STATEMENT OF ENVIRONMENTAL EFFECTS

ERECTION OF A DUAL OCCUPANCY AND 1 INTO 2 LOT TORRENS TITLE SUBDIVISION

1 BOWDEN STREET, LORN NSW 2320

(LOT B DP368033)

CLIENT: Rhonda Nyquist

DATE: 28 OCTOBER 2021

PREPARED BY:

de Witt Consulting
Town Planning

ABN 23 104 067 405
7 Canberra Street Charlestown NSW 2290 | PO Box 850 Charlestown NSW 2290
87 Herbert Street Gulgong NSW 2852 | PO Box 232 Gulgong NSW 2852
02 4942 5441 | 02 6374 2911
admin@dewittconsulting.com.au
www.dewittconsulting.com.au

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PREPARED BY:	REVIEWED BY:	RELEASED BY:
Name: Caitlin Dunlop **Position**: Town Planner	**Name**: Emma Mason **Position**: Principal Town Planner	**Name**: Caitlin Dunlop **Position**: Town Planner **Signed**: CDunlop **Date**: 28 October 2021

1. INTRODUCTION

1.1 PURPOSE

This Statement of Environmental Effects (SEE) has been prepared on behalf of Rhonda Nyquist (the applicant), to accompany a development application (DA) for the erection of a dual occupancy and subsequent 1 into 2 lot Torrens title subdivision on land known as 1 Bowden Street, Lorn NSW 2320 (Lot B DP368033) (the site). (**Please note**: the adjoining allotment (Lot C DP368033) is also known as 1 Bowden Street, Lorn. This DA relates to Lot B DP368033 only).

The proposal has been formulated having full and proper regard to existing development controls and to the environmental qualities of the site and its surroundings. This SEE demonstrates that the proposal:

- Comprises a high-quality development that complies with the requirements of Maitland Local Environmental Plan (LEP) 2011 and Maitland Development Control Plan (DCP) 2011;
- Satisfies urban consolidation and sustainability objectives;
- Ensures the Cultural Significance of the Lorn Heritage Conservation Area is maintained and enhanced;
- Represents a good design outcome for future residents;
- Results in positive built and natural environment outcomes for the established suburb of Lorn.

1.2 CONSENT AUTHORITY

The proposed development requires consent under the *Environmental Planning and Assessment Act 1979* (EP&A Act). Maitland City Council (Council) is the consent authority for the proposed development.

1.3 INTEGRATED DEVELOPMENT PROVISIONS

The proposed development is not integrated development pursuant to the provisions of Section 4.46 of the EP&A Act. The site is not within a proclaimed mine subsidence district or considered bushfire prone land.

1.4 SCOPE OF STATEMENT OF ENVIRONMENTAL EFFECTS

This SEE accompanies a development application for the proposed development. It has been prepared on behalf of the applicant and includes the matters referred to in Section 4.15 of the EP&A Act and the matters required to be considered by Council.

The purpose of this SEE is to:

- Describe the land to which the DA relates and the character of the surrounding area.
- Describe the proposed development.
- Define the statutory planning framework within which the DA is to be assessed and determined.
- Assess the proposed development in the light of all relevant heads of consideration.

1.5 PERMISSIBILITY

The proposed development is permissible pursuant to the provisions of Maitland LEP 2011. The proposal has been formulated having regard to the provisions of Maitland DCP 2011, in particular Chapter C.8 Residential Design, C.10 Subdivision and Part C.4 – Heritage Conservation, Part C.5 – General Requirements for New Buildings in Historic Areas & Part E.4 – Lorn Heritage Conservation Area.

2. SITE AND SURROUNDING AREA

2.1 SITE AND BUILDING DESCRIPTION

The site contains two trees, front fence, retaining wall, partial concrete driveway, tennis court, mesh fence and clad shed with verandah. The site falls away from the street towards the rear of the site.

A 4 metre wide easement exists over the concrete driveway through to the rear of the site to drain water.

An aerial view of the property is included at *Figure 1* below, and photographs of the site are included at Section 2.3.4 of this report and show the nature of the site and immediate surrounding area

***Figure 1**: Aerial view, showing the site outlined in red (Source: SIX Maps LPI Viewer)*

2.2 SURROUNDING CONTEXT

The site exists on the fringe of an existing urbanised environment, with recreational and rural land to the south, south east and south west associated with the Hunter River, the bank of which is located approximately 200m south of the site. Development to the east and west is established residential; primarily comprising of older housing stock, often single storey at the street level and two storey at the rear owing to the drop in ground level from the street towards the rear of the site. The subject site contains a tennis court and ancillary structures and subsequently presents as a 'gap' in the streetscape.

The streetscape along Bowden Street displays varying building lines and orientation. The site sits mid-block with dwellings either side addressing the street whilst corner lots to the east and west address Lorn Street and The Avenue respectively. The site is Fencing along Bowden Street is a mix of low height brick fencing, low height timber fencing (open style), timber paling fence and aluminium pool-type fence. The narrow, paved verge along the northern side of Bowden Street precludes street tree fencing. However established residential gardens comprising a mix of native and non-native trees, shrubs and ground covers soften the views along the street. The southern side of Bowden Street is not kerb and guttered, instead a grassed verge and rural style post and wire fencing provides visual and physical separation between the public road and the rural and recreational land to the south.

In the surrounding area to the south is vacant farm land and the Hunter River. The dwelling to the east is a weatherboard and brick split storey dwelling with a metal roof. The dwelling to the west is brick split level dwelling with a metal roof. Land to the north is vacant residential land that is primarily utilised for stormwater drainage.

In the surrounding areas of Lorn, new development displays strong reference and respect to the architectural and historic prominence of the Lorn Heritage Conservation area. Mature and managed gardens and lawns, as well as select street trees reinforce the well-established qualities of the garden suburb.

New development derives key architectural features from the late Victorian period, Federation period and Inter-Wars period. The result is a cohesive townscape with buildings being compatible in scale and form.

The location plan at *Figure 2* shows the site within its residential / rural context.

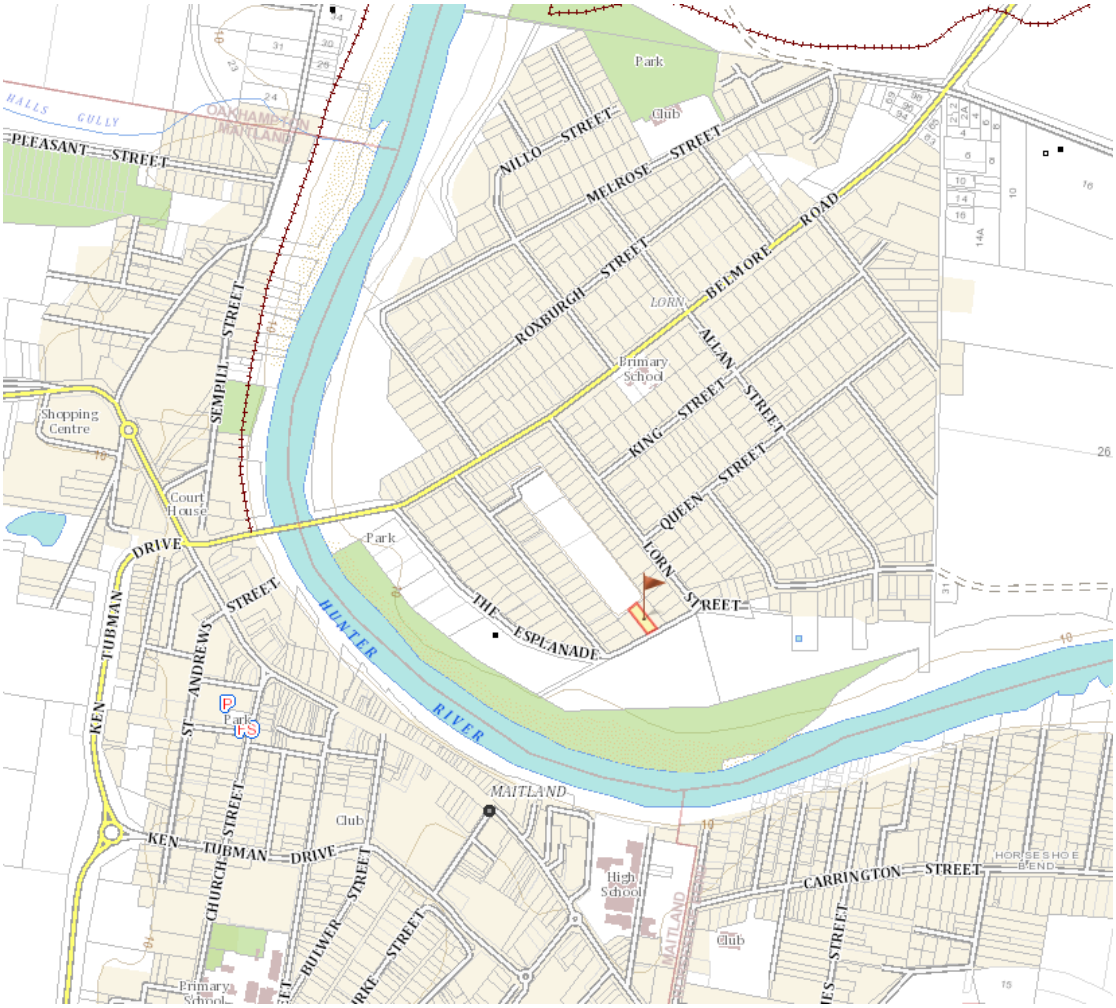

Figure 2: *Location plan, showing the site outlined in red (Source: SIX Maps LPI Viewer).*

2.3 PHYSICAL FEATURES

2.3.1 Flora and Fauna

The site contains two trees. One large tree within the front setback will be retained. The second tree is located in the rear right corner and will be removed as it will be located within the proposed gravel driveway area. It should be noted that no trees located on the site are listed on Council's Significant Tree Register.

2.3.2 Flood

The site is identified as being within a flood planning area as identified by the Maitland LEP Flood Planning Map. Appropriate measures to manage the risk of flood are included to ensure the development is to have a negligible impact on flood behaviour and the surrounding environment in the event of a flood. The proposed development has been designed in accordance with the requirements for all future development at the site. An 8.53m AHD flood level is applied to the site and as such the minimum finished floor level (FFL) for the dwelling is 7-7.20m for the ground floor which is limited to non-habitable rooms

such as laundry, storage and garages. The first floor has a FFL of 9.66-9.86m which contains the habitable rooms above the prescribed flood level.

The site and proposed development are not impacted by floodways. Consideration to the location of critical emergency response and recovery facilities has been noted.

The development incorporates appropriate measures to manage the risk of flood and is unlikely to be affected in the event of a flood due to its flood compatible design. The location of habitable rooms on the first floor above the 8.53 AHD flood level reduces the potential risk during flood events.

2.3.3 Acid Sulfate Soils

The site is mapped as potential Class 5 Acid Sulphate Soils. The proposal does not involve any works via which the water table will be lowered more than 1m below the natural ground surface. Accordingly, neither an investigation into the presence of Acid Sulfate soils or an Acid Sulfate Soils Management Plan is required.

2.3.4 Heritage

The site is located in the Mindaribba Local Aboriginal Land Council area. A search of the Aboriginal Heritage Information Management System (AHIMS) database concluded that there are no Aboriginal sites or places within 50 metres of the site (**Appendix 5**).

The Heritage Map of the Maitland LEP 2011 has identified that the site is located within the Lorn Heritage Conservation Area (Local significance). Maitland DCP – Part E – Special Precincts – Heritage Conservation Areas describes the Lorn Heritage Conservation Area as follows:

The visual character of Lorn presents an image of a well-cared-for turn-of-the century, residential settlement in which the different periods of architecture are integrated by the consistency of the introduced landscape. The immediate visual impression is of an essentially residential precinct of single and double storey Victorian houses and early 20th century character, with clearly defined edges. The village appears as "an urban island in the flood plain", contained by a series of levee banks. The uniquely different feature of Lorn, as compared with its neighbours, is the high quality of design and execution of its Federation and Californian Bungalow periods housing stock. Unlike Morpeth, Lorn is arranged on an irregular grid and in addition, because of the high levee banks, does not afford views from the village to the river and countryside beyond. Lorn is significant for its continuity of use as a garden suburb of Maitland and is the best example of the garden suburb ideal in the Hunter Region.

A Statement of Heritage Impact has been prepared by Contemporary Heritage (**Appendix 6**) which assesses the proposed development within the Lorn Heritage Conservation Area context and against adjoining development.

3. THE PROPOSAL

The subject DA relates to:

- Demolition of existing shed and tennis court;
- Erection of a two storey 2x bedroom detached dual occupancies on the site;
- Vehicle access to the site is via a shared right of way from Bowden Street and attached double garages;
- Selective tree removal;
- Private landscape and garden areas including fencing
- 1 into 2 lot Torrens title subdivision.

The applicant seeks consent for a residential use on the site, in the form of detached dual occupancy. The materials will include weatherboard cladding, brickwork, metal sheeting (roof). The colour palette will include white, greys and sand. When viewed from Bowden Street the dual occupancy presents as a single storey single dwelling through clever designing and utilising the natural slope of the site.

Access to the site will be via a shared formalised driveway crossover from Bowden Street. The shared driveway will utilise an existing concrete driveway into the site and then will be extended into a gravel aggregate driveway that will provide access into each dwelling's attached double garage and the visitor carpark. Each dwelling is afforded a double garage with two panel lift doors, that is not visible from Bowden Street.

Each dwelling's principal private open space (PPOS) is located on the ground floor as grassed yards. Dwelling one can access the PPOS via the undercover storage walkway and dwelling two can access the PPOS through the undercover porch. Each dwelling does not provide a sizable PPOS accessible from the living areas due to the flooding design requirements resulting in living areas being located on the first floor. A concrete balcony is afforded to each dwelling on the first floor that is accessible from the living areas.

Dwelling One and Two

- Proposed floor area: 135.13m^2
- Gross external floor area: 72.63m^2

First Floor

- 2 x bedrooms with built in robes
- Separate bathroom and toilet
- Concrete balcony
- Kitchen and breakfast bar
- Combined living and dining room

Ground Floor

- Attached double garage
- Foyer
- Storage rooms
- Laundry room and linen cupboard
- Toilet
- Grassed yard
- Rainwater tanks

The preservation of the Lorn Heritage Conservation area has been well considered during the design stage. The detached dual occupancy is considered an appropriate residential use for the site, consistent with approved development within the heritage locality in terms of roof profile, choice of materials being brick face and weatherboard and landscape and fencing treatments. A BASIX assessment and certificate for the proposed dual occupancies has been obtained and is in **Appendix 2**.

The development proposes the following setbacks:

Dwelling one

- East boundary (Bowden Street) – 6.235m
- Northern side boundary – 4.360m
- Southern boundary – 2.3m

Dwelling two

- Northern side boundary – 4.510m
- Western boundary – 3.480m
- Southern boundary – 2.385m

Both dwellings will have a maximum ridgeline height of 7.62m.

Subdivision

The proposed dual occupancy will be subdivided resulting one each dwelling being located on a separate lot. The proposed lot sizes are detailed in the table below and **Appendix 10.**

Proposed Lot Number	Proposed Lot size
1	310.6m^2
2	451.7m^2

In order to facilitate the proposed subdivision, the following easements are proposed to manage services and management of the site.

- Easement to drain water (DP626047)
- Right of carriageway 4 wide & variable
- Easement for encroaching structure to remain variable width
- Easement for support variable width

The location and further details of these easements can be found in the proposed plan of subdivision in **Appendix 10**.

Landscaping

The site contains two trees, one of which are to be removed to facilitate the construction of the gravel driveway. The tree removal forms part of this development application.

The large tree at the front of the site will be retained and the proposed landscaping has been designed around this tree and the proposed residential development. The proposed planting schedule has been selected to provide seasonal foliage, colourful flowers, deciduous trees and evergreen species throughout the site maintain privacy, enable solar access and brighten up the streetscape.

The brick fence will be retained at the front of the site. Behind the fence the existing tree will be retained as well as any other vegetation that can be maintained. Turf may be placed in the front setback if natural ground cover declines. Four trees will be located along the driveway including crepe myrtle around the garages and a water gum located at the end of the driveway.

Proposed dwelling one will have some small shrubs located around the front entrance. The front side yard will be a mixture of gravel and shade tolerant ground covers. The rear yard will be gravel, contain two rainwater tanks and have Murraya as screening shrubs along the boundary. The back side yard will contain a Water Gum, Sasanqua Camellia to screen between the new dwellings. The side yard will also contain Turf, Xanadu and Spider Lily plants.

Proposed dwelling two front side and rear yard will be a mixture of gravel with Kidney Weed and Native Violet ground covers. Murraya screening shrubs will be located along the rear yard boundary and two rainwater tanks will be located closer to the dwelling. The back side yard will be turfed with Sasanqua Camellia located partially along the rear lot boundary. Ornamental grass and Indian Hawthorn shrubs will be located around the front entrance.

Fencing is proposed throughout the site to separate the two dwelling and define the lot boundaries. Further details of the fences, landscaping plans and species selection can be found in appendix 7.

Stormwater

The proposed stormwater management for the site comprises of:

- all runoff from the new roof areas will be captured in gutters and downpipes and conveyed via charged pipes to the rainwater tanks attached to each dwelling.
- the rainwater tanks will act as detention storage as well as rain water harvesting for re-use within each of the dwellings.
- overflow from the rainwater tanks will be directed via subsurface pipe to a stormwater surcharge pit at the rear of the site within the existing drainage easement. the surcharge pit is connected to a 3.5m wide grated drain that will be place level to ensure overflow in the drainage easement occurs as sheet flow.
- runoff from the driveway and drainage easement will be captured by this surcharge pit and then discharge into the drainage easement as sheet flow.

4. STATUTORY PLANNING CONTROLS

4.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AND REGULATIONS 2000

The proposed development will require consent under the provisions of Part 4 of the *Environmental Planning and Assessment Act 1979*. The development is not Integrated Development pursuant to Section 4.46 of the EP&A Act.

4.2 HERITAGE ACT 1977

The site is not identified as having state heritage significance and therefore does not require consideration under the *Heritage Act 1977*.

4.3 RELEVANT STATE ENVIRONMENTAL PLANNING POLICIES

Table 4.3.1 address the relevant SEPPs, in accordance with Section 4.15 (1) of the EP&A Act.

Table 4.3.1: Relevant SEPPs

SEPP	COMPLIANCE
State Environmental Planning Policy (Infrastructure) 2007	Clause 7 of the State Environmental Planning Policy 55 - Remediation of Land sets out that a consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated and it is satisfied that the land is suitable in its contaminated state (or will be suitable after remediation) for the purpose for which the development is proposed to be carried out. The proposed development proposes a residential use on the site, consistent with the site history and adjoining development. No further investigation should be required at this stage.
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	The State Environmental Planning Policy was enacted to ensure buildings are designed to use less potable water and minimise greenhouse gas emissions by setting energy and water reduction targets for residential houses and units. A BASIX assessment has been undertaken as part of the proposed development, by a qualified Building Sustainability Assessments consultant. The certificate for the proposal plans is provided in **Appendix 2**.

4.4 MAITLAND LOCAL ENVIRONMENTAL PLAN 2011

The Maitland Local Environmental Plan 2011 provides a planning framework to facilitate development in an appropriate manner with due consideration to ecologically sustainable development. Relevant clauses of the LEP are discussed in Table 4.4.1.

Table 4.4.1: Consistency with LEP 2011

CLAUSE	CONSISTENCY
1.2 Aims	The LEP provides for appropriate development within the LGA. The proposal has given due consideration to the site and surrounds and is in keeping with the aims of the LEP 2011.
2.1 Land use zones	The site is zoned *R1 General Residential* pursuant to the provisions of Maitland LEP. The following uses are permitted with consent in the R1 zone: *Attached dwellings; Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Centre-based child care facilities; Community facilities; Dwelling houses; Group homes; Home-based child care; Home industries; Hostels; Hotel or motel accommodation; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Pond-based aquaculture; Residential flat buildings; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing; Serviced apartments; Shop top housing; Tank-based aquaculture;* ***Any other development not specified in item 2 or 4*** *Dual occupancies* are permissible with consent in the *R1* zone, as they are not a prohibited development.
2.3 Zone objectives	The objectives of the *R1* zone are: • *To provide for the housing needs of the community.* • *To provide for a variety of housing types and densities.* • *To enable other land uses that provide facilities or services to meet the day to day needs of residents.* The proposed development is considered consistent with the zone objectives. The new development will provide for the growing housing needs of the community, by providing a low density and scale development. The proposal does not introduce a scale or type of development that will conflict with any nearby facilities or services and is consistent with approved development nearby.
4.1 Minimum subdivision lot size	The minimum lot size is 450 square metres in the R1 zone. The proposal involves the subdivision of land under 4.1A.
4.1A Exceptions to minimum lot size	The proposed subdivision is below the minimum lot size of 450m^2. This clause allows for the reduction of the minimum lot size to 300m^2 if the land is zoned R1 and includes the erection of a dwelling house on each lot. The proposed subdivision complies with these requirements for a reduced minimum lot size.
4.3 Height of buildings	There is no maximum allowable height prescribed for the site.
4.4 Floor space ratio	There is no prescribed floor space ratio (FSR) in the LEP for the site.
4.6 Exceptions to development standards	Flexibility is provided in the LEP for certain development standards for particular development. The proposal is sufficiently compliant and does not seek to apply for an exception to development standards.

CLAUSE	CONSISTENCY
5.10 Heritage conservation	The site is identified as being within the Lorn Heritage Conservation area under the LEP 2011. The proposed dwellings have been skilfully designed and a Statement of Heritage Impact has been prepared to support the proposed residential development to ensure that the development is sympathetic to the character of the Lorn Heritage Conservation Area or that it will reduce the significance.
7.1 Acid sulfate soils	The site is affected by potential Class 5 Acid Sulphate Soils. The proposal does not involve any works that will result in the water table being lowered more than 1m below the natural ground surface. Accordingly, neither an investigation into the presence of Acid Sulfate soils nor is an Acid Sulfate Soils Management Plan required.
7.2 Earthworks	Ground works included with the proposal are minimal and limited to foundation works, services and infrastructure. An erosion and sediment control plan has been included with the stormwater plans.
7.3 Flood planning	The site is located within a flood planning area, as identified by LEP. Appropriate measures to manage the risk of flood are included to ensure the development is to have a negligible impact on flood behaviour and the surrounding environment in the event of a flood. The proposed development has been designed in accordance with the requirements for all future development at the site. An 8.53m AHD flood level is applied to the site and as such the minimum finished floor level (FFL) for the dwelling is 7.01-7.20m for the ground floor which is limited to non-habitable rooms such as laundry, storage and garages. The first floor of each dwelling has a FFL of 9.66-9.86m which contains the habitable rooms above the prescribed flood level.

4.5 MAITLAND DEVELOPMENT CONTROL PLAN 2011

The purpose of this Development Control Plan (DCP) is to provide detailed provisions for development within Maitland LGA. The provisions of the DCP supplement the legal framework contained in Maitland LEP 2011. The DCP contains controls relating to the following relevant matters:

- Part B – Environmental Guidelines
- Part C – Design Guidelines

The above matters have been addressed in the Table 4.5.1 below.

Table 4.5.1 Compliance with Maitland Development Control Plan 2011

Clause	Objectives	Design Requirements	Compliance
Part B Environmental Guidelines			
B.2 Domestic Stormwater	(a) Ensure that compliance with BASIX objectives and requirements are achieved. (b) Ensure that an acceptable standard of water quality is maintained within storm water lines and rain water storage tanks. (c) Ensure the most suitable rainwater storage method is employed pursuant to the relevant site conditions, including health and safety aspects of the storage installation. (d) Ensure the method of laying storm water lines is in accordance with the relevant Australian Standard, (AS/NZS 3500.3:2003). (e) Ensure that storm water discharge points at kerbs and inter-allotment drainage pits are of an acceptable standard and location.	The objectives of this plan may be achieved by compliance with the following criteria: (a) Retention capacity (b) Location of feed lines (c) Rain water tanks (d) Configuration of storm water lines (e) Storm water lines over Council's nature strip (f) Storm water generated from hardstand areas (g) Mosquitoes	A Stormwater Management Plan has been prepared that identifies the proposed stormwater infrastructure which has been calculated to ensure that the system is suitable for the proposed development. The stormwater management plan is in **Appendix 4**. A BASIX certificate has been obtained and is in **Appendix 2**.
B.3 Hunter River Floodplain	Clause 7.3 (2) in the Maitland LEP 2011 specifies the land to which this DCP chapter applies. The land is identified on the flood planning area maps included in the Maitland LEP 2011 and also any additional mapping that may be adopted by the Council for the purposes of defining the flood planning area. This DCP chapter applies to the area of the Maitland Local Government Area (LGA) that is within the flood planning area identified in the	The onus is on the proponent to provide an adequate level of information to support any development on land below the FPL. The Council will require a Statement of Environmental Effects (or an Environmental Impact Statement if the proposal is designated development) justifying the development in its location. 1. The proposal is supported by adequate information to assess the impact of the proposal on flood behaviour, the environment, flood affectation and risk to life and property associated with the use of land.	The site is identified as being land to which this DCP chapter applies, identified on the flood planning area maps included in the MLEP 2011. The flood planning level (FPL) for the site is 8.53m AHD. The proposed development has been designed in accordance with the requirements for all future development at the site. Appropriate measures to manage the risk of flood are included to ensure the development is to have a negligible impact on flood behaviour and the

Clause	Objectives	Design Requirements	Compliance
	LEP and for critical infrastructure and facilities within the Probable Maximum Flood (PMF) area.	1. All habitable finished floors shall be no lower than the FPL	surrounding environment in the event of a flood. An 8.53m AHD flood level is applied to the site and as such the minimum finished floor level (FFL) for the dwelling is 7.01-7.20m for the ground floor which is limited to non-habitable rooms such as laundry, storage and garages. The first floor of each dwelling has a FFL of 9.66-9.86m which contains the dwelling habitable rooms above the prescribed flood level.
B.4 On-site Sewage Management Systems	(a) The prevention of the spread of disease by micro-organisms. (b) The prevention of the spread of foul odours. (c) The prevention of contamination of water. (d) The prevention of degradation of soil and vegetation. (e) The implementation of measures to discourage insects and vermin. (f) To ensure that persons do not come into contact with untreated sewage or effluent (whether partially treated or not) in their ordinary activities on the premises concerned. (g) To encourage the re-use of resources (including nutrients, organic matter and water). (h) To minimise any adverse impacts on the amenity of the land on which it is installed or constructed and other land in the vicinity of that land.	What technologies are available to dispose of effluent on site? The following is a summary of some of the more commonly known on-site wastewater treatment technologies on which these guidelines are based. Included are general operating and sizing requirements for each particular system.	It is intended the proposal will be connected to reticulated sewer and water services. An application has been made to Hunter Water Corporation to obtain their current requirements.

Clause	Objectives	Design Requirements	Compliance
B.5 Tree Management	There is 1 tree proposed for removal with this development application. Due diligence was undertaken during the design stage when siting the development to minimise disturbance to vegetation at site. No trees on site are listed on Council's Significant Tree Register. The remaining tree to be incorporated with the landscape design of the proposed development. Adequate protection for the trunk and branches will be provided for the duration of the works.		
B.6 Waste Not – Site Waste Minimisation and Management	To minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources. To encourage building designs, construction and demolition techniques which minimise waste generation. To assist applicants in planning for sustainable waste management.	A Site Waste Minimisation and Management Plan (SWMMP) is submitted to Council with the development application. A completed SWMMP shall accompany the development application for demolition. A completed SWMMP shall accompany the development application for construction.	A SWMMP is provided in **Appendix 3** which complies with the requirements of the DCP and includes details regarding the construction and ongoing operation of the site. The SWMMP identifies all waste likely to result from each phase of the development, and the opportunities for the reuse and recycling of these materials.
Part C Design Guidelines			
C.4 Heritage Conservation			
2.2 Heritage Impact Statement (HIS)	The site is located within the Lorn Heritage Conservation Area, a Heritage Report (**Appendix 6**) has been prepared by Contemporary Heritage which assessed that the development will have a minimal impact (in many aspects) by providing some design changes to make the proposed development sympathetic to the surrounding development. The assessment demonstrates that the proposed development is with merit as dual occupancy developments in Lorn are limited. The dual occupancy design has been guided by sound heritage principals and prepared in accordance with the consultation with Maitland City Council. The proposed dual occupancy is found to have minimal impact on the heritage significance of the locality with a complementary design, scale and form to nearby older housing stock and contributory items.		
2.3 Heritage Conservation Management Plan (CMP)	It is not considered that a Heritage CMP is required under Clause 5.10(6) of LEP 2011, as the findings of the above assessment do not warrant additional conservation outcomes. The development seeks approval for a detached dual occupancy.		

Clause	Objectives	Design Requirements	Compliance
5. General Requirements for New Buildings in Historic Areas	The design of the proposed dual occupancy does not seek to architecturally replicate nearby historical development, but rather presents a contemporary design with a strong and appropriate connection to the character of the surrounding area in terms of scale and siting, form, materiality and landscaping treatment. The development meets the requirements for new development in the following ways; • Siting the second dwelling behind the first dwelling, as such presenting a single dwelling profile from Bowden Street. • The proposed gutter heights match the adjoining development to provide consistency along Bowden Street. • The retention of the large street tree and six metre setback provides continuity of Bowden Street setbacks and is located behind the adjoining properties front setbacks. • The proposed roof pitch will match 1 Bowden Street (Lot C DP368033), and is compatible with the roof pitch of 5 Bowden Street. • Brickwork colours have been to colour match the adjoining development, the brick and weatherboard together provides • Double hung windows are proposed on both dwellings which are an appropriate window design within the conservation area. The Statement of Heritage Impact details the heritage impacts of the proposed development, giving consideration to the Lorn Heritage Conservation area and adjoining development, further details are in **Appendix 6**.		
C.8 Residential Design			
2.1 Site Analysis and Site Context	To ensure that residential development is of a high quality and is sensitive to the existing character of the area and the opportunities and constraints of both the site and its surrounds.	A detailed site analysis shall be submitted with a development application for all residential development with the exception of a single detached dwelling.	A Site Analysis Plan is provided in **Appendix 1**.
4. Bulk Earthworks and Retaining Walls	a) To ensure that development responds sensitively to the topography of the land. b) To restrict and control excessive earthworks in order to preserve, as much as practicable, the existing topography and character of the neighbourhood affected by the proposed development.	i) A 'bulk earthworks plan (BEP)' shall be submitted with the development application for all forms of residential development showing the levels (relative to a datum benchmark at the site) of all finished ground levels for both the building platform and those areas of the site external to the building platform. The plan should also specify and show the extent and depth of cut/fill, and location of all retaining walls and/or battered slopes. The BEP shall also	Minor earthworks will be required. This includes provisions for drainage, stormwater management and utility infrastructure, as well as foundation works. Given the siting of the development from the site boundaries, it is not anticipated that the earthworks will adversely impact the amenity of neighbouring properties or immediate area.

Clause	Objectives	Design Requirements	Compliance
	c) To ensure that the building design is appropriate for site conditions with consideration given to the stability and privacy of the adjoining properties, solar access, amenity and bulk, height and scale at the boundary interface. d) To minimise the effect of disturbance on any land and ensure that dangerous/unstable excavations are avoided, or where necessary, are properly retained. e) To reduce the potential for the siltation of waterways and erosion of land disturbed by the development. f) To ensure that the site is appropriately rehabilitated as an integral part of the development. g) To preserve topsoil. h) To ensure that adequate provision is made for drainage in relation to cut and fill practices.	show existing ground levels adjoining the perimeter boundaries of the land (refer to Figure 4 for sample BEP). j) Where a retaining wall (for the purposes of retaining fill) is proposed either on or in close proximity to a boundary then the maximum extent of fill shall be 600mm (refer to Figures E, F and G). k) Where a retaining wall (for the purposes of retaining cut) is proposed either on or in close proximity to a boundary then the maximum extent of cut shall be 900mm (refer to Figures E, F and G). l) Retaining walls shall be designed and certified as structurally adequate by the Accredited Certifier as part of a Construction Certificate: • where the wall has a height greater than 1.0m; • where retaining is achieved by a series of separate walls located in close proximity to one another (refer Figures D and E) m) Elevated flooring (eg bearers and joist construction), deepened concrete edge beams, infill slabs, split level construction and the like shall be used where necessary to reduce the extent of earthworks required to achieve the maximum cut/fill levels prescribed under the plan (refer to Figure H). n) Retaining walls shall be constructed of materials which are prescribed by a manufacturer, Australian Standard or structural engineer as being 'fit for purpose'. o) Adequate drainage comprising free draining gravel and subsoil agricultural drains shall be installed to the rear of	The existing retaining brick walls will remain and will be integrated into the proposed development.

Clause	Objectives	Design Requirements	Compliance
		retaining walls to relieve the hydrostatic pressure at the base of the wall. p) Stormwater or surface water runoff shall not be redirected or concentrated onto adjoining properties so as to cause a nuisance. Adequate drainage is to be provided to divert water away from batters. This requirement shall be an integral part of the site stormwater management plan addressed in Section 18 of the Plan. q) Cut and fill batters should not exceed a slope of 3:1 (horizontal to vertical ratio) to the natural ground level unless the foundation strata, type of material or compaction permits otherwise and Council is satisfied as to the stability of the site. All batters must be provided with both short term and long term stabilisation to prevent soil erosion. r) Excavations in excess of those specified for retaining walls may be permitted within the confines of the building to allow for basements, garages etc providing the excavations are adequately retained and drained in accordance with engineering details. s) All excavations shall be protected in accordance with the requirements of the NSW WorkCover Authority. t) Where a property is burdened by stormwater easements containing pipes care should be taken to avoid pipe damage. In cutting situations it maybe necessary to lower existing pipes within the easement. In filling, pits may require extending to the new surface level.	

Clause	Objectives	Design Requirements	Compliance
5.Street Building Setbacks	a) To provide setbacks that complement the streetscape, allow flexibility in the siting of buildings and allow for landscape settings and open space requirements. b) To ensure that new development establishes appropriate and attractive streetscapes which reinforce the function of the street and is sensitive to the landscape and environmental conditions of the locality.	c) The minimum building line to the principal street frontage of an allotment located in an urban residential zone is 5.0 metres (refer Figure 9 - Example 3). d) Where an allotment is located on a corner in an urban residential zone and a single dwelling is proposed the minimum building line setback is 5.0 metres to the principal street frontage and 3.0 metres to the secondary street frontage (refer Figure 9 - Example 1). e) Where the shape of the allotment located within an urban residential zone is irregular due to the geometry of the street boundary the building line shall be a minimum of 4.0 metres but averaging 5.0 metres over the length of the building addressing those street boundaries (refer Figure 9 - Example 4). f) For corner lots, within an urban residential zone, where the development involves more than one dwelling, the dwelling(s) fronting the secondary street shall have a setback of not less than 4.0 metres (refer Figure 9 - Examples 1 and 2). g) No garage or carport within an urban residential zone shall be located closer than 6.0 metres to the street boundary at the principal frontage and no closer than 5.5 metres to the street at a secondary frontage (refer Figure 9). h) Older residential areas or heritage conservation areas may comprise buildings with setbacks greater than or less than 5.0 metres. Where infill development is proposed in these areas the building line for the new development shall have regard to the setbacks of existing buildings adjacent to the site. Designers should consult Part E.2: Heritage	Dwelling one is setback 6.235m from Bowden Street with a brick retaining wall, brick fence and tree located within the front setback. The dwelling is located a minimum 5.0m from the secondary street frontage –compliant with the DCP provisions. The attached double garages are located away from the street front and is are not visible from Bowden Street.

Clause	Objectives	Design Requirements	Compliance
		Conservation Areas to determine setbacks in heritage conservation areas.	
6. Side and Rear Setbacks	To allow flexibility in the siting of buildings and the provision of side and rear setbacks. To allow adequate building setbacks for landscaping, privacy, natural light and ventilation between buildings.	Minimum side and rear setbacks for residential buildings in urban zones shall be in accordance with Figure 10 and described as follows: ➢ 1.0m for walls up to 3.0m in height (to underside of eaves); ➢ 1.0m plus 0.3m for every metre of wall height over 3.0m and less than 7.2m; ➢ For that part of a wall over 7.2m in height, the minimum setback should be increased by 1.0m for every metre of height over 7.2m.	Dwelling one has a side setback of 2.360m and is considered compliant with the DCP controls. Dwelling two has a side setback of 2.385m and a rear setback of 3.480m and is considered to be compliant with the DCP controls.
7. Site Coverage and Unbuilt Areas	a) To promote on-site stormwater infiltration by restricting site coverage of buildings and hard surfaces. b) To maximise opportunities for landscaping of the site which incorporate larger scale plantings consistent with reducing the visual impact of hard building finishes and promoting improved amenity within the site and enhanced streetscapes .	60% Maximum site coverage 40% Minimum unbuilt area	The proposed site coverage is 55%. This is based on a site area of 758.8m^2 and 375.4m^2 of impervious area. The development complies with the DCP requirement of maximum 60% site coverage and 40% minimum unbuilt area.
8. Building height, bulk and scale	a) To ensure that the height, scale, and length of new development is not excessive and relates well to the local context and overall site constraints. b) To ensure that the amenity of surrounding properties is properly considered. c) To minimise site disturbance and cut and fill.	Maximum height 8m	Generally, when viewed from adjoining sites, the development will not be of a height and scale that causes a significant loss of amenity. This can be attributed to the site slope reducing the overall bulk of the building.

Clause	Objectives	Design Requirements	Compliance
			The dwelling is to have a maximum ridgeline height of 7.62m, measured from the ground level to the ridgeline. The development is complaint with the DCP.
9. External Appearance	To encourage the creation of attractive, well-designed residential development. To allow flexibility in design and use of materials while encouraging high architectural standards. To ensure good design which provides continuity of character between existing building forms, new development and surrounding landscape by using a selection and/or combination of characteristic elements and mass. To ensure that new residential development in Heritage Conservation Areas or on identified heritage sites is designed having regard to the heritage significance of the area or item and compliments the character of these buildings, places and streetscapes.	The building design and the Statement of Environmental Effects that accompanies the proposal should demonstrate that the following matters have been addressed: i. Consideration of the existing character, scale and massing of development in the immediate area, including the surrounding landscape. ii. Architectural interest encouraged by: iii. the use of finishes which are textured rather than bland; iv. providing stepping of walls, pergolas, eaves, verandahs and blade walls etc. to establish articulation and create light and shadow to a building v. the coordinated use of diverse materials and appropriate decorative treatments vi. Consideration of both typical and rare fenestration (door and window patterns) and the relationship between glazed and solid wall areas. vii. Consideration of traditional relationship of roof mass to wall ratio, roof pitch and design, length of unbroken ridgelines, parapets, eaves and roof water guttering detailing. viii. The design shall provide a variety of experiences for the residents and passers-by thorough attention to silhouette, pattern, texture and colour. The amount and	The design of the dwellings responds to the architectural characteristics of typical and contributory heritage dwellings within the vicinity of the site. The double storey form, proportions and building layout and materials are complementary to the existing buildings within the immediate area. The use of heritage appropriate face brick and weatherboard cladding painted in neutral tones (white / grey tones) respond to those of contributory buildings in the vicinity. The overall building design and facade has been well designed to result in a suitable architectural outcome for the site. Proposed and retained landscaping will provide visual relief and also ensure the overall development will have a complementary appearance to sites along Bowden Street and will be sympathetic to the well landscaped 'garden suburb' character of the locality. *Garaging* Each dwelling is afforded with a double garage. The garage is not visible from the frontage and is accessed via a shared formalised driveway crossover from Bowden Street. Each dwellings garage has been integrated into the design of the dwelling and does not include any pop out elements.

Clause	Objectives	Design Requirements	Compliance
		length of unbroken roof ridgelines, unpunctuated facades, fencing and repetitive form should be minimised.	The driveway will comprise of the existing concrete slab before extending into the concrete aggregate. Landscaping is proposed along the shared driveway and around the garages.
10. Open Space	a) To provide sufficient and accessible open space for the reasonable recreational needs of residents; b) To ensure that private open space meets requirements for privacy of the residents and adjoining properties, safety, access to outdoor activities and landscaping. c) To locate open space to take account of outlook, natural features of the site and neighbouring buildings or public open space.	d) Open space shall be clearly defined to distinguish between communal and private open space. e) Open space areas shall be of usable dimensions to suit the projected requirements of the dwelling occupants, and to provide some outdoor recreational needs as well as providing space for service functions. f) Private open space shall be capable of serving as an extension of the function of the dwelling for relaxation, dining, entertainment, recreation and children's play, and where possible be directly accessed from a main living area of the dwelling. g) The open space shall be orientated to enable solar access to help achieve comfortable year round use. h) Private open space shall be screened for privacy.	Each dwelling has a private open space on each floor. The ground floor POS does not extend from a living area as due to the flood category of the site and habitable rooms being located on the first floor. On the first floor there is a concrete balcony. The two POS for each dwelling provide opportunities for future residents variety in open spaces.
13. Landscape Design	a) To enhance the appearance, amenity, and energy efficiency of new development for the benefit of users and the community in general. b) To encourage the use of water efficient landscape systems embracing the principals of water sensitive urban design (WSUD). c) To encourage the integration of building and landscape elements. d) To protect existing landscape features including natural landforms, watercourses and native	h) Site disturbance shall be minimised and existing landscape elements such as above-ground rock formations, significant trees and watercourses shall be preserved where possible. i) In established areas, landscaping should relate to the scale of other elements of the streetscape and of buildings/trees within the development itself and on adjoining land. j) The development shall be designed to provide the maximum opportunity for tree planting. k) Appropriate vegetation shall be used to provide shade to the northerly and westerly elevations of buildings in summer, while allowing	Landscaping plans have been prepared that take into account the existing front tree and the expected solar access throughout the site. The species selection ranges from turf and ground cover through to large water gums. Native species that are durable have been chosen as well as exotic species to maintain a balance within the site.

Clause	Objectives	Design Requirements	Compliance
	vegetation and integrate them, where possible, with new development. e) To enhance the acoustic environment (eg: through fencing, blade walls and location of open space areas) of a development and provide visual privacy and shade. f) To blend new development into an established streetscape and neighbourhood. g) To encourage the use of native plant species.	penetration of sunlight in winter. l) Landscaping should be geared towards user requirements, taking into account maintenance, shade provision and aesthetic quality. Design Requirements: m) With the exception of a single dwelling, all residential development shall be supported by a detailed landscape plan (inclusive of planting scheme) prepared and endorsed by a suitably qualified landscape consultant (eg landscape architect or horticulturalist) as meeting the objectives and design requirements of this chapter. n) The landscape design should, as appropriate: I. Retain existing vegetation for integration with the landscape design for the development; II. Employ the use of native vegetation suitable for local conditions which require lower maintenance and demand less water; III. Incorporate the use of advanced specimens to ensure that the completed built form is immediately and effectively softened by landscaping. IV. Define a theme for new internal streets/driveways or complement existing streetscapes external to a site; V. Be of an appropriate scale relative to the width of driveways and the associated space between buildings and the building bulk – trees should be introduced which achieve a height above the roofline of the dwelling to soften built form; VI. Take into account view corridors and introduce species that, where possible, preserve opportunities for views when the plants are mature; VII. Improve privacy and minimise overlooking between dwellings and also overlooking from public spaces such as footpaths and communal open space; VIII. Provide adequate lighting for vehicular and pedestrian safety; IX. Account for streetscapes and landscapes of heritagesignificance; X. Be tolerant of site conditions and adequately mulched in orderto reduce demand for water, herbicides and fertilisers; XI. Clearly identify where turfed areas are to be located and specifythe materials used for	

Clause	Objectives	Design Requirements	Compliance
		forming the edges of garden beds; XII. Detail the various paving materials used throughout the site for driveways, pedestrian pathways, parking areas and private open space areas. o) The landscape plan for the development shall recognise private open space areas as 'outdoor rooms' and the design shall incorporate: I. Paved areas or decks for outdoor dining/relaxation; II. Garden areas to reduce the 'hard' visual impact of fencing, paving and walls; III. Built-in seating (optional) – refer to example courtyard area at Diagram 19. IV. The inclusion of trees of a scale which will provide adequate shade (deciduous may be appropriate depending on orientation of POS); V. Provision of drying areas and garbage storage areas and the screening of these areas with vegetation and/or structural elements such as timber panels; VI. Water features(optional); VII. Full details of materials for fencing, paving etc. Refer to Figure 19 for example of courtyard landscaping. p) Residential developments that make the most positive contribution to streetscapes and the urban environment and provide higher levels of amenity and enjoyment for residents are those which have a sound maintenance regime for landscaped areas – both private open space and communal areas. q) The landscape design for a development should integrate with the stormwater management scheme for the development having regard to 'water sensitive urban design' (WSUD) principles as detailed in the following publications: • "Urban Stormwater – Best Practice Environmental Management Guidelines" – CSIRO Publications, 1999. • Maitland City Council – Manual of Engineering Standards (2005).	

Clause	Objectives	Design Requirements	Compliance
14. Fencing and walls	a) To ensure that all fences and walls provide privacy, security and noise attenuation without having a detrimental impact upon the streetscape, adjacent buildings, or the use of open spaces areas within the development or on adjoining land.	c) The landscape plan prepared for the development shall incorporate full details of all fencing proposed including: • location • height • materials • colours. d) For all forms of residential development, with the exception of a single dwelling-house, sheet metal fencing shall not be permitted where it forms a boundary with a street, or communal area within a development; e) Fencing between dwellings shall be designed to provide visual and acoustic privacy to internal rooms and outdoor private open space. The recommended height for these dividing fences is 1800mm high but not less than 1500mm high. f) For all residential development where sheet metal fencing is used it should be of mid to dark earthy colour to make the fence visually recessive; g) Fencing within the street building line setback shall not be located closer than 900mm from the street property boundary for the principal street frontage of the development (refer Figure 22). h) Where side boundary fencing projects forward of the street building line setback to the principal frontage then the maximum height of the fence shall not exceed 750mm within the building line setback area. (Note: This requirement does not apply where the development	The existing brick fence along the Bowden Street frontage will be retained including other brick retaining walls on-site. Timber fencing will be utilised on the site to delineate between the two dwellings and adjoining development. The fence will be 1.8 metres and be complemented by landscaping to soften the visual appearance.

Clause	Objectives	Design Requirements	Compliance
		qualifies to use the building line setback for private open space – refer Sec B9.9(h)). i) Front fencing for the purposes of containing a dwelling's principal private open space area, shall not occupy more than 50% of the street frontage of an allotment and shall not contain or obscure the principal pedestrian entry point to the dwelling from the street. Fencing may occupy greater than 50% of a site frontage if it can be demonstrated that the increased length of fencing is consistent with the established fencing within the street and character of the street, or because of environmental impact considerations, eg. noise. j) Solid fencing for the purposes of containing a dwelling's principal private open space area, shall not exceed a height of 1500mm where located within the street building line setback unless it can be demonstrated that a higher fence is appropriate having regard to issues of noise, privacy, existing streetscape and architectural merit. k) Nothing in this plan prevents the fencing of the street frontage of a property subject to the following: • The building line setback area is not required for the purposes of • principal open space; • The fence shall not exceed a height of 1200mm (1.2metres); • The fence shall not comprise sheet metal material; The fence shall be of a design/materials which integrate with the dwelling(s) located on the land.	

Clause	Objectives	Design Requirements	Compliance
15. Driveway Access and Car Parking	a) To provide convenient, accessible and safe parking to meet the needs of residents and visitors which does not dominate the streetscape or cause congestion in nearby streets. b) To ensure that parking areas are designed to accommodate the needs of those persons with a disability. c) To encourage the design of access and parking as part of the overall landscape design.	d) The design of driveways and parking areas should have regard to: ➢ The widest range of user groups inclusive of disabled persons; ➢ The safety of pedestrians, cyclists and vehicles; ➢ Proximity and frequency of public transport; ➢ Street facilities such as kerb inlet/drainage pits, poles and services, street trees, bus and taxi stands/shelters, distance to corners; ➢ Street width, traffic volume and on-street parking; ➢ Part E.3: Heritage Conservation Areas	The proposed shared driveway will utilise the existing concrete driveway off Bowden Street before extending into gravel aggregate and includes a landscaping strip along the eastern boundary. The colour of gravel will be of a warm tone to be compatible with heritage requirements.
16. Views and Visual and Acoustic Privacy	a) To encourage the sharing of views whilst not restricting the reasonable development potential of a site. b) To site and design buildings to meet projected user requirements for visual and acoustic privacy. c) To protect the visual and acoustic privacy of nearby buildings and private open space.	View Sharing d) All property owners should be able to develop their property within the established planning guidelines, however, existing views should not be substantially affected where it is possible to design for the sharing of views. e) Grand vistas and significant views that are recognised and valued by the community should not be obscured by new development. f) Heritage or familiar dominant landmarks should be retained and not obscured. Visual Privacy h) Overlooking of private open space and direct views between living area windows shall be screened or	The proposed development is not expected to create adverse impacts upon the reasonable right of view of surrounding properties. Outlook of heritage or familiar dominant landmarks will be maintained and not obscured by the development. Open spaces and habitable rooms are oriented in a manner that reduces potential impacts on the surrounding residential properties. 1.8m high boundary fencing is considered a suitable measure for mitigating overlooking opportunities from ground floor private open spaces and living areas. The site layout provides separation of active recreational areas and habitable rooms through spatial separation. Vegetation planting will provide a further visual buffer.

Clause	Objectives	Design Requirements	Compliance
		obscured using one or more of the following methods (as shown in Figures 27 and 28): I. Separation distance between windows of habitable rooms or balconies II. Separation by design III. Offset living room windows of opposing dwellings/units IV. Splay windows to redirect sight lines V. Build to a boundary and avoid window openings VI. Screen planting between units VII. Fencing design or privacy screens VIII. Use of fin walls IX. Planter boxes X. Louvre screens (vertical or horizontal) XI. Pergola XII. Change in level Acoustic i) Where no design techniques and screening (eg fences or walls) are proposed, openings of adjacent dwellings shall be separated by a distance of at least 3.0m. j) Site layout shall separate active recreational areas, shared parking areas and driveways, and service equipment areas away from bedroom areas of dwellings.	The dwelling is sited and designed to meet user requirements for acoustic privacy while minimising the acoustic impacts of development on adjoining properties. On-site noise generating sources including the air conditioning unit, and recreation areas are designed and located to ensure that the noise levels generated have minimal impact to adjoining properties. The proposal is for a residential development in an established urbanised area – it is expected that there will be negligible impacts to the acoustic privacy of the surrounding locality.

Clause	Objectives	Design Requirements	Compliance
		k) Mechanical plant or equipment (eg. Air conditioning units) shall be designed and located to minimise noise nuisance. l) Shared walls and floors between dwellings shall be constructed to reduce noise transmission in accordance with the Building Code of Australia.	
17. Water and Energy Conservation	a) To reduce total water and energy use in residential buildings in accordance with State Environmental Planning Policy – Building and Sustainability Index (SEPP BASIX) by promoting solar access and reducing heat loss and energy consumption for heating and cooling. b) To provide dwellings with adequate solar access and ventilation to both internal habitable rooms and private outdoor open spaces. c) To avoid the potential for significant overshadowing of habitable rooms and private open spaces within the development itself and also with respect to adjoining development. d) To encourage the use of building materials that are energy efficient, non-harmful and environmentally sound.	The Environmental Planning and Assessment Regulation 2000 prescribes when a BASIX Certificate is required to be provided with a Development Application.	The proposal has been designed to maximise the conservation of water and energy. A BASIX Certificate has been generated for the proposal and accompanies the development application.
18. Stormwater Management	a) To provide an effective stormwater management system which is sustainable and requires minimal maintenance. b) To prevent erosion, sedimentation and other pollution.	h) Due to downstream flooding/capacity issues and for developments other than single dwellings, on-site detention of stormwater is required in accordance with Council's Manual of Engineering Standards, to restrict the discharge rate of stormwater runoff. The methods may include tanks (either underground or aboveground) or surface storage areas such as driveways or landscape	A Stormwater Management Plan has been prepared that identifies the proposed stormwater infrastructure which has been calculated to ensure that the system is suitable for the proposed development. The Stormwater Management Plan is in **Appendix 4**.

Clause	Objectives	Design Requirements	Compliance
	c) To ensure that the rate of post-development stormwater discharge should be no greater than that of the pre-development stormwater discharge. d) To ensure that control flow paths (eg: spillways, swales) are provided to cater for stormwater overflows. e) To cater for flows entering the site and to ensure that there are no adverse effects from flows leaving the site. f) To encourage the use of rainwater tanks as a means of reducing separate stormwater detention requirements and achieving more sustainable water re-use within the dwelling and for landscaping purposes. g) To ensure that drainage systems are designed for safety and that the systems avoid any potential for stormwater inundation of habitable floor areas.	depressions. The amount of storage volume required is subject to detailed calculation but may be estimated at 9 cubic metres per 1000sqm of site area. i) A detailed erosion and sediment control plan (ESCP) should be submitted with the development application. The ESCP should be prepared in accordance with the requirements of Council's Manual of Engineering Standards. j) Ultimate discharge for collected stormwater runoff should be to a street drainage system, to an inter-allotment drainage line, or by approval to a public area. The system should be gravity-drained. Pumping of stormwater is not permitted	
19. Security, Site Facilities and Services	a) To provide adequate personal and property security for residents via "Crime Prevention Through Environmental Design" principles – legibility, casual/natural surveillance, risk assessment and reinforcing territoriality. b) To ensure that site facilities such as garbage bin enclosures, mail boxes, clothes drying areas, external storage facilities, exterior lighting and signage are designed to be functional, visually attractive and easy to maintain.	e) For developments proposing ten (10) or more dwellings a detailed 'Çrime Prevention Through Environmental Design' assessment shall be prepared by an accredited person and submitted with the development application. f) Buildings adjacent to a public or communal space shall be designed to maximise natural surveillance, having at least one (1) habitable room window per dwelling facing that area. g) Low intensity lighting (eg. bollard lighting) shall be provided to all shared pedestrian paths, parking areas and building entries.	The dwelling has been designed to ensure the safety of the future residents. Habitable rooms (dwelling one bedrooms) have been located to the front, oriented to overlook Bowden Street, providing casual surveillance of the streetscapes. A CPTED is not required for this development application as the development does not propose 10 or more dwellings. The proposed development will be provided with all relevant services and utilities. Refer to accompanying documentation.

Clause	Objectives	Design Requirements	Compliance
	c) To ensure that all developments are adequately serviced with essential services in a timely, cost effective and efficient manner. d) To ensure that essential amenities and communication facilities are integrated within the residential design.	h) Garbage or recycling areas, mail boxes and external storage facilities shall be sited and designed for functionality, attractive visual appearance and efficient and convenient use. i) Where agreed to by public utility service providers, services shall be coordinated in common trenching in order to minimise construction costs for underground services. j) Each dwelling shall be provided with direct and convenient pedestrian access to a public road. k) Where there is no direct pedestrian access from a dwelling's private outdoor open space area to the public roadway then the development shall be provided with a common garbage storage area readily accessible from within the site and serviceable from the adjoining road. l) The garbage storage area shall be designed so as to conceal its contents from view of the adjacent public space and/or other properties. It shall be provided with a water tap for wash down purposes and drained to connect to the sewer. m) Individual mail boxes shall be located close to each ground floor dwelling entry, or a mail box structure located close to the major pedestrian entry to the site complying with the requirements of Australia Post. n) Open air clothes drying areas shall be provided for each dwelling with an aspect ranging between direct east to direct west (via north). The drying areas shall be located and/or screened such that they will not be visible from a street or public place. Each drying area shall comprise a minimum of 15.0 lineal metres of hanging line	

Clause	Objectives	Design Requirements	Compliance
		o) All services – reticulated water, sewerage, electricity and telecommunications (and natural gas where available) shall be installed to meet the requirements of the relevant service provider	
C.10 Subdivision			
3.1 The design steps	To ensure that subdivision proposals address all relevant matters, the process for design should follow the basic steps of: a) Site analysis to identify all constraints and opportunities, both on-site and external to the site; b) Mapping, measuring or quantifying of constraints and opportunities; and c) Development of a subdivision design that properly considers and takes account of those constraints and opportunities. Proper site analysis prior to subdivision design is essential. Council's approach to subdivision design is reflected in the objectives of this plan. The emphasis of these objectives is on achieving designs that are responsive to existing site conditions, which will have a positive environmental result, and which will create aesthetically pleasing and healthy living environments. There is increasing emphasis on the need for subdivisions to be designed to allow maximum solar access and having regard to the principles of Ecologically Sustainable Development (ESD). A subdivision that is designed to allow good solar access to lots can result in considerable energy savings for the buildings subsequently erected upon them. Similarly, a subdivision that is designed having regard to ESD principles will not only have less long-term adverse impact upon the environment, but is also less likely to require expensive end-of-line solutions to issues such as water quality, effluent disposal, flora and fauna management and the like.		The proposed subdivision layout response to the site conditions and the proposed dual occupancy development.
EC.1 Flora and Fauna – No remnant bushland at the subject site.			
EC.2 Heritage and Archaeology	To protect heritage items, buildings with heritage significance and Conservation Areas. • To ensure that heritage items, buildings with heritage significance and Conservation Areas are	Clause 5.10 in the Maitland LEP 2011 and Parts C.4: Heritage Conservation and E.3: Heritage Conservation Areas in this DCP contain provisions which require investigation and protection of heritage items in certain	The subject site is located in the Lorn Heritage Conservation area and as such a Heritage report has been prepared to support the proposed development in **Appendix 6**.

Clause	Objectives	Design Requirements	Compliance
	properly considered in the design of new subdivisions. • To protect known and potential archaeological relics from damage or destruction as a result of subdivision works.	circumstances. These provisions apply in some cases to subdivision and must be complied with. Where a subdivision proposal affects any listed heritage item, the impact on the curtilage or immediate context of a heritage item must be evaluated in the Statement of Environmental Effects. Part C.4: Heritage Conservation should be considered to determine whether the preparation of a Character Statement or Statement of Heritage Impact is required. Preparation of an Archaeological Assessment may be required where there is no previous investigative study, or where such study was so broad that Council is unable to reasonably predict the likelihood of European or Aboriginal sites of significance (such as a site that is the location of an Aboriginal place or relic, within the meaning of the National Parks and Wildlife Act 1974). If in doubt, applicants should consult with the NSW National Parks and Wildlife Service or Council. Part C.4: Heritage Conservation provides information and requirements for Initial Assessments (to determine the need for an Archaeological Assessment) and Archaeological Assessments. Applicants should refer to this information, and must consult with Council staff prior to undertaking such work should an assessment be required. It is an offence to destroy an Aboriginal Archaeological site without the consent of the Director of National Parks and Wildlife. Even where studies have been undertaken, if a place or relic is discovered during construction of a subdivision, all work in that area must cease until such consent is obtained. Similarly, the	The Ahims Search in **Appendix 5** found no Aboriginal sites or items within the subject site.

Clause	Objectives	Design Requirements	Compliance
		consent of the Heritage Office is required for destruction of significant nonaboriginal sites.	

EC.3 Hazards

Flooding - The proposed dwelling design has considered the flooding impacts as per the DCP.

DC.1 Lot size and dimensions	To ensure all new lots have a size and shape appropriate to their proposed use, and to allow for the provision of necessary services and other requirements.	i) Access handles must have a minimum width of 3.5 metres for single lots, and be constructed in accordance with Council's Manual of Engineering Standards. No more than 2 lots may be serviced by a reciprocal right-of carriageway which shall be centrally located within both access handles. j) A suitable building envelope with minimum dimensions of approximately 15 metres by 10 metres shall be provided behind the building line.	The proposed access handle is 4.06 to service two lots. Each lot will contain a dwelling and will not require a building envelope.
DC.2 Solar Access and Energy Efficiency	To encourage the design of residential subdivisions which maximise solar access, allow flexibility in the siting of future buildings to take advantage of a northern orientation, and minimise reliance on private car use.	The intent is to maximise the number of dwelling allotments which have good solar access and which therefore optimise the design performance of energy smart homes, and to reduce reliance on private car use through adequate links to and provisions of, public transport, pedestrian and cycleway routes. All new residential subdivisions are required to comply with the Performance Criteria.	The proposed subdivision layout has given consideration to the solar access potential for each site.
DC.3 Drainage, water quality and soil erosion	To preserve natural drainage systems, where practicable, and to provide for the repair and enhancement of environmentally significant and/or degraded land. To retard the flow of water, above natural volumes, into the natural drainage system and mitigate impacts from stormwater runoff. To maintain and enhance the quality of water and catchment health.		Stormwater management plans have been prepared for the proposed subdivision to enable the management of stormwater over the site.

Clause	Objectives	Design Requirements	Compliance
	To minimise soil erosion and sedimentation by minimising land disturbance and requiring control measures at the source.		
DC.4 Landscape, Streetscape & Visual Impact	To maintain and enhance the existing rural character and landscape of the Maitland LGA. To create, maintain and enhance streetscape and minimise visual impact of subdivision proposals.	Existing landscape and streetscape character should be maintained and enhanced through retention of existing vegetation, provision of additional landscaping and selection of other streetscape items including surface treatments and street furniture.	The proposed subdivision has been design to appear as one single dwelling from the street.
DC.5 Effluent Disposal	A section 50 application has been made for the proposed subdivision and this will provide the requirements for sewer connection.		
DC.7 Crime Prevention – Safer by design	The proposed subdivision is minor in nature and does not require a CPTED report.		
DC.9 Reticulated Services Water and sewer	a) Reticulated water and sewer supply is required for all new urban lots (residential, commercial, industrial) in accordance with the requirements of the Hunter Water Corporation. b) Council's preference is for all new large residential lots (including land zoned E4 Environmental Living) to be connected to reticulated sewer. This can include the use of a community package treatment plant if Water Corporation reticulation is not available. If no reticulated sewer, effluent disposal to be undertaken in accordance with requirements contained in "Effluent Disposal" Design Element below.	j) Submission to Council of a Section 50 Certificate from the Corporation prior to issue of Subdivision Certificate (Endorsed "linen" plan);	A section 50 application has been made with Hunter Water.
Electricity	c) Underground low voltage electricity supply to all new residential lots (including land zoned E4 Environmental Living) to the requirements of Energy Australia or other approved electricity	k) Written evidence from the provider that installation of all services is complete and meets requirements must be	Bowden Street contains overhead electricity reticulation.

Clause	Objectives	Design Requirements	Compliance
	provider, unless Council and provider determine that overhead supply is permitted due to flood liability of land or the land fronts a road supplied by existing overhead electricity reticulation. d) For industrial and commercial lots, underground electricity supply shall be provided to all new lots, to the requirements of Energy Australia or other approved electricity provider, unless Council and the provider determine otherwise. e) Low voltage electricity supply must be available to the boundary of all new rural lots in accordance with requirements of Energy Australia or other approved provider. f) Pad mounted substations, if and where required, should be placed within pedestrian walkways, behind landscaped screens or otherwise sympathetically treated to reduce visual impact.	submitted to Council prior to issue of the Subdivision Certificate;	Electrical connection to Bowden Street electrical reticulation will be required for the proposed dual occupancy.
Telecommunications	i) Telephone connection to be available to all new lots in accordance with the requirements of Telstra or other approved provider.		Bowden Street contains Nbn Fibre to the Node services which the proposed subdivision can utilise.
IC.3 House/Lot Numbering – The proposed subdivision will apply for house numbering as part of the post approval certificates.			
Part E – Special Precincts			
E.3 Heritage Conservation Areas			
4. Lorn Heritage Conservation Area	**Statement of Significance** The area is of historical significance as probably the best example in the region of the garden suburb ideal. Lorn has an excellent collection of	**What to Keep:** • Contain spread of commercial uses to existing extent.	The proposed development displays compliance and has been designed in accordance with the Lorn Heritage Conservation Area Conservation Policies where applicable:

Clause	Objectives	Design Requirements	Compliance
	residential architecture dating from the late Victorian period, the Federation period and the Inter-Wars period. It records the historic expansion of Maitland's residential development onto the flats across the river. The social significance of the suburb is preserved in an urban form and building content still functioning as a garden suburb of greater Maitland and deriving meaning from its continuity of usage. The aesthetic significance of Lorn is derived from the many excellent examples of residential architecture styles of the late Victorian period, Federation period and the Inter-wars period, supported by many other later impressive but contributory buildings of compatible scale and form; wide streets and civic tree planting; and well established gardens. The urban edge is well defined by river levees and open agricultural land contributing to its identity as a cohesive townscape.	• Narrow carriageways lined with informal grass verges and plantings or gravel shoulders. • Distinct built edge boundary with rural surrounds. • Lorn's predominantly single storey street frontage. Roof conversions should be located to the rear of the existing house. • Contributory street tree plantings. **What to Encourage:** • Strictly limited building heights and setbacks, especially along Belmore Road. • Fencing designs and materials suited to the period of the dwelling; • Reference to the 1985 Lorn Conservation Planning Study which provides a list of recommended exotic and Australian species for private and public gardens • Where required, kerbs constructed using a roll-over profile rather than the upright profile. • Maintain the predominance of single residences per allotment; • Maintain existing subdivisional character in any future subdivision of land in Lorn. • Infill development which does not modify the historic character of Lorn. • Roof form and pitches which emulate those of the existing house in the case of additions, and in new development borrow the main characteristics without	• Existing building lines are maintained along Bowden Street; • A double storey street frontage is proposed, however due to the site's slope from Bowden Street a single storey outlook is achieved; • No contributory street plantings are to be removed and additional landscaping will be provided to compensate for the one tree proposed for removal; • Fencing design and materials are consistent with the proposed dwelling design and compatible with fencing along Bowden Street and the greater township; • The development does not detract from or seek to modify the heritage significance of the suburb, but instead emulates the character of Lorn by incorporating key architectural and landscape elements ,ouble storey form is consistent with buildings in the immediate vicinity, limited building height and compliant setbacks, heritage appropriate brick face and weatherboard cladding, window awnings, quality feature and boundary fencing, good private landscaping, rear siting of parking and front verandas. The proposal therefore does not detract from the aesthetic significance of Lorn, nor impact on nearby contributory buildings or the overall significance of the garden suburb ideal.

Clause	Objectives	Design Requirements	Compliance
		necessarily creating a replica of particular styles in the street. • Attic space can be accommodated in the existing roof space where there is no substantial change to the existing roof form and where new openings are not located on the street elevation. • Location of new garages behind the rear building line as detached structures. • Reinforcement of street tree plantings. **What to Avoid:** • Removal of any healthy plantings • Use of high saturation/intense colours • Loss or compromise of all heritage items and contributory reference buildings (as previously described) and landscape elements. • Upright kerb and guttering. • Use of modern profile steel sheeting, concrete tiles and high glazed or variegated coloured terracotta tiles. • Use of textured red, white and modern patterned bricks, and concrete blockwork (painted or unpainted) • Complete cladding of walls with plain panels such as fibro.	

5. ASSESSMENT OF ENVIRONMENTAL EFFECTS

5.1 SECTION 4.15(1) (A) – STATUTORY PLANNING CONSIDERATIONS

In determining the subject DA, Council is required to consider those relevant matters listed in Section 4.15(1) of the *Environmental Planning and Assessment Act 1979*. Each of the relevant matters is addressed below.

Section 4.15(1) (a) requires the consent authority to take into consideration:

> *"(a) the provisions of:*
>
> *(i) any environmental planning instrument, and*
>
> *(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
>
> *(iii) any development control plan, and*
>
> *(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
>
> *(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),*
>
> *that apply to the land to which the development application relates,"*

These matters (and others) are addressed in Section 4 of this report, and below.

The proposal is permissible with the consent of the Council and is generally consistent with the provisions and objectives of Maitland LEP 2011 and DCP 2011.

5.2 SECTION 4.15(1) (B) – ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACTS

Section 4.15 (1) (b) requires the consent authority to consider:

> *"(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality."*

The relevant matters are addressed below:

5.2.1 Impacts on the Natural Environment

The proposed development has been considered in the context of the natural environment. The existing site conditions have been considered. It is anticipated that the development in its current form will not have any significant impact on the existing natural environment. Appropriate controls will be in place during construction, such as soil and erosion control measurements.

5.2.2 Impacts on the Built Environment

The proposal is primarily consistent with the objectives and development controls contained within the various environmental planning instruments and development control plans that apply to the site (see Section 4). For these reasons it is considered that the development will not significantly impact on the character of the locality.

5.2.3 Social and Economic Impacts

The development comprises the orderly economic development of the site for purposes for which it is zoned. The proposal will not have any negative social or economic impacts. The proposal will contribute to housing diversity within an established suburb. The development promotes economic growth by providing for employment during the construction phase.

5.3 SECTION 4.15(1) (C) – THE SUITABILITY OF THE SITE

Section 4.15(1) (c) requires the consent authority to consider:

> *"(c) the suitability of the site for the development."*

The suitability of the site for the proposed development is dealt with in Section 2. The site has access to essential services, is zoned for such purposes and has been design in a manner to consider potential constraints.

5.4 SECTION 4.15(1) (D) – SUBMISSIONS

Section 4.15(1) (d) requires the consent authority to consider:

> *"(d) any submissions made in accordance with this Act or the regulations".*

Any relevant representations will need to be considered by the Council in the determination of the development application.

5.5 SECTION 4.15(1) (E) – PUBLIC INTEREST

Section 4.15(1) (e) requires the consent authority to consider:

> *"(e) the public interest".*

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant planning regime and predominantly in accordance with the prevailing planning controls. The development is a permissible form of development and is therefore considered to be in the public interest.

6. CONCLUSION

The proposed seeks development consent for the construction of a 2 x two-storey, 2 bedroom detached dual occupancy and subsequent 1 into 2 lot Torrens Tile Subdivision on land known as 1 Bowden Street Lorn NSW 2320 (Lot B DP368033).

The proposal is permitted with consent in the R1 General Residential zone pursuant to the Maitland LEP 2011, is generally consistent with the objectives of the zone and substantially complies with the relevant controls set out in DCP 2011. The development adheres to the Heritage design guidelines within the DCP and has been assessed by an independent heritage consultant.

The development comprises the orderly economic development of the site for purposes for which it is zoned and will not have any negative social or economic impacts.

The proposal is reasonable and appropriate when considered under the relevant heads of consideration in Section 4.15(1) of the *Environmental Planning and Assessment Act 1979* and is worthy of favourable consideration by Council.

APPENDICES

APPENDIX 1

Building Design Plans

APPENDIX 2

BASIX Certificate

APPENDIX 3

Waste Management Plan

APPENDIX 4

Civil Engineering

APPENDIX 5

AHIMS Search Result

APPENDIX 6

Statement of Heritage Impact

APPENDIX 7

Landscaping Plan

APPENDIX 8

Cost Estimate Form

APPENDIX 9

Hunter Water Stamped Building Plan

APPENDIX 10

Proposed Plan of Subdivision prepared by de Witt Consulting