **Western Australia**
Development Assessment Panels

Metro Central Joint Development Assessment Panel Agenda

Meeting Date and Time: 6 October 2016; 2:30pm
Meeting Number: MCJDAP/199
Meeting Venue: City of Melville,
10 Almondbury Road,
Booragoon

Attendance

DAP Members

Mr Charles Johnson (Presiding Member)
Mr Clayton Higham (A/Deputy Presiding Member)
Mr Lou D'Alessandro (Specialist Member)
Cr Nicole Foxton (Local Government Member, City of Melville)
Cr Cameron Schuster (Local Government Member, City of Melville)
Cr Paul Bridges (Local Government Member, Town of Bassendean)

Officers in attendance

Mr Jack Hobbs (City of Melville)
Mr Peter Prendergast (City of Melville)
Mr Christian Buttle (Town of Bassendean)

Local Government Minute Secretary

Ms Antonetta Papalia (City of Melville)

Applicants and Submitters

Mr Gareth Glanville (Planning Solutions)
Mr Trent Will (Planning Solutions)
Mr Trent Durwood (Megara)

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 Chris Antill (Deputy Presiding Member)
Cr Gerry Pule (Local Government Member, Town of Bassendean)

3. Members on Leave of Absence

Mr Chris Antill (Deputy Presiding Member)

4. Noting of Minutes

Note the Minutes of meeting no.194 held on the 21 September 2016.

The Minutes of meeting no.196 held on the 28 September, no.197 held on the 29 September and no.198 held on the 3 October 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 Trent Will (Planning Solutions) presenting for the application at Item 8.1. The presentation will discuss an overview of the design and planning process, and the implications of Amendment 8 to the Town of Bassendean's Local Planning Scheme No.10.

7.2 Mr Trent Durwood (Megara) presenting for the application at Item 8.2. The presentation will address reasons for the removal of Condition 9 and 10 relating to screening requirements.

8. Form 1 - Responsible Authority Reports – DAP Applications

8.1

Property Location:	Lot 3 (No. 8) Walter Road East, Bassendean
Application Details:	Proposed 10 Multiple Dwellings
Applicant:	Planning Solutions
Owner:	8 Walter Road East Pty Ltd
Responsible authority:	Town of Bassendean
DoP File No:	DAP/16/01058

8.2

Property Location:	Lot 459 (No. 36) Moolyeen Road, Mount Pleasant
Application Details:	Four Storey Mixed Use Development comprising 10 Multiple Dwellings and two Office commerical tenancies
Applicant:	Megara
Owner:	Disan Pty Ltd
Responsible authority:	City of Melville
DoP File No:	DAP/16/01080

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

Nil

10. Appeals to the State Administrative Tribunal

As invited by the State Administrative Tribunal under Section 31 of the *State Administrative Act 2004*, the Metro Central JDAP will reconsider DAP/15/00931 on the 10 October 2016.

11. General Business / Meeting Closure

In accordance with Standing Order 7.3 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

Minutes of the Metro Central Joint Development Assessment Panel

Meeting Date and Time: 21 September 2016; 2:00pm
Meeting Number: MCJDAP/194
Meeting Venue: Town of Victoria Park
99 Shepperton Road
Victoria Park

Attendance

DAP Members

Mr Clayton Higham (Presiding Member)
Mr Ian Birch (A/Deputy Presiding Member)
Mr John Syme (Alternate Specialist Member)
Cr Keith Hayes (Local Government Member, Town of Victoria Park)
Cr Vicki Potter (Local Government Member, Town of Victoria Park)
Cr Rebecca Aubrey (Local Government Member, City of Melville)
Cr Tim Barling (Local Government Member, City of Melville)

Officers in attendance

Mr Julio Gonzalez (Town of Victoria Park)
Mr Robert Cruickshank (Town of Victoria Park)
Mr Peter Prendergast (City of Melville)
Ms Madison Rea (City of Melville)

Local Government Minute Secretary

Ms Vanessa Frankson (Town of Victoria Park)
Ms Alison Podmore (Town of Victoria Park)

Applicant and Submitters

Mr Tom Letherbarrow (Hillam Architects)
Mr Ashley Richards (Archiplan Architects)
Mr Aidan Gorjy (Yaran Property Group)

Members of the Public

Nil

1. Declaration of Opening

The Presiding Member, Mr Clayton Higham declared the meeting open at 2:07pm on 21 September 2016 and acknowledged the past and present traditional owners and custodians of the land on which the meeting was being held.

Due to the leave of absence of the Metro Central JDAP Presiding Member and in accordance with regulation 27(3A) of the *Planning and Development (Development Assessment Panel) Regulations 2011*, Mr Clayton Higham has been appointed as Presiding Member for this meeting.

The Presiding Member announced the meeting would be run in accordance with the *Development* Assessment *Panel Standing Orders 2012* under the *Planning and Development (Development Assessment Panels) Regulations 2011*.

The Presiding Member advised that the meeting is being audio recorded in accordance with Section 5.16 of the Standing Orders 2012; No Recording of Meeting, which states: *'A person must not use any electronic, visual or audio recording device or instrument to record the proceedings of the DAP meeting unless the Presiding Member has given permission to do so.'* The Presiding Member granted permission for the minute taker to record proceedings for the purpose of the minutes only.

2. Apologies

Mr Charles Johnson (Presiding Member)
Mr Chris Antill (Deputy Presiding Member)
Mr Lou D'Alessandro (Specialist Member)
Cr Cameron Schuster (Local Government Member, City of Melville)
Cr Nicole Foxton (Local Government Member, City of Melville)

3. Members on Leave of absence

Mr Charles Johnson (Presiding Member)
Mr Chris Antill (Deputy Presiding Member)
Mr Lou D'Alessandro (Specialist Member)
Cr Cameron Schuster (Local Government Member, City of Melville)

4. Noting of minutes

The Minutes of meeting no.193 held on 14 September 2016 were not available at time of Agenda preparation.

5. Declaration of Due Consideration

All members declared that they had duly considered the documents.

Cr Tim Barling declared that he was not familiar with the substance or supporting information relating to the report at item 8.1 as it was only made available just prior to the meeting.

The Presiding Member indicated that he would make time available during the meeting to ensure the member was familiar with the information.

6. Disclosure of interests

Panel member, Mr Ian Birch, declared an impartiality interest in item 8.3. Mr Birch is currently undertaking consultancy work for a group with which the Applicant is associated. Mr Birch's client is a separate entity to the Applicant and the project is separate to the applicant to be heard at Item 8.3.

In accordance with section 4.6.1 and 4.6.2 of the Standing Orders 2012, the Presiding Member determined that the member listed above, who had disclosed an impartiality interest, was permitted to participate in discussion and voting on the items.

7. Deputations and presentations

7.1 Ms Fiona Stanton (MDS Legal) addressed the DAP against the application at Item 8.1.

7.2 Mr Tom Letherbarrow (Hillam Architects) addressed the DAP for the application at Item 8.2.

7.3 Mr Ashley Richards (Archiplan) addressed the DAP for the application at Item 8.3.

8. Form 1 - Responsible Authority Reports – DAP Applications

8.1	Property Location:	Lot 270 (21) Kishorn Road, Applecross
	Application Details:	Four Storey (with Basement and Roof Terrace) development comprising 21 multiple dwellings
	Applicant:	Yaran Property Group
	Owner:	Kishorn 21 Pty Ltd
	Responsible authority:	City of Melville
	DoP File No:	DAP/16/01071

REPORT RECOMMENDATION / PRIMARY MOTION

Moved by: Cr Rebecca Aubrey **Seconded by:** Mr Ian Birch

That the Metro Central JDAP resolves to:

Approve DAP Application reference DAP/16/01071 and accompanying plans (A001, A010, A012, A100, A101, A102, A103, A104, A105, A106, A200, A201 received 7 September 2016) in accordance with Local Planning Scheme No. 6, subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of two years from the date of approval. If the subject development is not substantially commenced within the two year period, the approval shall lapse and be of no further effect.

2. All stormwater generated on site is to be retained on site.

3. Prior to the installation of the car park stacker system, information shall be provided to the City to demonstrate that the stackers operate without detriment to residential amenity, particularly in respect of noise.

4. Prior to the initial occupation of the development, bicycle parking facilities for 21 bicycles shall be provided in accordance with Australian Standard AS 2890.3 to the satisfaction of the City. The facilities shall thereafter be retained for the life of the development.
5. Prior to the initial occupation of the development, all unused crossover(s) shall be removed and the kerbing and road verge reinstated at the owners cost to the satisfaction of the City.

6. The development shall be serviced by a concrete or brick paved vehicle crossover with a minimum width of 6m and located a minimum of 1.5m away from the outside of the trunk of any street tree. The crossover is to be constructed prior to the initial occupation of the development in accordance with the City's specifications to the satisfaction of the City.

7. Fencing and all structures within the front setback area are to comply with Council Policy CP-078 Residential Development to the satisfaction of the City

8. Any roof mounted or freestanding plant or equipment shall be located and/or screened so as not to be visible from the surrounding street(s) to the satisfaction of the City.

9. Prior to the commencement of works, the street tree/s to be retained within the verge are to be protected through the installation of a Tree Protection Zone (TPZ). Each TPZ is to be installed as per Australian Standard AS4970-2009 and in accordance with the following criteria to the satisfaction of the City:
   - A free-standing mesh fence erected around each street tree with a minimum height of 1.8m and a 2m minimum radius measured from the outside of the trunk of each tree.
   - If an approved crossover, front fence, footpath, road or similar is located within the 2m radius, the TPZ fencing shall be amended to be the minimum distance necessary to allow the works to be completed.
   - Fixed signs are to be provided on all visible sides of the TPZ fencing clearly stating 'Tree Protection Zone – No Entry'.
   - The following actions shall <u>not</u> be undertaken within any TPZ:
     - Storage of materials, equipment fuel, oil dumps or chemicals
     - Servicing and refuelling of equipment and vehicles
     - Attachment of any device to any tree (including signage, temporary service wires, nails, screws, winches or any other fixing device)
     - Open-cut trenching or excavation works (whether or not for laying of services)
     - Changes to the natural ground level of the verge
     - Location of any temporary buildings including portable toilets
     - The unauthorised entry by any person, vehicle or machinery
   - No unauthorised pruning of the canopy or roots of any Street Tree is permissible under the City of Melville's Street Tree Policy CP-029. Pruning may only be undertaken by the City's approved contractors following a written submission to and approval by the City.

   Once erected to the required standard, the TPZ shall be maintained in good condition to the satisfaction of the City and may only be removed upon occupation of the development.

10. All external clothes drying facilities shall be screened from view of the primary and secondary street to the satisfaction of the City.

11. Prior to the commencement of works, a detailed landscaping and reticulation plan for the subject site and the road verge adjacent to the site shall be submitted to and approved in writing by the City. The landscaping plan is to include details of (but not limited to):

(a) The location, number and type of proposed trees and shrubs including planter size and planting density;
(b) Any lawns to be established;
(c) Any existing vegetation and/or landscaped areas to be retained;
(d) Any verge treatments; and
(e) The landscaping treatment to be applied to the drive way access leg boundary

The approved landscaping and reticulation plan shall be fully implemented within the first available planting season after the initial occupation of the development and maintained thereafter to the satisfaction of the City. Any species which fail to establish within the first two planting seasons following implementation shall be replaced in accordance with the City's requirements.

12. Prior to the initial occupation of the development, a Waste Management Plan shall be prepared in accordance with Council Policy – Waste and Recyclables Collection for Multiple Dwellings, Mixed Use Developments and Non-Residential Developments and submitted in writing for the approval of the Manager Statutory Planning. Once approved, the development is to be constructed and operated in accordance with the Waste Management Plan to the satisfaction of the City.

13. Prior to the commencement of works, details of the exterior colours, materials and finishes are to be submitted to and approved in writing by the City. Once approved, the development is to be constructed in accordance with those details.

14. No development (including fencing, letter boxes or any other structure) or landscaping over 0.6m in height is to be located within the 1.5m x 1.5m sightline truncation where the vehicle access point meets the road reserve.

15. Prior to the initial occupation of the development, the surface finish of the boundary wall(s) are to be finished externally to the same standard as the rest of the development to the satisfaction of the City.

16. Lighting is to be provided to all car parking areas and the exterior entrances to all buildings in accordance with Australian Standard AS 1158.3.1 (Cat. P). All external lighting to be hooded and oriented so that the light source is not directly visible to the travelling public or abutting development.

17. A Construction Management Plan is to be prepared by the Applicant and submitted to the City for approval at least 30 days prior to the commencement of works. The Construction Management Plan shall detail how the construction of the development will be managed including the following:
    - public safety and site security;
    - hours of operation,
    - noise and vibration controls;
    - air and dust management;
    - stormwater, groundwater and sediment control;
    - waste and material disposal;
    - Traffic Management Plans prepared by an accredited personnel for the various phases of the construction, including any proposed road closures;
    - the parking arrangements for contractors and sub-contractors;
    - on-site delivery times and access arrangements;
    - the storage of materials and equipment on site (no storage of materials on

the verge will be permitted); and
- any other matters likely to impact upon the surrounding properties or road reserve.

Once approved, the development is to be constructed in accordance with the Construction Management Plan to the satisfaction of the City.

18. Temporary structures, such as prefabricated or demountable offices, portable toilets and skip bins necessary to facilitate storage, administration and construction activities are permitted to be installed within the property boundaries of the subject site(s) for the duration of the construction period. These structures must not obstruct vehicle sight lines Temporary structures are to be removed prior to initial occupation of the development.

19. Prior to the commencement of works, a scheme for the provision of Public Art shall be submitted to and approved in writing by the City in consultation with the City's Public Art Panel. Once approved, the Public Art shall be provided in accordance with Council Policy – 085: Provision of Art in Development Proposals and the Canning Bridge Structure Plan prior to the initial occupation of the development to the satisfaction of the City .Alternatively, the public art contribution may be satisfied by a cash-in-lieu payment at the same rate, made prior to the commencement of works.

The Report Recommendation/Primary Motion was put and LOST (2/3).

For: Cr Rebecca Aubrey
Mr Ian Birch

Against: Mr Clayton Higham
Mr John Syme
Cr Tim Barling

PROCEDURAL MOTION

Moved by: Cr Rebecca Aubrey **Seconded by:** Mr John Syme

To adjourn the meeting for a period of 5 minutes.

REASON: To prepare suitable wording for a potential alternate recommendation.

The Procedural Motion was put and CARRIED UNANIMOUSLY.

The meeting was adjourned at 2:55pm.
The meeting was reconvened at 3:00pm.

ALTERNATE RECOMMENDATION /PRIMARY MOTION

Moved by: Mr John Syme **Seconded by:** Cr Tim Barling

Refuse DAP Application reference DAP/16/01071 and accompanying plans (A001, A010, A012, A100, A101, A102, A103, A104, A105, A106, A200, A201 received 7 September 2016) in accordance with Local Planning Scheme No. 6, for the following reasons:

REASONS:

1. The proposal is considered to be inconsistent with the objectives of the Structure Plan.
2. The building height of 5 storeys is inconsistent with height requirement at Element 3.
3. The proposal is considered to be inconsistent with Element 2 which requires site planning should avoid buildings which are likely to create excessively bulky elements both within a development site and as it relates to the surrounding development.
4. The proposal is inconsistent with Element 3 which requires that developments ensure that interfaces between zones are appropriately managed.
5. Insufficient information was available regarding the noise of the car stacker system to be satisfied as to its operation and the potential impact on the locality.

The Alternate Recommendation / Primary Motion was put and CARRIED (3/2).

For: Mr Clayton Higham
Mr John Syme
Cr Tim Barling

Against: Mr Ian Birch
Cr Rebecca Aubrey

8.2

Property Location:	646 - 660 Albany Highway and 1-3 Miller Street, Victoria Park
Application Details:	Mixed Use Development Comprising Shops, Restaurants, Offices, Tavern, 107 Multiple Dwellings & One (1) Grouped Dwelling
Applicant:	Hillam Architects
Owner:	FowlJeff Holdings Pty Ltd and Fowler Group Holdings Pty Ltd
Responsible authority:	Town of Victoria Park
DoP File No:	DAP/16/01046

REPORT RECOMMENDATION / PRIMARY MOTION

Moved by: Cr Vicki Potter **Seconded by:** Cr Keith Hayes

That the Metro Central JDAP resolves to:

Approve DAP Application reference DAP/16/01046 and accompanying amended plans received 29 August 2016 and 2 September 2016 in accordance with Clause 38 of the Town of Victoria Park Planning Scheme No. 1, Deemed Clause 67 of the Planning and Development (Local Planning Schemes) Regulations and Clause 30 of the Metropolitan Region Scheme subject to the following conditions:

1. This approval is valid for a period of thirty six months only. If development is not commenced within this period, a fresh approval must be obtained before commencing or continuing the development.

2. Prior to the submission of an application for a building permit, Lots 1, 2, 24, 25, 26, 327 and 451 Albany Highway and Lots 66, 329 and 330 Miller Street are to be amalgamated into a single lot on a Certificate of Title. (Refer related Advice Note)

3. Prior to the submission of a building permit, the applicant/owner is to contribute a sum of 1% of the value of the total construction value towards public art, being either:
   (i) payment directly to the Town which will be placed in the Town's Community Art Reserve with the funds being used by the Town to provide public art within the same Town Planning Scheme Precinct; or
   (ii) payment to the Town of a bond to the value of the contribution, on the basis that the owner/applicant is to provide public art on the development site in accordance with the procedures outlined in the Town's Public Art Masterplan, which includes the submission of details for approval by Council and review by the Town's Arts Working Group. The public art is to be completed and installed to the satisfaction of the Town prior to the occupation of the development, at which time the bond will be refunded by Council. The public art is to be maintained thereafter by the owner/occupiers; or
   (iii) the applicant/owner entering into a legal agreement with the Town prepared by the Town's solicitors at the cost of the owner/applicant, undertaking to provide public art on the development site in accordance with the procedures outlined in the Town's Public Art Masterplan, which includes the submission of details for approval by Council and review by the Town's Arts Working Group. The public art is to be completed and installed to the satisfaction of the Town prior to the occupation of the development. The public art is to be maintained thereafter by the owner/occupiers.

4. Access to/from Miller Street to the subject site being restricted to left-in/left-out only. Prior to the submission of an application for a building permit a detailed design of a left-in/left-out only access from/to Miller Street shall be submitted to and approved in writing by the Town. All costs associated with implementing the approved access arrangement are to be borne by the owner.

5. Prior to the submission of an application for a building permit an internal and external lighting plan detailing all security and safety lighting for the development shall be submitted to and approved in writing by the Town and shall be in accordance with Australian Standards. The lighting shall be installed in full accordance with the approved details prior to the first occupation of the development hereby approved, and thereafter maintained.

6. Prior to the submission of an application for a building permit, an updated 'Colour and Materials Schedule', is to be submitted and approved in writing by the Town in consultation with the Town's Design Review Committee, with the building being finished in accordance with the approved schedule. The required updated schedule is to include the submission of samples, and details of the durability and finishes of the proposed materials, in particular the proposed materials to be used on the ground floor.

7. Prior to the first occupation of the development hereby approved, all approved car parking spaces together with their access aisles shall be clearly paved, sealed, marked, drained in accordance with Australian Standards AS2890.1

and arranged within the car park so that all vehicles may at all times leave or enter the street in a forward gear. All parking bays and access aisles shall thereafter be maintained to the satisfaction of the Town.

8. A minimum of 245 car parking bays shall be provided on site in accordance with the approved plans prior to occupation of the development. These bays shall be marked and allocated to the respective uses contained within the development and comprise the following:

   (i) A minimum of 172 bays for the exclusive use of residents at all times;
   (ii) A minimum of 71 commercial bays to be provided during normal office hours for the approved Offices, Shop, Restaurant and Tavern uses on the site. Outside normal office hours, 65 bays are to be allocated to the Restaurant and Tavern, with the remaining 6 bays being allocated general visitors.

9. The approved Shops and Offices are not to operate between the hours of 6pm to 12 midnight on any day so as to ensure the reciprocal parking arrangement between the non-residential uses is effective.

10. Prior to submission of an application for a building permit details of the security intercom system for access to all car parking bays are to be provided to the satisfaction of the Town.

11. Prior to the submission of a building permit, details of car park signage shall be submitted to and approved in writing by the Town which illustrates how visitors to the building will be clearly directed by foot and private vehicle to the relevant parts of the development.

12. Prior to the submission of an application for a building permit a plans showing a minimum of 34 bicycle spaces for the exclusive use of residents and a minimum of 11 bicycle spaces for the use of visitors, to be provided to the satisfaction of the Town and shall be constructed in accordance with the approved details and shall be thereafter maintained All bicycle spaces are to remain available for use at all times with the minimum approved provision of spaces for residents and their visitors.

13. Prior to the submission of an application for a building permit a Construction Management Plan shall be submitted to and approved in writing by the Town which includes the route that construction vehicles will take to and from the site, the temporary realignment of pedestrian access ways (including crossing points and lighting), vehicular access to the site during construction, unloading and loading areas, waste disposal, the location on site of building materials to be stored, safety and security fencing, sanitary facilities, cranes and any other details. Construction works shall take place in accordance with the approved details at all times.

14. Prior to the submission of an application for a building permit, a detailed Noise Management Plan is to be submitted and approved by the Town, which demonstrates that the development has been designed to meet the relevant requirements of State Planning Policy 5.4 ‘Road and Rail Transport Noise and Freight Considerations in Land Use Planning’ (SPP5.4). The report must be prepared by a suitably qualified and competent person in accordance with the SPP5.4 Guidelines. Any recommended mitigation or design measures are to

be incorporated into the drawings submitted for a building permit and the development shall be constructed in accordance with the approved details.

15. Prior to the submission of an application for a building permit, details being submitted of all proposed ventilation systems, including the location of plant equipment, vents and air conditioning units.

16. Prior to the submission of an application for a building permit, a photographic record of the original shops proposed to be demolished is to be prepared by a registered Heritage Architect and is to be submitted to the satisfaction of the Manager Urban Planning.

17. Prior to the submission of an application for a building permit, a Resource Efficiency Report including a Management Plan shall be submitted to and approved in writing by the Town. The report shall demonstrate that the development achieves a Green Star rating or equivalent of at least 4 stars. The development shall be constructed in accordance with the approved details and thereafter maintained.

18. All plant, equipment and external fixtures, including but not restricted to airconditioning units, satellite dishes and non-standard television aerials, but excluding solar collectors, are to be located such that they are not visible from the primary street or secondary street.

19. Clothes drying areas to be screened from view from all streets and public places in accordance with Clause 6.4.6 of the Residential Design Codes.

20. Prior to submission of an application for building permit a landscaping plan detailing size, location and type of planting to be provided to the satisfaction of the Town.

21. Landscaping is to be completed prior to the occupation or strata titling of the building(s), whichever occurs first, and thereafter maintained to the satisfaction of the Town.

22. In order to confirm compliance with this development approval and all relevant Council requirements, approval is to be obtained from the following Council Business Units prior to the submission of a certified application for a building permit:

    - Urban Planning;
    - Street Life;
    - Park Life;
    - Environmental Health (refer related Advice Note).

23. All building works to be carried out under this development approval are required to be contained within the boundaries of the subject lot with the exception of the awning/canopy over the footpath.

Advice to Applicant:

1. The applicant/owner should refer to the Requirements of Other Council Business Units, enclosed with this development approval, which are relevant to the submission of a building permit and/or the carrying out of the development for which this approval is granted. This development approval does not remove the need to obtain licences, permits or other forms of approval that may be required under other legislation or requirements of the Council.

2. To avoid delays in the issuing of a building permit, the applicant should commence the subdivision/amalgamation procedure without delay. A licensed land surveyor should be engaged for this purpose.

3. The Town will permit the Owner to defer compliance with Condition 2 provided that the Owner enters into a deed of agreement with the Town prepared by the Town's solicitors at the Owner's cost agreeing to complete the amalgamation within 12 months of the issue of the building permit. The agreement shall require the registration of an absolute caveat on the title to the subject land, until such time as the amalgamation has been completed to the Town's satisfaction.

4. Prior to the submission of an application for a building permit, an approval from Water Corporation showing the relocation of the existing sewer pipe across Lots 28, 329 and 330, is to be provided to the satisfaction of the Town.

5. A Drainage Management plan including details of the on-site stormwater disposal including soakwell sizes and locations to be submitted prior to the issue of a building permit.

6. This approval is for the use of the residential apartments as dwellings only, to be occupied on a permanent basis, and does not include approval for their use as Serviced Apartments. Any alternative use or occupation of the units will require further Planning Approval to be obtained.

7. This approval does not include the approval of any signage. Any signage for the development to be the subject of a separate sign licence application.

8. Existing crossovers that are not used as part of the development or redevelopment shall be removed and the verge, kerbing and footpath (where relevant) shall be reinstated prior to occupation of the new development or strata-titling of the properties, whichever occurs first, to the satisfaction of the Town.

9. The owner or occupier is required to display the street number allocated to the property in a prominent location clearly visible from the street that the building faces.

10. The applicant be advised that the Town of Victoria Park will not support the granting of a liquor licence that seeks to operate beyond 12 midnight.

11. Any modifications to the approved drawings, other than those authorised by this approval, may require the submission of an application for an Amendment to Planning Approval and reassessment of the proposal.

12. Should the applicant be aggrieved by this decision a right of appeal may exist under the provisions of the Town Planning Scheme or the Metropolitan Region Scheme and the applicant may apply for a review of the determination by the State Administrative Tribunal within 28 days of the date of this decision.

AMENDING MOTION

Moved by: Mr Ian Birch **Seconded by:** Mr John Syme

Delete condition 9 and change the word "allocated" to "available" in condition 8.

REASON: To allow greater flexibility in business operating hours and related parking management arrangements, enabling activity along the street front to extend into evening hours.

The Amending Motion was put and CARRIED (3/2).

For: Mr Clayton Higham
Mr John Syme
Mr Ian Birch

Against: Cr Keith Hayes
Cr Vicki Potter

AMENDING MOTION

Moved by: Mr Clayton Higham **Seconded by:** Cr Vicki Potter

Amend condition 1 to read:

This approval is valid for a period of 36 months only. If the development is not substantially commenced within this period, further approval must be obtained before commencing or continuing this development.

REASON: In response to a request from applicant, recognising prevailing market conditions.

The Amending Motion was put and CARRIED UNANIMOUSLY.

AMENDING MOTION

Moved by: Mr Clayton Higham **Seconded by:** Mr Ian Birch

Amend condition 4 to read:

Access to/from Miller Street to the subject site being restricted to left-in/left-out only, or any other alternative treatment approved by the Town. Prior to the submission of an application for a building permit the proposed access arrangement from/to Miller Street shall be submitted to and approved in writing by the Town. All costs associated with implementing the approved access arrangement are to be borne by the owner.

REASON: To provide for other options to be considered.

The Amending Motion was put and CARRIED UNANIMOUSLY.

AMENDING MOTION

Moved by: Mr Ian Birch **Seconded by:** Cr Vicki Potter

That Advice Note 3 be added at the end of condition 2, and the advice notes be renumbered accordingly.

REASON: This was considered to be more appropriate as an advice note.

The Amending Motion was put and CARRIED UNANIMOUSLY.

AMENDING MOTION

Moved by: Cr Vicki Potter **Seconded by:** Mr Ian Birch

The words "and review by the Town's Arts Working Group" be removed from condition 3 (ii) and (iii).

REASON: The Arts Working Group no longer exists.

The Amending Motion was put and CARRIED UNANIMOUSLY.

AMENDING MOTION

Moved by: Mr Ian Birch **Seconded by:** Cr Vicki Potter

Condition 22 be moved to an Advice Note.

REASON: The requirements of this condition are already embodied in the approval and are considered more appropriate as an advice note.

The Amending Motion was put and CARRIED UNANIMOUSLY.

PRIMARY MOTION (AS AMENDED)

That the Metro Central JDAP resolves to:

Approve DAP Application reference DAP/16/01046 and accompanying amended plans received 29 August 2016 and 2 September 2016 in accordance with Clause 38 of the Town of Victoria Park Planning Scheme No. 1, Deemed Clause 67 of the Planning and Development (Local Planning Schemes) Regulations and Clause 30 of the Metropolitan Region Scheme subject to the following conditions:

1. This approval is valid for a period of 36 months only. If the development is not substantially commenced within this period, further approval must be obtained before commencing or continuing this development.

2. Prior to the submission of an application for a building permit, Lots 1, 2, 24, 25, 26, 327 and 451 Albany Highway and Lots 66, 329 and 330 Miller Street are to be amalgamated into a single lot on a Certificate of Title. The Town will permit

the Owner to defer compliance provided that the Owner enters into a deed of agreement with the Town prepared by the Town's solicitors at the Owner's cost agreeing to complete the amalgamation within 12 months of the issue of the building permit. The agreement shall require the registration of an absolute caveat on the title to the subject land, until such time as the amalgamation has been completed to the Town's satisfaction.

3. Prior to the submission of a building permit, the applicant/owner is to contribute a sum of 1% of the value of the total construction value towards public art, being either:
   (i) payment directly to the Town which will be placed in the Town's Community Art Reserve with the funds being used by the Town to provide public art within the same Town Planning Scheme Precinct; or
   (ii) payment to the Town of a bond to the value of the contribution, on the basis that the owner/applicant is to provide public art on the development site in accordance with the procedures outlined in the Town's Public Art Masterplan, which includes the submission of details for approval by Council. The public art is to be completed and installed to the satisfaction of the Town prior to the occupation of the development, at which time the bond will be refunded by Council. The public art is to be maintained thereafter by the owner/occupiers; or
   (iii) the applicant/owner entering into a legal agreement with the Town prepared by the Town's solicitors at the cost of the owner/applicant, undertaking to provide public art on the development site in accordance with the procedures outlined in the Town's Public Art Masterplan, which includes the submission of details for approval by Council. The public art is to be completed and installed to the satisfaction of the Town prior to the occupation of the development. The public art is to be maintained thereafter by the owner/occupiers.

4. Access to/from Miller Street to the subject site being restricted to left-in/left-out only, or any other alternative treatment approved by the Town. Prior to the submission of an application for a building permit the proposed access arrangement from/to Miller Street shall be submitted to and approved in writing by the Town. All costs associated with implementing the approved access arrangement are to be borne by the owner.

5. Prior to the submission of an application for a building permit an internal and external lighting plan detailing all security and safety lighting for the development shall be submitted to and approved in writing by the Town and shall be in accordance with Australian Standards. The lighting shall be installed in full accordance with the approved details prior to the first occupation of the development hereby approved, and thereafter maintained.

6. Prior to the submission of an application for a building permit, an updated 'Colour and Materials Schedule', is to be submitted and approved in writing by the Town in consultation with the Town's Design Review Committee, with the building being finished in accordance with the approved schedule. The required updated schedule is to include the submission of samples, and details of the durability and finishes of the proposed materials, in particular the proposed materials to be used on the ground floor.

7. Prior to the first occupation of the development hereby approved, all approved car parking spaces together with their access aisles shall be clearly paved, sealed, marked, drained in accordance with Australian Standards AS2890.1 and arranged within the car park so that all vehicles may at all times leave or enter the street in a forward gear. All parking bays and access aisles shall thereafter be maintained to the satisfaction of the Town.

8. A minimum of 245 car parking bays shall be provided on site in accordance with the approved plans prior to occupation of the development. These bays shall be marked and available to the respective uses contained within the development and comprise the following:

   (iii) A minimum of 172 bays for the exclusive use of residents at all times;
   (iv) A minimum of 71 commercial bays to be provided during normal office hours for the approved Offices, Shop, Restaurant and Tavern uses on the site. Outside normal office hours, 65 bays are to be available to the Restaurant and Tavern, with the remaining 6 bays being allocated general visitors.

9. Prior to submission of an application for a building permit details of the security intercom system for access to all car parking bays are to be provided to the satisfaction of the Town.

10. Prior to the submission of a building permit, details of car park signage shall be submitted to and approved in writing by the Town which illustrates how visitors to the building will be clearly directed by foot and private vehicle to the relevant parts of the development.

11. Prior to the submission of an application for a building permit a plans showing a minimum of 34 bicycle spaces for the exclusive use of residents and a minimum of 11 bicycle spaces for the use of visitors, to be provided to the satisfaction of the Town and shall be constructed in accordance with the approved details and shall be thereafter maintained All bicycle spaces are to remain available for use at all times with the minimum approved provision of spaces for residents and their visitors.

12. Prior to the submission of an application for a building permit a Construction Management Plan shall be submitted to and approved in writing by the Town which includes the route that construction vehicles will take to and from the site, the temporary realignment of pedestrian access ways (including crossing points and lighting), vehicular access to the site during construction, unloading and loading areas, waste disposal, the location on site of building materials to be stored, safety and security fencing, sanitary facilities, cranes and any other details. Construction works shall take place in accordance with the approved details at all times.

13. Prior to the submission of an application for a building permit, a detailed Noise Management Plan is to be submitted and approved by the Town, which demonstrates that the development has been designed to meet the relevant requirements of State Planning Policy 5.4 ‘Road and Rail Transport Noise and Freight Considerations in Land Use Planning’ (SPP5.4). The report must be prepared by a suitably qualified and competent person in accordance with the SPP5.4 Guidelines. Any recommended mitigation or design measures are to be incorporated into the drawings submitted for a building permit and the

development shall be constructed in accordance with the approved details.

14. Prior to the submission of an application for a building permit, details being submitted of all proposed ventilation systems, including the location of plant equipment, vents and air conditioning units.

15. Prior to the submission of an application for a building permit, a photographic record of the original shops proposed to be demolished is to be prepared by a registered Heritage Architect and is to be submitted to the satisfaction of the Manager Urban Planning.

16. Prior to the submission of an application for a building permit, a Resource Efficiency Report including a Management Plan shall be submitted to and approved in writing by the Town. The report shall demonstrate that the development achieves a Green Star rating or equivalent of at least 4 stars. The development shall be constructed in accordance with the approved details and thereafter maintained.

17. All plant, equipment and 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 primary street or secondary street.

18. Clothes drying areas to be screened from view from all streets and public places in accordance with Clause 6.4.6 of the Residential Design Codes.

19. Prior to submission of an application for building permit a landscaping plan detailing size, location and type of planting to be provided to the satisfaction of the Town.
20. Landscaping is to be completed prior to the occupation or strata titling of the building(s), whichever occurs first, and thereafter maintained to the satisfaction of the Town.

21. All building works to be carried out under this development approval are required to be contained within the boundaries of the subject lot with the exception of the awning/canopy over the footpath.

Advice to Applicant:

1. In order to confirm compliance with this development approval and all relevant Council requirements, approval is to be obtained from the following Council Business Units prior to the submission of a certified application for a building permit:

    - Urban Planning;
    - Street Life;
    - Park Life; and
    - Environmental Health.

2. The applicant/owner should refer to the Requirements of Other Council Business Units, enclosed with this development approval, which are relevant to the submission of a building permit and/or the carrying out of the development for which this approval is granted. This development approval does not remove the need to obtain licences, permits or other forms of approval that may be

required under other legislation or requirements of the Council.

3. To avoid delays in the issuing of a building permit, the applicant should commence the subdivision/amalgamation procedure without delay. A licensed land surveyor should be engaged for this purpose.

4. Prior to the submission of an application for a building permit, an approval from Water Corporation showing the relocation of the existing sewer pipe across Lots 28, 329 and 330, is to be provided to the satisfaction of the Town.

5. A Drainage Management plan including details of the on-site stormwater disposal including soakwell sizes and locations to be submitted prior to the issue of a building permit.

6. This approval is for the use of the residential apartments as dwellings only, to be occupied on a permanent basis, and does not include approval for their use as Serviced Apartments. Any alternative use or occupation of the units will require further Planning Approval to be obtained.

7. This approval does not include the approval of any signage. Any signage for the development to be the subject of a separate sign licence application.

8. Existing crossovers that are not used as part of the development or redevelopment shall be removed and the verge, kerbing and footpath (where relevant) shall be reinstated prior to occupation of the new development or strata-titling of the properties, whichever occurs first, to the satisfaction of the Town.

9. The owner or occupier is required to display the street number allocated to the property in a prominent location clearly visible from the street that the building faces.

10. The applicant be advised that the Town of Victoria Park will not support the granting of a liquor licence that seeks to operate beyond 12 midnight.

11. Any modifications to the approved drawings, other than those authorised by this approval, may require the submission of an application for an Amendment to Planning Approval and reassessment of the proposal.

12. Should the applicant be aggrieved by this decision a right of appeal may exist under the provisions of the Town Planning Scheme or the Metropolitan Region Scheme and the applicant may apply for a review of the determination by the State Administrative Tribunal within 28 days of the date of this decision.

The Primary Motion (as amended) was put and CARRIED UNANIMOUSLY.

8.3 Property Location: 39 & 41 (Lots 76 & 77) Stiles Avenue, Burswood
Application Details: DA 5.2015.603.1 for Demolition and construction of Mixed Use Development for 40 Multiple Dwellings and Office
Applicant: Archiplan Architects
Owner: Perth Dev Sites Pty Ltd
Responsible authority: Town of Victoria Park
DoP File No: DAP/15/00946

REPORT RECOMMENDATION / PRIMARY MOTION

Moved by: Cr Vicki Potter **Seconded by:** Cr Keith Hayes

That the Metro Central JDAP resolves to:

Refuse DAP Application reference DP/15/00946 and accompanying amended plans dated received 9 August 2016 in accordance with Clause 38 of the Town of Victoria Park Planning Scheme No. 1, for the following reasons:

1. The proposed plot ratio of 2.78 significantly exceeds, by 39%, the permitted maximum plot ratio of 2.0 under the Town Planning Scheme No. 1 Precinct Plan. The WAPC Bulletin 113/2015, includes a framework for Local Governments to address a maximum plot ratio bonus of 25%, subject to achieving criteria related to design quality and sustainable and energy efficiency, which the development has failed to achieve. While Clause 38 of the Scheme provides discretion to vary the plot ratio, it is considered that the resulting bulk and scale of the development is overpowering and not consistent with the streetscape character or surrounding development. Furthermore, Council is not prepared to exercise its discretion as the development fails to satisfy a number of the design principles outlined in Council's Local Planning Policy 33 'Guide to Concessions on Requirements for Mixed-Use, Multiple Dwelling and Non-Residential Developments'.

2. The proposed building height of 25.4 metres (8 storeys) exceeds that permitted under the Town Planning Scheme No. 1 Precinct Plan P2, with respect to the maximum height 15m (5 storeys). While Clause 38 of the Scheme provides discretion to vary the building height, the building has failed to address the requirements of Council's Local Planning Policy 33.

3. The R149 density of the building exceeds by approximately 86%, the maximum density of R80 permitted under Town Planning Scheme No. 1 Precinct Plan P2. The proposed excessive density of the development is an overdevelopment of the site that generates a very poor level of the amenity and living standards for the future residents while generating additional vehicular movement into Griffiths Street. This overdevelopment is contrary to the Development Standards of Precinct Plan P2 – Burswood Precinct and contrary to the objectives of Council's Local Planning Policy 33.

4. The reduced primary and secondary street setbacks, plus the reduced side setbacks of the development contribute to its significant building bulk with no relief provided by the proposed elevations, which include significant blank walls to the side elevations, impacting on the visual amenity of surrounding properties and being contrary to the orderly and proper planning of locality.

5. The height and length of the boundary walls to both side common boundaries exceed the permissible wall height and length limitations detailed in Council's Local Planning Policy – Boundary Walls, with the impact being that the walls will be visually imposing when viewed from the street and adjoining properties.

6. By virtue of the below ground parking areas not being in a position to accommodate the car stackers as per the information submitted by the applicant, the car parking is short by 29 bays. Additionally there is no security to the residents by means of entry gates (external) or internal separation between residents' bays and commercial bays. In addition, there is no separation of bicycles spaces for residents and visitors, all together located within the basement car parking, creating a security issue. This security issue will have an adverse effect on the occupiers or users of the development, being contrary to Town Planning Scheme No. 1 Clause 38(3).

7. The development has failed to comply with the Statement of Intent of Town Planning Scheme No. 1 Precinct Plan P2 – Burswood Precinct as the building is not of a high visual standard to complement a key entry point to the City. The proposal is a bulky building with very little visual interest and large blank side walls affecting the visual amenity of the surrounding area.
8. The development fails to satisfy the requirements outlined in Council's Local Planning Policy 20 'Design Guidelines for Developments with Building Above 3 Storeys', as the application does not address the following information requirements:
    - Building services provision (electrical, mechanical and hot water);
    - Resource efficiency;
    - Acoustic privacy; and
    - Landscape maintenance.

9. The development fails to satisfy the criteria outlined in Council's Local Planning Policy 33 'Guide to Concessions on Requirements for Mixed-Use, Multiple Dwelling and Non-Residential Developments' as the development does not positively contribute to the streetscape, will have a detrimental impact on neighbouring properties, and does not provide superior amenity for residents as follows:
    - No appropriate strategy has been devised to manage the site sensitivities, nor has the applicant demonstrated a comprehensive understanding of the desired future character of the Precinct;
    - The development does not make a positive contribution to the streetscape and does not set a high standard to be emulated by other proposals within the locality;
    - The combination of overshadowing and lack of transition between the public and private domain contributes to the failure of the development to make a positive contribution to the public realm;
    - The design does not optimise resident amenity, which is compromised by the excessive number of dwellings proposed at almost double the maximum permitted;
    - The amenity of the apartments is limited and not sufficient to warrant description as a superior design standard;
    - The environmental performance of the building is inadequately addressed and may be dependant on artificial means. The fundamentals of passive design are poorly addressed. No opportunity for cross ventilation to units is provided;

- In general the development is of a poor design that fails to meet any of the criteria established to warrant consideration for relaxation of planning requirements.

10. The development does not satisfy the relevant matters to be considered under Deemed Clause 67 of the Local Planning Schemes Regulations as follows:
    a) The aims and provisions of this Scheme and any other local planning schemes operating within the Scheme area;
    b) The requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the *Planning and Development (Local Planning Schemes) Regulations 2015* or any other proposed planning instrument that the local government is seriously considering adopting or approving;
    c) Any local planning policy for the Scheme area;
    d) The compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development;
    e) The amenity of the locality including the following –
        i. Environmental impacts of the development;
        ii. The character of the locality;
        iii. Social impacts of the development.

11. The development would negatively impact upon the future development of the locality contrary to Local Planning Policy 35 'Policy Relating to Development in Burswood Station East'.

12. Having regard to the above reasons, the proposal is non-compliant with Town Planning Scheme No. 1 Clause 38(3) 'Determination of Non-Complying Applications' as it is:

    (i) inconsistent with:
    - the orderly and proper planning of the locality;
    - the conservation of the amenities of the locality;
    - the likely future development of the locality; and

    (ii) would have an undue adverse affect on:
    - the occupiers or users of the development;
    - the property in, or the inhabitants of, the locality; and
    - the likely future development of the locality.

The Report Recommendation/Primary Motion was put and CARRIED (4/1).

For: Mr Clayton Higham
Mr Ian Birch
Cr Keith Hayes
Cr Vicki Potter

Against: Mr John Syme

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 Close

The Presiding Member reminded the meeting that in accordance with Standing Order 7.3 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

There being no further business, the Presiding Member declared the meeting closed at 4:37pm.

Form 1 - Responsible Authority Report

(Regulation 12)

Property Location:	Lot 3 (No. 8) Walter Road East, Bassendean
Application Details:	Proposed 10 Multiple Dwellings
DAP Name:	Metropolitan Central JDAP
Applicant:	Planning Solutions
Owner:	8 Walter Road East Pty Ltd
LG Reference:	DABC/BDVAPPS/2016-100
Responsible Authority:	Town of Bassendean
Authorising Officer:	Christian Buttle, Senior Planning Officer
Department of Planning File No:	DAP/16/01058
Report Date:	12 September 2016
Application Receipt Date:	3 June 2016
Application Process Days:	90 Days
Attachment(s):	1. Applicant's original submission dated 26 May 2016 incorporating waste management plan. 2. Plans of the proposed development all dated 29 August 2016 Rev E comprising: (i) A01: Existing Site Plan; (ii) A02: Ground Floor & Site Plan; (iii) A03: Upper Floor Plan; (iv) A04: Elevations; (v) A05: Landscape & Open Space; and (vi) A06: Plot Ratio. 3. Applicant's correspondence dated 31 August 2016 incorporating: • Design principle justification; • Amended development plans; • Stormwater Management Plan and Water Sensitive Urban Design Checklist; and • Bus Timetables (current and superseded). 4. 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. 5. Town of Bassendean Energy Efficiency Assessments for each dwelling.

Officer Recommendation:

That the Metro Central JDAP resolves to:

Approve DAP Application reference DAP/16/01058 and accompanying plans:

Dwg No.	Drawing Name	Rev No.	Dwg Date
A01	Existing Site Plan	E	29.08.2016
A02	Ground Floor & Site Plan	E	29.08.2016
A03	Upper Floor Plan	E	29.08.2016
A04	Elevations	E	29.08.2016

Pursuant to clause 68 of Schedule 2 of the *Planning and Development (Local Planning Scheme) Regulations 2015*, subject to the following conditions:

1. Revised drawings being submitted in advance of, or in conjunction with the application for a Building Permit, and such drawings demonstrating compliance with the following requirements, to the satisfaction of the Town:
   (a) Pedestrian paths being widened to 1200mm minimum opposite the meals area of U1 and in front of the entrance of U4.
   (b) The brick fence forward of the boundary wall of U1 being lowered in height to a maximum of 1.8m above ground level.
   (c) The driveway and car parking bays being constructed of segmented brick paving in lieu of concrete.

2. 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;
   (b) reticulation methods, including arrangements incorporated into the design to minimize water use; and
   (c) landscaping of the verge forward of the development site, including the provision of a street tree of a minimum pot size of 90L at the time of planting in accordance with the Town's adopted Street Tree Masterplan (Eucalyptus todtiana).

   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.

3. The site shall be landscaped in accordance with the approved landscaping plan and shall be maintained thereafter.

4. 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 and car parking areas. Lighting in accordance with the approved plan is to be installed prior to occupation or strata titling of the building(s), whichever occurs first.

5. The sealing and kerbing of all car parking areas and access ways to the Town's specifications.

6. The on site car parking spaces and access ways being constructed and maintained thereafter to the Town's specifications.

7. Each dwelling being provided with one car parking space. Such arrangement being reflected on any subsequent strata plan for the property.

8. Visitor parking spaces being clearly marked for "Visitors Only" and used as such.

9. A minimum of 4 bicycle parking spaces shall be provided for residents, and a minimum of 1 bicycle parking spaces shall be provided for visitors. The bicycle parking spaces shall be provided in the location and manner shown on the approved drawings and in accordance with the provisions of AS 2890.3 (as amended).

10. A construction management plan being submitted for the Town's approval prior to the issue of a building permit.

11. The existing redundant crossover being removed and the verge and kerbing being reinstated to the satisfaction of the Town.

12. Each dwelling being provided with a solar pergola as shown on the approved drawings. The solar pergolas shall be constructed with fixed louvres that are angled at 34 degrees to the north, and detailed construction drawings of the solar pergolas demonstrating compliance with this requirement shall be incorporated within the drawings that are the subject of an application for a building permit.

13. 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.

14. The street number being prominently displayed at the front of the development.

15. Individual unit numbers being prominently displayed at the pedestrian entrance to each individual dwelling.

16. The provision of side and rear fences, behind the street setback line, of 1.8 metres in height. Where the ground levels vary on either side of the fence, the required height shall be measured above the higher ground level.

17. A separate application and approval being obtained for any fencing which is not shown on the approved drawings and which sits forward of the building line.

18. Visual privacy screening, where shown on the approved drawings, extending from floor level to a minimum height of 1.6 metres above floor level and incorporating a maximum 50mm gap between slats and no more than 25% of the surface area of the screened area being open.

19. 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. Air-conditioning condenser units are to be located only in the positions shown on the approved drawings unless alternative positions are approved by the Town.

20. External clothes drying facilities for shall be provided for each dwelling in the positions shown on the approved drawings unless alternative positions are approved by the Town. All such facilities shall be installed so as to be screened from view of the street or other public place.

21. Waste Management arrangements for the development shall be undertaken in accordance with the stamped approved waste management plan. The Waste Management Plan shall be applied in perpetuity across the life of the development and shall be incorporated into the strata by-laws for the development.

22. The bin storage area is:
    (a) To be surrounded by a 1.8 metre high minimum walls with a self-closing gate;
    (b) 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
    (c) To be provided with internal walls that are cement rendered (solid and impervious) to enable easy cleaning.

23. 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.

24. 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 dwellings, unless otherwise approved by the Town.

25. All building works to be carried out under this development approval shall be contained within the boundaries of the subject lot.

26. The incorporation of public art into the proposed development or a cash-in-lieu 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.

27. Prior to the issue of a building permit, an acoustic report shall be submitted to the Town for approval which shall 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). The report shall be prepared in accordance with the provisions of State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning. Any 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.

28. The buildings 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.

29. Prior to the issue of a building permit, a development bond for the sum of $5,000 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.

30. 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. The issue of a Building Permit is required prior to the commencement of any works on site.

2. 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.

3. 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.

4. If the planning approval lapses, no development shall be carried out without further approval having first been sought and obtained.

5. 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.

6. Separate approval being obtained from the Town's Asset Services for the proposed crossover.

7. The applicant is encouraged to undertake a dilapidation survey of adjoining properties prior to the commencement of work on-site.

8. The Town of Bassendean has no objection, in principle, to the design of the development being 'handed', should the applicant wish to pursue such a design modification by way of an amended application for approval.

Background:

Insert Property Address:	Lot 3 (No. 8) Walter Road East, Bassendean
Insert Zoning MRS:	Urban
TPS:	Residential (R20/40)
Insert Use Class:	Multiple Dwelling
Insert Strategy Policy:	Not applicable
Insert Development Scheme:	Town of Bassendean Local Planning Scheme No. 10 (District Zoning Scheme)
Insert Lot Size:	1,200 sq.metres
Insert Existing Land Use:	Single House
Value of Development:	$2 million

The site is currently developed with a timber framed asbestos walled and tiled roof single house which was constructed in 1954.

Following the construction of the single house subsequent minor approvals were issued for ancillary development on the site as chronicled below:

- 1973: Patio;
- 1974: Outbuilding;
- 1975: Carport;
- 1979: Patio Enclosure; and
- 1987: Outbuilding.

The development site is generally rectangular in shape with a frontage to Walter Road East of 20.22 metres, side boundaries of 58.64 metres and 60.75 metres and a rear boundary of 20.12 metres.

The site is situated within the cul-de-sac end of Walter Road East, just to the east of the junction of Walter Road East and Lord Street. Lots to the left hand side and rear of the development site are both vacant, both owned by the Western Australian Planning Commission and both affected in part by a Metropolitan Region Scheme (MRS) reservation for the future widening of Lord Street. The lot to the right hand side of the development site is developed with two single houses (each single storey) in a battle-axe configuration. Lots on the opposite side of the street are similarly developed with single storey single houses.

The application which is the subject of current consideration will necessitate removal of all existing improvements on site.

The relationship between the development site and other properties described above can be seen on the 2015 aerial photography extract which is provided below (development site is highlighted red):

Details: outline of development application

The proposed development incorporates the demolition of the existing single house and the construction of ten multiple dwellings. Each dwelling contains two bedrooms and two bathrooms (with the exception of ground floor apartment 1 which contains two bedrooms and one bathroom) along with an open plan kitchen/dining/living area. The five ground level dwellings are provided with associated ground level courtyards while the five upper level dwellings are each provided with balconies. Each dwelling is provided with a single car parking space and there are three visitor car parking spaces.

The multiple dwellings are contained within a series of 'buildings' which are each similar in character to two storey 'townhouses' with a communal driveway running along the left hand side of the development site.

The three visitor bays are located at the front of the site and forward of a security gate while the occupier bays are situated in the main beneath upper level building structures. Also accessed from the common property driveway is a communal bin store, a communal bike store and individual stores. A pedestrian path runs centrally through the site from the street front boundary of the site to the back buildings and this path connects directly to the entrances of the ground floor units and stairwells serving the upper floor units. The pedestrian path separates car parking spaces from the ground floor dwellings.

In order to receive approval, the application seeks discretion under the provisions of clause 5.3 of the Town of Bassendean Local Planning Scheme No. 10 (LPS10) for approval at the higher R40 density code.

In addition to discretion under LPS10, the applicant also seeks approval under the Design principles of the Residential Design Codes of Western Australia for components of the application relating to the following matters:

(a) Cl 6.1.1: Building Size;
(b) Cl 6.1.2: Building Height;
(c) Cl 6.1.4: Lot Boundary Setbacks;
(d) Cl 6.3.2: Landscaping
(e) Cl 6.3.3: Parking; and
(f) Cl 6.4.1: Visual Privacy.

Legislation & policy:

(a) Town of Bassendean Local Planning Scheme No. 10 including:

- Clause 1.6: The Aims of the Scheme;
- 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/town_planning_docs/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 Strategic Community Plan

Town Planning and Built Environment

Objective
- Ensure Town provides choice in housing types

Strategies:
- Plan for the highest densities to be centred on 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 development approval:

(a) Perth and Peel @ 3.5 million / Draft Central sub-regional planning framework;
(b) State Planning Policy 3.1 – Residential Design Codes of Western Australia; and
(c) State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning

As the proposed development is within close proximity of Lord Street and the dwellings may be affected by road noise, it is recommended that the proposal be the subject of a noise assessment and that the development proceed in accordance with any recommendations that flow on from such assessment (this could, for example, result in a need for thicker glazing to be provided to windows or for an alternative balustrade treatment to be provided to upper floor balconies).

Local Policies

The application for development 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 15 – Percent for Art Policy and Local Planning Policy No. 18 – Landscaping with Local Plants are of relevance when considering the application.

Having regard to the value of the development (over $1M) a public art requirement (equivalent to 1% of the project value) applies to the development.

Consultation:

Public Consultation
The application was referred to adjoining property owners inviting comment on components of the proposed development which did not meet the Deemed-to-comply provisions of the R-Codes by way of letter which included copies of the plans and invited

comment within a period of 21 days in relation to the following components of the proposed development:

- Building Height;
- Primary Street Setback;
- Landscaping within Street Setback Area;
- Boundary Walls;
- Side Setbacks;
- Over height side boundary fencing;
- Filling and Retaining; and
- Visual Privacy.

In response to this consultation, two separate submission letters covering a variety of points were received. The detail of the submission letters, along with an officer response, is provided in the table below:

Submitters' Comment	**Officer Response**
<u>Boundary Walls</u> Four sections of the houses are proposed to be built on the boundary. Walls will be up to 3.9m high and 2/3 of the length of the boundary. Maximum wall height should be 3.5m.	When originally submitted, the proposed development incorporated four separate boundary walls with a total combined length of 24.68 metres and heights of up to 4.01m. The revised design which is the subject of JDAP consideration now incorporates three separate boundary walls with a reduced combined length of 18.77m and a maximum wall height of 3.076m and average wall heights of less than 3.0m.
Boundary walls will block light entering windows of west facing windows of dwelling.	The boundary wall of unit 2 is situated adjacent to the side wall of the house at No. 6 Walter Road East within which openings exist, but the openings serve only non-habitable rooms (bathroom, laundry and toilet).
Concerns regarding structural damage associated with the construction of the boundary walls.	This is not a relevant planning consideration. The proponent will be encouraged to undertake a dilapidation survey of the adjoining properties. Adjoining property owners can also pro-actively document the status of their properties prior to any works commencing.
Inability to affix anything to the boundary walls limiting ability to establish a vertical garden as the boundary walls will become the dividing fence separating the new development from the adjoining property.	If the adjoining owner wishes to install a vertical garden to screen the view of wall on boundary, they have the potential to install a structure immediately adjacent to the wall (free standing) to which plants can grow to create the desired outcome. Further comment regarding boundary walls is provided in the R-Code assessment table of this report.

	Having regard to design adjustments that have been made, the submitters' comments are not supported.
<u>Reduced Primary Street Setback</u> The proposed development incorporates a 3m minimum setback in lieu of the prescribed 4m minimum setback. Such a reduced setback will compromise the front verandah and outlook generally from the front of the adjoining dwelling.	The primary street setback has been increased from that which was originally proposed to 4m minimum which meets the DTC provisions of the R-Codes. The average street setback of the development is also commensurate with that which would be provided at an R20 density code (6m average). Having regard to design adjustments that have been made, the submitters' comments are not supported.
<u>Inconvenience Associated with Construction</u> If development proceeds there will be a need to allow access for builders and the construction will likely occur over a period of around 12 months.	It is acknowledged that there will be a level of inconvenience for neighbouring property owners associated with the development of this property. A condition of approval has been recommended that requires the preparation and approval of a construction management plan which should assist in this regard.
<u>Noise</u> There will be 3 courtyards and 3 living rooms / bedrooms on the boundary which will have an adverse noise related impact on the adjoining property.	This is a matter for which there are no specific R-Code controls and accordingly the submitter's comments are not supported.
<u>Character of Development</u> Proposed development is out of character with the area – • Most other developments are single storey in nature; • It is single storey homes for families that are required and not apartments for professionals; and • Approval of the development would conflict with the provisions of Cl 4.2.1 (a) of LPS10 (residential zone objective) which is:	While the concerns of the adjoining property owners are acknowledged, they can not be supported for the following reasons: • Two storey buildings are accommodated by default throughout the Town; • The density of development which is proposed is accommodated by the Town's planning rules as they are currently structured; • Scheme objectives are set down within the Residential zone which could be said to promote development of this kind, including:

(a) To maintain life long or long-time residents as an integral component of the Bassendean community. As a result of the proposed development and the possibility of other similar development on adjoining properties my family will be moving away from Bassendean to find a home that recovers the suburban low/medium density lifestyle we will be losing here.	4.2.1(c) – recognising the role of Bassendean as a middle metropolitan area with respect to increased urban development and population growth; and 4.2.1(d) – make provision for housing types that respond to declining occupancy rates. Although the concerns that have been raised by the adjoining owners are acknowledged, they can not be supported.
<u>Limited Parking Availability for Construction Vehicles</u> There is limited opportunity for the parking of trades vehicles having regard to the position of the development site at the end of a cul-de-sac.	This is a construction management issue that the site supervisor of the builder will need to control and which sits outside the ambit of planning controls. Rangers will be asked to patrol the street during construction and if any resident observes vehicles parked contrary to road rules, they can make direct contact with the Town's Rangers to address the matter. The submitters' comment is acknowledged and will be monitored during the construction period.
At a site inspection held 20 September 2016, adjoining property owners expressed a preference for the design to be 'handed'. The Town would be supportive of a design change in this respect and a footnote has been included within the recommendation to this effect.	

Subsequent to the assessment of the original submission (which was the version of the plans advertised for public comment) the applicant amended the design by making the following changes:

- Lowering building height (but not to an extent which meets the DTC provisions of the Codes). This matter is the subject of more detailed discussion within the body of the report;
- Increasing primary street setback (to meet the DTC provisions of the R-Codes);
- Increasing extent of landscaping within the street setback area (to an extent that is 'deemed' to meet the DTC provisions of the R-Codes). This matter is the subject of more detailed discussion within the body of the report;
- Reducing length and height of boundary walls (but not to an extent which meets the DTC provisions of the Codes). This matter is the subject of more detailed discussion within the body of the report;
- Lowering the height of over height side boundary fencing forward of the boundary wall of U1 (but not to an extent that it now meets the normally expected 1.8 metre fence height). This matter is dealt with by way of a recommended condition of approval;
- Lowering the height of filling and retaining (to meet the DTC provisions of the R-Codes); and
- Adjustments to elevation drawings to show visual privacy screening not previously shown (but there are still components of the design which do not meet the DTC

provisions of the R-Codes). This matter is the subject of more detailed discussion within the body of the report.

The amended drawings which are the subject of this report have not been the subject of further neighbour consultation.

No change was made in relation to upper floor setbacks relative to the rear property boundary which did not meet the DTC provisions of the R-Codes. This matter is the subject of more detailed discussion within the body of the report.

Consultation with other Agencies or Consultants

Having regard to the fact that the Western Australian Planning Commission owns the vacant lots to the left hand side and rear of the development site, and noting that variations to the DTC provisions of the R-Codes were proposed adjacent to each of these property boundaries, a consultation letter (including plans) was sent to the Department for Planning inviting comment on the proposed development on behalf of the Commission.

The Town's consultation letter was acknowledged, but no submission was made by the Department in relation to the proposed development.

No other external agency or consultant referral was undertaken.

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 acceptable having regard to the existing planning framework and the location of the development site relative to services and facilities.

The development which has been proposed assists in accommodating population growth (1 dwelling replaced with 10 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 access way, 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.

Scheme Requirement contained within clause 5.3.1.2 of LPS10		**Officer Comment on Scheme Requirement**
(a)	In the opinion of Council the lot has a road frontage sufficient to allow at least two homes and a shared access way, where required to service development to the rear.	Scheme provision satisfactorily addressed. Although the configuration proposed (one dwelling on top of the other at the front of the development site facing the street in lieu of two dwellings side by side) does not meet the original expectation of the Scheme, it meets the literal wording. A shared access way serving dwellings to the rear of the site is provided along the left hand side of the

		development site.
(b)	There is due regard for relevant Local Planning Policies.	Scheme provision satisfactorily addressed. 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 showing that each dwelling meets the required 70 point score. Dwellings have all been designed to provide outdoor living areas (courtyard ground floor or balcony upper floor) along with internal living areas that have a northern aspect. Eastern and western walls of dwellings have generally been designed to limit the number and size of openings in accordance with policy requirements.
(c)	Identified heritage objectives are not compromised.	Scheme provision satisfactorily addressed. There are no heritage considerations that need to be taken into account in the assessment of the application for development approval.
(d)	The proposal demonstrates elements of water sensitive urban design.	Scheme provision satisfactorily addressed. The Town's Local Planning Policy No. 3 – Water Sensitive Design provides the matters against which the application must be assessed. In summary, the development incorporates: • Floor levels and finished ground levels to the development that are well above 1:100 year flood levels; • Retention of storm water run off on site; • Low water use / native focussed landscaping; and • The need for segmented paving will be incorporated as a recommended condition of approval.
(e)	The existing streetscape is being preserved.	Scheme provision satisfactorily addressed. Although the proposed development incorporates two storey buildings in a section of street which is developed only with single storey dwellings (facing the street), the default height limit which applies to the scheme area permits such building height. The form and shape of the buildings are reflective of surrounding dwellings with pitched roofs. Sufficient landscaped area is now provided forward of the proposed buildings and street setbacks are commensurate with those that are specified for development at an R20 density code.

R-Codes assessment:

The R-Codes assessment provided below is done so 'by exception'. Where there is no detailed comment provided in relation to a particular component of the R-Codes this is a result of the proposed development meeting the Deemed-to-comply provisions of the Codes.

Design Element	**Residential Design Codes**	**Compliance / Officer Comments**
6.1.1 Building size	Maximum permissible plot ratio of 0.6 (or 720 sq.metres) at R40 density code. Proposed plot ratio of 0.608 or 730 sq.metres proposed.	Design principle assessment required. Plot ratio additional to that permitted by the DTC provisions of the Codes (10 sq.metres) equates to 1 sq.metre per dwelling, a figure that is so minor that it is indistinguishable in the context of the overall development.
6.1.2 Building height	Top of external wall 6m. Top of pitched roof 9m.	A small portion of the front building containing U1 & U6 incorporates a wall height of 6.297m and a small portion of the second building containing U2 & U7 incorporates a wall height of 6.254m. Wall height of all remaining buildings and top of roof height for all buildings fits within the DTC allowances. Additional wall height is acceptable as the additional wall height is minor in nature, does not result in overshadowing of an adjoining property, does not block views and the development presents to the street as a standard two storey dwelling, which is the form of development that the default height limits are intended to accommodate.
6.1.4 Lot boundary setbacks	<u>Side setbacks generally</u> As set out in Tables 2a and 2b. (see below for comment on boundary walls)	Side setbacks generally meet the requirements set down within Tables 2a and 2b with the exception of the upper floor north (rear) wall of units 9 and 10. Section of Wall Containing Screened Balconies to U9 & U10 DTC Setback = 1.5m Proposed Setback = 1.2m Section of Wall Containing Living Rooms of U9 & 10 DTC Setback = 2.0m Proposed Setback = 1.5m The affected rear adjoining property is vacant and the adjoining owner (the

		WAPC) was notified of the proposed setback and invited to make comment. As previously advised, no submission was made on behalf of the adjoining property owner. The proposed setbacks are acceptable as: • The proposal has been the subject of neighbour consultation and no comment has been made by that adjoining owner; • The setbacks which are proposed will not have an adverse impact with respect to access to daylight and direct sun for any development which occurs on the adjoining property and should not adversely impact ventilation; • No privacy impact results from the proposed setbacks as the walls in question do not contain major openings; and • Any design prepared for the adjoining vacant land can be made in the knowledge of the positioning of buildings on the development site, reducing, for example, perceived impacts associated with building bulk.
	<u>Boundary walls</u> Where the subject site and an affected adjoining site are subject to different density codes, in accordance with 6.1.4 C4.3, the length and height of the boundary wall on the boundary between them is determined by reference to the lower density code.	Three separate single storey boundary walls are proposed along the right hand (eastern) side of the development site adjoining the dwellings at Nos. 6 and 6A Walter Road East. As the adjoining properties are only developed to the base R20 density code, it is the R20 controls that apply to this component of the development. At an R20 density code, the R-Codes permit walls not higher than 3.5m with an average of 3m or less, for one-third of the balance of the boundary behind the front setback, to one side boundary only. The development site has a lot boundary length of 60.75 metres and the prescribed front setback at an R20 density code is 6m. Therefore the DTC allowance is for a wall of one-third of 54.75 metres which equals 18.25 metres. The proposed development incorporates

		three separate boundary walls; one each to unit 1, unit 2 and unit 3. These walls have the following dimensions: <u>U1:</u> Length: 3.59m Max Height: 3.076m Avg Height: 2.926m <u>U2:</u> Length: 7.59m Max Height: 2.983m Avg Height: 2.783m <u>U3:</u> Length: 7.59m Max Height: 2.769m Avg Height: 2.719m As identified above, each of the walls fits within the DTC allowances with respect to average and maximum height, but the combined overall length of 18.77m exceeds the 18.25m length accommodated by the DTC provisions and therefore must be considered against the associated Design principles. The proposed boundary walls are acceptable for the following reasons: • The walls only marginally exceed the length allowed 'as of right' by the DTC provisions of the R-Codes (18.77m in lieu of 18.25m); • The maximum and average height of all walls are beneath that accommodated by the DTC provisions of the R-Codes; • The wall closest to the street is positioned behind the primary street setback line; • Having regard to the north-south orientation of the lots, the walls do not cause overshadowing to any habitable room windows or outdoor living areas; and • The extent of overall building bulk associated with the walls is commensurate with that anticipated by the DTC provisions of the R-Codes.
6.3.2 Landscaping	Landscaping of open spaces in accordance with the following: (i) Street setback max 50% hard surface and no	Generally acceptable with the exception of pedestrian path provision. (i) Extent of soft landscaping is 'deemed' to meet the DTC provisions of the R-Codes as an area of soft landscaping

	cars save for visitors bays;	greater than that specified is provided forward of ground floor unit 1 (a small portion of the landscaping is positioned behind the 4m setback line but forward of the building line).
	(ii) Separate wheelchair accessible pedestrian paths connecting entries to buildings with the public footpath and car parking areas;	(ii) Minor adjustment to pedestrian path to meet specified 1.2m min width required alongside meals room of unit 1 (1.1m width shown in this location) and in front of entry to unit 4 (1.05m width shown in this location). This can be dealt with by way of conditions of approval.
	(iii) Landscaping between each 6 consecutive external car bays to include shade trees;	(iii) Not applicable.
	(iv) Lighting to pathways, communal open space and car parking areas; and	(iv) Detail not provided. Applicant has requested that this matter be dealt with by way of a condition of approval.
	(v) Clear line of sight at pedestrian and vehicle crossings.	(v) Clear lines of sight provided at pedestrian and vehicle crossings.
6.3.3 Parking	The following minimum number of on site occupier car parking spaces is provided per multiple dwelling – 1.25 per 2 bedroom apartments (12.5 i.e. 13 bays)	The application provides 1 bay per dwelling in lieu of the 1.25 bays per dwelling that is specified by the DTC provisions of the R-Codes for a 'Category B' location (the location that applies to this site – beyond 800m from a high frequency train station or 250m from a high frequency bus route). Instead, the 1 bay per dwelling provided is equivalent to that specified for development within a 'Category A' location (within 800m of a high frequency train station or 250m from a high frequency bus route) Parking provision at a ratio equivalent to that specified for development within a Category A location is supported for the following reasons: • The development site is 22m from Lord

		Street, along which bus routes 340, 341 and 342 operate; and • The development site is within 600m (as the crow flies) of the Success Hill Train Station. While neither of these bus or train services operate on what is technically classified as a high frequency service (defined by the R-Codes as a service every 15 minutes during weekday peak periods of 7am - 9am and 5pm to 7pm): • There are a combined 18 services within the morning peak (12 bus and 6 train) which equates to an *average* of 1 service for every 6.67; and • There are a combined 20 services within the afternoon peak (13 bus and 7 train) which equates to an *average* of 1 service for every 6 minutes. Three visitor car parking bays are also provided which meets the DTC requirement for this kind of development (1 bay per 4 dwellings).
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.	The proposed development complies with the DTC provisions with the exception of the following openings: Upper Floor West Facing Living Room window of U6: DTC Setback -6.0m Proposed Setback – 5.9m Upper Floor West Facing Living Room widow of U7: DTC Setback – 6.0m Proposed Setback – 5.86m Upper Floor West Facing Living Room window of U8: DTC Setback – 6.0m Proposed Setback – 5.86m The Living Room windows identified above are acceptable as proposed for the following reasons: • The proposed window configuration has been the subject of adjoining neighbour consultation and no submission was received in relation to this component of the proposed development; • The setbacks which are proposed 5.86m – 5.9m will be indistinguishable

		from those which are allowed 'as of right'; • The adjoining property to the west of the development of site is vacant; and • The majority of the adjoining property to the west is reserved for future road widening with the surplus remaining portion of zoned land (which is the is area overlooked from the Living Room windows identified above) likely to serve nothing more than an access leg to WAPC owned properties at Nos. 46 and 48 Lord St to facilitate their development without the need to take direct vehicle access from Lord St. Refer to extract from LPS10 below:  (Development Site highlighted red)

Council Recommendation:

At its Ordinary Council meeting held in May 2011, the Council of the Town of Bassendean resolved to require that all Joint Development Assessment Panel (JDAP) applications be the subject of a report to Council in order that Council can make an alternative recommendation to the Metropolitan Central JDAP, should it see fit.

Council considered this application at its meeting held 27 September 2016, at which time it resolved as follows:

"COUNCIL RESOLUTION - ITEM 10.4

MOVED Cr McLennan, Seconded Cr Pule, that Council does not endorse the Senior Planning Officer's report and recommendation to the Metropolitan Central Joint Development Assessment Panel for the proposed 10 Multiple Dwellings on Lot 3 (No. 8) Walter Road East, Bassendean, as the Town is in the process of amending its Town Planning Scheme to prevent this type of development occurring in the future.

CARRIED UNANIMOUSLY 6/0"

Officer Comment in Relation to Council Recommendation

At its meeting held April 2016, Council resolved to initiate an amendment to LPS10 in relation to multiple dwellings which, if finalised, will impose the following requirements for multiple dwelling developments:

- Specifying a minimum 25 metre development site frontage for Multiple Dwellings on land with a density code of R40 and below;

- Making multiple dwellings on land with a density code of R40 and below a use that will not be permitted unless the Town has exercised its discretion by granting development approval after the proposal has been advertised for public comment; and

- Only approving Multiple Dwellings on plot ratio controls (in relation to permissible density of development) where the development site is located within 800m walking distance of the Bassendean Train Station: The development potential of proposals beyond this distance will be calculated in the same way as Grouped Dwellings.

The site which is the subject of current consideration sits beyond an 800m walkable distance from the Bassendean Train Station and does not incorporate a development site frontage of 25 metres. The grouped dwelling development potential of this property is 5 dwellings.

Although the scheme amendment has been advertised for public comment, Council is yet to consider a report on submissions (this report is expected to be presented to Council's October 2016 ordinary meeting).

Clause 67 of the Local Planning Scheme Regulations is titled "Matters to be Considered by Local Government" and states that:

"In considering an application for development approval the local government is to have due regard to the following matters to the extent that, in the opinion of the local government, those matters are relevant to the development of the subject of the application –

(a) The aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;
(b) The requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving;
…"

The application for development approval was received in June 2016 and discussions with the applicant first commenced in November 2015.

Alternate Recommendation:

Having regard to its consideration of this application at its meeting held 27 September 2016, the alternate recommendation of the Council of the Town of Bassendean is that the application be **refused** as the Town is in the process of amending its Town Planning Scheme to prevent this type of development occurring in the future.

Conclusion:

As identified within this report, the development site is zoned residential with a split coding of R20/40 under the provisions of the Town's Local Planning Scheme No. 10 (LPS10) and the proposed development satisfactorily addresses requirements contained within LPS10 to qualify for development at the higher density code.

The proposed development has generally been designed to meet the Deemed-to-comply provisions of the R-Codes with minor discretion needing to be exercised in relation to certain aspects of the development as described within the report. For the reasons identified within the report it is recommended that such discretion be exercised and that the application be approved subject to the conditions recommended.

PLANNING SOLUTIONS

URBAN & REGIONAL PLANNING

Development Application Report
Proposed Residential Development

Lot 3 (8) Walter Road East, Bassendean

Prepared for
8 Walter Road East Bassendean Pty Ltd

May 2016

Direct all inquiries to:

PLANNING SOLUTIONS (AUST) PTY LTD
296 Fitzgerald Street
PERTH WA 6000

ALL CORRESPONDENCE TO:
PO Box 8701
PERTH BUSINESS CENTRE WA 6849

Phone: 08 9227 7970
Fax: 08 9227 7971
E-mail: admin@planningsolutions.com.au
Web: www.planningsolutions.com.au

Project details

Job number	4082	
Client	8 Walter Road East Bassendean Pty Ltd	
Prepared by	Planning Solutions	
Consultant Team	Town Planning Architect Traffic Engineer	Planning Solutions MCarbone Design Talis Consultants

Document control

Revision number	File name	Document date
Rev 0	160526 4082 DA Report	26 May 2016

Contents

Figures

Appendices

1 Preliminary

1.1 Introduction

Planning Solutions acts on behalf of 8 Walter Road East Bassendean Pty Ltd, the proponent of the proposed development of Lot 3 (8) Walter Road East, Bassendean (**subject site**). Planning Solutions has prepared the following report in support of an Application for Development Approval for a multiple dwelling development on the subject site.

This report will discuss various issues pertinent to the proposal, including:

- Site details.
- Proposed development.
- Town planning considerations.

The proposal seeks to provide a development that achieves the strategic direction set by the State Government for infill development, while assisting the Town of Bassendean (**Town**) in delivering greater density and diversity of dwellings in close proximity to public transport, and local centre amenities and services.

2 Site details

2.1 Land description

Refer to Table 1 below for a description of the land subject to this development application.

Table 1 - Lot details.

Lot	Plan/Diagram	Volume	Folio	Area (m²)
3	3469	1857	895	1,200

Refer **Appendix 1** for a copy of the Certificate of Title and Plan.

2.2 Location

2.2.1 Site context

The subject site is located within the municipality of the Town of Bassendean (**Town**) within the suburb of Bassendean. The subject site is located approximately 11.3 kilometres north east of the Perth CBD and 875 metres north east of the Bassendean town centre. The subject site is located approximately 640 metres north of the Success Hill train station and 1.1 kilometres north east of the Bassendean train station.

The subject site fronts the Walter Road East cul-de-sac to the south and is bounded by vacant land to the north, single residential dwellings to the east and vacant land to the west, fronting Lord Street.

Both Walter Road and Lord Street are serviced by bus routes connecting the subject site to the wider metropolitan region, including:

- 341 and 342 – a high frequency route connecting Morley Bus Station, Bassendean and Beechboro via Bassendean Train Station; and
- 340 – connecting Bassendean Train Station to Caversham via Lord Street.

The subject site is 80m west of Success Hill Reserve, which is a recreational parkland of regional significance. The Bassendean shopping centre is located approximately 840 metres to the south of the subject site, offering a wide selection of retail and commercial services to a broad catchment population.

2.3 Land use and topography

The subject site abuts vacant land (Lot 4 (10) Walter Road East) to the west, which is owned by the Western Australian Planning Commission. A narrow portion of Lot 4 along the western boundary of the subject site is zoned Residential, with the remainder reserved as Other Regional Road for the purpose of widening Lord Street. The subject site also directly abuts vacant Residential zoned land to the north.

The subject site currently comprises a single storey residential dwelling with levels ranging from approximately 22.55m AHD in the northeast corner, to 20.52m AHD in the southeast corner of the subject site.

Figure 1, aerial photograph, depicts the street block and surrounding subdivision pattern. **Photographs 1 to 9** depict the subject site and surrounds.

PLANNING SOLUTIONS
URBAN & REGIONAL PLANNING

SCALE	1: 2,000 @ A4
DATE	04 May 2016
FILE	01 160504 4082 Aerial Photograph.dwg
REVISION	1/EF/First Draft/04.05.2016

Scale Bar (m) 0 50

AERIAL PHOTOGRAPH

LOT 3 (8) WALTER ROAD EAST,
BASSENDEAN, WESTERN AUSTRALIA

FIGURE 01

Photograph 1: Subject site viewed from Walter Road East.

Photograph 2: Lord Street/Walter Road intersection, viewed west from the subject site.

Photograph 3: Neighbouring properties, east of the subject site.

Photograph 4: Neighbouring vacant lot, west of the subject site.

Photograph 5: Residential lots, directly opposite the subject site.

Photograph 6: Vacant lot directly north and viewed from the subject site.

Photograph 7: Two storey development under construction, approximately 57m east of the subject site.

Photograph 8: Success Hill Reserve, approximately 195m southeast of the subject site.

Photograph 9: Two storey grouped dwellings, approximately 290m southeast of the subject site.

3 Proposed development

This Application for Development Approval is for 10 multiple dwellings, plus ground level vehicle parking. The proposal comprises:

- Demolition of the existing single storey residential dwelling.
- A total of two storeys.
- 10 x two bedroom dwellings, generally 70m² – 73m²
- Associated car parking, bicycle parking, building utilities and storage areas.

A total of 14 car parking bays are provided at grade. The 14 car parking bays comprise:

- 11 residential parking bays
- 3 visitor parking bays

The proposed development also provides 4 bicycle parking spaces.

Access to the car parking area is provided via a crossover from Walter Road East, with a vehicular driveway leading into the carpark. Separate pedestrian access is provided via a footpath from Walter Road East.

Plans of the proposed development are provided at **Appendix 2** of this report.

A Waste Management Plan has been prepared in support of the proposed development, and is provided at **Appendix 3** to this report:

4 Strategic planning framework

4.1 Directions 2031

Directions 2031 and Beyond (**Directions 2031**) is the high-level strategic planning framework for the Perth and Peel region. The Directions 2031 framework proposes five strategic themes for a liveable, prosperous, accessible, sustainable and responsible city. The framework sets out a hierarchy of activity centres across the metropolitan region to equitably distribute services, amenities and employment opportunities. Directions 2031 also sets a target for 47 percent of new residential development to be urban infill.

The (draft) Central Metropolitan Perth Sub-Regional Strategy provides more in-depth strategic planning for the growth of the Central Metropolitan Perth Region in order to deliver the outcomes sought by Directions 2031.

The proposed development on the subject site works towards achieving the Town of Bassendean infill development target of 3,000 dwellings by 2031.

4.2 Perth and Peel @ 3.5million

The Draft Perth and Peel @ 3.5 million report provides a high level spatial planning framework to guide the development of the Perth and Peel regions, including four draft sub-regional planning frameworks for:

- Central
- North-West
- North-East
- South Metropolitan Peel

It is intended the sub-regional planning frameworks will inform the finalisation of sub-regional structure plans. The structure plans will provide strategic guidance to government agencies and local governments on land use, land supply, land development, environmental protection, and the investment and delivery of infrastructure for each sub-region.

The subject site is within the Draft Central Sub-Regional Planning Framework. The subject site is not strategically identified under the Draft Central Sub-Regional Planning Framework. However, the subject site is located in close proximity to Ivanhoe Street, which is identified as a key public transport corridor. This corridor is strategically identified to accommodate an increased medium to rise higher density development.

4.3 Town of Bassendean Local Planning Strategy

The Town's Local Planning Strategy (**LPS**) has been prepared to guide the future land use planning and development for the Town of Bassendean. The LPS identifies strategic locations for increased residential densities in the future.

Early in 2011 the Town resolved to undertake a partial review of its LPS, with a focus on reviewing the residential densities and the extent of Town Centre zoning under the scheme. The 2013 update of the LPS acknowledges the vision of the Western Australian Planning Commission (**WAPC**) as detailed under

Directions 2031, and provides the strategic focus and rationale to drive further changes to the Town's Local Planning Scheme.

In response to changes in population and demographic trends, and in recognition of the role of Bassendean as a middle metropolitan area, the LPS incorporates the following strategies:

- accommodate more housing and population;
- focus on infill development;
- targeted approach to increased density;
- focus on transport routes; and
- consolidate Activity Centres.

The LPS incorporates a population and housing strategy various housing precincts. The subject site is identified within the Transit Oriented Development (**TOD**) Housing Precinct.

The TOD Housing Precinct generally includes all residential land within an 800m walking distance of the Ashfield, Bassendean and Success train stations. The area within 400m is considered suitable for high density housing. The residential lots between 400m and 800m walking distance from the three train stations are considered by the LPS to be suitable for medium density housing. Importantly the LPS recommends, commencing with the Bassendean and Success train station walkable catchments, applying 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.

In light of the above, the Town has strategically identified the subject site within an area suitable for medium density housing development. The proposed development, within this area, 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.

5 Statutory planning framework

5.1 Metropolitan Region Scheme

The subject site is zoned Urban under the provisions of the Metropolitan Region Scheme (**MRS**).

The proposed development is consistent with the Urban zoning under the MRS and may be approved accordingly.

5.2 Local Planning Scheme No. 10

5.2.1 Zoning

The subject site is subject to the provisions of the Town of Bassendean Local Planning Scheme No. 10 (**LPS10**). Under the provisions of LPS10, the subject site is zoned Residential with an applicable density coding of R20/40.

The objectives of the Residential zone are:

Residential Zone

(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;

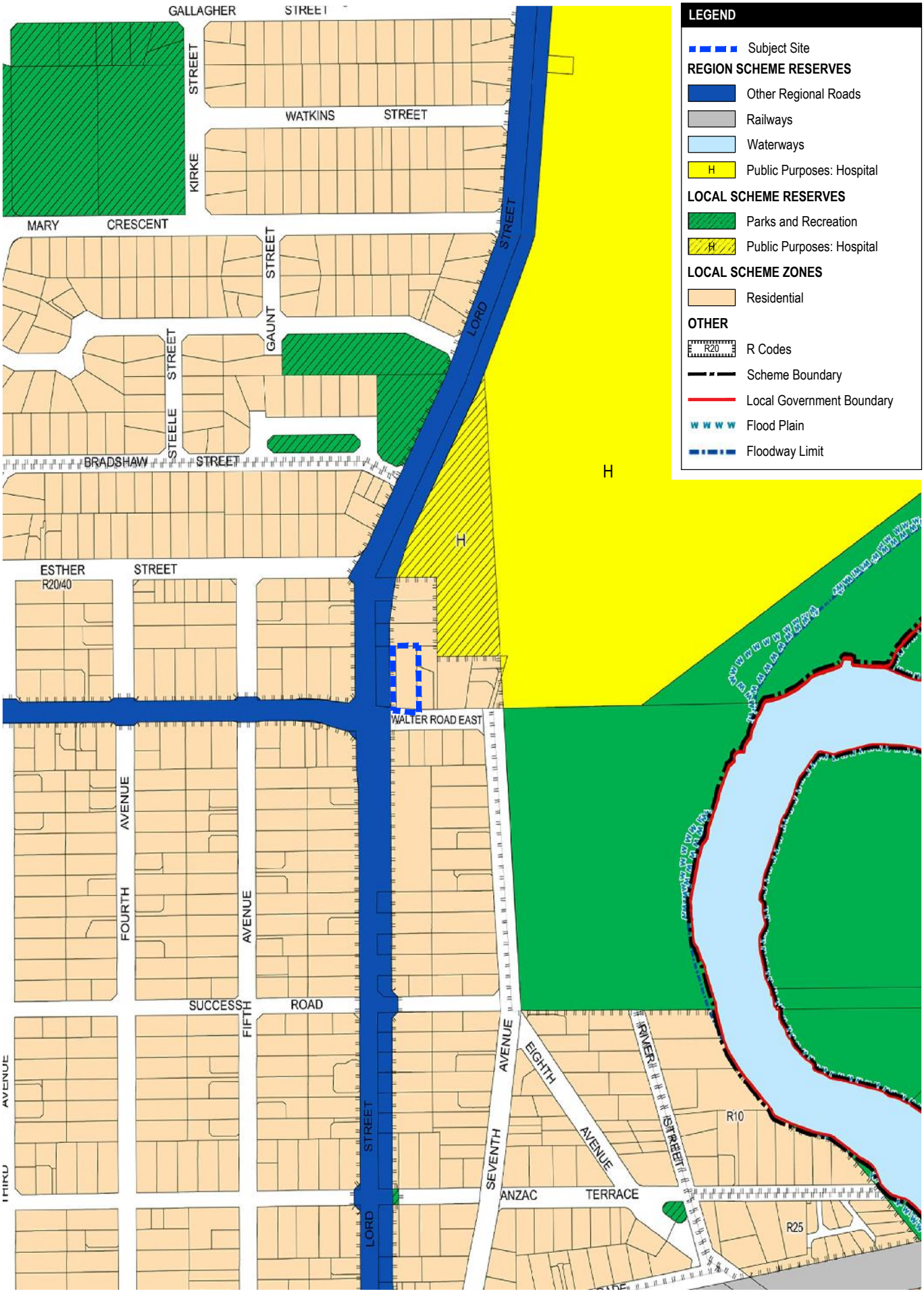
(f) to ensure that the density of development takes cognisance of the availability of reticulated sewerage, the effluent disposal characteristics of the land and other environmental factors; and

(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 proposed development meets the objectives of the Residential zone and assists in:

- providing greater choice of dwelling type and attraction to diverse range of residents in the area;
- maintaining existing residents within the local community;
- providing affordable housing and attracting young families to reside in Bassendean; and
- facilitating gradual population growth that assists the Perth Metropolitan Region in accommodating the level of growth anticipated under Directions 2031.

Figure 2, zoning map, depicts the current local planning scheme zoning of the immediate street block and surrounds.



PLANNING SOLUTIONS
URBAN & REGIONAL PLANNING

SCALE	1: 5,000 @ A4
DATE	04 May 2016
FILE	02 160504 4082 Zoning Map.dwg
REVISION	1/EF/First Draft/04.05.2016

Scale Bar (m) 0 50 100

ZONING MAP

LOT 3 (8) WALTER ROAD EAST,
BASSENDEAN, WESTERN AUSTRALIA

FIGURE 02

5.2.2 Land use and permissibility

The proposed land use is classified as Multiple Dwelling under the provisions of LPS10 and the Residential Design Codes (**R-Codes**).

In accordance with Table 1 (**Zoning Table**) of LPS10, a Multiple Dwelling is a permitted ('P') use within the Residential zone. A 'P' use is permitted 'as-of-right' subject to meeting the relevant development standards.

As outlined above, the proposed development satisfies the objectives of the Residential zone under LPS10. The land use is highly appropriate given the subject site's proximity to public transport networks and the Bassendean town centre.

5.2.3 Higher density code requirements

The subject site is coded R20/40. This proposal seeks to develop at the R40 density. To achieve the higher R40 code, the determining authority is to be satisfied the proposal addresses the requirements of Clause 5.3.1.2, which states:

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.*

The standards of Clause 5.3.1.2 are addressed in Table 2 below.

Table 2 – Higher density code standards under LPS10.

Sub-Clause	Standard	Compliance	Comments
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.	✓	• The subject site has a road frontage of 20.22 metres. • The proposed development provides two multiple dwellings fronting the street, with sufficient space for the provision of a 5.8m wide shared accessway to service the internal car parking area.
b	There is due regard for relevant Local Planning Policies.	✓	• Consideration of the Town's relevant local planning policies has informed the overall design of the proposed development particularly in regards to energy efficiency and water sensitivity. Refer to section 5.3 of this report.

c	Identified heritage objectives are not compromised.	✓	• The subject site is not identified under the State Heritage Register or the Town's Municipal Heritage Inventory. • There are 9 properties listed under the Town's Municipal Heritage Inventory and within 400m of the subject site. The closest being 100m south of the subject site at Lot 36 (87) Lord Street, Bassendean.
d	The proposal demonstrates elements of water sensitive urban design.	✓	• The Town's Local Planning Policy No. 3 – Water Sensitive Design provides details of general details for the method of storm water containment and disposal. Refer to **Appendix 4** for a copy of an assessment against the Town's Water Sensitive Design Checklist.
e	The existing streetscape is being preserved.	✓	• Walter Road East and the immediate locality is characterised by single storey single storey single dwellings and grouped dwellings, and double storey grouped dwellings. • The proposed built form presents as a double storey building to the street and complies with the deemed-to-comply standards of the R-Codes in regards to: landscaping; fencing; crossovers; and car parking in the front setback area.

The proposed development is consistent with the higher code requirements under LPS10 and therefore warrants assessment at the R40 density.

5.3 Local Planning Policies

The following Local Planning Policies adopted by the Town are identified as being relevant to the proposed development:

5.3.1 Local Planning Policy No. 2 - Energy Efficient Design

The Town's Local Planning Policy No. 2 - Energy Efficient Design (**LPP2**) encourages the incorporation of environmentally sustainable and energy efficient design principles as standard practice in the development of buildings. The Town is able to permit higher density developments in the Split Density Coded residential areas where an applicant can demonstrate the design of the residential dwelling is energy efficient.

To ascertain the energy efficiency of the dwelling, the Town has assigned a relative value to each of the following design criteria provided by LPP2:

1. *Orientation (longest axis east-west).*
2. *North facing courtyard, and main living areas with windows occupying a min 50% of the north facing wall.*
3. *Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.*
4. *Eastern and western walls are either blank or only have openings to non-habitable utility rooms.*
5. *60% of all habitable rooms shall be cross ventilated.*

6. *The provision of either a solar pergola or solar hot water heating system.*
7. *Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principals.*

To qualify for the higher density code a score of 70 out of a possible 100 efficiency points is to be achieved for each individual unit. An assessment against the Town's Energy Efficient Design Policy Credit Points Checklist is provided at **Appendix 5**. As outlined in the Checklist, each apartment achieves a total score of 80. The proposed development therefore warrants assessment at the R40 density.

5.3.2 Local Planning Policy No. 3 - Water Sensitive Design

The intent of the Town's Local Planning Policy No. 3 – Water Sensitive Design (**LPP3**) is to address water quality of stormwater runoff from developed areas is managed through Water Sensitive Urban Design.

(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.*

Consideration of the objectives of LPP3 has been addressed in the design of the proposed development and includes the following measures:

- The subject site is approximately 20m AHD at its lowest point and outside of the 100 Year ARI Flood Plain Area.
- All stormwater will be directed toward gardens and/or sumps with a view to retaining on site. Where this is not possible, stormwater will be directed to the Town's drainage system.
- All pedestrian movement and hardscaped areas pervious paving materials.
- The enclosed landscaping plan provides for the planting of native/Xeric landscaping.

6 Residential Development Assessment

State Planning Policy 3.1 – Residential Design Codes (**R-Codes**) provides the basis for control of residential development throughout Western Australia. The aims of the R-Codes include:

- To provide for a full range of housing types and densities that meet the needs of all people;
- To provide for local variations in neighbourhood character;
- To ensure appropriate standards of amenity for all dwellings;
- To ensure provision of on-site facilities for all dwellings; and
- To protect the amenity of the adjoining residential properties.

Part 6 of the R-Codes sets out the design elements applicable to multiple dwellings.

An assessment is undertaken within Table 3 below which considers the specific elements applicable to the proposal. Elements which do not meet the deemed-to-comply standards are further discussed in Section 6.1.1 of this report.

6.1 Design elements applicable to the proposal

Table 3 – Deemed-to-comply assessment of grouped dwellings.

R-Code Design element	Deemed-to-comply requirement (Part 6 of R-Codes)			Deemed-to-comply
6.1 Context				
6.1.1 Building size	**Required**		**Provided**	
Plot ratio	0.6 (720m²)		0.61 (730.22m²)	Performance assessment
6.1.2 Building height	**Required**		**Provided**	
Maximum wall height (concealed roof)	6m		6.7m (max)	Performance assessment
Top of pitched roof	9m		8.2m	✓
6.1.3 Street setback	**Required**		**Provided**	
Minimum street setback	4m		3m	Performance assessment
6.1.4 Lot boundary setback	**Required**		**Provided**	
	Ground floor			
	West	1m	1.028m/1.528m/6.1m	✓
	North	1m-1.5m	1.5m/2.7m	✓
	East	1m	0/1.028m/1.517m	Performance assessment
	First floor			
	West	1.2m/1.6m/5m	1.528m/2.994m/5.86m	✓
	North	1.2m/1.5m	1.2m/1.5m	✓
	East	1.2m/1.5m/2.8m	1.528m/2.957m/3.917m	✓

Lot boundary walls	**Required**	**Provided**	**Deemed –to-comply**
	Nil for a maximum of 2/3 the length of the boundary (40.5m) to an average height of 3m and maximum height of 3.5m	Nil for length of 27.79m. Ave. height: 3.2m Max. height: 3.9m	Performance assessment
6.1.5 Open space	**Required**	**Provided**	
Minimum open space	45% (540m²)	44.79% (537.47m²)	Performance assessment
6.2 Streetscape			
6.2.1 Street surveillance	**Required**	**Provided**	
Street elevation	Building to address the street, and entry point is visible / accessible from street.	Dwellings address Walter Road East, with main entry point visible / accessible from this street.	✓
Balconies and major openings to habitable room	Balconies or at least one major opening from a habitable room faces the street.	Apartment 1: Bedrooms 1 and 2. Apartment 6: Bedroom 1 and Living Room.	✓
6.2.2 Street walls and fences	**Required**	**Provided**	
Front fences	Front fences within the primary street setback area that are visually permeable above 1.2m of natural ground level	No fence within setback area	✓
6.2.3 Sight lines	**Required**	**Provided**	
Wall, fence sight lines	Walls/fences to be no higher than 0.75m within 1.5m of where walls, fences, other structures adjoin vehicle access points.	No structures obscure sightlines	✓
6.3 Site Planning and design			
6.3.1 Outdoor living areas	**Required**	**Provided**	
Outdoor living areas	Each dwelling to be provided with at least one balcony or equivalent accessed directly from a habitable room with a minimum area of 10m and a minimum dimension of 2.4m.	All balconies/ courtyards equal to or greater than 10m² and 2.4m minimum dimension.	✓
6.3.2 Landscaping	**Required**	**Provided**	
Street setback areas (comprising common property and communal open space)	Developed without car parking, except for visitors' bays, and with a maximum of 50% hard surface.	Developed without car parking, except for visitors' bays. 49.5% hard surface.	✓
Pedestrian paths	Separate pedestrian paths providing wheelchair accessibility connecting all entries to buildings with the public footpath and car parking areas.	Pedestrian paths provide access to all dwellings from the public footpath and car parking area.	✓
Landscaping between car parking	Landscaping between each six consecutive external car parking spaces to include shade trees.	N/A – car parking provided under cover.	N/A
Lighting	Lighting provided to pathways, and communal open space and car parking areas	Lighting to be provided in accordance with R-Codes requirements.	✓

Clear sight lines	Clear sight lines for pedestrians and vehicles.	Clear sight lines provided.	✓
6.3.3 Parking	**Required**	**Provided**	
Car parking bays	10 bays (1 bay per dwelling) (Location A – within 250m of a high frequency bus route, linking the subject site with Bassendean Train Station).	11 bays (10 dwellings)	✓
Visitor car parking bays	2.5 bays (0.25 per dwelling)	3 bays (10 dwellings)	✓
Bicycle parking	3 Resident (1 per three dwellings) and 1 Visitor (1 per ten dwellings)	4 bicycle spaces	✓
6.3.4 Design of car parking spaces	**Required**	**Provided**	
Design of parking	In accordance with AS2890.1	Bays meet the minimum width (2.5m), depth (5.4m) and aisle width (5.8m) dimensions of AS2890.1.	✓
Visitor bay design	Marked and accessible outside any security barrier	Yes	✓
Concealed from street view	Residential car parking spaces fully concealed from the street or public space.	Yes	✓
6.3.5 Vehicular access	**Required**	**Provided**	
Crossover	One crossover per 20m	One crossover on Walter Road.	✓
Access	Access provided from secondary street where available.	N/A	✓
Driveways	Driveway designed to service two way access	A 5.8m wide driveway is provided to allow two-way movement and the entry/exit point allows for vehicles to enter the street in forward gear.	✓
Driveway materials	Driveway to be adequately paved and drained	The driveway and parking areas are adequately paved and drained.	✓
6.3.6 Site Works	**Required**	**Provided**	
Excavation or filling	Excavation or filling between the street and building shall not exceed 0.5m except where necessary to provide for pedestrian or vehicle access, drainage works or natural light for a dwelling.	No filling of more than 0.5m proposed between street and building.	✓
Excavation or filling	Behind the street setback line limited by compliance with building height limits and building setback requirements.	N/A	N/A
Excavation or filling	No excavation or filling 0.5m from the natural ground level, within 1m of lot boundary	Max. 0.4m	✓
6.3.7 Retaining Walls	**Required**	**Provided**	
Retaining walls	Set back from lot boundaries	N/A - no retaining walls provided along lot boundaries.	✓
Retaining walls	Up to 0.5m high permitted within 1m of lot boundary	0.5m high retaining walls provided adjacent to Apartments 2 and 3 (eastern boundary).	✓
6.3.8 Stormwater management	**Required**	**Provided**	
Stormwater management	All water draining from roofs, driveways, communal streets shall be directed towards gardens, sumps or rainwater tanks within the development site.	All stormwater will be directed toward gardens and/or sumps with a view to retaining on site.	✓

6.4 Building design			
6.4.1 Visual privacy	**Required**	**Provided**	
Overlooking	Adjoining R50 and below • Bedrooms – 4.5m. • Other habitable rooms – 6m • Balconies – 7.5m	Highlight windows and privacy screens provided to upper storey bedrooms. All balconies provided with appropriate screening measures.	✓
6.4.2 Solar access for adjoining sites	**Required**	**Provided**	
Maximum percentage of overshadowing to adjoining property.	Should not exceed 35% of adjoining property site area.	Shadow affects only the road reserve	✓
6.4.3 Dwelling size	**Required**	**Provided**	
Minimum plot ratio area	Dwellings to be at least 40m².	All dwellings are greater than 40m².	✓
6.4.6 Utilities and Facilities	**Required**	**Provided**	
Store room	Minimum 4.0m² with 1.5m minimum dimension for each dwelling, accessed from outside the dwelling.	All units have dedicated store rooms in compliance with minimum requirements.	✓
Rubbish bins	Where not collected immediately from dwelling, provide an accessible, screened communal pick-up area(s).	Communal bin store and wash down area provided in common property area, enclosed and screened from view of primary/secondary streets. Further details are provided in the Waste Management Plan at **Appendix 3**.	✓
Clothes drying areas	Screened from view of the street.	Clothes drying areas are appropriately screened from the street.	✓

6.2 Performance assessment

This section provides an assessment against the relevant design principles of the R-Codes, specifically in relation to the building height and front setback which did not meet the deemed-to-comply standards.

In making a determination on the suitability of a proposal, regard was also had to the following:

(a) any relevant purpose, objectives and provisions of the LPS10;

(b) any relevant objectives and provisions of the R-Codes;

(c) a provision of a local planning policy adopted by the Town, consistent with and pursuant to the R-Codes; and

(d) orderly and proper planning.

6.2.1 Plot ratio

The deemed-to-comply provisions of the R-Codes allow a maximum plot ratio of 0.60 for sites coded R40. The proposed development has a plot ratio of 0.61. The additional plot ratio equates to an additional floor area of 10.22m².

It is noted a dual density code of R20/40 applies to the subject site. As outlined in sections 5.2.3 of this report, the proposed development addresses the relevant criteria to achieve the higher R40 coding. This does not preclude the development from being capable of achieving a plot ratio higher than the deemed-to-comply standards of the R-Codes and the responsible authority may exercise its discretion by consideration under the relevant design principles. The design principle of Clause 6.1.1 states:

> ***P1*** *Development of the building is at a bulk and scale indicated in the local planning framework and is consistent with the existing or future desired built form of the locality.*

The proposed development is entirely consistent with the future bulk and scale envisaged under the local planning framework for the following reasons:

- The additional plot ratio is minimal, does not result in the provision of 'additional dwellings' and does not cause an undue impact on the amenity of the locality.
- The Town's Local Planning Strategy (**LPS**) notes that land within an 800m walking distance of the Success train station as suitable for medium density housing, with a density coding of R60.
- The key objectives of the Residential zone under LPS10 include:

  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;

  to make provision for housing types that respond to the demands of an ageing population and declining occupancy rates;

  The proposed development fulfils these objective by providing a range of apartments in close proximity to the Success train station and Bassendean town centre.
- The bulk and scale is consistent with the desired bulk and scale of an R40 locality. The development is two storeys, which is clearly entertained under the R40 provisions of the R-Codes and the local planning framework.
- In relation to its impact on surrounding sites, the proposed development is fully compliant with the R-Codes deemed-to-comply standards in relation to visual privacy and overshadowing.

It is further noted that the subject site could be developed with grouped dwellings (approximately five dwellings could comfortably be developed) with a significantly greater plot ratio compared with the proposed development. Five grouped dwellings on the subject site, maintaining 45% open space and compliant with the R-Codes deemed-to-comply criteria could produce a plot ratio for the entire site in excess of 0.6.

Owing to the above, it is considered that the plot ratio variation is consistent with the design principles of the R-Codes.

6.2.2 Building height

The deemed-to-comply requirements of the R-Codes require the building heights for R40 development to be 6m to the top of the external wall. Height is measured from the natural ground level immediately below the relevant point of the wall or roof. The proposal incorporates a maximum wall height of up to 6.43m at the front of the development.

The relevant design principle for building height under R-Codes states the following:

P2 *Building height that creates no adverse impact on the amenity of adjoining properties or the streetscape, including road reserves and public open space reserves; 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;*
- *Building facades designed to reduce the perception of height through design measures; and*
- *Podium development is provided where appropriate.*

The increased height has primarily arisen due to the natural topography of the subject site. The building height exceeds the deemed-to-comply height of 6m only at the front of the development; the block containing Apartments 1 and 6. Additionally, the deemed-to-comply standard allows a total height of 9m for developments with a pitched roof. The proposed development includes a pitched roof, with a compliant total height of 8.2m. Therefore, the overall height of the development is consistent with current and future desired built form for the locality.

It has been necessary to provide raised floor levels for Apartment 1, resulting in an increased building height for a small portion of the site. The primary reason for the raised floor level is to allow the ground floor apartments to be at a similar level to the internal car parking area and maintaining a positive relationship with the streetscape through passive surveillance of its surrounds.

Impact on Adjoining Properties and Streetscape

At its street frontage, the development presents as a two storey building. This is consistent with the surrounding area and ultimately, is consistent with the intent of the density coding of the subject site. Walter Road East and the immediate locality is characterised by a mix of single and double storey dwellings. Accordingly, the proposed two storey development is highly consistent with the streetscape and the surrounding built form.

In relation to its impact on surrounding sites, it is noted the development is fully compliant with the R-Codes deemed-to-comply standards in relation to visual privacy and overshadowing. The deemed-to-comply heights are exceeded at the front of the development only and there is no excess building bulk as the development presents to neighbouring properties.

The proposed minor variation is therefore consistent with the desired streetscape.

Sunlight and Ventilation

The proposed development faces directly south. The shadow cast by the development falls entirely over the road reserve and the proposed 0.43m height variation would have a negligible impact on surrounding development.

The development has also been designed to ensure all apartments and associated outdoor living areas have access to natural light and ventilation. This is demonstrated in the Town's Energy Efficiency Checklist provided at **Appendix 5**.

Views

Views to the City and the river are to the south west and east of the subject site respectively. The proposed development has no potential to obstruct views of significance for adjoining developments.

Scale

The two storeys at the street frontage presents a human scale for pedestrians, consistent with other two storey developments, within close proximity to the subject site.

Design

The building façade comprises a series of architectural elements to provide a positive built form outcome. The façade includes a materials, including timber, brick and stone elements that provide visual separation between each of the apartments. These elements reflect the prevailing building design of the locality, whilst providing articulation and interest in the building as it fronts the street. The upper storey also provides excellent surveillance of the street.

Podium Development

A podium style development would not be appropriate for the subject development, given it is limited to two storeys at the street frontage.

In summary, it is considered that the proposed development achieves the design principles prescribed by 6.1.2 of the R-Codes. The building height is therefore considered to be acceptable and warrants approval accordingly.

6.2.3 Street setback

The deemed-to-comply requirements of the R-Codes require a street boundary setback to be a minimum of 4m for R40 coded lots. The proposed street boundary setbacks is range from 3m – 3.6m.

Given the lot boundary setbacks do not meet the deemed-to-comply standards, they have been assessed under the relevant design principles for boundary setbacks under the R-Codes, which state:

P3 *Buildings are set back from street boundaries (primary and secondary) an appropriate distance to ensure they:*

- *contribute to the desired streetscape;*
- *provide articulation of the building on the primary and secondary streets;*

- *allow for minor projections that add interest and reflect the character of the street without impacting on the appearance of bulk over the site;*
- *are appropriate to its location, respecting the adjoining development and existing streetscape; and*
- *facilitate the provision of weather protection where appropriate.*

The impact of the proposed setback is minimal, as approximately 4m² of the building is within the front setback area. This equates to approximately 4.5% of the total setback area. The visual impact of the development is further softened by the provision of high quality landscaping immediately fronting the building.

Additionally, C2.1 (iii) of Element 5.2.1 of the R-Codes provides the following deemed-to-comply standard, which allows for a reduction of the street setback for single houses and grouped dwellings:

iii. reduced by up to 50 per cent provided that the area of any building, including a carport or garage, intruding into the setback area is compensated for by at least an equal area of open space between the setback line and line drawn parallel to it at twice the setback distance (refer Figure 2a, 2b and 2c);

A street setback of 2m is therefore capable of approval for single house and grouped dwelling developments on neighbouring properties. The proposed development is therefore consistent with the desired future streetscape with varying setbacks between 2m and 8m for a mix of multiple, grouped and single dwellings.

Due to the southern orientation of the subject site, the proposed development does not overshadow any adjoining properties. No major openings are proposed on the eastern elevation therefore privacy is maintained. The minor setback variation allows for an overall design which maximises northern sunlight penetration to apartments and outdoor living areas. This is further demonstrated in the Town's Energy Efficiency Checklist provided at **Appendix 5**.

Owing to the above, it is considered that the proposed development meets the design principles under clause 6.1.3 of the R-Codes.

6.2.4 Eastern boundary wall setback

The deemed-to-comply requirements of the R-Codes allow a wall to be built up to one side lot boundary if it has a maximum height of 3.5m, an average height 3m and a maximum length of two-thirds the length of the boundary (40.5m). The proposal incorporates walls built up to the eastern boundary which provide a combined length of 27.8m, with a maximum height of 3.9m, an average height 3.2m.

The relevant design principle for building height under R-Codes states the following:

P4.1 *Buildings setback from lot boundaries so as to:*

- *Reduce impacts of building bulk on adjoining properties;*
- *Provide adequate direct sun and ventilation to the building and open spaces on the site and adjoining properties; and*
- *Minimise the extent of overlooking and resultant loss of privacy on adjoining properties.*

The proposed development has been designed to provide articulation for the boundary walls along the boundary. The inclusion of courtyards allow for private outdoor living areas while reducing the visual impact of long walls on neighbours. The articulation of the boundary wall also allows for an overall design which maximises northern sunlight penetration to apartments and outdoor living areas.

Due to the southern orientation of the subject site, the shadow cast by the development falls entirely over the road reserve and the proposed 0.4m height variation would have a negligible impact on neighbouring properties. No major openings are proposed on the eastern elevation therefore privacy is maintained.

In light of the above, the proposed development achieves the design principles prescribed by 6.1.4 of the R-Codes. The eastern lot boundary walls are therefore considered to be acceptable and warrant approval accordingly.

6.2.5 Open space

The deemed-to-comply requirements of the R-Codes require the provision of 45% of the total site area as open space. The proposal provides 44.79% the total site area as open space.

Given the proposed percentage of open space does not meet the deemed-to-comply standards, it has been assessed under the relevant design principle for open space under the R-Codes, which states:

> ***P5*** *Open space respects existing or preferred neighbourhood character and responds to the features of the site.*

The proposed 0.21% open space variation is minimal, as this equates to approximately 2.5m². The proposal provides balconies and courtyards, which are either compliant with, or in excess of the deemed-to-comply standards of the R-Codes in relation to outdoor living areas.

The design maximises northern sunlight penetration to apartments and outdoor living areas. Additionally, the overall development and individual apartments are provided with landscaping which both adheres to water wise gardening principles and provides a pleasant landscaped setting.

Owing to the above, it is considered that the minor open space variation is consistent with the design principles of the R-Codes and warrants approval accordingly.

7 Conclusion

The proposed development will assist in achieving infill targets in close proximity to the Bassendean town centre and Success Hill train station, and protect the character of other residential areas of Bassendean.

In summary, as demonstrated by this report:

1. The proposal is consistent with the Town's Local Planning Policies and warrants assessment at the R40 density coding.
2. The plot ratio is considered to meet the applicable design principles of the R-Codes as the development is consistent with the intended future built form of the locality.
3. The proposed building height is acceptable, given the proposed development creates no adverse impact on the amenity of adjoining properties or the streetscape.
4. The minor street setback variation is acceptable, as the proposal provides a positive contribution to the future desired streetscape and will not adversely impact the amenity of adjoining properties
5. The eastern boundary wall is acceptable given the proposed articulation of the wall moderates the visual impact of the wall while ensuring adequate daylight, ventilation and privacy are maintained and protected.
6. The provision of open space is considered to meet the applicable design principles of the R-Codes as the development provides useable outdoor living areas in a pleasant landscaped setting.

In light of the above, we consider the proposed development is worthy of approval.

Appendix 1
Certificate of Title and Deposited Plan

WESTERN AUSTRALIA

REGISTER NUMBER	
3/P3469	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	N/A

RECORD OF CERTIFICATE OF TITLE

VOLUME 1857 FOLIO 895

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 3 ON PLAN 3469

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

8 WALTER ROAD EAST BASSENDEAN PTY LTD OF PO BOX 8018 HILTON
(T N127761) REGISTERED 21 SEPTEMBER 2015

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. THE LAND THE SUBJECT OF THIS CERTIFICATE OF TITLE EXCLUDES ALL PORTIONS OF THE LOT DESCRIBED ABOVE EXCEPT THAT PORTION SHOWN IN THE SKETCH OF THE SUPERSEDED PAPER VERSION OF THIS TITLE. VOL 1857 FOL 895.
2. *N127762 MORTGAGE TO NATIONAL AUSTRALIA BANK LTD REGISTERED 21.9.2015.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1857-895 (3/P3469).
PREVIOUS TITLE: 1173-659.
PROPERTY STREET ADDRESS: 8 WALTER RD EAST, BASSENDEAN.
LOCAL GOVERNMENT AREA: TOWN OF BASSENDEAN.

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING N127762

PLAN 3469(1)

2 SHEETS

PT OF SWAN LOC. P.

L.T.O. Cor. 618/96

F.B. 5641.

PLANS 1522, 1523, 1916

INDEX PLAN PERTH 2000 18.31

DIA. 654.

C.Ts. 91-123

NOW. 601-200

APPROVED
4. 9. 13.

N

Padbury Ave. East.

PLAN F.B. 9105 5090

PLAN F.B. 7169 4504

DIA. 105 4074 F.B. 5963

DIA. 4131

JOINS PLAN 3469(2)

DIA. 18519 | DIA. 32842 | DIA. | 18031 | DIA. 20738 | F.B. 38088 | DIA. 20040 | DIA. 19098 | F.B. 15916 | PLAN 11797 | DIA. 18999 | DIA. | DIA.

F.B. 14989 | F.B. 24531 | F.B. | 14736 | F.B. 15185 | F.B. 15408 | F.B. 38088 | F.B. 47572 | F.B. 15351 | DIA 63714 3073 m² | DIA 1050 m²

Strata Plan 1084 1050 m²

COMPILED

Revested Appl'n 1804/40

Resumed & Closed Gaz. 3.6.77

Gaz 20.12.77

Pomona St. Idonthe St. Ida St. Marion St. Ivanhoe St.

Walter Road Gaz 5.9.47 Cor. 687/28 EAST

GAZ. 12/8/94 pg 4030

Loc. Q1.

SCALE

20 0 20 40 60 80 100 120 140 160 180 200 m

ALL DISTANCES ARE IN METRES

CI

Act 66 1912 Sec. 30 Cor. 543/13

PLAN 3469(1)
2 SHEETS

PLAN 3469(2)

2 SHEETS.

P 003469 F 02

PT OF SWAN LOC. P.

L.T.O. Cor. 618 / 96

F.B. 5641.

PLANS 1522, 1523 & 1916

INDEX PLANS PERTH 2000 18·31
19·31

DIA. 654

NOW C/T 601-200

APPROVED.
4. 9. 13.

N

7 DIA 17904
6 COMPILED
5
2 DIA 17905
F.B. 14518
ROAD

Pt of Loc P

PLAN F.B. 7169 4504

PLAN 3469(1)

JOINS

Esther St.

Ivanhoe St.

First Ave. Cor. 107°-23

Second Ave. Cor. 107°-23

Third Ave. Cor. 107°-23

Fourth Ave. Cor. 107°-23

Fifth Ave. Cor. 107°-23

Lord St.

Walter Road EAST

CLOSED Road.

SEE ENLARGEMENTS

DIA 82516

PLAN Loc. Q1

GAZ 12/8/94pg4030

RD. 250 (wdg) Gaz. 5-12-69 Cor. 2079-11 R.D. 375-69 O.P. 11087

RD 6124. Gaz: 25-6-82 R.D. 5/80 S.O.DIA 84880 20 m² resd

ACT 66 of 1912 Sec. 30 Cor. 543-13

ALL ROADS WITHIN THE GREEN BORDER ARE NOW DEDICATED

SCALE

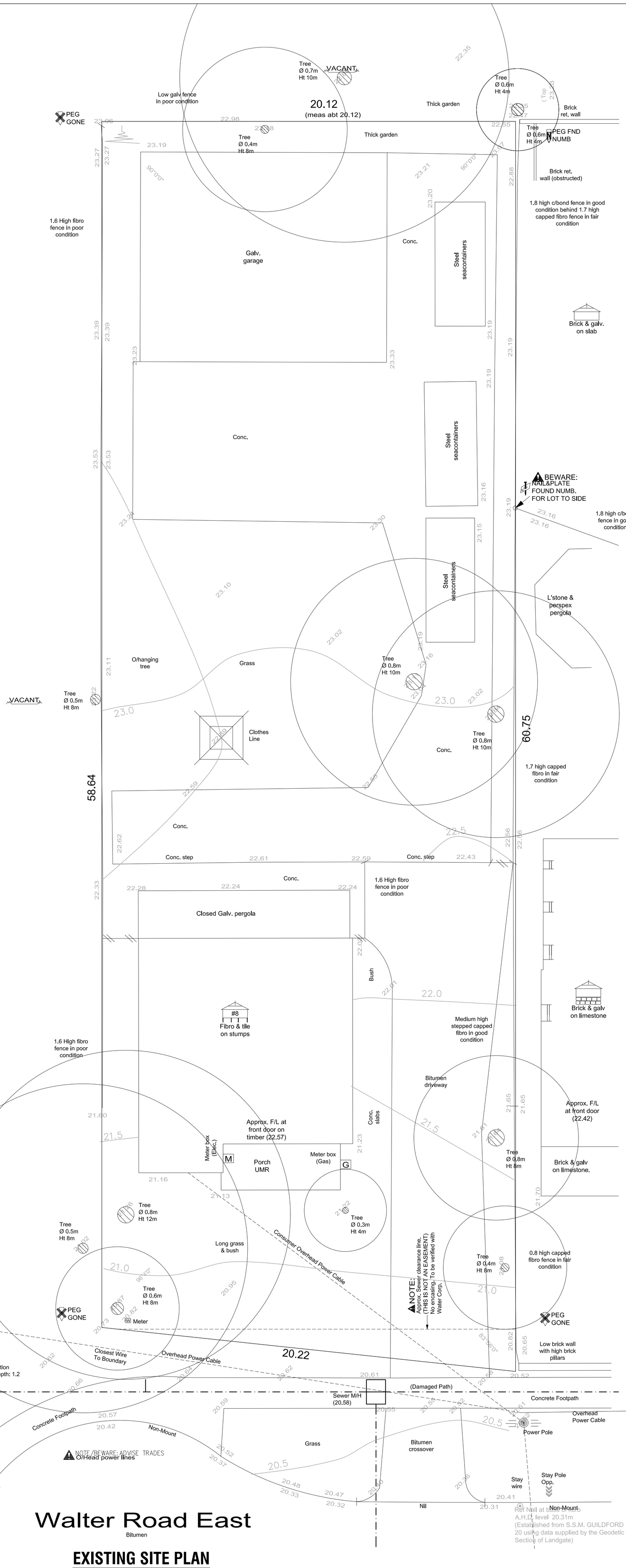
20 0 20 40 60 80 100 120 140 160 180 200 m

ALL DISTANCES ARE IN METRES.

CI

PLAN 3469(2) 2 SHEETS.

Appendix 2
Development Plans



Walter Road East

EXISTING SITE PLAN

SCALE 1:100

⚠DISCLAIMER:
Lot boundaries drawn on survey are based on landgate plan only. Survey does not include title search and as such may not show easements or other interests not shown on plan. Title should be checked to verify all lot details and for any easements or other interests which may affect building on the property.

⚠DISCLAIMER:
Survey does not include verification of cadastral boundaries. All features and levels shown are based on orientation to existing pegs and fences only which may not be on correct cadastral alignment. Any designs based or dependent on the location of existing features should have those features' location verified in relation to the true boundary.

⚠DISCLAIMER:
Survey shows visible features only and will not show locations of underground pipes or conduits for internal or mains services. Verification of the location of all internal and mains services should be confirmed prior to finalisation of any design work.

⚠DISCLAIMER:
Cottage & Engineering surveys accept no responsibility for any physical on site changes to the parcel or portion of the parcel of land shown on this survey including any adjoining neighbours levels and features that have occurred after the date on this survey. All Sewer details plotted from information supplied by Water Corporation.

⚠DISCLAIMER:
Due to lack of survey marks/pegs, all building offset dimensions & features are approximate only and positioned from existing pegs/fences and walls which may not be on the correct alignment and are to be verified when repegged. Any design that involves additions to any structures shown or portion of structures remaining after any demolition has taken place requires

boundaries to be repegged and exact offsets provided to your designer/architect before any plans are produc and before any work is started on site.

LOT MISCLOSE
0.030 m

SOIL DESCRIPTION
Sand
Refer to Survey

Planning Application

N

LEGEND & NOTES

- FP 10.000 DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
	C	04.05.16	planning amendments
	B	22.02.16	planning amendments
	A	15.12.15	Issued for planning submission

mcarbonedesign
marcello carbone
0408 807 772
36 townshend road,
subiaco western australia 6008
t : 6143 5460
f : 9382 4817
e : marcello@mcarbonedesign.com.au

Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**
Status: Planning Approval	**Drawn By:** M.Carbone
Project No. 21509	**Drawing No.** A01 / Rev No.

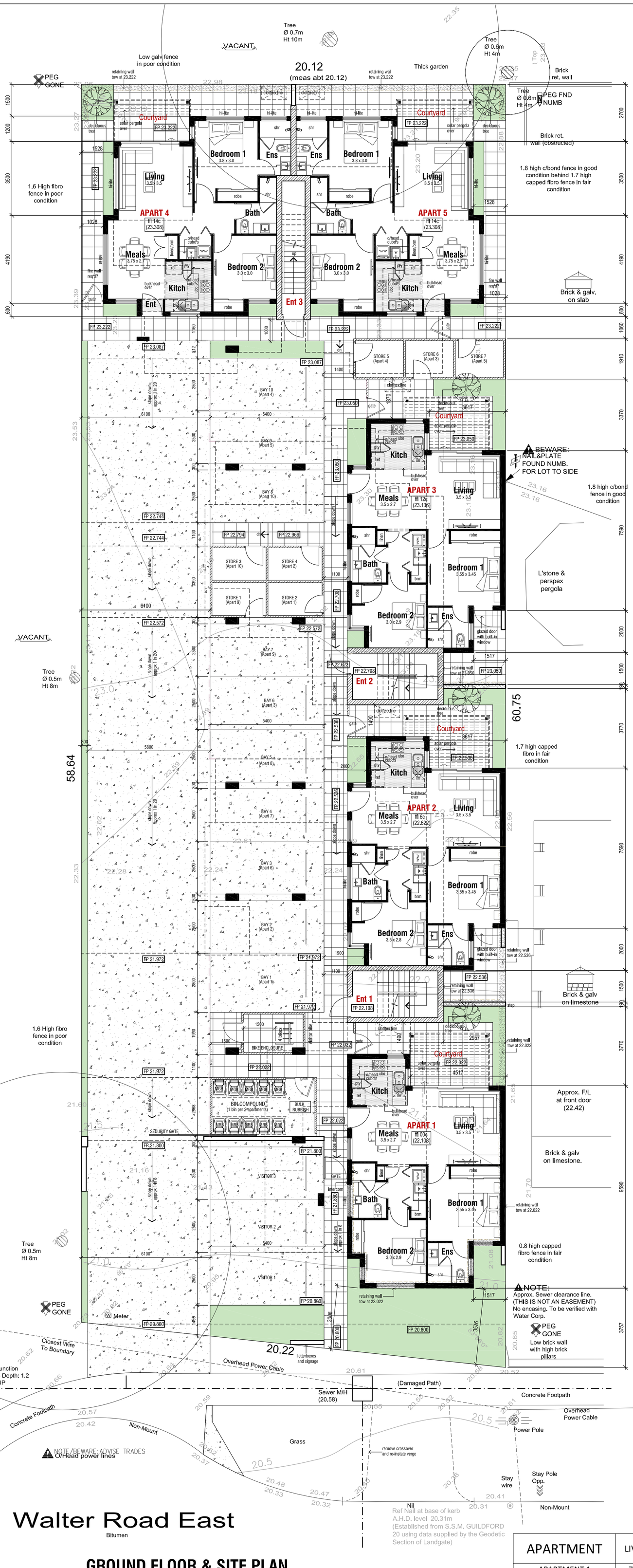
COTTAGE & ENGINEERING SURVEYS
Licensed Surveyors ——— ©
87-89 Guthrie Street, Osborne Park, Western Australia
Telephone: (08) 9446 7361 Facsimile: (08) 9445 2998
Email : perth@cottage.com.au Website: www.cottage.com.au

J/N: 379480 | DATE: 07/09/15 | SCALE: 1:100 | DRAWN: C. Bull

LEGEND:
SEC Dome, Power Pole, Phone, Conc. Path, Conc. slabs
Elec. O/Head — Alinta Gas Map Indicates Gas In Area — Water Yes
Gas Check Your Lot! call 131358 — Phone Yes — Sewer Footpath
Road Bitumen — Kerb Non-Mount / Nil — Drainage Concrete / Good

⚠ NOTE: EARTHWORKS / SET-OUT DIMENSIONS MAY VARY ON SITE AT BUILDERS DISCRETION. SEWER / DRAINAGE MAY VARY FROM SCHEMATIC PRESENTATION / CHECK MINIMUM CLEARANCES. RETAINING NOT INCLUDED IN CONTRACT - REMAINS OWNERS RESPONSIBILITY. THIS SURVEY DOES NOT GUARANTEE THE LOCATION OF BOUNDARY PEGS OR FENCES. CHECK TITLE FOR EASEMENTS / COVENANTS ETC.

THOMPSON DEVELOPMENT



GROUND FLOOR & SITE PLAN

SCALE 1:100

APARTMENT	LIVING	STORE	BALCONY/ COURTYARD	TOTAL	PLOT RATIO
APARTMENT 1	72.47	4.58	19.80	96.85	72.47
APARTMENT 2	70.93	4.58	26.39	101.90	70.93
APARTMENT 3	70.93	4.52	25.25	100.70	70.93
APARTMENT 4	71.52	4.61	30.63	106.76	71.52
APARTMENT 5	71.52	4.61	35.15	111.28	71.52
APARTMENT 6	71.55	4.83	24.78	101.16	71.55
APARTMENT 7	71.01	4.89	17.34	93.24	71.01
APARTMENT 8	71.01	4.89	17.34	93.24	85.01
APARTMENT 9	72.64	4.89	12.08	89.61	72.64
APARTMENT 10	72.64	4.58	12.08	89.30	72.64
TOTALS	716.22	46.98	220.84	984.04	730.22

Planning Application

N

SITE AREA	1,200m2
Total Plot Ratio Area	730.22m2
Plot Ratio %	60.85%

SITE AREA	1,200m2
Total Open Space	537.47m2
Open Space %	44.79%

LEGEND & NOTES

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- DENOTES BRICKWORK

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THOMPSON DEVELOPMENT

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LOT 3 (No. 8) WALTER ROAD
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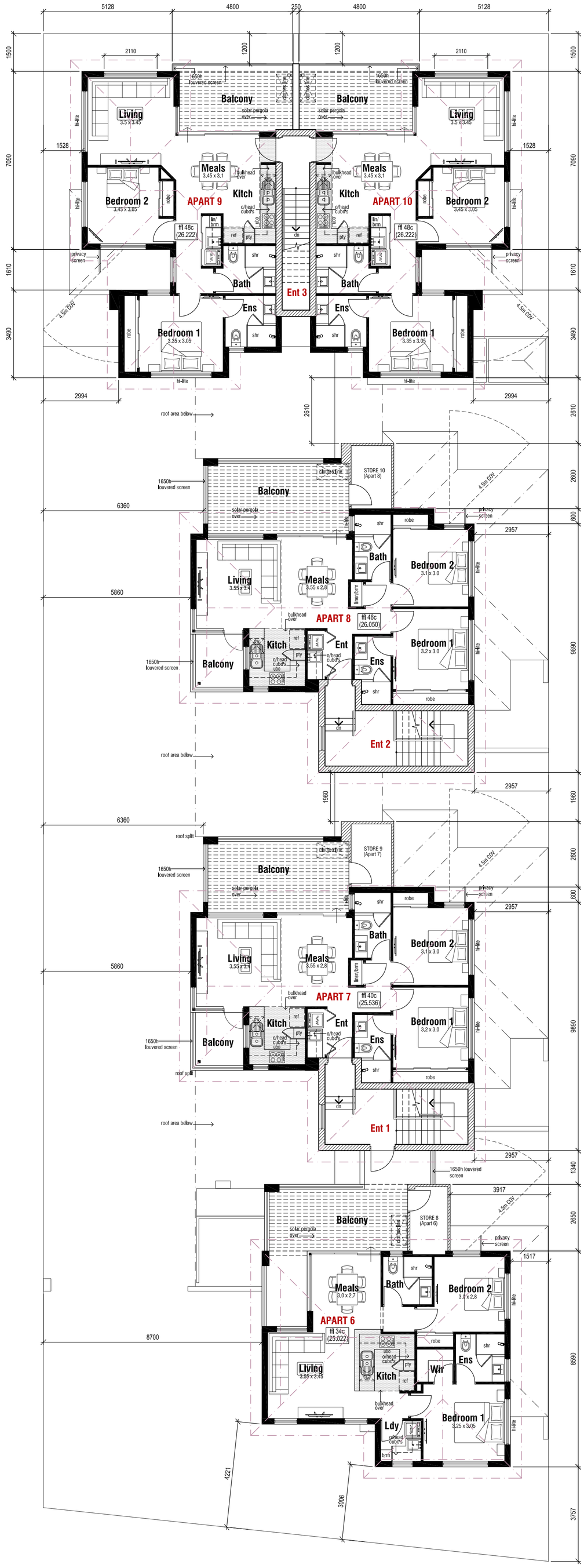
Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**
Status: Planning Approval	**Drawn By:** M.Carbone
Project No. 21509	**Drawing No.** A02
	Rev No.

THOMPSON DEVELOPMENT



UPPER FLOOR PLAN

SCALE 1:100

THOMPSON DEVELOPMENT

ENERGY EFFICIENT DESIGN - Apartment 1

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartments 2 and 3

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 4

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 5

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 6

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	82.5	

ENERGY EFFICIENT DESIGN - Apartments 7 and 8

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	7.5	
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 East wall: 10 West wall: 10	10	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 9

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 10

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

Planning Application

N

LEGEND & NOTES

- FP 10.000 DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
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	B	22.02.16	planning amendments
	A	15.12.15	Issued for planning submission

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Client
THOMPSON DEVELOPMENT

Address
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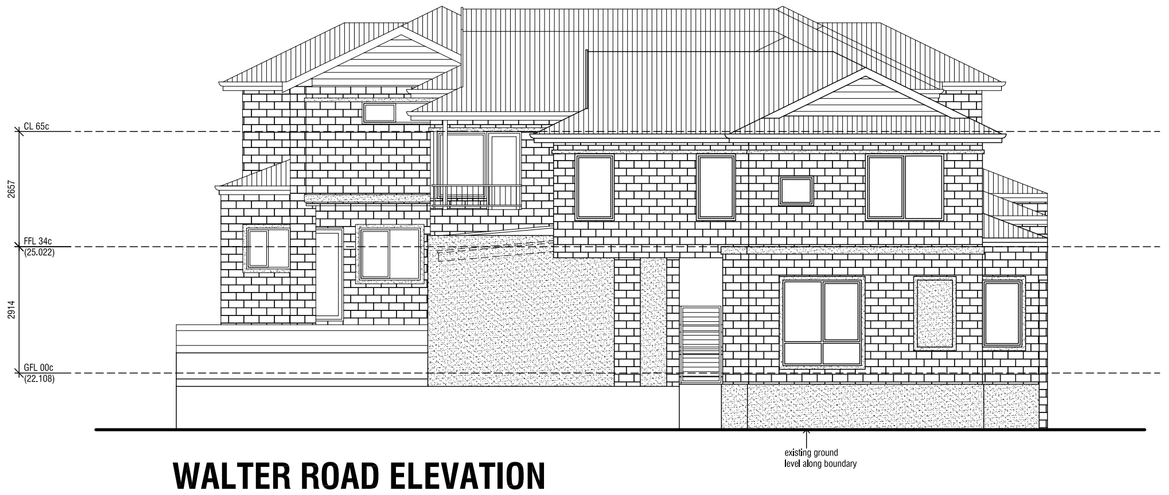
BASSENDEAN

Drawing Title:
Planning Approval

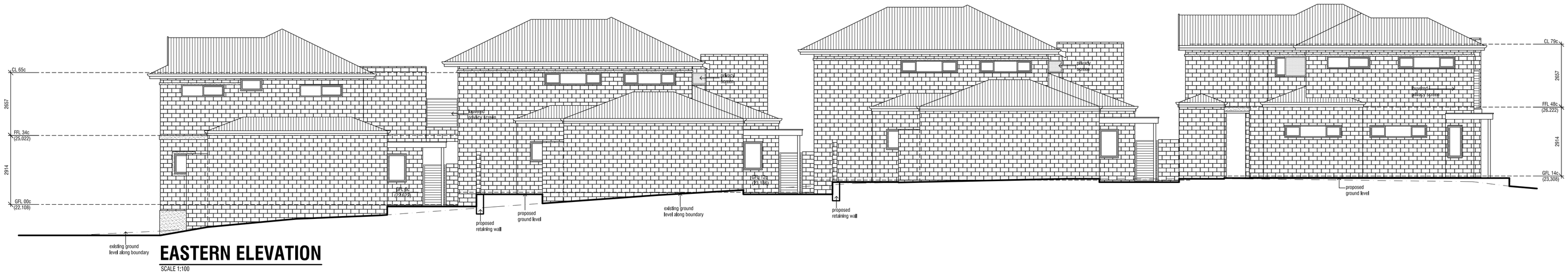
Scale: AS SHOWN	**Plot Date:**	
Status: Planning Approval	**Drawn By:** M.Carbone	
Project No. 21509	**Drawing No.** A03	Rev No.



WALTER ROAD ELEVATION

SCALE 1:100

WALTER ROAD ELEVATION

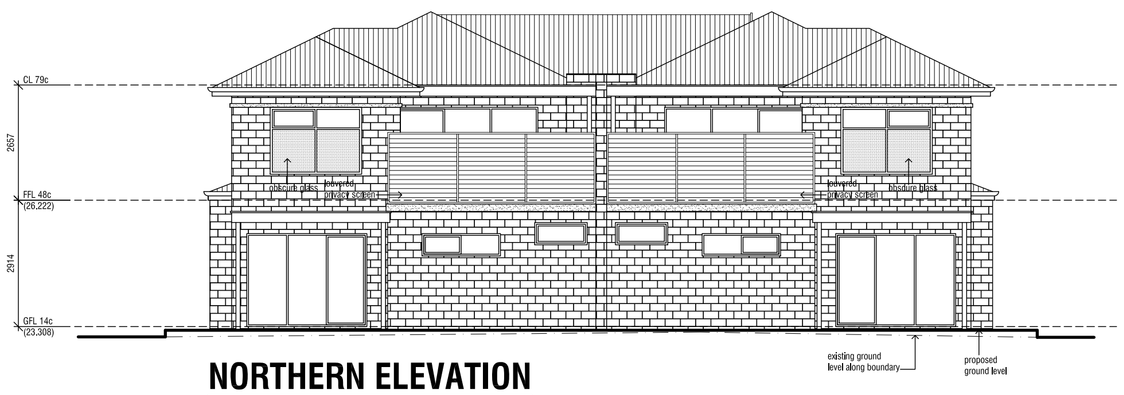


EASTERN ELEVATION

SCALE 1:100

WESTERN ELEVATION

SCALE 1:100



NORTHERN ELEVATION

SCALE 1:100

THOMPSON DEVELOPMENT

Planning Application

LEGEND & NOTES

- FP 10.000 — DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
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0408 807 772
36 townshend road,
subiaco western australia 6008
t : 61 43 5460
f : 9382 4817
e : marcello@mcarbonedesign.com.au

Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**
Status: Planning Approval	**Drawn By:** M.Carbone
Project No. 21509	**Drawing No.** A04 — Rev No.

Appendix 3
Waste Management Plan

talis
delivering solutions

Asset Management | Environmental Services | Spatial Intelligence | Waste Management

Waste Management Plan

8 Walter Road East, Bassendean

Prepared for Planning Solutions

February 2016

Project Number TW16008

Talis Consultants Pty Ltd
Level 1, 660 Newcastle St
Leederville WA 6007
Ph: 1300 251 070
www.talisconsultants.com.au

ABN: 85 967 691 321

DOCUMENT CONTROL

Version	Description	Date	Author	Reviewer
0a	Internal Review	11/02/16	CF	RPC
1a	Draft Released to Client	16/02/16	CF	Planning Solutions
2a	Final Copy released to Client	22/02/16	CF	RPC

Approval for Release

Name	Position	File Reference
Ronan Cullen	Director	TW16008 – Waste Management Plan.2a
Signature		

Summary

Table 1-1: Proposed Waste Collection Summary

Waste Type	Bin Size (L)	Number of Bins	Collection Frequency	Collection
Refuse	240	5	Weekly	The Town
Recycling	240	5	Fortnightly	The Town

One set of bins (1 refuse and 1 recycling) is required for every two dwelling in accordance with communication with the Town.

The collection methodology proposes the Town's waste collection vehicle to service the Proposal weekly for refuse and fortnightly for recyclables. The receptacles will be ferried from the Bin Storage Area to the kerb adjacent the Proposal by the Property Manager.

A Property Manager will be engaged to oversee relevant aspects of waste management at the Proposal.

Table of Contents

Tables

Figures

1 Introduction

Planning Solutions is currently seeking Development Approval for a residential development at 8 Walter Road East, Bassendean, Western Australia (WA) (the Proposal). The Town of Bassendean (the Town) requires a Waste Management Plan (WMP) to accompany applications for development approval. The Proposal is located at the end of Walter Road East and is surrounded by residential properties to north and west, and Lord Street to the east as shown in **Figure 1**. The number of Units at the Proposal is:

- Two Bedroom Units – ten (10).

As part of this process, the Town requires the development of a WMP that identifies how waste is to be stored and collected from the Proposal. Planning Solutions has therefore engaged Talis Consultants Pty Ltd (Talis) to prepare this WMP to satisfy the Town's requirements.

1.1 Objectives and Scope

The objective of this WMP is to outline the equipment and procedures that will be adopted to manage all waste (both refuse and recycling) at the Proposal. Specifically, the WMP demonstrates that the Proposal has been designed to:

- Adequately cater for the anticipated quantities of waste and recyclables to be generated;
- Provide a suitable Bin Storage Area including appropriate receptacles; and
- Allow for efficient collection of receptacles by appropriate waste collection vehicles.

To achieve the objective, the scope of the WMP comprises:

- Section 2: Waste Generation and Storage;
- Section 3: Property Management Activities;
- Section 4: Waste Collection; and
- Section 5: Conclusion.

2 Waste Generation and Storage

2.1 Receptacle Requirements

To determine the number of receptacles required for a proposal, Talis would traditionally first calculate the waste generated by the proposed residential or commercial tenancies. This would be determined by identifying the type and size of the tenancies and the appropriate generation rates for each tenancy type based on Local Government waste management guidelines. The quantity of waste calculated would then determine the number of receptacles required.

However this was not required for the Proposal as discussions were held with the Town, who determined that the Proposal would require one set of receptacles (1 refuse and 1 recycling) for every two dwellings. Therefore the following receptacles are required for 10 units:

- Five (5) 240L refuse receptacles; and
- Five (5) 240L recycling receptacles.

The Town also requested that the above receptacles were to be collected using the Town's waste collection service which is based on one collection per week for refuse and one collection per fortnight for recycling.

2.2 Bin Storage area

2.2.1 Size

To ensure sufficient area is available for storage of the waste receptacles prior to collection, the quantity of receptacles required was modelled on one collection per week of refuse and one collection per fortnight of recycling and utilises a receptacle size of 240L.

Based on typical 240L receptacle dimensions as per **Table 2-1**, the placement of the receptacles within the Bin Storage Area has been considered, as shown in **Figure 2**.

The Bin Storage Area is designed to accommodate the following receptacles:

- Five (5) 240L refuse receptacles; and
- Five (5) 240L recycling receptacles.

Table 2-1: Typical 240L Receptacle Dimension

Receptacle Size (L)	Depth (m)	Width (m)	Area (m^2)
240	0.735	0.580	0.426

Reference: SULO Australia Bin Specification Data Sheets

2.2.2 Design

The Bin Storage Area is located at the ground level of the Proposal in close proximity to the street. The Bin Storage Area will have an impervious floor draining to the sewer and a tap to facilitate washing of receptacles inside the store. Doors to the Bin Storage Area will be vermin proof. The Bin Storage Area will also be ventilated to a suitable standard. To reduce potential odours in the Bin Storage Area, the receptacles, floor and walls will be cleaned when required. Receptacles will be washed down in a designated area inside the bin compound.

It is worth noting that the number of receptacles and corresponding placement of receptacles as shown in **Figure 2** represents the maximum requirements assuming weekly collections for refuse and fortnightly collections of recyclables. More frequent collections would reduce both the number of receptacles and the storage space required, but at this stage the Town only collects weekly for refuse and fortnightly for recyclables.

Receptacle capacity and storage space within the Bin Storage Area will be monitored during the operation of the Proposal to ensure that the receptacles are sufficient.

3 Property Management Activities

A Property Manager will be appointed to complete the following tasks at the Proposal:

- Ferrying of receptacles from the Bin Storage Area to the appropriate bin presentation area;
- Monitoring of the Bin Storage Area;
- Monitoring of waste composition to identify opportunities for source separation of recycling waste materials and waste reduction activities;
- Maintenance of receptacles and Bin Storage Area;
- Clean receptacles and Bin Storage Areas when required; and
- Ensure junk and green waste is deposited on the verge in accordance with the Town's requirements.

4 Waste Collection

The Town will service the Proposal by providing 240L receptacles for refuse and recyclables which are to be collected by the Town's waste collection vehicle. The Town's waste collection vehicle will service the Proposal weekly for refuse and fortnightly for recyclables. The receptacles will be ferried from the Bin Storage Area to the kerb by the Proposals Property Manager to the location shown in **Figure 2**.

As described previously, there is sufficient space within the Bin Storage Area for the number of receptacles required for one collection per week for refuse and one collection per fortnight for recycling. However, increased collection frequency would reduce the number of receptacles required. Currently the Town's waste collection service offers collection weekly for refuse and fortnightly for recycling.

4.1 Bin Presentation Area

On the assigned collection days, the receptacles will be presented to the kerb for collection. In line with the Town's guidelines the bin presentation area will allow for 0.5m distance between each receptacle and be a paved area designed to allow for ease of manoeuvring of the receptacles to and from the kerb.

4.2 Bulk Waste Collection

The Town provides residents with a bulk waste and green waste verge collection services once per year on separate days. The appointed Property Manager for the Proposal will be required to ensure that bulk waste will be deposited on the verge in accordance with the Town's requirements. The Town also provides four tip entry vouchers annually.

5 Conclusion

As demonstrated within this WMP, the Proposal provides a sufficiently large Bin Storage Area for the storage of receptacles for both refuse and recyclables based on a configuration of suitable receptacles. This indicates that a satisfactorily designed Bin Storage Area has been provided and collection of both refuse and recycling receptacles can be completed from the Proposal.

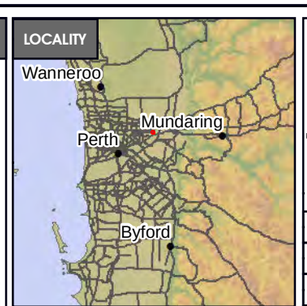
The above is achieved using five 240L refuse receptacles collected weekly and five 240L recycling receptacles collected fortnightly. Servicing will be conducted from a bin presentation area adjacent to the kerb utilising the Town's waste collection service.

A suitably qualified Property Manager will be engaged to oversee relevant aspects of waste management at the Proposal.

Figures

LEGEND

- Site Boundary
- Cadastral Boundary
- Road Network



SITE AERIAL

8 Walter Road East, Bassendean

N
0 5 10 20 30 metres

Coordinate System: GDA 1994 MGA Zone 50, Projection: Transverse Mercator, Datum: GDA 1994

Date: 11/02/2016	Revision: A
Scale @ A3:1:500	Project No: TW16008
Prepared: R P Cullen	Figure 01
Checked: C Felmingham	
Reviewed:N King	

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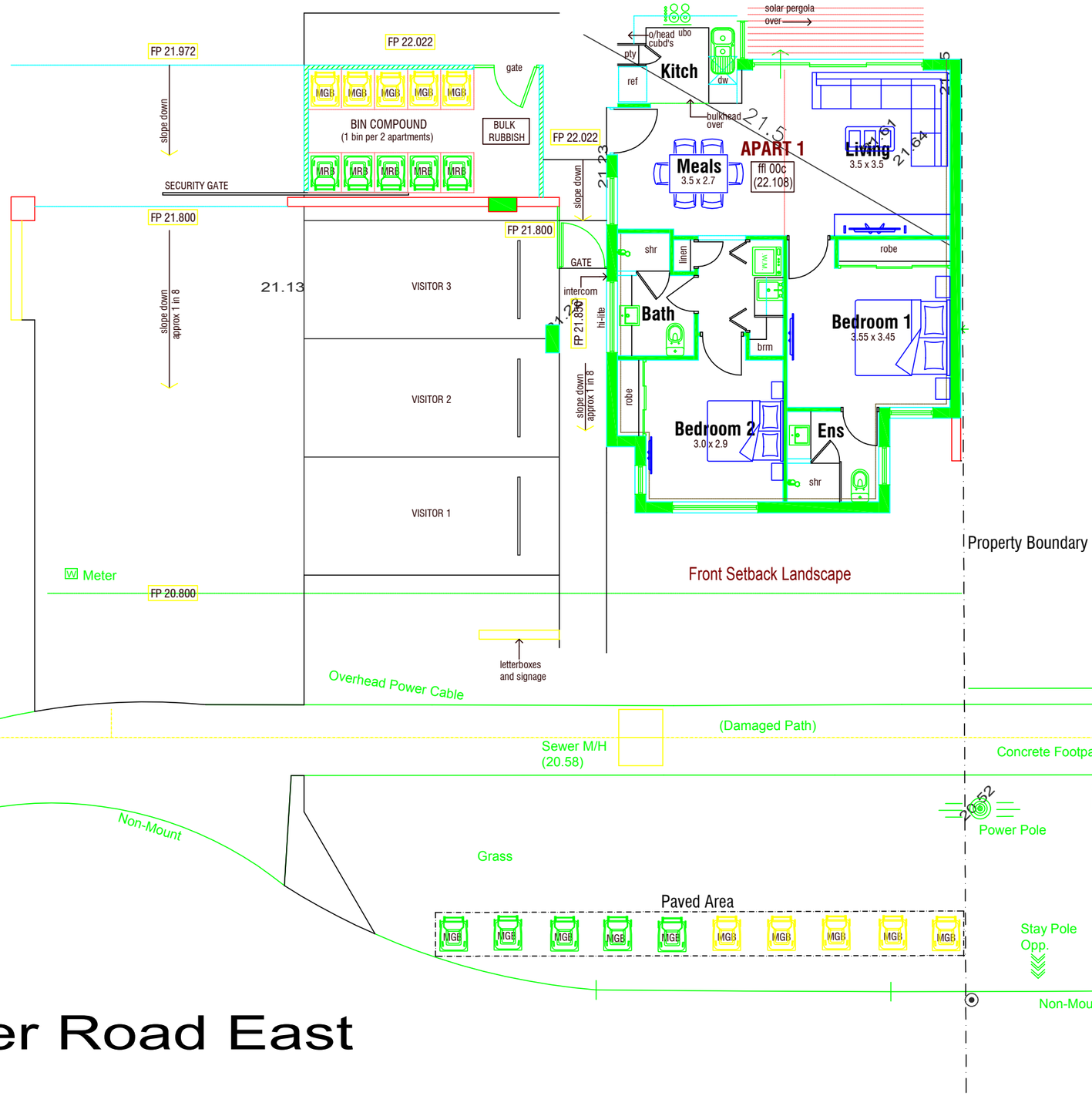
Document Path: \\server\talis\SECTIONS\Waste\PROJECTS\TW2016\TW16008 - 8 Walter Rd WMP\GIS\Maps\TW16008_001_Locality.mxd

LEGEND

240L Refuse Mobile Garbage Bins (0.735m x 0.580m)

240L Recyclable Mobile Garbage Bins (0.735m x 0.580m)

N



Walter Road East

talis delivering solutions
www.talisconsultants.com.au T: 1300 251 070

ASSET MANAGEMENT
CIVIL ENGINEERING
ENVIRONMENTAL SERVICES
SPATIAL INTELLIGENCE
WASTE MANAGEMENT

Level 1 660 Newcastle Street, Leederville WA 6007
PO Box 454, Leederville WA 6903

Client: Planning Solutions

NOTES

1. This drawing is the property of Talis Consultants Pty Ltd. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent.
2. All levels refer to Australian Height Datum.
3. DO NOT SCALE, use figured dimensions only, if in doubt please contact Talis Consultants.

No.	Date	Drwn/Chk	Amendment / Issue	App.
A	19/02/16	CF/PG	DRAFT ISSUE	RC

Project: 8 Walter Road East WMP

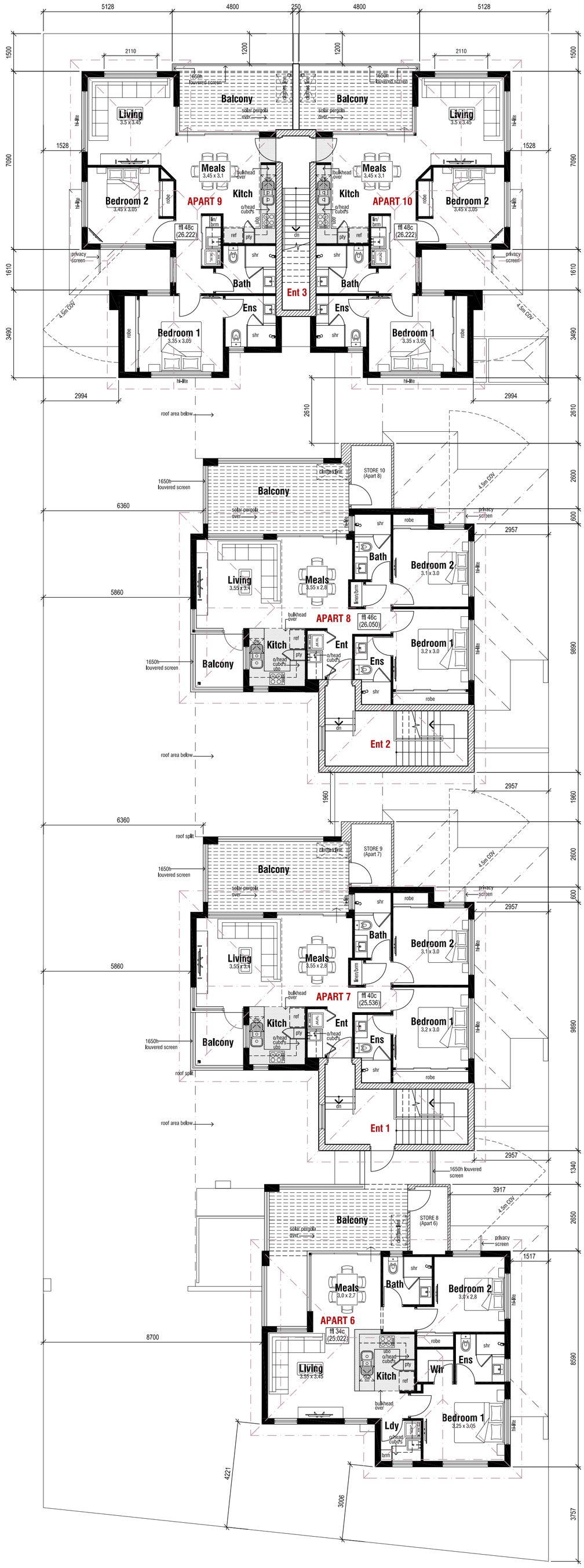
Title: Bin Storage Area and Bin Presentation Area Layout

Drawn by:	CF	Job No:	TW16008
Checked by:	PG	File No:	TW16008FIG002
Approved by:	RC	Fig. No: 002	Rev: A
Scale: 1:1000 @ A3			
Date: 19/02/2016			

Appendix 4
Water Sensitive Design Checklist

Section	Policy Application	Structure Plan	Subdivision	Development Application
	Runoff from paving directed to garden or lawn areas			Runoff directed to landscape areas
	Encourage use of pervious paving materials			Pervious materials to be used
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			

Appendix 5
Energy Efficient Design Policy Credit Points Checklist



UPPER FLOOR PLAN

SCALE 1:100

THOMPSON DEVELOPMENT

ENERGY EFFICIENT DESIGN - Apartment 1

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartments 2 and 3

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 4

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 5

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 6

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	82.5	

ENERGY EFFICIENT DESIGN - Apartments 7 and 8

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	7.5	
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 East wall: 10 West wall: 10	10	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 9

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 10

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

Planning Application

N

LEGEND & NOTES

- FP 10.000 DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
	C	04.05.16	planning amendments
	B	22.02.16	planning amendments
	A	15.12.15	Issued for planning submission

mcarbonedesign
marcello carbone
0408 807 772
36 townshend road,
subiaco western australia 6008
t : 6143 5460
f : 9382 4817
e : marcello@mcarbonedesign.com.au

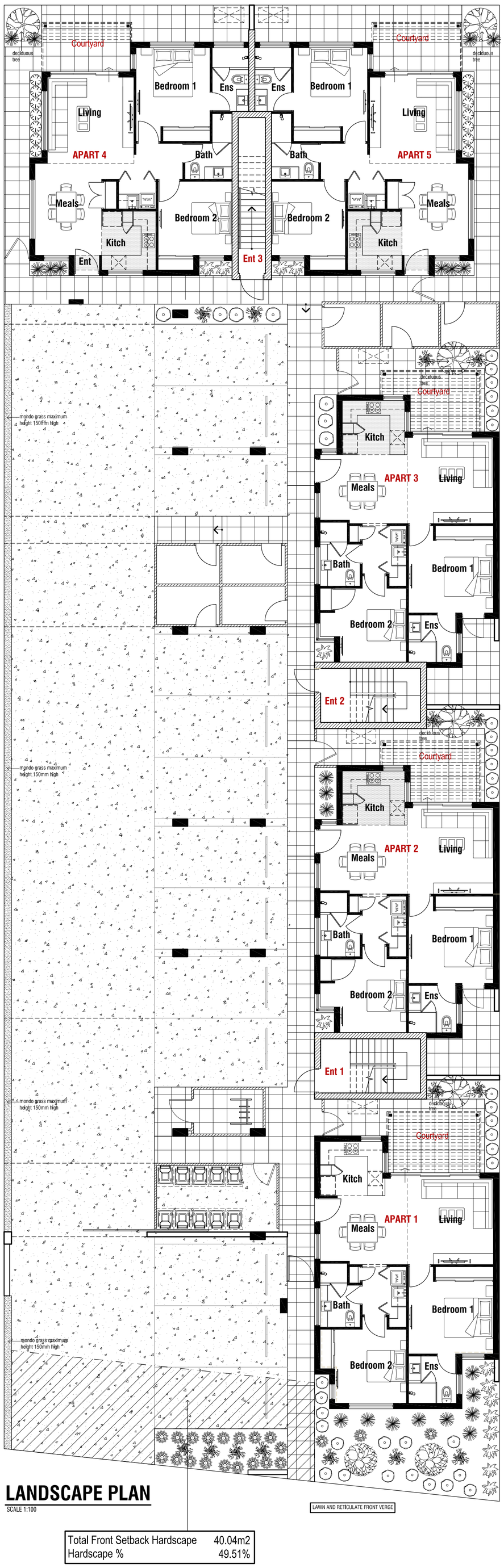
Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**	
Status: Planning Approval	**Drawn By:** M.Carbone	
Project No. 21509	**Drawing No.** A03	Rev No.

Appendix 6
Landscape Plan



LANDSCAPE PLAN

SCALE 1:100

Total Front Setback Hardscape	40.04m2
Hardscape %	49.51%

LANDSCAPE LEGEND		
	SPECIES NAME	COMMON NAME
1	CORDYLINE BANKSII	PURPLE SENSATION
2	DIANELLA ENSIFOLIA	DIANELLA GOLDEN STREAK
3	LIRIOPE MUSCARI	EVERGREEN GIANT
4	HEMIANDRA PUNGENS	SNAKE BUSH
5	AREMERIA BEE'S PINK	THRIFT FLOWER
6	DRACEANA MARGINATA	GOLDEN DRAGON
7	PYRUS CALLERYANA (45 litre)	ORNAMENTAL PEAR TREE
	TURF - SIR WALTER BUFFALO	

Planning Application

N

LEGEND & NOTES

- FP 10.000 DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

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	B	22.02.16	planning amendments
	A	15.12.15	Issued for planning submission

mcarbonedesign
marcello carbone
0408 807 772
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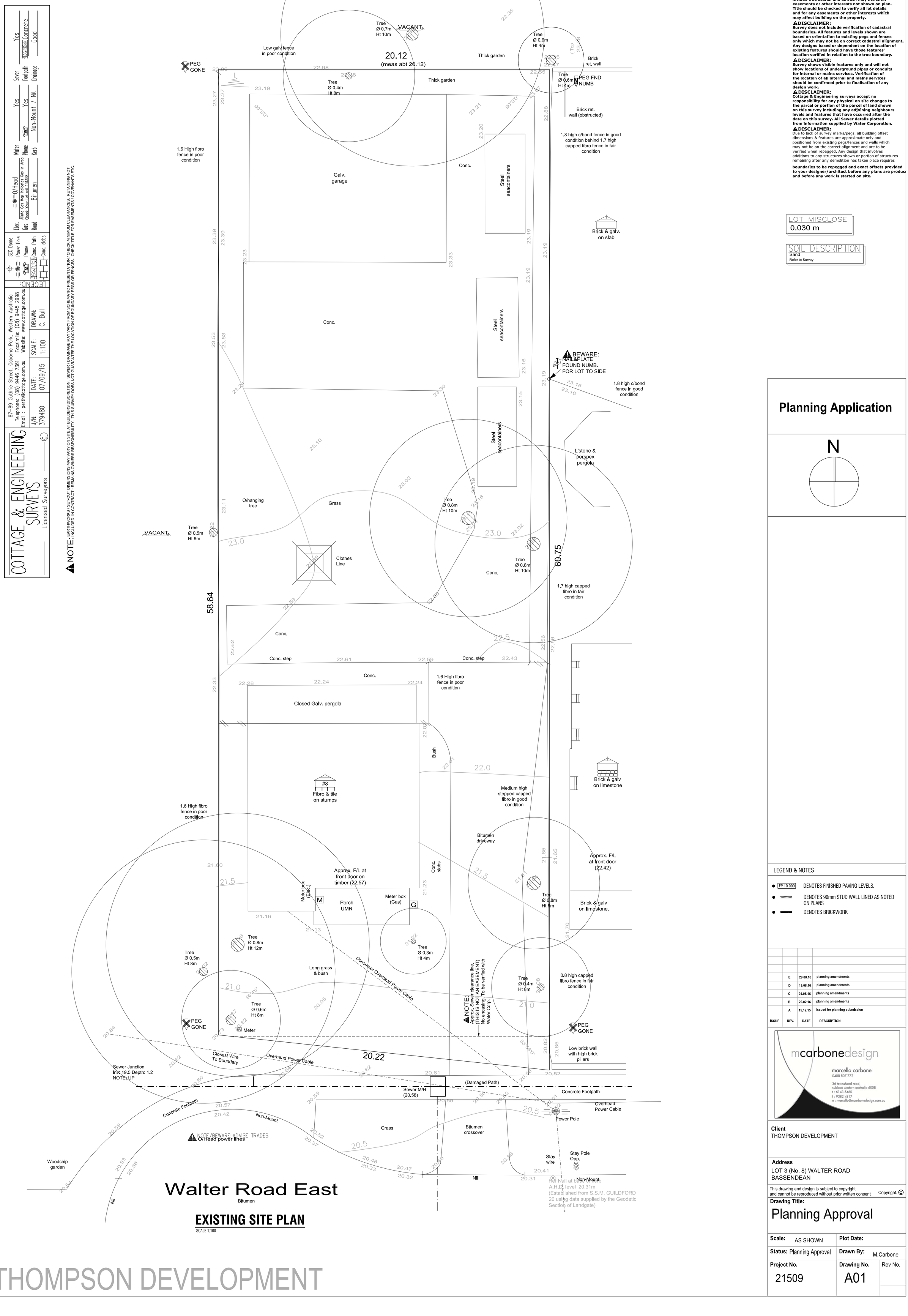
Drawing Title:
Planning Approval

Scale: AS SHOWN		**Plot Date:**	
Status: Planning Approval		**Drawn By:**	M.Carbone
Project No. 21509	**Drawing No.** A05		Rev No.

THOMPSON DEVELOPMENT



EXISTING SITE PLAN

SCALE 1:100

⚠DISCLAIMER:
Lot boundaries drawn on survey are based on landgate plan only. Survey does not include title search and as such may not show easements or other interests not shown on plan. Title should be checked to verify all lot details and for any easements or other interests which may affect building on the property.

⚠DISCLAIMER:
Survey does not include verification of cadastral boundaries. All features and levels shown are based on orientation to existing pegs and fences only which may not be on correct cadastral alignment. Any designs based or dependent on the location of existing features should have those features' location verified in relation to the true boundary.

⚠DISCLAIMER:
Survey shows visible features only and will not show locations of underground pipes or conduits for internal or mains services. Verification of the location of all internal and mains services should be confirmed prior to finalisation of any design work.

⚠DISCLAIMER:
Cottage & Engineering surveys accept no responsibility for any physical on site changes to the parcel or portion of the parcel of land shown on this survey including any adjoining neighbours levels and features that have occurred after the date on this survey. All Sewer details plotted from information supplied by Water Corporation.

⚠DISCLAIMER:
Due to lack of survey marks/pegs, all building offset dimensions & features are approximate only and positioned from existing pegs/fences and walls which may not be on the correct alignment and are to be verified when repegged. Any design that involves additions to any structures shown or portion of structures remaining after any demolition has taken place requires

boundaries to be repegged and exact offsets provided to your designer/architect before any plans are produced and before any work is started on site.

LOT MISCLOSE
0.030 m

SOIL DESCRIPTION
Sand
Refer to Survey

Planning Application

N

LEGEND & NOTES

- FP 10.000 — DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
	E	29.08.16	planning amendments
	D	19.08.16	planning amendments
	C	04.05.16	planning amendments
	B	22.02.16	planning amendments
	A	15.12.15	Issued for planning submission

mcarbonedesign
marcello carbone
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Project No. 21509	**Drawing No.** A01 — Rev No.

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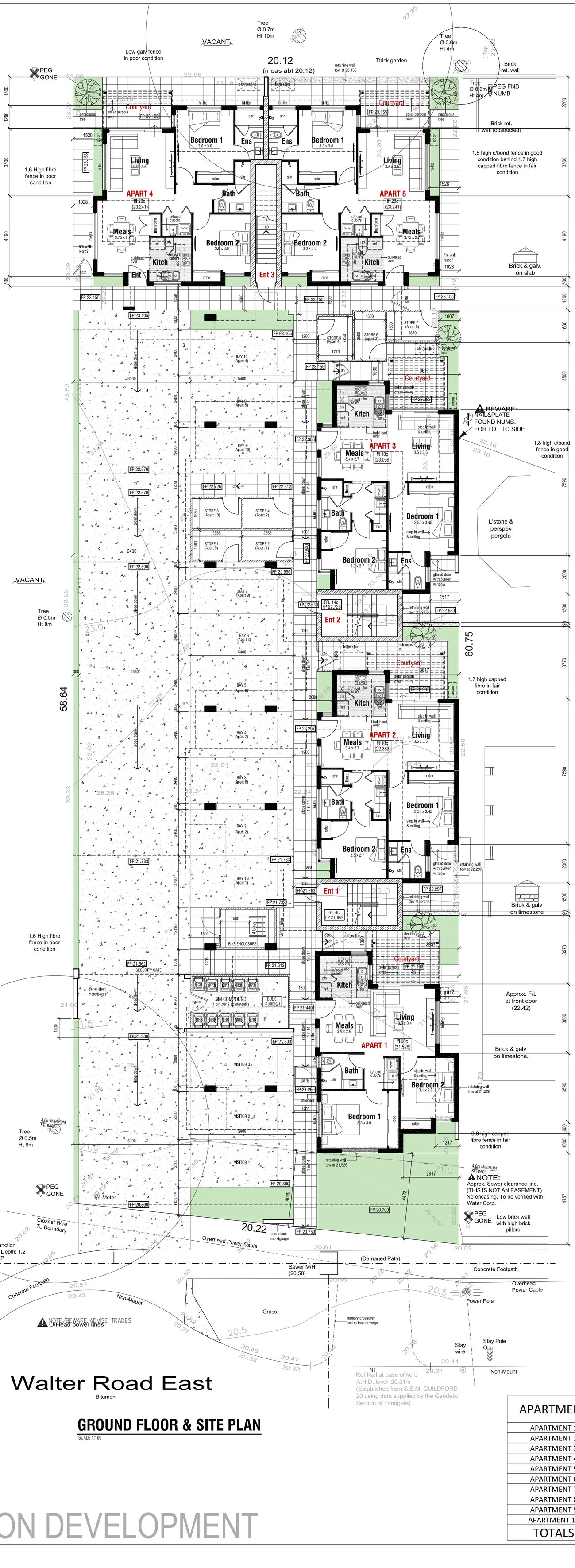
Licensed Surveyors ——— ©
87-89 Guthrie Street, Osborne Park, Western Australia
Telephone: (08) 9446 7361 Facsimile: (08) 9445 2998
Email : perth@cottage.com.au Website: www.cottage.com.au

J/N:	DATE:	SCALE:	DRAWN:
379480	07/09/15	1:100	C. Bull

LEGEND:
SFC Dome — Elec.
Power Pole — Gas
Phone — Road
Conc. Path — Water
Conc. slabs — Phone
Alinta Gas Map Indicates Gas In Area — Yes
Check Dial Dial 1.01 call 131388 — Yes
O/Head — Non-Mount / Nil
Bitumen — Kerb
Sewer — Yes
Footpath — Concrete
Drainage — Good

⚠ NOTE: EARTHWORKS / SET-OUT DIMENSIONS MAY VARY ON SITE AT BUILDERS DISCRETION. SEWER / DRAINAGE MAY VARY FROM SCHEMATIC PRESENTATION / CHECK MINIMUM CLEARANCES. RETAINING NOT INCLUDED IN CONTRACT - REMAINS OWNERS RESPONSIBILITY. THIS SURVEY DOES NOT GUARANTEE THE LOCATION OF BOUNDARY PEGS OR FENCES. CHECK TITLE FOR EASEMENTS / COVENANTS ETC.

THOMPSON DEVELOPMENT



GROUND FLOOR & SITE PLAN

SCALE 1:100

APARTMENT	LIVING	STORE	BALCONY/ COURTYARD	TOTAL
APARTMENT 1	63.19	4.58	21.34	89.11
APARTMENT 2	70.93	4.58	26.39	101.90
APARTMENT 3	70.93	4.52	25.25	100.70
APARTMENT 4	71.52	4.61	30.63	106.76
APARTMENT 5	71.52	4.61	35.15	111.28
APARTMENT 6	76.33	4.83	25.05	106.21
APARTMENT 7	71.01	4.89	17.34	93.24
APARTMENT 8	71.01	4.89	17.34	93.24
APARTMENT 9	72.64	4.89	12.08	89.61
APARTMENT 10	72.64	4.58	12.08	89.30
TOTALS	711.72	46.98	222.65	981.35

Planning Application

N

LEGEND & NOTES

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marcello carbone
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e : marcello@mcarbonedesign.com.au

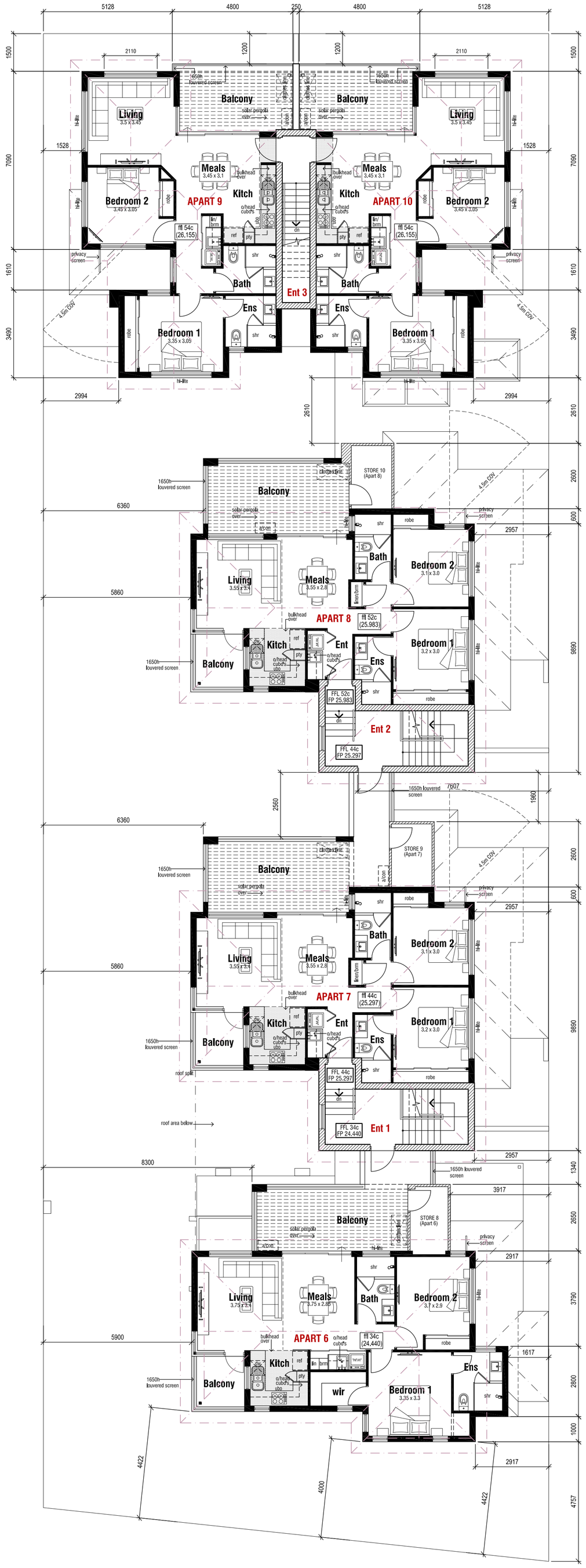
Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**
Status: Planning Approval	**Drawn By:** M.Carbone
Project No. 21509	**Drawing No.** A02
	Rev No.

THOMPSON DEVELOPMENT



UPPER FLOOR PLAN

SCALE 1:100

THOMPSON DEVELOPMENT

ENERGY EFFICIENT DESIGN - Apartment 1

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartments 2 and 3

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 4

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 5

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 6

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	82.5	

ENERGY EFFICIENT DESIGN - Apartments 7 and 8

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	7.5	
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 East wall: 10 West wall: 10	10	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 9

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 10

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

Planning Application

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mcarbonedesign
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Client
THOMPSON DEVELOPMENT

Address
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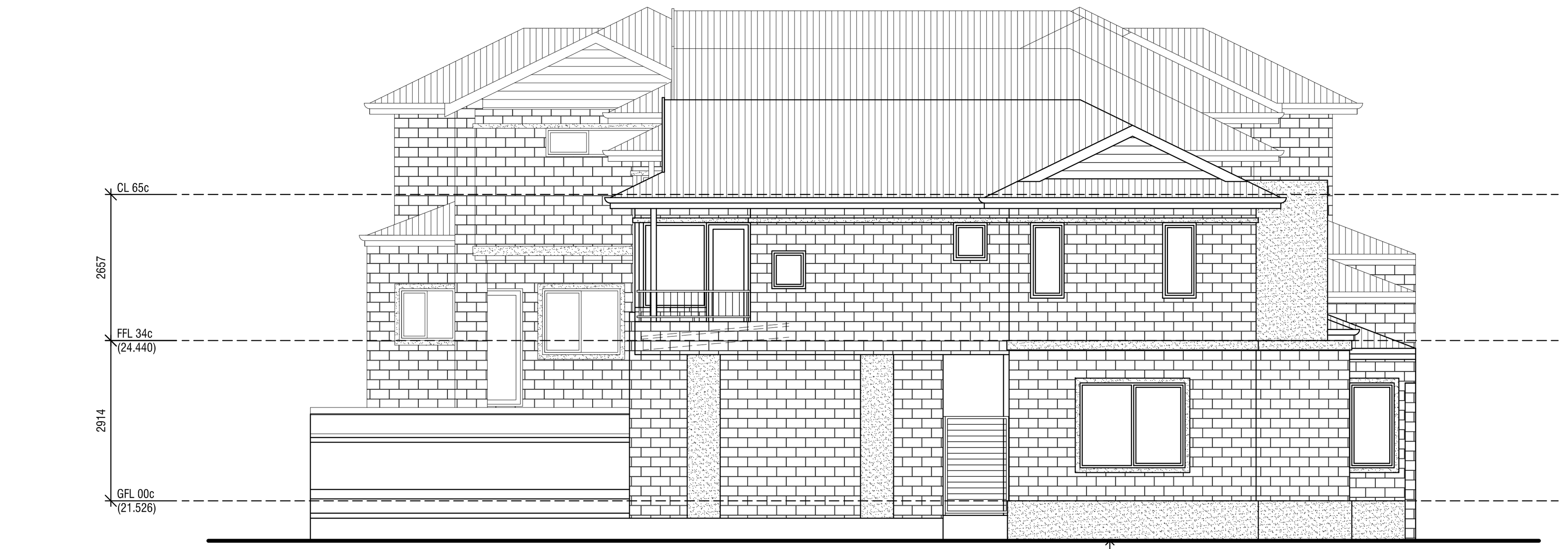
BASSENDEAN

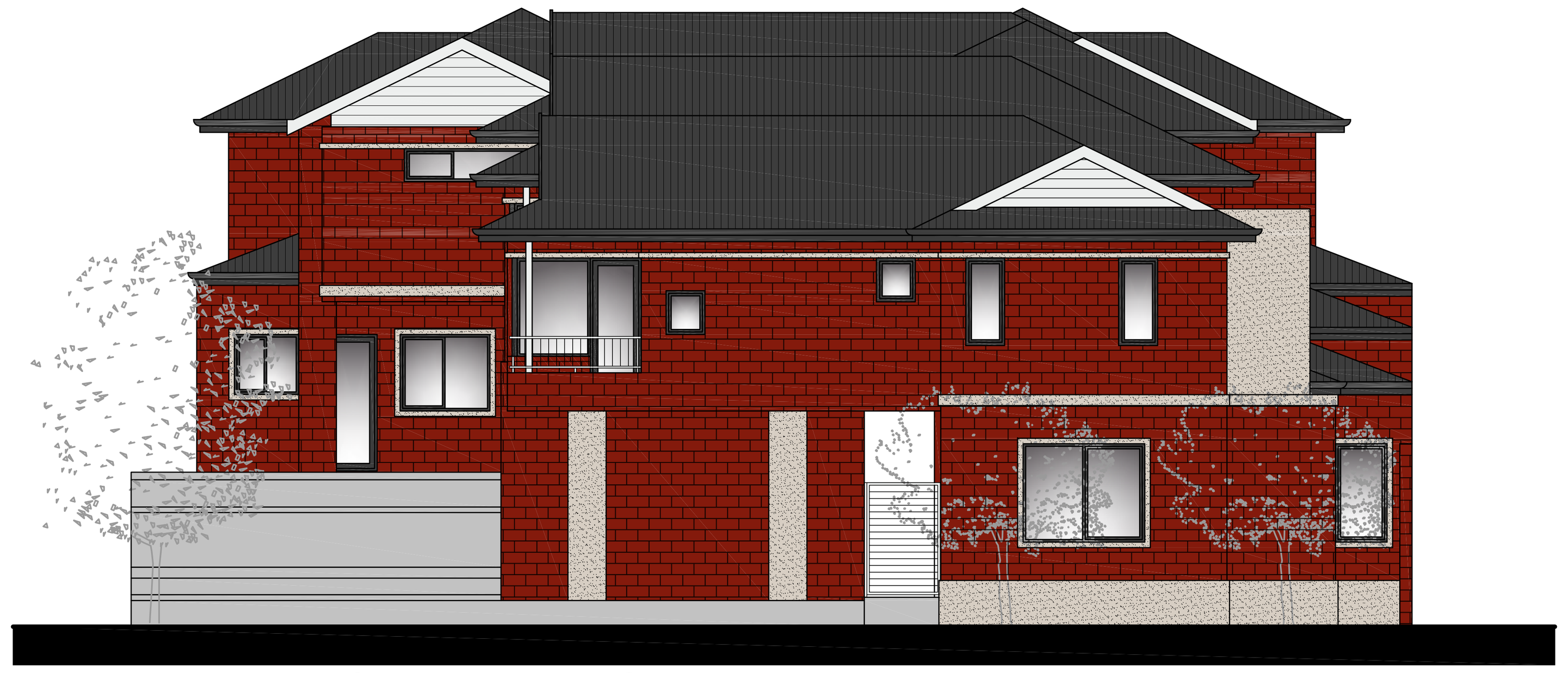
Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**	
Status: Planning Approval	**Drawn By:** M.Carbone	
Project No. 21509	**Drawing No.** A03	Rev No.



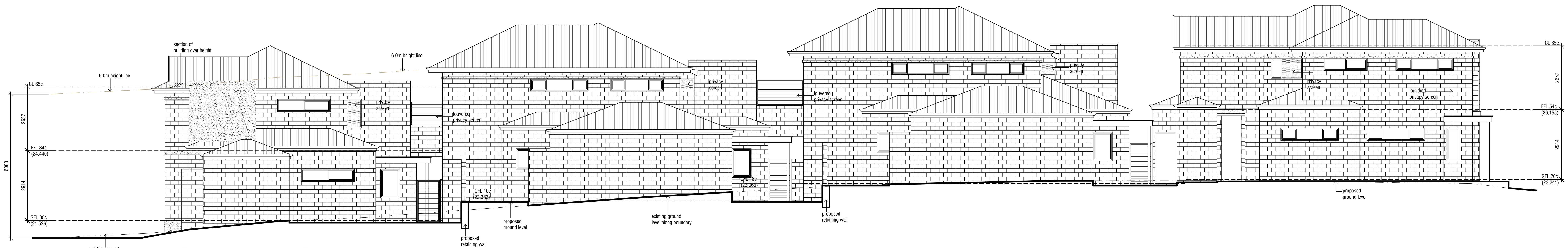
WALTER ROAD ELEVATION

SCALE 1:100



WALTER ROAD ELEVATION

SCALE 1:100

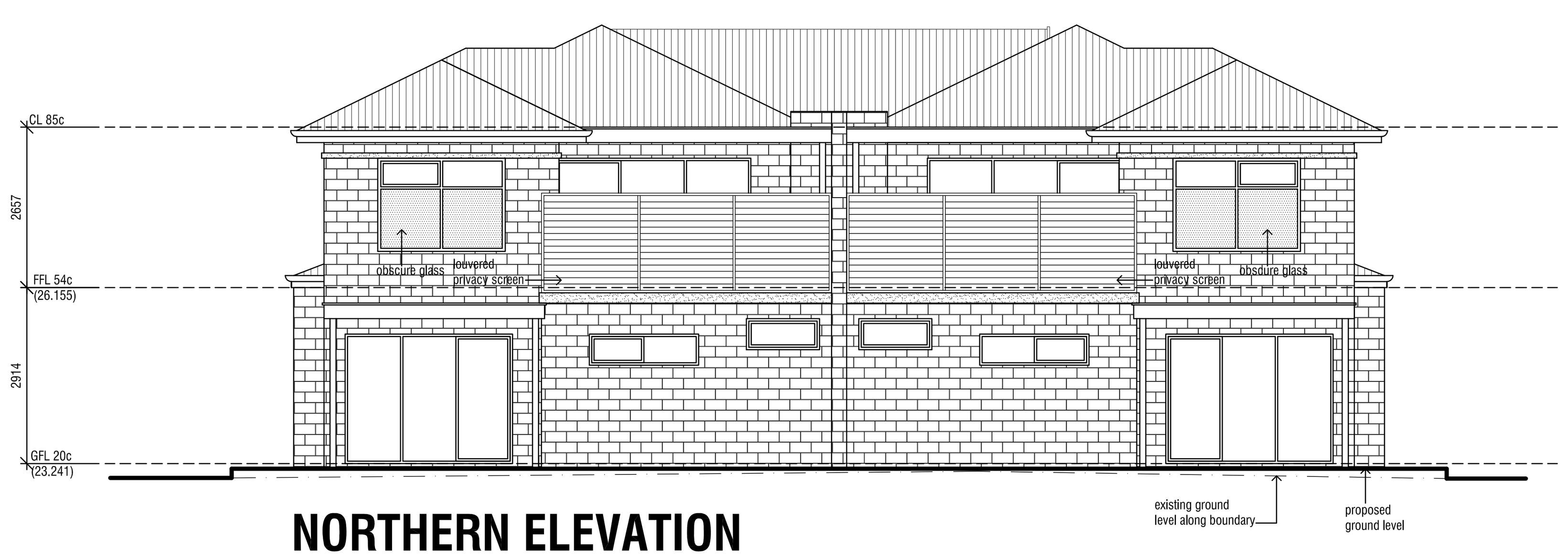


EASTERN ELEVATION

SCALE 1:100

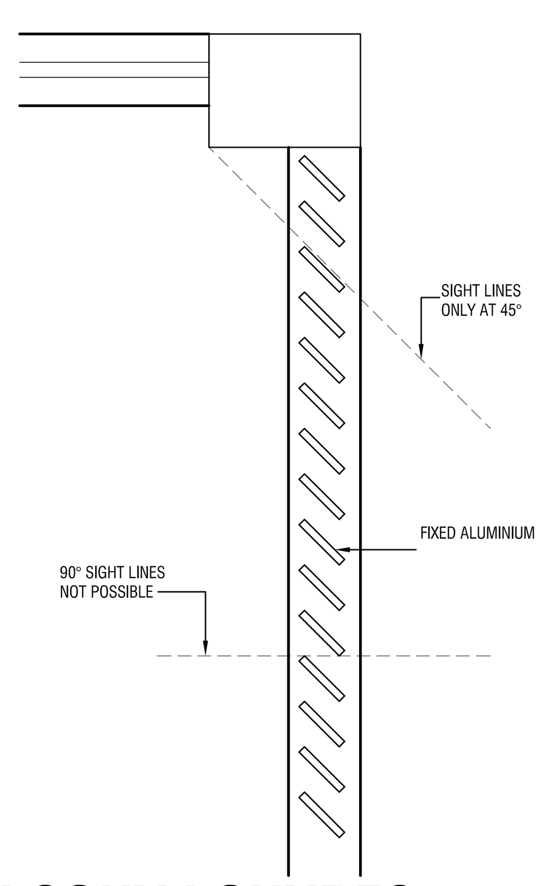
WESTERN ELEVATION

SCALE 1:100



NORTHERN ELEVATION

SCALE 1:100



BALCONY LOUVRES

SCALE 1:20

THOMPSON DEVELOPMENT

Planning Application

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mcarbonedesign
marcello carbone
0408 807 772
36 townshend road,
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t : 6143 5460
f : 9382 4817
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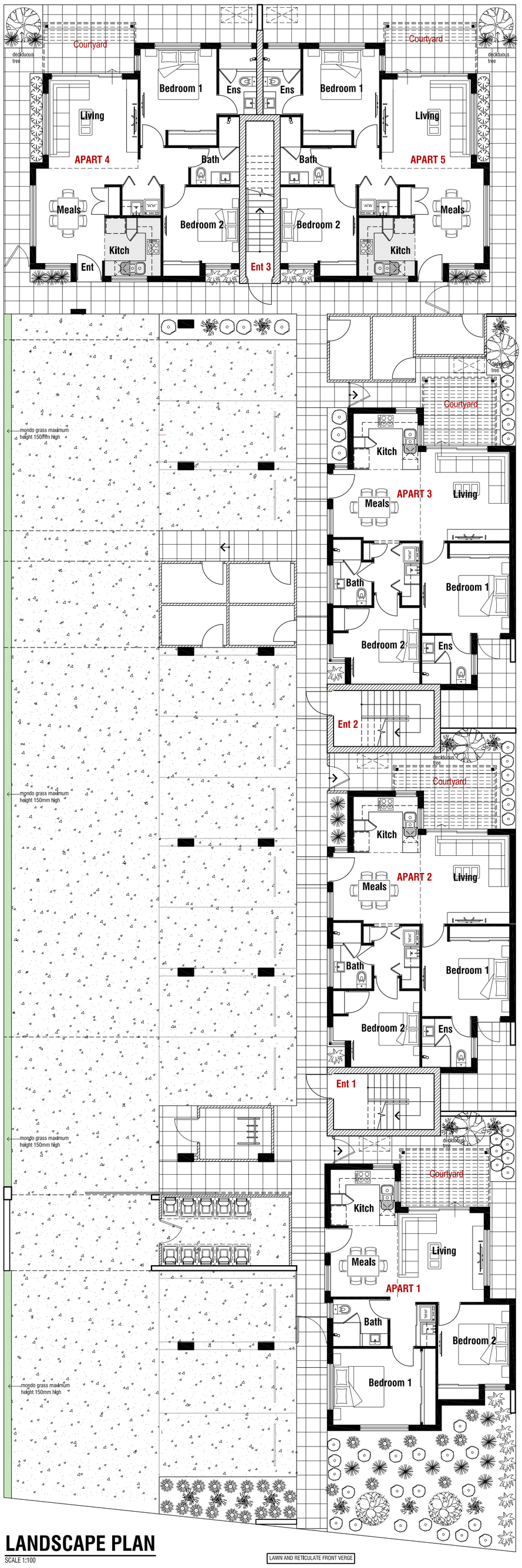
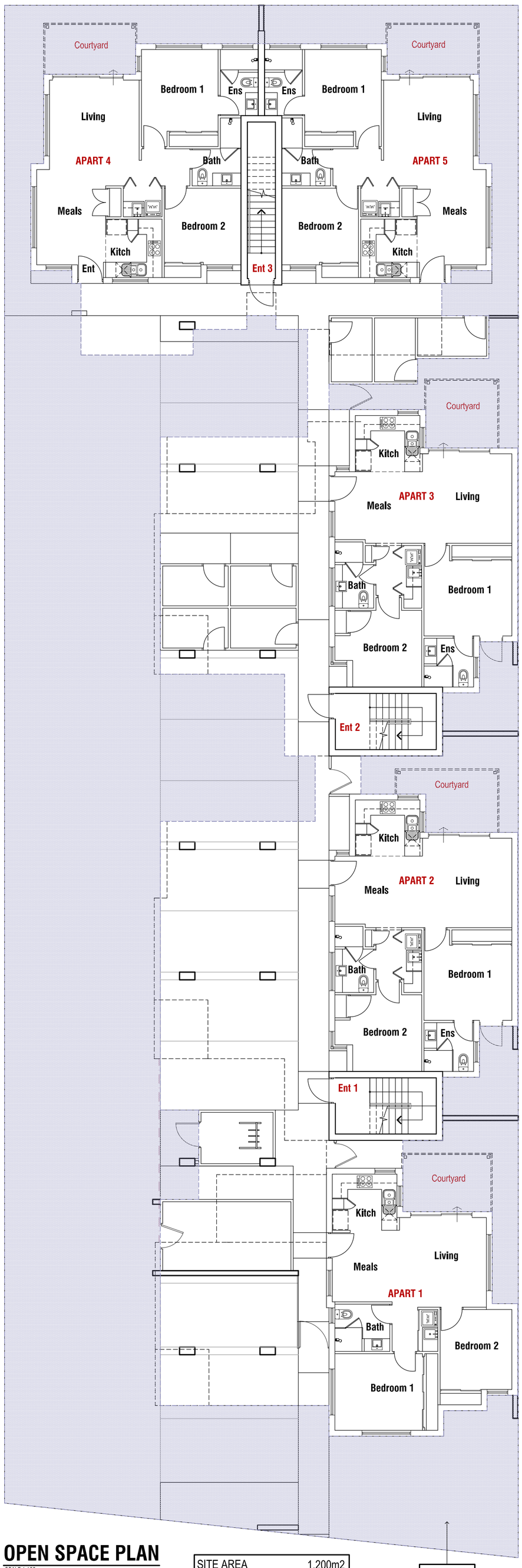
Drawn By: M.Carbone
Project No. 21509
Drawing No. A04
Rev No.



LANDSCAPE PLAN

SCALE 1:100

LANDSCAPE LEGEND		
	SPECIES NAME	COMMON NAME
1	CORDYLINE BANKSII	PURPLE SENSATION
2	DIANELLA ENSIFOLIA	DIANELLA GOLDEN STREAK
3	LIRIOPE MUSCARI	EVERGREEN GIANT
4	HEMIANDRA PUNGENS	SNAKE BUSH
5	AREMERIA BEE'S PINK	THRIFT FLOWER
6	DRACEANA MARGINATA	GOLDEN DRAGON
7	PYRUS CALLERYANA (45 litre)	ORNAMENTAL PEAR TREE
	TURF - SIR WALTER BUFFALO	



OPEN SPACE PLAN

SCALE 1:100

SITE AREA	1,200m2
Total Open Space	550.41m2
Open Space %	45.87%

Planning Application

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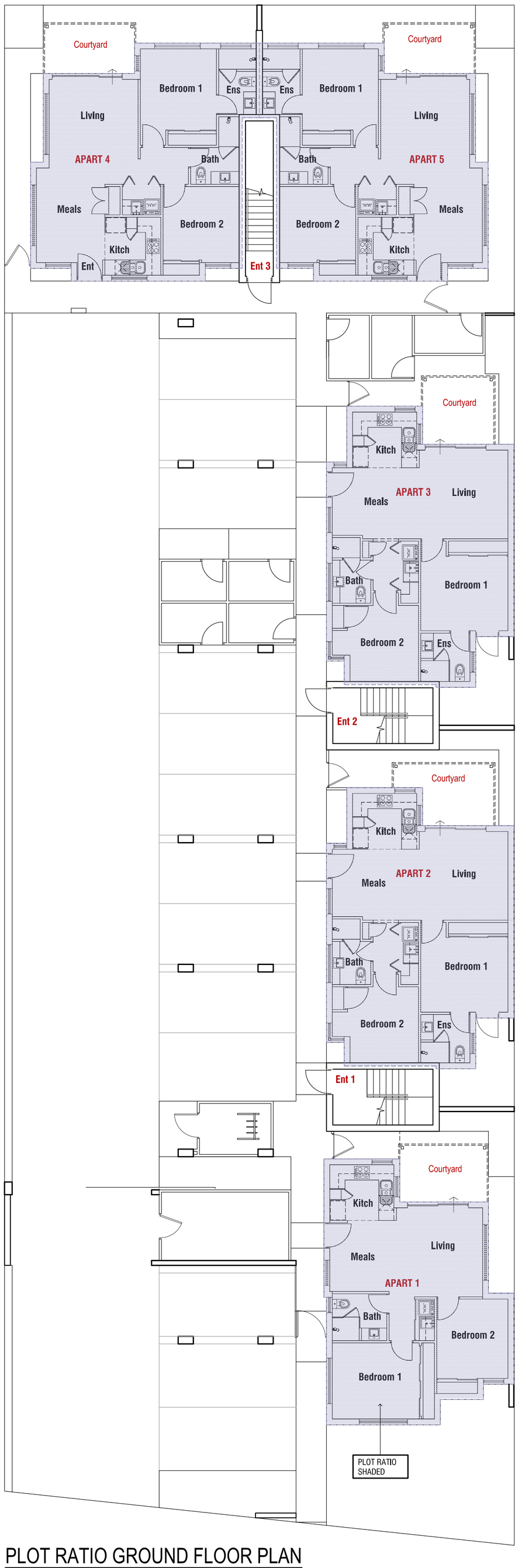
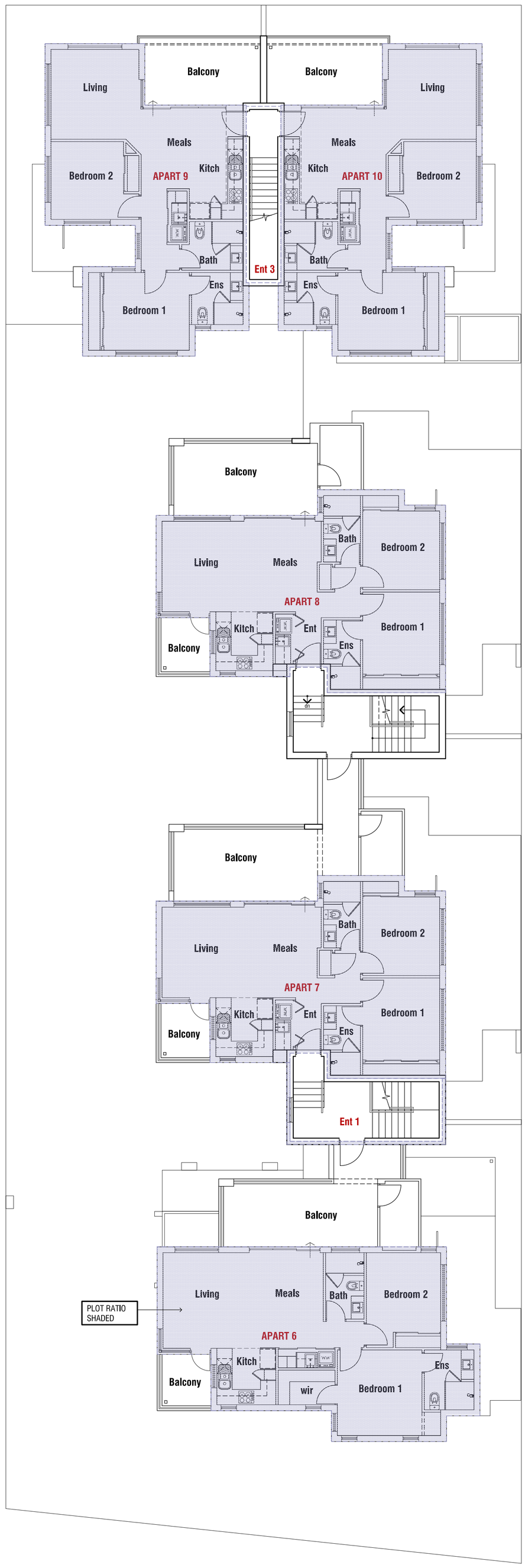
Project No. 21509	**Drawing No.** A05	Rev No.	

THOMPSON DEVELOPMENT



PLOT RATIO GROUND FLOOR PLAN

SCALE 1:100



PLOT RATIO UPPER FLOOR PLAN

SCALE 1:100

SITE AREA	1,200m2
Total Plot Ratio Area	719.29m2
Plot Ratio %	59.94%

Planning Application

N

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Project No. 21509	**Drawing No.** A06 / Rev No.

THOMPSON DEVELOPMENT

PSA ref: 4082
Town's Ref: DA 2016-100

31 August 2016

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

Attention: Christian Buttle, Senior Planning Officer

Dear Sir,

LOT 3 (8) WALTER ROAD EAST, BASSENDEAN
PROPOSED 10 MULTIPLE DWELLINGS DEVELOPMENT
AMENDED PLANS

Planning Solutions acts on behalf of 8 Walter Road East Bassendean Pty Ltd, the registered proprietor of Lot 3 (8) Walter Road East, Bassendean (**subject site**). I refer to the Town of Bassendean's (**Town**) request for further information dated 27 July 2016.

Please find enclosed a revised set of development plans for consideration (**Attachment 1**).

The purpose of this letter is to provide a response to the key issues raised by the Town and an assessment of the amended plans.

AMENDED PLANS

The revised development plans have been modified from those originally lodged on 26 May 2016. The changes include the following:

- Reduced finished floor levels to Apartment 1 and 6 being reduced, resulting in a reduced wall height of 6.25m.
- Apartments 1 and 6 redesigned to incorporate a 4m primary street setback.
- Reduction in height and cumulative length of the eastern boundary walls to meet the deemed-to-comply requirements of the R-Codes.
- Increase in landscaping within the front setback area to meet the deemed-to-comply requirements of the R-Codes.
- Widening of pedestrian paths to accommodate wheelchair access, including widening of the pedestrian T-junction in front of Apartment 5 to meet disability access requirements.
- Additional plans provided to show plot ratio and open space calculations.
- Car parking areas modified to comply with Australian Standard *AS 2890.1-2004 Off-street car parking*.
- Relocation of the security gate so as not to obstruct the bin store.
- Location of air conditioning units shown on plans.
- Internal dimensions for storerooms shown on plans.

PLANNING SOLUTIONS
URBAN & REGIONAL PLANNING
PERTH
A: 296 Fitzgerald Street Perth WA 6000
T: (08) 9227 7970
F: (08) 9227 7971
P: PO Box 8701 Perth BC WA 6849
E: admin@planningsolutions.com.au
W: www.planningsolutions.com.au
ACN 143 573 184 ABN 23 143 573 184
Planning Solutions (Aust) Pty Ltd

DUAL DENSITY CODE CRITERIA

The subject site has a dual density code of R20/40 under the provisions of the Town's Local Planning Scheme No. 10 (**LPS10**). Clause 5.3.1.2 of LPS 10 provides five criteria to be met in considering an assessment against the higher density code:

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.*

The Town has advised that criteria (a) and (c) are appropriately met and has requested further information relating to the remaining three criteria. A response to these criteria is provided as follows:

Local Planning Policies

The two main policies which apply to the proposal are Local Planning Policy No. 2 – Energy Efficient Design (**LPP2**) and Local Planning Policy No. 3 – Water Sensitive Design (**LPP3**).

The application is considered to satisfactorily address the requirements of LPP2. The revised plans have been assessed and the modifications do not compromise the ability to achieve the relevant energy efficiency measures. LPP3 is directly related to water sensitive urban design standards, discussed in the following section.

Water Sensitive Urban Design

The proponent has engaged civil engineers Structerre to review and undertaken an assessment of water efficiency in relation to the proposed development. A Stormwater Management Plan has been prepared for the proposal and is provided for the Town's consideration at **Attachment 2**. We have also prepared a water sensitive urban design checklist for the Town's review. In summary, the proposed development exhibits the following key criteria:

- The proposal is designed to retain stormwater on site through the use of soakwells and where appropriate, direct water runoff to garden beds.
- Landscaping has been designed to incorporate water efficient species.
- Domestic rainwater pits are proposed to be installed.

Preservation of the streetscape

We consider the proposal, particularly through the amended plans, represents a positive streetscape outcome. The amendments have resulted in the following:

- Building height has been reduced to a wall height of 6.25m for a small portion of the development (this variation is discussed further below).
- The front setback has been increased to meet the deemed-to-comply requirement of the R-Codes and also to respond to the surrounding context, which involves development setback further than the required 4m. If assessed against the lower R20 code, the proposal would exceed the 3m minimum and 6m average setback requirement.

- Boundary Walls – the proposed boundary walls are situated more than 6m behind the street setback line, which would meet the R20 coding.
- Landscaping – increasing the building setback from to the primary street has allowed for increased landscaped space to be provided, providing a positive contribution to the streetscape.

More generally, the proposal seeks to respond to the streetscape by providing a pitched roof development which complements the character of the locality. The proposal provides two dwellings with major openings facing the street resulting in greater passive surveillance.

In summary, we consider the proposal warrants assessment against the higher R40 code.

OTHER INFORMATION

Landscaping Plan

The revised Landscape Plan (**Attachment 1**) provides a list of plant species selected for the site having regard to the intended streetscape outcome and water sensitive urban design principles.

Following discussions with the Town, we would have no objection in providing a landscape plan as a condition of approval which includes landscaping of the adjoining verge.

Lighting Plan

The main pedestrian path inside the development is covered, providing the opportunity for ceiling lights. Following discussions with the Town, we would have no objection to providing a detailed lighting plan at building permit stage.

R-CODES AND POLICY ASSESSMENT

In lieu of responding to individual items raised by the Town, we have undertaken a full re-assessment of the revised plans against the Residential Design Codes (**R-Codes**) and the Town's policies (refer **Table 1** below).

Table 1- Revised Plans Assessment

R-Code Design element	Deemed-to-comply requirement (Part 6 of R-Codes)		Deemed-to-comply
6.1 Context			
6.1.1 Building size	**Required**	**Provided**	
Plot ratio	0.6 (720m²)	0.60 (719.29m²)	✓
6.1.2 Building height	**Required**	**Provided**	
Maximum wall height (concealed roof)	6m	6.25m (max)	Performance assessment
Top of pitched roof	9m	7.32m	✓

6.1.3 Street setback	**Required**		**Provided**	
Minimum street setback	4m		4m	✓
6.1.4 Lot boundary setback	**Required**		**Provided**	
	Ground floor			
	West	1m/1.5m/1.5m	1.028m/1.528m/6.1m	✓
	North	1m/1.5m	1.5m/2.7m	✓
	East	Nil/1m/1.5m	Nil/1.028m/1.517m	✓
	First floor			
	West	1.2m/1.6m/5m	1.528m/2.994m/5.86m	✓
	North	1.5m/2.0m	1.2m/1.5m	Performance assessment
	East	1.2m/1.5m/2.8m	1.528m/2.957m/3.917m	✓
Lot boundary walls	Nil for a maximum of 1/3 the length of the boundary behind the front setback line (18.92m) to an average height of 3m and maximum height of 3.5m		Nil for combined length of 18.77m. Apartment 1 Av. Height: 2.9m Max. Height: 3.1m Apartment 2 Av. Height: 2.9m Max. Height: 3.1m Apartment 3 Av. Height: 2.9m Max. Height: 2.9m	✓
6.1.5 Open space	**Required**		**Provided**	
Minimum open space	45% (540m²)		45.87% (550.41m²) *Refer to comments below.*	✓
6.2 Streetscape				
6.2.1 Street surveillance	**Required**		**Provided**	
Street elevation	Building to address the street, and entry point is visible / accessible from street.		Dwellings address Walter Road East, with main entry point visible / accessible from this street.	✓
Balconies and major openings to habitable room	Balconies or at least one major opening from a habitable room faces the street.		Apartment 1: Bedrooms 1 and 2. Apartment 6: Bedroom 1 and Living Room.	✓
6.2.2 Street walls and fences	**Required**		**Provided**	
Front fences	Front fences within the primary street setback area that are visually permeable above 1.2m of natural ground level		No fence within setback area	✓

6.2.3 Sight lines	**Required**	**Provided**	
Wall, fence sight lines	Walls/fences to be no higher than 0.75m within 1.5m of where walls, fences, other structures adjoin vehicle access points.	No structures obscure sightlines	✓
6.3 Site Planning and design			
6.3.1 Outdoor living areas	**Required**	**Provided**	
Outdoor living areas	Each dwelling to be provided with at least one balcony or equivalent accessed directly from a habitable room with a minimum area of 10m and a minimum dimension of 2.4m.	All balconies/ courtyards equal to or greater than 10m² and 2.4m minimum dimension.	✓
6.3.2 Landscaping	**Required**	**Provided**	
Street setback areas (comprising common property and communal open space)	Developed without car parking, except for visitors' bays, and with a maximum of 50% hard surface.	Developed without car parking, except for visitors' bays. 50.7% landscaped (41m²).	✓
Pedestrian paths	Separate pedestrian paths providing wheelchair accessibility connecting all entries to buildings with the public footpath and car parking areas.	Pedestrian paths provide access to all dwellings from the public footpath and car parking area.	✓
Landscaping between car parking	Landscaping between each six consecutive external car parking spaces to include shade trees.	N/A – car parking provided under cover.	N/A
Lighting	Lighting provided to pathways, and communal open space and car parking areas	Lighting to be provided in accordance with R-Codes requirements.	✓
Clear sight lines	Clear sight lines for pedestrians and vehicles.	Clear sight lines provided.	✓
6.3.3 Parking	**Required**	**Provided**	
Car parking bays	12.5 bays (1.25 bay per dwelling) (Location B).	10 bays (10 dwellings)	Performance assessment
Visitor car parking bays	2.5 bays (0.25 per dwelling)	3 bays (10 dwellings)	✓
Bicycle parking	3 Resident (1 per three dwellings) and 1 Visitor (1 per ten dwellings)	4 bicycle spaces	✓
6.3.4 Design of car parking spaces	**Required**	**Provided**	
Design of parking	In accordance with AS2890.1	Bays meet the minimum width (2.4m), depth (5.4m) and aisle width (5.8m) dimensions of AS2890.1.	✓
Visitor bay design	Marked and accessible outside any security barrier	Yes	✓
Concealed from street view	Residential car parking spaces fully concealed from the street or public space.	Yes	✓

6.3.5 Vehicular access	**Required**	**Provided**	
Crossover	One crossover per 20m	One crossover on Walter Road.	✓
Access	Access provided from secondary street where available.	N/A	✓
Driveways	Driveway designed to service two way access	A 5.8m wide driveway is provided to allow two-way movement and the entry/exit point allows for vehicles to enter the street in forward gear.	✓
Driveway materials	Driveway to be adequately paved and drained	The driveway will be provided with appropriate soakwells. Further details are provided in the Stormwater Management Plan at **Attachment 2**.	✓
6.3.6 Site Works	**Required**	**Provided**	
Excavation or filling	Excavation or filling between the street and building shall not exceed 0.5m except where necessary to provide for pedestrian or vehicle access, drainage works or natural light for a dwelling.	No filling or excavation proposed between street and building.	✓
Excavation or filling	No excavation or filling 0.5m from the natural ground level, within 1m of lot boundary	Maximum fill of 0.45m within 1m of the boundary (adjacent to Bedroom 2 of Apartment 1)	✓
6.3.7 Retaining Walls	**Required**	**Provided**	
Retaining walls	Up to 0.5m high permitted within 1m of lot boundary	Maximum retaining of 0.45m within 1m of the boundary (adjacent to Bedroom 2 of Apartment 1)	✓
6.3.8 Stormwater management	**Required**	**Provided**	
Stormwater management	All water draining from roofs, driveways, communal streets shall be directed towards gardens, sumps or rainwater tanks within the development site.	Stormwater will be retained on-site. Refer to stormwater management plan (**Attachment 2**)	✓
6.4 Building design			
6.4.1 Visual privacy	**Required**	**Provided**	
Overlooking	Adjoining R50 and below • *Bedrooms – 4.5m.* • *Other habitable rooms – 6m* • *Balconies – 7.5m*	Highlight windows and privacy screens provided to upper storey bedrooms. All balconies provided with appropriate screening measures.	✓

6.4.2 Solar access for adjoining sites	**Required**	**Provided**	
Maximum percentage of overshadowing to adjoining property.	Should not exceed 35% of adjoining property site area.	Shadow affects only the road reserve	✓
6.4.3 Dwelling size	**Required**	**Provided**	
Minimum plot ratio area	Dwellings to be at least 40m².	All dwellings are greater than 40m².	✓
6.4.6 Utilities and Facilities	**Required**	**Provided**	
Store room	Minimum 4.0m² with 1.5m minimum dimension for each dwelling, accessed from outside the dwelling.	All units have dedicated store rooms in compliance with minimum requirements.	✓
Rubbish bins	Where not collected immediately from dwelling, provide an accessible, screened communal pick-up area(s).	Communal bin store and wash down area provided in common property area, enclosed and screened from view of primary/secondary streets.	✓
Clothes drying areas	Screened from view of the street.	Clothes drying areas are appropriately screened from the street.	✓

DESIGN PRINCIPLE ASSESSMENT

Wall Height

The deemed-to-comply requirements of the R-Codes allow for a wall height of up to 6m. The revised plans incorporate a building height of 6.25m at the front of the development. We consider the proposal to be consistent with the design principles of the R-Codes for the following reasons:

As depicted by the elevations, the building height exceeds the deemed-to-comply height of 6m for a small portion at the front of the development. The variation is considered minor in the context of the streetscape. For comparison, due to the R-Codes requirement to assess wall height to the top of the eave above a wall, it is noted that a building without overhanging eaves would meet the deemed-to-comply requirement. The eaves are considered to result in improved energy efficiency outcomes and maintain the character of the local area.

The deemed-to-comply standard allows a total height of 9m for developments with a pitched roof. The proposed comfortably complies with this requirement with a compliant total height of 7.3m.

In relation to the impact on the streetscape, the front building has been setback such that it predominately exceeds the deemed-to-comply requirements of the R-Codes. Accordingly, there is not considered to be any overarching impact on the streetscape. The proposal comfortably presents as a two storey development and would not be inconsistent with the existing or desired built form in the locality.

As depicted in Table 1 above, the proposal complies with the deemed-to-comply standards of the R-Codes in relation to the eastern lot setbacks, visual privacy and overshadowing. On this basis, we consider the adjoining properties will maintain adequate sunlight, ventilation and general amenity. It is considered the additional height alone will not compromise the amenity of adjoining properties.

Owing to the above, we submit the proposed height is consistent with the desired streetscape and otherwise meets the design principles of the R-Codes.

Boundary Setbacks

As outlined in Table 1, the rear setbacks to Apartments 9 and 10 do not meet the deemed-to-comply requirement of the R-Codes. The design principle in relation to lot boundary setbacks provides for the following:

P4.1 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.*

The adjacent property to the north of the subject site is vacant and owned by the Western Australian Planning Commission. We are not aware of any future development proposals on the adjoining site. However, given it is situated to the north of the subject site, there would be no undue impact on any future development by way of restricting access to sunlight. The 1.2m – 1.5m setback will provide more than adequate separation from any future development to ensure both the proposed development on the subject site and any future development on the adjoining site will receive adequate ventilation.

As it fronts the adjoining property, the proposed building height meets the deemed-to-comply requirements of the R-Codes and is not considered to result in building bulk which would have an undue impact on the adjoining property. Additionally, the balconies for Units 9 and 10 have been designed with angled louvered screens so as to receive winter sunlight, whilst maintaining visual privacy for any future development of the adjoining site.

We understand the proposed setback was advertised to the adjoining landowner for comment and no objection was raised for the proposed upper floor boundary setbacks.

In light of the above, we consider the proposed rear setback to be consistent with the design principles of the R-Codes.

Open Space

The amended plans include a detailed assessment of open space within the development site. Our calculations show the proposal offers 550.41m² or 45.87% of the total site area as open space, which meets the R-Codes deemed-to-comply requirements.

Following discussions with the Town, we understand the Town does not classify the covered portions of the Apartment 4 and 5 courtyards as open space.

We submit the covered portions of the courtyards to Apartments 4 and 5 are consistent with the definition open space as they are tantamount to a verandah/patio structure, are open on two sides and are not more than 0.5m above natural ground level.

Notwithstanding, these proposed structures represent approximately 9m² or 0.75% of the site area and even if not included as open space, the development will remain compliant with the deemed-to-comply provisions of the R-Codes in relation to open space.

Vehicle Access

We acknowledge the proposed parking area design is not consistent with the standards outlined in the Town's Local Planning Policy No. 8 – Parking Specifications (**LPP8**). Notwithstanding, the vehicle parking and manoeuvrability has been designed to meet Australian Standard *AS 2890.1-2004 Off-street car parking* as follows:

Table 2 - Parking design assessment

Dimension	Town's LPP8 requirement	Australian Standard	Provided	Complies with Town Policy	Complies with Australian Standard
Width of Bay	2.5m	2.4m	2.4m	x	✓
Depth of Bay	5.4m	5.4m	5.4m	✓	✓
Aisle Width – 2 Way	6.2m	5.8m	5.8m	x	✓
Distance Along Kerb	2.5m	2.4m	2.4m	x	✓

As outlined in Table 2, the design of the car parking area is consistent with the Australian Standard. We submit this is an appropriate yardstick for performance relating to vehicle accessibility. The Australian Standards apply across the country and are intended to serve as a minimum standard which is consistent across all jurisdictions.

The Town's Local Planning Policy No. 8 – Parking Specifications (**LPP8**) provides standards which are clearly intended to increase comfort for drivers. Given that vehicles in Bassendean have the same dimensions and capabilities as vehicles elsewhere, it is not considered the policy should be stringently applied.

In this instance, the predominant users of the parking area will be residents who will become familiar with the manoeuvrability required to park their vehicles.

It is considered an increased separation would be an ineffective use of space on a site where the applicant is seeking to maximise both dwelling yield, outdoor living space and landscaping space which offers a better overall amenity compared with increased driveways.

Lastly, the Town's policy was adopted in 2008. There is evidence to suggest that contemporary vehicles are smaller compared with those from the previous decade (for example, Holden ceased production of the Commodore in 2014 in favour of smaller cars). This means there is a lesser need in this day and age to provide more expansive car parks and manoeuvring space.

Car Parking

To assess the car parking rate it is necessary to determine whether the site is in Location A or Location B. The definition for Location A under Clause 6.3.3 of the R-Codes is as follows:

> *A = within:*
>
> - *800m of a train station on a high frequency rail route, measured in a straight line from the pedestrian entry to the train station platform to any part of a lot; or*
> - *250m of a high frequency bus route, measured in a straight line from along any part of the route to any part of a lot.*

High frequency bus (and train) routes are defined by the R-Codes as:

> *A public transport route with timed stops that runs a service at least every 15 minutes during week day peak periods (7 to 9am and 5 to 7pm).*

Assessing the Location

The subject site is within 30m of a bus route which includes service numbers 340, 341 and 342 (refer to **Figure 1** below, depicting the subject site's proximity to the bus route). Each of these services provide stop at the Bassendean Train Station. The 340 bus route terminates at Bassendean station, whereas routes 341 and 342 travel on to the Morley Bus Station.

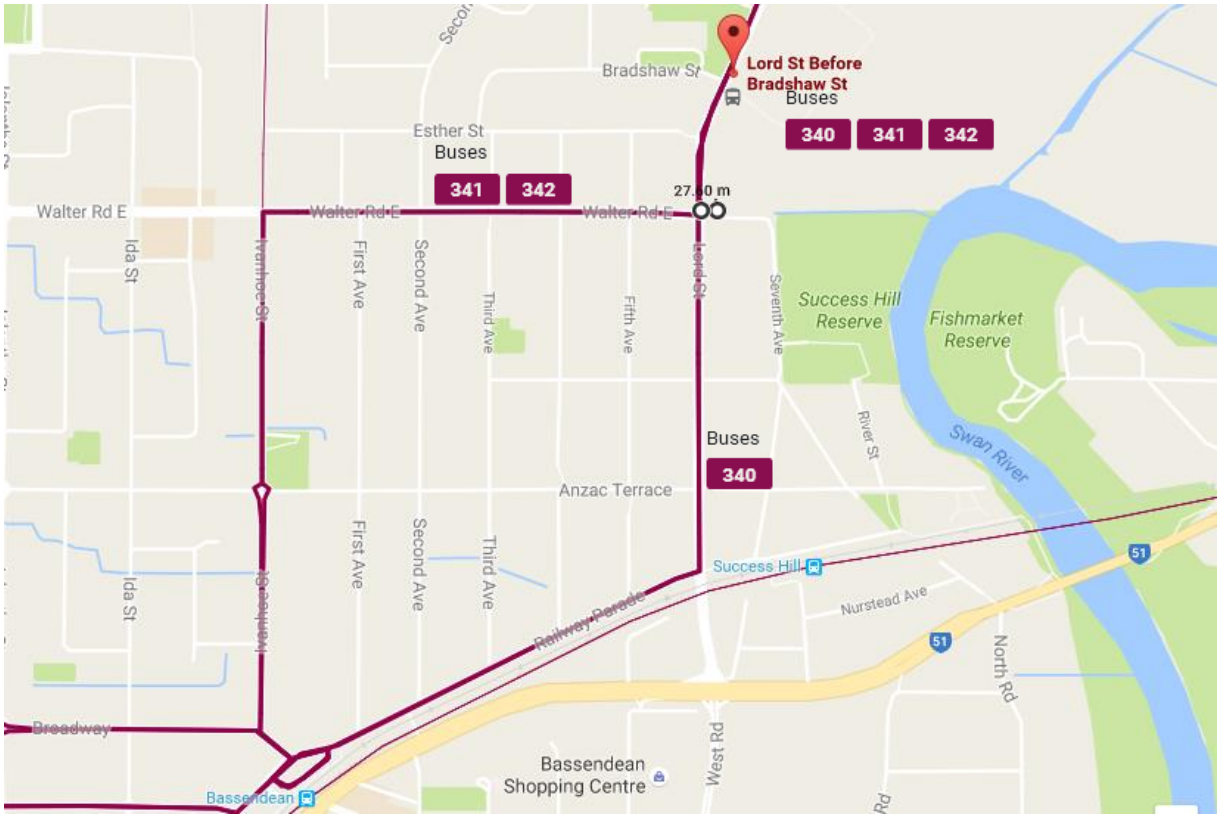


Figure 1 - Subject site's proximity to the bus route

Table 3 below provides an analysis of bus services which run a service within 250m of the subject site.

Table 3 - Bus services within close proximity of the subject site

Service	Service time	Time until next service (minutes)
am		
341	6:58	12
342	7:10	2
340	7:12	18
341	7:30	7
342	7:37	2
340	7:39	17
341	7:56	14
342	8:10	2
340	8:12	18
341	8:30	7
342	8:37	2
340	8:39	19
341	9:00	
Average time between services		10 minutes

pm		
340	4:51	13
342	5:04	19
340	5:23	1
341	5:24	10
342	5:34	12
341	5:42	11
340	5:53	1
342	5:54	20
341	6:14	10
340	6:24	1
342	6:25	15
341	6:40	15
341	6:55	
Average time between services		**9.85 minutes**

As can be seen from the above table, there are periods in which bus services are spaced up to 20 minutes apart. However, this is compensated by a number of services within 1-2 minutes of each other. Furthermore, we note the following aspects which demonstrate the subject site is well serviced by buses:

- The average time between services is 10 minutes during the two hour peak periods, both morning and afternoon.
- Every half hour period (i.e from 7am – 7.30am, 7.31am – 8am, etc) has at least three services operating within this time, with the exception of the evening period of 6.31pm – 7pm which provides two services.
- A bus route with eight services running every 15 minutes (exactly) during the two hour peak would constitute a 'high frequency bus route'. By contrast, the subject bus route runs 12 services within the two hour peak period, representing a 50% increase on a 'baseline' high frequency bus service.
- All bus services connect with the Bassendean train station, which provides high frequency services to and from the Perth CBD. Two of the three bus routes (service numbers 341 and 342) carry on to the Morley Bus Station. Morley is one of ten strategic metropolitan centres in Western Australia, aimed at providing a variety of employment and retail services.

Train Services

In addition to the nearby bus services, the subject site is also within 640 metres walking distance (approximately an eight minute walk) of the Success Hill train station. **Table 4** below provides an analysis of train services to and from the Success Hill train station. Furthermore, notwithstanding the time between services during peak hours, **there is a service from Success Hill station to the City every 15 minutes outside of peak hours, between 9am and 5pm**.

Table 4 - Train services within close proximity of the subject site

Service from Success Hill Train Station	Service time	Time between services (minutes)
am	6:58	20
	7:18	20
	7:38	21
	7:59	20
	8:19	20
	8:39	23
	9:02	-
Service from Success Hill Train Station	**Service time**	**Time between services (minutes)**
pm	5:04	22
	5:26	8
	5:34	20
	5:54	23
	6:17	15
	6:32	15
	6:47	15
	7:02	-

The Success Hill train station, being comfortably within a walkable catchment of the subject site, gives the added public transport option for residents.

When considering a site would be classified as Location A if it were within 800m of a train station **OR** within 250m of a high frequency bus route, **it is considered where trains and buses within a walkable catchment cumulatively constitute a high frequency service, the same dispensation should apply.**

Cumulatively, there are 12 bus services and seven train services operating within each of the two hour peak periods providing a myriad of transport options for future residents. In our view, this makes it not only viable, but likely that future residents would require a maximum of one car bay per dwelling.

Changes to bus timetables

On 17 July 2016, to coincide with the opening of the new Perth Busport, the service times for each of the abovementioned bus services were recalibrated, with times changes up to 5 minutes earlier or later than the existing time. **Attachment 3** provides a copy of the bus timetable which was in place at the time this development application was lodged.

Prior to 17 July 2016 (and indeed at the lodgement of the development application), the bus services ran every 15 minutes during peak periods from Monday to Friday (refer **Table 5** below). As the previous bus times are not available on the Transperth website, the previous stopping times at the nearest bus stop(s) are not able to be confirmed. Accordingly, we have taken the time from the Bassendean Train Station so as to allow a comparison between the current and previous service times.

Table 5 – Comparison of bus times current and pre-17 July 2016.

Bus No.	Arrival at Bassendean Train Station (current timetable)	Arrival at Bassendean Train Station (previous timetable)
am		
341	7:03	7:04
340	7:16	7:16
342	7:16	7:18
341	7:36	7:31
340	7:43	7:43
342	7:43	7:46
341	8:03	8:01
340	8:16	8:16
342	8:16	8:17
341	8:36	8:32
340	8:43	8:43
342	8:43	8:47
341	9:06	9:01
Total number of peak am services	**13**	**13**
pm		
342	5:00	4:54
341	5:20	5:12
340	5:20	5:20
342	5:30	5:26
341	5:38	5:40
340	5:50	5:50
342	5:50	5:54
341	6:10	6:09
340	6:21	6:21
342	6:21	6:22
341	6:36	6:38
340	6:51	6:51
341	6:51	6:53
Total number of peak pm services	**13**	**13**

It is noted there is one gap between 6:22pm and 6:38pm in the previous timetable which equates to 16 minutes due to an obscurity in the timetable (the 341/342 buses depart the Morley station exactly 15 minutes apart during this time, however the 6:38pm bus is scheduled one minute later at Bassendean station).

At the time this application was lodged, the bus services constituted a high frequency bus route and the car parking was assessed under Location A. We understand the changes to the times have been to ensure the bus network operates more closely in conjunction with connecting services. However, the changes in the service times **do not reduce the number of services**.

We submit the recalibration of bus times by Transperth represents a mere technicality in determining a high frequency bus route which should not warrant an increased car parking requirement.

As outlined above, we submit the provision of car parking is appropriate in relation to the subject site's location and warrants approval accordingly.

Morley Bus Routes

In addition to the abovementioned services, the subject site is within 750m or a 9 minute walk of the 955/956 bus route, which provides an added level of connection to the Bassendean Train Station and the Morley Activity Centre (designated a Strategic Metropolitan Centre in accordance with State Planning Policy 4.2).

Other Parking Justification

The relevant Design Principle P3.1 of 6.3.3 of the R-codes states:

P3.1 Adequate car and bicycle parking provided on-site in accordance with projected need related to:

- *the type, number and size of dwellings;*
- *the availability of on-street and other off-site parking; and*
- *the proximity of the proposed development in relation to public transport and other facilities.*

Future Occupants

The proposed development comprises 10 dwellings between 63m² and 76m². Our client's target market for this type of product is young people, particularly young couples. It is becoming increasingly common for couples who reside in apartments to share a car – particularly given the subject site's proximity to public transport. It is therefore considered reasonable to provide a single car bay for each apartment.

Visitor and On-Street Parking

Visitor parking is provided in compliance with the R-Codes (with a 0.5 bay surplus prior to rounding). The proposed visitor parking is provided in a highly accessible and visible location, so as to encourage visitors to park on site rather than the street.

We submit there is sufficient on-site parking so as not to cause any excessive on-street parking. However, should the Town be concerned about residents parking on the streets for excessive periods of time, we would have no objection to providing a notice in any sales advertisements advising of the Town's local laws or regulations relating to on-street parking.

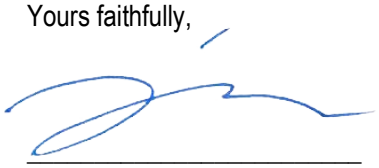
It is also noted the visitor bays are likely to be used for shorter periods of time (compared with residents' bays). If required, we would have no objection to re-allocating a visitor bays for the use of one of the apartments (given the technical 0.5 bay surplus of visitor bays and 2.5 bay shortfall for residents' bays).

CONCLUSION

In summary, we consider the revised plans address the key issues raised in the Town's correspondence dated 27 July 2016. The proposed development will make a positive contribution to the area and warrants approval.

Should you have any queries or require further clarification in regard to the proposal, please do not hesitate to contact the writer.

Yours faithfully,

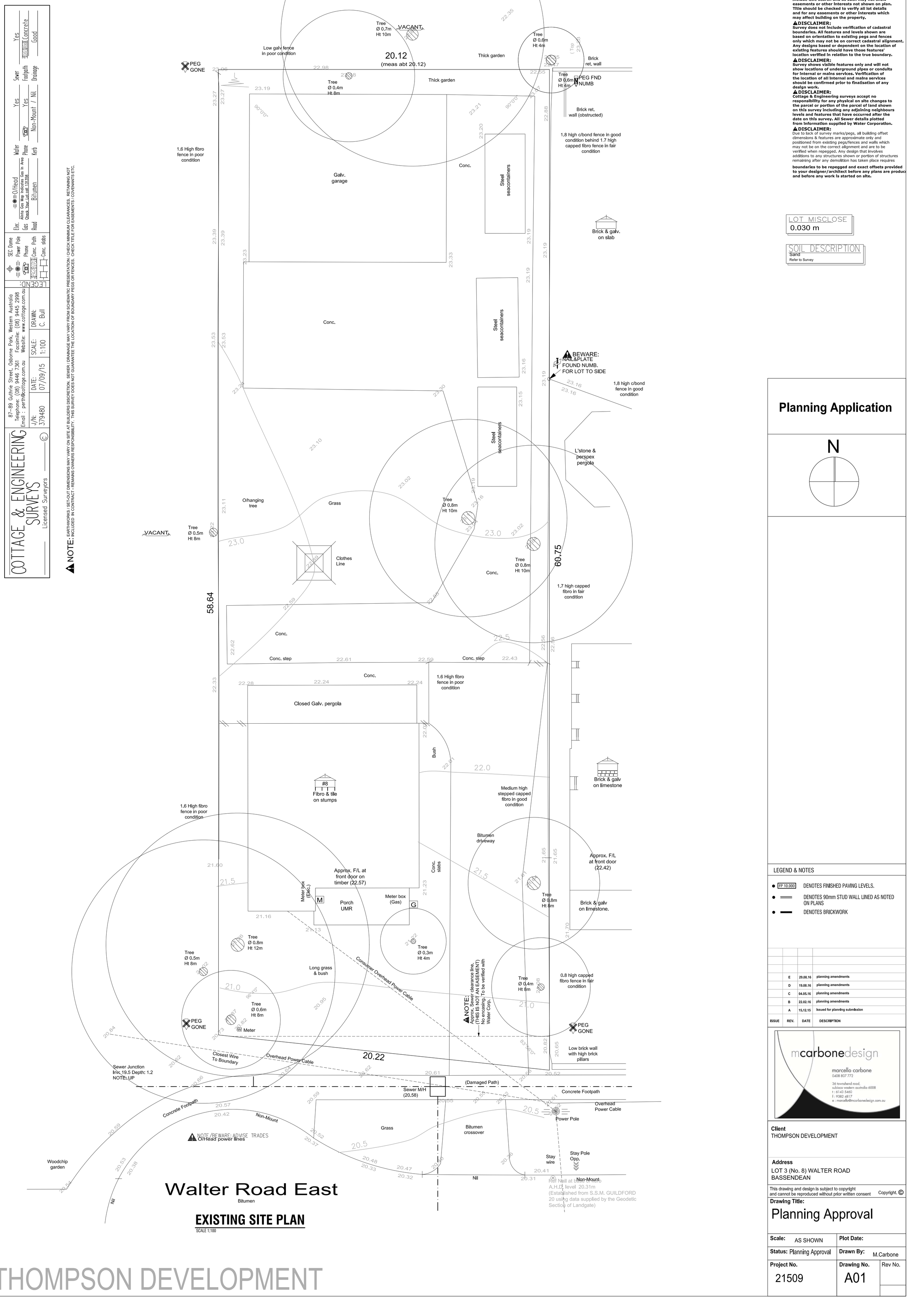


TRENT WILL
SENIOR PLANNER

160830 4082 Amended plans letter

Attachment 1 –

Amended Development Plans



EXISTING SITE PLAN

SCALE 1:100

⚠DISCLAIMER:
Lot boundaries drawn on survey are based on landgate plan only. Survey does not include title search and as such may not show easements or other interests not shown on plan. Title should be checked to verify all lot details and for any easements or other interests which may affect building on the property.

⚠DISCLAIMER:
Survey does not include verification of cadastral boundaries. All features and levels shown are based on orientation to existing pegs and fences only which may not be on correct cadastral alignment. Any designs based or dependent on the location of existing features should have those features' location verified in relation to the true boundary.

⚠DISCLAIMER:
Survey shows visible features only and will not show locations of underground pipes or conduits for internal or mains services. Verification of the location of all internal and mains services should be confirmed prior to finalisation of any design work.

⚠DISCLAIMER:
Cottage & Engineering surveys accept no responsibility for any physical on site changes to the parcel or portion of the parcel of land shown on this survey including any adjoining neighbours levels and features that have occurred after the date on this survey. All Sewer details plotted from information supplied by Water Corporation.

⚠DISCLAIMER:
Due to lack of survey marks/pegs, all building offset dimensions & features are approximate only and positioned from existing pegs/fences and walls which may not be on the correct alignment and are to be verified when repegged. Any design that involves additions to any structures shown or portion of structures remaining after any demolition has taken place requires

boundaries to be repegged and exact offsets provided to your designer/architect before any plans are produced and before any work is started on site.

LOT MISCLOSE
0.030 m

SOIL DESCRIPTION
Sand
Refer to Survey

Planning Application

N

LEGEND & NOTES

- FP 10.000 — DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
	E	29.08.16	planning amendments
	D	19.08.16	planning amendments
	C	04.05.16	planning amendments
	B	22.02.16	planning amendments
	A	15.12.15	Issued for planning submission

mcarbonedesign
marcello carbone
0408 807 772
36 townshend road,
subiaco western australia 6008
t : 6143 5460
f : 9382 4617
e : marcello@mcarbonedesign.com.au

Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**
Status: Planning Approval	**Drawn By:** M.Carbone
Project No. 21509	**Drawing No.** A01 — Rev No.

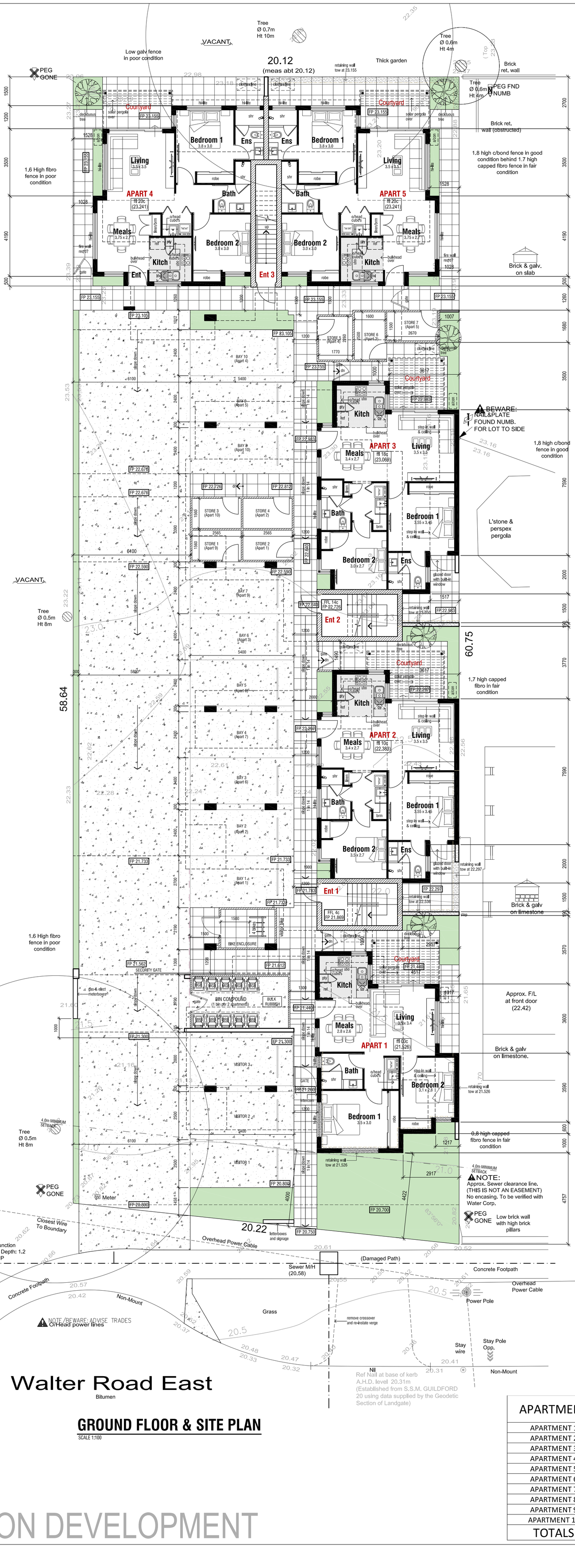
COTTAGE & ENGINEERING SURVEYS
Licensed Surveyors ——— ©
87-89 Guthrie Street, Osborne Park, Western Australia
Telephone: (08) 9446 7361 Facsimile: (08) 9445 2998
Email : perth@cottage.com.au Website: www.cottage.com.au

J/N:	DATE:	SCALE:	DRAWN:
379480	07/09/15	1:100	C. Bull

LEGEND:
SFC Dome — Elec.
Power Pole — Gas
Phone — Road
Conc. Path — Water
Conc. slabs — Phone
Alinta Gas Map Indicates Gas In Area — Yes
Check Dial Dial 1.01 call 131388 — Yes
O/Head — Non-Mount / Nil
Bitumen — Kerb
Sewer — Yes
Footpath — Concrete
Drainage — Good

⚠ NOTE: EARTHWORKS / SET-OUT DIMENSIONS MAY VARY ON SITE AT BUILDERS DISCRETION. SEWER / DRAINAGE MAY VARY FROM SCHEMATIC PRESENTATION / CHECK MINIMUM CLEARANCES. RETAINING NOT INCLUDED IN CONTRACT - REMAINS OWNERS RESPONSIBILITY. THIS SURVEY DOES NOT GUARANTEE THE LOCATION OF BOUNDARY PEGS OR FENCES. CHECK TITLE FOR EASEMENTS / COVENANTS ETC.

THOMPSON DEVELOPMENT



GROUND FLOOR & SITE PLAN

SCALE 1:100

APARTMENT	LIVING	STORE	BALCONY/ COURTYARD	TOTAL
APARTMENT 1	63.19	4.58	21.34	89.11
APARTMENT 2	70.93	4.58	26.39	101.90
APARTMENT 3	70.93	4.52	25.25	100.70
APARTMENT 4	71.52	4.61	30.63	106.76
APARTMENT 5	71.52	4.61	35.15	111.28
APARTMENT 6	76.33	4.83	25.05	106.21
APARTMENT 7	71.01	4.89	17.34	93.24
APARTMENT 8	71.01	4.89	17.34	93.24
APARTMENT 9	72.64	4.89	12.08	89.61
APARTMENT 10	72.64	4.58	12.08	89.30
TOTALS	711.72	46.98	222.65	981.35

Planning Application

N

LEGEND & NOTES

- FP 10.000 DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
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mcarbonedesign
marcello carbone
0408 807 772
36 townshend road,
subiaco western australia 6008
t : 6143 5460
f : 9382 4817
e : marcello@mcarbonedesign.com.au

Client
THOMPSON DEVELOPMENT

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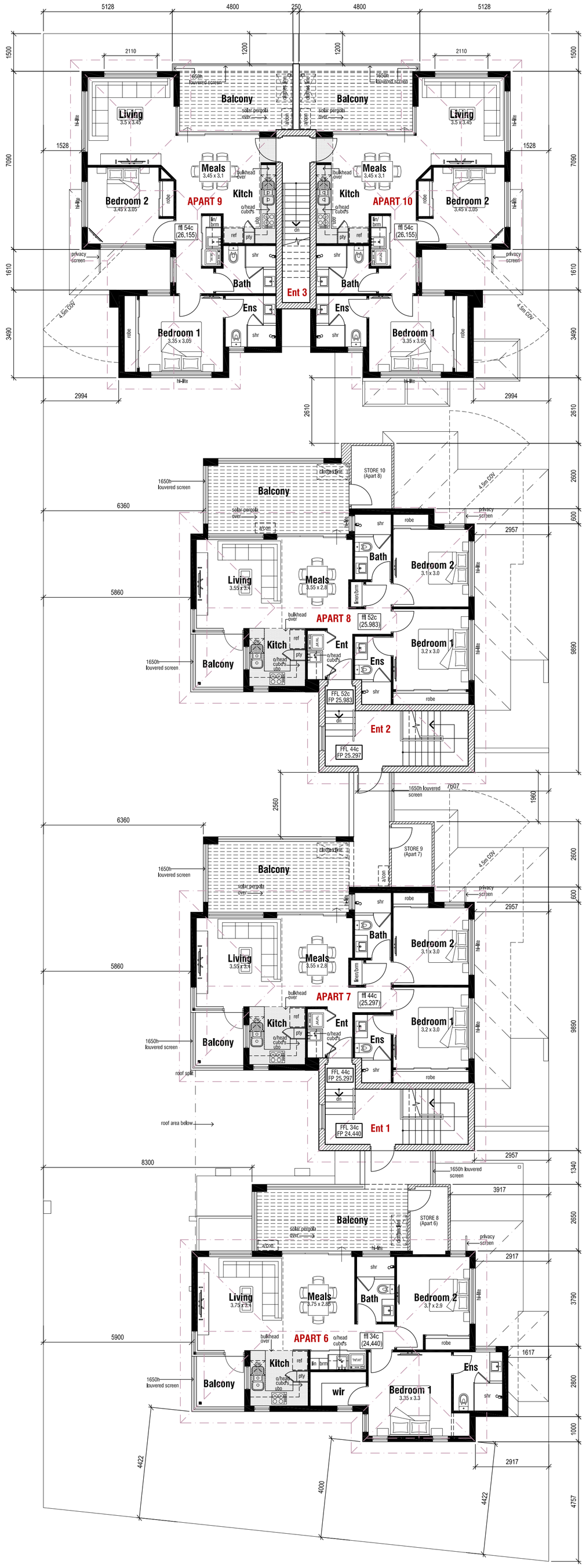
BASSENDEAN

Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**
Status: Planning Approval	**Drawn By:** M.Carbone
Project No. 21509	**Drawing No.** A02
	Rev No.

THOMPSON DEVELOPMENT



UPPER FLOOR PLAN

SCALE 1:100

THOMPSON DEVELOPMENT

ENERGY EFFICIENT DESIGN - Apartment 1

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartments 2 and 3

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 4

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 5

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 6

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	12.5	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	82.5	

ENERGY EFFICIENT DESIGN - Apartments 7 and 8

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	10	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	7.5	
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 East wall: 10 West wall: 10	10	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	72.5	

ENERGY EFFICIENT DESIGN - Apartment 9

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

ENERGY EFFICIENT DESIGN - Apartment 10

	Design Element	Credit Points Available	Credit Points Claimed	Comments
1.	Orientation (longest axis east west)	10	0	
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	
3.	Windows to bedrooms minimised in area and south facing. One bedroom window is permitted to face north.	15	15	
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	
5.	60% of habitable rooms shall be cross ventilated	10	10	
6.	The provision of either a solar pergola or solar hot water heating system	10	10	
7.	Landscaping design and plant selection to provide shading to courtyard areas in summer only and demonstrate compliance with low water use gardening principles	10 Shading: 5 Low water use: 5	5	Compliant landscape design provided for low water use plants - native plant selections
	TOTAL	100	85	

Planning Application

N

LEGEND & NOTES

- FP 10.000 DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
	E	29.08.16	planning amendments
	D	19.08.16	planning amendments
	C	04.05.16	planning amendments
	B	22.02.16	planning amendments
	A	15.12.15	Issued for planning submission

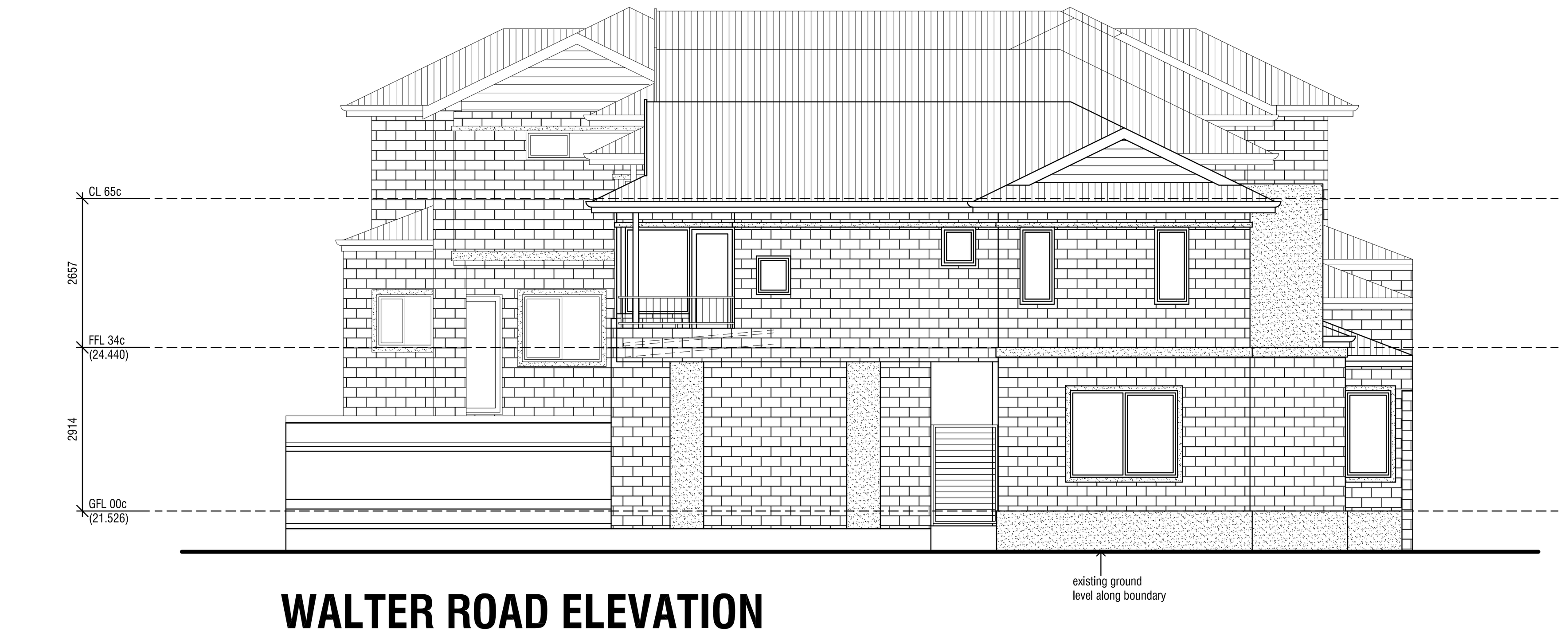
mcarbonedesign
marcello carbone
0408 807 772
36 townshend road,
subiaco western australia 6008
t : 6143 5460
f : 9382 4817
e : marcello@mcarbonedesign.com.au

Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

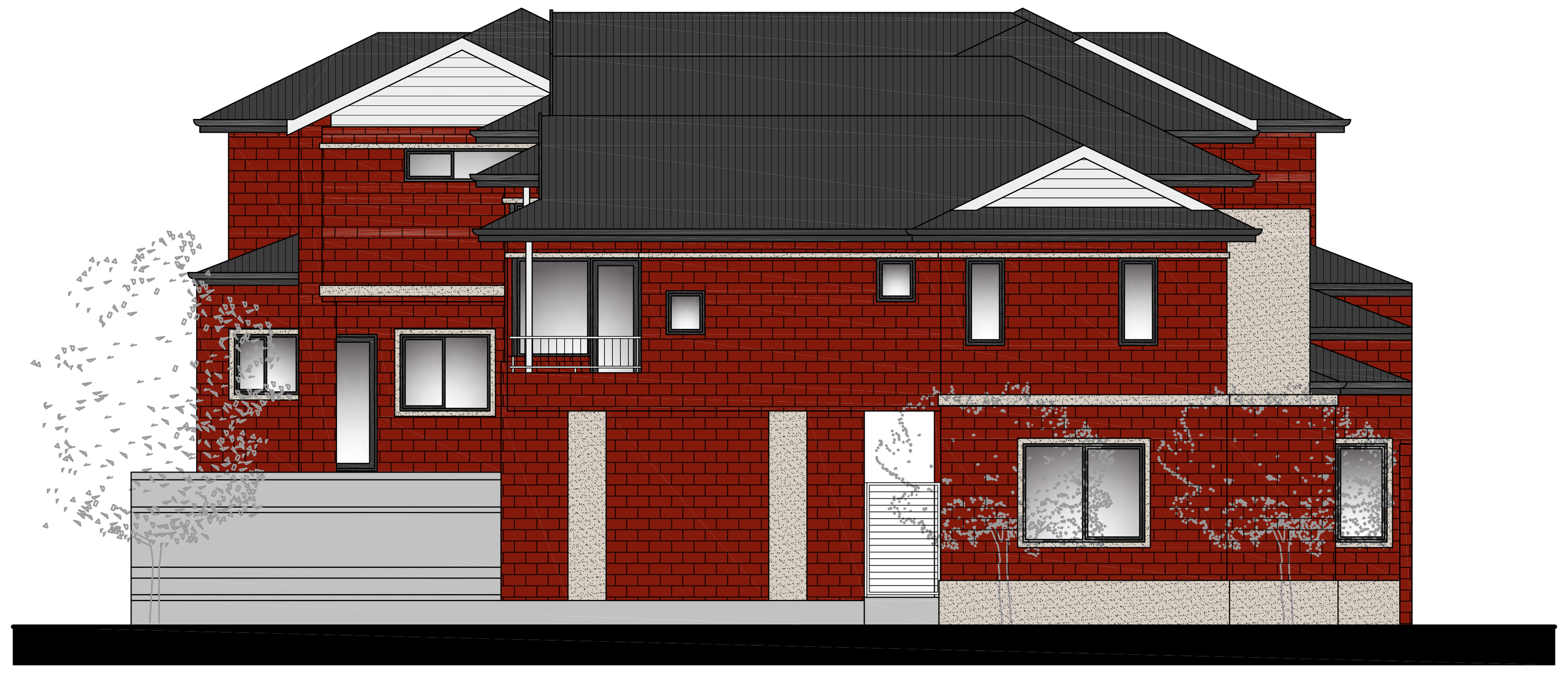
Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**	
Status: Planning Approval	**Drawn By:** M.Carbone	
Project No. 21509	**Drawing No.** A03	Rev No.



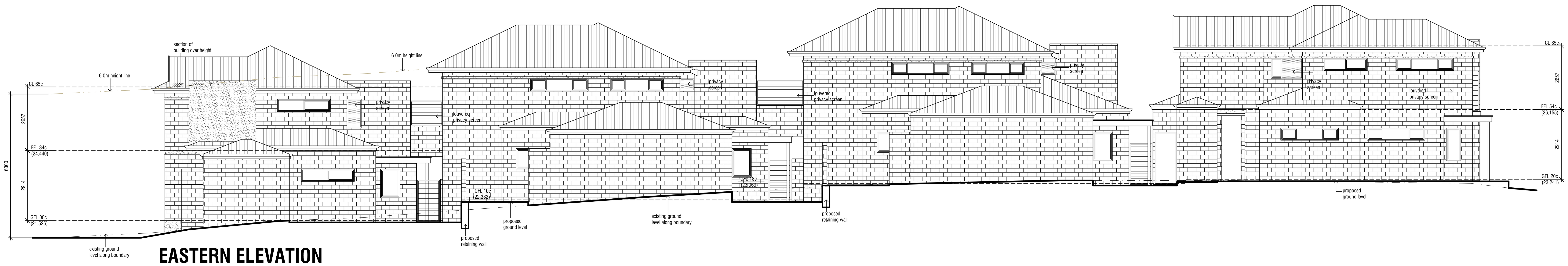
WALTER ROAD ELEVATION

SCALE 1:100



WALTER ROAD ELEVATION

SCALE 1:100

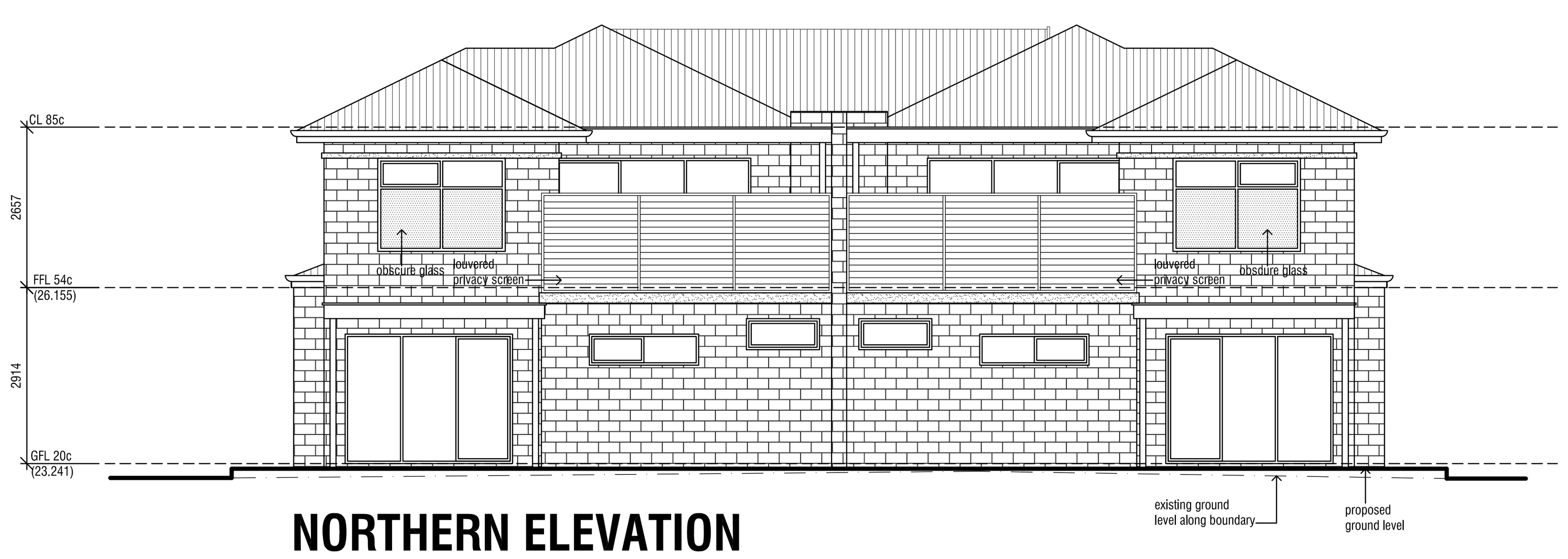


EASTERN ELEVATION

SCALE 1:100

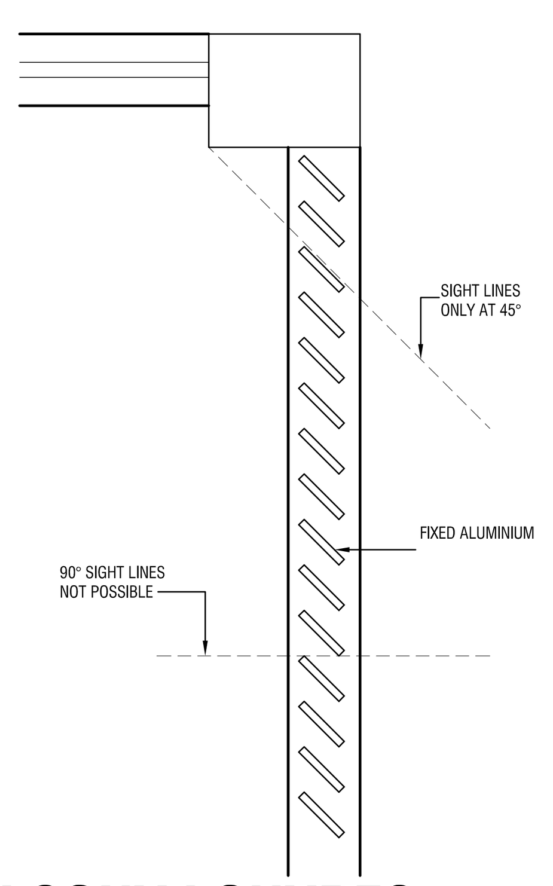
WESTERN ELEVATION

SCALE 1:100



NORTHERN ELEVATION

SCALE 1:100



BALCONY LOUVRES

SCALE 1:20

THOMPSON DEVELOPMENT

Planning Application

LEGEND & NOTES

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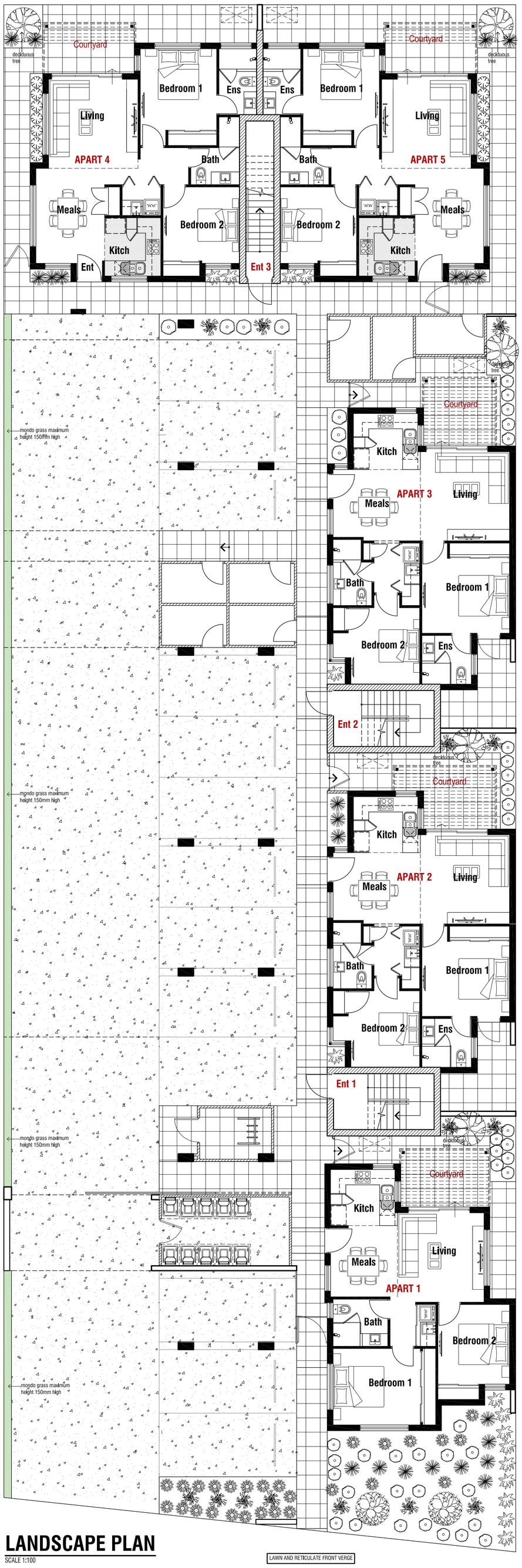
Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

Drawing Title:
Planning Approval

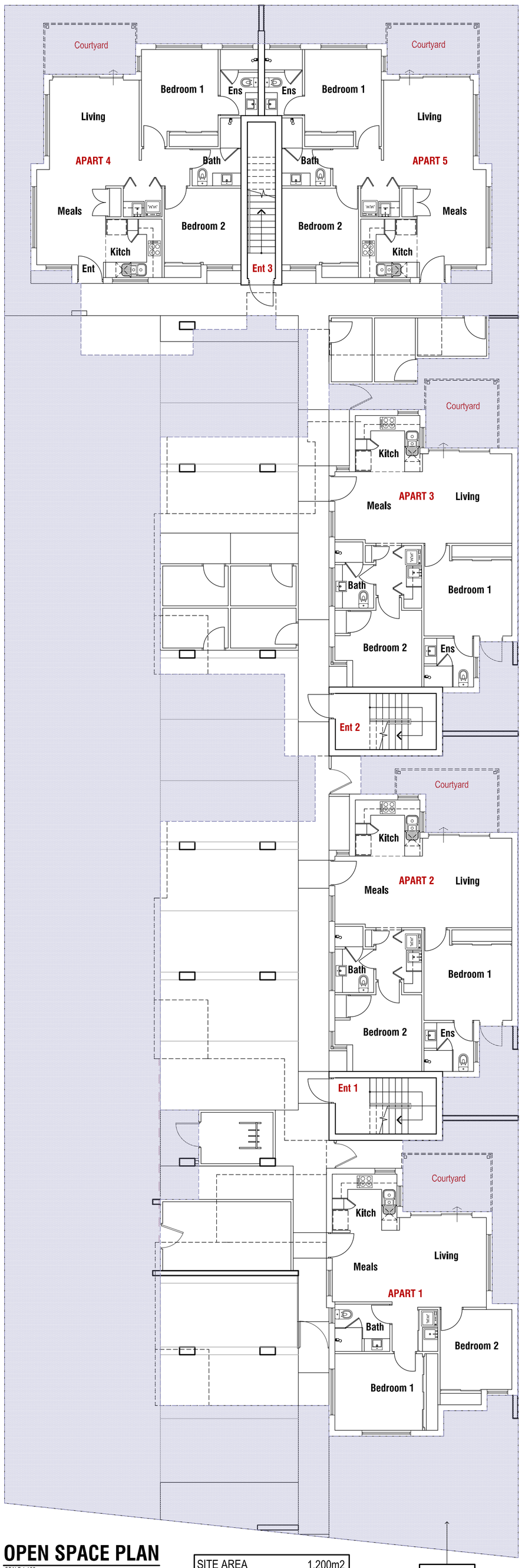
Scale: AS SHOWN
Plot Date:
Status: Planning Approval
Drawn By: M.Carbone
Project No. 21509
Drawing No. A04
Rev No.



LANDSCAPE PLAN

SCALE 1:100

LANDSCAPE LEGEND		
	SPECIES NAME	COMMON NAME
1	CORDYLINE BANKSII	PURPLE SENSATION
2	DIANELLA ENSIFOLIA	DIANELLA GOLDEN STREAK
3	LIRIOPE MUSCARI	EVERGREEN GIANT
4	HEMIANDRA PUNGENS	SNAKE BUSH
5	AREMERIA BEE'S PINK	THRIFT FLOWER
6	DRACEANA MARGINATA	GOLDEN DRAGON
7	PYRUS CALLERYANA (45 litre)	ORNAMENTAL PEAR TREE
	TURF - SIR WALTER BUFFALO	



OPEN SPACE PLAN

SCALE 1:100

SITE AREA	1,200m2
Total Open Space	550.41m2
Open Space %	45.87%

Planning Application

N

LEGEND & NOTES

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- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
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ISSUE	REV.	DATE	DESCRIPTION
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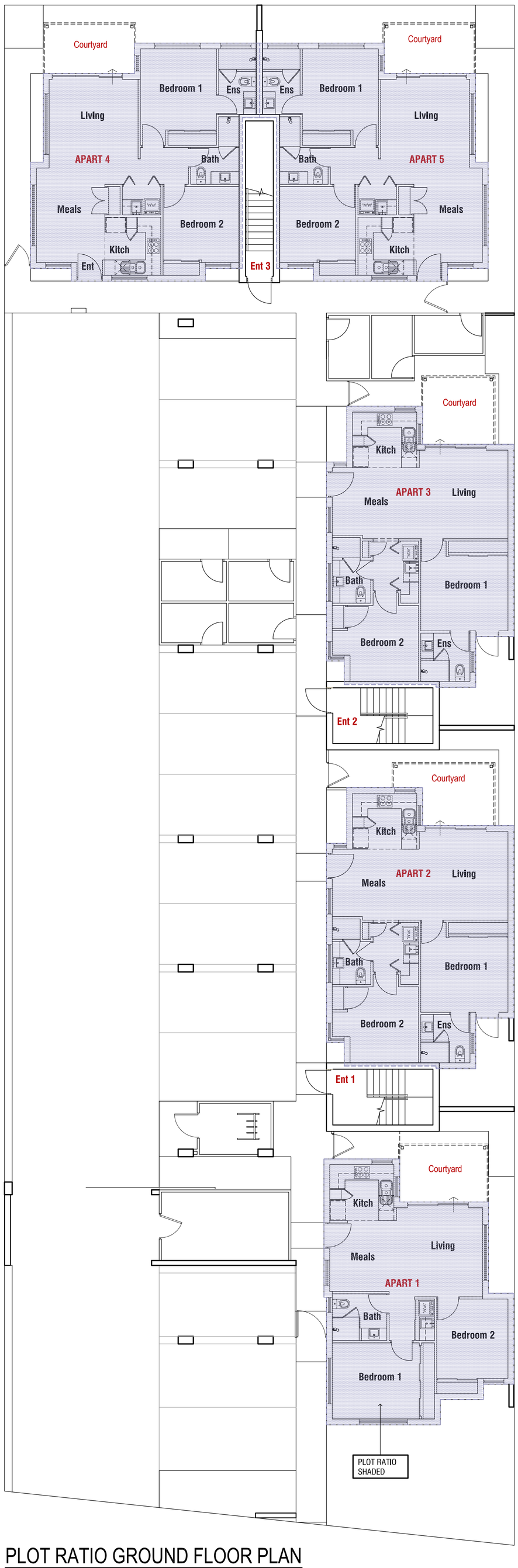
Client
THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

Drawing Title:
Planning Approval

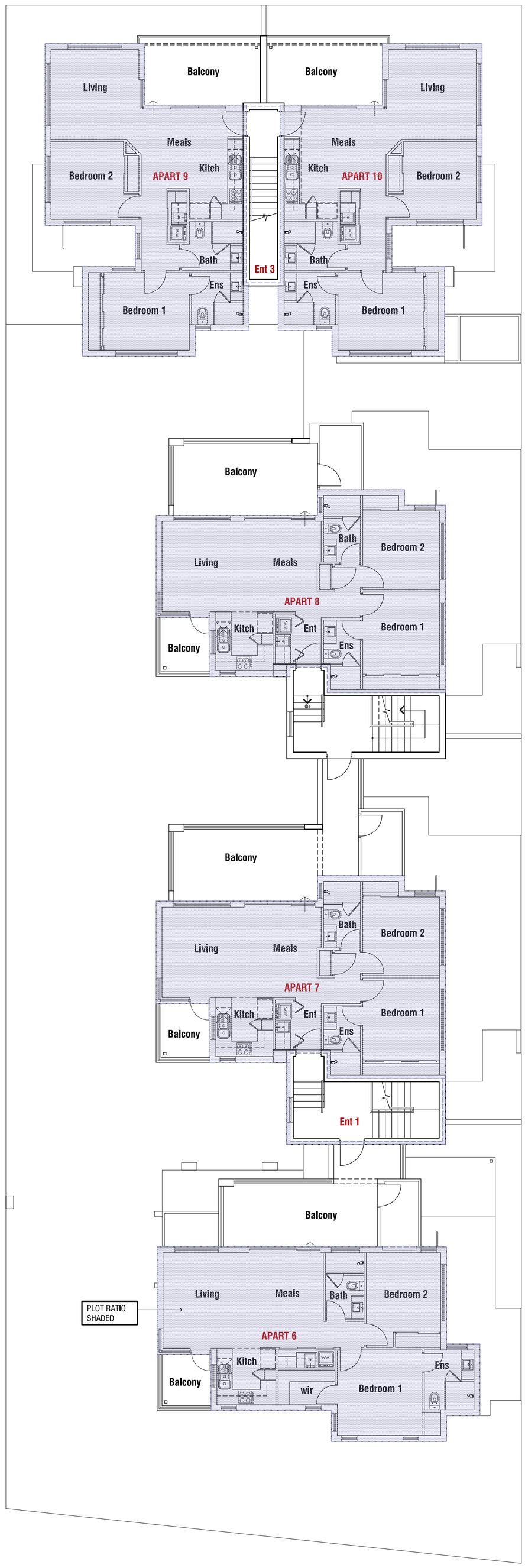
Scale: AS SHOWN		**Plot Date:**	
Status: Planning Approval		**Drawn By:**	M.Carbone
Project No. 21509	**Drawing No.** A05	Rev No.	

THOMPSON DEVELOPMENT



PLOT RATIO GROUND FLOOR PLAN

SCALE 1:100



PLOT RATIO UPPER FLOOR PLAN

SCALE 1:100

SITE AREA	1,200m2
Total Plot Ratio Area	719.29m2
Plot Ratio %	59.94%

Planning Application

N

LEGEND & NOTES

- FP 10.000 DENOTES FINISHED PAVING LEVELS.
- DENOTES 90mm STUD WALL LINED AS NOTED ON PLANS
- DENOTES BRICKWORK

ISSUE	REV.	DATE	DESCRIPTION
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THOMPSON DEVELOPMENT

Address
LOT 3 (No. 8) WALTER ROAD
BASSENDEAN

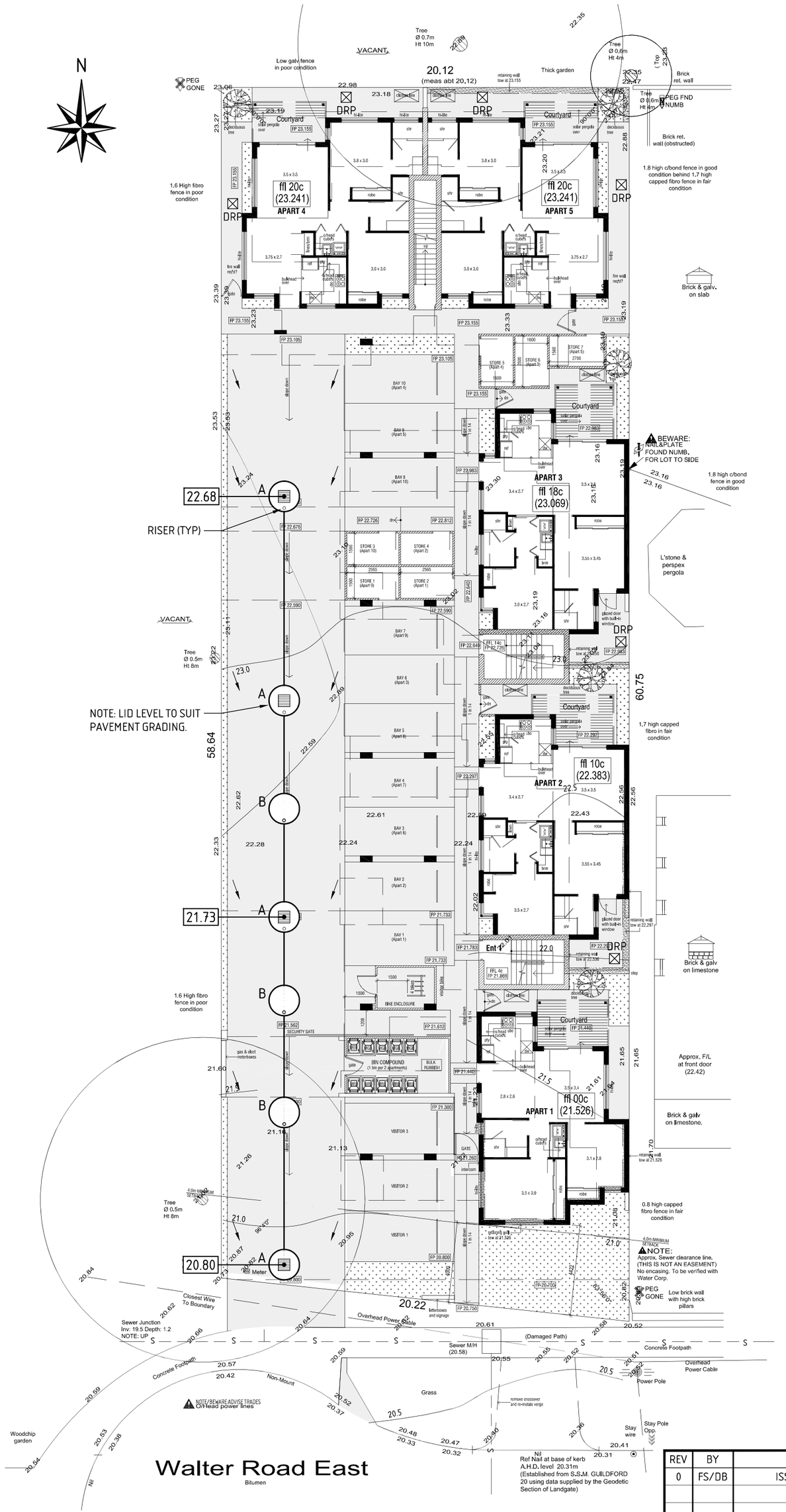
Drawing Title:
Planning Approval

Scale: AS SHOWN	**Plot Date:**
Status: Planning Approval	**Drawn By:** M.Carbone
Project No. 21509	**Drawing No.** A06 / Rev No.

THOMPSON DEVELOPMENT

Attachment 2 –

Stormwater Management Plan and Water Sensitive Urban Design Checklist



Walter Road East

Bitumen

STORMWATER DRAINAGE PLAN

SCALE 1:200

DRAINAGE LEGEND:

- 11.21 — EXISTING SPOT LEVEL (m)
- ——— D ——— EXISTING DRAINAGE.
- ——— S ——— EXISTING WATER CORPORATION SEWER MAIN.
- DIRECTION OF FLOW.
- OVERLAND FLOW PATH FOR LARGER STORM EVENTS.
- F.F.L. 9.750 — FINISHED FLOOR LEVEL (m)
- 10.00 — FINISHED PAVING LEVEL (m)
- SOAKWELL WITH PVC RISER (WHERE REQUIRED)
- PROPOSED Ø150 PVC INTERCONNECTING PIPE WITH MIN GRADE OF 1 in 180
- DRP — DOMESTIC RAINWATER PIT ('EVERHARD' OR SIMILAR APPROVED). SHOWN AT INDICATIVE LOCATIONS.
- TRP — TRAFFICABLE RAINWATER PIT ('EVERHARD' SERIES 450' OR SIMILAR APPROVED). SHOWN AT INDICATIVE LOCATIONS.
- DP — PROPOSED PVC DOWNPIPE CONNECTIONS. PLACE AT 1:100 MIN GRADE. PROVIDE MIN 300 COVER. SHOWN AT INDICATIVE LOCATIONS, ACTUAL NUMBER AND LOCATIONS TO PLUMBERS SPECIFICATIONS.
- PROVIDE APPROVED DRAIN (WHERE SHOWN) & CONNECT IN TO NEAREST SOAKWELL VIA Ø100 PVC PIPE.
- A — PROPOSED Ø1500 x 1500 STORMWATER SOAKWELL IN GEOFABRIC WRAP WITH GRATED LID. (RAISED TO SUIT).
- B — PROPOSED Ø1500 x 1500 STORMWATER SOAKWELL IN GEOFABRIC WRAP WITH SOLID LID.

NOTES:

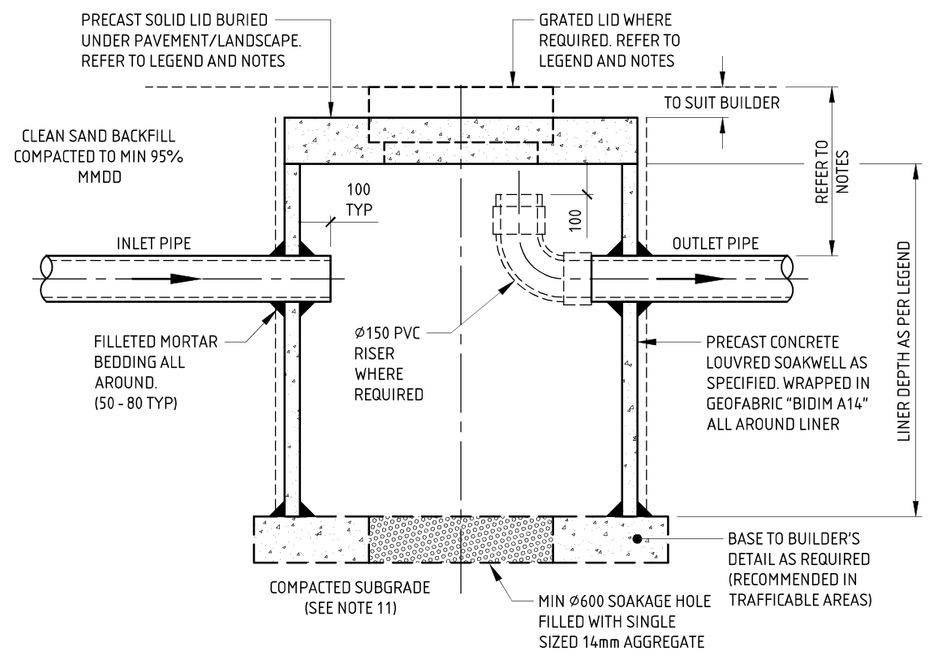
1. CHECK ALL DIMENSIONS ON SITE. READ ALL ENGINEERING DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL AND SURVEY DRAWINGS. ANY DISCREPANCIES BETWEEN ENGINEERING DRAWINGS AND ARCHITECTURAL DRAWINGS SHALL BE CONFIRMED PRIOR TO COMMENCING CONSTRUCTION. DO NOT SCALE FROM THESE DRAWINGS.
2. ALL WORK TO BE IN ACCORDANCE WITH "AS3500-2003 PLUMBING & DRAINAGE", THE "BUILDING CODE OF AUSTRALIA" AND THE LOCAL AUTHORITY'S STANDARD SPECIFICATIONS.
3. COVER TO DRAINAGE PIPE TO BE 450mm IN LANDSCAPE, 600mm IN TRAFFICABLE AREAS.
4. ALL DRAINAGE PIPEWORK SHALL BE PVC CLASS HD STORMWATER, UNLESS WHERE LOCATED UNDERNEATH ANY STRUCTURES PIPEWORK SHALL BE PVC SEWER CLASS SN8.
5. DOWN PIPES TO BE LOCATED SO EACH SOAKWELL FILLS AT SAME RATE (I.E. ROOF AREA TO EACH TANK IS PROPORTIONAL TO ITS VOLUME).
6. ALL SOAKWELLS ARE TO BE SETBACK FROM ALL BUILDINGS ON THE SITE INCLUDING ANY STRUCTURE LOCATED ON THE BOUNDARY AS PER DETAIL, UNO.
7. WHERE SOAKWELLS ARE LOCATED IN AREAS SUBJECT TO VEHICULAR LOADING, STANDARD TRAFFICABLE LIDS ARE TO BE INSTALLED AND BASE TO BUILDER'S DETAIL.
8. THIS DRAINAGE SPECIFICATION IS TO BE READ IN CONJUNCTION WITH CLIENT'S ARCHITECTURAL DRAWINGS (PARTIALLY REPRODUCED HERE).
9. CLIENT IS TO ENSURE LOCAL AUTHORITY HAVE APPROVED THESE DRAWINGS BEFORE BEING ISSUED FOR PRICING, TENDER AND CONSTRUCTION.
10. IF GROUND WATER IS ENCOUNTERED DURING THE WORKS THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
11. SUBGRADE TO BE COMPACTED AS FOLLOWS:
    - 11.1. SAND - PSP 6 BLOWS PER 300mm PENETRATION WHEN TESTED WITH A PERTH SAND PENETROMETER (AS 1289 6.3.3)
    - 11.2. CLAY - 95% STANDARD MAXIMUM DRY DENSITY RATIO AS PER AS 1289 (5.1.1 / 5.4.1)

STORMWATER MANAGEMENT PLAN

1. SITE CLASSIFICATION REPORT UNDERTAKEN BY M.A LALLI & ASSOC.:
   - REF 15-2273 DATED 11.06.2015
2. OVERLAND FLOW PATH FROM DEVELOPMENT - YES
3. DESIGN CRITERIA - TOWN OF BASSENDEAN
   - 1.54m³/100m² OF IMPERVIOUS AREA.

DRAINAGE CALCULATIONS

IMPERVIOUS AREA (m²)			1147
VOLUME TO STORE (m³)			17.66
TANKS SELECTED			
DIAMETER (mm)	DEPTH (mm)	TANKS (No)	VOLUME (m³)
1500	1500	7	18.56
VOLUME (m³)			18.56



TYPICAL SOAKWELL DETAIL

SCALE 1:20

- SOAKWELLS TO BE POSITIONED A MIN OF 1.2m OR THE DEPTH OF SOAKWELL (WHICH EVER IS GREATER) FROM ANY PROPOSED OR EXISTING FOUNDATIONS.

REV	BY	ISSUE / REVISION DESCRIPTION	DATE
0	FS/DB	ISSUED FOR CONSTRUCTION - SUBJECT TO LOCAL AUTHORITY APPROVAL	25/08/2016

DRAFTER	F.SILWANAGH
DESIGNER	F.SILWANAGH
CHECKER	D.BLAZESKI
DATE	25.08.2016
APPROVED BY:	

STRUCterre consulting engineers
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers
1 ERINDALE ROAD, BALCATTA W.A. 6021
TEL (08) 9205 4500 FAX (08) 9205 4501 EMAIL: waresidential@structerre.com.au

PROJECT No.	D149536
SCALE	1:200
SIZE	A2
SHEET	1 of 1
REV	0

PROJECT: PROPOSED DEVELOPMENT ON LOT 3 (#8) WALTER ROAD, BASSENDEAN

CLIENT: LOUISE THOMPSON

APPENDIX 1 - WATER SENSITIVE DESIGN POLICY CHECKLIST

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			Refer to point 1 below.
	Sediment less that 100 microns trapped			
5.4	Floor levels >500mm above 1:100			Refer to point 2 below.
	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			

Section	Policy Application	Structure Plan	Subdivision	Development Application
	Runoff from paving directed to garden or lawn areas			Refer to point 3 below.
	Encourage use of pervious paving materials			Refer to point 4 below.
5.6	Natural features incorporated into stormwater design (eg native vegetation, riffles & pools)			
	Easily maintained sediment traps included			Refer to point 5 below.
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			

1. All car park runoff is to be retained on-site.

2. The lowest FFL is at 21.56 AHD and therefore 1.25m above the overland flow path level at 20.31 AHD.

3.Runoff directed to soakwells or landscaped areas.

4. The proponent will provide pervious paving materials. The materials will be confirmed at Building Permit stage and the
proponent would not object to a condition accordingly.

5. The proponent will provide appropriate sediment traps. The design details will be confirmed at Building Permit stage and the proponent would not object to a condition accordingly.

Attachment 3 –

Bus Timetables (current from 17 July 2016)

Route 341, 342 - To Beechboro

Timed Stops					
Stop No.	11366	17721	15721	15723	15762
Route No.	Morley Bus Stn	Bassendean Stn	Sturtridge Rd / Benara Rd	Weddall Rd / Benara Rd	Sacramento Ave / Thames Ct
Monday to Friday					
am	341	7:08	7:22	7:31	-	7:42
	341 L	7:53	8:10	8:22	-	8:39
	341 H	7:55	8:10	8:19	-	8:31
	342	8:52	9:06	-	9:16	9:26
	341	9:37	9:51	10:00	-	10:11
	342	10:07	10:21	-	10:31	10:42
	341	10:35	10:51	11:00	-	11:11
	342	11:07	11:21	-	11:31	11:42
	341	11:35	11:51	12:01	-	12:13
pm	342	12:07	12:21	-	12:31	12:42
	341	12:35	12:51	1:01	-	1:13
	342	1:07	1:21	-	1:31	1:42
	341	1:35	1:51	2:02	-	2:14
	342 A	2:06	2:21	-	2:32	2:48
	341	2:35	2:51	3:02	-	3:15
	341 C	-	3:12	3:24	-	3:36
	341	3:00	3:19	3:31	-	3:44
	342 A	3:09	3:28	-	3:41	3:57
	342 S	3:10 S	3:29	-	-	-
	341	3:30	3:49	4:01	-	4:14
	341	4:00	4:20	4:31	-	4:45
	342	4:11	4:28	-	4:39	4:51
	341	4:22	4:40	4:51	-	5:04
	342	4:44	5:00	-	5:11	5:23
	341	5:02	5:20	5:30	-	5:43
	342	5:13	5:30	-	5:41	5:52
	341	5:21	5:38	5:48	-	6:00
	342	5:35	5:50	-	6:00	6:11
	341	5:54	6:10	6:20	-	6:31
	342	6:07	6:21	-	6:31	6:42
	341	6:22	6:36	6:46	-	6:57
	341	6:37	6:51	7:00	-	7:11
	341	7:08	7:21	7:30	-	7:41
	341	8:08	8:21	8:30	-	8:41
	341	8:38	8:51	9:00	-	9:11
	341	9:39	9:51	10:00	-	10:11
	341	10:40	10:51	11:00	-	11:11
am	341	12:10	12:21	12:29	-	12:39

Timed Stops					
Stop No.	11366	17721	15721	15723	15762
Route No.	Morley Bus Stn	Bassendean Stn	Sturtridge Rd / Benara Rd	Weddall Rd / Benara Rd	Sacramento Ave / Thames Ct
Saturday					
am	341	6:41	6:51	7:00	-	7:10
	342	7:00	7:09	-	7:18	7:28
	341	7:10	7:21	7:30	-	7:41
	342	7:40	7:51	-	8:00	8:11
	341	8:09	8:21	8:30	-	8:41
	341	8:38	8:51	8:59	-	9:10
	342	8:55	9:06	-	9:15	9:25
	341	9:23	9:36	9:46	-	9:57
	342	9:38	9:51	-	10:01	10:11
	341	10:06	10:21	10:31	-	10:42
	342	10:37	10:50	-	11:00	11:12
	341	11:05	11:20	11:31	-	11:42
	342	11:38	11:51	-	12:01	12:12
pm	341	12:06	12:21	12:32	-	12:43
	341	12:36	12:51	1:01	-	1:13
	342	1:09	1:21	-	1:32	1:43
	341	1:36	1:51	2:01	-	2:13
	342	2:09	2:21	-	2:32	2:44
	341	2:38	2:51	3:01	-	3:14
	341	3:07	3:21	3:32	-	3:45
	342	3:40	3:51	-	4:01	4:13
	341	4:07	4:21	4:31	-	4:44
	342	4:39	4:51	-	5:02	5:14
	341	5:08	5:21	5:32	-	5:45
	342	5:41	5:51	-	6:01	6:13
	341	6:38	6:51	7:01	-	7:13
	341	7:36	7:51	8:02	-	8:14
	341	8:10	8:21	8:31	-	8:43
	341	9:10	9:21	9:31	-	9:43
	341	10:10	10:21	10:30	-	10:40
	341	11:10	11:21	11:30	-	11:40
am	341	12:11	12:21	12:30	-	12:40
Sunday and Public Holidays					
am	341	9:08	9:21	9:30	-	9:42
	341	10:08	10:21	10:30	-	10:42
	341	11:07	11:20	11:30	-	11:42
pm	341	12:07	12:20	12:30	-	12:42
	341	1:07	1:20	1:31	-	1:43
	341	2:06	2:20	2:31	-	2:44
	341	3:06	3:20	3:31	-	3:44
	341	4:06	4:20	4:31	-	4:44
	341	5:08	5:21	5:31	-	5:43
	341	6:09	6:21	6:31	-	6:43
	341	7:09	7:21	7:31	-	7:42
	341	8:09	8:21	8:31	-	8:42

Legend

341 C	Operates on school days only and departs from Hampton Senior High School at 3.05pm.
341 H	Operates on school holidays only.
341 L	Operates on school days only and deviates via Kiara College.
342 A	Deviates via Gibson Wy.
342 S	Operates on school days only. Departs from John Forrest Secondary College at time shown under Morley Bus Stn and terminates in Bassendean Stn.

Stand Departure Information

Route No.	Location	Stand
340	Bassendean Stn	2
341, 342	Morley Bus Stn Bassendean Stn (to Beechboro) Bassendean Stn (to Morley)	7 2 1

Route 340 - To Caversham

Timed Stops		
Stop No.	17721	27386
Route No.	Bassendean Stn	Suffolk St / Kerner Av
Monday to Friday		
am	340	6:18	6:31
	340	7:16	7:29
	340	8:16	8:29
	340	9:21	9:34
	340	10:21	10:34
	340	11:21	11:34
pm	340	12:21	12:34
	340	1:21	1:34
	340	2:21	2:35
	340	3:19	3:33
	340	3:49	4:03
	340	4:20	4:34
	340	4:48	5:02
	340	5:20	5:34
	340	5:50	6:04
	340	6:21	6:34
	340	6:51	7:04
	340	7:21	7:33
	340	7:51	8:03

No Saturday, Sunday and Public Holiday service

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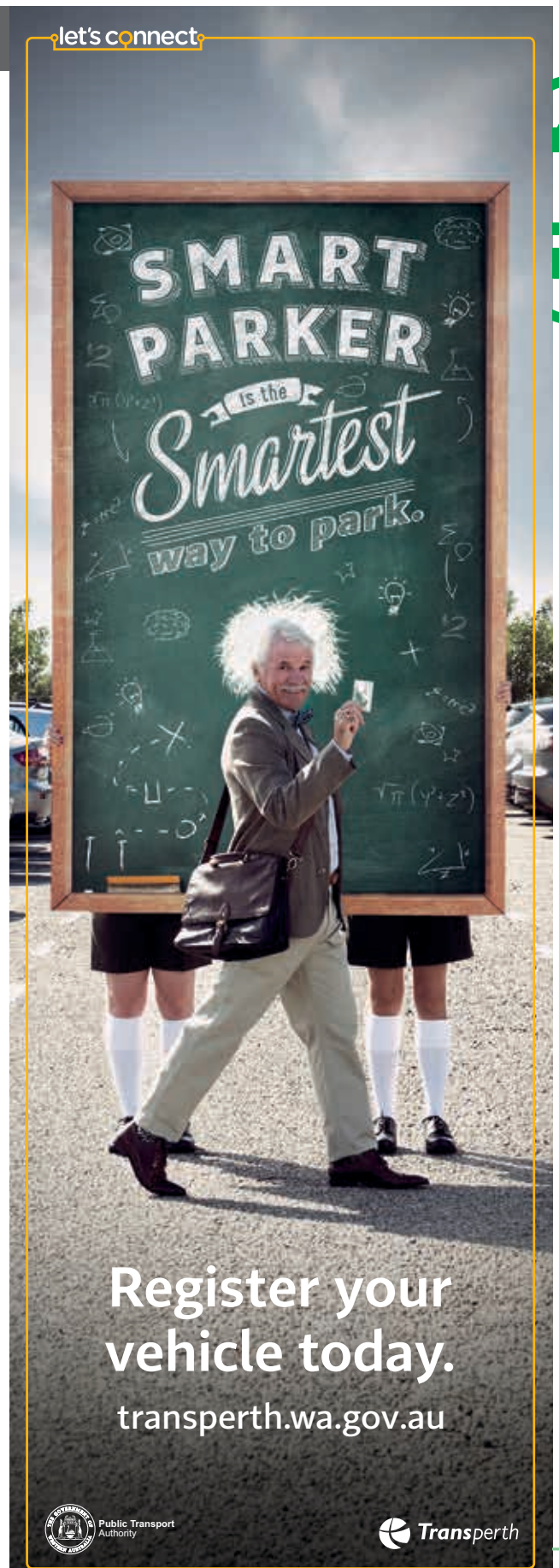

Effective from the opening of Perth Busport

Bus Timetable

104

Routes

340 **Bassendean Stn - Caversham**

341 **Morley Bus Stn - Beechboro** via Bassendean

342 **Morley Bus Stn - Beechboro** via Bassendean

For information about connections with other bus and train services, please use JourneyPlanner at **www.transperth.wa.gov.au**

Suburbs

- Bassendean
- Bayswater
- Beechboro
- Caversham
- Eden Hill
- Embleton
- Lockridge
- Morley

Transperth
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Route 341, 342 - To Morley

Timed Stops					
Stop No.	15762	15722	15715	17722	11366
Route No.	Sacramento Ave / Thames Ct	Weddall Rd / Benara Rd	Sturtridge Rd / Benara Rd	Bassendean Stn	Morley Bus Stn
Monday to Friday					
am	341	5:15	-	5:23	5:32	5:46
	341	5:44	-	5:52	6:02	6:16
	342	5:59	6:07	-	6:17	6:31
	341	6:12	-	6:20	6:30	6:45
	342	6:26	6:34	-	6:44	7:01
	341	6:43	-	6:52	7:03	7:20
	342	6:55	7:04	-	7:16	7:34
	341	7:14	-	7:24	7:36	7:55
	342	7:21	7:30	-	7:43	8:04
	342 S	-	-	-	7:53	8:12
	341	7:38	-	7:48	8:03	8:23
	342	7:52	8:02	-	8:16	8:35
	341	8:14	-	8:24	8:36	8:56
	342	8:22	8:31	-	8:43	9:00
	341	8:44	-	8:54	9:06	9:26
	342	8:58	9:07	-	9:18	9:35
	341	9:28	-	9:37	9:48	10:07
	342	9:57	10:06	-	10:18	10:35
	341	10:28	-	10:37	10:48	11:06
	342 A	10:55	11:06	-	11:18	11:34
	341	11:29	-	11:37	11:48	**12:06**
	342 A	11:55	**12:06**	-	**12:18**	**12:34**
pm	**341**	**12:29**	-	**12:37**	**12:48**	**1:06**
	342	**1:00**	**1:08**	-	**1:18**	**1:34**
	341	**1:30**	-	**1:38**	**1:48**	**2:06**
	342	**1:59**	**2:07**	-	**2:18**	**2:35**
	342	**2:29**	**2:37**	-	**2:48**	**3:06**
	341 L	**3:02**	-	**3:18**	**3:30**	**3:50**
	341 H	**3:10**	-	**3:19**	**3:30**	**3:50**
	342	**4:03**	**4:11**	-	**4:22**	**4:41**
	341	**4:50**	-	**4:59**	**5:10**	**5:28**
	342	**5:30**	**5:38**	-	**5:49**	**6:05**
	341	**6:29**	-	**6:37**	**6:48**	**7:04**
	341	**7:46**	-	**7:53**	**8:03**	**8:17**
	341	**8:46**	-	**8:53**	**9:03**	**9:17**
	341	**9:47**	-	**9:54**	**10:03**	**10:17**
	341	**10:17**	-	**10:24**	**10:33**	**10:45**

Legend

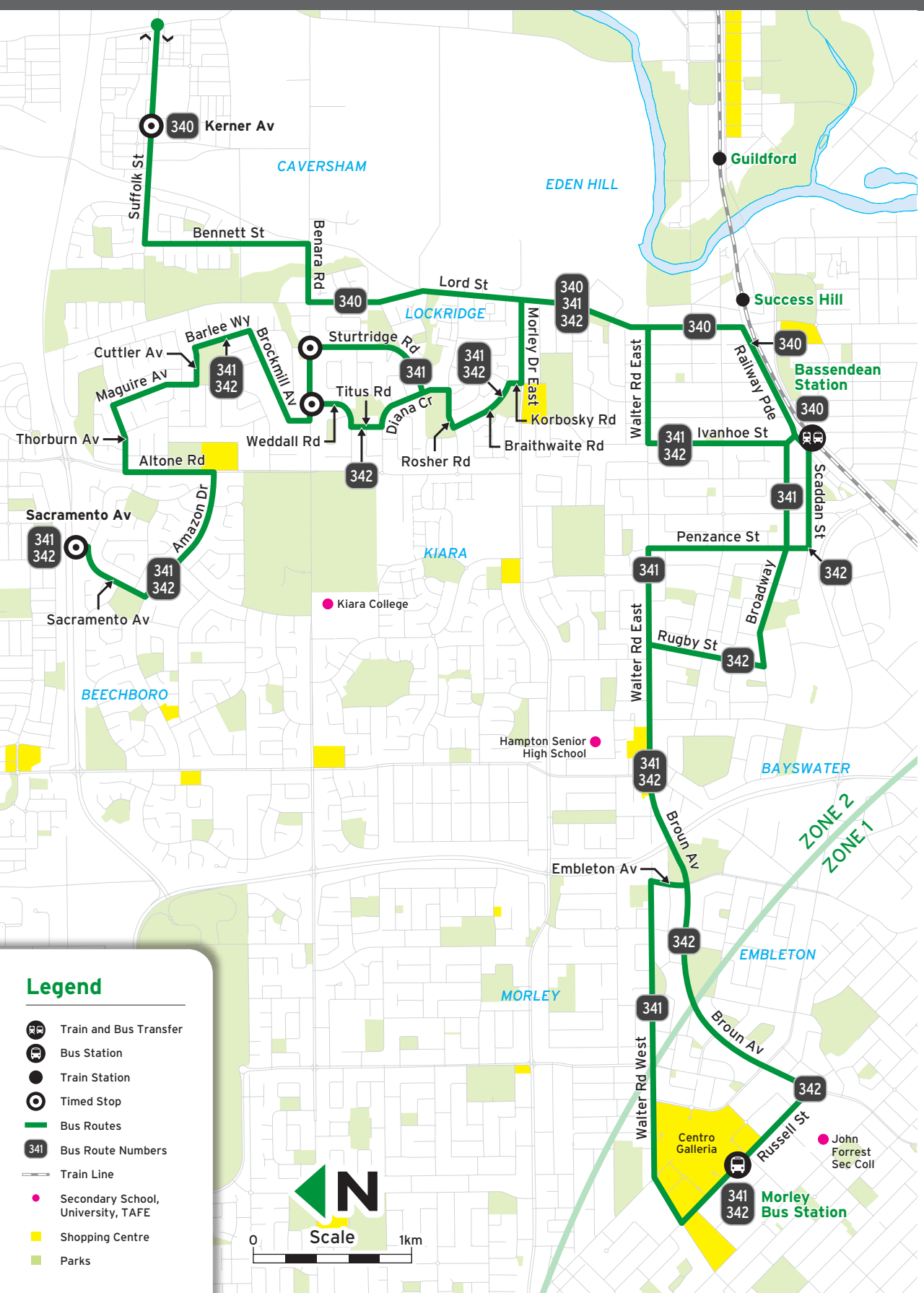
341 H	Operates on school holidays only.
341 L	Operates on school days only and deviates via Kiara College.
342 A	Deviates via Gibson Wy.
342 S	Operates on school days only.

Route 341, 342 - To Morley

Timed Stops					
Stop No.	15762	15722	15715	17722	11366
Route No.	Sacramento Ave / Thames Ct	Weddall Rd / Benara Rd	Sturtridge Rd / Benara Rd	Bassendean Stn	Morley Bus Stn
Saturday					
am	341	6:17	-	6:25	6:33	6:48
	342	6:47	6:54	-	7:03	7:18
	341	7:17	-	7:25	7:33	7:48
	341	7:31	-	7:39	7:48	8:04
	342	7:46	7:53	-	8:03	8:18
	341	8:16	-	8:24	8:33	8:49
	341	8:31	-	8:39	8:48	9:05
	342	8:46	8:53	-	9:03	9:20
	341	9:15	-	9:23	9:33	9:53
	342	9:45	9:53	-	10:03	10:20
	341	10:14	-	10:23	10:33	10:53
	342	10:44	10:53	-	11:03	11:21
	341	11:14	-	11:23	11:33	11:54
	342	11:44	11:53	-	**12:03**	**12:21**
pm	**341**	**12:14**	-	**12:23**	**12:33**	**12:52**
	342	**12:45**	**12:53**	-	**1:03**	**1:20**
	341	**1:15**	-	**1:23**	**1:33**	**1:52**
	342	**1:45**	**1:53**	-	**2:03**	**2:20**
	341	**2:16**	-	**2:24**	**2:33**	**2:51**
	342	**2:46**	**2:54**	-	**3:03**	**3:20**
	341	**3:16**	-	**3:24**	**3:33**	**3:49**
	342	**3:47**	**3:54**	-	**4:03**	**4:18**
	341	**4:16**	-	**4:24**	**4:33**	**4:49**
	342	**4:47**	**4:54**	-	**5:03**	**5:18**
	341	**5:16**	-	**5:24**	**5:33**	**5:49**
	342	**5:47**	**5:54**	-	**6:03**	**6:18**
	341	**6:17**	-	**6:25**	**6:33**	**6:48**
	342	**6:48**	**6:55**	-	**7:03**	**7:17**
	341	**7:47**	-	**7:55**	**8:03**	**8:18**
	341	**8:47**	-	**8:55**	**9:03**	**9:18**
	341	**9:47**	-	**9:55**	**10:03**	**10:17**

Sunday and Public Holidays					
am	341	7:46	-	7:54	8:03	8:19
	341	8:45	-	8:53	9:03	9:21
	341	9:45	-	9:53	10:03	10:21
	341	10:44	-	10:53	11:03	11:21
	341	11:44	-	11:53	**12:03**	**12:21**
pm	**341**	**12:44**	-	**12:53**	**1:03**	**1:21**
	341	**1:45**	-	**1:54**	**2:04**	**2:21**
	341	**2:46**	-	**2:55**	**3:04**	**3:21**
	341	**3:46**	-	**3:55**	**4:04**	**4:21**
	341	**4:46**	-	**4:54**	**5:03**	**5:19**
	341	**5:46**	-	**5:54**	**6:03**	**6:19**
	341	**6:47**	-	**6:55**	**7:03**	**7:19**

Route 340, 341, 342 Map



Legend

- Train and Bus Transfer
- Bus Station
- Train Station
- Timed Stop
- Bus Routes
- Bus Route Numbers
- Train Line
- Secondary School, University, TAFE
- Shopping Centre
- Parks

Route 340 - To Bassendean

Timed Stops		
Stop No.	27386	17721
Route No.	Suffolk St / Kerner Av	Bassendean Stn
Monday to Friday		
am	340	5:34	5:47
	340	6:04	6:17
	340	6:31	6:44
	340	7:02	7:16
	340	7:29	7:43
	340	8:02	8:16
	340	8:30	8:43
	340	9:05	9:18
	340	9:35	9:48
	340	10:35	10:48
	340	11:35	11:48
pm	**340**	**12:35**	**12:48**
	340	**1:35**	**1:48**
	340	**2:35**	**2:48**
	340	**3:05**	**3:18**
	340	**4:05**	**4:18**
	340	**5:05**	**5:18**
	340	**6:05**	**6:17**
	340	**7:05**	**7:17**

No Saturday, Sunday and Public Holiday service

Attachment 4 –

Previous Bus Timetables (before 17 July 2016)

Route 341, 342 - To Beechboro

Timed Stops					
Stop No.	11366	17721	15721	15723	15762
Route No.	Morley Bus Stn	Bassendean Stn	Sturtridge Rd / Benara Rd	Weddall Rd / Benara Rd	Sacramento Ave / Thames Ct
Monday to Friday					
am 341	7:10	7:24	7:33	-	7:45
341 H	7:55	8:10	8:19	-	8:31
341 L	7:55	8:10	8:21	-	8:39
342	8:50	9:02	-	9:12	9:24
341	9:30	9:44	9:53	-	10:05
342	10:10	10:23	-	10:33	10:45
341	10:40	10:54	11:04	-	11:16
342	11:10	11:23	-	11:34	11:46
341	11:40	11:55	12:06	-	12:18
pm 342	12:10	12:23	-	12:33	12:45
341	12:40	12:54	1:04	-	1:16
342	1:10	1:23	-	1:34	1:46
341	1:40	1:55	2:06	-	2:19
342 A	2:10	2:24	-	2:35	2:53
341	2:40	2:55	3:07	-	3:20
341 C	-	3:11	3:24	-	3:39
342 S	3:10 S	3:27	-	-	-
342 A	3:10	3:27	-	3:40	3:56
341	3:30	3:48	3:59	-	4:12
341	3:55	4:13	4:24	-	4:37
342	4:10	4:25	-	4:36	4:49
341	4:25	4:41	4:52	-	5:05
342	4:40	4:54	-	5:05	5:17
341	4:55	5:12	5:23	-	5:36
342	5:10	5:26	-	5:37	5:49
341	5:25	5:40	5:50	-	6:03
342	5:40	5:54	-	6:04	6:16
341	5:55	6:09	6:19	-	6:31
342	6:10	6:22	-	6:32	6:44
341	6:25	6:38	6:48	-	7:00
341	6:40	6:53	7:03	-	7:14
341	6:55	7:08	7:18	-	7:29
341	7:55	8:08	8:18	-	8:29
341	8:45	8:57	9:07	-	9:19
341	9:45	9:56	10:05	-	10:16
341	10:55	11:05	11:14	-	11:25
am 341	12:08	12:18	12:26	-	12:37

Timed Stops					
Stop No.	11366	17721	15721	15723	15762
Route No.	Morley Bus Stn	Bassendean Stn	Sturtridge Rd / Benara Rd	Weddall Rd / Benara Rd	Sacramento Ave / Thames Ct
Saturday					
am 341	6:40	6:51	7:00	-	7:12
342	7:00	7:09	-	7:17	7:27
341	7:20	7:30	7:39	-	7:49
342	8:00	8:11	-	8:20	8:30
341	8:20	8:31	8:40	-	8:50
341	8:40	8:51	8:59	-	9:10
342	9:00	9:11	-	9:20	9:30
341	9:40	9:52	10:01	-	10:12
342	10:00	10:12	-	10:22	10:32
341	10:40	10:56	11:06	-	11:17
342	11:00	11:13	-	11:23	11:35
341	11:40	11:56	12:07	-	12:19
pm 342	12:00	12:13	-	12:23	12:33
341	12:40	12:56	1:07	-	1:18
341	1:00	1:13	1:23	-	1:35
342	1:40	1:52	-	2:03	2:14
341	2:00	2:14	2:24	-	2:35
342	2:40	2:52	-	3:03	3:15
341	3:00	3:13	3:23	-	3:36
341	3:40	3:53	4:04	-	4:17
342	4:00	4:11	-	4:21	4:33
341	4:40	4:54	5:04	-	5:16
342	5:00	5:12	-	5:23	5:34
341	5:40	5:54	6:05	-	6:17
342	6:00	6:10	-	6:20	6:31
341	6:40	6:53	7:03	-	7:15
341	7:40	7:53	8:03	-	8:16
341	8:20	8:32	8:42	-	8:54
341	9:20	9:31	9:41	-	9:52
341	10:30	10:41	10:50	-	11:00
341	11:30	11:41	11:50	-	12:00
am 341	12:30	12:40	12:49	-	12:59
Sunday and Public Holidays					
am 341	9:10	9:23	9:32	-	9:43
341	10:10	10:24	10:33	-	10:44
341	11:10	11:24	11:34	-	11:45
pm 341	12:10	12:24	12:34	-	12:45
341	1:10	1:24	1:34	-	1:45
341	2:10	2:24	2:34	-	2:46
341	3:10	3:25	3:35	-	3:47
341	4:10	4:24	4:34	-	4:46
341	5:10	5:24	5:34	-	5:46
341	6:10	6:23	6:33	-	6:44
341	7:10	7:22	7:32	-	7:42
341	8:10	8:21	8:30	-	8:40

Legend

341 C Operates on school days only and departs from Hampton Senior High School at 3.05pm.
341 H Operates on school holidays only.
341 L Operates on school days only and deviates via Lockridge Senior High School.
342 A Deviates via Gibson Wy.
342 S Operates on school days only. Departs from John Forrest Senior High School at time shown and terminates in Bassendean Stn.

Stand Departure Information

Route No.	Location	Stand
340	Bassendean Stn	2
341, 342	Morley Bus Stn Bassendean Stn (to Beechboro) Bassendean Stn (to Morley)	7 2 1

Route 340 - To Caversham

Timed Stops		
Stop No.	17721	21997
Route No.	Bassendean Stn	Bennett St / Patricia St
Monday to Friday		
am 340	6:24	6:34
340	7:23	7:33
340	8:23	8:33
340	9:28	9:38
340	10:28	10:38
340	11:28	11:38
pm 340	12:21	12:31
340	1:21	1:31
340	2:21	2:32
340	3:19	3:30
340	3:49	4:00
340	4:20	4:31
340	4:48	4:59
340	5:20	5:31
340	5:50	6:01
340	6:21	6:31
340	6:51	7:01
340	7:21	7:30
340	7:51	8:00

No Saturday, Sunday and Public Holiday service

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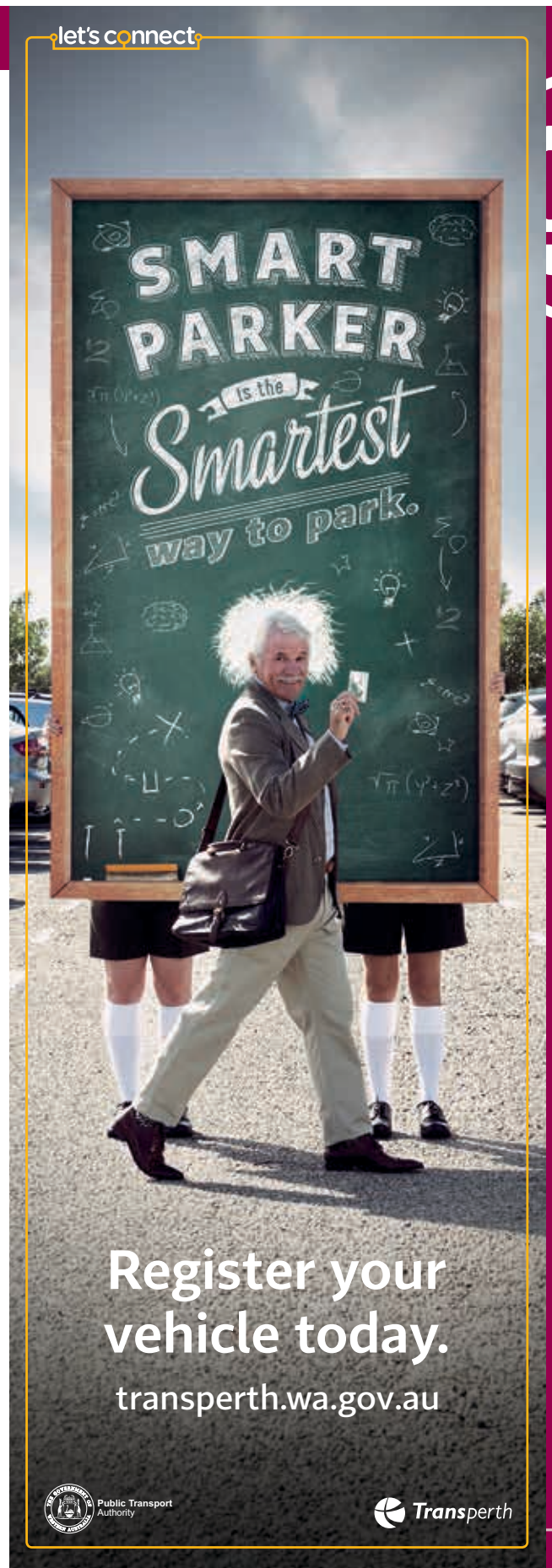


Effective: 07/09/2014

Bus Timetable
104

Routes

340 Bassendean Stn - Caversham

341 Morley Bus Stn - Beechboro via Bassendean

342 Morley Bus Stn - Beechboro via Bassendean

For information about connections with other bus and train services, please use JourneyPlanner at **www.transperth.wa.gov.au**

Suburbs

- Bassendean
- Bayswater
- Beechboro
- Caversham
- Eden Hill
- Embleton
- Lockridge
- Morley

Transperth
let's connect

Route 341, 342 - To Morley

Timed Stops					
Stop No.	15762	15722	15715	17722	11366
Route No.	Sacramento Ave / Thames Ct	Weddall Rd / Benara Rd	Sturtridge Rd / Benara Rd	Bassendean Stn	Morley Bus Stn
Monday to Friday					
am 341	5:15	-	5:23	5:32	5:47
341	5:45	-	5:53	6:02	6:17
342	6:04	6:12	-	6:22	6:37
341	6:16	-	6:24	6:34	6:52
342	6:31	6:39	-	6:50	7:07
341	6:44	-	6:53	7:04	7:22
342	6:59	7:08	-	7:18	7:37
341	7:10	-	7:19	7:31	7:52
342	7:23	7:33	-	7:46	8:07
342 S	-	-	-	7:53	8:12
341	7:39	-	7:49	8:01	8:22
342	7:54	8:04	-	8:17	8:37
341	8:10	-	8:20	8:32	8:52
342	8:27	8:36	-	8:47	9:07
341	8:42	-	8:51	9:01	9:22
342	8:59	9:07	-	9:19	9:37
341	9:27	-	9:36	9:47	10:07
342	9:59	10:07	-	10:19	10:37
341	10:26	-	10:35	10:46	11:07
342 A	10:57	11:08	-	11:20	11:37
341	11:29	-	11:37	11:47	12:07
342 A	11:58	12:09	-	12:20	12:37
pm 341	12:30	-	12:38	12:48	1:07
342	1:03	1:10	-	1:20	1:37
341	1:31	-	1:39	1:48	2:07
342	2:02	2:10	-	2:20	2:37
342	2:31	2:39	-	2:49	3:07
341 L	3:05	-	3:20	3:31	3:52
341 H	3:14	-	3:23	3:32	3:52
342	4:00	4:08	-	4:19	4:37
341	4:46	-	4:54	5:03	5:22
342	5:38	5:46	-	5:56	6:12
341	6:34	-	6:42	6:50	7:07
341	7:38	-	7:46	7:54	8:12
341	8:40	-	8:48	8:56	9:12
341	9:41	-	9:49	9:57	10:12
341	10:21	-	10:29	10:37	10:52

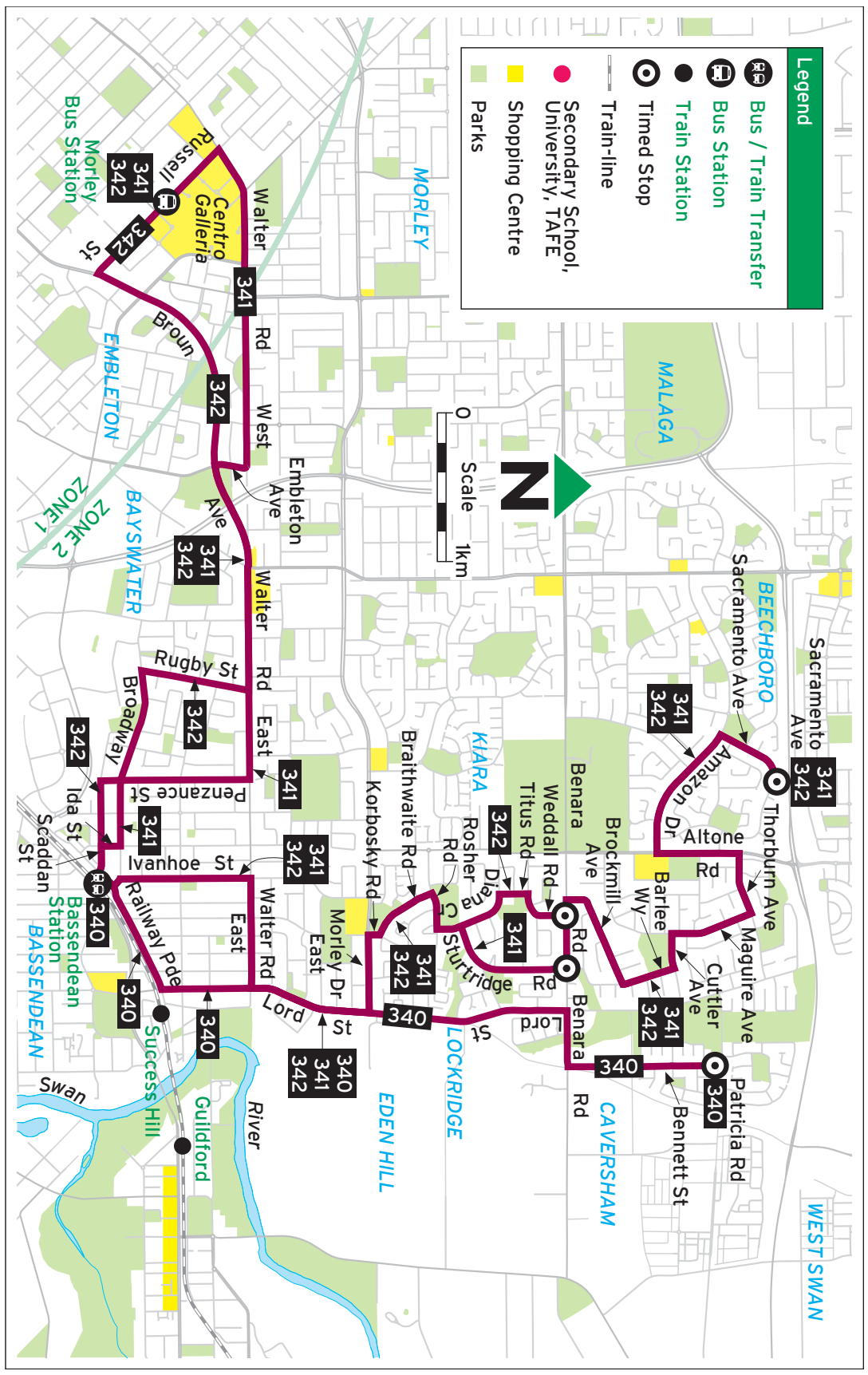
Legend

341 H Operates on school holidays only.
341 L Operates on school days only and deviates via Lockridge Senior High School.
342 A Deviates via Gibson Wy.
342 S Operates on school days only.

Route 341, 342 - To Morley

Timed Stops					
Stop No.	15762	15722	15715	17722	11366
Route No.	Sacramento Ave / Thames Ct	Weddall Rd / Benara Rd	Sturtridge Rd / Benara Rd	Bassendean Stn	Morley Bus Stn
Saturday					
am 341	6:06	-	6:15	6:23	6:37
342	6:45	6:53	-	7:03	7:17
341	7:06	-	7:14	7:23	7:37
341	7:25	-	7:33	7:43	7:57
342	7:45	7:52	-	8:03	8:17
341	8:03	-	8:11	8:21	8:37
341	8:22	-	8:30	8:41	8:57
342	8:42	8:49	-	9:00	9:17
341	9:18	-	9:26	9:37	9:57
342	9:41	9:49	-	10:00	10:17
341	10:17	-	10:26	10:36	10:57
342	10:40	10:49	-	10:59	11:17
341	11:17	-	11:26	11:36	11:57
342	11:40	11:49	-	11:59	12:17
pm 341	12:19	-	12:27	12:38	12:57
342	12:41	12:49	-	1:00	1:17
341	1:20	-	1:28	1:39	1:57
342	1:42	1:50	-	2:01	2:17
341	2:21	-	2:29	2:39	2:57
342	2:44	2:52	-	3:02	3:17
341	3:24	-	3:32	3:41	3:57
342	3:45	3:52	-	4:02	4:17
341	4:24	-	4:32	4:41	4:57
342	4:46	4:53	-	5:02	5:17
341	5:24	-	5:32	5:41	5:57
342	5:46	5:53	-	6:02	6:17
341	6:26	-	6:34	6:42	6:57
342	6:48	6:55	-	7:03	7:17
341	7:46	-	7:54	8:02	8:17
341	8:56	-	9:04	9:12	9:27
341	9:56	-	10:04	10:12	10:27
Sunday and Public Holidays					
am 341	7:53	-	8:02	8:11	8:27
341	8:51	-	9:00	9:10	9:27
341	9:50	-	9:59	10:09	10:27
341	10:50	-	10:59	11:09	11:27
341	11:50	-	12:00	12:10	12:27
pm 341	12:50	-	1:00	1:10	1:27
341	1:52	-	2:01	2:10	2:27
341	2:52	-	3:01	3:10	3:27
341	3:53	-	4:02	4:11	4:27
341	4:54	-	5:02	5:11	5:27
341	5:54	-	6:02	6:11	6:27
341	6:55	-	7:03	7:11	7:27

Route 340, 341, 342 Map



Route 340 - To Bassendean

Timed Stops		
Stop No.	21997	17721
Route No.	Bennett St / Patricia St	Bassendean Stn
Monday to Friday		
am 340	5:37	5:47
340	6:07	6:17
340	6:34	6:44
340	7:06	7:16
340	7:33	7:43
340	8:06	8:16
340	8:33	8:43
340	9:08	9:18
340	9:38	9:48
340	10:38	10:48
340	11:38	11:48
pm 340	12:31	12:41
340	1:31	1:41
340	2:32	2:42
340	3:05	3:15
340	4:00	4:10
340	4:59	5:08
340	6:01	6:10
340	7:01	7:10

No Saturday, Sunday and Public Holiday service

Council Policy

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.

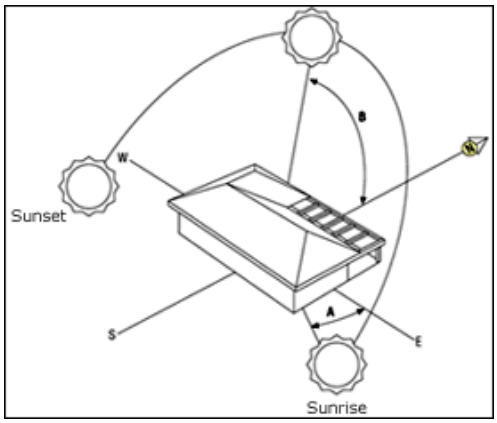
Nevertheless there are excellent opportunities to meet basic energy efficient principals even with a stand project house. There are many standard house designs available which would allow good energy efficiency, provided they are built facing the right direction. A minor modifications such as moving 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)

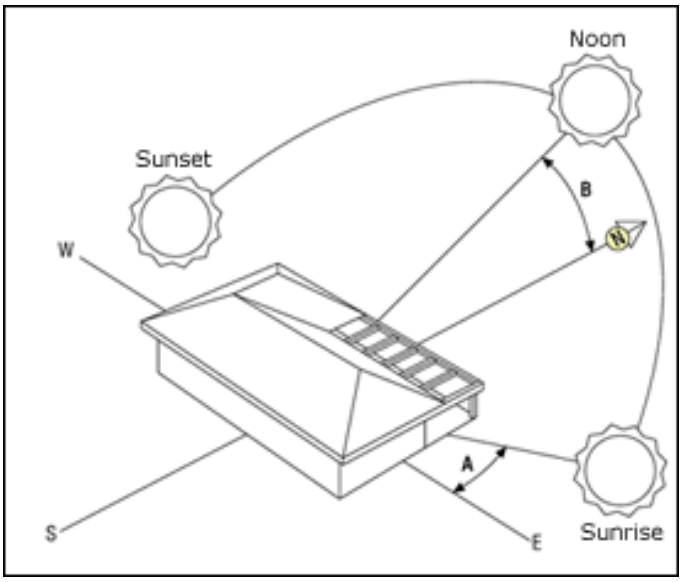


Legend:

Horizontal Rise	Noon Altitude (B)

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

The Sun's Movement during winter (Jun)

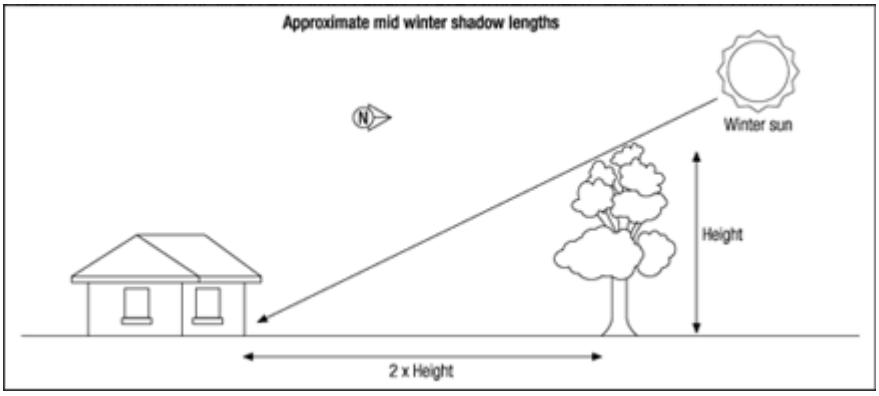


Legend:

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

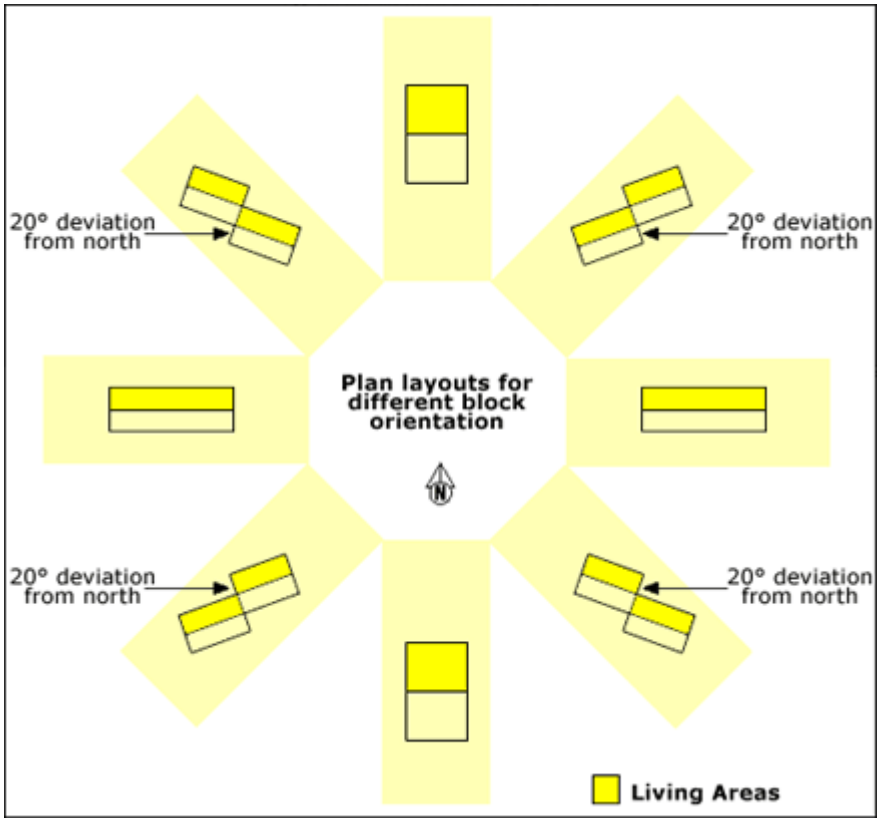
For residential development, it is recommended that land which permits the living areas of the dwelling to face north, be free of obstructions such as buildings or evergreen trees on this side of the home. Orientation is the key factor in achieving energy efficient design. While items such as pergolas, 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 mid-winter, 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

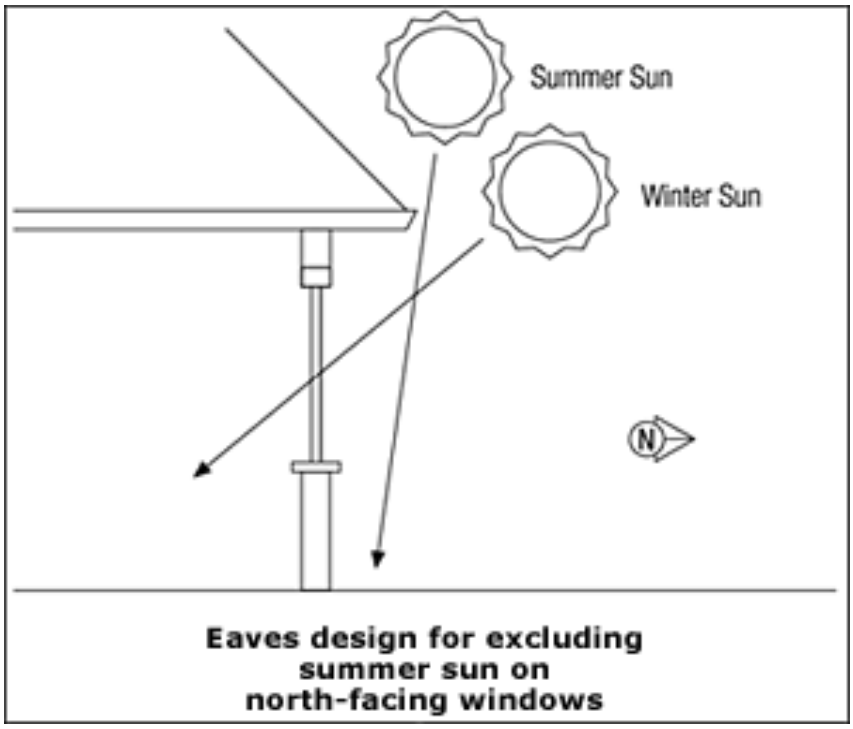
Appropriate window placement, sizing and shading are key elements to energy efficient design. Windows can act as solar collectors trapping heat from the sun, which is useful in winter but not in summer. They ventilate during summer, funnelling cool late afternoon and night time breezes to remove heat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

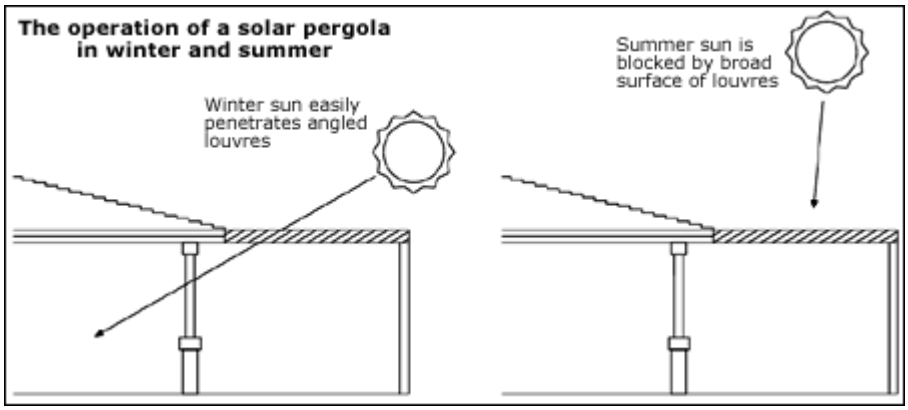
It is recommended that around a third to a half of the north face of the dwelling be glass, as it is very effective at trapping winter warmth and can be easily shaded from summer sun with correctly designed eaves.

To calculate the overhang needed, multiply the distance from the eaves-line 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.



Eaves design for excluding summer sun on north-facing windows

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

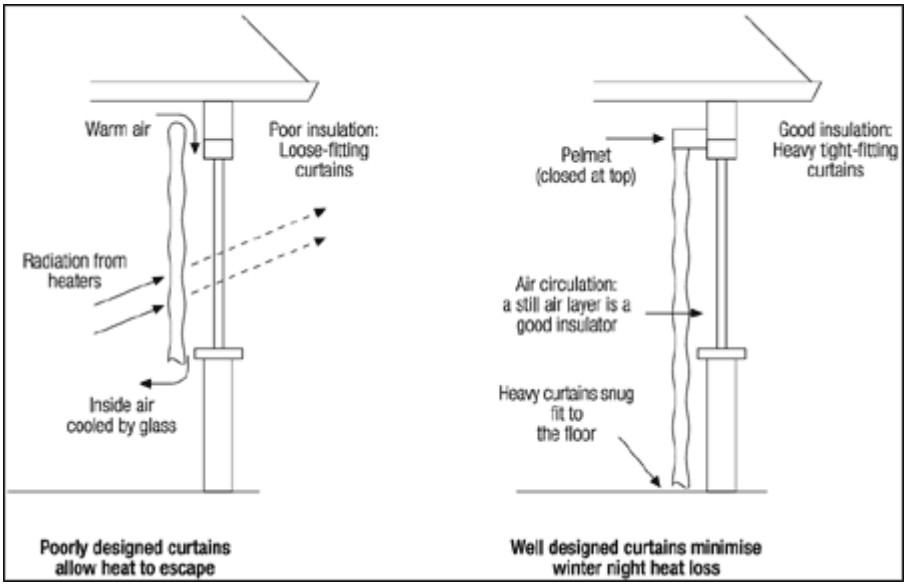
South facing windows receive no direct sun in winter but will receive a few hours of morning and afternoon sun in summer months. For this reason, they lose heat in winter and gain some undesirable heat in summer. South facing windows should be large enough to allow good ventilation and light to enter 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.

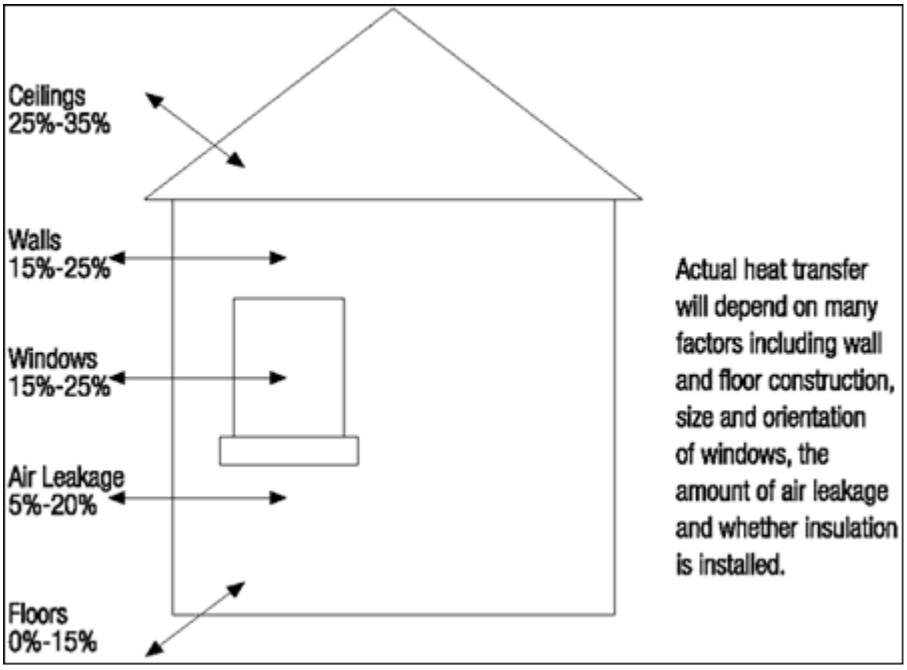
5.12 Insulation Works

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 south-westerly sea breezes into and through your home.

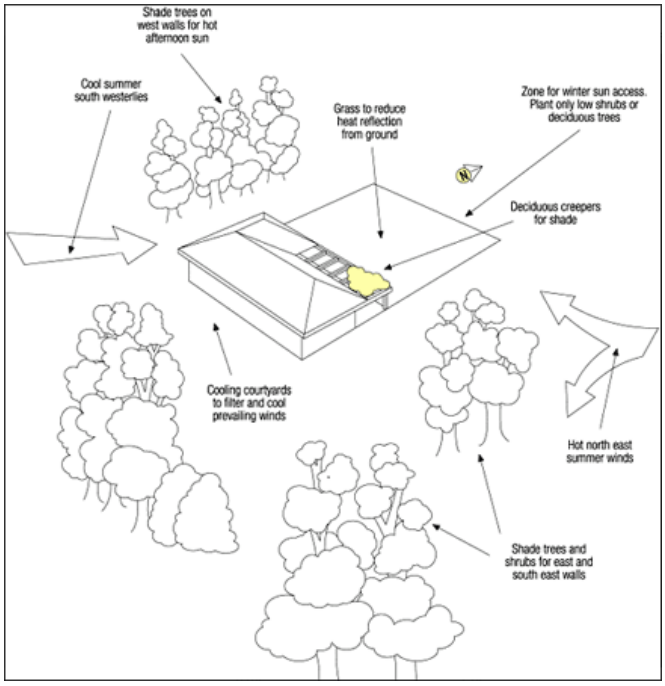
Plantings to the west and north-west can shield houses from winter storms, but close plantings may lead to damage in certain circumstances.

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 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 1998[1] 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 sub-catchment 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	50m
Seasonally flowing watercourses	30m
Watercourses which flow in response to specific rain events	10m

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.

APPENDIX 1 - WATER SENSITIVE DESIGN POLICY CHECKLIST

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			

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:

	DEVELOPMENT 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.	1. 25mm of 10mm asphalt over: a) 200mm CRRB or b) 75mm CRRB above 200mm crushed limestone. 2. 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	Aisle Width 1 Way metres	Aisle Width 2 Way metres	Distance Along Kerb metres	Kerb Overhang metres	Total Depth 1 Way metres	Total Depth 2 Way 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).

Council Policy

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.

* Value as used for determining Building Licence fees

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.

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.

APPENDIX A

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-in-lieu 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.

Council Policy

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.

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:

1. 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:

1. 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.

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U1 – REVISED DESIGN DATE STAMPED RECEIVED 30 AUGUST 2016.

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	LONGEST AXIS N-S
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)	12.5 12.5	OLA FACES NORTH >50% OF FACE OF WALL TO LIVING GLAZED.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1: S (MAIN) B2: S
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	10 10	EAST: HIGHLIGHT W/DOW TO LIVING; OPENING TO KITCHEN BUT ROOF BEYOND. WEST: HILIGHTS TO BED 1 AND MEALS BUT ROOF COVER BEYOND.
5.	60% of all habitable rooms shall be cross ventilated.	10	10	1. LIVING ✓ 3. BED 2 ✗ 2. BED 1 ✓ 2/3 = 66.67%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE.
	TOTAL	100	85	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U2, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	LONGEST AXIS N-S
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)	12.5 0	AN AREA EQUIVALENT TO 10m² PRESCRIBED OLA WITH NORTH ASPECT • SAME AS U1 RE: GLAZING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1: S B2: S
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	10 10	EAST: ENS & KITCH (SUBSTANTIAL ROOF COVER BEYOND) WEST: MEALS (SUBSTANTIAL ROOF COVER) BATH & ROOF COVERED BED 2
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1: x LIV: ✓ B2: ✓ 2/3 66%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	72.5	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U3, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	LONGEST AXIS IS N-S
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)	12.5 0	• AN AREA EQUIVALENT TO 10m2 PRESCRIBED OLA WITH NORTH ASPECT • SAME AS U1 RE: GLAZING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1 : S B2 : S
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	10 10	EAST: ENS & KITCH (SUBSTANTIAL ROOF COVER BEYOND) WEST: MEALS (ROOF COVER BEYOND) BATH & B2 WITH ROOF COVER BEYOND
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1: X LIV: ✓ B2: ✓ 2/3 66%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	72.5	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U4, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	LONGEST AXIS N-S
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)	12.5 12.5	OLA NORTH FACING GLAZING > 50% OF LIVING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1 : N B2 : S
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	10 10	EAST: BLANK WEST: MEALS MINOR OPENING LIVING MINOR OPENING COVERED W/DOW TO L1
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1 : ✓ LIV : ✓ B2 : × 2/3 66%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	85	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U5, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	LONGEST AXIS N-S
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)	12.5 12.5	OLA NORTH FACING GLAZING >50% OF LIVING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1 : N B2 : S
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	10 10	EAST : MEALS MINOR OPENING LIVING MINOR OPENING COVERED W/DOW TO B1 WEST : BLANK
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1: ✓ LIV: ✓ B2: X 2/3 66%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	85	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U6 - REVISED DESIGN DATE STAMPED RECEIVED 30 AUGUST 2016

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	10	LONGEST AXIS E-W.
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)	12.5 12.5	BALC NORTH FACING MORE THAN 50% OF LIVING & MEALS IS GLAZED.
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1 : S B2 : N WITH HIGHLIGHT WINDOW TO 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)	10 5	EAST : HIGHLIGHT TO BED 2 WEST : KITCH & LIVING
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1 : ✓ LIV: ✓ B2 : ✓ 3/3 100%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE.
	TOTAL	100	90	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U7, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	10	LONGEST AXIS E-W
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)	12.5 12.5	BALC NORTH FACING > 50% GLAZING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	7.5	B1: E B2: N
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	5 5	• EAST: ONLY OPENING TO B1 AND SECONDARY WINDOW TO B2 • WEST: KITCH - 0.7m² GLAZED AREA LIVING > 1m² GLAZED.
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1: X LIV: ✓ B2: ✓ 2/3 66%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	77.5	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U8, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	10	LONGEST AXIS IS E-W
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)	12.5 12.5	BALC NORTH FACING >50% GLAZING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	7.5	B1 : E B2 : N
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	5 5	• EAST : ONLY OPENING TO B1 AND SECONDARY W/DOW TO B2 • WEST : KITCH - 0.7m² GLAZED AREA LIVING > 1m² GLAZED
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1 : X LIV: ✓ B2 : ✓ 2/3 66%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	77.5	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U9, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	LONGEST AXIS IS N-S
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)	12.5 12.5	BALC NORTH FACING GLAZING > 50% OF LIVING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1 : N B2 : S
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	10 10	EAST: BLANK WEST: MINOR OPENINGS TO B2 AND LIVING
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1 : ✓ LIV: ✓ B2 : ✓ 3/3 100%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	85	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

ENERGY EFFICIENT DESIGN POLICY CREDIT POINTS CHECKLIST

DEVELOPMENT ADDRESS U10, No. 8 WRE

	Design Element	Credit Pts Available	Credit Pts Claimed	Comments ^
1.	Orientation (longest axis east west)	10	0	LONGEST AXIS N-S
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)	12.5 12.5	BALC NORTH FACING GLAZING > 50% OF LIVING
3.	Windows to bedrooms minimised in area and south facing One bedroom window is permitted to face north	15	15	B1 : N B2 : S
4.	Eastern and western walls are either blank or only have openings to non-habitable utility rooms	20 (East wall: 10 West wall: 10)	10 10	EAST: MINOR OPENINGS TO LIVING & BED 2 WEST: BLANK.
5.	60% of all habitable rooms shall be cross ventilated.	10	10	B1 : ✓ LIV: ✓ B2 : ✓ 3/3 100%
6.	The provision of either a solar pergola or solar hot water heating system ;	10	10	SOLAR PERGOLA
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)	5	LOW WATER USE
	TOTAL	100	85	Require min 70 out of 100 to qualify for higher density code

Additional Provisions - Amended 28 June 2011

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Property Location:	Lot 459 (No. 36) Moolyeen Road, MOUNT PLEASANT WA 6153
Application Details:	Four Storey Mixed Use Development comprising 10 Multiple Dwellings and two Office commerical tenancies
DAP Name:	Joint Metro Central Development Assessment Panel
Applicant:	Megara
Owner:	Disan Pty Ltd
LG Reference:	DA-2016-782
Responsible Authority:	City of Melville
Authorising Officer:	Steve Cope Director Urban Planning
Department of Planning File No:	DAP/160/01080
Report Date:	29 September 2016
Application Receipt Date:	14 July 2016
Application Process Days:	90 Days
Attachment(s):	1. Development Plans (Dated 19 August 2016) 2. Applicants Report Dated July 2016) 3. Transport Impact and Car Parking Assessment (Dated July 2016)

Officer Recommendation:

That the Metro Central resolves to:

Approve DAP Application reference DAP/160/01080 and accompanying plans DA-00, DA-01, DA-02, DA-03, DA-04, DA-05, SK_01, DA-06, DA-07, DA-08 and DA-09in accordance with the City of Melville Local Planning Scheme No. 6, subject to the following conditions:

Conditions

This decision constitutes planning approval only and is valid for a period of two years from the date of approval. If the subject development is not substantially commenced within the two year period, the approval shall lapse and be of no further effect.

1. All stormwater generated on site is to be retained on site.

2. Prior to the commencement of development detailed drawing of the traffic control system and an updated transport impact and parking assessment shall be submitted and approved in writing by the City. Once approved, the development shall take place in accordance with those details.

3. Prior to the initial occupation of the development, all parking bays (including 2 visitor bays), manoeuvring areas, driveway/s and points of ingress and egress

shall be provided in accordance with the approved plans to the satisfaction of the City. The bays shall thereafter be retained for the life of the development.

4. Prior to the initial occupation of the development, the bicycle parking facilities (as marked on the approved plans) shall be provided in accordance with Australian Standard AS 2890.3 to the satisfaction of the City. The facilities shall thereafter be retained for the life of the development.

5. Prior to the initial occupation of the development, all unused crossovers shall be removed and the kerbing and road verge reinstated at the owners cost to the satisfaction of the City.

6. The development shall be serviced by a concrete or brick paved vehicle crossover with a maximum width of 6m and located a minimum of 2m away from the outside of the trunk of any street tree and 1m from other existing verge infrastructure. The crossover is to be constructed prior to the initial occupation of the development in accordance with the City's specifications to the satisfaction of the City.

7. No development (including fencing, letter boxes or any other structure) or landscaping over 0.75m in height is to be located within the 1.5m x 1.5m sightline truncation where the vehicle access point meets the road reserve to the satisfaction of the City.

8. Lighting is to be provided to all car parking areas and the exterior entrances to all buildings in accordance with Australian Standard 115.3.1 (Cat. P). All external lighting is to be hooded and oriented so that the light source is not directly visible to the travelling public or abutting residences.

9. Prior to the initial occupation of the development, the Northern side of the TERRACE of Units 9 and 10 (as marked in RED on the approved plans) shall have installed, fixed obscure screening to a minimum height of 1.6 metres above the finished floor level, or any other screening alternative that complies with the purpose and intent of C1.1 or C1.2 of Clause 5.4.1 (for Single Houses or Grouped Dwellings) or C1.1 or C1.2 of Clause 6.4.1 (for Multiple Dwellings) of the Residential Design Codes. The screening measures must thereafter be retained in perpetuity to the ongoing satisfaction of the City.

10. Prior to the initial occupation of the development, the Eastern side of the TERRACE of Units 2, 6 and 10 (as marked in RED on the approved plans) shall have installed, fixed obscure screening to a minimum height of 1.6 metres above the finished floor level, or any other screening alternative that complies with the purpose and intent of C1.1 or C1.2 of Clause 5.4.1 (for Single Houses or Grouped Dwellings) or C1.1 or C1.2 of Clause 6.4.1 (for Multiple Dwellings) of the Residential Design Codes. The screening measures must thereafter be retained in perpetuity to the ongoing satisfaction of the City.

11. Prior to the initial occupation of the development, the surface finish of the boundary walls are to be finished externally to the same standard as the rest of the development to the satisfaction of the City.

12. Any roof mounted or freestanding plant or equipment shall be located and/or screened from the surrounding street(s) to the satisfaction of the City.

13. Prior to the commencement of development, details of the exterior colours, materials and finishes are to be submitted and approved in writing to the satisfaction of the City. Once approved, the development is to be constructed in accordance with those details.

14. Prior to the commencement of development, the street tree/s to be retained within the verge are to be protected through the installation of a Tree Protection Zone (TPZ). Each TPZ is to be installed as per Australian Standard AS4970-2009 and in accordance with the following criteria to the satisfaction of the City:
    - A free-standing mesh fence erected around each street tree with a minimum height of 1.8m and a 2m minimum radius measured from the outside of the trunk of each tree.
    - If an approved crossover, front fence, footpath, road or similar is located within the 2m radius, the TPZ fencing shall be amended to be the minimum distance necessary to allow the works to be completed.
    - Fixed signs are to be provided on all visible sides of the TPZ fencing clearly stating 'Tree Protection Zone – No Entry'.
    - The following actions shall <u>not</u> be undertaken within any TPZ:
        - Storage of materials, equipment fuel, oil dumps or chemicals
        - Servicing and refuelling of equipment and vehicles
        - Attachment of any device to any tree (including signage, temporary service wires, nails, screws, winches or any other fixing device)
        - Open-cut trenching or excavation works (whether or not for laying of services)
        - Changes to the natural ground level of the verge
        - Location of any temporary buildings including portable toilets
        - The unauthorised entry by any person, vehicle or machinery
    - No unauthorised pruning of the canopy or roots of any Street Tree is permissible under the City of Melville's Street Tree Policy CP-029. Pruning may only be undertaken by the City's approved contractors following a written submission to and approval by the City.

    Once erected to the required standard, the TPZ shall be maintained in good condition to the satisfaction of the City and may only be removed upon occupation of the development.

15. Prior to the commencement of development, a detailed landscaping and reticulation plan for the subject site and the road verge adjacent to the site shall be submitted to and approved in writing by the City. The landscaping plan is to include details of (but not limited to):
    a) Location of bin collection point within the verge;
    b) The location, number and type of proposed trees and shrubs including planter size and planting density;
    c) Any lawns to be established;
    d) Any existing vegetation and/or landscaped areas to be retained; and
    e) Any verge treatments

    The approved landscaping and reticulation plan shall be fully implemented within the first available planting season after the initial occupation of the development and maintained thereafter to the satisfaction of the Manager Statutory Planning.

Any species which fail to establish within the first two planting seasons following implementation shall be replaced in accordance with the City's requirements.

16. Prior to the initial occupation of the development, a Waste Management Plan shall be prepared in accordance with Council Policy CP–090: Waste and Recyclables Collection for Multiple Dwellings, Mixed Use Developments and Non-Residential Developments and submitted in writing for the approval of the City. Once approved, the development is to be constructed and operated in accordance with the Waste Management Plan to the satisfaction of the City.

17. Prior to the commencement of development, a scheme for the provision of Public Art shall be submitted to and approved in writing by the City in consultation with the City's Public Art Panel. Once approved, the Public Art shall be provided in accordance with Council Policy – 085: Provision of Art in Development Proposals prior to the initial occupation of the development to the satisfaction of the City. Alternatively, the public art contribution may be satisfied by a cash-in-lieu payment at the same rate, made prior to the commencement of works.

18. Temporary structures, such as prefabricated or demountable offices, portable toilets and skip bins necessary to facilitate storage, administration and construction activities are permitted to be installed within the property boundaries of the subject site(s) for the duration of the construction period. These structures are to be located so not to obstruct vehicle sight lines of the subject site, the adjacent road network or of adjoining properties to the satisfaction of the City and are to be removed prior to initial occupation of the development.

19. A Construction Management Plan is to be prepared by the Applicant and submitted to the City for approval at least 30 days prior to the commencement of works. The Construction Management Plan shall detail how the construction of the development will be managed including the following:
    - public safety and site security;
    - hours of operation,
    - noise and vibration controls;
    - air and dust management;
    - stormwater, groundwater and sediment control;
    - waste and material disposal;
    - traffic management plans for the various phases of the construction, including any proposed road closures;
    - the parking arrangements for contractors and sub-contractors;
    - on-site delivery times and access arrangements;
    - the storage of materials and equipment on site (no storage of materials on the verge will be permitted) ; and
    - any other matters likely to impact upon the surrounding properties or road reserve.

    Once approved, the development is to be constructed in accordance with the Construction Management Plan to the satisfaction of the City.

20. All external clothes drying facilities and air conditioning units where located on balconies shall be screened so as not to be visible from the surrounding street(s) to the satisfaction of the City.

Background:

Insert Property Address:		Lot 459 (No.36) 36 Moolyeen Road, MOUNT PLEASANT WA 6153
Insert Zoning	MRS:	Urban
	TPS:	LPS6 - Centre (C4)
Insert Use Class:		Mixed Use
Insert Strategy Policy:		None applicable
Insert Development Scheme:		None applicable
Insert Lot Size:		1012m^2
Insert Existing Land Use:		Residential
Value of Development:		$2,500,000

Approval is sought for the construction of a four storey mixed use development comprising 10 multiple dwellings and two commercial office tenancies.

The proposed development has been presented to the City's Architecture and Urban Design Advisory Panel for comment. Generally the Panel considered the proposal to be of a high standard. Several amendments were made as a result of recommendations from the panel that would further improve the standard of the proposal. The proposal was amended in response to the Panel's recommendations to incorporate the following:

- Vehicle access way widened and amended to include traffic controls to allow two way access;
- Apartment layouts amended to improve amenity for residents;
- Entry point amended to improve pedestrian experience;
- Bin stores and bicycle facilities relocated to more functional location on site.

Site Context

The application site has an area of 1012m^2 and currently contains a single storey dwelling.

The site is bounded by single storey grouped dwellings to the north and east, the Blue Gum Park Tennis Club to the west and a mixed use commercial building to the south. The Brentwood Village Shopping Centre is approximately 50m south of the site.

Figure 1: Aerial view subject site

Statutory Context

Local Planning Scheme No. 6

Local Planning Scheme No. 6 (LPS6) was gazetted in May 2016. The subject site is zoned 'Centre C4' with an R-Code of R40.

Details

Approval is sought for the construction of a four storey mixed use development comprising 10 multiple dwellings and two office tenancies.

Ground Floor

- Two office tenancies;
- 25 car parking bays accessed via Moolyeen Road. The car parking consists of:
  - 20 residential bays
  - 3 office bays
  - 2 visitor bays
- 4 bicycle racks.
- 5 residential store rooms.

First Floor

- Four, two bedroom multiple dwellings
- 2 residential store rooms

Second Floor

- Four, two bedroom multiple dwellings

- 2 residential store rooms

Third Floor
- Two, three bedroom multiple dwellings
- 2 residential store rooms

Legislation & policy:

Legislation

Planning and Development Act 2005
Planning and Development (Local Planning Schemes) Regulations 2015

City of Melville Local Planning Scheme No.6 (LPS6)

State Government Policies

- SPP3: Urban Growth and Settlement
- SPP3.1: Residential Design Codes (R-Codes)

Local Policies

- CP-029: Street Tree Policy
- CP-056: Planning Process and Decision Making
- CP-066: Height of Buildings
- CP-067: Amenity
- CP-069: Architectural and Urban Design Advisory Panel
- CP-087: Non-Residential Development
- CP-089: Energy Efficiency in Building Design
- CP-085: Provision of Public Art in Development Proposals
- CP-090: Waste and Recyclables Collection for Multiple Dwellings, Mixed Use and Non-Residential Developments

Consultation:

Public Consultation

The details of the application were advertised in accordance with Council Policy CP–056: Planning Process and Decision Making. The application was advertised for a period of 14 days on the grounds that assessment against the design principles was required in respect of building size, building height, lot boundary setbacks and visual privacy.

In response to this consultation, two submissions were received. A summary of the concerns raised against the relevant planning considerations is provided below.

Issue	Nature of Concern Raised	Officer's Comment
Plot Ratio	• The scale and design of the building is inconsistent	The proposed plot ratio is considered to satisfy Design Principle 6.1.1 of the R-

	with the neighbourhood and does not contain the mix of uses intended for an increase in plot ratio.	Codes. Comment on this is contained within the Planning Assessment section below.
Traffic and Parking	• The provision of surplus car parking in excess of R-Codes requirements will encourage vehicle dependence and generate unwarranted traffic, pollution and noise. • The development will increase traffic along Moolyeen Road. • The development will result in on street parking issues and restrict access for adjoining properties.	A Traffic Assessment was provided by the Applicant when the application was lodged. The assessment was considered acceptable by the City's Technical Services team. The proposed development satisfies the Deemed-to-Comply provisions of the R-Codes and Council policy in relation to car parking.
Visual Privacy	• Privacy will be compromised as a result of major openings on the first floor and second floors. • Privacy will be compromised as a result of inadequate screening terraces on first, second and fourth floors.	The proposal is considered to satisfy Design Principles 6.4.1: Visual Privacy. Comment on this is contained within the Planning Assessment section below.
Overshadowing	• The height of the dwelling will result in an unacceptable level of overshadowing for the southern aspect of the property.	The proposal satisfies the Deemed-to-Comply provisions of clause 6.4.2: Solar Access.
Loss of amenity	• Removal of significant vegetation at the site will result in loss of amenity and create a 'heat island' effect.	The proposed redevelopment will result in the re-planting of areas of the site as identified on the submitted plans.
Fire Safety	• Building design may be hazardous in case of fire.	Not a material planning consideration.
Impact on Property Values	• Proposed use will impact on the current and future value of surrounding lots.	Not a material planning consideration.

Consultation with other Agencies or Consultants

City of Melville Architectural and Urban Design Advisory Panel

The details of the proposed development were considered by the City's Architectural and Urban Design Advisory Panel on 25 July 2016, at which concerns were raised regarding vehicle access and internal apartment layout. These concerns have since

been addressed and as such it is concluded by the Design Review Process that the proposed development represents a high quality design outcome.

Planning assessment:

Development Requirements

The proposal has been assessed and is considered to satisfy the relevant provisions contained within LPS6, the R-Codes and Council Policies with the exception of the matters listed below:

Development requirement	Deemed to comply	Proposed
Building Size	1.0	1.05
Building Height	Eaves: 11.0m Flat Roof: 12.0m	11.8m 12.7m
Lot Boundary Setbacks	Side (North) First Floor Bulk – Units 1 & 2: 6.3m Side (North) Second Floor Bulk – Units 5 & 6: 8.3m Side (South) First Floor – Units 3: 3.6m Side (South) First Floor – Units 4: 4.0m Side (South) Second Floor – Units 7: 6.9m Side (South) Second Floor – Units 8: 5.8m Side (South) Third Floor Bulk – Units 9 & 10: 7.5m	3.0m 3.0m 3.0m 3.0m 3.0m 3.0m 3.0m
Visual Privacy	Bedrooms - Units 1, 2, 5 & 6 (North): 4.5m Terraces – Units 2 & 6 (North): 7.5m Terraces – Units 9 & 10 (North): 7.5m	3.0m 4.5m 4.0m
Parking	2.5 Visitor bays	2 Visitor bays

Table 1: Variations sought to permitted development requirements

Building Size

The application proposes a minor plot ratio variation of 1.05 in lieu of 1 which results in an additional 50.6m^2.floorspace. The impact that this increase to the permitted development requirements actually has is considered to be negligible, will result in little or no streetscape impact, and will not compromise residential amenity levels for occupiers of adjoining properties.

Building Height

There is a modest increase to the maximum building height for which assessment against the Design Principles of Clause 6.1.2 of the R-Codes is sought. In that context, the design principles are considered to have been addressed as:

- The shadow that results from the additional building height is cast over the adjoining non residential building which contains no north facing openings.
- Views of significance are not compromised .
- The over height portion to the fourth floor is appropriately setback from the street and lot boundaries. (See Figure 2) This mitigates any adverse impacts that could otherwise result..
- The area that exceeds the 12m height limit is setback 5.9m from the lot boundary of the adjacent residential properties to the north. The actual impact is further mitigated by virtue of a battle-axe access leg which serves the rear grouped dwelling. In addition, the grouped dwellings located to the north are designed such that neither has an outlook towards the application site.
- The impact on the residential properties to the east is negligible as the fourth storey setback is 12.6m from the lot boundary.

Lot Boundary Setbacks

As outlined in Table 1, a number of the proposed building setbacks require assessment against the design principles of Clause 6.1.4: *Lot boundary setbacks,* of the R Codes. The proposed development is considered to meet the Design Principles as :

- The design ensures adequate daylight, direct sun and ventilation for the apartments and associated terraces. Openings along all elevations allow for light to penetrate throughout most areas of all of the apartments.
- The proposal does not seek discretion to the Deemed-to-Comply provisions of clause 6.4.2: *Solar Access for Adjoining Sites* of the R-Codes as the lot directly to the south contains a two storey commercial development with no openings along its northern elevation,
- The building bulk impact on the grouped dwellings to the north is negligible due to the context of the site. The battle-axe access leg which services the adjoining rear lot allows for sufficient clearance between the proposed development and the grouped dwellings to safeguard amenity for the occupants of those dwellings. The R-Codes allows consideration for a reduced setback where a development is adjacent to a battle-axe lot access leg, pedestrian access way or right-of-way. Furthermore, the proposal contains a varied use of colours and materials to break up the building bulk of each elevation.

- The impact on the adjoining northern lots is further mitigated through the built form of the existing grouped dwellings. Neither grouped dwelling has an outlook towards the subject site.
- The built form results in minimal impacts between the commercial element of the development and the adjoining grouped dwellings. In addition to the access leg on the northern lot, the commercial tenancy has minimum setback to the lot boundary of 4m

Visual Privacy

The development proposes several visual privacy setback variations for which assessment against the Design Principles of Clause 6.4.2: *Visual privacy* of the R-Codes is sought.

- The privacy cone of vision from the first and second floor bedroom openings fall within the vehicle access way of the adjoining grouped dwelling. As such, it is considered that visual privacy of the adjoining dwellings is not compromised as the openings do not directly overlook any major openings or outdoor living areas..
- A 1m high balustrade is proposed to be provided to the northern boundary of the outdoor terracing areas of Units 2,6,9,and 10. This balustrade does not safeguard the amenity for occupiers of the adjoining dwellings located to the north. As such a condition of approval to require a 1.6m high privacy screen, to be provided in accordance with R Code requirements, is proposed.

Parking

The proposed development has a shortfall for visitor parking bays (2.5 required, 2 provided). The proposed office parking can be utilised to offset the 0.5 residential visitor bay shortfall in a reciprocal arrangement. During evenings and weekends when the offices are not operating, which coincides with peak residential visitor times, the dedicated office bays can be utilised for residential visitors. It is noted that further visitor car parking opportunities are provided within the Blue Gum Reserve which is located directly opposite the site.

Conclusion:

For the reasons given above, it is concluded that the proposed development in its current form warrants support by the City. It is therefore the recommendation of the City that the Metro Central JDAP grant planning approval to the proposed development.

EXISTING SITE LEVELS ELX.XX

EXISTING SITE LEVELS X.XX

UNIT SCHEDULE

Name	Type	Net Area	Gross
-	OFFICE 01	64 m²	75m²
-	OFFICE 02	69 m²	75m²
UNIT 01	2x2	78 m²	84m²
UNIT 02	2x2	78 m²	84m²
UNIT 03	2x2	77 m²	84m²
UNIT 04	2x2	77 m²	84m²
UNIT 05	2x2	78 m²	84m²
UNIT 06	2x2	78 m²	84m²
UNIT 07	2x2	77 m²	84m²
UNIT 08	2x2	77 m²	84m²
UNIT 09	3x2	112 m²	120m²
UNIT 10	3x2	112 m²	120m²
Grand total		977 m²	1062m²

SITE AREA	1012m²	
PLOT RATIO	1.05	= 1062m²
GROUND FLOOR	150m²	
LEVEL 01	336m²	
LEVEL 02	336m²	
LEVEL 03	240m²	
TOTAL	1062m²	
1012/1062 = PLOT RATIO 1.05		
REQUIRED OPEN SPACE	45% =455m²	
PROVIDED OPEN SPACE	69% =730m²	

OUTDOOR LIVING AREAS

REQUIRED 10x 10m² 100m²

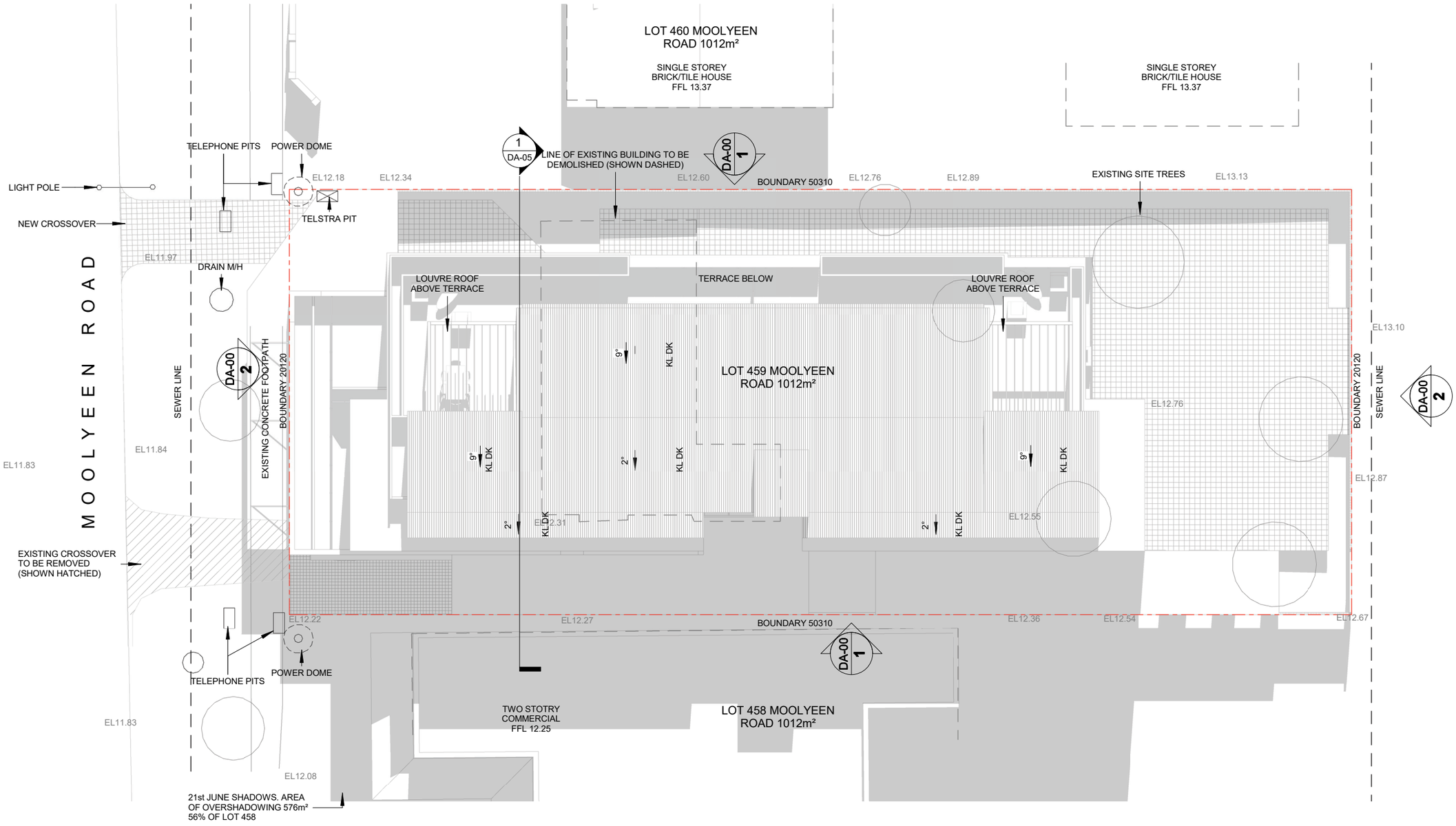
PROVIDED = Level 01
(2x22) 44m²
45m²
37m²
TOTAL 126m²

Level 02
36m²
31m²
(2x23) 46m²
TOTAL 113m²

Level 03
64m²
53m²
TOTAL 117m²

TOTAL 356m²

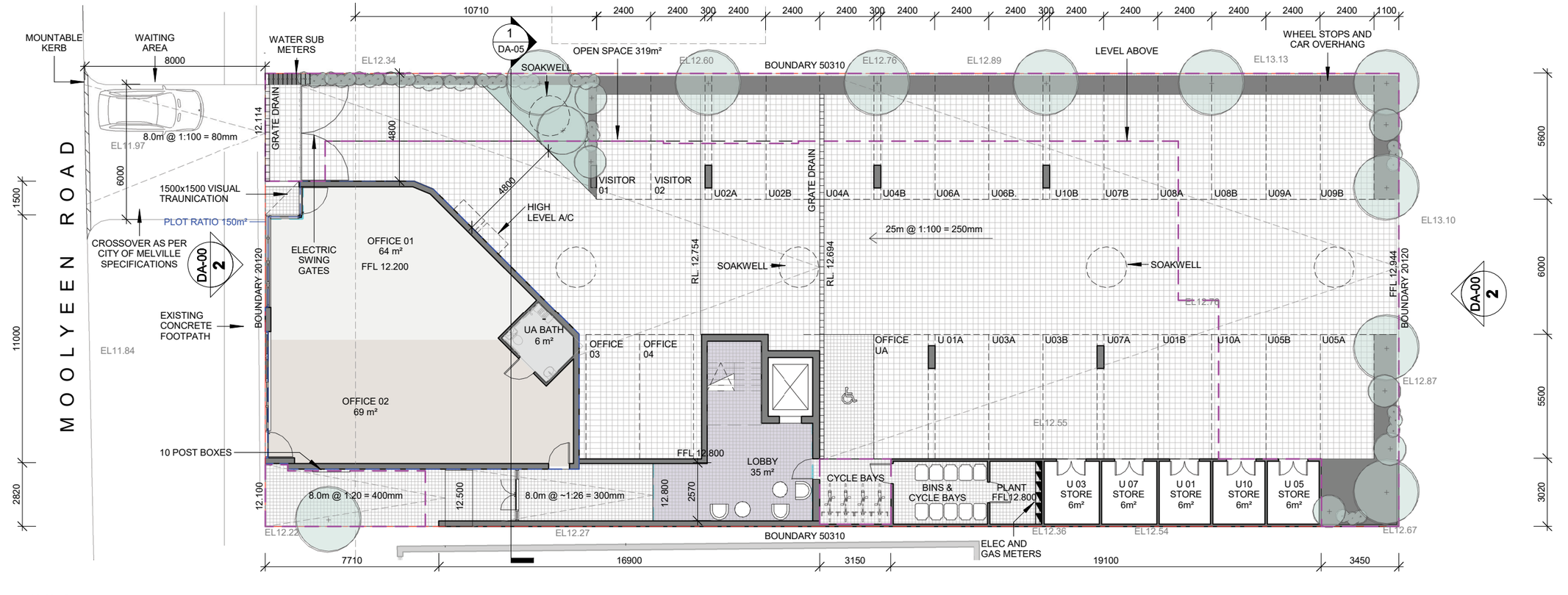
UNIT MIX	
2x2	8
3x2	2
TOTAL	**10**



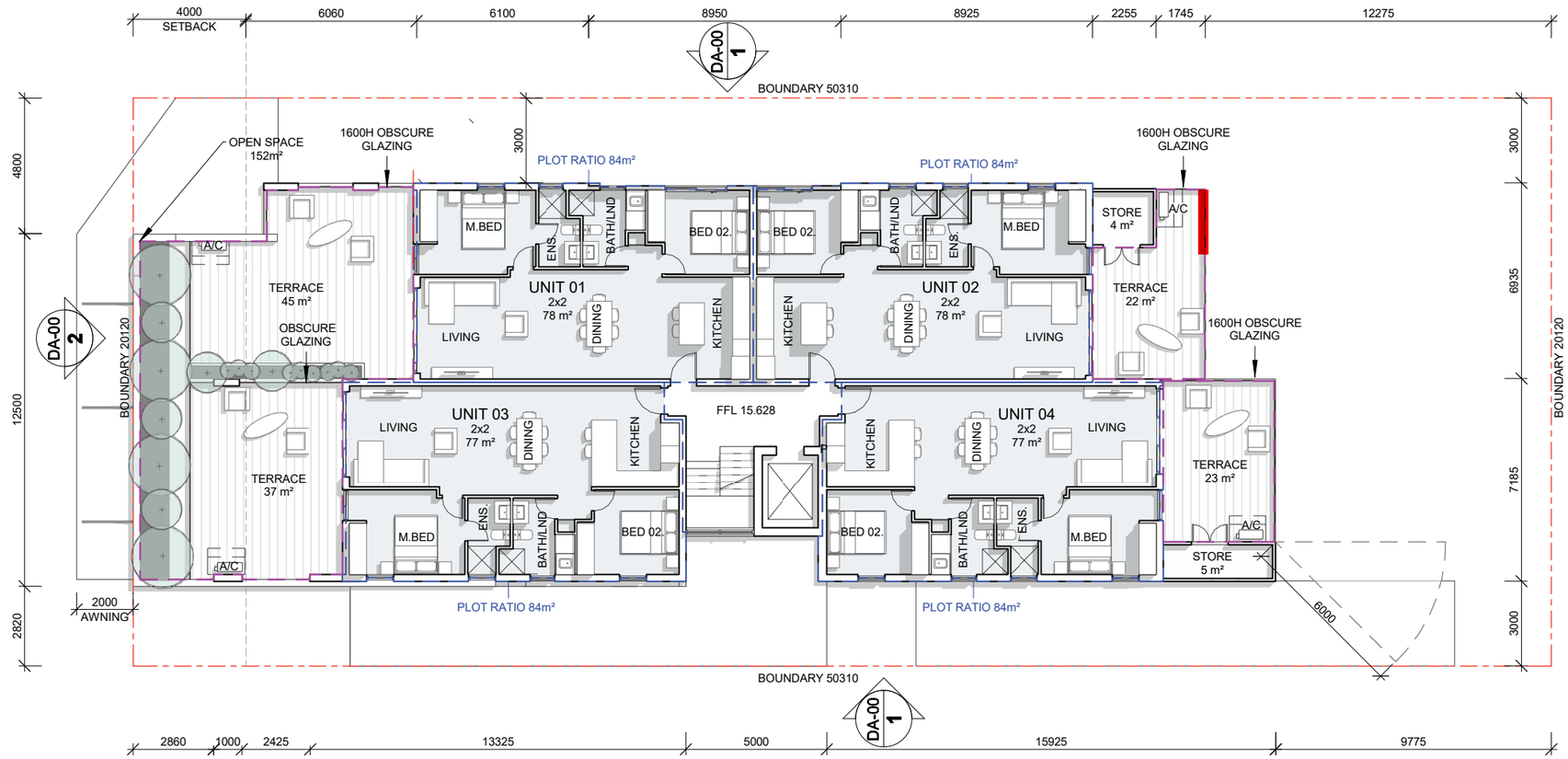
MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 **w:** maine.com.au
e: info@maine.com.au **p:** (08) 9467 9500 **abn:** 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	SITE PLAN	1 : 200 @ A3	01539	19.08.16	DA-00

2 GROUND FLOOR
1 : 200



1 LEVEL 01
1 : 200



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e: info@maine.com.au p: (08) 9467 9500 abn: 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	FLOOR PLANS	1 : 200 @ A3	01539	19.08.16	DA-01

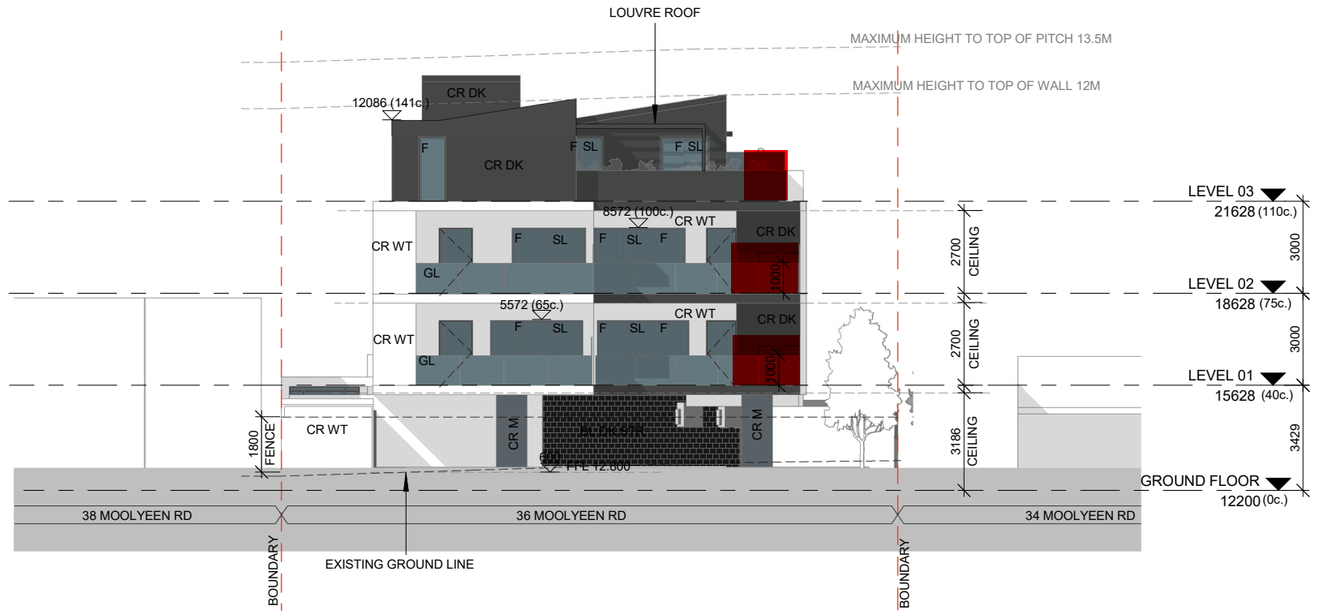
MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 w: maine.com.au
e: info@maine.com.au p: (08) 9467 9500 abn: 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	FLOOR PLANS	1 : 200 @ A3	01539	19.08.16	DA-02

ELEVATION LEGEND

CR W	-CEMENT RENDER, WHITE
CR DK	-CEMENT RENDER, DARK GREY
CR M	-CEMENT RENDER, MEDIUM GREY
SC 1	-SCYON MATRIX, GOLD COLOUR 1
SC 2	-SCYON MATRIX, GOLD COLOUR 2
SC 3	-SCYON MATRIX, GOLD COLOUR 3
BL DK	-BLOCKWORK, CHARCOAL, STRETCHER BOND
BL DK ST	-BLOCKWORK, CHARCOAL, STACK BOND
AW	-AWNING WINDOW
F	-FIXED WINDOW
SL	-SLIDING WINDOW/DOOR
GL F	-FROSTED GLASS
GL	-CLEAR GLASS
GL O	-OBSCURE GLAZING

1 NORTH ELEVATION
1 : 200



2 EAST ELEVATION
1 : 200

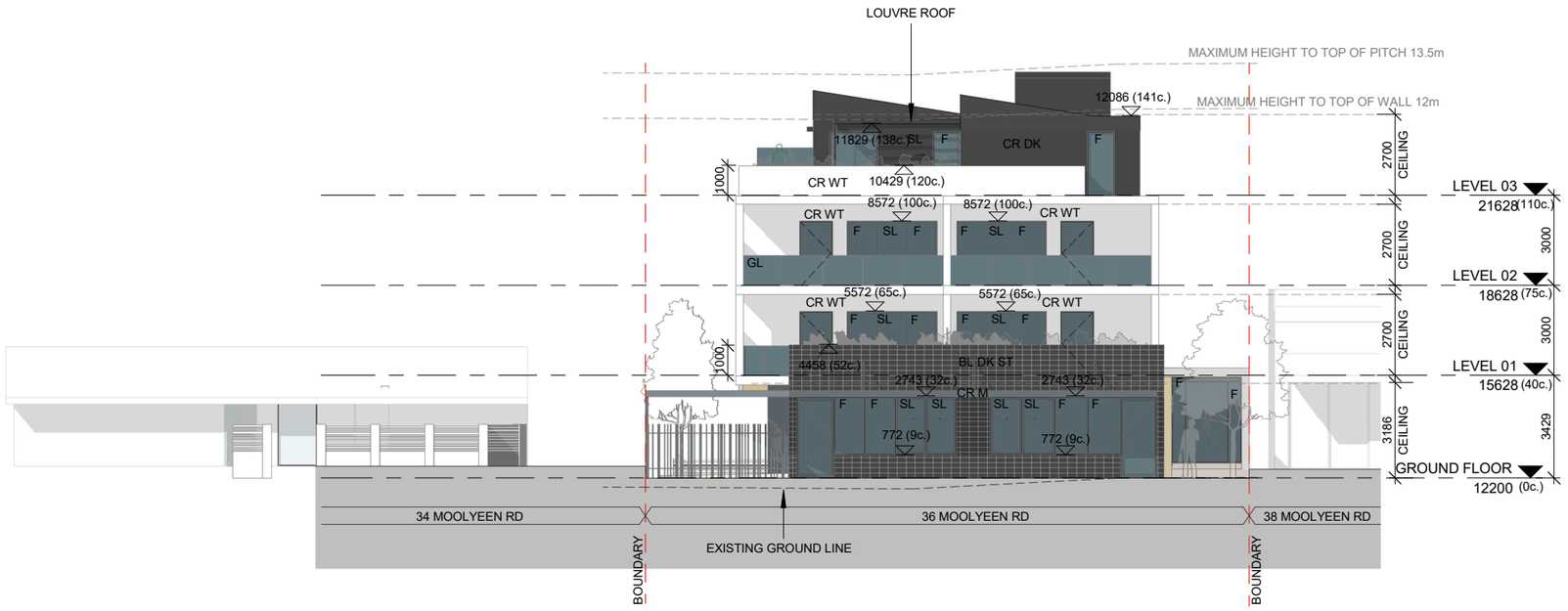
MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 w: maine.com.au
e: info@maine.com.au p: (08) 9467 9500 abn: 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	ELEVATIONS	1 : 200 @ A3	01539	19.08.16	DA-03

ELEVATION LEGEND

CR W	-CEMENT RENDER, WHITE
CR DK	-CEMENT RENDER, DARK GREY
CR M	-CEMENT RENDER, MEDIUM GREY
SC 1	-SCYON MATRIX, GOLD COLOUR 1
SC 2	-SCYON MATRIX, GOLD COLOUR 2
SC 3	-SCYON MATRIX, GOLD COLOUR 3
BL DK	-BLOCKWORK, CHARCOAL, STRETCHER BOND
BL DK ST	-BLOCKWORK, CHARCOAL, STACK BOND
AW	-AWNING WINDOW
F	-FIXED WINDOW
SL	-SLIDING WINDOW/DOOR
GL F	-FROSTED GLASS
GL	-CLEAR GLASS
GL O	-OBSCURE GLAZING

1 SOUTH ELEVATION
1 : 200



2 WEST ELEVATION
1 : 200

MAINE ARCHITECTURE
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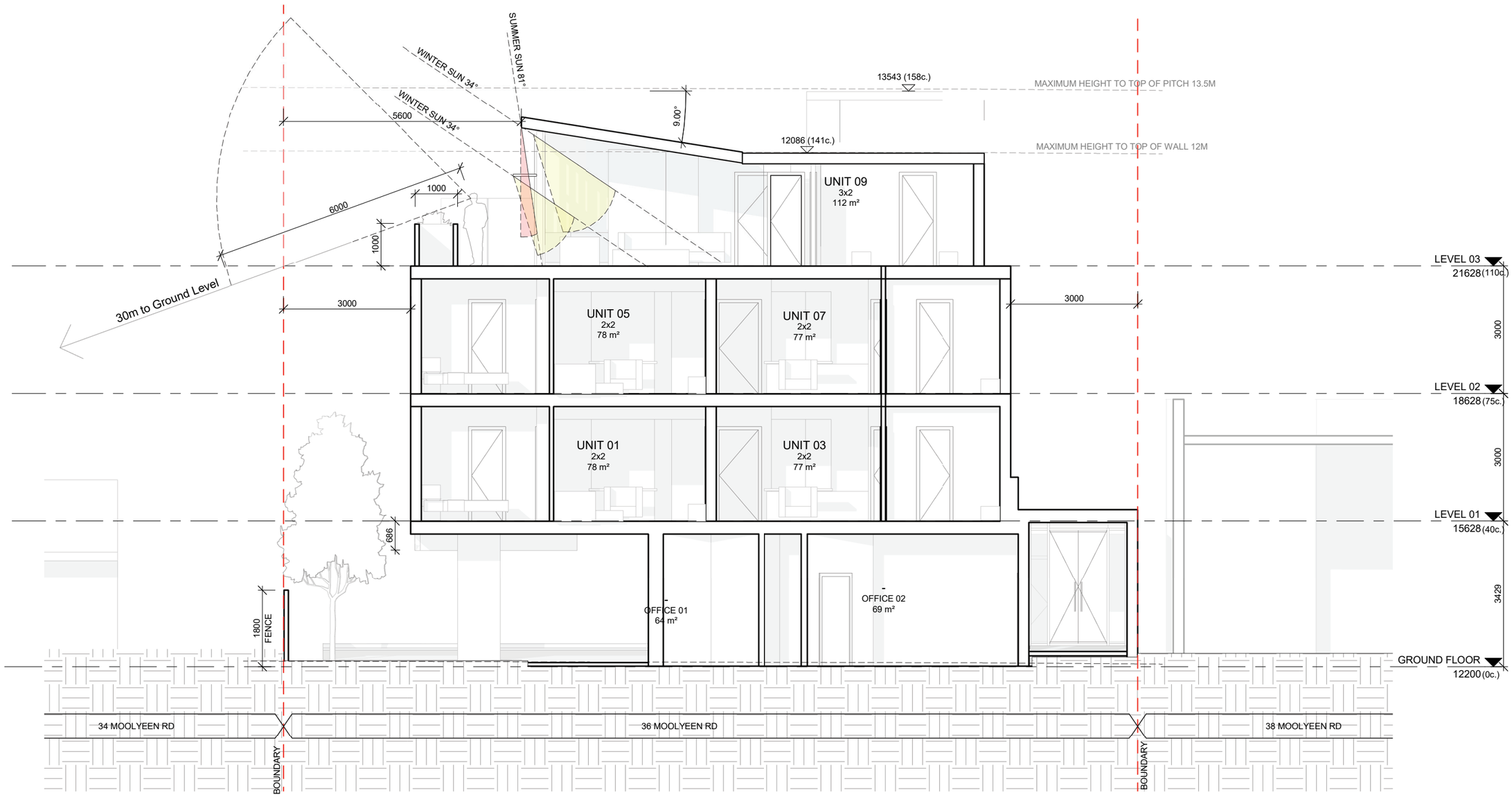
e: info@maine.com.au **p:** (08) 9467 9500 **abn:** 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	ELEVATIONS	1 : 200 @ A3	01539	19.08.16	DA-04



1 SECTION AA
1 : 100

MAINE ARCHITECTURE
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e: info@maine.com.au **p:** (08) 9467 9500 **abn:** 29 167 319 182

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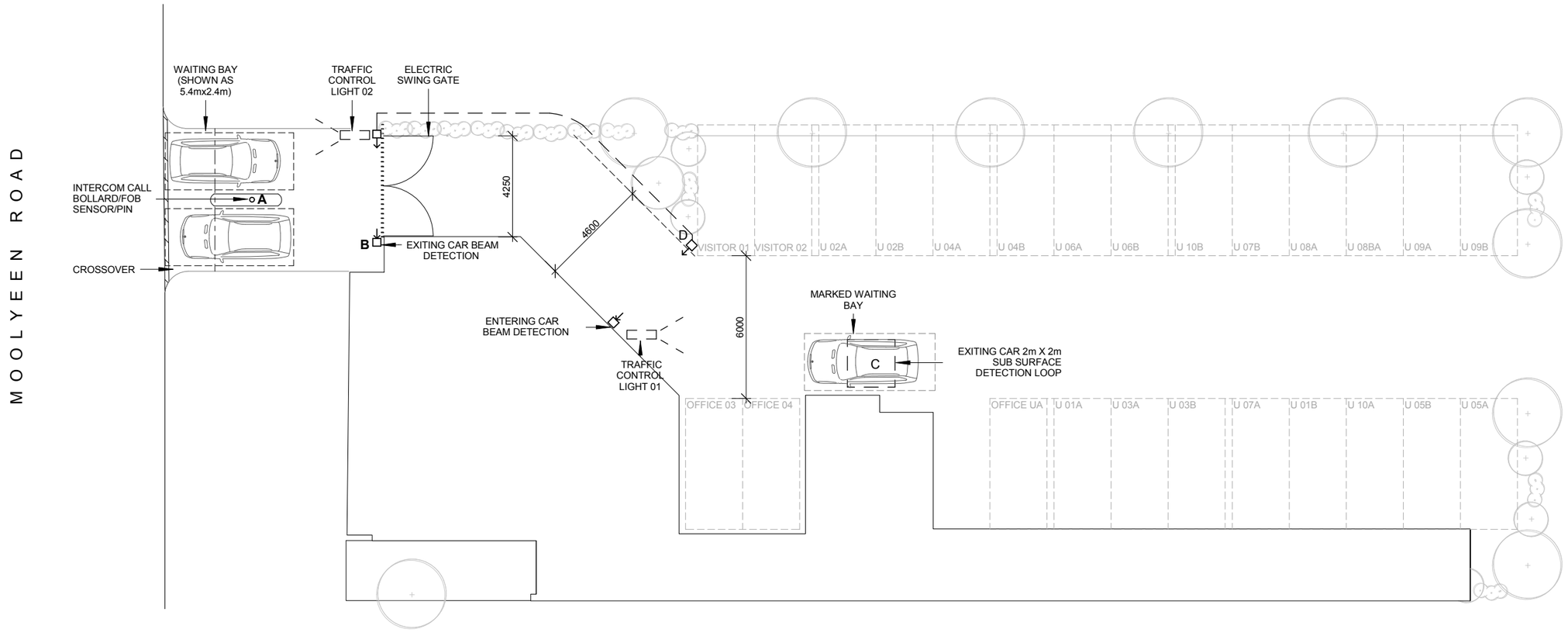


INFRARED BEAM MODULE

BEAM REFLECTOR

2m X 2m VEHICLE DETECTION LOOP

TRAFFIC CONTROL LIGHT

BOLLARD WITH INTERCOM/FOB/PIN ACTIVATED

CAR SIGNALLING CONFIGURATION

1. **DEFAULT**
- TRAFFIC CONTROL LIGHT IS GREEN TO STREET

2. **C** DETECTS CAR
- GATES OPEN LIGHT **1** GREEN, LIGHT **2** RED
- SENSOR **B** LIGHTS CHANGE BACK

3. CAR ACTIVATES GATE VIA BOLLARD/FOB **A**
- GATES OPEN, LIGHTS STAY IN DEFAULT
- SENSOR **D** IS ACTIVATED, LIGHTS CHANGE FOR EXITING CAR IF DETECTED

MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 **w:** maine.com.au **e:** info@maine.com.au **p:** (08) 9467 9500 **abn:** 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 Moolyeen Rd, Mt Pleasant	TRAFFIC CONTROL	1 : 200 @ A3	01539	20.09.16	SK_01

Legend

- Pedestrian Feature Paving
- Trafficable Paving
- Mulch
- Turf
- Tree - Refer to List
- Shrub - Refer to List
- Hedge - Refer to List

Trees - 400mm Pot
Bolivian Rosewood - *Tipuana Tipu* - Water Wise
Jacaranda - *Jacaranda Mimosifolia* - Water Wise

Shrub - 200mm Pot
Melaleuca Green Globe - *Melaleuca Armillaris* - Water Wise
Acacia Honey Bun - *Acacia Howittii* - Water Wise
Common Woolly Bush - *Adenanthos Cygnorum* - Water Wise

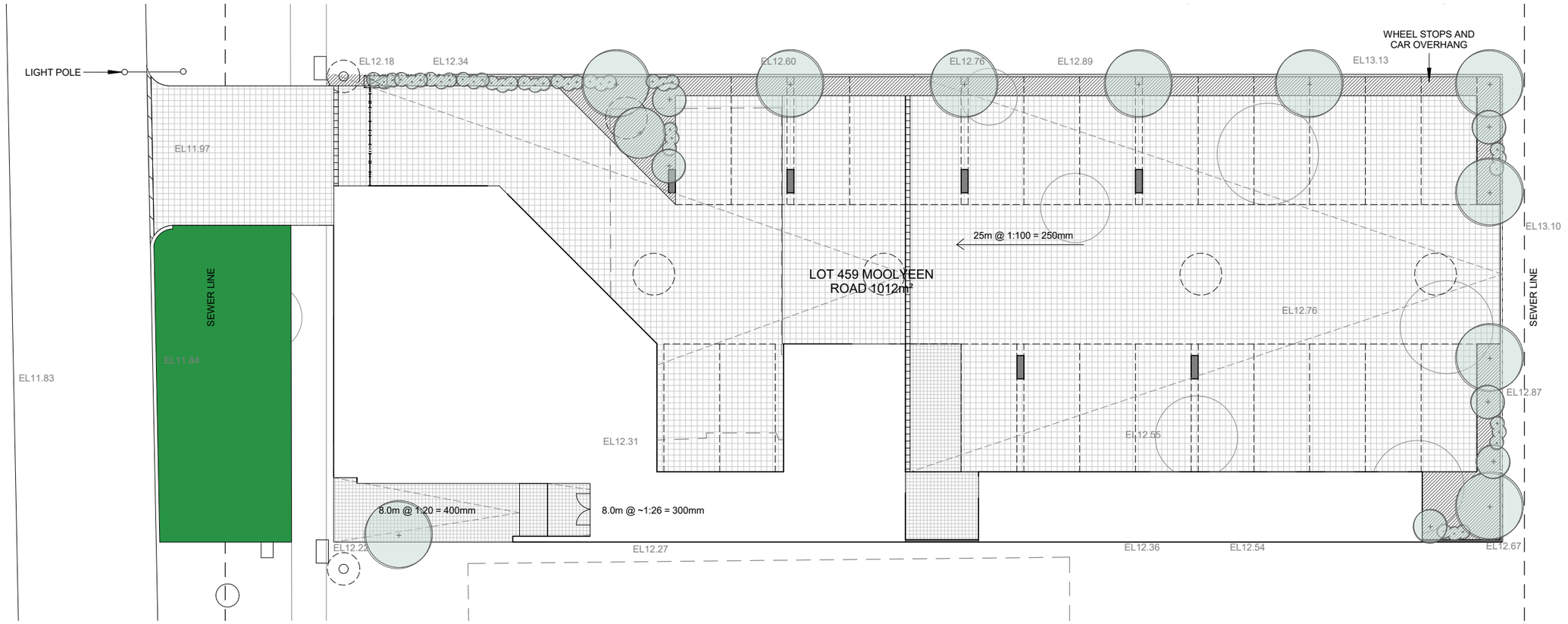
Hedge - 200mm Pot
'Aussie Boomer' Lillypilly - *Syzygium Australe*
Screen Master - Pittosporum Tenuifolium -

Mulch - Ground Covers - 100mm Pot
Limelight - *Acacia Cognata* - Water Wise
Snake Wattle - *Acacia Aculeatissima* - Water Wise

EXISTING SITE LEVELS ELX.XX

EXISTING SITE LEVELS X.XX

SOAKWELL CALCULATIONS	
ROOF AND UNCOVERED HARD SURFACE AREA	720m²
AT 65m² PER 1m³	11m³
SOAKWELLS REQUIRED	4x1800X1500



1 LANDSCAPE PLAN
1 : 200

MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 **w:** maine.com.au
e: info@maine.com.au **p:** (08) 9467 9500 **abn:** 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	LANDSCAPE PLAN	1 : 200 @ A3	01539	19.08.16	DA-06

1 North West

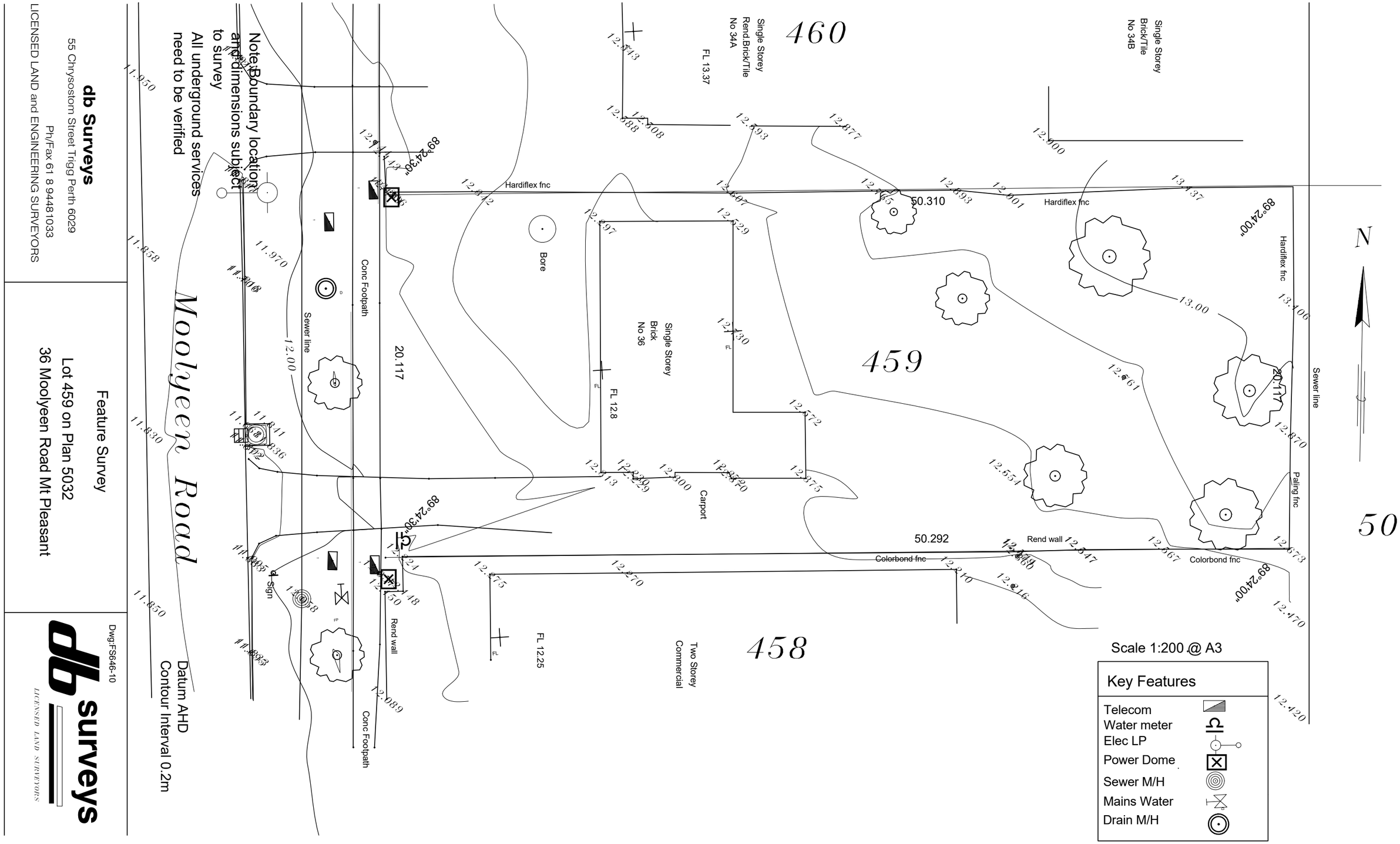
MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 **w:** maine.com.au
e: info@maine.com.au **p:** (08) 9467 9500 **abn:** 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	PERSPECTIVE	@ A3	01539	19.08.16	DA-07

1 South West

MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 **w:** maine.com.au
e: info@maine.com.au **p:** (08) 9467 9500 **abn:** 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	PERSPECTIVE	1 : 200 @ A3	01539	19.08.16	DA-08



db Surveys
55 Chrysostom Street Trigg Perth 6029
Ph/Fax 61 8 94481033
LICENSED LAND and ENGINEERING SURVEYORS

Feature Survey
Lot 459 on Plan 5032
36 Moolyeen Road Mt Pleasant

Dwg-FS646-10

db surveys
LICENSED LAND SURVEYORS

50

MAINE ARCHITECTURE
a: L1, 20 clive street west perth wa 6005 w: maine.com.au
e: info@maine.com.au p: (08) 9467 9500 abn: 29 167 319 182

Client	Project	Drawing Name	Scale	Project Number	Date	Drawing Number
MEGARA	36 MOOLYEEN RD, MT PLEASANT	SITE SURVEY	1 : 200 @ A3	01539	19.08.16	DA-09

Development Application

36 Moolyeen Road, Mount Pleasant

Prepared for Development Assessment Panel

July 2016

Megara
ABN 55 138 294 185

T (08) 9230 3600
F (08) 9227 0611

Level 1, 662 Newcastle Street
Leederville, Western Australia 6007

www.megara.net.au

Contents

1 Introduction

Megara presents for approval an application for Mixed Use Development including Office and 10 Multiple Dwellings (8 two bedroom and 2 three bedroom) at No. 36 Moolyeen Road, Mount Pleasant (the 'subject land').

The subject land is located within Mount Pleasant in the City of Melville, and is part of the Brentwood Local Centre and located in close proximity to numerous density triggers (parks, shops, community uses and transport networks).

The proposed development has been architecturally designed having regard to the specific provisions of the City of Melville District Planning Scheme No. 6 (DPS6), associated Planning Policies and the Residential Design Codes of Western Australia.

This report will address the major planning and design issues pertinent to the subject land. Specifically the report provides information on the following:

- Location and Site Description;
- Town Planning Considerations;
- Consultation with Council Planners;
- The key elements of the proposed development; and
- Justification for the development, including traffic report and commentary on amenity assessment.

We consider the information contained therein adequately demonstrates the appropriateness of the proposed development and seek Development Assessment Panel approval.

2 Legal Description/Land Details

2.1 Legal Description

The subject land is legally described as Lot 459 on Plan 5032 Vol 1254 Folio 91. The street address is 36 Moolyeen Road, Mount Pleasant.

Please refer to **Appendix A – Certificate of Title and Survey Plan**

2.2 Site Description

The subject land is 1,012ha in area, with a 20.15 metre frontage to Moolyeen Road in the west. The site current includes a single house which will be demolished to facilitate the development proposed. The site is generally flat with a fall from east to west of approximately 1m (12.00m AHD in the verge to 13.106m AHD to the rear)

Please refer to **Appendix B - Site Feature Survey**.

2.3 Location

The subject property is situated on the eastern side of Moolyeen Road, immediately north of the Brentwood Village Shopping Centre, opposite the Blue Gum Tennis Club and Blue Gum Child Care Centre and Brentwood Primary School.

The subject land is a transitional lot between commercial uses in the local/neighbourhood centre in the south and the traditional residential areas in the north and east. It also has excellent access to public transport and the regional road network, Leach Highway being 700m south of the subject land linking up with the Kwinana freeway in the east and Fremantle in the west. Bull Creek Train station is approximately 1.2km walk away and there are numerous buses that link up with Booragoon Shopping Centre, Leach Highway, Bull Creek Train Station and the freeway.

See below for **Figure 1 - Aerial Photograph**, **Figure 2 - Location Plan**, and photographs (**Plates 1-3**) of the subject land and surrounds

Figure 1 - Aerial Photo

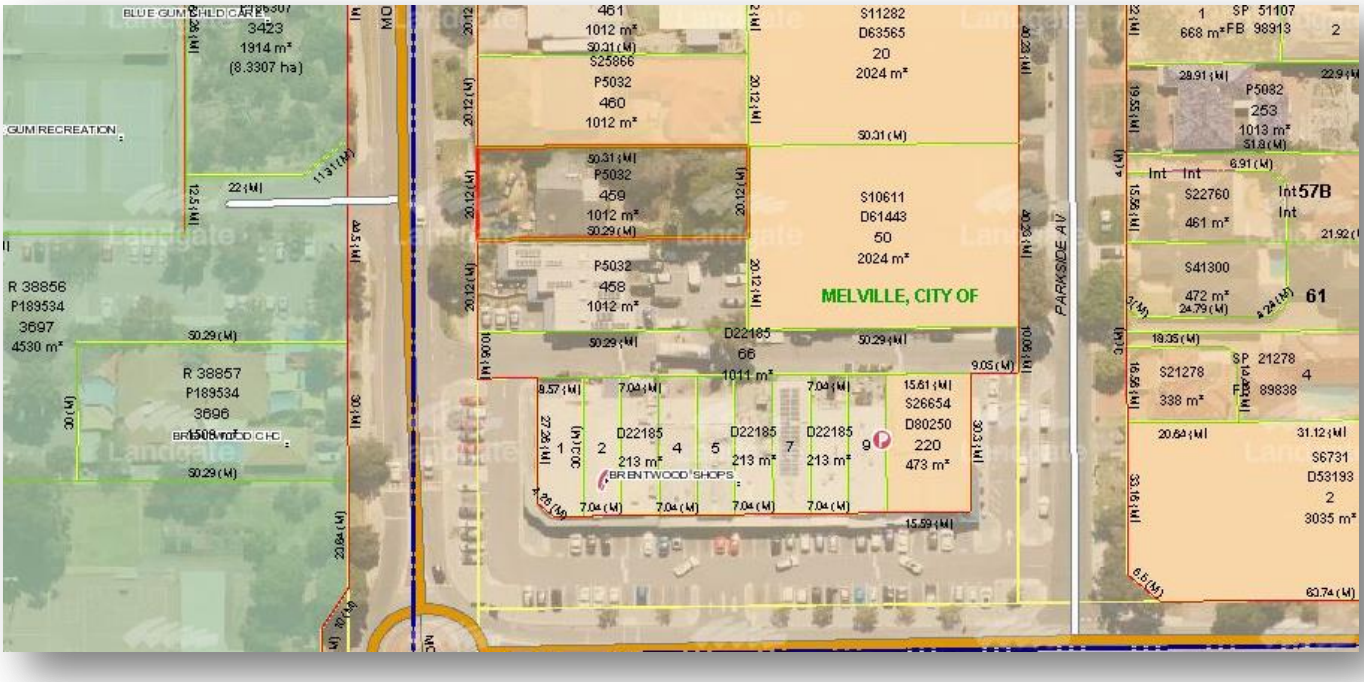


Figure 2 Location Plan

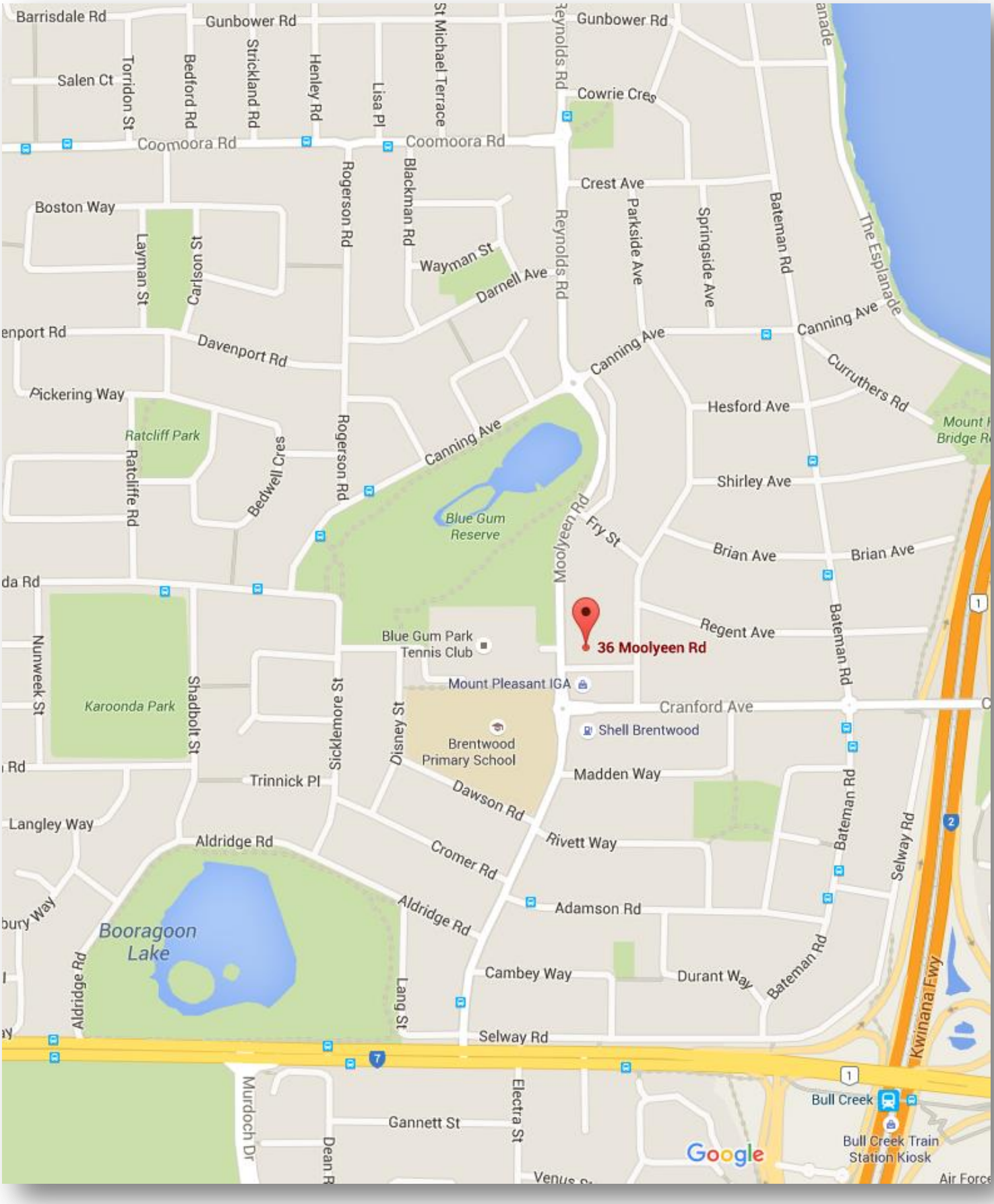


Plate 1 - View looking directly east at the subject site

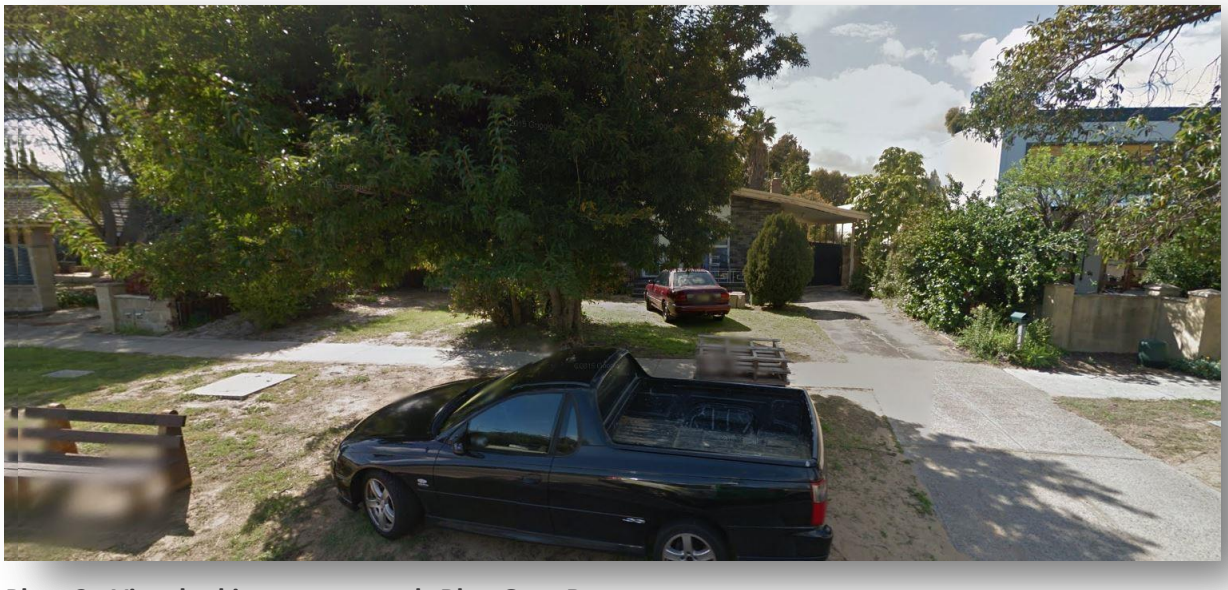


Plate 2 - View looking east towards Blue Gum Reserve

Plate 3 - View looking South towards Brentwood Shopping Centre

3 The Project

The overall project will contribute significantly to the development of the local centre, on the back of the principles underpinned in the newly gazetted District Planning Scheme No. 6. Proposed is a mixed use development that includes two commercial tenancies at 75m² each as well as a diverse range of 2 and 3 bedroom multiple dwellings. The 2 bedroom 2 bathroom dwellings are 84m² each (plot ratio) and the 3 bedroom dwellings have been designed as penthouses with 119-121m² of plot ratio area and large 49-55m² terraces. Dwellings have been design to maximise cross ventilation and access to winter sun with north facing outdoor living areas and living rooms where possible.

The development has been designed to ensure main street design principles are met with fully interactive/glazed nil setback ground level commercial tenancies, plus upper level balconies and terraces overlooking the street. A sense of arrival for residents is achieved through a separate pedestrian entry to the centrally located lift area and plant and equipment rooms as well as bicycle and bin storage are located at the rear of the site.

The building is to be constructed with masonry, with a mixture of finishes as shown in the elevations including; cement render (white, dark grey and medium grey), Scyon cladding (gold), and stretcher and stack bond.

A full copy of the development plans are contained at **Appendix C.**

4 Town Planning Framework

Outlined below is a summary of the relevant statutory documents that guide the use and development of the site and/or support the development of the land for commercial and multiple dwelling urban purposes.

4.1 City of Melville District Planning Scheme No. 6

The land is zoned "Centre C4" with a residential density of R40 and where the following provisions apply:

- Front setback based on "Main Street" principles;
- Side setbacks to adjoining "Centre" zone are nil;
- Building height is 12m to external wall, 13.5m maximum;
- Total plot ratio is 1.0 = 1,012m², advice form Council indicated that the ratio between commercial and residential is not capped but there must be a an element of both to use the full plot ratio; and
- Open space minimum is 10%.

Unless otherwise provided for in the scheme, the development of land for residential purposes is also dealt with by the Residential Planning Code, and shall conform to the provisions of those codes, with specific reference to the Design Elements for Multiple Dwellings in Part 6.

4.2 Western Australian Planning Commission Development Control Policy Manual

The WAPC's Development Control Policy Manual is an operational policy that guides statutory land use planning across the State. A number of the policies relate specifically to subdivision and development of land and are (generally) complementary to the R Codes. The dwellings have been designed in accordance with the principles and objectives of these policies.

4.3 Residential Design Codes of WA

The R Codes detail development standards for multiple dwelling developments under Part 6 of the codes, this has been assessed below.

4.4 Local Planning Policies

A review of the relevant and endorsed and adopted City of Melville Local Planning Policies, has been undertaken. This includes the Residential Development Policy CP – 078, Car Parking and Access – CP-079 and Amenity Policy No. CP - 067. The City's staff confirmed that a specific Amenity Impact Statement is not required for this application, justification against design principles is sufficient as well as the general context discussed in earlier parts so this report. The relevant considerations have been incorporated into the proposed design and reporting.

5 Development Assessment

5.1 Land Use

An 'Office' is a 'Permitted' use and the residential component complies with the "Centre C4" zone objective to *focus for medium density housing.*

5.2 Built Form

As previously noted the building has been designed to meet 'main street' design principles with a nil setback to the front commercial tenancies, a separate residential entry to the lift core as well as terraces that overlook the street from the upper floors.

The development is built to a plot ratio of 1.05:1, a minor variation that has no impact on the amenity of adjoining properties, with a significant 3m side and 13m rear setback to adjoining residential properties from upper levels. To this end it will have no impact on views, and ensures continued enjoyment of outdoor living spaces and access to daylight for adjoining properties. We have also reduced the perception of height with a stepped back upper level that has vegetated planter boxes along the balustrade to screen for privacy but also soften the elevation.

5.3 Setbacks

All building has been setback in accordance with 'main street' design principles, or R Code requirements as per the "Centre" zone in DPS6.

5.4 Building Height

All buildings are generally within the 12m external wall height, but well within the 13.5m maximum allowed under DPS 6.

5.5 Visual Privacy

The three bedroom dwellings on the top floor have been designed with landscaped planter boxes to the terraces to provide screening to the residential properties in the north. This is considered more than adequate when considered in context of the design principles of the R Codes. Additionally it is noted that the building design means that the terrace areas with potential for overlooking are not active with active terrace outdoor living areas located on the east and west elevations only and these areas are on the fourth level only with limited, if any, overlooking except if actually standing over the edge (which is not possible with the planter boxes).

5.6 Car Parking & Access

5.6.1 Car Parking

The following calculations are provided for car parking across the site

Land Use	Car Bays Required*	Provided
Office 1 per 50m² @ 133m²	2.66	3
Permanent Residential (8 dwellings less than 110m² x 1.25 = 10 plus 2 dwelling 110m² or greater = 3)	13	20
Residential Visitors	2.5	2
Total	18.5	25
Resultant Surplus		**6**

Car parking is provided well in excess of minimum requirements, to meet market expectation and to also address local concerns experienced in the City of Melville where impact on traffic and street parking is a known concern across the general community. It is proposed to ensure each 2 and 3 bedroom dwelling has 2 car bays each, and the visitor bays and one office bay will be kept in common property to be used in a reciprocal arrangement, where the office tenants may use them during the day 'working hours' and visitors to the residential component may use the bays at night and weekends, outside normal office operating hours. Please also note that it is likely that each apartment may have spare car bays for visitors as well. One of the visitor bays could be used to provide 2 scooter/motor cycle bays as required by the policy.

5.6.2 Access

The proposed access arrangements are shown to consist of a single crossover located along the northern boundary of the site to the east side of Moolyeen Road, approximately 90m north of the intersection with Cranford Avenue. The site is adjacent to existing commercial tenancies to the south, including the Brentwood Village Shopping Centre.

5.6.3 Transport Impact Assessment

Please refer to the attached traffic report summarised as follows:

"A review of the expected traffic generation associated with the proposal indicates that the local road network has sufficient practical capacity to accommodate the increases in vehicular site-generated traffic and that the development generated traffic will have a negligible impact on existing traffic operations during the weekday a.m. and p.m. roadway peak periods.

The proposed access arrangements are shown to consist of a crossover to the east side of Moolyeen Road along the northern boundary of the site to serve 25 to be provided in a right-angle arrangement inside the property line to the east of the crossover. Site observations indicate that good visibility is available in to the north and south of the proposed crossover along Moolyeen Road. All vehicles are expected to enter and exit the site in forward gear to Moolyeen Road.

The proposed site crossover has been designed to allow for simultaneous lateral entry and exit by vehicles entering and exiting the car stacking bays. Vehicles utilising these bays will enter and exit the site in forward gear utilising the manoeuvring area located to the east of the crossover with advance warning lights installed in advance of the car parking areas advising exiting vehicles of vehicles entering from Moolyeen Road. The design of the car parking area is consistent with Austroads guidelines and Council requirements as well as traffic engineering best practice.

In conclusion, it should be noted that based both on a review of the modelled total traffic assessment and observed traffic operations of the boundary road system, the anticipated site-generated traffic associated with the proposed development can be accommodated within the existing practical capacity and functional road classification of the local road system."

5.7 Landscaping & Open Space

DPS6 requires 10% of the site to be open space landscaped. The following calculations are provided to demonstrate compliance with Scheme requirements for minimum 10% of site to be open space/landscaped.

Site Area	Landscaping/ Open Space Required	Landscaping/ Open Space Provided	Landscaping/ Open Space Percentage
1,012m²	10% = 101.2m²	Soft =62m² Hard = 297m² Total = 359m²	35% (6.1% soft)

5.8 Solar Access

The development will not exceed 35% shadowing of adjoining residential properties, solar collectors or balconies and verandahs, noting the overshadowing is over the “Centre C4” zone only.

5.9 Stormwater Management

All stormwater will be drained from roofs and driveways to garden beds or soakwells to be designed and placed on site as per the submitted Landscaping plan and Stormwater Management Plan to be prepared as part of the Building Licence.

5.10 Waste Management

Rubbish collection will be undertaken on the kerbside by Council vehicles for the residential element with a private commercial waste management contractor appointed for the commercial elements of the project. A separate Waste Management plan will be prepared in consultation with the City of Melville during the detailed design stages of the project.

5.11 Public Art

A condition for a contribution or inclusion of public art is expected to be included in our approval, we have previous worked with your Arts team and FORM on this and will continue to do this for this proposal.

6 Conclusion

It is considered the proposal should be favourably determined, on individual merit, recognising the proposal fully meets the principles of the new “Centre C4” zone.

In summary, the proposal is justified and considered appropriate for the following reasons:

- A modern design that achieves local and state government infill targets as well as ‘Main Street’ design principles.
- The proposal provides for safe and efficient movement of pedestrians and vehicles with one crossover to the street and concealed car parking.
- The proposal reduces any potential amenity impacts on adjacent residential dwellings.
- The proposal is entirely consistent with District Planning Scheme No. 6 and the Residential Design Codes.

We therefore respectfully request the Application for Development Approval be considered on its merits and favourably determined by the Development Assessment Panel.

Proposed Mixed-Use Development
36 Moolyeen Road, Mount Pleasant

TRANSPORT IMPACT AND PARKING ASSESSMENT – V1

FINAL REPORT

Prepared for: Megara Developments

Prepared by: Move Consultants

Move consultants

Moving People Moving Commerce

P.O. BOX 525

APPLECROSS WA

AUSTRALIA 6953

P: +61 434 189 788

Abn 14 102 899 517

e-mail: heidi.herget@moveconsultants.com.au

www.moveconsultants.com.au

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1. INTRODUCTION

1.1 OVERVIEW

This Transport Impact and Parking Assessment has been prepared by Move Consultants on behalf of Megara Developments, with regard to a proposed mixed-use development to be located at 36 Moolyeen Road, Mount Pleasant in the City of Melville. The subject land is currently occupied by a single family dwelling and is located within a *Neighbourhood/Local Centre* in accordance with the City of Melville's *Local Planning Scheme No. 6.*

1.2 SITE LOCATION

The site is located on the eastern side of Moolyeen Road, immediately north of the Brentwood Village Shopping Centre, opposite the Blue Gum Tennis Club and Blue Gum Child Care Centre. The site is generally surrounded by residential uses to the west of Moolyeen Road and is located approximately 90m north of Cranford Avenue. The location of the site is shown in Figure 1.

Figure 1: Site Location

The general metropolitan context is shown in Figure 2.

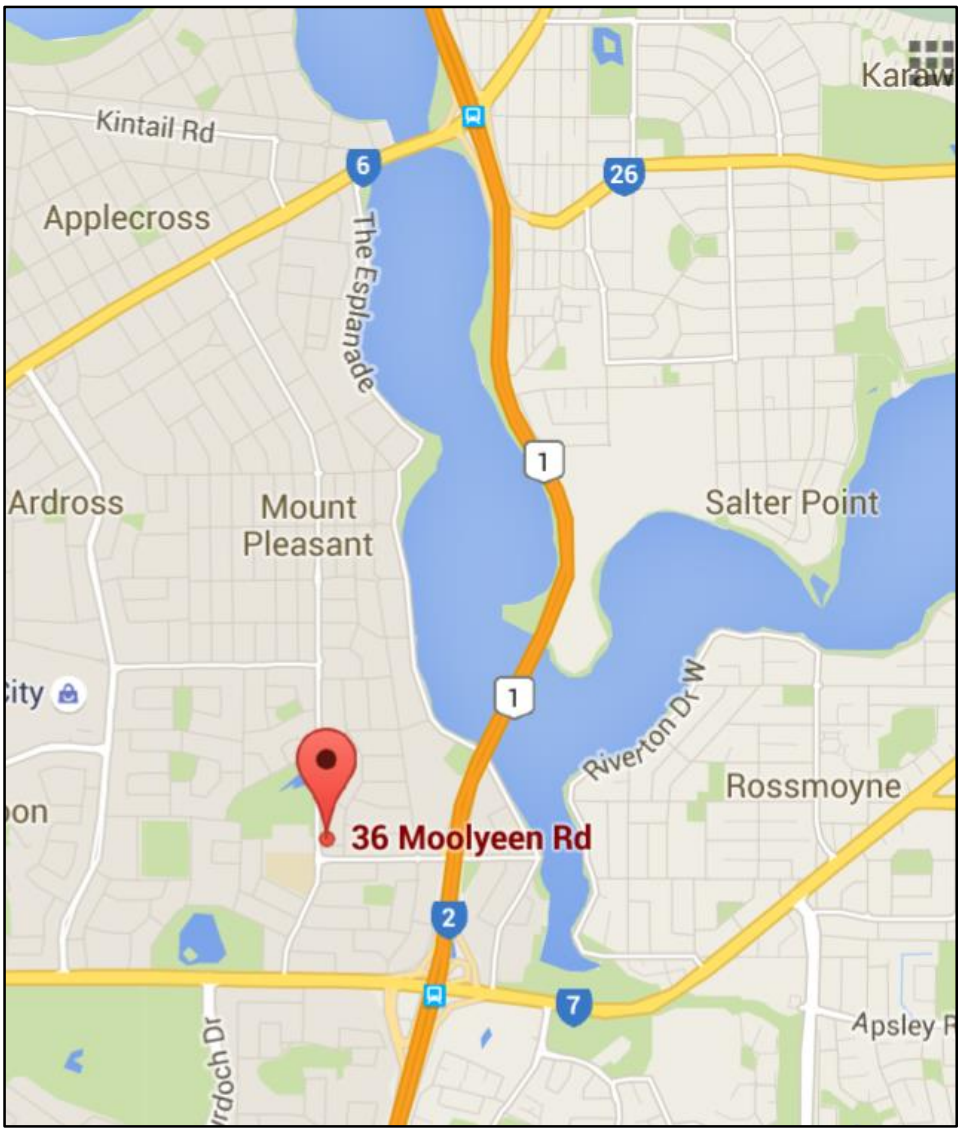

Figure 2: Metropolitan Context

1.3 SCOPE OF ASSESSMENT

This report has been prepared in accordance with the Western Australian Planning Commission's *Transport Assessment Guidelines for Developments: Volume 4 – Individual Developments* (2006).

Specifically, this report aims to assess the impacts of the proposed development on the boundary road network in the vicinity of the site to identify any modifications, to site or road layout, which may be required to serve the proposed site. In addition, the assessment considers the proposed access, circulation, and egress arrangements to and from the site.

For this purpose, the traffic operations on the adjacent and broader local road network have been assessed under both existing and future proposed traffic conditions with regard to the potential impacts from additional traffic generated by the proposed development of the site.

2. EXISTING SITUATION

2.1 ROAD INFRASTRUCTURE

The proposed development is to be constructed on a site currently occupied by a single family dwelling on the east side of Moolyeen Road, approximately 90m north of the roundabout intersection of Moolyeen Road/Cranford Avenue, Mount Pleasant in the City of Melville. The site is proposed to be served by a crossover to the east side of Moolyeen Road, flanking the northern boundary of the property. The site is broadly located within the Brentwood Neighbourhood Centre and is designated as *C4* or *Neighbourhood/Local Centre* in the City of Melville *Local Planning Scheme No. 6.*

Moolyeen Road, between Coomoora Road to the north and Cranford Avenue to the south, and adjacent to the western boundary of the site, has been defined as a *District Distributor B* road which *"…perform[s] a similar function to type A District Distributor roads but with reduced capacity due to flow restrictions from access to and roadside parking alongside adjoining property. These are often older roads with a traffic demand in excess of that originally intended. District Distributor A and B roads run between land-use cells and generally not through them, forming a grid which would ideally space them around 1.5 kilometres apart. They are managed by Local Government."* Cranford Avenue, to the south of the site is also classified as a *District Distributor B* road. Moolyeen Road, south of Cranford Avenue, is classified as a *District Distributor A* road on approach to Leach Highway. A detailed site visit was conducted on Thursday 7th July 2016 to collect information relating to existing road geometry, speed limits, and sightlines and to observe existing traffic operations on the adjacent boundary road network. Moolyeen Road, in the vicinity of the site, has been constructed as a single divided carriageway with a 9m seal and 2m flush central median plus on-road cycle lanes. Cranford Avenue has been constructed as a single undivided carriageway transitioning to a divided carriageway on approach to and discharge from the single circulating roundabout at Moolyeen Road. Both roads operate under a speed limit of 50 kph and are located within the Brentwood Primary School zone with 40kphn speed zoning in place from 7:30 to 9:00 a.m. and 2:30 a.m. to 4:00 p.m. on school days; and are owned, operated and maintained by the City of Melville.

Figure 3 illustrates the functional road hierarchy in the vicinity of the site.

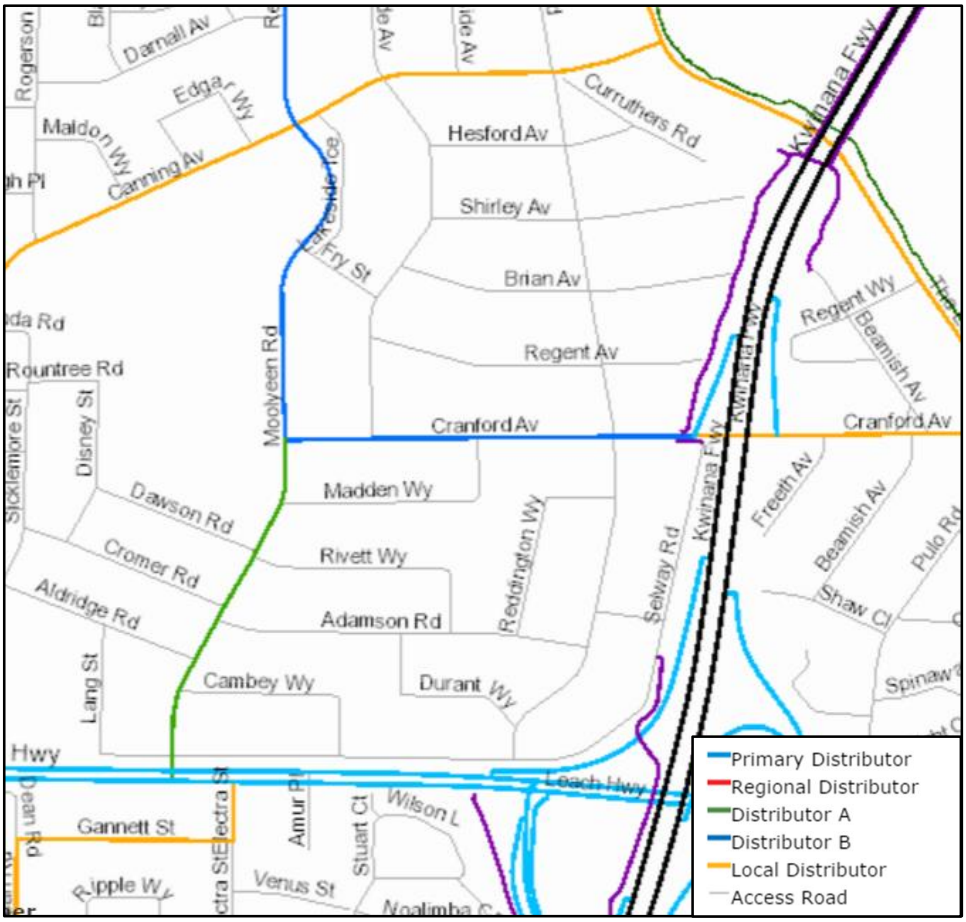

Figure 3: MRWA Functional Road Hierarchy

The most recent data for Moolyeen Road, in the vicinity of the site, has been sourced from MRWA and the City of Melville and are outlined in Table 1.

Table 1: Existing Traffic Volumes – Moolyeen Road

Road	Daily Volume (vpd)	Date/Source	Practical Capacity (vpd)
North of Cambey Way	16,400 vpd	Main Roads WA (2014)	20,000 vpd
North of Fry Street	10,600 vpd	City of Melville (2012)	15,000 vpd

2.2 PUBLIC TRANSPORT, PEDESTRIAN, AND CYCLIST FACILITIES

The site is served by Transperth Bus Routes 500 (Bull Creek Station-Booragoon Bus Station via Brentwood) which runs a limited service via Moolyeen Road/Adamson Road/Bateman Road/Canning Avenue/Karoonda Road to the north, south and west of the site with the closest bus stops located approximately 400m away to the north-west on Canning Avenue, to the east on Bateman Road and to the south-east on Bateman Road near Cranford Avenue. This service broadly provides 30-minute services during the weekday peak periods with hourly service during the midday off-peak and Saturday daily periods with no evening service available. Additional line haul bus services are

available on Leach Highway, approximately 800m to the south with the Bull Creek Railway Station located approximately 900m to the south-east of the site. Figure 4 shows the existing public transport services in the area.

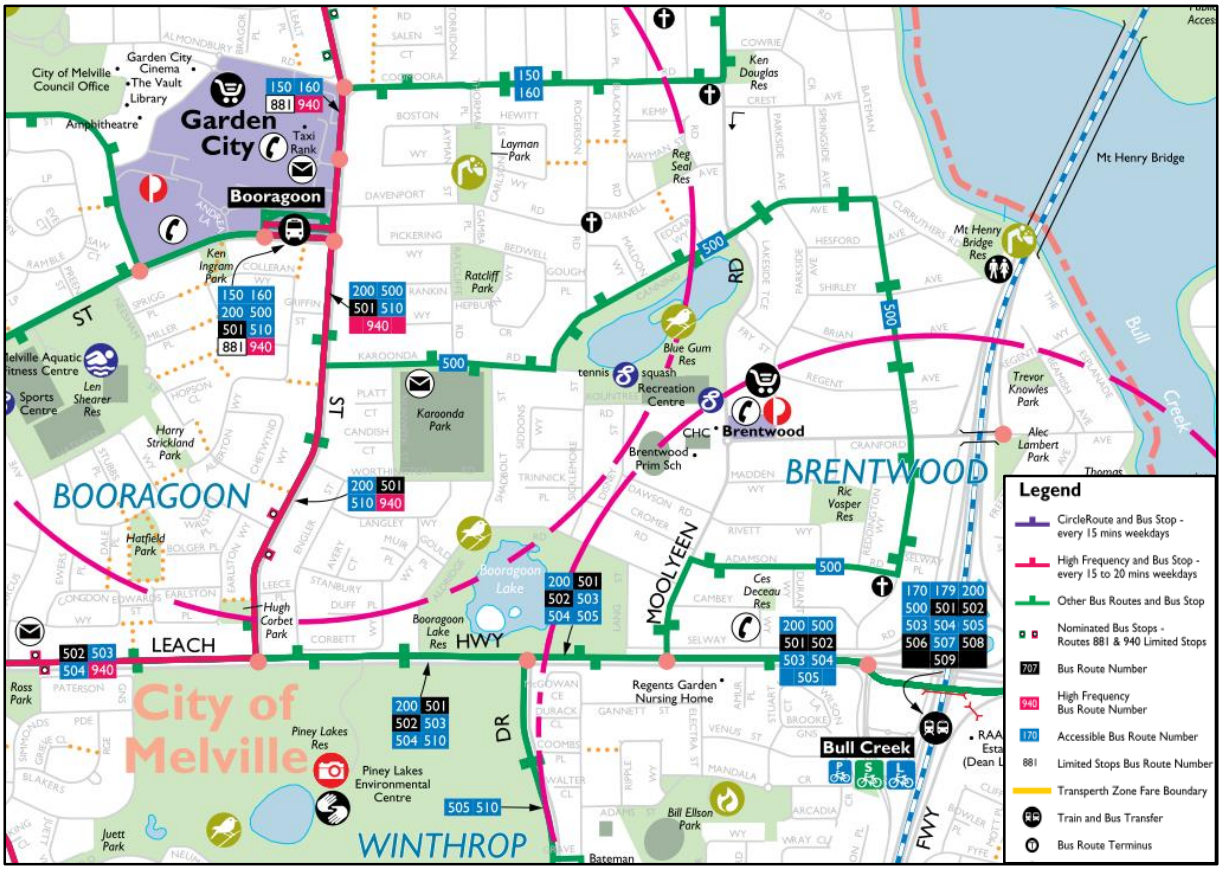

Figure 4: Existing Public Transport Services

A footpath of 1.5m in width is in place on the east side of Moolyeen Road, adjacent to the site with a 2.0m shared path in place on the west side of Moolyeen Road. On-road cycle lanes are in place on both sides of Moolyeen Road in the vicinity of the site. A shared path is in place on both sides of Cranford Avenue which connects to the *Principal Shared Path* running along the west side of the Kwinana Freeway, east of the site.

Figure 5 shows the cycling and pedestrian infrastructure in the vicinity of the site.

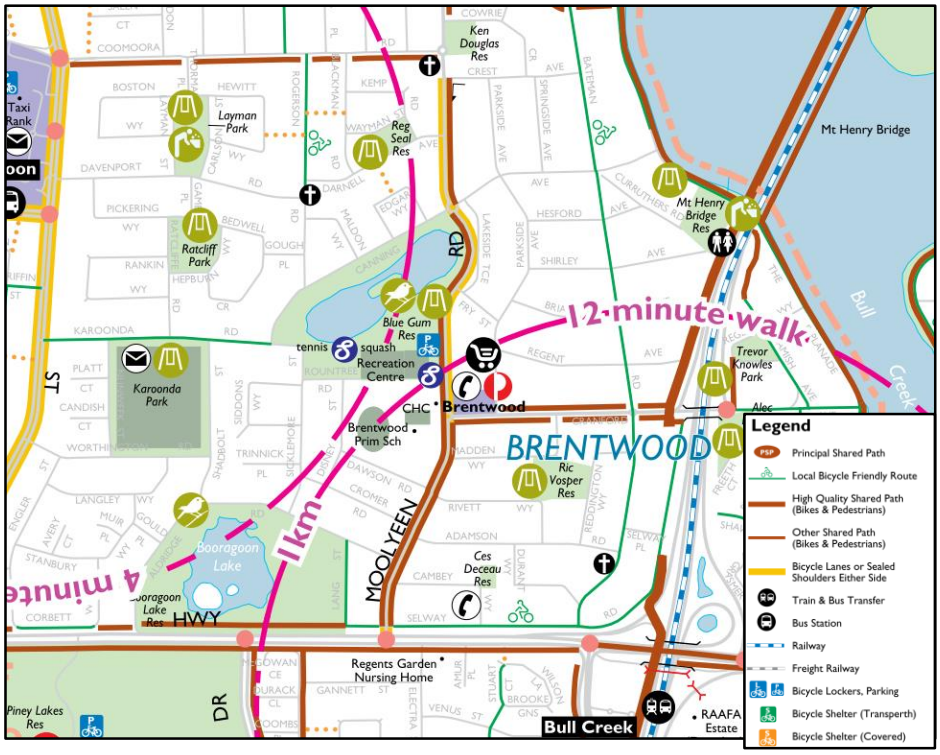

Figure 5: Existing Cycling and Pedestrian Infrastructure

3. PROPOSED DEVELOPMENT

A site plan of the proposed development has been prepared by Mane Architecture, on behalf of Megara Developments. A copy of the site plan is contained in **Appendix A**.

3.1 PROPOSED LAND USES

The proposal seeks the development of 10 multiple-dwelling residential units and two commercial tenancies consisting of the following:

- 8 x 2-bedroom units (77 and 78m^2)
- 2 x 3-bedroom units (110m^2 and 113m^2)
- 2 office tenancies (64m^2 and 69m^2)

3.2 PROPOSED ACCESS AND PARKING ARRANGEMENTS

The proposed access arrangements are shown to consist of a single crossover located along the northern boundary of the site to the east side of Moolyeen Road, approximately 90m north of the intersection with Cranford Avenue. The site is adjacent to existing commercial tenancies to the south, including the Brentwood Village Shopping Centre.

Direct access to the car parking area on the site will provide ingress and egress to and from 25 car parking bays laid out in a right-angle arrangement to the east of the crossover to Moolyeen Road.

The proposed car parking supply consists of 20 dedicated residential tenant bays, which is consistent and compliant with the *State Planning Policy 3.1: Residential Design Codes* and the City of Melville *CP-079: Car Parking and Access* which indicates that the required residential car parking is 13 dedicated bays (Location B). The dedicated

visitor car parking for the residential component is 2 bays which represents a shortfall of 0.5 bays under Council policy. The proposed minimum car parking requirement for the commercial component is 3 bays which have been provided on the site.

It is proposed that the office car parking be utilised to offset the residential visitor parking shortfall as the peak periods for office car parking and residential visitor parking do not coincide with residential visitor car parking estimated to peak at 50% of typical demand during typical office operating hours with the dedicated two (2) bays comfortably accommodating this demand. During evenings and weekends when the offices are not operating, the three (3) dedicate office bays can be utilised by residential visitors bringing the potential on-site supply to five (5) bays which is in excess of R-Code requirements. No on-site dedicated visitor car parking will be provided as the site is located within an area very well served by public on-street parking and the maximum requirement of 4 bays can be comfortably accommodated in the on-street supply. This is consistent with good and orderly planning and relevant Council policy CP-079 under *6.3 Reciprocal Parking.*

Rubbish collection will be undertaken on the kerbside by Council vehicles for the residential element with a private commercial waste management contractor appointed for the commercial elements of the project. A separate Waste Management plan will be prepared in consultation with the City of Melville during the detailed design stages of the project.

3.3 END OF TRIP FACILITIES

End-of-trip facilities (including bicycle racks) are proposed to be provided on the site within individual storage lockers for the residential tenancies and consistent with Austroads guidelines. A minimum of 2 bicycle parking bays will be provided along with end-of-journey facilities for the commercial elements consistent with Council requirements.

4. TRANSPORT ANALYSIS

A traffic generation and distribution exercise has been undertaken to assess the potential traffic impacts associated with the proposed development. The aim of this exercise was to establish the traffic volumes which would be generated from the proposed development and to quantify the effect that the additional traffic has on the surrounding road network, specifically on the local road network including Moolyeen Road. Also, the volume and functionality of traffic at the proposed crossover to the east side of Moolyeen Road was also assessed.

4.1 TRIP GENERATION

The traffic generated by the proposed development has been predicted by applying trip generation rates for the *Residential Condominium/Townhouse* (230) category and *General Office* (710). These rates were derived from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 8th Edition*. The total maximum anticipated traffic generated by the proposed development is estimated to be in the order of 138 vehicular trips (69 inbound/69 outbound) on a daily basis, 11 vehicular trips (4 inbound/7 outbound) during the a.m. peak hour; and 13 vehicular trips (7 inbound/6 outbound) during the p.m. peak hour.

4.2 TRAFFIC ASSESSMENT

Based upon the existing traffic patterns in the area and the spatial distribution of adjacent land uses, the following distribution for the proposed 'new' development generated traffic has been assumed:

- 50% to and from the north via Moolyeen Road;
- 50% to and from the south via Moolyeen Road of which:
    - 30% to and from the east via Cranford Avenue; and
    - 20% to and from Leach Highway.

The number of trips entering / exiting the site via the proposed site crossover has been assigned based upon the most logical route for vehicles to take given their origin / destination.

The anticipated site-generated traffic was then assigned to the respective crossover to Moolyeen Road based upon the existing proportions for both the weekday a.m. and p.m. peak hours. The resultant increases in weekday daily and a.m. and p.m. peak hour-generated traffic under the 'worst case' scenario for the boundary road network would be as follows:

- Moolyeen Road (North):
    - Daily: +69 vehicular trips
    - A.M. Peak Hour: 6 vehicular trips
    - P.M. Peak Hour: +7 vehicular trips
- Moolyeen Road (South):
    - Daily: +69 vehicular trips
    - A.M. Peak Hour: +5 vehicular trips
    - P.M. Peak Hour: +6 vehicular trips
- Cranford Avenue (East):
    - Daily: +41 vehicular trips
    - A.M. Peak Hour: +3 vehicular trips
    - P.M. Peak Hour: +4 vehicular trips
- Leach Highway:
    - Daily: +28 vehicular trips
    - A.M. Peak Hour: +2 vehicular trips
    - P.M. Peak Hour: +2 vehicular trips

These increases in daily and a.m./p.m. peak hour volumes will have a negligible impact on existing traffic operations in the area and can be comfortably accommodated within the practical capacities of the respective links on the boundary road network.

4.3 CRASH HISTORY

A review of the crash history along the frontage of the site and at the nearby local road intersections for the 5-year reporting period 2011-2015 indicates that 11 crashes occurred on Moolyeen Road between Cranford Avenue and Fry Street, with six (6) of these crashes occurring at the intersections with Cranford Avenue and Fry Street. There have been only two (2) crashes recorded involving manoeuvring into or out of a driveway over this time period and in the context of the cumulative 5-year traffic volume along this section of road, it can be concluded that the risk

profile therefore associated with the proposed crossover location will not be impacted by the development due to the very low volume of traffic generation of the site during peak periods and on a daily basis.

5. VEHICULAR ACCESS AND PARKING

5.1 ON-SITE QUEUING, CIRCULATION, AND ACCESS

The site plan indicates a site crossover along the northern boundary of the site connecting to the east side of Moolyeen Road leading into a car parking area to serve 20 residential tenant car parking bays, 2 dedicated residential visitor bays and 3 dedicated office bays. The crossover to Moolyeen Road has been designed to be compliant with City of Melville and Austroads standards and guidelines and the relevant Australian Standards with all vehicles inbound and outbound undertaking this manoeuvre in forward gear. An advance warning system through the placement of warning lights is proposed to provide warning to existing vehicles and other vehicles within the car parking area of entering vehicles from Moolyeen Road.

A review of the sight distance requirements at the crossover to Moolyeen Road indicates that adequate sight distance is in place to satisfy minimum Approach Site Distance, Minimum Gap Sight Distance and Safe Intersection Stopping Distance in accordance with Austroads *Guide to Road Design: Part 4A – Unsignalised and Signalised Intersections* and *AS 2890.1: Off-Street Parking.*

The design of the proposed car parking areas within these levels has been reviewed using AutoTrack and the relevant Australian Standards and Austroads guidelines, with the proposed design considered adequate to accommodate on-site manoeuvring and circulation. Vehicles accessing Visitor Car Parking Bay 01 will be required to access the bay in reverse gear but can exit the bay and the site in forward gear. The balance of the bays can be accessed and egressed in both reverse and forward gear with all vehicles entering and exiting the site in forward gear.

Residential rubbish collection will be undertaken on the kerbside by Council vehicles with a separate private waste management contractor appointed to manage the commercial waste collection on the site. A separate Waste Management Plan will be prepared in consultation with the City of Melville during the detailed design stages of the project.

5.2 PARKING DEMAND AND SUPPLY

The proposed car parking supply consists of 20 dedicated residential tenant bays, which is consistent and compliant with the *State Planning Policy 3.1: Residential Design Codes* and the City of Melville *CP-079: Car Parking and Access* which indicates that the required residential car parking is 13 dedicated bays (Location B). The dedicated visitor car parking for the residential component is 2 bays which represents a shortfall of 0.5 bays under Council policy. The proposed minimum car parking requirement for the commercial component is 3 bays which have been provided on the site.

It is proposed that the office car parking be utilised to offset the residential visitor parking shortfall as the peak periods for office car parking and residential visitor parking do not coincide with residential visitor car parking estimated to peak at 50% of typical demand during typical office operating hours with the dedicated two (2) bays comfortably accommodating this demand. During evenings and weekends when the offices are not operating, the three (3) dedicate office bays can be utilised by residential visitors bringing the potential on-site supply to five (5) bays which is in excess of R-Code requirements. No on-site dedicated visitor car parking will be provided as the

site is located within an area very well served by public on-street parking and the maximum requirement of 4 bays can be comfortably accommodated in the on-street supply. This is consistent with good and orderly planning and relevant Council policy CP-079 under *6.3 Reciprocal Parking*.

No dedicated service or loading bays are required on the site. A minimum of 2 bicycle parking bays and end-of-journey facilities will be provided for the commercial tenancies and individual storage lockers will be provided for each of the residential tenancies.

6. CONCLUSIONS

The aim of this Transport Impact and Parking Assessment was to discuss the traffic likely to be generated by the proposed mixed-use development proposed at 36 Moolyeen Road, Mount Pleasant, in the City of Melville and to assess the impacts associated with anticipated site-generated upon the adjacent transport infrastructure. In particular, the assessment considered the impacts on the boundary road network including Moolyeen Road along the northern frontage of the site and road network to the north-west and south-east of the site.

A review of the expected traffic generation associated with the proposal indicates that the local road network has sufficient practical capacity to accommodate the increases in vehicular site-generated traffic and that the development generated traffic will have a negligible impact on existing traffic operations during the weekday a.m. and p.m. roadway peak periods.

The proposed access arrangements are shown to consist of a crossover to the east side of Moolyeen Road along the northern boundary of the site to serve 25 to be provided in a right-angle arrangement inside the property line to the east of the crossover. Site observations indicate that good visibility is available in to the north and south of the proposed crossover along Moolyeen Road. All vehicles are expected to enter and exit the site in forward gear to Moolyeen Road. A review of the crash history on the local road network in the vicinity of the proposed site crossover on Moolyeen Road for the 5-year reporting period 2011-2015 indicates that there have been only two (2) crashes recorded which involved vehicles manoeuvring into or out of a driveway which is considered to be very low by comparison to the cumulative daily traffic volumes passing the site on Moolyeen Road over this time period. This indicates that there would be minimal risk associated with entering and exiting out of the proposed crossover to Moolyeen Road due to the relatively low speed environment (50kph speed limit) and good sightlines.

The proposed site crossover has been designed to allow for simultaneous lateral entry and exit by vehicles entering and exiting the car stacking bays. Vehicles utilising these bays will enter and exit the site in forward gear utilising the manoeuvring area located to the east of the crossover with advance warning lights installed in advance of the car parking areas advising exiting vehicles of vehicles entering from Moolyeen Road. The design of the car parking area is consistent with Austroads guidelines and Council requirements as well as traffic engineering best practice.

A review of the proposed on-site circulation and car parking layout was undertaken to assess the adequacy of the proposed site access and circulation on the site. The design of the proposed car parking areas on the lower and upper ground floor levels on the site have been reviewed using AutoTrack and the relevant Australian Standards and Austroads guidelines, with the proposed design considered adequate to accommodate on-site manoeuvring and circulation. Residential rubbish collection will be undertaken through kerbside pickup by City of Melville Council with commercial waste collection undertaken by a private contractor. The proposed crossover width of a minimum of 6 metres to serve the site will be sufficient to accommodate efficient and effective ingress and egress of vehicles into and out of the designated manoeuvring area and car parking stacking bays.

The proposed on-site car parking supply for the site is consistent with the City of Melville *CP-079: Car Parking and Access.*

In conclusion, it should be noted that based both on a review of the modelled total traffic assessment and observed traffic operations of the boundary road system, the anticipated site-generated traffic associated with the proposed development can be accommodated within the existing practical capacity and functional road classification of the local road system.