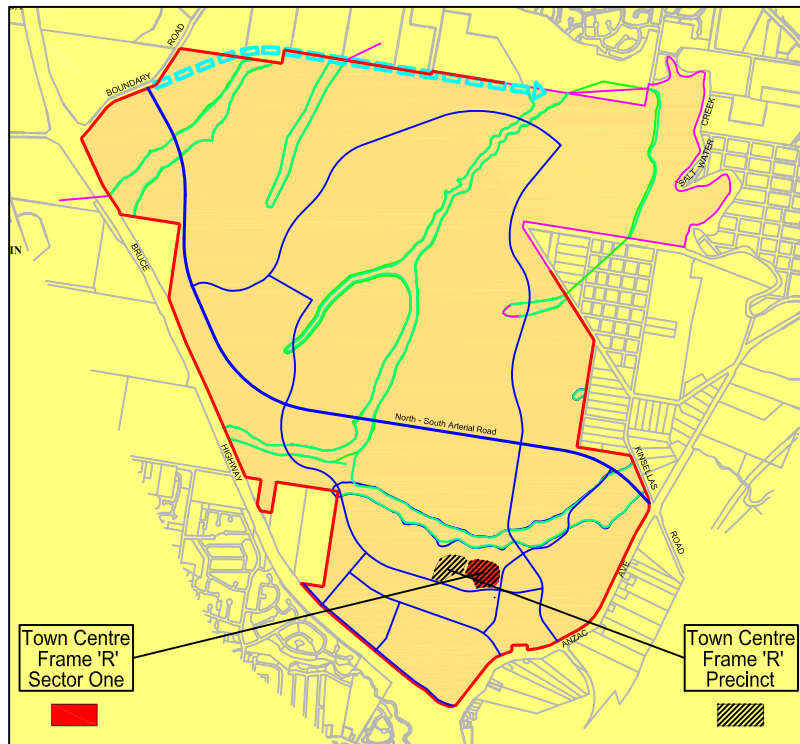


MANGO HILL INFRASTRUCTURE DEVELOPMENT CONTROL PLAN

Sector Plan 052-1000



Town Centre Frame 'R' Precinct
Town Centre Frame 'R' Sector One

21 October 2014

MANGO HILL INFRASTRUCTURE DEVELOPMENT CONTROL PLAN

Sector Plan No. 052-1000

for

**Town Centre Frame 'R' Sector One
The Corso - Lakefield Drive East**

**Town Centre Frame 'R' Precinct
North Lakes Development**

Approved 21 October 2014

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1.0 Introduction and Statutory Context

- 1.1 The Mango Hill Infrastructure Development Control Plan (DCP) provides for the creation of a Sector within a Precinct and the preparation by the Principal Developer of a Sector Plan in accordance with the relevant provisions of the DCP.
- 1.2 This document constitutes the Sector Plan for the **Town Centre Frame 'R' Sector One – Lakefield Drive** (Sector Plan 052-1000).
- 1.3 The location of the Sector within the DCP area is shown on *Figure 1 – Planning Context*. As illustrated on *Figure 2 – Cadastral Boundaries*, the Sector is bounded by:
- (i) Lakefield Drive to the north;
 - (ii) Endeavour Boulevard to the south.
 - (iii) Memorial Drive to the east; and
 - (iv) The Corso to the west.
- 1.4 The location of the Sector within the Precinct Plan area is shown on *Figure 3 – Precinct Plan Map*.
- 1.5 This Sector Plan is the code of development for the land in the Sector. In the event that this Sector Plan does not provide development requirements, then the Planning Scheme provisions relevant to the particular form of development apply.
- 1.6 Town Centre Frame "R" Precinct Plan 052 outlines the planning intent, Desired Environmental Outcomes (DEO's) and performance criteria to be complied with in the development of the sector. This sector plan outlines acceptable solutions which, if satisfied by development, will in turn achieve the requirements of the precinct plan. Alternative acceptable solutions should be assessed against the DEO's of the precinct plan.

2.0 Land Use Rights

- 2.1 Clause 2.4.9 of the DCP requires the final specification of land use rights for land in a sector to be chosen from the supplementary table of development in the DCP for the particular land use element. If a purpose set out in Column B of the supplementary table of development is not nominated within Column B (code assessable) for land in the sector, then that purpose thereafter for that land becomes impact assessable development (Column C).
- 2.2 Land within the sector may be used for the purposes specified in column A of the supplementary table of development for the Town Centre Frame land use element which is the subject of this sector plan.
- 2.3 The following purposes in Column B of the supplementary table of development for the Town Centre Frame element are nominated for the land in this sector:

- Accommodation units
- Apartments
- Catering premises
- Commercial services
- Convention centre
- Detached House
- Duplex Dwelling
- Display Home
- Family day care centre
- Motel
- Office
- Restaurant
- Shop <300m² GFA
- Sales and information centre
- Tourist facility
- Townhouse units

The other purposes set out in column B of the supplementary table of development for the Town Centre element and the Open Space element are permissible purposes for land in this sector (i.e. they become column C purposes).

- 2.4 The Supplementary Table of Development (Town Centre Frame Element) setting out the final specification of land use rights for land in this sector is contained in Section 5.5 of the DCP.
- 2.5 The final specification of land use rights for land in this Sector is contained in *Appendix A – Final Specification of Land Use for the Sector*.

3.0 Development Requirements & Guidelines

3.1 INTRODUCTION

Clause 2.4.2 of the DCP states that a Sector Plan must specify the requirements for development and car parking and the guidelines for design and siting, landscaping and signage for land in the Sector.

3.2 DEVELOPMENT CONCEPT

Land uses are to generally complement the uses within the Town Centre Core and elsewhere within the frame, and should be integrated in functional and urban design terms with adjacent Sectors. A range of Town Centre Frame land uses may be considered if such land uses are compatible with the emerging built form.

Residential development in the Town Centre Frame is intended to broaden the diversity of housing in the DCP area. When developed on its own higher density residential development will address the street with only minimal setback or grade separation so as to extend the urban character and formality of the streetscape. The transition areas will reflect a less intense form of development surrounded by areas of landscaped private open space and will draw landscaped open space into the town centre through interconnected formal and informal public spaces.

Land uses will be receptive to the establishment of transit related infrastructure. The Public Transport Interchange (PTI) will serve as a means to influence the nature of surrounding development and harmonise with the development established in the Sector in keeping with the market. The PTI will also act as a means to promote The Corso as a valuable pedestrian link between Lake Eden and the Town Centre Core. Internal links between the development and the surrounding Town Centre open space network are also encouraged.

Development in the Sector should:

- (i) create a transition in built form, scale and intensity between the primarily commercial environment of the Town Centre and the lower density residential development to the north on the edge and outside the Town Centre Frame;
- (ii) generally complement the uses within the Town Centre Core and elsewhere within the frame, and be integrated with adjacent Sectors in functional urban design;
- (iii) promote The Corso as a valuable pedestrian link between Lake Eden and the Town Centre Core;
- (iv) ensure connectivity, integration and strong functional and architectural relationships with the adjacent open space and waterfront setting and development within the balance of the Town Centre;
- (v) provide for innovative architectural design and broaden the diversity of housing within the Town Centre and Urban Areas of the DCP;
- (vi) ensure a high level of pedestrian access between the development and its external road frontages;

- (vii) ensure that car parking areas in the Sector are enhanced by landscaped vehicular and pedestrian links and that potential conflict points between vehicular and pedestrian movements are minimised through considerate design; and
- (viii) continue surrounding landscape/streetscape themes along Endeavour Boulevard to reinforce the through-route nature of this corridor.

The Sector contains four main road frontages – Endeavour Boulevard, Lakefield Drive, Memorial Drive and The Corso. Each of these roads has a different streetscape, character and traffic function. The development intent for each of these road frontages is outlined below:

(i) Endeavour Boulevard Frontage

The Endeavour Boulevard frontage of the Sector forms a corridor of development that provides a strong link to the retail and community service activities of the Town Centre.

It is envisaged that the predominant development along Endeavour Boulevard will facilitate interaction with the street. Any level change between the street and buildings will be limited to less than six steps to ensure that a pedestrian friendly interface is developed. Shopfront or business front residences accessible from the street are encouraged. An option for medium or high density residential uses, with built form relating with development on the southern side of Endeavour Boulevard, is considered appropriate. Development adjacent to this frontage must be at least two storeys, and is encouraged to develop up to three storeys. This is intended to provide a means of noise abatement for the remainder of the Precinct while utilising on the convenient access to the Town Centre.

(ii) Memorial Dive Frontage

Memorial Drive is located in a functionally and visually prominent part of the town centre. It is an important link between the Town Centre Core and the balance of the Town Centre Frame, and sectors to the north and east.

Land uses and built form located along this frontage should take advantage of the proximity of the Town Centre Core and present a more intense diverse and urbanised form. Direct pedestrian access to open space is encouraged.

(iii) The Corso Frontage

The Corso frontage is expected to be extended to create an important link in achieving a high level of accessibility between The Town Centre Core and Lake Eden. The land use, built form and streetscape will reflect the transition in development intensity from the Town Centre Core to the open space surrounding Lake Eden and the function as pedestrian movement corridor.

Development along this frontage is encouraged to interact with the street and involve medium to high density developments with pedestrian access to the Corso street frontage address as a minimum. The built form along The Corso is encouraged to be at least two to three storeys, include a mixture of land uses along the street, offer

visual interest to the street, present a transition in intensity and form and encourage visible integration of landscaped public and private open space. Considered development should emphasise pedestrian and cyclist movement with the frontage. This frontage is expected to cater for a high level of pedestrian traffic from the Town Centre Core, PTI and North Lakes Town Common.

(iv) Lakefield Drive Frontage

Lakefield Drive frontage is expected to enable connections with adjacent open space provisions associated with the waterfront setting of Lake Eden. It is an important link between the Town Centre Core and the balance of the Town Centre Frame through from The Corso. The area is encouraged to develop as a transition area. The design and siting of the development will reflect the town centre location, have a human scale and offer visual interest to the street. Residential development will be in low to medium rise buildings set in generous areas of landscaped private open space.

Development is to take full advantage of the waterfront setting through the inclusion of vistas and visual corridors and well located open/communal space linkages. Pedestrians and cyclists must be able to move freely along frontage without having to compete for space with vehicular traffic, facilitating greater connection to Lake Eden.

Figure 4 – Sector Plan Map is one illustration of how these requirements may be satisfied.

3.3 DEVELOPMENT REQUIREMENTS

3.3.1 In respect of every development in this Sector the person who undertakes that development or uses the site must, unless already provided:

- (i) construct a full width pedestrian pavement to Council's specification for the full length of those road frontages required by Council to the development site;
- (ii) construct concrete kerb and channeling to the Council's specification for the full length of each road frontage to the development site;
- (iii) construct reinforced concrete industrial crossings to the Council's specification from the kerb and channeling to the property alignment of the development site at approved locations where vehicular access to the development site is required;
- (iv) provide drainage work specified by the Council as necessary in connection with the works set out above including debris traps where drainage discharges directly or indirectly to the lake and/or waterway system;
- (v) provide reticulated sewerage and water supply adequate for the purpose of the development by connection to the Council's services in accordance with the requirements of the Council; and
- (vi) bear the cost of any alteration necessary to public utility mains, services or installations involved in the construction of the works referred to in this clause.

Any works within the road reserve must be undertaken in accordance with the North Lakes Town Centre - Landscape Design Requirements.

3.3.2 In respect of every development in this Sector the person who undertakes that development or uses the site must:

- (i) have all landscaping designed by a qualified landscape architect;
- (ii) not impose a load on any public utility including the disposal of wastes, greater than that which is contemplated by the provisions of this Sector Plan;
- (iii) not cause interference with the amenity of the area by the operation of machinery or electrical equipment, or from light, noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, grit, oil, dust, waste water, waste products, electrical interference or otherwise; and
- (iv) prevent continuous or frequently occurring noise levels which when measured and assessed in accordance with the Environmental Protection Act 1994, at a boundary of the allotment:
 - (a) exceed those prescribed by the Environmental Protection Act 1994; or
 - (b) cause a nuisance.

3.3.3 Requirements for Staging of Development

- (i) On completion of work in any stage, the remainder of the lot must be cleared of all rubble, debris and construction material and equipment and landscaped to the satisfaction of Council so as to be capable of being maintained.
- (ii) Each stage must form a coherent development and any future development sites must be provided with temporary landscaping, so the presentation of the lot to the street does not give a temporary or partially completed appearance.

3.4 DESIGN & SITING MEASURES

Development in the sector will be designed and located on the land so as to achieve the development character described in Section 3.2 of this sector plan. Appendix B – Images and Appendix G – Typical Dwelling Types, illustrate a range of desirable urban design outcomes for building forms, architectural elements and landscape character within the sector plan. They provide examples of acceptable solutions for the intended form of development within the sector and can be used as a basis on which to assess development proposals received with development application(s) for a material change of use, building work and operational works.

For medium density residential development the design and siting of all dwellings within the sector is also to generally comply with the acceptable solutions outlined in the Queensland Residential Design Guidelines (QRDG) and/or AMCORD.

3.4.1 Building Setbacks

Building setback provisions are as follows:

- (i) Buildings fronting Endeavour Boulevard are encouraged to interact with and activate the street frontage. Setbacks to Endeavour Boulevard must be not more than 3 metres;
- (ii) Where direct pedestrian access is provided between the built form and the public street, and vehicular access is provided internally within the Sector, no setback is

required to The Corso, Lakefield Drive and Memorial Drive, provided that all dwellings in the nominated clusters feature a consistent setback to the external street frontage. The intent of this provision is to ensure that dwellings and their external facades are sited in an orderly manner throughout the development ; and

- (iii) In all other instances, including where private open space is provided on the street side of the dwelling, a minimum 3 metre setback to the public street is required.

3.4.2 Site Coverage

Site coverage and associated plot ratio are not restricted provided the following elements are appropriately addressed by the design of the development:

- (i) architectural articulation and an appropriate level or design;
- (ii) buildings include well-presented frontages that provide a recognizable entrance;
- (iii) development is in context with, and visually compatible with the appearance of any neighbouring buildings;
- (iv) pedestrian facilities associated with commercial or apartment development, including pedestrian shelters are provided at ground level; and
- (v) sufficient on-site car parking is provided as set out in *Appendix D – Car and Bicycle Parking Requirements*, unless otherwise justified by a qualified traffic engineer's technical note and approved by Council.

3.4.3 Building Design

Figure 4 - Sector Plan Maps refers to indicative dwelling types on a plan of the intended development. While this configuration of dwelling typologies is acceptable, an alternative configuration of dwelling typologies may be developed, if it is considered to have planning/design merit and is approved by Council's delegate via the Material Change of Use or associated permissible change process (or similar as per the 'Planning Act' in operation at the time the application is made). *Appendix B – Images* and *Appendix G – Typical Dwelling Types* provide examples of acceptable solutions for the intended form of development within the sector .

Generally, buildings proposed in the Sector must:

- (i) be in accordance with the measures referred to in section 5.4 of the DCP and in relation to Part 7, Special Requirements in Relation to Particular Development of the Planning Scheme;
- (ii) be a minimum of two storeys along external street frontages;
- (iii) be visually compatible and serve as a transition with the height, scale and bulk of surrounding development and streetscape patterns, including the residential development to the north of the Sector;
- (iv) not exceed the height of buildings on adjacent sites by more than two (2) storeys for those portions of the buildings adjacent to and visible from the street or pedestrian areas;
- (v) variations in the materials and finishes are acceptable, provided they complement adjoining development (refer *Appendix B – Streetscape / Character*). Council may

consider on its merits, the occasional use of colonnades to provide pedestrian weather protection if the colonnade is lightweight in appearance and conducive to active frontages uses;

- (vi) each dwelling unit is to provide an internal storage area in accordance with the Building Code of Australia.;
- (vii) where awnings are used, variations in the materials and finishes of the awnings are acceptable, provided they are set at a compatible height and complement adjoining development (refer *Appendix B – Streetscape / Character*);
- (viii) where building heights exceed three (3) storeys in height, assessment of the need to setback the taller components of any building to create a podium must be undertaken. The assessment must address at least the impact of bulk and form on the streetscape and pedestrian environments in the immediate vicinity, as well as the impact of overshadowing;
- (ix) include large windows and/or balconies at upper levels which provide for viewing of external areas;
- (x) create an attractive presentation environment to all road frontages and external pedestrian thoroughfares through the use of clearly articulated and well proportioned access doorways and landscaping;
- (xi) orientate main entrances to address the street frontage or communal open space and provide well-lit pedestrian access and vehicular access to the street and common driveway environment;
- (xii) be designed with attractive rooflines that are compatible with the mixed use form of the Town Centre Frame, complement the overall building design and including varying elements for visual interest;
- (xiii) include articulation and variation of the external street façades.
- (xiv) with the exception of shared boundary walls, blank walls should not exceed 15.0 metres in length;
- (xv) contribute to a desirable pedestrian environment and streetscape character in order to create safe, comfortable and pleasant public areas;
- (xvi) allow sensitive environmental responses to slope, access and integration requirements;
- (xvii) complement the overall character of the Sector and the DCP area generally, whilst allowing corporate identity for tenants or innovative design for residential dwellings; and
- (xviii) Unless part of a dual frontage scenario, townhouse development must ensure that the garage door is inline or setback from the main building line or column.

3.4.3.1 Building Design Guidelines

Appendix B – Images illustrates a range of desirable urban design outcomes for building forms, architectural elements and landscape character within the sector plan. They are not intended to represent the final architectural or landscaping design of development within this Sector, but guide the design and interpretation for requirements herein.

Building design within the Sector is encouraged to:

- (i) Be of medium density with a maximum of 40 dwellings/hectare ;
- (ii) include innovative contemporary building design derivative from Queensland building traditions in that designs suit the climate, light and local culture;
- (iii) be designed to be multi-purpose and easily adapted for future changes;
- (iv) ensure that buildings relate physically and functionally with each other in terms of their architecture, location of major entries and any changes of level across the Sector; and
- (v) ensure that the design and location of any buildings or structures within the Sector take account of:
 - (a) topography and the preference to minimise site earthworks;
 - (b) drainage;
 - (c) soil conditions;
 - (d) services;
 - (e) orientation towards focal points and aspect to achieve energy savings;
 - (f) microclimate considerations;
 - (g) pedestrian movement patterns;
 - (h) vehicular access to avoid or minimise the conflict points with pedestrians;
 - (i) streetscape and landscape design;
 - (j) adjoining developments in terms of design;
 - (k) minimising the effect of overshadowing on pedestrian areas;
 - (l) the functioning of Endeavour Boulevard, The Corso and other adjoining roads;
 - (m) landscape softening of externally facing retaining walls and other elements with low visual amenity;
 - (n) views and vistas to prominent built and topographic features;
 - (o) connections to the waterfront setting along Lakefield Drive; and
 - (p) the high pedestrian activity connected with the public transport interchange and adjacent open space on Lakefield Drive and North Lakes Town Common on Endeavour Boulevard.

3.4.3.2 Material, Finish and Colour Guidelines

Within the context of the character images provided in Appendix B, building design within the Sector is encouraged to:

- (i) reflect a distinctive contemporary architectural style, with buildings sharing a palette of compatible finishes, colours and details that contribute to a strong sense of place;
- (ii) use materials and colours relating to those in the local environment, including the use of key character elements, for example, block stone work may be incorporated into the base of buildings to relate to the stone detailing within North Lakes. Other key character elements may include the use of timber detailing, earthy tones, heavy plinth bases and feature species planting;
- (iii) include the integrated use of elements such as timber, glass and tin;
- (iv) include corrugated pre-finished and coloured metal sheets for major roofing materials. The application of these materials must minimise any reflective nuisance to surrounding development;

- (v) incorporate brighter colour accents for minor detail elements such as window and door frames, columns, handrails, ornamental features and signage details; and
- (vi) incorporate materials that:
 - (a) are robust, durable and resistant to vandalism;
 - (b) present a suitable finish to pedestrian areas;
 - (c) incorporate walls which present as solid and permanent elements;
 - (d) are of a high quality, clean and free of defects;
 - (e) are low maintenance, resulting in minimum use of detergents for cleaning; and
 - (f) assist with thermal performance and energy efficiencies, where practicable.

3.4.3.3 Design for Climate and Energy Efficiency Guidelines

Building design within the Sector is encouraged to:

- (i) include the use of external shade structures, ventilated spaces, overhangs and screens to allow enjoyment of the outdoors while also providing relief from the sun, wind and rain;
- (ii) maximise ventilation by taking advantage of prevailing breezes and the use of adequate and effective insulation materials in roof cavities and wall spaces of buildings in order to minimise demands for energy required for air-conditioning;
- (iii) articulate and shade external walls, and particularly the longer external walls, with eaves, overhangs, sills or other treatments to reduce the exposure to direct sunlight, heat and glare, while windows in external walls should be recessed or shaded wherever possible to achieve energy savings;
- (iv) restrict the use of highly reflective materials on external walls or windows as a means of minimising energy requirements and excessive sunlight, glare and heat into adjoining developments;
- (v) incorporate the use of gas or solar hot water heaters and solar energy devices;
- (vi) implement energy efficient management systems for the building;
- (vii) where possible, use building materials which impose energy efficiency;
- (viii) where possible, orientate buildings to respond to westerly sun exposure, northerly exposure and solar access in the winter, potential impacts of cold westerly winds in winter and limited cooling breezes from the south in summer; and
- (ix) design and landscape car parking areas to reduce the impacts of reflected heat and glare into adjacent buildings, and to reduce the effects of heat storage during summer months.

3.4.4 **Private Open Space**

Private Open space is to be provided in accordance with the Queensland Residential Design Guidelines (QRDG) for buildings less than 40 dwellings/hectare. That is, private open space at ground level (incorporating principal private open space within dwelling yard space and communal open space areas administered by the body corporate) will have a total minimum area of 20% of the Sector Plan area.

Private open space must be provided either on the ground level or first floor (deck) level for each Townhouse Unit, medium density Detached House or Duplex. The private open space must:

- (i) demonstrate a clear relationship to a living area of the dwelling;
- (ii) have a maximum gradient of 1 in 10;
- (iii) have minimum area of 16sqm with a minimum dimension of 3m (if on ground);
- (iv) have a minimum area of 8sqm and minimum dimension of 1.8m (if first floor living area design); and
- (v) be clear of retaining walls, batters and dwelling services.

For apartments or accommodation premises; A substantial balcony, verandah, patio or other covered outdoor entertaining area for each must be provided for each unit. As a minimum the balcony must have dimensions capable of enabling outdoor dining (i.e. minimum dimension of 1.8m).

3.4.5 Safety and Crime Prevention

The design and siting of any structures, landscaping, buildings and public spaces must:

- (i) avoid obscured corners and narrow or dead-end alleys;
- (ii) maximise the opportunity for casual surveillance of public spaces and car parking areas from surrounding buildings, roads and pedestrian areas;
- (iii) include lighting of public places; and
- (iv) include for a use with a gross floor area of 2,500m² or more, an Environmental Design assessment such as Crime Prevention Through Environmental Design (CPTED) or similar crime prevention safety audit, which must be undertaken by applicants during the design phase and properly taken into account in the final design of the project. A copy of the assessment shall be provided to Council at the time of lodging each development application for a Material Change of Use. This assessment is to have due regard to the design and maintenance of buildings and external areas within the Sector, as well as the factors outlined in this sub-section.

3.4.6 Lighting & Glare Requirements

Lighting and Glare Management within the Sector must:

- (i) ensure lighting systems are designed to prevent direct and/or reflect glare to surrounding areas. This applies particularly to disabling and uncomfortable glare to pedestrian and vehicular movement or at entrances, steps, stairs and pedestrian paths;
- (ii) where provided within landscaped areas, the choice and location of lighting must allow for plant and tree growth, and conversely, not become obscured as the landscape matures;
- (iii) include safety lighting in communal or public open space, and car parking areas which are to be used at night-time;
- (iv) ensure that permanent strobe, laser, flashing, oscillating, moving or alternating lights are not permitted in locations within the Sector where they are likely to cause a nuisance;

- (v) have regard to the efficiency of energy consumption in the design of lighting systems; and
- (vi) comply with the requirements of *AS4282 – Control of Obtrusive Effects of Outdoor Lighting*.

3.4.7 Plant & Equipment Requirements

The design and siting of plant and equipment must comply with the following requirements:

- (i) all air conditioning and ventilation plant and other equipment located on the roof or externally around the building are to be treated as an integral part of the building form and be suitably screened from view to match with surrounding materials;
- (ii) where lift motor rooms, plant rooms and the like are proposed, they are to be treated as an integral part of the building form in order to create a coherent roofscape;
- (iii) environmental management structures or control devices, such as gross pollutant traps, waste disposal bins, flues and the like are to be designed so as not to detract from the overall visual character of the town centre or the immediate area;
- (iv) contain design elements and buffer treatments to control any obtrusive effects where it is likely to adversely affect residential amenity, visual aesthetics, public safety and traffic safety;
- (v) if necessary, adopt effective air pollution mitigation measures to comply with the *Environmental Protection Act, Environmental Protection Policy (Air)* and other relevant legislation in relation to dust, smoke, fumes and gases, where necessary; and
- (vi) if necessary, adopt effective noise pollution mitigation measures to comply with the *Environmental Protection Act, Environmental Protection Policy (Noise)* and other relevant legislation, where necessary.

3.4.8 Telecommunications Equipment

Telecommunication equipment (i.e. television / radio antennae, satellite dishes and the like) is to be:

- (i) collocated with other telecommunications equipment installed in the sector where ever possible;
- (ii) antennae and receiver dishes are to be installed internal or under roof wherever possible .External antennae or dishes, if required, are to be located toward the rear of the dwelling and under the roof line.
- (iii) constructed in a form complementary to the façade and roofline of the building on which it is to be mounted; and
- (iv) where possible, coloured so as to blend in with the background of the building on which it is to be mounted.

3.4.9 Ancillary Structures

3.4.9.1 Solar Panels and Solar Water Heaters

Where practicable, solar panels solar water heaters are to be located on roof pitches which minimise their visibility from public areas. Wherever possible, solar collector panels are to lie on the roof and not be supported on a frame or otherwise located to the rear of the dwelling or under the roof line to minimise visibility from the public road frontage.

3.4.9.1 Unsightly Objects and Other Structures

- (i) Clotheslines, hot water systems, gas systems, storage tanks, rainwater tanks and metre boxes are to be screened or located away from the road frontage.
- (ii) Bin storage areas or storage sheds are to be enclosed or screened from view.
- (iii) Open space and/or landscaped or courtyard areas visible form the street are to be keep tidy and clear of unsightly objects or structures.
- (iv) Internal or private roads or driveway, including the location of any security system, barriers or gates are to be designed to provide safe access in accordance with the Council's Design Manual.

3.4.10 Driveways

Acceptable finishes for internal driveways are as follows:

- (i) coloured concrete pavers constructed on a concrete base, clay pavers or natural stone pavers constructed on a concrete base; or
- (ii) stencilled concrete; or
- (iii) exposed aggregate
- (iv) Plain concrete driveways are not permitted.
- (v) Other driveway finishes may be considered on their merits by Council in consultation with the principal developer.

3.4.11 Regrading

3.4.11.1 General Approach

The earthworks approach for the Sector must:

- (i) Ensure that changes of level at the site boundary allow non-discriminatory access to each allotment from the road frontage/s and to adjoining allotments;
- (ii) Take into account the efficient management of earthworks;
- (iii) Be generally in accordance with surrounding approved Sector Plans; and
- (iv) Achieve a high level of functional and visual integration between Endeavour Boulevard, The Corso, Memorial Drive and Lakefield Drive.

3.4.11.2 Retaining Walls

Unless otherwise approved by Council, retaining walls facing the external street network shall accord with the following landscape and setback requirements:

- (i) Retaining walls up to 1.0 m in height are to be setback a minimum of 0.5m from the front boundary to allow planting of a landscape strip at the base of the wall.
- (ii) The Council may relax the above requirement based upon merit (other than The Corso frontage) to allow retaining walls 0.5m in height to be on the boundary,

where the wall provides a level of aesthetic amenity in keeping with the intent of the Town Centre Frame and boundary walls on established surrounding Sector Plans, and landscape softening elements are provided in private entry yards (unfenced or open fenced).

- (iii) Retaining walls between 1m and 1.5m in height shall be setback a minimum of 1m from the front boundary to allow planting of a landscape strip at the base of the wall. (top of wall landscaping must also be provided where a solid fence is proposed above the wall).
- (iv) Vertical retaining walls must be no more than 1.5 metre above natural ground level. All earthworks greater than 1.5 metre in height must be stepped with a minimum 500mm landscape area between the walls.

In determining the merit of alternative acceptable solutions to that above, the Council will make consideration of further detailed landscape concept plans, where:

- The walls form part of a limited entry statement for the Sector Plan.
- Retaining wall materials and placement provides for a strong integration of character/relationship with the adjacent open space and waterfront setting (and development within the balance of the Town Centre).
- Breaks in continuity of the face of the wall are provided and supported with additional landscape features to offset sections of the wall closer to the street boundaries.
- Opportunities present to extend the width of apparent landscaping (i.e. in the road reserve to the back of the concrete pedestrian path).

3.5 LANDSCAPING / TOWNSCAPING

3.5.1 Landscape / Townscape Concept

The landscape framework for the Sector is represented by the design principles shown indicatively on **Figure 5 – Sector Landscape Plan** and is to be in accordance with the *North Lakes Town Centre Landscape Design Guidelines* prepared by Aecom.

3.5.2 Character

The landscape character of the Sector should reflect the through-route nature of Endeavour Boulevard and the changes in land use, character and traffic levels between the balance of the Town Centre Frame and the open space designations surrounding Lake Eden. The 'pedestrian main street' environment of The Corso and the landscaping character surrounding Lake Eden should be taken into account. Landscaping should promote pedestrian safety and low vehicle speeds, with due concern for maintaining sightlines.

Landscaping is also required in private development sites to reinforce the landscaping proposed along street frontages. Landscaping may be required to buffer and screen functional elements of uses such as car parking along road frontages to reduce their impacts upon the amenity and visual character of the Sector. It is intended that landscaping be used to soften the appearance of any retaining structures acoustic fencing within the Sector. Landscaping may include an attractive entry statement such as gateway signage walls, landscape planting and water features to create a sense of arrival.

The overall landscape character of the Sector is to be established by integrating plantings with the street lighting, furnishings, paving treatments, built form, materials and colours of development in the Sector, in keeping with the *North Lakes Town Centre Landscape Design Guidelines prepared*.

3.5.3 Frontage to The Corso

Landscape planting along The Corso should soften the appearance and give scale to buildings within the Sector, articulate urban spaces and provide shade for on-street car parks, the public transport interchange and adjacent pedestrian areas.

Landscaping and street furniture are to exhibit a general design theme and continuity of materials and elements, as well as create a comfortable and attractive environment. They should contribute to the town centre identity and assist with visitor orientation and identification.

Any works within the road reserve must be undertaken in accordance with the *North Lakes Town Centre Landscape Design Guidelines*.

3.5.4 Frontage to Endeavour Boulevard

Landscape planting along Endeavour Boulevard is to be used to provide an accent to buildings in the Precinct, rather than a screen. The landscaping along Endeavour Boulevard should reflect the traffic role and function of the road, filter the impacts of the anticipated traffic flows and recognise the transition in land uses from the Precinct to the residential development established to the west of Endeavour Boulevard.

Any planting adjacent to vehicular and pedestrian access points within the Precinct must address the transitional nature between the high pedestrian activity along The Corso and the through-route nature of Endeavour Boulevard. Landscaping shall promote safety and low speeds, but with due concern for maintaining sightlines.

Landscaping may be required to buffer and screen functional elements along these frontages to reduce their impacts upon the amenity and visual character of the Precinct.

3.5.5 Requirements

Landscaping in the Sector must:

- (i) correspond with the design principles illustrated on **Figure 5 – Sector Landscape Plan**;
- (ii) generally achieve the landscape character described above and the landscape concept described in section 4.2 of the Precinct Plan;
- (iii) where a setback is provided, establish a landscape strip in keeping with **Figure 5 – Sector Landscape Plan** and the design principles provided in the *North Lakes Town Centre Landscape Design Requirements*;
- (iv) be designed to complement and integrate with the landscaping and design character of adjoining Sectors and Precincts;
- (v) include canopy trees, generally with a minimum clear trunk of 1.8 metres planted at informal intervals within the external road reserves and communal/visitor parking bays. Street trees planted along Lakefield Drive and Memorial Drive are intended to provide visual continuity to the street, reduce the road scale and provide shade to

- on-street car parking and adjacent pedestrian areas. Predominantly native planting will be used;
- (vi) reduce the appearance of an expanse of carparking areas by providing advanced shade trees at the rate of not less than one (1) tree per six (6) visitor parking spaces;
 - (vii) screen carparking areas from roads and other areas readily accessible to the public; but occasionally views of key elements of each proposed building may be provided;
 - (viii) provide adequate landscaped areas so as to create a landscape setting and passive recreation space for the development;
 - (ix) allow for pedestrian linkages and landscape planting extending from entry points to development sites within the Sector to connect, where possible, through car park areas to the pedestrian pathway associated with internal driveways;
 - (x) be employed to reduce reflected glare from building facades;
 - (xi) not compromise the safety of vehicles accessing sites within the Sector or in surrounding development;
 - (xii) include lighting of public areas, including carparking areas for public safety;
 - (xiii) be capable of efficient and effective maintenance;
 - (xiv) generally frame entry areas to the site;
 - (xv) screen services such as electricity substations and transformers in a way that does not affect the streetscape;
 - (xvi) delineate between the pedestrian and vehicular environments, as well as to provide some relief from headlight glare and visual monotony; and
 - (xvii) where retaining walls or batters are required, provide a landscape buffer located clear of these works to reduce the impact of the wall if visible from an external street. Retaining walls and batters must be of a scale and materials that complement the surrounding built environment while responding to the landform.

3.5.6 Plant Species Guidelines

Planting within the Sector is encouraged to incorporate:

- (i) plant species themes that are consistent and complimentary to surrounding development. The species of trees, shrubs, and groundcovers used within the Sector should be selected from the Plant List included in *Appendix C - Plant List*. Plants of similar characteristics may be substituted for a species in the Plant List, if approved by Council. The selection of landscape material is to be cognisant of safety considerations by excluding thorny or poisonous plants that may be hazardous;
- (ii) the use of native species as the predominant plantings to visually reflect the original natural setting of the DCP area, as well as offer benefits of reduced maintenance and water requirements. Exotic and flowering species may be used occasionally as feature planting, to announce entries to the Sector, to provide shade trees in public outdoor spaces, or as accents of colour and texture within the framework of native plant material; and
- (iii) planting densities and heights appropriate for particular areas such as retaining walls and the like are to be shown on a Landscape Plan submitted as part of the Material Change of Use application.

3.5.7 Fencing

- (i) “Soft’ enclosures” and demarcations of the front property boundary, e.g. hedges, earth mounding and landscape planting, are encouraged. Where hedges are established to delineate a front boundary, gates may be incorporated, providing established and vigorous plantings are utilised for hedges.
- (ii) No front fencing to public road boundaries is permitted other than as set out below :
- (a) Solid pre-coloured metal fencing is not permitted;(b) Black powder coated pool style fencing should be used preferentially;
 - (c)Fencing immediately on top of a retaining wall greater than 1m in height shall be limited to 1m above the wall height or be of an open (pool style) construction type and incorporate landscape elements behind.
- OR
- (d) Alternatively, a light frame fence construction made of durable materials and in keeping with the broader landscape design and building colour scheme may be accepted by Council, following a merit based assessment (refer to as shown in *Appendix B – Images*).
- OR
- (e)If a wall or fence is required to enclose a principle private open space courtyard adjacent to a public road frontage, it must:
 - be setback from the front property boundary by at least 1m, incorporating landscape softening (unless otherwise agreed by Council as part of a detailed landscape operational works assessment);
 - be a maximum of 1.8 metres high and be constructed of face brickwork or rendered and painted masonry piers;
 - include infills of complementary masonry, coloured metal tube, painted or treated timber lattice or battens; and
 - not exceed 75% of the lot width, excluding the frontage pedestrian gate.

Section 3.5.8 – Retaining Wall Landscape Solutions

- (i) Vertical retaining walls must be no more than 1.5 metre above natural ground level. All earthworks greater than 1.5 metre in height must be stepped with a minimum 500mm landscape area between the walls. Retaining walls facing the street must be constructed from stone, stone facing, masonry or similar high standard of material.
- (ii) Fencing immediately on top of a retaining wall greater than 1m in height shall be limited to 1m above the wall height or be of an open (pool style) construction type and incorporate landscape elements behind. Alternatively, the front private courtyard fence must be setback a minimum of 1.0m from the top of the retaining wall and incorporated with landscaping to the street frontage.
- (iii) A building or structure and any retaining wall on a lot are to be structurally independent of a building or structure or retaining wall on an adjoining lot.

3.6 CAR PARKING & ACCESS

3.6.1 Car and Bicycle Requirements

Car parking in the Sector must:

- (i) be located at the rear of buildings fronting The Corso, Lakefield Drive, Memorial Drive and Endeavour Boulevard
- (ii) be provided in accordance with the planning scheme, the DCP and the Council's Design Manual (refer also to *Appendix D – Car and Bicycle Parking Requirements*), unless otherwise justified by a qualified traffic engineer's technical note and approved by Council;
- (iii) For apartments, accommodation premises and commercial developments, provide not less than one (1) car park per fifty (50) spaces (or part thereof) for people with disabilities, as part of the total car parking number;
- (iv) visitor car parking is to be in accordance with Clause 41 and 52 of the Planning Schedule for the Shire of Pine Rivers, as the transitional planning scheme. In particular, measures relating to night lighting, location accessibility, line marking and sign posting (*Refer also to Appendix D - Car and Bicycle Parking Requirements*);
- (v) be controlled to minimise its impact on the surrounding road network, any internal circulation and other development adjacent to the Sector;
- (vi) provide safe pedestrian routes which focus on the connectivity between the site and adjacent development within the Town Centre Frame;
- (vii) ensure that pedestrian movement areas through car parks to a building are clearly defined;
- (viii) minimise the visual impact of any structured or basement carparking from the surrounding roads. Any above ground structured parking is to be 'sleeved' behind development fronting any road frontage. Surface car parking may include shade structures within selected areas of the car park;
- (ix) On-street car parking shall be provided for along the frontage of Lakefield Drive and short-term on-street car parking along The Corso;
- (x) employee and customer bicycle parking spaces and the type of bicycle parking devices are to be generally in accordance with *Appendix D – Car and Bicycle Parking Requirements*;
- (xi) one (1) shower cubicle with ancillary change room per ten (10) bicycle spaces required by 3.6.1(vi) above. Facilities may be utilised by both males and females provided adequate privacy and accessibility is ensured for both sexes; and
- (xii) if the demand for the bicycle spaces is not consistent with the table contained in *Appendix D*, Council, on a case by case basis, may permit a reduction of the number of end of trip facilities.

3.6.2 Access

The requirements for access are set out below:

- (i) indicative vehicular ingress and egress points to the external road network (are shown on *Figure 4 – Sector Plan Map*;
- (ii) adequate measures to achieve a high level of public safety on the shared access driveways (internal loop road) is to be provided and, where appropriate, should include:

- (a) good visibility at all pedestrian crossings and establishing pedestrian priority, where appropriate;
 - (b) pavement treatments which achieve a very low traffic speed, while permitting easy and even-surfaces for desirable walking conditions for pedestrians;
 - (c) finishes that are in keeping with existing finishes within the road or the road verge;
 - (d) suitable barrier treatments at the entrance points;
 - (e) the provision of continuous pedestrian access between buildings, car parks and pedestrian areas; and
 - (f) the provision of site and building illumination within car park areas, pedestrian areas and along pedestrian paths during the hours of operation of any component of the development and, at other times, by the provision of security lighting.
- (iii) access for all people including people with a disability is to be achieved by ensuring that development complies with Council provisions relating to access for people with disabilities;
 - (iv) provide convenient and safe pedestrian and cyclist access within or to the Sector and to public transport facilities. Such access is to be integrated with the path and street system of the surrounding road network;
 - (v) direct access for emergency vehicles is to be provided to every building within the Sector by the provision of a minimum 3.5 metre clear carriageway width;
 - (vi) consideration must be given to the design and location of access points adjoining the Sector so as to minimise potential conflicts with the car parking areas, pedestrian areas, paths and service areas within the Sector; and
 - (vii) ensure that no reversing of vehicles, particularly service vehicles, shall occur in areas of high pedestrian activity.

3.6.3 Servicing

Development within the Sector must provide:

- (i) if required, loading zone parking which is to be accessed from the internal vehicle circulation areas;
- (ii) storage for refuse and recyclable materials which are suitably screened from circulation areas;
- (iii) service connection points incorporated into hard and soft landscaping areas;
- (iv) service connections that do not protrude from paving or driveways or cause any hazard for pedestrians or vehicles;
- (v) where appropriate, provide landscaping and other screening measures for service areas, loading bays, refuse areas, plant and machinery, where viewable from external roads or open space; and
- (vi) sharing of service areas, where possible.

3.7 SIGNAGE

Signs are to be erected in accordance with *Appendix E – Town Centre Frame Signage Guidelines*. In particular, signage is to avoid clutter and be of a character and design to complement the architectural style of buildings as well as the streetscape and the amenity of the locality.

3.7.1 Residential Signage

- (i) Signs and hoardings for advertising products and businesses are not permitted on residential lots with the exception of businesses being undertaken from home within the definition of a detached house, townhouse units, approved home occupations or display home signage.

3.7.2 Commercial/Business Signage

Commercial signage in the Sector must:

- (i) with respect to signage that identifies development within the Sector and associated development, be generally integrated into any frontage walls, entry statements or entry structures, if provided. This signage may be located along the frontage of Endeavour Boulevard, Memorial Drive and Lakefield Drive;
- (ii) ensure that lighting of any signage will not cause a nuisance to drivers or pedestrians;
- (iii) be restricted to a minimum clearance of 2.4 metres to the pavement if located above pedestrian areas;
- (iv) be visible, legible and not result in a cluttered or discordant streetscape;
- (v) provide limited use of highly reflective finishes;
- (vi) incorporate professional and coordinated graphics;
- (vii) not permit bunting, streamers, sandwich boards and other low-quality, temporary, or opportunistic signs; and
- (viii) ensure that any support structure or cabling to illuminate signs will not be visible.

3.7.3 Signage Guidelines

- (i) Signage guidelines are included at *Appendix E - Town Centre Signage Guidelines*. The Signage Guidelines are to be taken into consideration, along with other relevant issues, when considering matters regarding signs and architectural graphics of all kinds. They are not to be interpreted as giving rights to any number or types of signage.
- (ii) A Coordinated Signage Plan is to be submitted with any development application for Material Change of Use within this Sector. The Coordinated Signage Plan must distinguish between artworks/murals, on-site business advertising, animated signage, and “third party” advertising in terms of sign dimension, location, illumination and animation on the face of the sign.

4.0 Environmental Management

There is no Environmental Management Plan having application to this Sector.

Management systems for land within the Sector must be implemented to ensure that the Objectives and Performance Indicators referred in the following sections of the Precinct Plan continue to be met throughout the life of the development and the use of the Sector:

Development within this Sector must comply with:

- (i) Section 5.1 – Environmental Management Objectives;
- (ii) Section 5.2 – Stormwater Management Objectives; and

- (iii) Section 5.3 – Earthworks Management Objectives.

5.0 Subdivision Requirements

As shown in *Appendix F – Proposed Metes and Bounds Description* the area of the Sector is 3.049 hectares.

The indicative subdivision layout within the Sector is shown on *Figure 6 - Indicative Plan of Subdivision*. Alternatively, if standard format lots are created for each townhouse unit in a medium density residential development scenario, the subdivision layout shall generally accord with *Figure 4 - Sector Plan Maps* and the number of standard format allotments shall not exceed 121 allotments. Staging of a standard format community title subdivision is to be defined within the subsequent approval of a Development Permit for Reconfiguring a Lot.

Reciprocal access easements are to be created where shared access is proposed for adjoining lots. Services easements are also to be defined as part of the subsequent Reconfiguring a Lot and Operational Works assessment.

6.0 Infrastructure

6.1 INFRASTRUCTURE TO BE PROVIDED

The infrastructure required to be provided by the Principal Developer to serve the Sector includes internal and external infrastructure provisions in accordance with the Rezoning Conditions, the Mango Hill Infrastructure Agreement 1999 (MHIA) and agreements made with the State Government in accordance with the DCP. These obligations are summarised as follows:

6.1.1 Roads

Unless already constructed, the Principal Developer must construct the following roads including carriageways, stormwater drainage, verges, bus setdowns, footpaths, bikeways, landscaping, traffic control devices, traffic signals and street lighting as applicable. Any reference to initial construction in this section is a reference to construction approved by Council in accordance with the rezoning conditions, the MHIA and where applicable, the Mango Hill Agreement – Main Roads (MHIA-MR). Refer also to *Figure 7 – Road Layout*.

- (i) Such works are to be completed prior to commencement of use of the three proposed lots shown on *Figure 6 Indicative Plan of Subdivision*.
- (ii) Bikeways and pathways required along the road frontages of to the Sector and the Central Access Road in accordance with the MHIA.

The construction of the abovementioned infrastructure to the final standard is to be undertaken in accordance with the staging and timing outlined in the MHIA. The initial

standard of construction referred to above is to be undertaken to suit the rate of development of the Sector. Where initial construction is not stated, the road is to be constructed to the standard described above to suit the rate of development of the Sector.

6.1.2 Water Supply

The Principal Developer is required to:

- (i) Construct reticulation systems along all internal roads to service all properties in the Precinct;
- (ii) Construct a water supply network within the DCP area necessary to service the anticipated demand in the Sector, including those sections of the mains shown on **Figure 8 – Water Supply Headworks**; and
- (iii) Make contribution towards water headworks and bulk water supply in accordance with the MHIA.

6.1.3 Sewerage

The Principal Developer must construct all internal sewerage systems to service the properties in the Sector and contribute towards sewerage headworks, unless otherwise agreed with Council:

- (i) Construct the trunk gravity main from the existing Council sewerage infrastructure to connect with each lot in the Sector as required (refer to **Figure 9 – Sewerage Headworks**); and
- (ii) Provide sewerage headworks contributions in accordance with the MHIA.

6.1.4 Park

The requirements for park provision throughout the DCP area are provided for in the MHIA. No area within this Sector will be dedicated as public park unless residential densities exceed a ratio of 40 dwellings per hectare.

6.1.5 Stormwater

Unless otherwise agreed with Council, the Principal Developer must:

- (i) Comply with the provisions of the Stormwater Management Plans for Saltwater Creek and Tributary C as approved by Council and construct stormwater management works so far as they relate to this Sector.
- (ii) Stormwater management works so far as they relate to the Sector are to be provided in accordance with the MHIA, Council's Design Manual, the Stormwater Management Plan for Tributary C, including the construction of all drainage and landscaping works in Tributary C and the Stormwater Management Plan for Saltwater Creek.
- (iii) In addition, the Principal Developer is to construct stormwater drainage systems and stormwater management systems as required by the MHIA and the Environmental Protection (Water) Policy.

6.1.6 Electricity Supply, Gas, Lighting and Communications

The Principal Developer must:

- (i) allow for underground electricity distribution to all properties within the Sector, by Energex or another appropriate supplier of electricity;
- (ii) arrange for the provision of underground conduits along all road verges within the Sector and adjacent roads to meet the anticipated demands of the DCP area;
- (iii) provide underground electricity to all properties within the Sector through Energex or another appropriate supplier of electricity and to Council's standards;
- (iv) provide public lighting to all roads, streets and if relevant, parks and other public areas and facilities within the Sector constructed to relevant Australian Standards and in accordance with the requirements of Energex or alternative supplier of electricity and Council standards;
- (v) provide high voltage electricity services to the Sector through Energex or another supplier of electricity and to Council standards; and
- (vi) provide all electricity services and distribution systems as underground services, including conduits along all road verges within the Sector and adjacent roads to meet the anticipated demand of the DCP area.

6.2 INFRASTRUCTURE AFFECTED OR REQUIRED BY DEVELOPMENT OF THE SECTOR

- (i) The development of the Sector may place demands on the following infrastructure:
 - (a) Roads external to the DCP area and the Sector;
 - (b) Water supply infrastructure;
 - (c) Sewerage infrastructure;
 - (d) Stormwater infrastructure;
 - (e) Parks;
 - (f) Community facilities;
 - (g) Electricity and gas supply;
 - (h) Communications systems; and
 - (i) State Government Infrastructure.
- (ii) The infrastructure described in clause 6.1 above, together with the obligations of the Principal Developer under infrastructure agreements will mitigate the adverse affects on the above infrastructure.

6.3 HOW THE REQUIRED INFRASTRUCTURE RELATES TO THE INFRASTRUCTURE AGREEMENTS

The infrastructure agreements describe the infrastructure that must be provided by the Principal Developer as part of its obligations to provide infrastructure, as envisaged by Chapter 12 of the DCP. The works described in clause 6.1 of this document are the Principal Developer's obligations under the rezoning conditions and the infrastructure agreements.

7.0 Detailed Infrastructure Program

7.1 ESTIMATED DATE FOR PROVISION OF INFRASTRUCTURE

The Principal Developer is to provide the infrastructure referred to in clause 6.1 of this document at times to satisfy the requirements of the MHIA and provide reconfiguration of the Lakefield Drive and Endeavour Boulevard intersection prior to commencement of use of the three proposed lots shown on *Figure 6 Indicative Plan of Subdivision*.

7.2 INTENDED PROVIDER

The Principal Developer is to provide the infrastructure referred to in Section 6.1 at times to satisfy the requirements of the Rezoning Conditions and the MHIA which provides for the infrastructure to be constructed to meet the rate of development in the Sector.

There are no items of State Government infrastructure to be provided by the Principal Development in conjunction with the development of the Sector.

7.3 OTHER WORKS DEPENDENT ON INFRASTRUCTURE PROVISION

No other works depend on the provision of the infrastructure specified in Section 6.1.

Council is to use its best endeavours, including its powers of resumption if lawful, to obtain all necessary rights to permit the construction of water and sewerage infrastructure if such infrastructure is constructed on land external to the DCP area over which Council does not have such rights.

7.4 OTHER RELEVANT INFORMATION

7.4.1 Estimated Water and Sewerage Demands

As required by the MHIA, the Principal Developer states as follows:

- (i) For the purpose of assessing water supply capacity, the estimated number of Equivalent Tenements for this Sector is 72 ET; and
- (ii) For the purpose of assessing sewerage capacity, the estimated number of Equivalent Persons for this Sector is 288 EP.
- (iii) If a future use of the Sector imposes a greater demand on minimum water supply and sewerage infrastructure than assigned in an approved development site within the Sector, Council must not issue a development approval unless the applicant can demonstrate that:
 - (a) To do so will not adversely impact on water supply and sewerage infrastructure standards within the DCP area and elsewhere if considered appropriate by Council's engineer having taken into consideration development approved in the DCP area at the time of an application and future development in the DCP area as provided for by the DCP;

- (b) The principle developer has confirmed, in writing, that the increased demand will not prevent servicing the total number of ETs and EPs provided in the MHIA; and
- (c) In the event the developer satisfies Council of the requirements in (a) and (b) above, the Council will require payment of headworks changes for ETs and EPs not already paid in respect of the proposed development.

8.0 Definitions

If a term used in this sector plan is defined by the DCP or the Infrastructure Agreement then that term or expression has the meaning given to it by the DCP or the Infrastructure Agreement unless the context otherwise required.

APPENDIX A

FINAL SPECIFICATION OF LAND USE FOR THE SECTOR

**FINAL SPECIFICATION OF LAND USE
(TOWN CENTRE FRAME 'R' PRECINCT)
FOR TOWN CENTRE FRAME 'R' SECTOR ONE**

Purposes for which premises may be erected or used without the consent of Council (Permitted Development) COLUMN A	Purposes for which premises may be erected or used without the consent of Council subject to conditions (Permitted Development subject to conditions) COLUMN B	Purposes for which premises may be erected or used only with the consent of Council (Permissible Development) COLUMN C	Purposes for which premises may not be erected or used (Prohibited Development) COLUMN D
Self Assessable	Code Assessable	Impact Assessable Development	
Caretaker's residence Local utilities Park	Accommodation units Apartments Catering premises Commercial services Convention centre Detached House Duplex Dwelling Display Home Family day care centre Motel Office Restaurant Shop <300m ² GFA Sales and information centre Tourist facility Townhouse units	Any other use not listed in Column A, B or D.	Adult product shop Agriculture Air strip Animal husbandry Aquaculture Bulk garden supplies Camping grounds Caravan park Cattery Cemetery Concrete batching plant Contractor's depot Correctional institution Crematorium Dairy Extractive industry Fuel depot General industry Hazardous industry Heavy vehicle parking Heavy vehicle sales Host farm Junk yard Kennels Lot feeding Motor sport or shooting Piggery Poultry farm Rural industry Shopping centre >1,500m ² GLA Showground Simulated conflict Stable Stock sales yard Transport terminal Transportable home village Turf farming

The provisions of the above Final Specification of Land Use Table are subject to section 2.4.9 of this DCP.

APPENDIX B

STREETScape / CHARACTER IMAGES











Magnus Design

TOWNLIVING
by metrickon



APPENDIX C

PLANT LIST

**Appendix C: Indicative Plant Schedule -
Town Centre Frame "E" Sector Two –
(Sector Plan 022-2000)**

Botanical Name	Common Name
Trees & Palms	
Acmena smithii	Lilly Pilly
Agathis robusta	Kauri Pine
Allocastrum littoralis	Black She Oak
Allocastrum torulosa	Forest She Oak
Araucaria cunninghamia	Hoop Pine
Archontophoenix cunninghamia	Pickabeen Palm
Backhousia citriodora	Lemon Scented Myrtle
Backhousia myrtifolia	Carrol
Banksia integrifolia	Coast Banksia
Barklya syringifolia	Crown of Gold Tree
Brachychiton acerifolium	Flame Tree
Brachychiton rupestre	Bottle Tree
Buckinghamia celsissima	Ivory Curl Flower
Callistemon salignus	Pink Tips
Callistemon viminalis	Weeping Bottlebrush
Callitris columellaris	Bribie Island Pine
Cassia fistula	Golden Shower Tree
Cassia javanica/Cassia siamea	Cassia
Castanospermum australe	Black Bean
Casuarina cunninghamiana	River She Oak
Casuarina glauca	Swamp She Oak
Cupaniopsis anacardioides	Tuckeroo
Elaeocarpus eumundii	
Eucalyptus citriodora	Lemon Scented Gum
Eucalyptus ptychocarpa	Swamp Bloodwood
Eucalyptus curtisii	Plunkett Mallee
Euodia elleryana	Pink Euodia
Ficus Hillii	Hill's Fig
Ficus macrophylla	Moreton Bay Fig
Ficus rubiginosa	Port Jackson Fig
Flindersia australis	Crows Ash
Flindersia pimenteliana	Flindersia
Flindersia schottiana	Bumpy Ash
Grevillea robusta	Silky Oak
Harpullia pendula	Tulipwood
Hymenosporum flavum	Native Frangipani
Jacaranda mimosifolia	Jacaranda
Lagerstroemia indica	Crepe Myrtle
Livistona australis	Livistona
Livistona decipiens	Weeping Cabbage Palm
Livistona nitida	Livistona
Lophostemon confertus	Brush Box
Lophostemon suaveolens	Swamp Box
Melaleuca linariifolia	Snow in Summer
Melaleuca leucadendron	Small Leaved Paperbark
Melaleuca quinquenervia	Broadleaved Paperbark
Metrosideros queenslandicus	Queensland Golden Myrtle
Oreocallis sp. nova (wickhamii)	Tree Waratah
Peltophorum pterocarpus	Yellow poinciana
Phoenix canariensis	Canary Island Palm

**Appendix C: Indicative Plant Schedule -
Town Centre Frame "R" Sector One –
(Sector Plan 052-1000)**

Botanical Name	Common Name
Trees & Palms	
Podocarpus elatus	Brown Pine
Roystonea regia	Cuban Royal Palm
Syzygium australe	Scrub Cherry
Syzygium francisii	Giant Water Gum
Syzygium jambos	Rose Apple
Syzygium leuhmanii	Small Leaved Lilly Pilly
Syzygium paniculatum	Dwarf Magenta Cherry
Tristaniopsis laurina	Water Gum
Waterhousia floribunda	Weeping Myrtle
Xanthostemon chrysanthus	Golden Penda
Shrubs	
Baeckea sp. Mt Toza	Dwarf Baeckea
Baeckea virgata	Twiggy Myrtle
Baeckea virgata dwarf	Dwarf Baeckea
Banksia Birthday Candles	Dwarf Banksia
Banksia ericifolia	Heath Banksia
Banksia integrifolia	Coastal Banksia
Banksia robur	Swamp Banksia
Banksia spinulosa var collina	Hairpin Banksia
Callistemon Dawson River	Dawson River
Callistemon Little John	Little John
Callistemon Ned Kelly	Ned Kelly
Callistemon pachyphyllus	Bottlebrush
Cyathea australis	Rough Tree Fern
Gardenia Florida	Double Gardenia
Grevillea "Coconut Ice"	Coconut Ice
Grevillea "Majestic"	Majestic
Grevillea "Robyn Gordon"	Grevillea
Grevillea "Superb"	Superb
Grevillea banksii	Red Silky Oak
Grevillea Honey Gem	Honey Gem
Grevillea Ned Kelly	Ned Kelly
Hibiscus rosa sinensis	Hibiscus
Hovea acutifolia	Pointed Leaf Hovea
Leptospermum flavescens	Tantoon Tea Tree
Leptospermum petersonii	Lemon Scented Tea Tree
Leptospermum Pink Cascade	Pink Cascade
Melaleuca linariifolia Snowflake	Dwarf Tea Tree
Murraya paniculata	Orange Jessamine
Pittosporum revolutum	Brisbane Laurel
Pittosporum undulatum	Mock Orange
Syzygium Blaze	Dwarf Lilly Pilly
Syzygium Elite	Compact Lilly Pilly
Syzygium Tiny Trev	Dwarf Lilly Pilly
Tibouchina jules	Tibouchina
Westringea fruticosa	Wynyabbie Gem

**Appendix C: Indicative Plant Schedule -
Town Centre Frame "R" Sector One –
(Sector Plan 052-1000)**

Botanical Name	Common Name
Groundcovers	
Agapanthus africanus	Lily of the Nile
Agapanthus orientalis	Lily of the Nile
Agapanthus Peter Pan	Dwarf Agapanthus
Anigozanthos hybrids	Kangaroo Paws
Blechnum cartilagineum	Fern
Cissus rhombifolium	Grape Ivy
Cissus Ellen Danica	Grape Ivy
Crinum pendunculatum	River Lily
Dianella revoluta	Flax Lily
Dietes bicolor	Japanese Iris
Dietes grandiflora	Japanese Iris
Evolvulus pilosus	Blue Sapphire
Gardenia radicans	Dwarf Gardenia
Grevillea Bronze Rambler	Bronze Rambler
Grevillea Royal Mantle	Prostrate Grevillea
Hardenbergia violacea	Purple Coral Pea
Hardenbergia violacea Bushy Blue	Bushy Blue
Helichrysum ramosissimum	Yellow Buttons
Hemerocallis species	Day Lily
Hibbertia dentata	Toothed Guinea Flower
Hibbertia scandens	Snake Vine
Liriope "Evergreen Giant"	Liriope
Lomandra hystrix	Creek Mat rush
Lomandra longifolia	Mat Rush
Lomandra multiflora	Long Leaved Mat Rush
Myoporum ellipticum	Creeping Boobialla
Myoporum parvifolium	Myoporum
Pittosporum Miss Muffet	Dwarf Pittosporum
Pittosporum tobira	Miss Muffet
Viola hederaceae	Native Violet
Zierra Carpet Star	Carpet Star
Grasses	
Cynodon dactylon	Green Couch
Danthonia induta	Wallaby Grass
Digitaria didactyla	Blue Couch
Greenlees Park	Hybrid Couch
Poa australis	Native Poa
Vines	
Jasminum polyanthum	Jasmine
Pandorea pandorana	Wonga Wonga Vine
Pandorea jasminoides	Bower of Beauty
Trachelospermum jasminoides	Variegated Star Jasmine
Trachelospermum jasminoides	Star Jasmine

APPENDIX D

CAR & BICYCLE PARKING REQUIREMENTS

CAR PARKING REQUIREMENTS FOR TOWN CENTRE FRAME 'R' SECTOR ONE

Purpose	Minimum Number of Car Parking Spaces
Accommodation Unit	1.25 per unit
Amusement Premises	1/15m ² GFA
Attached Flat	1
Caretakers Residence	1
Catering Premises	1/15m ² GFA or part thereof
Cluster Housing	1.5/dwelling of which at least 1 space is enclosed and lockable + 0.5 visitor parking
Commercial Services	1/50m ² GFA or 2/tenancy*
Indoor Recreation - Bowling - Gymnasium - Indoor Bowls - Indoor Skating Rink or Swimming Pool - Indoor Cricket or other game other than squash or tennis - Squash or Tennis - Other than above	4/alley 10/100m ² GFA or part thereof 4/rink 15 + 1 per 100m ² GFA or part thereof 25/pitch 6 per court 10/100m ² GFA or part thereof
Local Store	1/15m ² GFA or part thereof with a minimum of 4
Local utility	To be negotiated
Medical, dental or paramedical practitioner	4 per consulting room
Multiple dwelling	1.5/dwelling unit or which at least 1 space is enclosed and lockable +0.5/unit for visitor parking
Office (other than medical) Includes offices associated with or ancillary to when more than 20% of GFA	1/30m ² GFA or part thereof
Park	Nil
Restaurant	1/15m ² GFA or part thereof
Shop	1/15m ² GFA or part thereof
Take-away Foods Store	1/15m ² GFA + separate queuing for at least 10 vehicles for drive through servery
Townhouse Units	1.5 spaces per dwelling unit of which at least one space is to be fully enclosed, plus 0.5 spaces per dwelling unit for visitor parking.
* Whichever is greater	

Note: where the carparking area for the facility is likely to be used during the hours of twilight or darkness, the vehicular access point to the site from a dedicated road shall be illuminated to the level set under the Australian Standard AS1158.3.1:1999.

The required visitor parking spaces are to be provided in a location readily accessible by the general public, line-marked, signposted as visitors car parks, and maintained for this purpose at all times.

BICYCLE PARKING REQUIREMENTS FOR TOWN CENTRE FRAME 'R' SECTOR ONE

Land use	Employee Bicycle Parking spaces	Class	Visitor/Shopper Bicycle Parking spaces	Class
Accommodation Units (above ground level)	1 space per 4 habitable rooms	1	1 space per 16 habitable rooms	3
Amusement premises	1 space per 4 employees	2	2 plus 1 per 50m ² GFA	3
Apartments (above ground level)	1 space per 4 habitable rooms	1	1 space per 16 habitable rooms	3
Car park	1 space per 750m ² GFA	1	1 space per 50 car parking spaces	3
Car wash (associated with an existing use)	1 space per 750m ² GFA	2	N/A	
Catering premises	1 space per 100m ² GFA public area	2	2 spaces per 750m ² GFA	3
Child care centre (where the use is included within an existing building)	1 space per 1500m ² GFA	2	2 spaces + 1 space per 1500m ² GFA	3
Commercial services	1 space per 200m ² GFA	2	1 space per 750m ² GFA over 1000m ² GFA	3
Convention Centre	1 space per 750m ² GFA	2	1 space per 750m ² GFA over 1000m ² GFA	3
Educational establishment	1 space per 100 full time students	1 or 2	1 space per 100 full time students	3
Entertainment library	1 space per 300m ² GFA	2	1 space per 200m ² GFA	3
Hardware centre (where the use is included within an existing building)	1 space per 300m ² GFA	2	1 space per 200m ² GFA	3
Hotel	1 space per 40 rooms	1	N/A	N/A
Indoor recreation	1 space per 4 employees	1 or 2	1 space per 200m ² GFA	3
Licensed club	1 per 25m ² bar floor area and 1 per 100m ² lounge, beer garden	1	2 spaces per 750m ² GFA	3
Motel	1 space per 40 rooms	1	N/A	N/A
Office	1 space per 200m ² GFA	2	1 space per 750m ² GFA over 1000m ² GFA	3
Passenger Terminal	1 space per 750m ² GFA public area	1 or 2	1 space per 750m ² GFA	3
Place of worship (where the use is included within an existing building)	1 space per 750m ² GFA public area	1 or 2	1 space per 750m ² GFA	3

Land use	Employee Bicycle Parking spaces	Class	Visitor/Shopper Bicycle Parking spaces	Class
Restaurant	1 space per 100m ² GFA public area	1 or 2	2 spaces per 750m ² GFA	3
Retail Nursery (where the use is included within an existing building)	1 space per 300m ² GFA	1 or 2	1 space per 200m ² GFA	3

Retirement Village (nursing home)	1 space per 7 beds	1 or 2	1 space per 60 beds	3
Shop < 300m ² GFA	1 space per 300m ² GFA	1 or 2	1 space per 200m ² GFA	3
Shopping Centre (1500m ² GFA)	1 space per 300m ² GFA	1 or 2	1 space per 200m ² GFA	3
Technology industry	1 space per 300m ² GFA	1 or 2	1 space per 200m ² GFA	3
Tourist facility	1 space per 300m ² GFA	1 or 2	1 space per 200m ² GFA	3
Veterinary clinic	1 space per 200m ² GFA	1 or 2	1 space per 750m ² GFA over 1000m ² GFA	3
Notes:-				
1. GFA – Gross floor area, as defined in the DCP;				
2. The provision of bicycle spaces recommended in the table may be staged initially depending on the demand for use, however space should be set aside to allow 100% provision in the event that the full demand for bicycle parking is realised.				

Types of Bicycle Parking Devices

Class	Security Level	Description	Main User Type
1	High	Fully enclosed individual lockers	Bike and ride commuters at railway and bus stations.
2	Medium	Located compounds fitted with Class 3 facilities. Communal access using duplicate keys or electronic swipe cards	Regular employees, students, regular bike and ride commuters.
3	Low	Facilities to which the bicycle frame and wheels can be locked	Shoppers, visitors to public offices, places of employment where there is security supervision of the parking facilities.

APPENDIX E

TOWN CENTRE FRAME SIGNAGE GUIDELINES



NORTH LAKES TOWN CENTRE FRAME SIGNAGE GUIDELINES

1.0 OBJECTIVES

The objectives of the signage standards for North Lakes are:

- (i) To implement design standards consistent with the existing and future character of North Lakes
- (ii) To ensure that signs and advertisements complement the attractiveness, safety, legibility and amenity of the North Lakes environment, both day and night
- (iii) To support the role of signs and advertising as an important factor in the marketing of North Lakes and in identifying the commercial character in areas of the development.

2.0 DEFINITIONS

Animated Signage:

An animated sign is an advertisement with a changing display, such as flashing or chasing bulbs, or any other non-static illuminated displays.

Third Party Advertising:

A “third party” advertising sign is an advertisement for a business not conducted on the land on which the sign is located, or a commodity not available on that land, and includes an advertisement for a particular brand of product sold or distributed from the premises. However, an advertising sign which incorporates the North Lakes logo as an integral element of the signage, or a sign which includes only a generic reference to the type of product available on the land is not a “third party” advertising sign in terms of the inclusion of the North Lakes logo or the generic product reference.

On- Site Business Advertising:

An on-site business advertising sign is an advertising sign which is limited in its content to the name of a business premises and the name and services offered by the occupants of the business premises. An on-site business advertising sign may also incorporate the North Lakes logo as an integral element of the signage.

Artworks/Murals:

Artwork and murals are architectural graphics and other artworks which do not contain any implied or direct reference to a business undertaking or service or commodity available from a business undertaking. However, artworks and murals may incorporate the North Lakes logo as a supporting or an ancillary element.

3.0 SIGNAGE GUIDELINES

Except in the case of road signs, the following guidelines will be applied to all advertising signage erected in the North Lakes Town Centre Core. The following guidelines are to be read in association with the guidelines contained in Section 7.9.1 of this Sector Plan.

These guidelines are intended to apply for individual signs, but where they form part of a coordinated signage plan, they can be varied.

3.1. Scale and Location of Signs on Buildings

The scale of the sign shall be compatible with the building and building elements on which it is affixed and to which it is in proximity, as well as nearby buildings, streets and other existing signs. Consideration shall be given to the sign's relationship to the overall appearance of the development as well as surrounding development.

The number and area of signs, if specified, are intended to be maximum standards.

3.2. Principal Developer Signs

Within road reservations and on land in ownership of the Council or the principal developer, signage content is limited to the message requirements of the principal developer and traffic control. Generally content of signs within these areas will be restricted to directional information for identifying locations, buildings, services and events. Commercial business names or logos will generally not be permitted except for sponsorships on temporary event signs.

3.3. Traffic Safety

A sign must not obstruct pedestrians' views of traffic or vehicle drivers' views of pedestrians, other traffic or the road ahead. A sign must not create possible confusion for drivers at critical locations such as intersections, traffic signals, or merging and weaving situations eg. red and green lit signage near traffic intersections.

3.4. Installation Fixings

No support, fixing, suspension or other systems required for the installation of a sign shall be exposed, unless designed as an integral feature of the sign. Conduits, wiring, switches etc shall be discreetly placed out of general view.

3.5. Animated Signs

Animated signs, where parts or all of the sign components move, may be acceptable in non-residential environments where no significant adverse impacts are likely to adjacent or nearby sensitive land uses.

3.6. Clutter

The visual amenity of the local area and the effectiveness of the message on the sign will be enhanced by reducing signage clutter. Proposed signs shall be assessed in the context of the number, type, size and location of existing signs on the site and surrounds.

3.7. Illumination

The luminance of an externally illuminated advertisement in the Town Centre Core (measured in candelas per square metre) is not to exceed 500 cd/m².

The luminance level of an advertisement may exceed this level where it can be shown that the increase in luminance level is unlikely to contribute to a traffic hazard or cause an inappropriate loss of amenity.

The external illumination of signs is to be carried out in such a way as to minimise the spill effects beyond the target sign. An illuminated sign must be designed to make the best possible use of the energy efficient equipment and light sources available.

At street level sign illumination is to be consistent with the general level of lighting so as to eliminate shadows and promote the safety of adjoining public areas.

The intensity of lighting and hours of illumination must not unreasonably impact on any residential properties or traffic operations.

3.8. Environmental Controls

A sign must not be nailed or similarly fixed to a tree. Every sign shall be maintained and kept in good repair.

3.9. Performance Controls

Unless otherwise approved under the coordinated signage plan, a proposed sign must meet the performance criteria outlined in the following section. The acceptable standards associated with each type of sign are provided as examples and should not be seen as precluding other solutions. However, where alternative solutions are proposed, the onus will be on the proponent to demonstrate that the relevant performance criteria are met.

SIGNS PERFORMANCE CRITERIA



Signs shall:

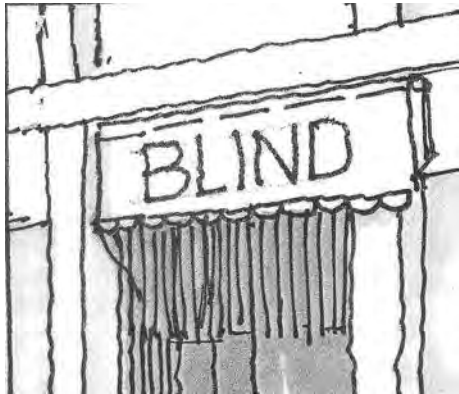
- (i) not create a hazard to traffic or pedestrians**
- (ii) be of character and design standard consistent with the objectives and controls for this sector plan**
- (iii) complement the streetscape and amenity of the locality by virtue of their size, location, illumination, utilisation of complementary shapes, forms, colours, durable quality materials and design concepts**
- (iv) if affixed to a building, complement the architectural style of the building by virtue of their size, location, illumination, utilisation of complementary shapes, forms, colours, durable quality materials and design concepts; and**
- (v) not unnecessarily repeat or duplicate similar signs.**

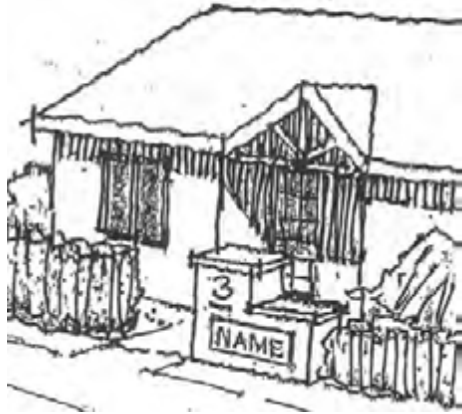
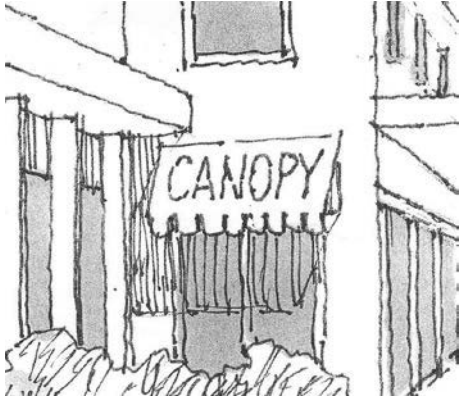
4.0 TYPES OF SIGNS


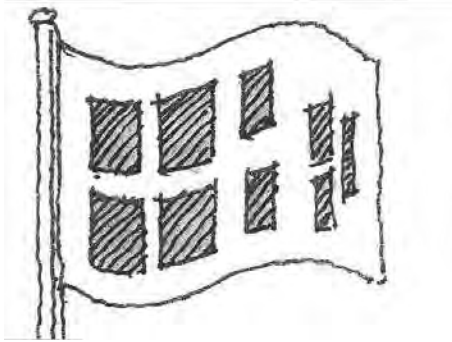
The following schedule sets out maximum criteria for various types of signs. Such signs may be permitted subject to the overall performance standards being met.


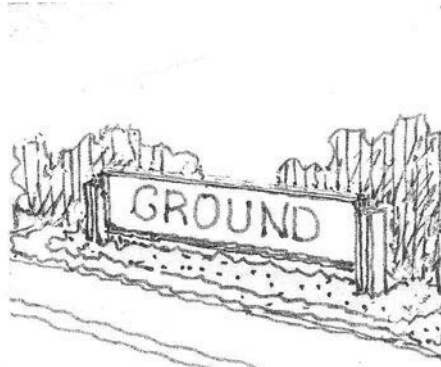
- (i) Above Awning Sign
- (ii) Awning / Fascia Sign
- (iii) Blind Sign
- (iv) Business Plate
- (v) Canopy Sign
- (vi) Created Awning Sign
- (vii) Flag Pole Sign
- (viii) Footway Sign
- (ix) Ground Sign
- (x) Hamper Sign
- (xi) Highrise Building Sign
- (xii) Lantern Sign
- (xiii) Pole Sign
- (xiv) Projecting Flag Sign
- (xv) Projecting Sign
- (xvi) Stallboard Sign
- (xvii) Under Awning Sign
- (xviii) Vertical Banner Building Sign
- (xix) Vertical Banner Freestanding Sign
- (xx) Wall Sign
- (xxi) Window Sign



TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>ABOVE AWNING SIGN An Above Awning Sign is an advertisement above an awning, verandah roof or the like.</p>		<p>Maximum size</p> <p>Maximum height above awning</p> <p>Extent</p> <p>Other requirements</p>	<p>Length - 2.7 metres</p> <p>Height - 0.6 metres</p> <p>Width - 0.3 metres</p> <p>1.0 metre</p> <p>Not to project beyond the edges of the awning</p> <p>No unsightly supports or rear view of sign.</p> <p>Any unsightly supports required for structural reasons are to be set back behind edges of sign</p>
<p>AWNING/FASCIA SIGN An Awning/Fascia Sign is an advertisement painted or otherwise affixed to the fascia of a building, an awning, verandah or return end of an awning.</p>		<p>Maximum extent</p> <p>Maximum height</p> <p>Maximum thickness</p>	<p>Not projecting above or below the fascia</p> <p>0.6 metre</p> <p>0.1 metre out from fascia</p>



TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>BLIND SIGN A Blind Sign is an advertisement painted on or otherwise affixed to solid or flexible material suspended from the edge of an awning, verandah or wall.</p>		<p>Minimum clearance between the lower most point of the sign and the footway Maximum number</p>	<p>2.4 metres 1 per tenancy frontage</p>

TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>BUSINESS PLATE A Business Plate is a small advertisement identifying the name and/or trade, business or calling of the occupant or business premises. A Business Plate may be painted or affixed to a wall.</p>		<p>Maximum surface area of sign residence in a residential area Maximum surface area per business occupant of premises in commercial and mixed use areas</p>	<p>0.3 square metres 0.3 square metres</p>
<p>CANOPY SIGN A Canopy Sign is an advertisement, painted or otherwise affixed, to a canopy, whether the canopy is constructed from flexible or solid material.</p>		<p>Minimum clearance between the lower most part of the sign and the footway Maximum number</p>	<p>2.4 metres 1 per tenancy frontage</p>

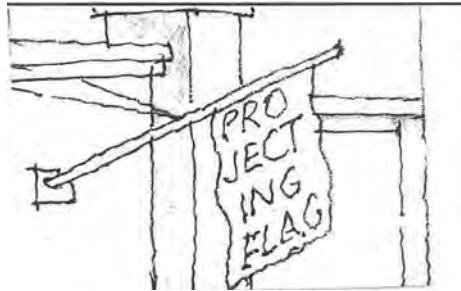
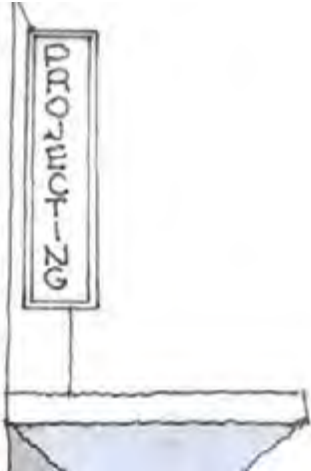
TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>CREATED AWNING LINE SIGN A Created Awning Line Sign is an advertisement attached to and extending beyond a fascia of an awning or the like.</p>		<p>Extent</p> <p>Maximum area</p> <p>Minimum clearance</p>	<p>Not more than 0.6 metre above the fascia to which it is attached</p> <p>The created area is not to exceed 25% of the fascia</p> <p>2.4 metres to the footpath pavement</p>
<p>FLAG POLE SIGN A Flag Pole Sign is a fabric sign hung from a pole.</p>		<p>Maximum surface area</p> <p>Maximum height above ground</p>	<p>3.0 square metres</p> <p>6.5 metres if planted in the ground</p>



TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>FOOTWAY SIGN A Footway Sign is a portable, freestanding advertisement, normally supported by an 'A' or inverted 'T' frame, and typically displayed on a footway.</p>		<p>Maximum size</p> <p>Maximum number</p> <p>Location</p> <p>Other requirements</p>	<p>Height - 1.0 metre Width - 0.6 metre Depth - 0.6 metre</p> <p>1 per tenancy</p> <p>A Footway Sign on a footway is to be positioned near the kerb (but not closer than 0.25 metre) so as to leave clear passage for pedestrians along the footway, particularly the visually disadvantaged who rely on clear passage along the frontage of shops.</p> <p>No footway sign is to be positioned so as to obstruct, clutter or detract from street landscaping, furniture or artwork</p> <p>A Footway Sign not to be located on a public road.</p> <p>A Footway Sign is not to have moving, rotating or animated parts, such as a spinner sign. A Footway Sign is to be displayed only during trading hours and is not to be used for the display of merchandise</p>
<p>GROUND SIGN A Ground Sign is a monolithic sign which, in effect, sits on or rises out of the ground.</p>		<p>Setting</p> <p>Maximum height</p> <p>Maximum surface area</p> <p>Maximum setback from side boundary</p> <p>Maximum number</p>	<p>Erected within a landscaped environment.</p> <p>Not erected to expose an unsightly back view of the sign.</p> <p>When in a residential area, only permitted where used in a name of a multi-unit development site</p> <p>1.8 metres</p> <p>10 square metres</p> <p>3 metres</p> <p>One per frontage for frontages up to 100 metres</p> <p>For frontages over 100 metres, spacing of signs to be no less than 60 metres</p>


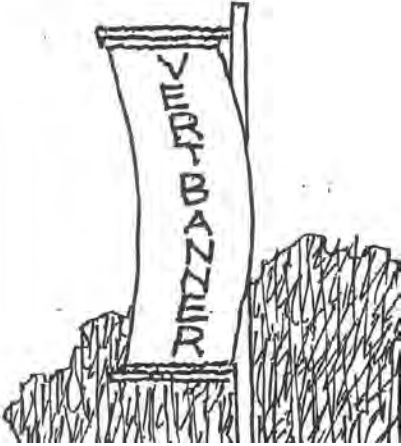
TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>HAMPER SIGN A Hamper Sign is an advertisement, painted or otherwise affixed, between a door head and an awning, or their equivalent levels.</p>		<p>Maximum thickness Maximum Extent</p>	<p>0.3 metre from the face of the wall The size and form are to be compatible with the building on which they are located.</p>
<p>HIGH RISE BUILDING SIGN A High Rise Building Sign is an advertisement naming or identifying a high rise building by the use of a logo or the like.</p>		<p>Maximum extent Maximum number Other requirements</p>	<p>Contained within the actual or created outline of a building or appears as if it was part of the original building if part of a structure creating a changed building outline One per building frontage A High Rise Building Sign is not to contain third party advertising</p>

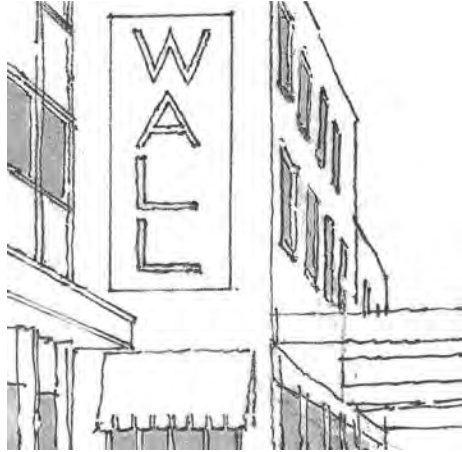

TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>LANTERN SIGN A Lantern Sign is a translucent lighting fixture displaying the name and/or trade, business or calling of the occupant.</p>		<p>Maximum number for a Home Occupation or Business</p> <p>Maximum edge dimension of lantern</p> <p>Maximum height</p> <p>Maximum illumination</p>	<p>One</p> <p>0.5 metre (ie to fit into a Cube of 0.5 x 0.5 x 0.5 metres)</p> <p>2 metres</p> <p>Not greater than a standard 100 watt incandescent bulb</p>
<p>POLE SIGN A Pole Sign is a freestanding sign mounted on one or more vertical supports which has a smaller surface area and a lower height than a Pylon/Column sign.</p>		<p>Maximum number</p> <p>Aspect</p> <p>Maximum surface area</p> <p>Maximum height above ground</p> <p>Minimum setback from side boundary</p> <p>Setting</p>	<p>One two-sided pole sign per allotment street frontage</p> <p>Not erected to expose an unsightly back view of the sign</p> <p>2.4m² per side for a maximum of two sides.</p> <p>4.5 metres</p> <p>3 metres</p> <p>Erected within a landscaped environment</p>

TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	

TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>PROJECTING FLAG SIGN A Projecting Flag Sign is a non-illuminated, wall-mounted corporate flag.</p>		<p>Maximum size Maximum number Minimum spacing Minimum clearance</p>	<p>0.3 square metre per face 4 per site 2 metres 2.4 metres to the footpath pavement.</p>
<p>PROJECTING SIGN A Projecting Sign is a double-faced sign projecting at right angles to a wall and fixed to the wall. A Projecting Sign is not an Under Awning Sign.</p>		<p>Minimum clearance between the lowermost point of the sign and the footway Maximum number Orientation Extent Maximum size</p>	<p>2.4 metres One per building frontage Vertical Not projected above the height of the wall to which it is attached Height - 3.0 metres Width - 0.75 metre</p>

TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>STALLBOARD SIGN A Stallboard Sign is an advertisement, painted or otherwise affixed, at the base of a shopfront, normally below a shop window</p>		<p>Fixing</p> <p>Maximum Extent</p>	<p>Fitted flush</p> <p>The size and form are to be compatible with the building on which they are located.</p>
<p>UNDER AWNING SIGN An Under Awning Sign is an advertisement suspended under an awning or verandah.</p>		<p>Orientation</p> <p>Minimum clearance between the lowermost point of the sign and footway</p> <p>Extent</p> <p>Location</p> <p>Minimum distance between under awning signs</p> <p>Maximum dimensions</p> <p>Minimum setback from side boundary</p>	<p>At right angles to the building frontage</p> <p>2.4 metres</p> <p>Not to project beyond the awning or verandah</p> <p>Central to each shop or tenancy or shopping arcade entrance</p> <p>3.0 metres</p> <p>Length - 2.7 metres or not greater than 75% of the width of the awning or verandah which ever is lesser</p> <p>Height - 0.6 metres</p> <p>Width – 0.3 metres</p> <p>1.5 metres</p>

TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>VERTICAL BANNER BUILDING SIGN A Vertical Banner Building Sign is an advertisement of non-rigid material normally fixed at the top and bottom to brackets projecting from a building.</p>		<p>Maximum height</p> <p>Maximum width</p> <p>Minimum clearance between lowermost point of the sign and the footway</p> <p>Maximum area</p> <p>Minimum spacing between signs</p> <p>Minimum setback from side or rear boundary</p>	<p>Not to project above the height of the adjacent part of the building to which it is fixed and not to exceed 5 metres above ground level</p> <p>0.75 metre</p> <p>2.4 metres</p> <p>2.4 square metres</p> <p>6.0 metres</p> <p>3.0 metres</p>
<p>VERTICAL BANNER FREESTANDING SIGN A Vertical Banner Freestanding Sign is an advertisement of non-rigid material normally supported at two or more locations from brackets extending from a freestanding pole.</p>		<p>Maximum height (above ground level to top most support)</p> <p>Maximum width</p> <p>Minimum clearance between lowermost point of the sign and the footway</p> <p>Minimum spacing between signs</p> <p>Minimum setback from side boundary</p> <p>Maximum surface area</p>	<p>5.0 metres</p> <p>0.75 metre</p> <p>2.4 metres</p> <p>6.0 metres</p> <p>3.0 metres</p> <p>2.4 square metres</p>

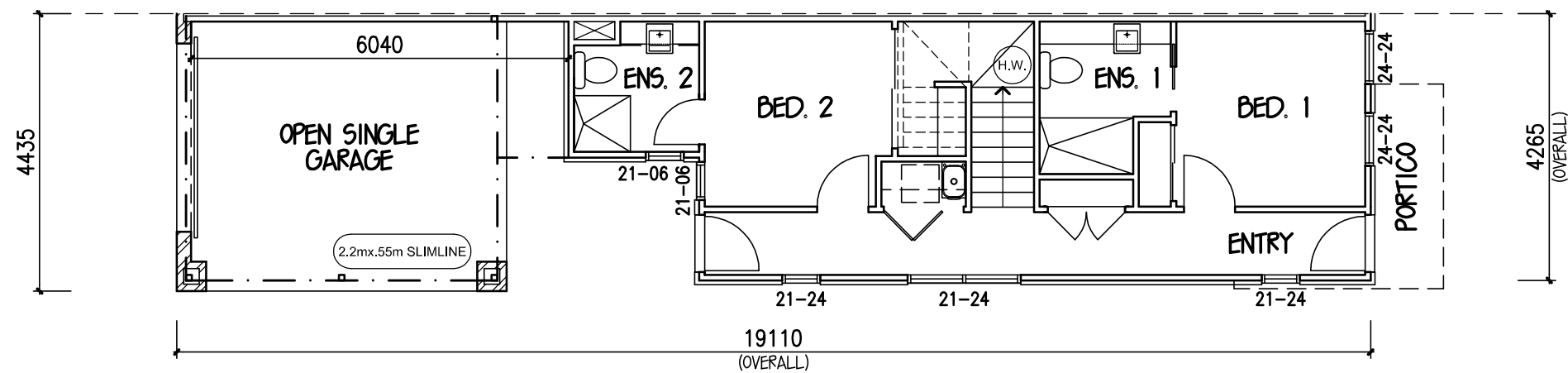
TYPE OF SIGN	EXAMPLE OF TYPE OF SIGN	ACCEPTABLE STANDARD FOR SPECIFIC SIGN STYLE	
<p>WALL SIGN A Wall Sign is an advertisement, painted or otherwise affixed, flat to a wall.</p>		<p>Maximum thickness (or projection from wall) Maximum number Maximum surface area Location</p>	<p>0.3 metre One per tenancy 20% of wall space or 6 m², whichever is the lesser Ground floor level and first floor level and not to project beyond the edge of the wall.</p>
<p>WINDOW SIGN A Window Sign is an advertisement, painted or otherwise affixed, to the glass of a display window.</p>		<p>Maximum surface area of sign</p>	<p>25% of the area of the glass panel or panels on which it is displayed</p>

APPENDIX F

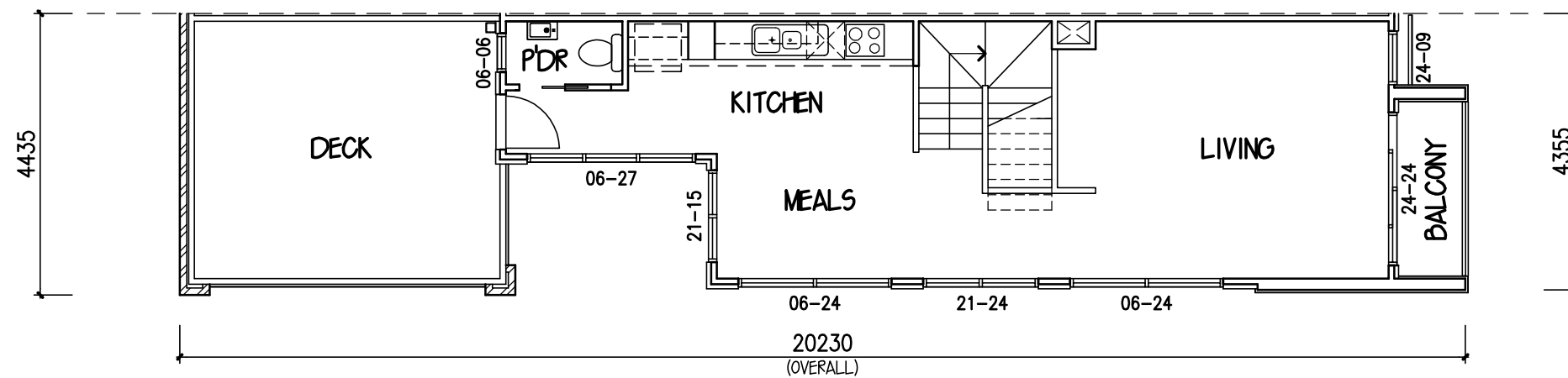
PROPOSED METES & BOUNDS DESCRIPTION

APPENDIX G

TYPICAL DWELLING DESIGNS (INDICATIVE)



GROUND FLOOR PLAN



FIRST FLOOR PLAN

FLOOR PLANS 1:100

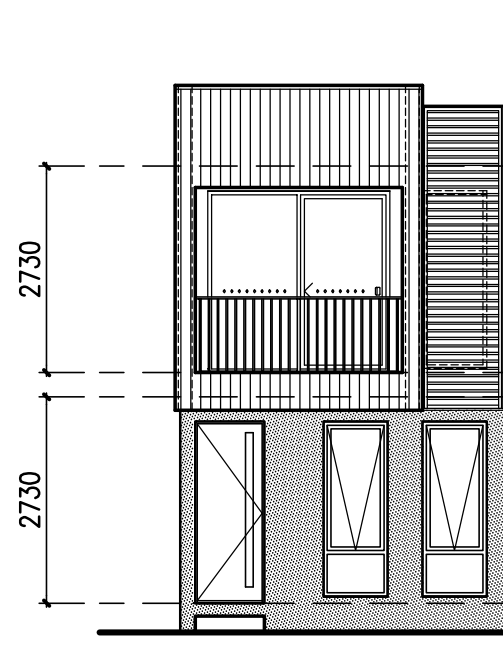
Product: ALPHA CNR. (Cube)
 Date: 21.05.14 Version 3.
 Drawn: ZM

AREAS:	GARAGE:	25.69 SQM
GRD FLR:	DECK:	21.88 SQM
FIRST FLR:	PORTICO:	3.81 SQM
	BALCONY:	3.57 SQM
SUBTOTAL:	TOTAL:	102.04 SQM
		5.45 SQM
		10.98 SQM

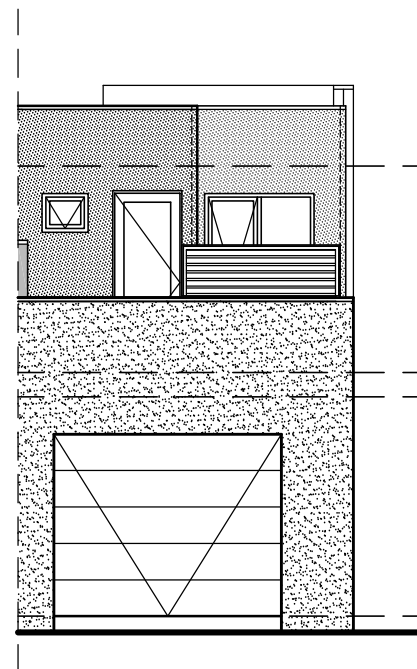
TOWNLIVING[™]
by metricon

metricon

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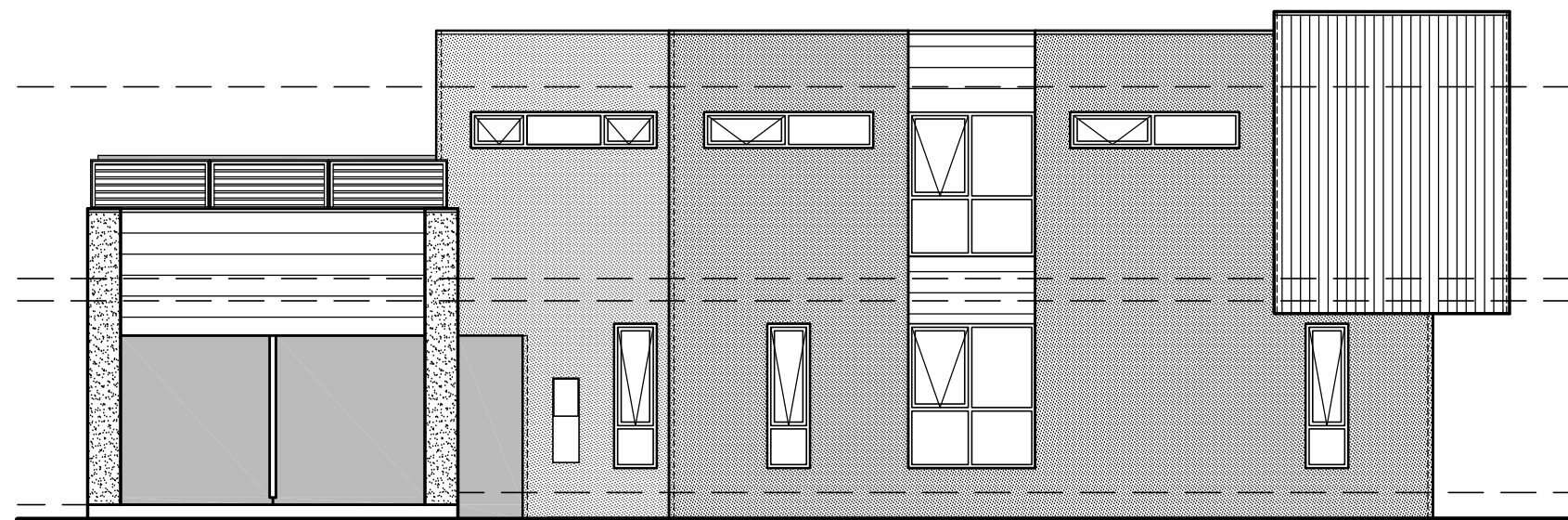
FRONT ELEVATION



REAR ELEVATION

Finishes Schedule

-  50MM LOXO AERATED CONCRETE PANELS WITH ACRYLIC RENDER FINISH (UPPER FLOOR ONLY)
-  SCYON 'AXON' 133 VERTICAL CLADDING (GRAINED TEXTURE) WITH PAINTED FINISH
-  SCYON 'STRIA' 325 HORIZONTAL CLADDING WITH PAINTED FINISH
-  BRICKWORK WITH ACRYLIC RENDER FINISH
-  JAMES HARDIE 6MM HARDIFLEX SHEET CLADDING WITH PAINTED FINISH



FRONT ELEVATION

ELEVATIONS 1:100

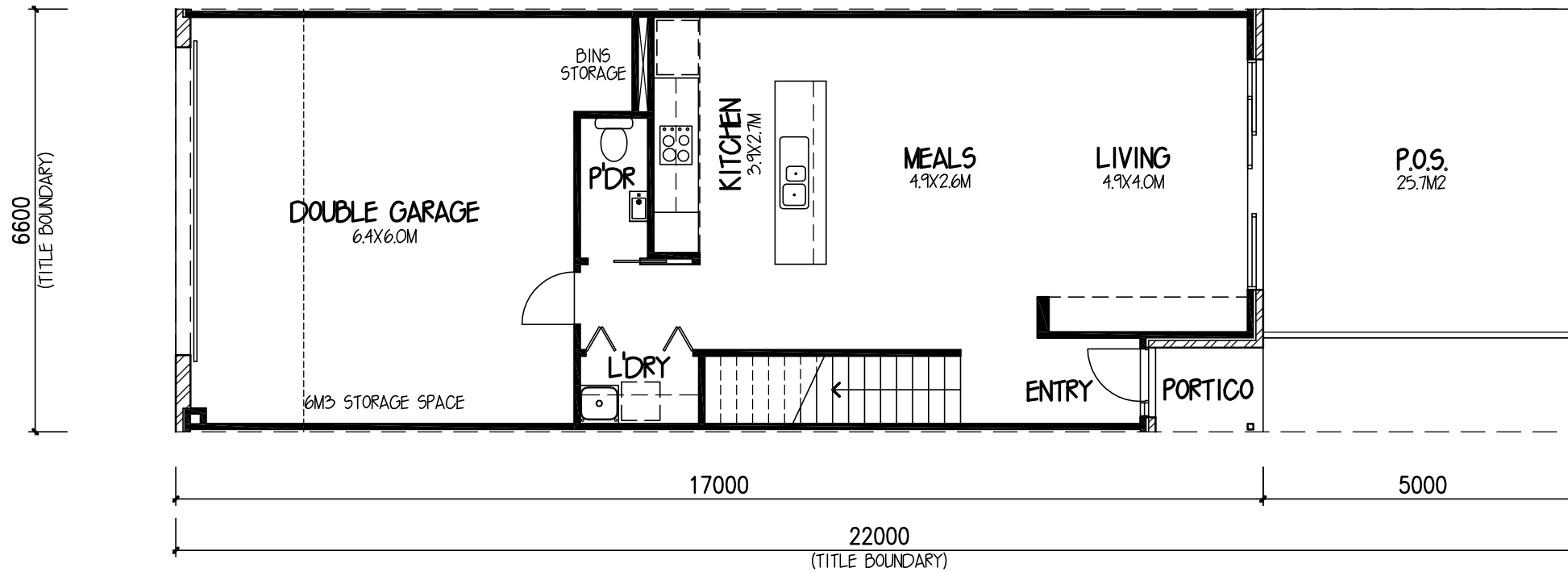
Product: ALPHA CNR. (Cube)
 Date: 21.05.14 Version 3.
 Drawn: ZM

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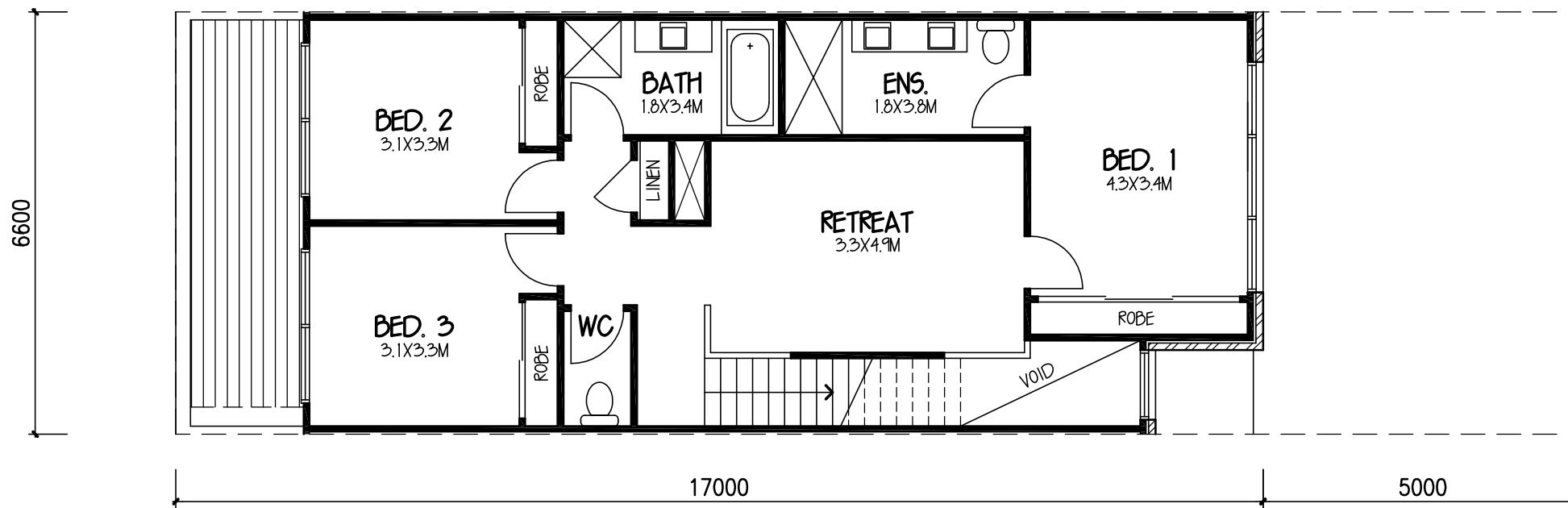
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GROUND FLOOR PLAN



FIRST FLOOR PLAN

FLOOR PLANS 1:100

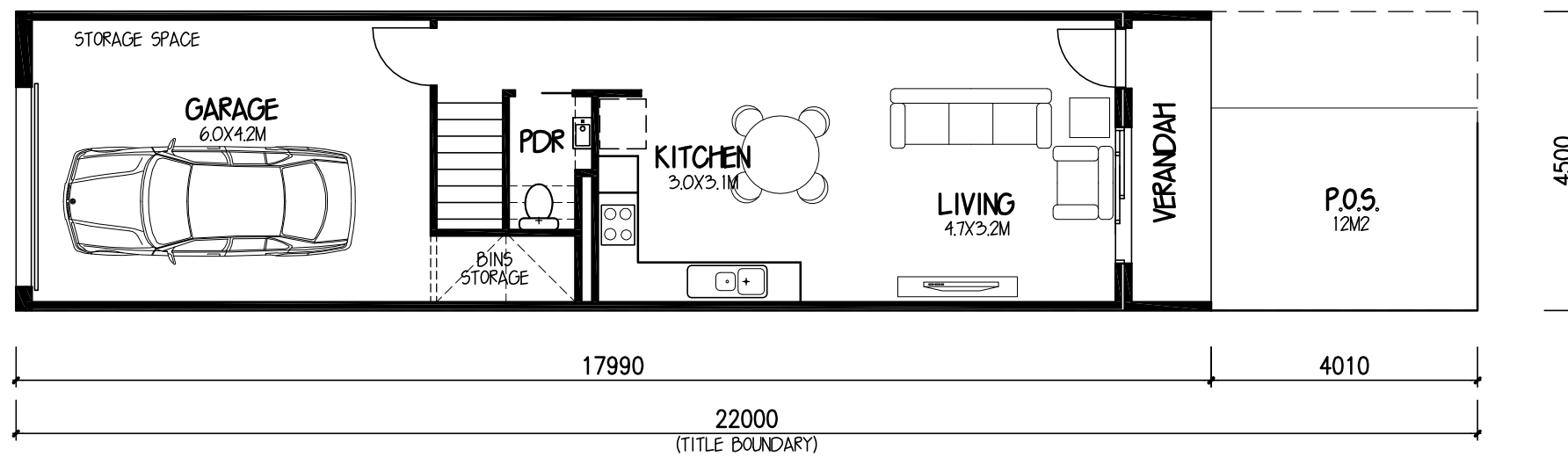
Product: DELTA (Contemporary)
 Date: 13.06.14 Version 1.
 Drawn: ZM

AREAS:	
GRD FLR: 67.41 SQM	GARAGE: 4258 SQM
FIRST FLR: 96.80 SQM	PORTICO: 221 SQM
SUBTOTAL: 164.21 SQM	TOTAL: 2090 SQM
17.68 SQM	2250 SQM

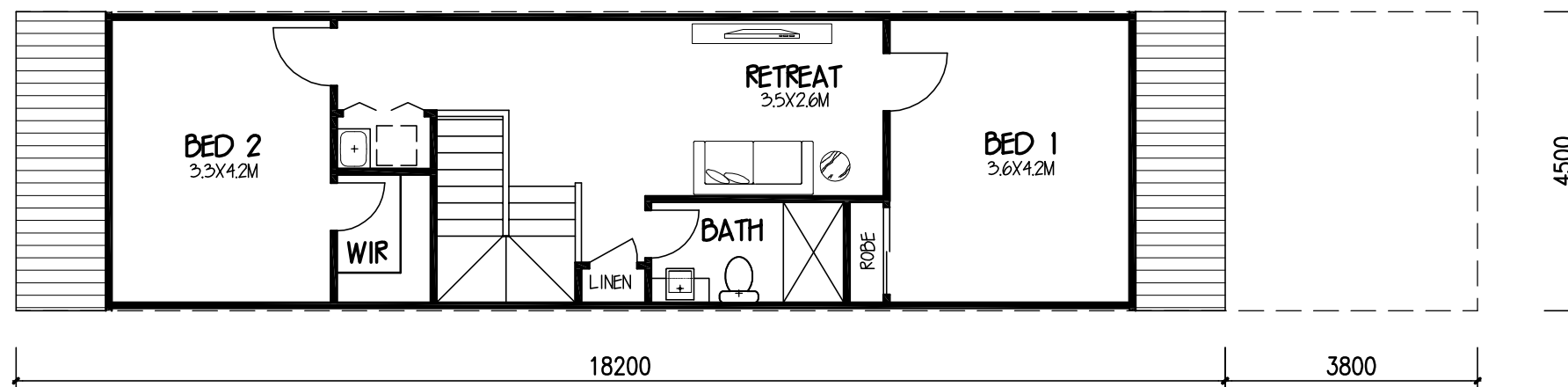
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GROUND FLOOR PLAN



FIRST FLOOR PLAN

FLOOR PLANS 1:100

Product: SIGMA (Contemporary)
 Date: 18.06.14 Version 1.
 Drawn: DLR

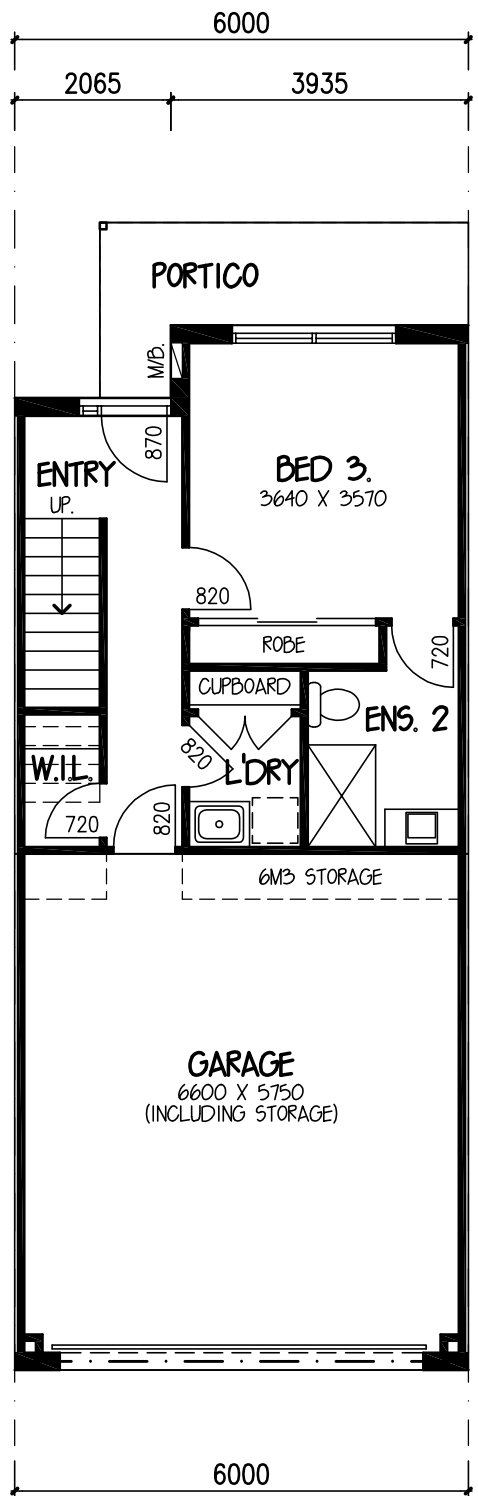
AREAS:	
GRD FLR:	45.02 SQM
FIRST FLR:	69.75 SQM
GARAGE:	30.53 SQM
VERANDAH:	5.48 SQM
SUBTOTAL:	114.77 SQM
	1235 SQR
TOTAL:	150.78 SQM
	1623 SQR

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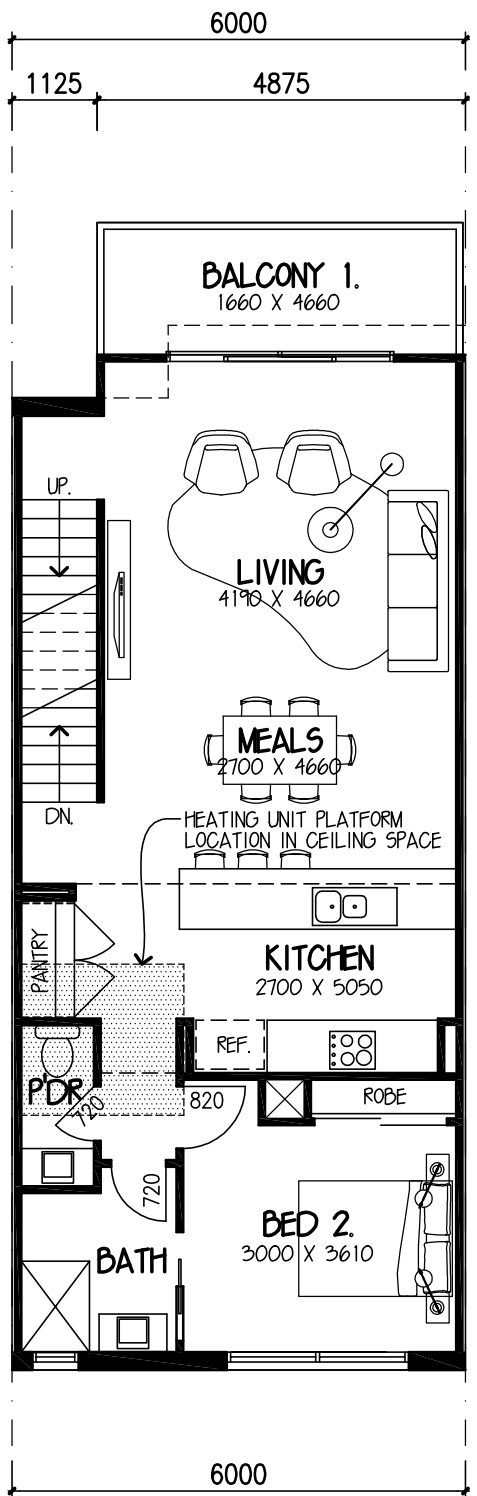
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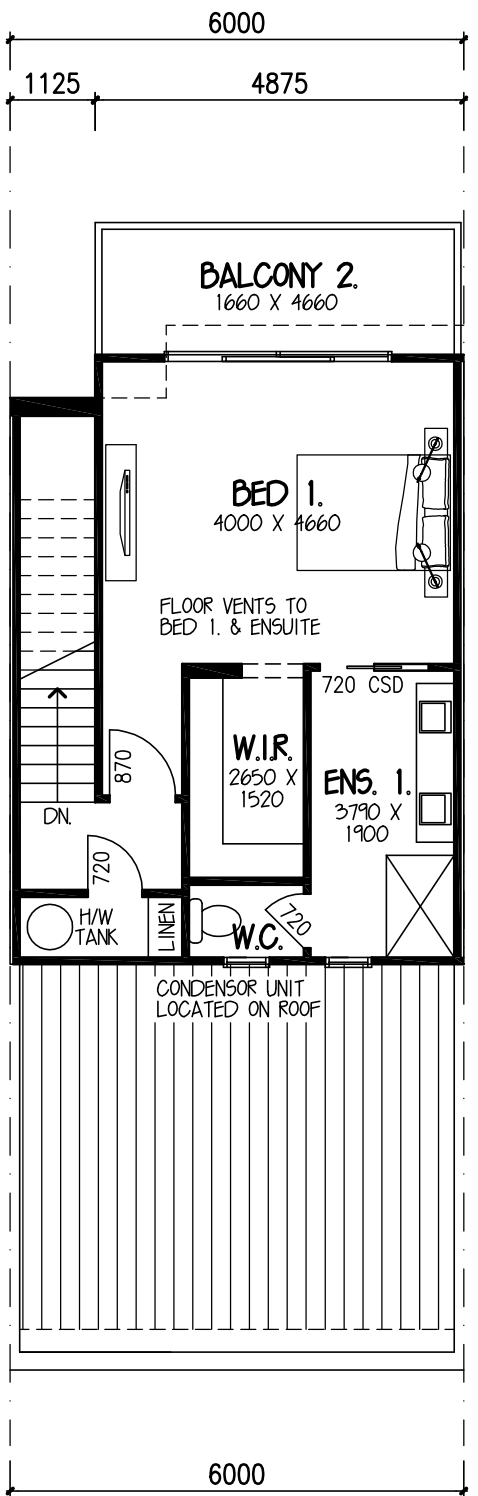
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GROUND FLOOR



FIRST FLOOR



SECOND FLOOR

FLOOR PLANS 1:100

PROPOSED FOR COBURG HILL STAGE 7MD2 SPECTRUM WAY

NOTES:
 * WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE.
 * FLOOR PLAN DIMENSIONS ARE TO FRAME SIZE ONLY.
 * WINDOW SIZES ARE NOMINATED AS GENERIC CODES. FIRST 2 NUMBERS REFER TO HEIGHT & SECOND 2 RELATE TO WIDTH.
 * ALL GLAZING TO COMPLY WITH A.S. 1288-2006 GLASS IN BUILDINGS, & WITH A.S. 4055-1992 FOR WINDLOADING.
 * WINDOW SUPPLIER TO PROVIDE COVER BOARDS TO ALL CORNER WINDOWS U.N.O.
 * GARAGE ROOF TO BE TIED DOWN MIN. 1200 INTO BRICKWORK WITH HOOP IRON STRAPS.
 * ALL WATER CLOSET DOORS TO BE REMOVABLE IN ACCORDANCE WITH B.C.A.3.8.3.

VARIATIONS(V), RE-PREPS(R), AMENDMENTS(A):					
No:	Date:	Drawn:	Chkd:	No:	Date:
VO1	--/--/--	--	--	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
CONT'D ON SHEET NO. 3					

AREAS:	
GRD FLR:	3996 SQM
1ST FLR:	7994 SQM
2ND FLOOR:	4772 SQM
SUBTOTAL:	16762 SQM
	18.04 SQR
GARAGE:	4098 SQM
PORTICO:	753 SQM
BALCONY 1:	847 SQM
BALCONY 2:	847 SQM
TOTAL:	23307 SQM
	25.09 SQR

DESIGN: 6.0M TERRACE
 FACADE: CONTEMPORARY CEILING: 25, 27 L
 GARAGE: DOUBLE LOCATION:
FLOOR PLAN
ENERGY EFFICIENCY RATED
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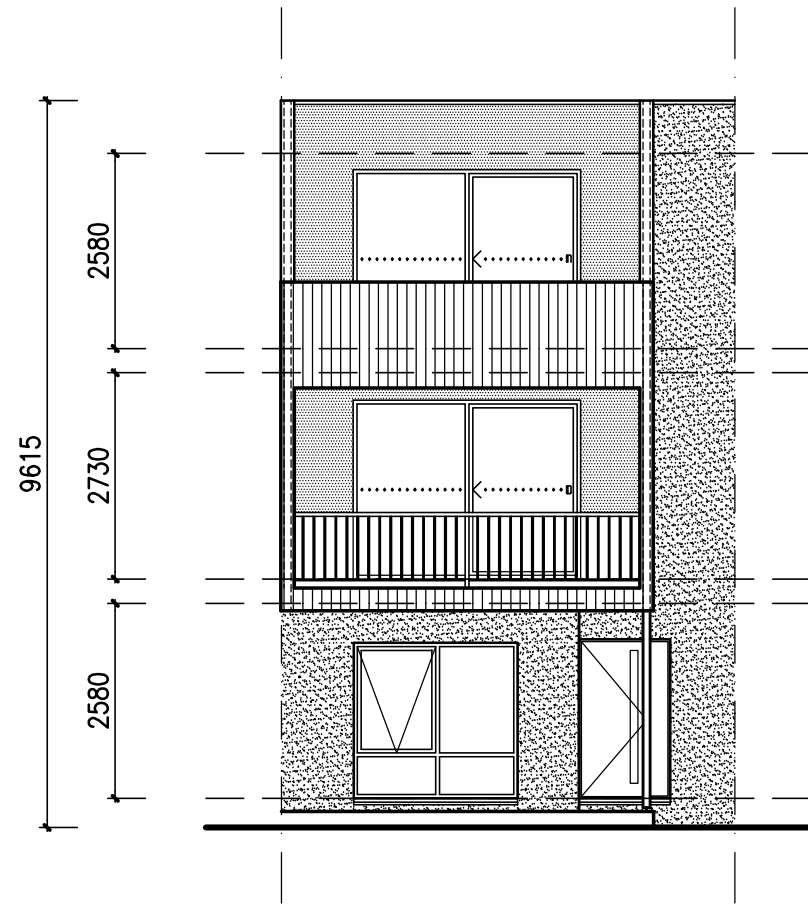
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ADDRESS SUBURB	
JOB NO:	DATE: 31 MARCH 2014
F.C.DATE:	MST VER: VERSION 1
PERMIT No:	
DRAWN: Z.M.	CHKD: Z.M.
SHEET: 1 of 2	

NOTE: ARTICULATION JOINTS AT 4-5M SPACINGS IN ACCORDANCE WITH AS2870. (REFER TO ENGINEERS PLANS)



FRONT ELEVATION



STREETSCAPE

ELEVATIONS 1:100

PROPOSED FOR COBURG HILL STAGE 7MD2 SPECTRUM WAY

- NOTES:
- * WINDOW SUPPLIER TO SUPPLY COVER BOARDS TO ALL CORNER WINDOWS U.N.O.
 - * ALL GLAZING TO COMPLY WITH A.S. 1288 - 2006 GLASS IN BUILDINGS, & WITH A.S. 4055 - 1992 FOR WINDLOADING.
 - * WINDOW HEAD HEIGHT DIMENSIONS TO BE TAKEN TO THE NEAREST CORRESPONDING BRICK COURSE.
 - * WINDOWS TO COMPLY WITH B.C.A. 3.9.2.5 2013

DESIGN: 6.0M TERRACE
 FACADE: CONTEMPORARY CEILING: 25, L
 GARAGE: DOUBLE LOCATION:

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OWNER: TOWNLIVING BY METRICON
 ADDRESS
 SUBURB

ELEVATIONS
 ENERGY EFFICIENCY RATED

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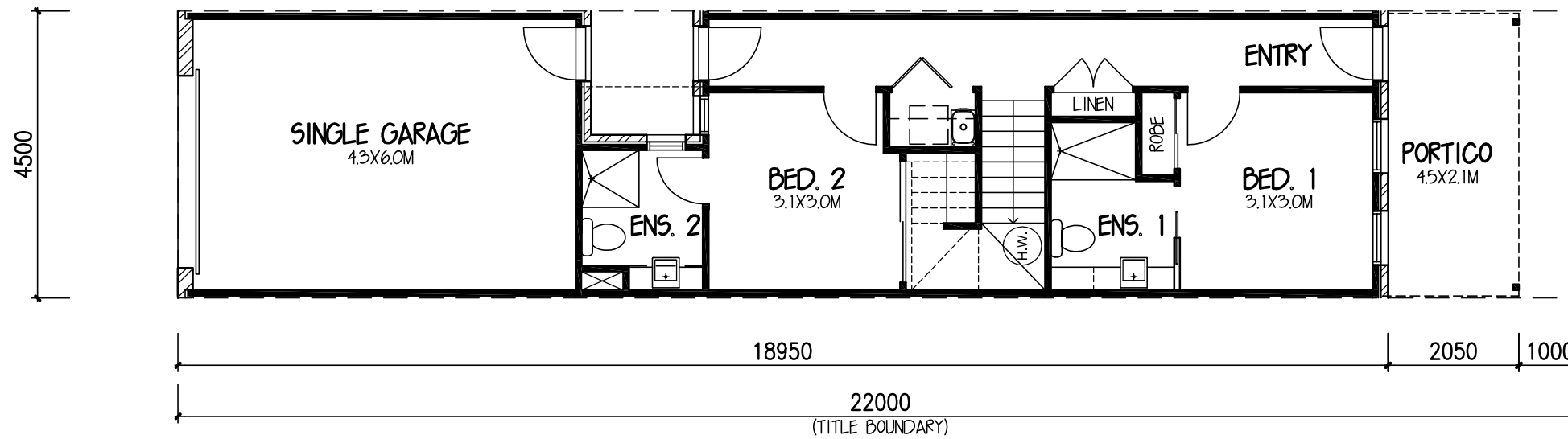
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JOB NO: DATE: 31 MARCH 2014
 F.C.DATE: MST VER: VERSION 1

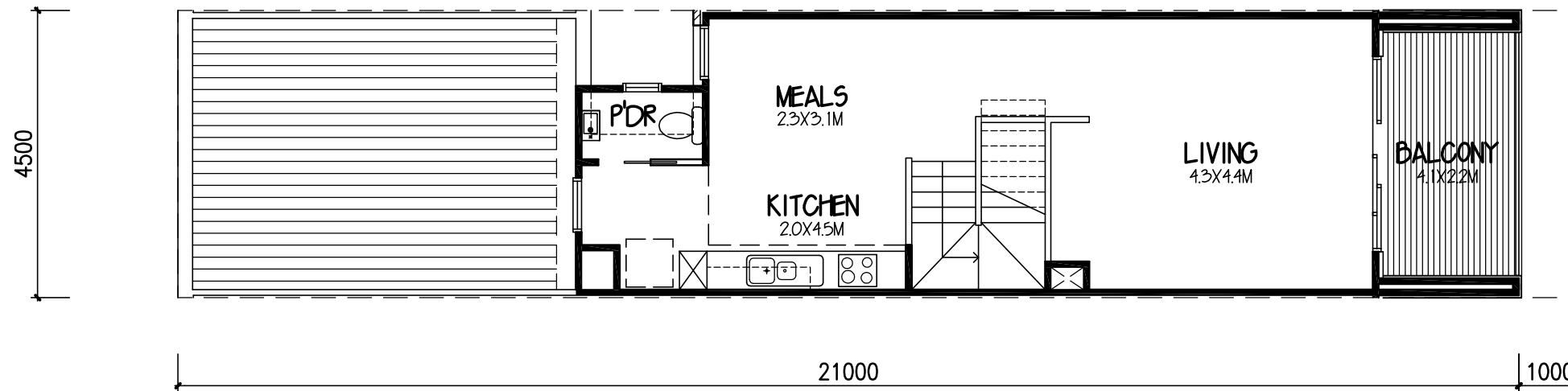
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PERMIT No:
 DRAWN: Z.M. CHKD: Z.M. SHEET: 2 of 2



GROUND FLOOR PLAN



FIRST FLOOR PLAN

FLOOR PLANS 1:100

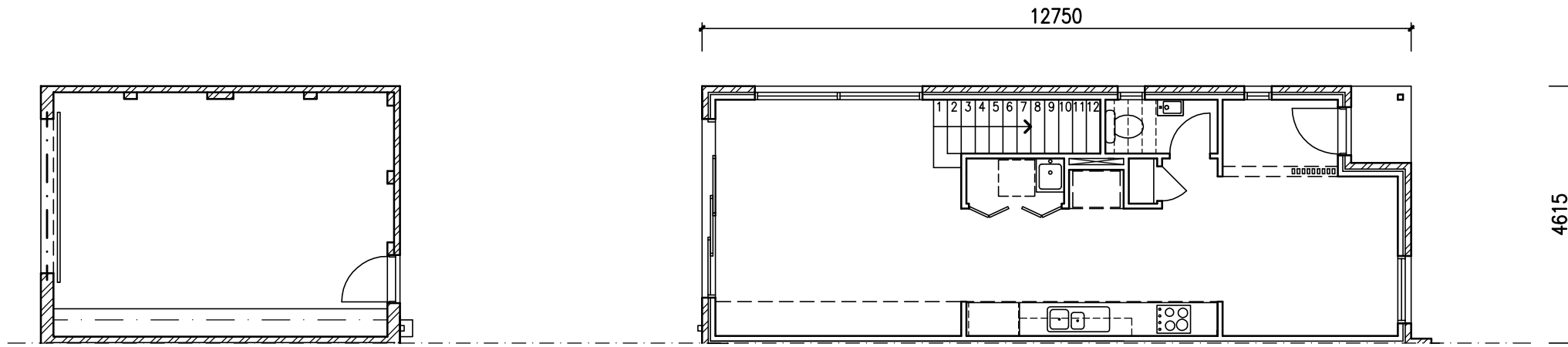
Product: BETA Sp. (Cube)
 Date: 10.06.14 Version 1.
 Drawn: ZM

AREAS:	
GRD FLR: 53.67 SQM	GARAGE: 28.50 SQM
FIRST FLR: 54.38 SQM	PORTICO: 9.08 SQM
	BALCONY: 9.75 SQM
SUBTOTAL: 108.05 SQM	TOTAL: 155.38 SQM
11.63 SQM	16.73 SQM

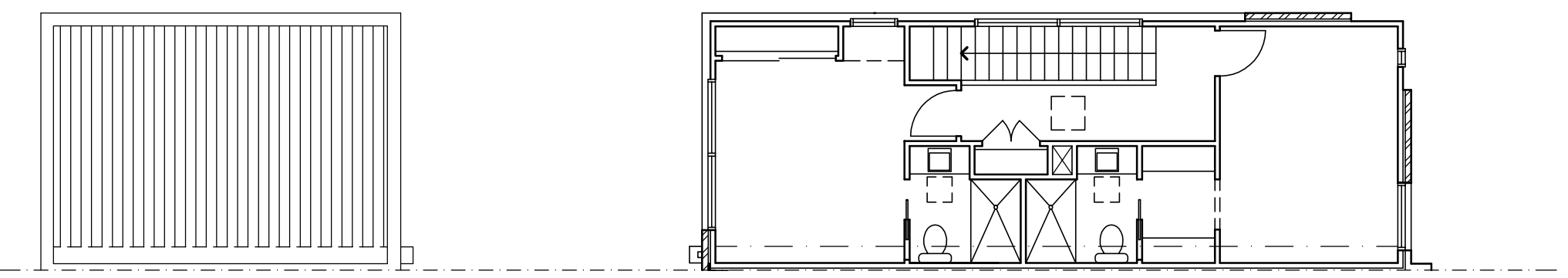
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GROUND FLOOR PLAN



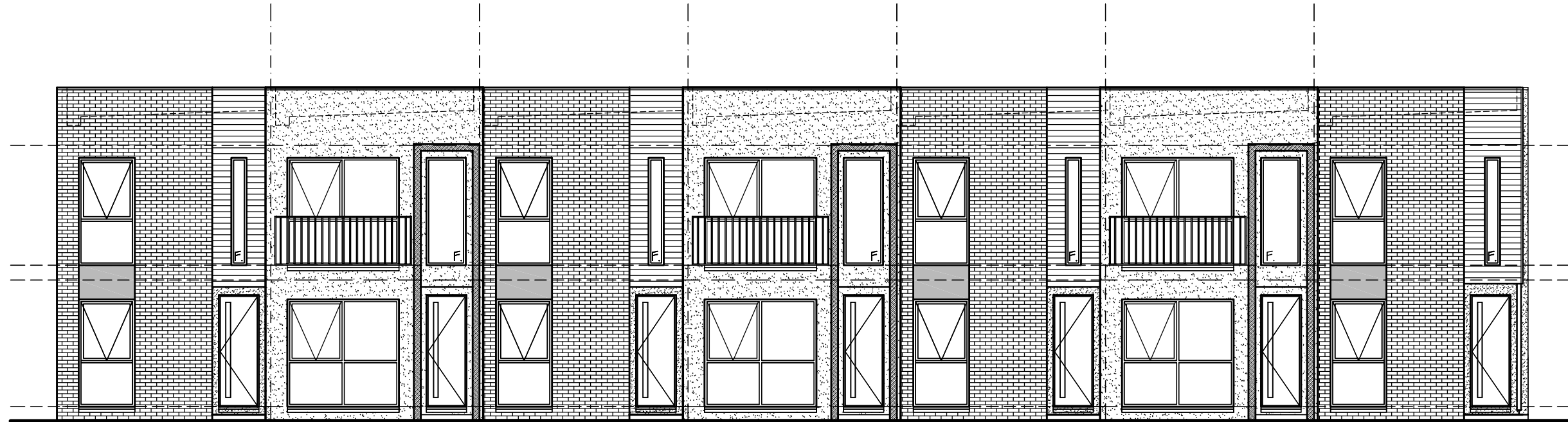
FIRST FLOOR PLAN

BOND

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





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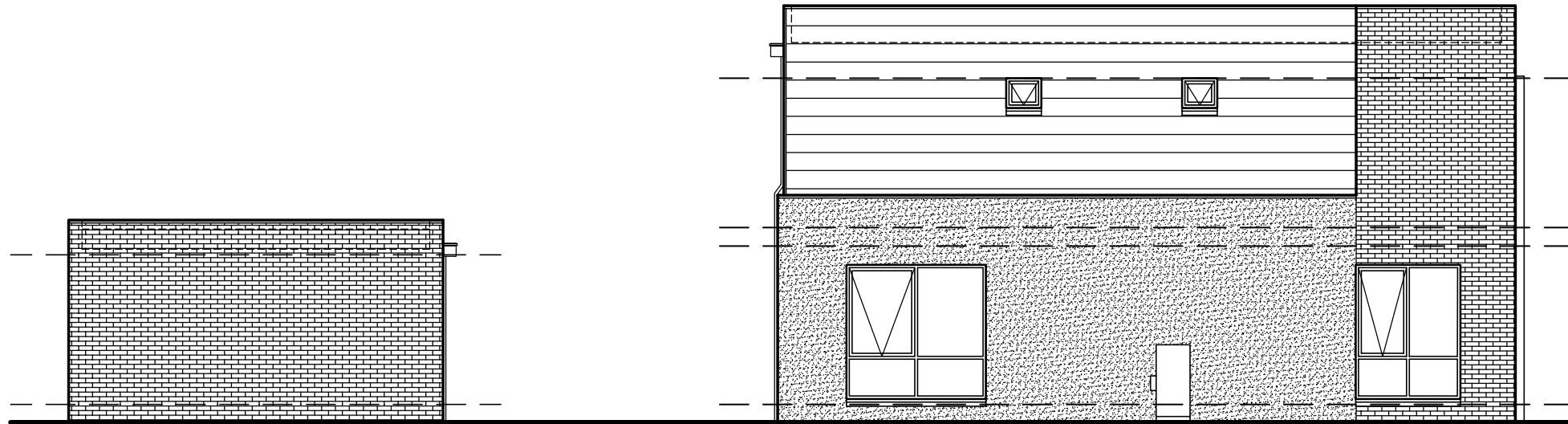
Lot 36 Bond End (Regal) Lot 35 Bond (Contemporary) Lot 34 Bond (Regal) Lot 33 Bond (Contemporary) Lot 32 Bond (Regal) Lot 31 Bond (Contemporary) Lot 30 Bond Cnr (Regal)
FRONT STREETSCAPE

FINISHES SCHEDULE

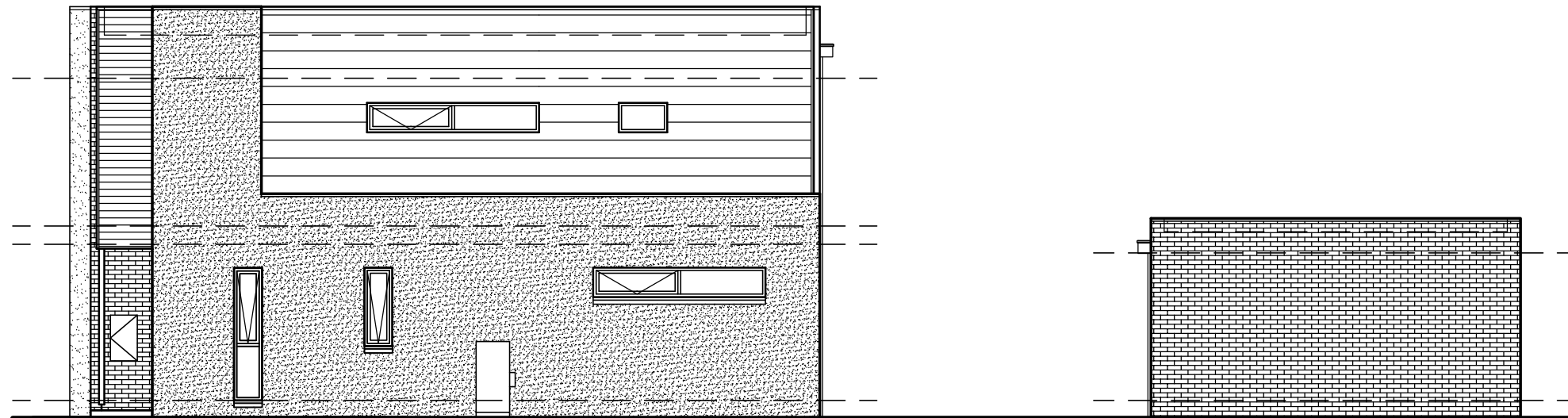
-  FACE BRICKWORK
-  BRICKWORK WITH ACRYLIC RENDER FINISH
-  JAMES HARDIE 6MM HARDIFLEX CLADDING WITH PAINTED FINISH
-  SCYON 'LINEA' 150 WEATHERBOARD CLADDING WITH PAINTED FINISH
-  SCYON 'STRIA' 325 HORIZONTAL CLADDING WITH PAINTED FINISH
-  150X150MM POLYSTYRENE MOULDING WITH ACRYLIC RENDER FINISH

BOND


metricon
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







Lot 36
Bond End (Regal)
SIDE STREETSCAPE



Lot 30
Bond Cnr (Regal)
SIDE STREETSCAPE

FINISHES SCHEDULE

-  FACE BRICKWORK
-  BRICKWORK WITH ACRYLIC RENDER FINISH
-  JAMES HARDIE 6MM HARDIFLEX CLADDING WITH PAINTED FINISH
-  SCYON 'LINEA' 150 WEATHERBOARD CLADDING WITH PAINTED FINISH
-  SCYON 'STRIA' 325 HORIZONTAL CLADDING WITH PAINTED FINISH
-  150X150MM POLYSTYRENE MOULDING WITH ACRYLIC RENDER FINISH

BOND

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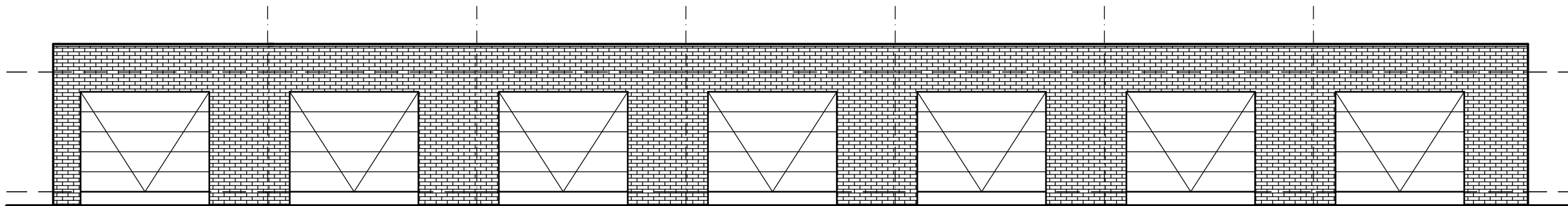


Lot 30	Lot 31	Lot 32	Lot 33	Lot 34	Lot 35	Lot 36
Bond Cnr	Bond	Bond	Bond	Bond	Bond	Bond End
(Regal)	(Contemporary)	(Regal)	(Contemporary)	(Regal)	(Contemporary)	(Regal)

REAR STREETSCAPE

FINISHES SCHEDULE

- | | | |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|  FACE BRICKWORK |  JAMES HARDIE 6MM HARDIFLEX CLADDING WITH PAINTED FINISH |  SCYON 'STRIA' 325 HORIZONTAL CLADDING WITH PAINTED FINISH |
|  BRICKWORK WITH ACRYLIC RENDER FINISH |  SCYON 'LINEA' 150 WEATHERBOARD CLADDING WITH PAINTED FINISH |  150X150MM POLYSTYRENE MOULDING WITH ACRYLIC RENDER FINISH |



Lot 30	Lot 31	Lot 32	Lot 33	Lot 34	Lot 35	Lot 36
Bond Cnr	Bond	Bond	Bond	Bond	Bond	Bond End
(Regal)	(Contemporary)	(Regal)	(Contemporary)	(Regal)	(Contemporary)	(Regal)

REAR STREETSCAPE (GARAGE)

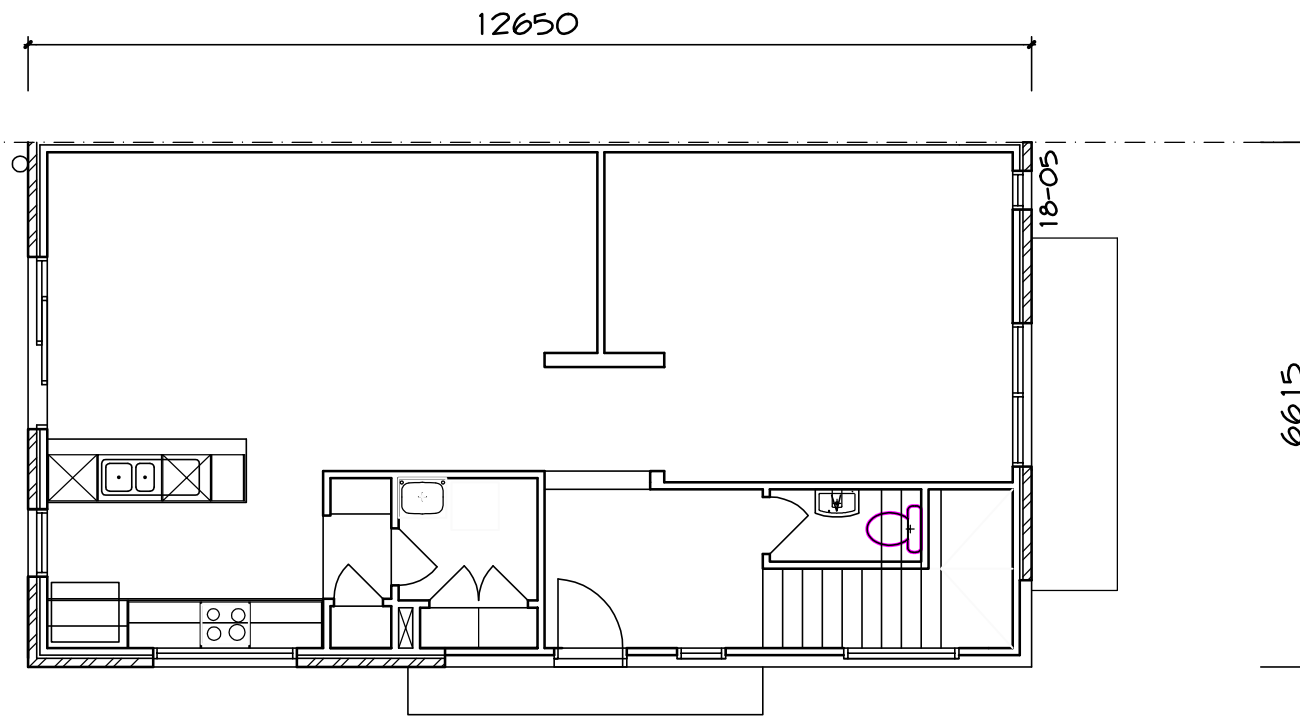
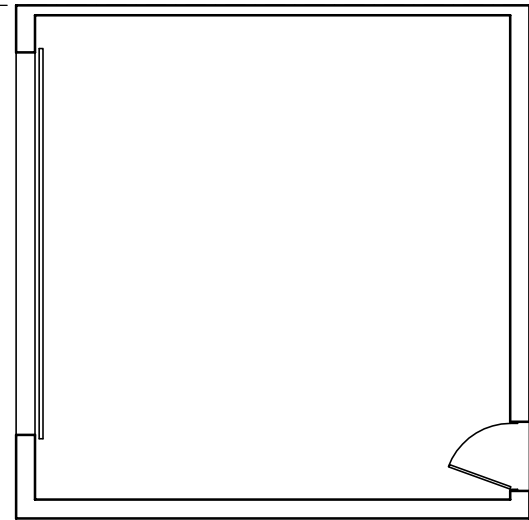
BOND

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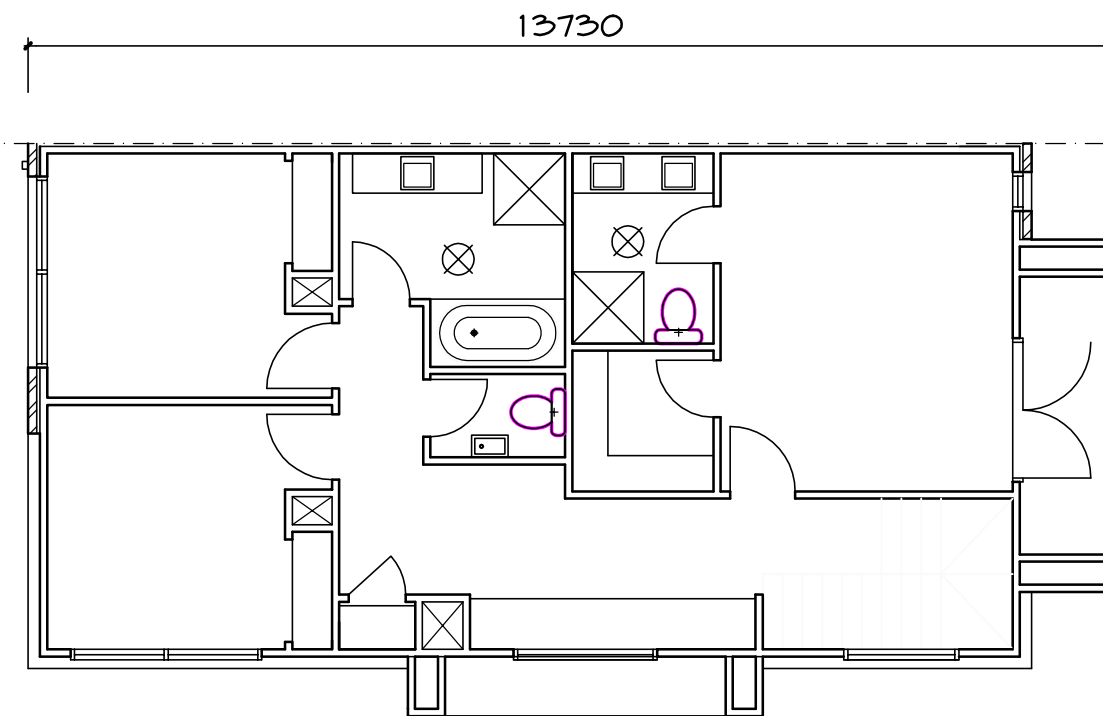
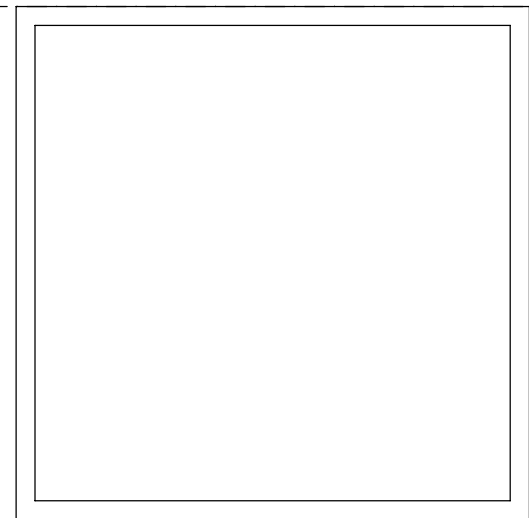
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Loman Cnr. Coastal
GROUND FLOOR PLAN



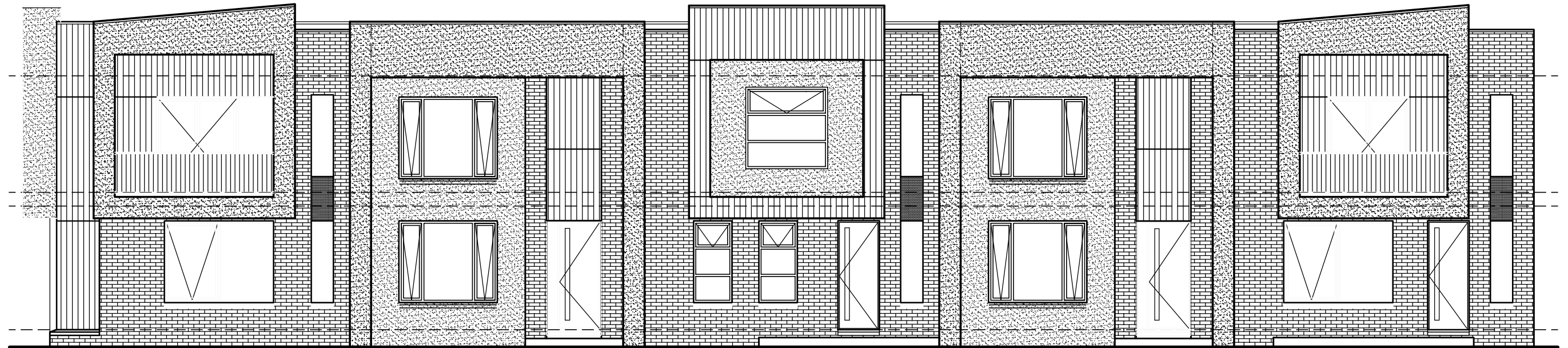
UPPER FLOOR PLAN

LOMAN
EXTERNAL COLOUR SELECTION

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Loman Cnr. Coastal

Loman Contemporary

Loman Cube

Loman Contemporary

Loman End Coastal

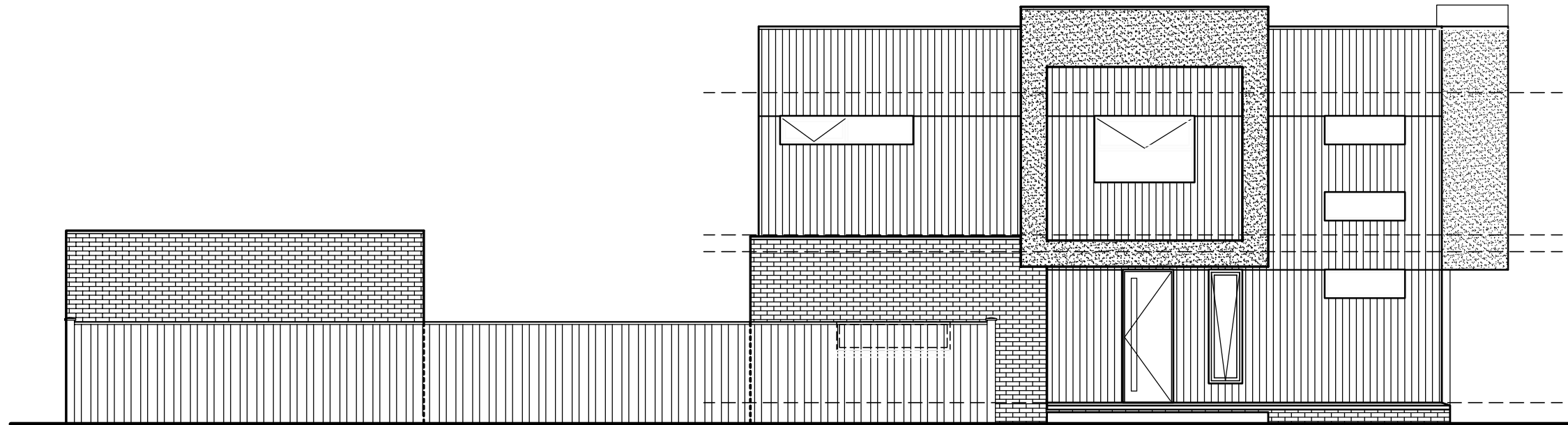
FRONT STREETSCAPE

LOMAN
EXTERNAL COLOUR SELECTION

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Loman Cnr. Coastal

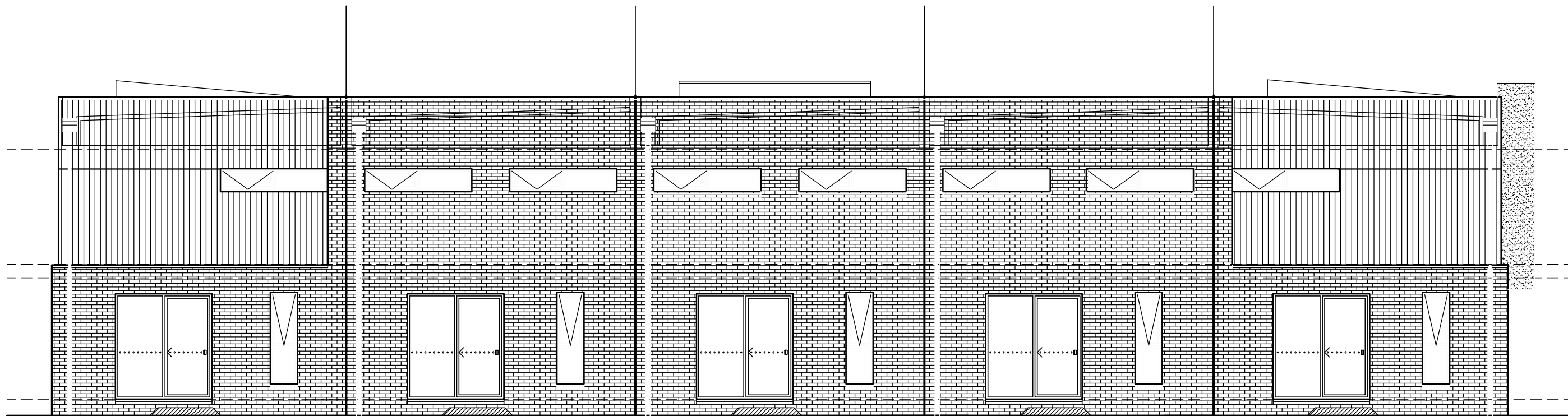
SIDE STREETScape

LOMAN
EXTERNAL COLOUR SELECTION

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Loman End Coastal

Loman Contemporary

Loman Cube

Loman Contemporary

Loman Cnr Coastal

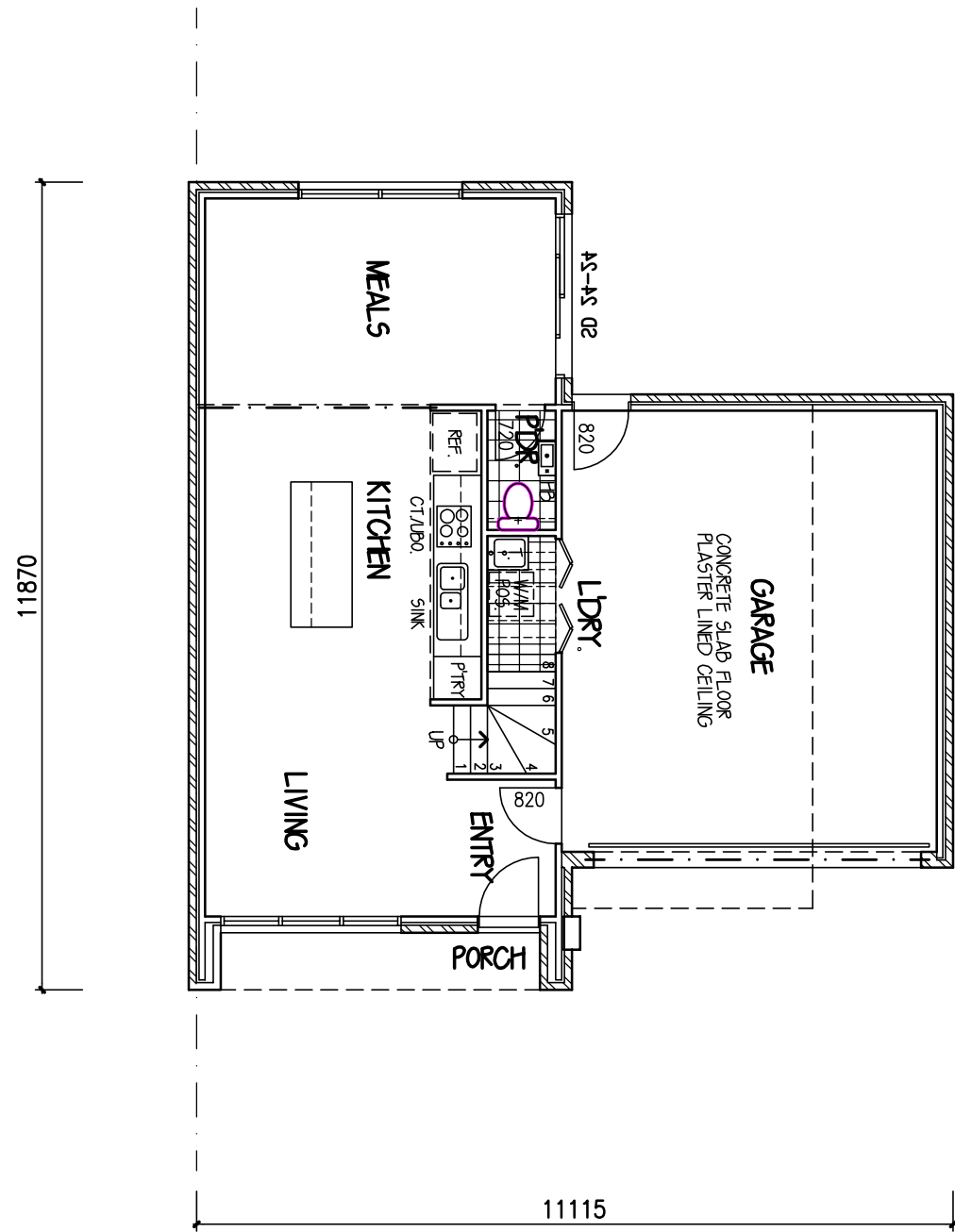
REAR STREETSCAPE

LOMAN
EXTERNAL COLOUR SELECTION

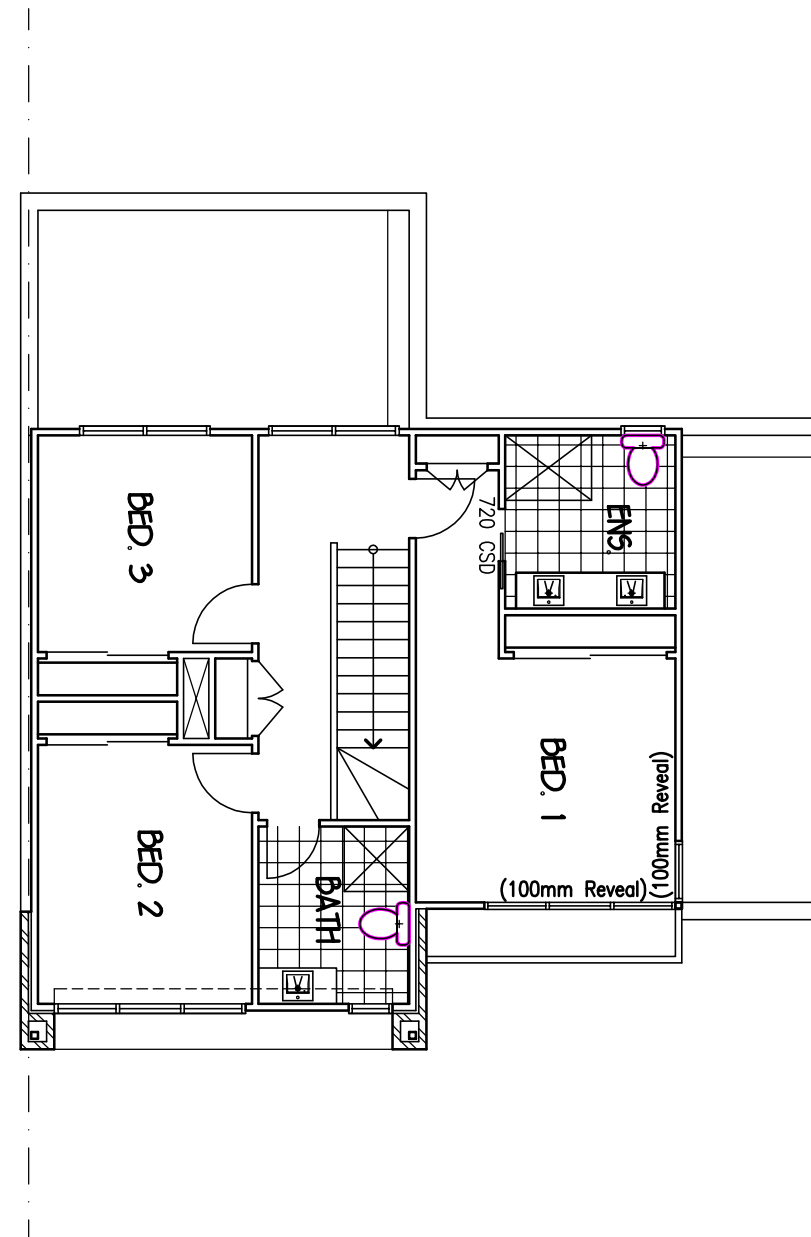
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GROUND FLOOR PLAN



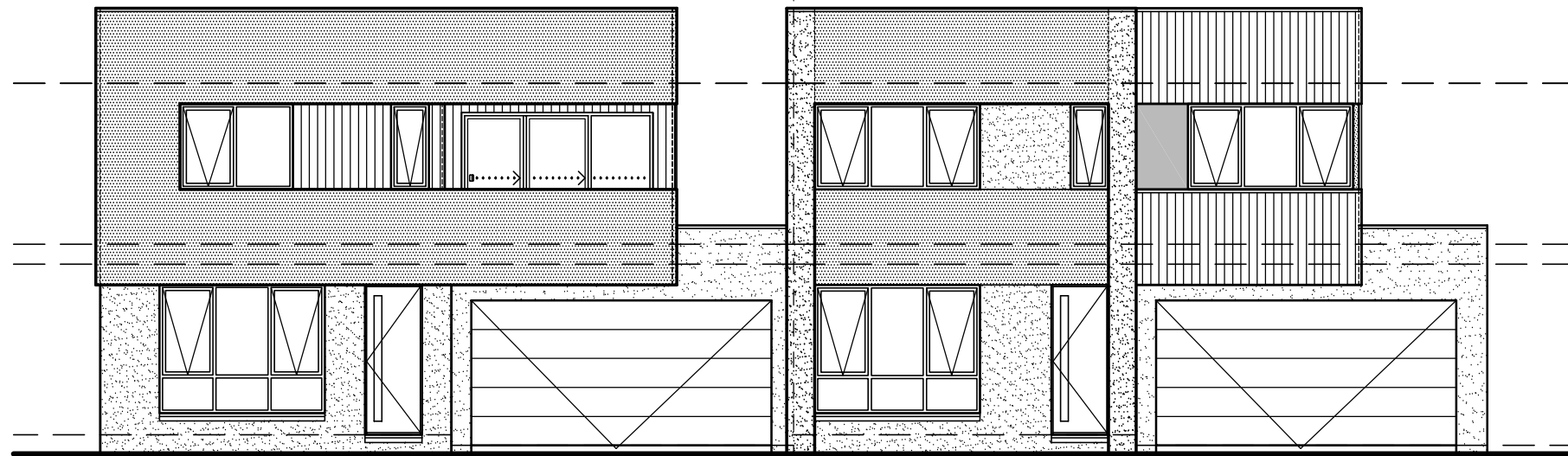
FIRST FLOOR PLAN

MAGNUS (Contemporary & Modern)

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Magnus End (Modern)
FRONT STREETSCAPE

Magnus End (Contemporary)

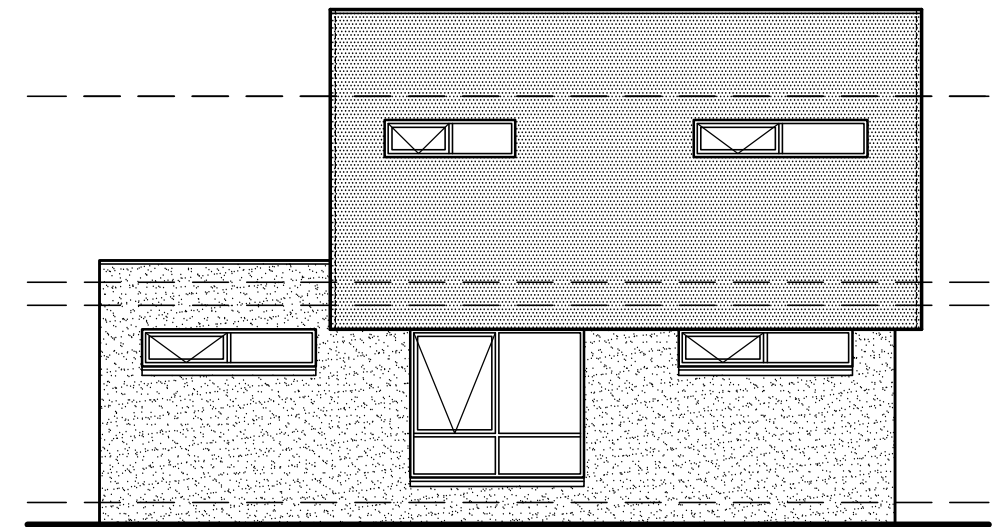
FINISHES SCHEDULE

 FACE BRICKWORK

 BRICKWORK WITH ACRYLIC RENDER FINISH

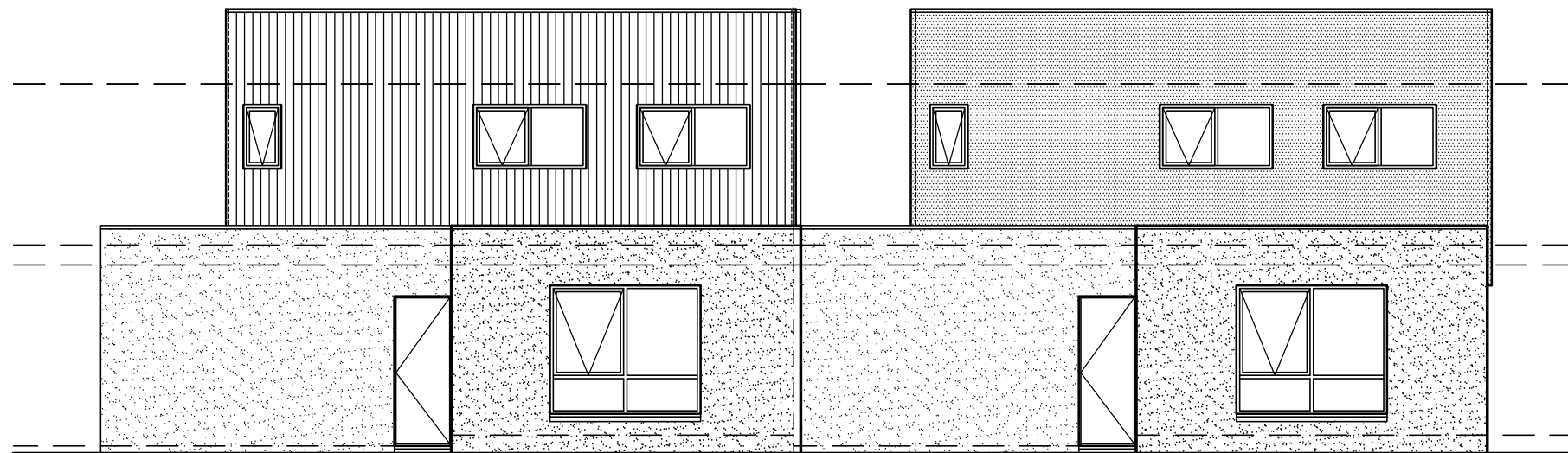
 75MM POLYSTYRENE WALL CLADDING WITH ACRYLIC RENDER FINISH (UPPER FLOOR ONLY)

 SCYON 'STRIA' 325 HORIZONTAL CLADDING WITH PAINTED FINISH



Magnus End (Modern)
SIDE STREETSCAPE

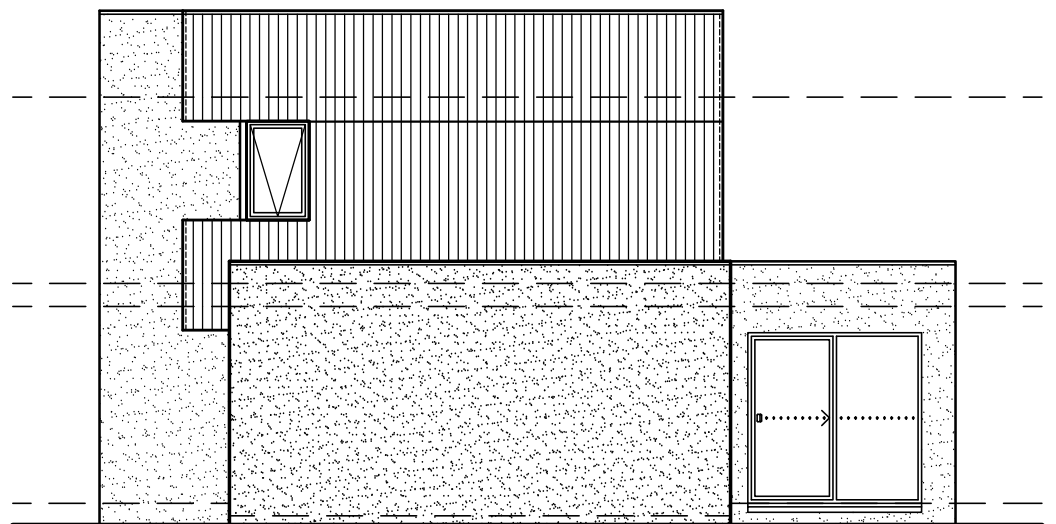
 JAMES HARDIE 6MM HARDIEFLEX CLADDING WITH PAINTED FINISH



Magnus End (Contemporary)
REAR STREETSCAPE

Magnus End (Modern)

MAGNUS (Contemporary & Modern)



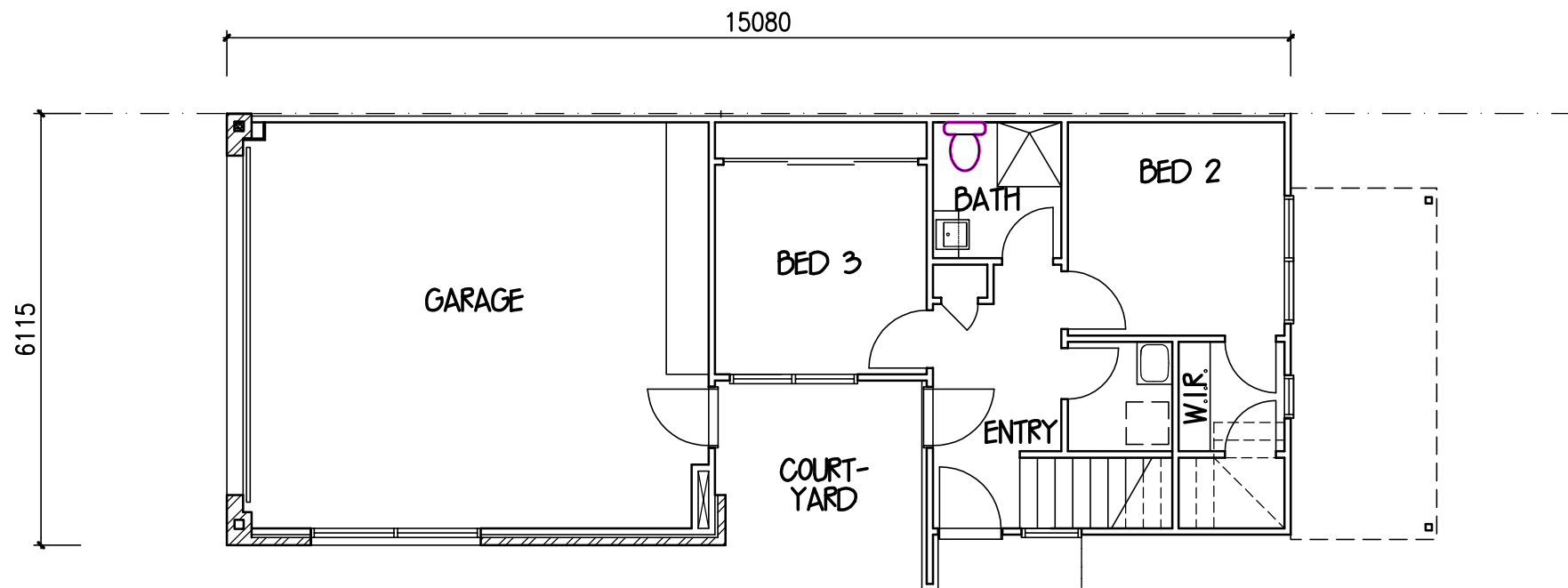
Magnus End
(Contemporary)
REAR STREETSCAPE

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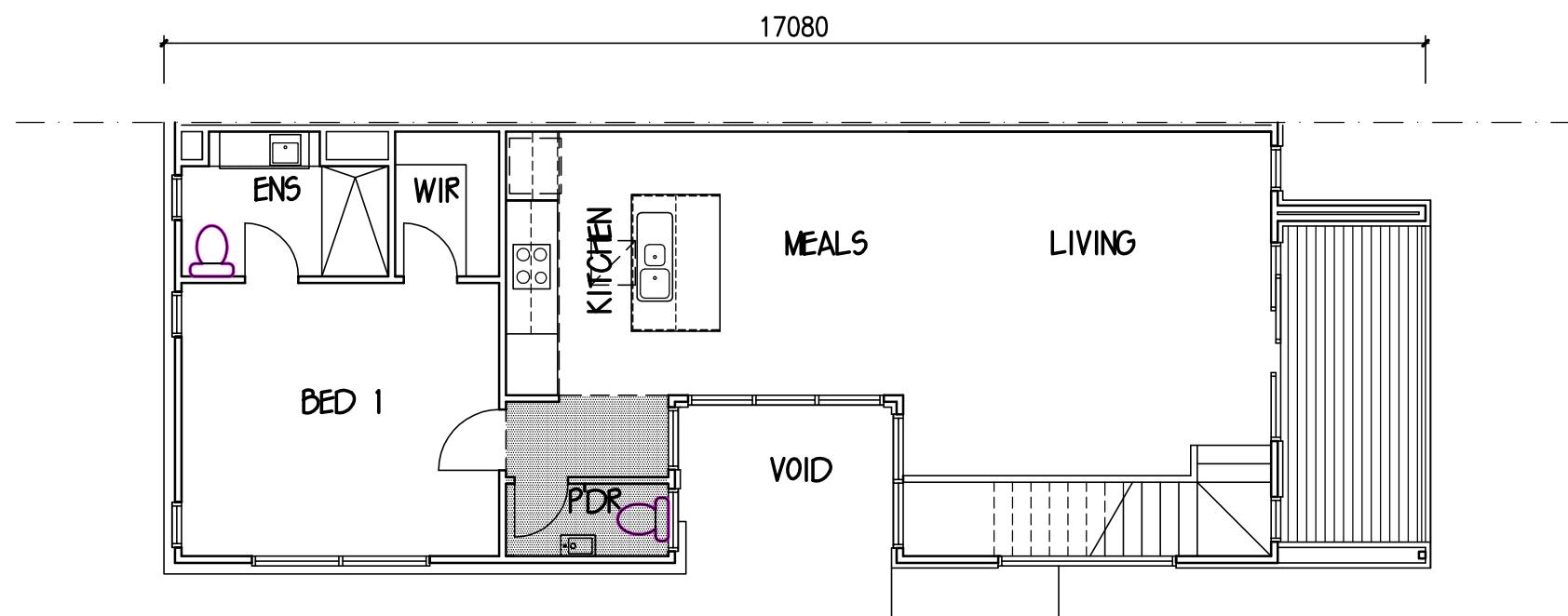
metricon

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Mezzo MK2 Side Entry
(Coastal)
GROUND FLOOR PLAN



Mezzo MK2 Side Entry
(Coastal)
FIRST FLOOR PLAN

MEZZO MK2

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Mezzo MK2 Side Entry
(Coastal)

Mezzo MK2
(Modern)

Mezzo MK2
(Contemporary)

Mezzo MK2 End
(Coastal)

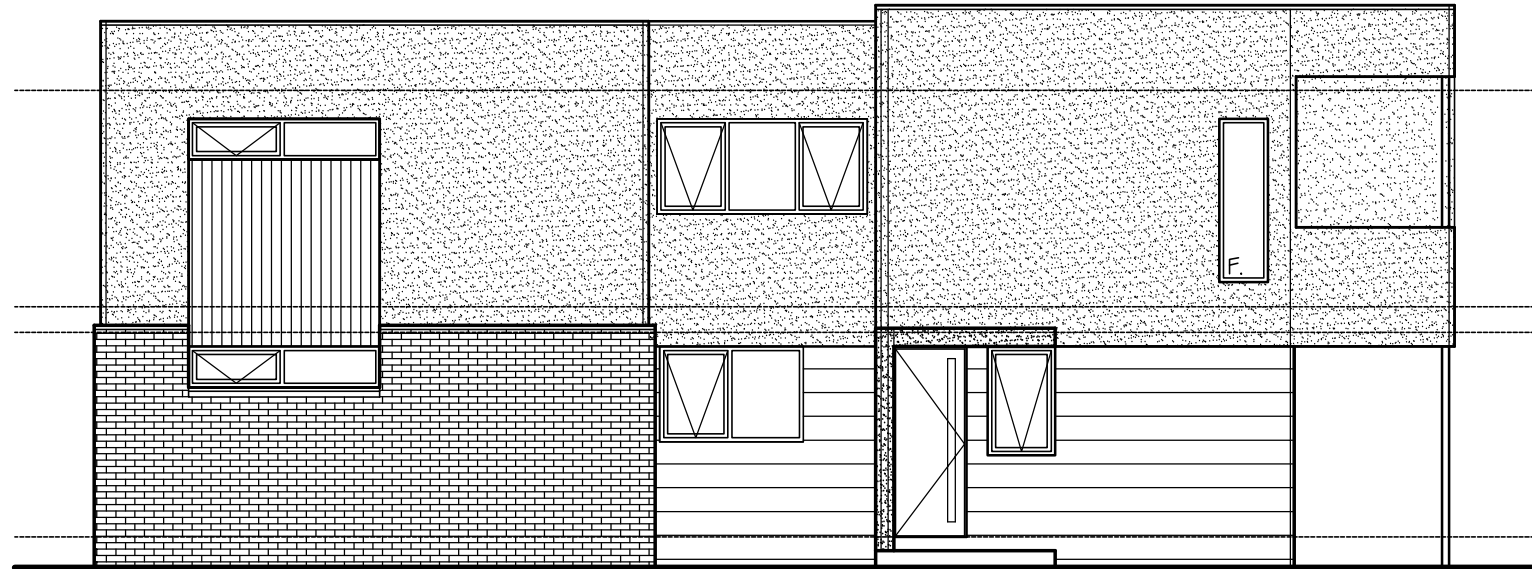
MEZZO MK2

TOWNLIVING™
by metricon

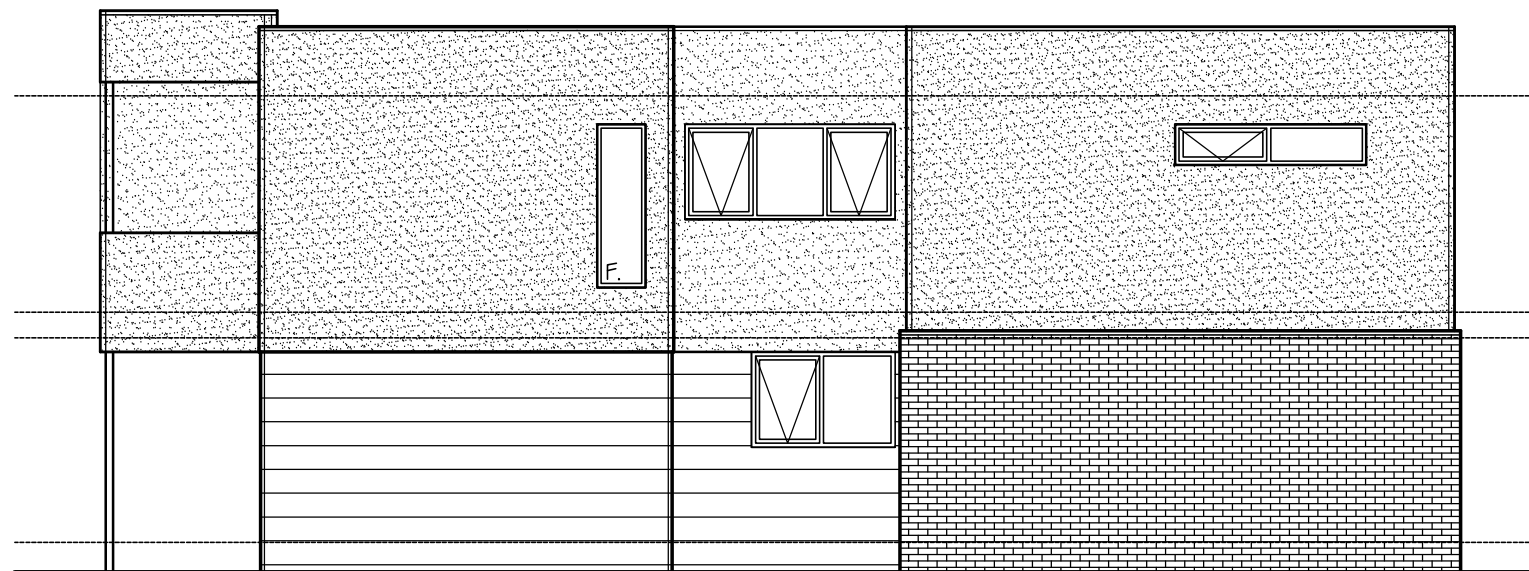
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Mezzo MK2 Side Entry (Coastal)
SIDE STREETScape



Mezzo MK2 End (Coastal)
SIDE STREETScape

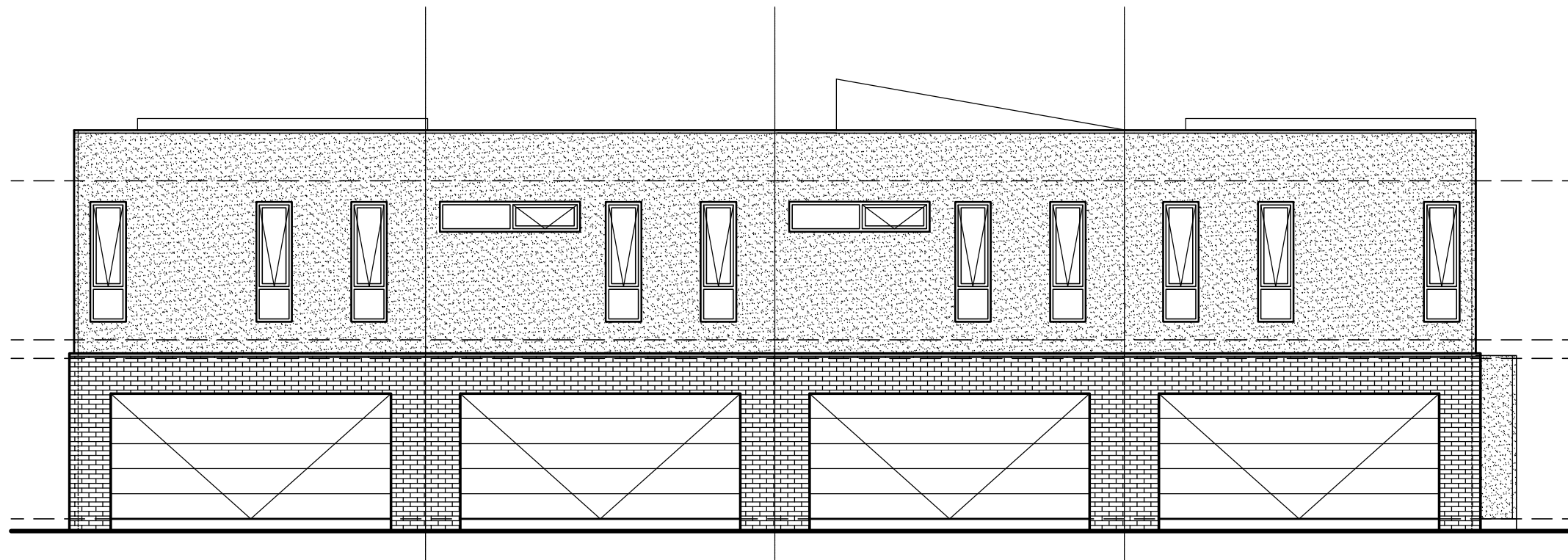
MEZZO MK2

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Mezzo MK2 End
(Coastal)

Mezzo MK2
(Contemporary)

Mezzo MK2
(Modern)

Mezzo MK2 Side Entry
(Coastal)

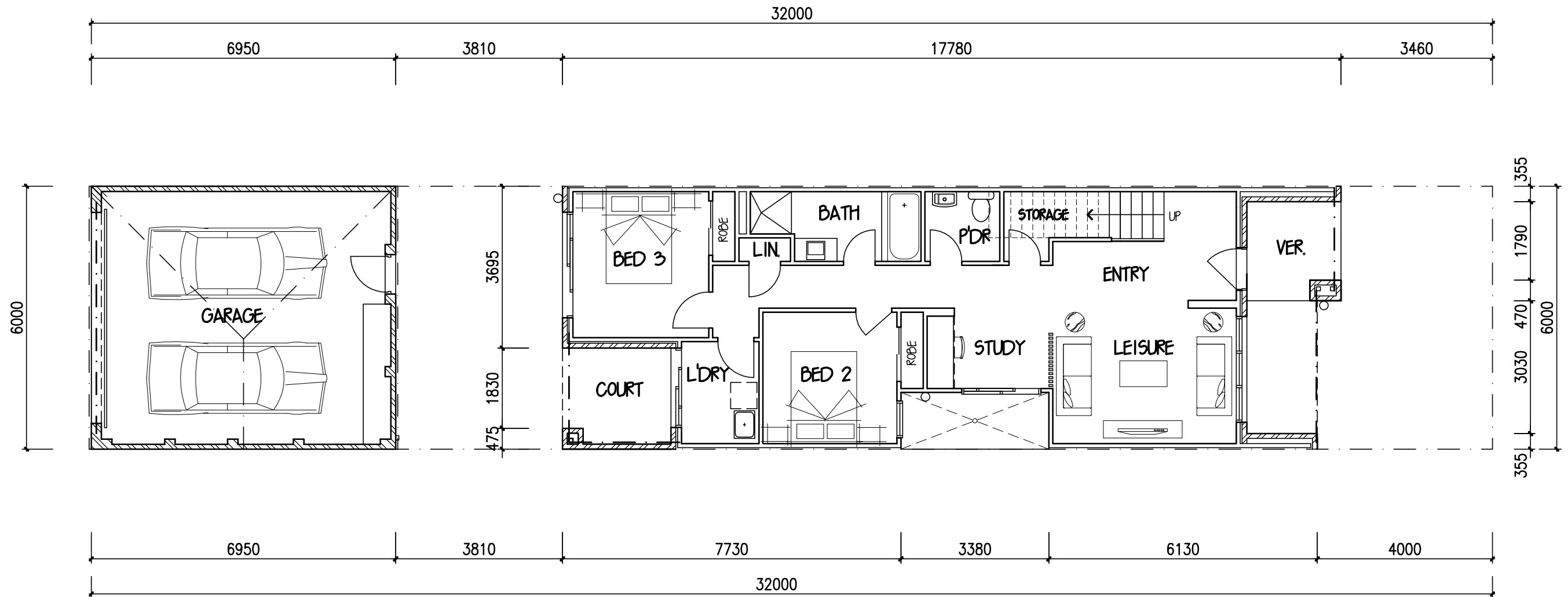
MEZZO MK2

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GROUND FLOOR PLAN 1:100

- * NOTES:
 WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE. FLOOR PLAN DIMENSIONS ARE TO FRAME SIZE ONLY.
 * WINDOW SIZES SHOWN ARE SUPPLIERS FRAME SIZES.
 * ALL GLAZING TO COMPLY WITH A.S. 1288-2006 GLASS IN BUILDINGS, & WITH A.S. 4055-1992 FOR WINDLOADING.
 * WINDOW SUPPLIER TO PROVIDE COVER BOARDS TO ALL CORNER WINDOWS U.N.O.
 * GARAGE ROOF TO BE TIED DOWN MIN. 1200 INTO BRICKWORK WITH HOOP IRON STRAPS.
 * ALL WATER CLOSET DOORS TO BE REMOVABLE IN ACCORDANCE WITH B.C.A.3.8.3.

VARIATIONS(V), RE-PREPS(R), AMENDMENTS(A):					
No:	Date:	Drawn:	Chkd:	No:	Date:
VO1	--/--/--	--	--	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
CONT'D ON SHEET NO. 3					

AREAS:	
GRD FLR:	83.64 SQM
FIRST FLR:	87.48 SQM
GARAGE:	41.69 SQM
VERANDAH:	11.07 SQM
COURT:	5.72 SQM
BALCONY:	10.53 SQM
SUBTOTAL:	171.12 SQM
TOTAL:	240.13 SQM
	18.42 SQM

DESIGN: **MUZE**

FACADE: **TRADITIONAL** CEILING: **25, L**

GARAGE: **DOUBLE** LOCATION: **F**

FLOOR PLAN

ENERGY EFFICIENCY RATED

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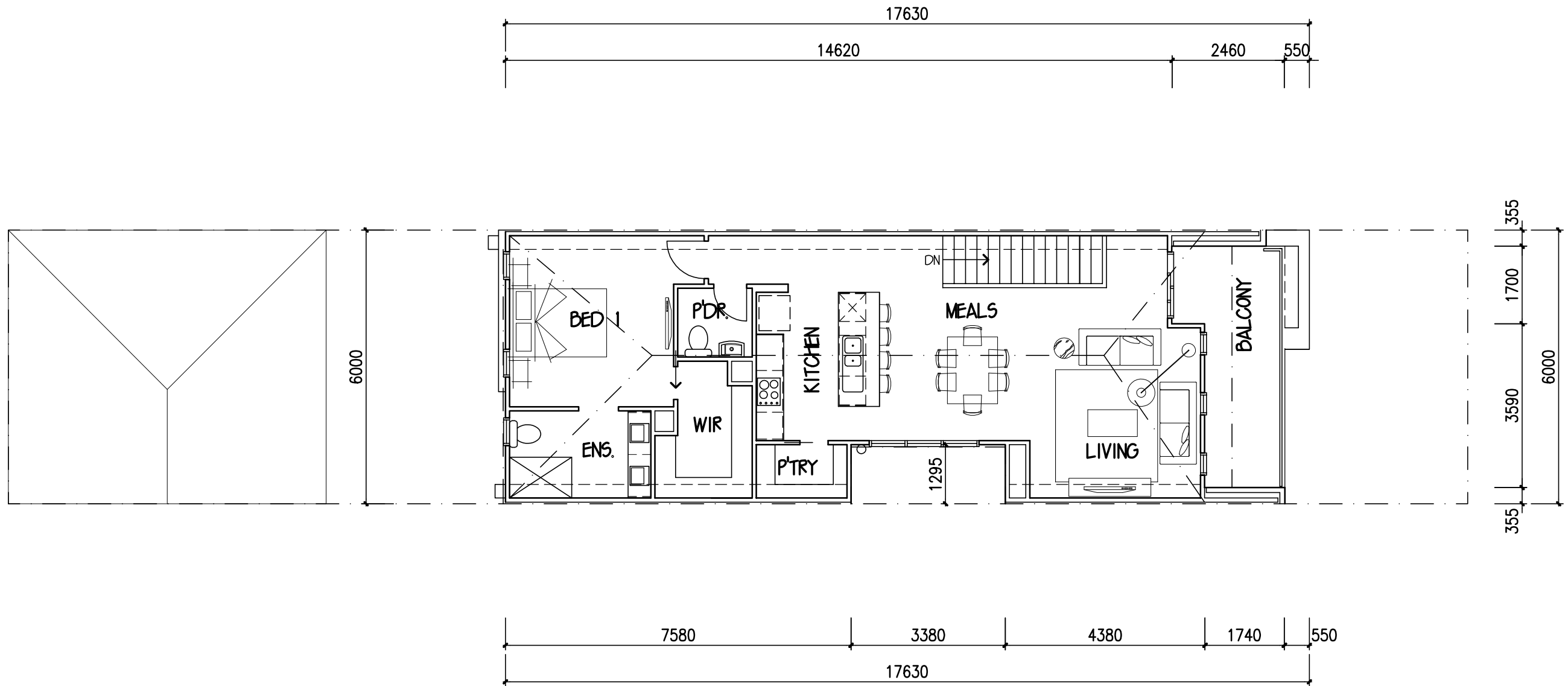
OWNER: **METRICON MASTER**
501 BLACKBURN ROAD
MOUNT WAVERLEY

JOB NO: _____ DATE: _____

F.C.DATE: **DD MM YYYY** MST VER: **3 JAN 2012**

PERMIT No: _____

DRAWN: _____ CHKED: **ZM** SHEET: **1 of 3**



FIRST FLOOR PLAN 1:100

- * NOTES:
- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE. FLOOR PLAN DIMENSIONS ARE TO FRAME SIZE ONLY.
- * WINDOW SIZES SHOWN ARE SUPPLIERS FRAME SIZES.
- * ALL GLAZING TO COMPLY WITH A.S. 1288-2006 GLASS IN BUILDINGS, & WITH A.S. 4055-1992 FOR WINDLOADING.
- * WINDOW SUPPLIER TO PROVIDE COVER BOARDS TO ALL CORNER WINDOWS U.N.O.
- * GARAGE ROOF TO BE TIED DOWN MIN. 1200 INTO BRICKWORK WITH HOOP IRON STRAPS.
- * ALL WATER CLOSET DOORS TO BE REMOVABLE IN ACCORDANCE WITH B.C.A.3.8.3.

VARIATIONS(V), RE-PREPS(R), AMENDMENTS(A):							
No:	Date:	Drawn:	Chked:	No:	Date:	Drawn:	Chked:
... CONT'D FROM SHEET NO. 2							
-				-			
-				-			
-				-			
-				-			

DESIGN: **MUZE**

FACADE: **TRADITIONAL** CEILING: **25, L**

GARAGE: **DOUBLE** LOCATION: **F**

FLOOR PLAN

ENERGY EFFICIENCY RATED

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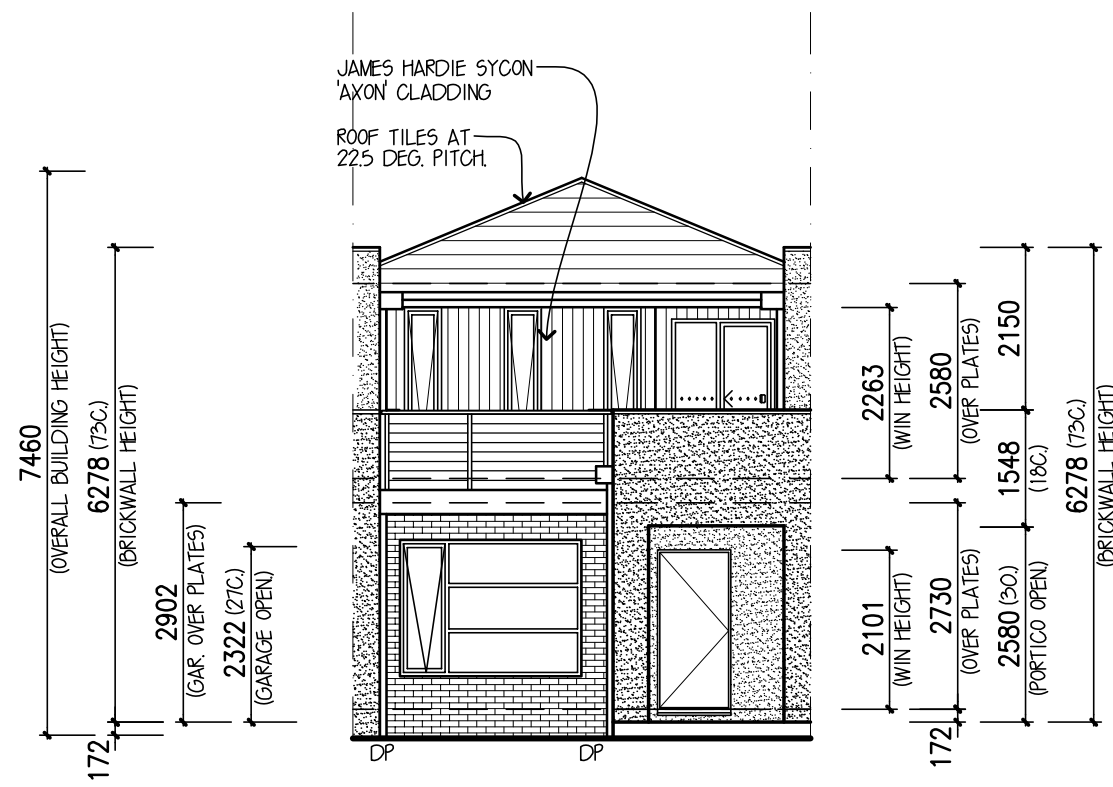
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501 BLACKBURN ROAD	
MOUNT WAVERLEY	
JOB NO:	DATE:
F.C.DATE: DD MM YYYY	MST VER: 3 JAN 2012
PERMIT No:	
DRAWN:	CHKED: ZM
SHEET: 2 of 3	

IMPORTANT NOTE:
REFER TO FACADE DETAIL
REF. NO. S-TYP-?-?

NOTE: ARTICULATION JOINTS AT 4-5M
SPACINGS IN ACCORDANCE WITH AS2870.
(REFER TO ENGINEERS PLANS)



ELEVATION A.

- NOTES:
- * WINDOW SUPPLIER TO SUPPLY COVER BOARDS TO ALL CORNER WINDOWS U.N.O.
 - * ALL GLAZING TO COMPLY WITH A.S. 1288 - 2006 GLASS IN BUILDINGS, & WITH A.S. 4055 - 1992 FOR WINDLOADING.
 - * WINDOW HEAD HEIGHT DIMENSIONS TO BE TAKEN TO THE NEAREST CORRESPONDING BRICK COURSE.
 - * PROVIDE PROTECTION TO ALL WINDOWS IN ACCORDANCE WITH B.C.A. 3.9.2.5 2013

DESIGN: **MUZE**
 FACADE: **TRADITIONAL** CEILING: **25, L**
 GARAGE: **DOUBLE** LOCATION: **F**

ELEVATIONS

ENERGY EFFICIENCY RATED

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MOUNT WAVERLEY

JOB NO: _____ DATE: _____
 F.C. DATE: **DD MM YYYY** MST VER: **3 JAN 2012**
 PERMIT No: _____
 DRAWN: _____ CHKED: **ZM** SHEET: **3 of 3**

APPENDIX H

PRELIMINARY ACOUSTIC TECHNICAL NOTE



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Attention: Adam Renai	Date: 2 July 2014
Company: Stockland	Pages: Page 1 of 3
Email: stephen.hutchinson@stockland.com.au	Doc No.: 516649-2
From: Daniel Cheetham	Ref No.: 70Q-14-0195-TRP-516649-2
Subject: Corso Road (Lot 954), North Lakes Town Centre - Traffic Noise Impacts Discussion	

*This communication is Commercial-in-Confidence.
If it does not reach the intended recipient, please telephone the number above.*

Dear Adam,

This document presents a preliminary assessment of road traffic noise impacts associated with the Corso Road (Lot 954) Stage in the Town Centre Precinct of the North Lakes development.

Moreton Bay Regional Council does not yet have its own traffic noise criteria, instead referring to the Pine River Shire Council (PRSC) noise criteria. The applicable traffic noise policy is PRSC's "Planning Scheme Policy PSP6 - Traffic Noise Attenuation" (PSP6).

1. FUTURE RESIDENCES

The applicable traffic noise limit at the façade of a future residence, specified in PRSC's PSP6 traffic noise policy is as follows:

"Traffic Noise Barriers shall be provided to obtain traffic noise reduction when:...

- (B) The combined expected minimum noise levels generated by traffic exceed 63 dB(A) $L_{10(18hour)}$ on any part of the residential allotment."*

Based on the last traffic volumes received from SKM for Endeavour Boulevards (approximately 12,000 AADT), Lots in this Stage adjacent to Endeavour Boulevard are likely to exceed 63 dB(A) at the external façade of future residences without traffic noise barriers. Some Lots not immediately adjacent to Endeavour Boulevard may also exceed 63 dB(A) at the façade of future residences. Lots which may exceed façade noise limits without noise barriers are presented in Figure 1.



Figure 1: Lots Which May Exceed Future Residence Façade Noise Limits

It is understood that noise barriers are not a preferred noise mitigation option for this Stage. Instead, built form requirements for buildings on Lots to achieve acceptable indoor noise levels are preferred (e.g., thicker glazing, brick walls, etc.).

A common method to achieve acceptable indoor noise levels through built form requirements where external noise levels exceed the applicable noise limits (e.g. in Brisbane City Council), is to design buildings to achieve the indoor noise limits specified in AS/NZS 2107:2000, "Acoustics—Recommended design sound levels and reverberation times for building interiors" (AS2107), using the methodology detailed in AS 3671:1989, "Acoustics—Road traffic noise intrusion - Building Siting and Construction" (AS3671). In previous North Lakes traffic noise reports, Vipac has consistently specified that upper floors of two storey residences where the 63 dB(A) noise limit is exceeded should be designed to comply with AS2107 according to AS3671, as it is not considered reasonable or cost effective to design noise barriers to achieve compliance with noise limits at the second storey of a residence. This has been accepted by Council.

PSP6 does state that design according to AS3671 is acceptable for "Community Title Schemes Integrated Housing and Similar Developments", which does not include the proposed Corso Road Stage. However, Vipac understands that council will accept this methodology for the Corso Road Stage if justification for not using noise barriers was provided.

If built form acoustic requirements were adopted for this Stage, it is expected that future residence acoustic requirements would be limited to choice of glazing, and that double glazing would not be required.

2. PRIVATE OPEN SPACE ON LOTS

PSP6 has no specific noise limit for private open space areas on a Lot. The following PSP6 noise limit for parks could be adopted to assess private open space areas on a Lot:

- 63 dB(A) $L_{A10(18hr)}$ (free field).

It is expected that most Lots would have areas complying with the 63 dB(A) private open space noise limit at areas shielded from Endeavour Boulevard by future residences constructed on these Lots (see Figure 2). Some Lots, such as Lot 65, may require fences adjacent to yards directly exposed to Endeavour Boulevard to comply with the 63 dB(A) noise limit. It is expected that 1.8m high fences adjacent to yard areas directly exposed to traffic noise from Endeavour Boulevard would result in compliance with applicable private open space noise limits. Timber fences would be required to have no gaps between palings, between palings and posts, and between palings and the ground.

Lots which may require fences to have yard areas complying with the private open space area noise limit are also presented in Figure 2.



Figure 2: Lots Where Private Open Space Areas May Exceed Noise Limits

Note that results presented in the report are preliminary only, and a detailed noise assessment is required to confirm traffic noise levels.

If you have any queries regarding this document please do not hesitate to contact Vipac on (07) 3377 0400.

Yours faithfully

VIPAC ENGINEERS & SCIENTISTS LTD

REVIEWED BY:

Daniel Cheetham
Project Engineer

Rodrigo Olavarria
Reviewing Engineer

2 July 2014