9036 NEH

Urban Release Area

OVERVIEW

The 9036 NEH Urban Release Area is located on the outskirts of Muswellbrook on the New England Highway. The land is within a defined Urban Release Area as shown on figure 1 and represents approximately 10% of the area.

The subject land (9036 New England Highway – lot 1 DP 1203294) is situated approximately 3 kilometers from the Muswellbrook Central Business District. The area of the subject land is approximately 10ha and is bounded by the New England Highway to the south and bisected at the rear (north) of the land by Muscle Creek. Appendix 1 confirms the extent of adjoining and nearly land which has also been identified as an urban release area, however, the vast majority of the land (other than that to the south of the New England Highway) has not been developed to date.

The subject site is irregular in shape with a frontage of approximately 160 metres to the NEH and 240 metres to Northern boundary. The land is predominately cleared with a scattering of trees remaining across the site.

Through the implementation of the 9036 NEH Urban Release Area DCP, Muswellbrook Shire Council wishes to establish controls and guidelines to facilitate successful residential development that is of a high quality and considers the constraints of the area. It is envisaged that the DCP will ensure residential development is of a high quality which complements, yet differentiates the locality from other established residential areas, and which will have minimal adverse impacts on the natural environment.

Specific development controls are included to ensure that the development has regard for sustainable environmental management principals.

INTRODUCTION

Application

This section applies to that land within the Urban Release Area Map, outlined with a thick blue line and identified in figure 1 above.

Relationship to other plans and chapters of the Development Control Plan
This Section supplements the provisions of the Muswellbrook Local Environmental Plan
2009, and the other chapters of the Muswellbrook Development Control Plan.

For many developments, this Chapter will provide an overview and/or supplementary controls, with most of the controls applying to the development being contained in other chapters of the Muswellbrook Development Control Plan.

Where there is an inconsistency between provisions of this Chapter and those of other Chapters of the Muswellbrook Development Control Plan, this Chapter prevails.

A range of other Council plans, policies and strategies also apply to the Release Area, as may a range of State Government plans, policies and strategies.

Council officers should be consulted if there is doubt as to the applicability of a specific policy, plan, strategy or provision to the Release Area.

Development proponents are advised to seek professional advice regarding the requirements that may apply to their proposal.

Note: all figures in this Section are conceptual and schematic in nature.

Purpose

The purpose of this Chapter is to provide detailed controls to guide development in the Muswellbrook Urban Release Area

Objectives

The objectives of this DCP are to ensure that:

- site layout and building design responds to the characteristics, opportunities and constraints of the site and its context.
- the design of new buildings reflects and reinforces, or is complementary to, the character of the locality.
- the character and pattern of existing setbacks and building orientation within residential streets is reinforced.
- site facilities are unobtrusive, integrated into the proposal, provide for needs of residents and reduce the impact of development on the environment.
- the design and provision of public utilities, including sewerage, water, electricity, street lighting and telephone conform to the cost-effective performance measures of the relevant servicing authority.
- ancillary buildings do not dominate the streetscape.

Development Requirements

All development applications shall demonstrate consistency with the following requirements.

1 Staging Plan

All development applications for subdivisions shall include a staging plan, where the development is intended to be released sequentially. Appendix 2 provides the likely staging layout for the locality – however this may be altered subject to staging being sequential and providing for connectivity to adjacent urban release area land.

Objectives

- a) To ensure that development of the land is efficient and cost effective.
- b) To facilitate the logical expansion of urban infrastructure.
- c) To ensure residents have access to urban infrastructure and services
- d) To provide a mechanism for flexibility in the staging of development where this is justified, and the timing impacts are mitigated.

Controls

- (i) The development of land is to be generally consistent with the Staging Plan shown in Appendix 2.
- (ii) Each Stage may be subdivided into substages. The substages should be identified in a report to accompany the development application for subdivision, together with a description of the substages and the impact of the substage sequence on the provision of infrastructure.
- (iii) Development of land inconsistent with the Staging Plan can occur if the proposed sequence is justified by a supporting study, to the satisfaction of the consent authority. The supporting study must be lodged prior to or with the relevant development application.
- (iv) At a minimum, the issues to be addressed in a supporting study to vary the staging sequence include:
 - Impacts on the availability of urban services and infrastructure including open space; pedestrians, cyclists and residents.
 - Impacts on the development of other land/development stages.
 - Servicing strategy.
 - Cost impacts on other parties, including servicing authorities.

Note: If the timing of development is inconsistent with the Staging Plan there may be implications for the quantum or timing of infrastructure works or contributions required as a result of that development, so as to ensure other stages are not disadvantaged or to ensure that residents have sufficient access to urban services and infrastructure.

- (v) All land in 9036 New England Highway is to be serviced by reticulated water and sewerage services unless a servicing study and strategy is undertaken which justifies an alternative means of providing such services. The servicing strategy must be to the satisfaction of the consent authority prior to the granting of development consent. Refer to Appendix 3 for indicative service strategy,
- (vi) Any offsite easements and infrastructure required to enable runoff from any Stage of the Urban Release Area is to be conveyed to waterways in a managed fashion and, is to be registered and the infrastructure connected prior to the registration of the lots within r that Stage.

2 Servicing Strategy

Appendix 3 shows the conceptual servicing strategy for 9036 NEH. In general, water supply will be initially available from the southwestern corner of the release area, and the sewer will drain to the southwestern corner.

Objectives:

- a) To ensure services are available in a cost-effective manner.
- b) To minimise the life cycle costs of the provision and operation of service

infrastructure.

c) To connect all lots to reticulated services.

Controls:

- (i) Consent will not be granted for the subdivision of land unless a Servicing Strategy has been lodged to the satisfaction of Muswellbrook Shire Council.
- (ii) The required Servicing Strategy should address:
 - The provision of hydraulic, telecommunication and electricity services.
 - Proposed utilities networks and their relationship to adjacent properties, including links to adjacent properties.
 - Capacities of the utility services and the impact of the proposed development on remaining service capacity.
 - Options for utility service provision and a preferred option.
 - Implications of the servicing options for other landowners in the release area.
 - Proposed cost sharing arrangements with other landowners for any shared utility infrastructure including facility upgrades.
 - Details of consultations with servicing authorities in the preparation of the Servicing Strategy.
- (iii) Development will be required to pay for the upgrade of lead in and other major infrastructure, such as carrier mains, pumping stations, reservoirs and treatment plants.
- (iv) Variations from the Council's Servicing Strategy may only occur if justified by a supporting study to the satisfaction of Muswellbrook Shire Council. At a minimum, the supporting study must address the environmental, capital and operational costs and implications of the variation including the implications for other development stages.
- (v) The provision of easements may need to occur if required by Muswellbrook Shire Council. Easements will be required to be negotiated between adjoining landowners. Prospective developers should contact Council regarding Council's interest in being involved in specific negotiations.

3 Transport

Objectives

- a) To ensure residents have access to safe convenient vehicular, pedestrian and bicycle networks.
- b) To maximise vehicular, cyclist and pedestrian connectivity within the release area and to other parts of Muswellbrook.
- c) To provide for safe and convenient pedestrian and bicycle movement throughout the release area and to important destinations in Muswellbrook.
- d) To encourage low vehicle speeds throughout the Release Area.
- e) To ensure that the impact of development on transport infrastructure outside of the Urban Release area is considered.

Controls

a) Consent will not be granted for the subdivision of land unless a Traffic Impact Assessment (TIA) has been lodged to the satisfaction Muswellbrook Shire Council. The TIA should address such matters as traffic volumes, triggers for the provision of infrastructure and upgrades, an assessment of the impact of the development on the road system internal and external to the site and Urban Release Area,

pedestrian and cyclist networks, identification of road upgrades, intersection upgrades and the cumulative impact of development on the road network, at a minimum.

- The road, cycle and pedestrian network is to be generally consistent with the concept plan shown in Appendix 4. – Road Hierarchy.
- The positioning and design of movement networks must give priority to: facilitating efficient walking, cycling and public transport networks and;
- retaining and complementing natural topography, such as views and drainage.
- b) Alternative access points other than those identified in Figure 6 are to be supported by a traffic study to the satisfaction of Muswellbrook Shire Council.
- c) The preferred location of roundabouts is shown in Appendix 4. Road Hierarchy. Any change to the preferred location of roundabouts or other road infrastructure is to be addressed in a traffic study to accompany the development application for subdivision, and is to be to the satisfaction of Muswellbrook Shire Council.
- d) .

Road and Intersection Design

The road layout must be consistent with the Indicative Layout Plan illustrated in Appendix 4 – Road Hierarchy. Typical Road section as shown in figure 1 Development applications for subdivisions must ensure that road networks connect to other development areas in a logical hierarchy of street function, where applicable.

The following conditions shall apply to development of the land:

- A 2m wide footpath shall be provided to the New England Rd frontage of stage 1 as shown in figure 1.
- A 1.5m wide off-road footpath must be constructed within each stage shown in figure 1.
- A roundabout shall be provided with stage 1 construction, as shown in Appendix 4. – Road Hierarchy.
- The intersection with the New England Highway shall be constructed in accordance with TfNSW guidelines with relevant approvals obtained for such work.
- All roads and footpaths shall be constructed in accordance with Council requirements.
- The internal road design shall be in accordance with Appendix 4. Road Hierarchy.

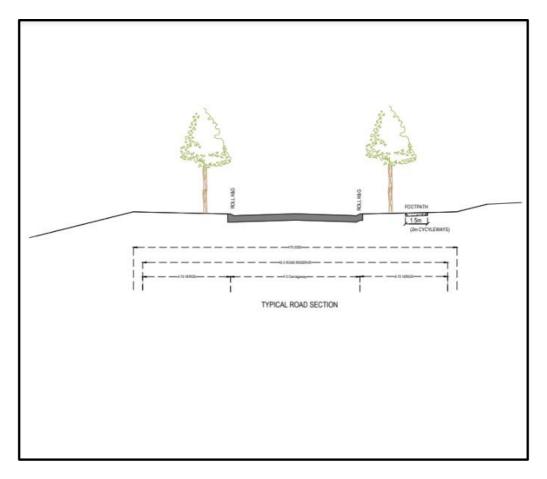


Figure 1 Typical Road Section

Movement Hierarchy

Suitable transport access and connectivity within the site and to adjoining areas shall be maintained at all times for motor vehicles, pedestrians and cyclists.

4 Overall Landscaping Strategy

A landscape plan shall be submitted with development applications for subdivision. The landscape plan shall identify all trees that are to be retained.

Objectives |

- a) Existing native vegetation is to be retained where possible.
- b) The scenic quality and local character of the area is maintained.
- c) Vegetation links are to be maintained along Muscle Creek.

Controls

(i) Consent shall not be granted for the subdivision of land unless a landscape plan has been lodged to the satisfaction of Muswellbrook Shire Council. A preliminary landscaping plan is shown at Appendix 5. A concept plan may be acceptable at the development application stage and a detailed plan at the construction certificate stage (this should be confirmed with Muswellbrook Shire Council prior to lodgment of a development application for subdivision). At a minimum the landscape plan is to contain details of the proposed landscaping of the public domain, including streets and open space. This landscape plan must be

to Muswellbrook Shire Council's satisfaction prior to the granting of development consent.

- (ii) Street trees are to be planted to:
 - Soften the streetscape.
 - Act as traffic calming measures through perceived narrowing the road.
 - Provide shade to footpaths and roads.
 - Generally in accordance with Appendix 5.
 - The main watercourse drainage reserve is to retain existing native vegetation and / or be landscaped as a riparian area, with native vegetation.
 - Landscaping should enhance the retained vegetation where relevant. Any future landscaping should aim to utilise locally occurring species.
 - Landscaping plan shall identify any trees which are to be retained (refer Appendix 9)

Boundary fencing

Boundary fencing within the precinct shall be:

- Side boundaries limited to maximum 1.8m high colorbond or 1.8m timber lapped and capped.
- Front boundaries open fencing of maximum height 1m
- Acoustic Fencing for lots specified in Appendix 9 to mitigate noise from the New England Highway and / or the Early Learning Centre shall be 1.8m timber lapped and capped.

5 Passive and Active Recreational Areas

Objectives

- a) Open Space is to be provided for a variety of recreational, aesthetic, and environmental purposes.
- b) Open space should be easily maintained.
- c) Open space should provide informal and formal settings.

Controls

- i. Open space is to be provided generally in accordance with Appendix 12
- ii. A local park with an area of not less than 0.2ha with various facilities, including a playground should be provided, as shown in Appendix 12 or other location approved by the consent authority.
- iii. Open space areas are to be linked by pedestrian and cycle paths, where practical, to provide an accessible network of open space.
- iv. Where possible, roads or laneways/share ways are to border open space areas in order to provide passive surveillance and access.
- v. The open space (including drainage reserves) / recreations areas shall be dedicated to Council.

6 Stormwater and Water Quality Management Controls

Stormwater and water quality management control shall comply with the requirements of AusSpec and Council DCP Section 25 – Stormwater Management. Drainage reserves including drainage paths shall generally be in accordance with Appendix 6, unless otherwise approved by Muswellbrook Shire Council

Objectives

- a) The water balance of 9036 NEH locality is to be as close as possible to natural conditions.
- b) Water management should seek to provide an effective treatment train in the context of minimising Council's long term maintenance requirements. The treatment train should consider source controls, water quality, water volume, on and off-site detention, instream treatment measures, salinity management and the implications for receiving areas.
- c) Runoff generated by more intense rainfall causes no downstream property damage or risk to public safety and to mimic the existing flow regime as near as possible.
- d) Any easements required over adjoining land, are to be negotiated between adjoining landowners prior to approval of development construction certificate.

Controls

- (i) Consent will not be granted for the subdivision of land unless a Water Management (stormwater) Strategy has been lodged to the satisfaction of the Muswellbrook Shire Council y prior to issue of the construction certificate.
- (ii) Water management strategies are to be generally consistent with the Drainage Reserves and Flow Paths shown at Appendix 6
- (iii) The quality and quantity of runoff of each stage of development is to be equivalent to the predevelopment state. Council will define each stage for the purposes of this Control.
- (iv) Development of land inconsistent with the Water Management Strategy can occur if the proposed measures are justified by a supporting study, to the satisfaction of the Muswellbrook Shire Council. The supporting study must be lodged prior to or with the relevant development application.
- (v) The supporting study is to include (but not limited to):
 - Hydrological and flood analysis of the proposed strategy
 - Impact on the overall Water Management Concept Plan
 - Impact on other future urban development in proximity.
 - Cost impact on Council (recurrent) and other future urban development (capital)
 - Impact on upstream and downstream land and buildings
 - Environmental impact.
- (vi) Stormwater strategy and design is to consider the context of the site along with upstream and downstream impacts.
- (vii) Water management strategies should aim to achieve a:
 - Reduction of erosion.
 - Reduction of flow velocity.
 - Reduction of runoff volume through at source controls and water quality treatment.
 - Provision of drainage easements if required.
- (viii) Development is to comply with the provisions of Section 25 (Stormwater Management) of the Muswellbrook Development Control Plan.

7 Amelioration of Natural and Environmental Hazards

7.1 Bushfire

Future development shall be assessed in accordance with the NSW Rural Fire Service's 'Planning for Bush Fire Protection Guidelines' 2019

Objective

- Ensure that all dwellings are constructed to the appropriate BAL rating.
- Asset protection zones areas to be maintained.
- No dwellings are to be erected within those areas nominated as BAL FZ or BAL40 (refer to Appendix 7)

Controls

- Applications for dwellings are to be accompanied by appropriate Bushfire Assessments prepared in accordance with 'Planning for Bush Fire Protection Guidelines' 2019
- All dwellings are to be constructed to achieve the relevant BAL level determined for the allotment.
- Restrictions on use of land under s88b of the Conveyancing Act, 1919 shall be
 placed on those allotments which have been identified as having BAL 40 or
 BAL FZ exposure. Such restrictions shall prohibit construction of any habitable
 buildings within any part of the lots so identified.

7.2 Flooding

The land is affected by the 1:100 year flood levels however such levels are contained within the banks of Muscle Creek as shown on Appendix 8. The development of the land will not be impacted by flooding. will not impact on future residential development.

Future development must still however consider any relevant controls for subdivision in flood affected areas outlined in Section 13 – Floodplain Management of the Muswellbrook DCP 2009.

7.3 Flora & Fauna

Objective

- Future subdivision of the land does not have adverse impacts on either flora or fauna associated with the land.
- Trees identified as being retained shall be adequately protected.

Controls

- Trees identified in Appendix 9 shall be retained during the subdivision development and subsequent occupation of the land.
- If appropriate, Restrictions on use of land shall be placed on the relevant allotments ensuring protection of the nominated trees.
- Appendix 9 shows trees to be retained in accordance with the Ecological Assessment Report
- A Vegetation Management Plan (VMP) in respect of drainage reserves, public park, riparian area and road reserves between the New England Highway for the life of the development shall, if required be prepared and approved by Muswellbrook Shire Council.

7.5 Environmental Hazards

There are no known environmental hazards which need to be considered in the development of the subject land.

7.6 Aboriginal Heritage

If any Aboriginal objects are identified during earthworks, work must immediately cease in the area and the Office of Environment and Heritage (OEH) must be notified immediately.

If suspected human remains are identified during the works, works must immediately cease. The area must be secured and the NSW Police and OEH notified immediately.

A Construction Management Plan shall be prepared for approval prior to commencement of any site works under an approved Construction Certificate, that includes the recommendation of the Aboriginal Cultural Heritage Due Diligence Assessment Report prepared by Insite Heritage.

7.7 Noise and Vibration

Appendix 11 nominates the various acoustic zones with the development area. Consideration has been given to impact of the following on future residential construction:

- Road traffic noise on residences and the Early Learning Centre
- Future operation of the Early Learning Centre including site activities, mechanical plant operation, children drop off etc.

Objective

- to ensure appropriate noise mitigations are incorporated into dwelling design, where identified.
- to ensure that appropriate noise mitigations are incorporated into boundary fencing, where identified.

<u>Controls</u>

 construction of dwellings and provision of acoustic fencing shall comply with the relevant nominated acoustic zones shown in Appendix 8 and Noise Control Recommendations in Appendix 10.

8 Significant Development Sites

There are no specific requirements in this regard.

9 Residential Densities / Design

There are no specific requirements in respect of residential density – the Muswellbrook LEP applies in this regard.

Objectives

- Residential design and construction shall reflect / be consistent with expectations
 of a new residential area.
- Construction of dwellings shall incorporate any bushfire and acoustic considerations (refer to Appendices 7, 10 & 11)

Controls

Residential design is to comply with the following:

- New dwellings shall include at least one garage under the roof line.
- No secondhand materials are to be used in the construction of dwellings or outbuildings.
- Outbuildings shall
 - be constructed in compatible materials with the locality / residence on the subject land.
 - Only be constructed in conjunction with a new dwelling or after the dwelling has been occupied.
 - Be of an appropriate size and height for a residential setting
- Bushfire Attack Level and /or acoustic requirements shall be included in plans for residential development.

10 Neighbourhood Commercial and Retail Uses

There are no requirements for this Precinct.

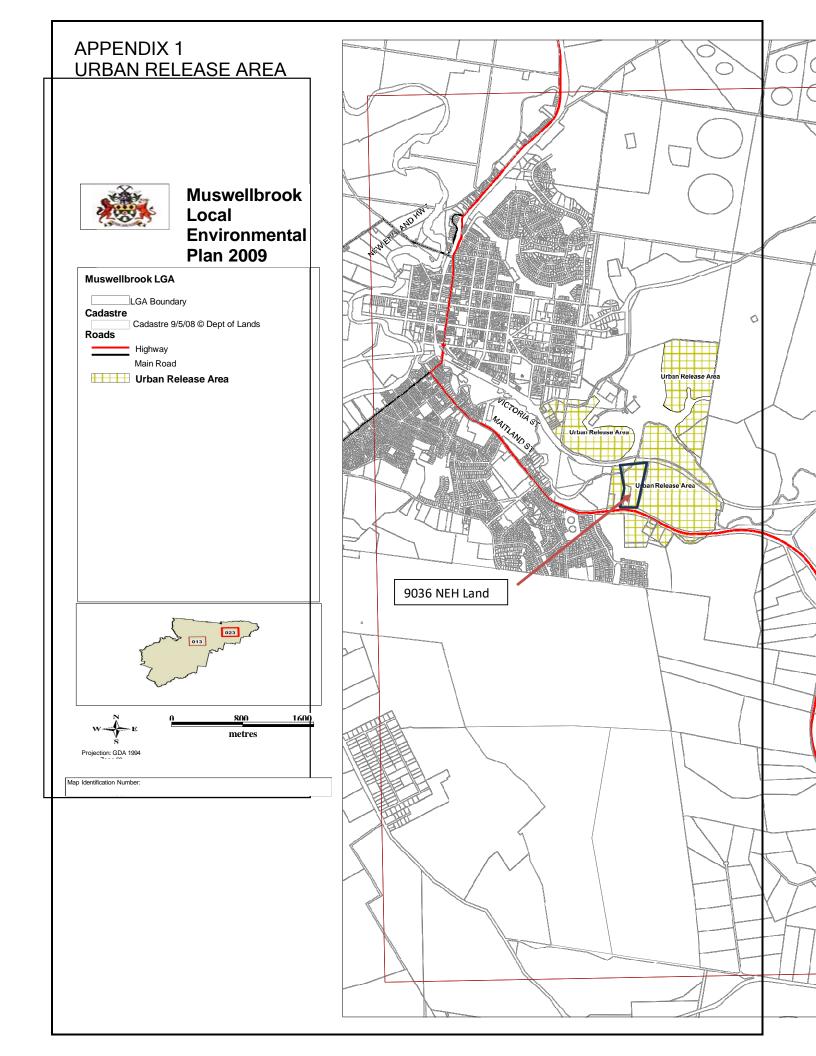
Further development in this regard shall be subject to Muswellbrook LEP and DCP requirements.

11 Voluntary Planning Agreement

Any future development must have regard to any Planning Agreement applying to the land, if applicable.

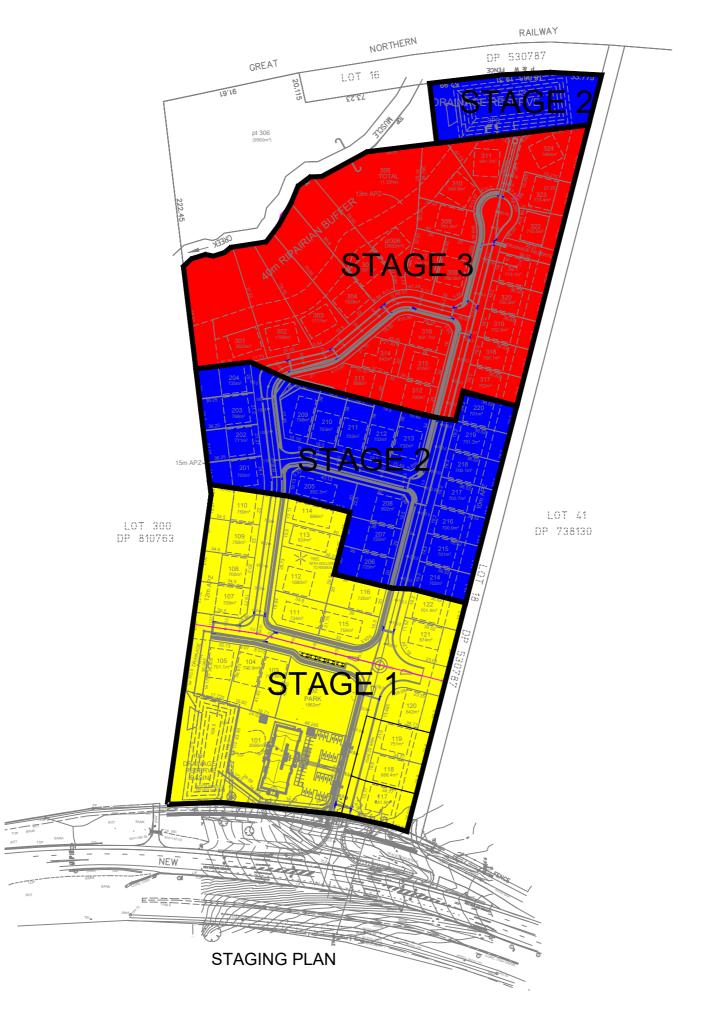
Appendices

- 1 Urban Release Area
- 2 Stages
- 3 Services
- 4 Road Hierarchy
- 5 Landscape
- 6 Drainage
- 7 BAL Maps
- 8 Flood
- 9 Trees to be Retained.
- 10 Acoustic Zones
- 11 Acoustic Zones Construction
- 12 Open Space, Recreation



APPENDIX 2 STAGES





APPENDIX 3 SERVICES



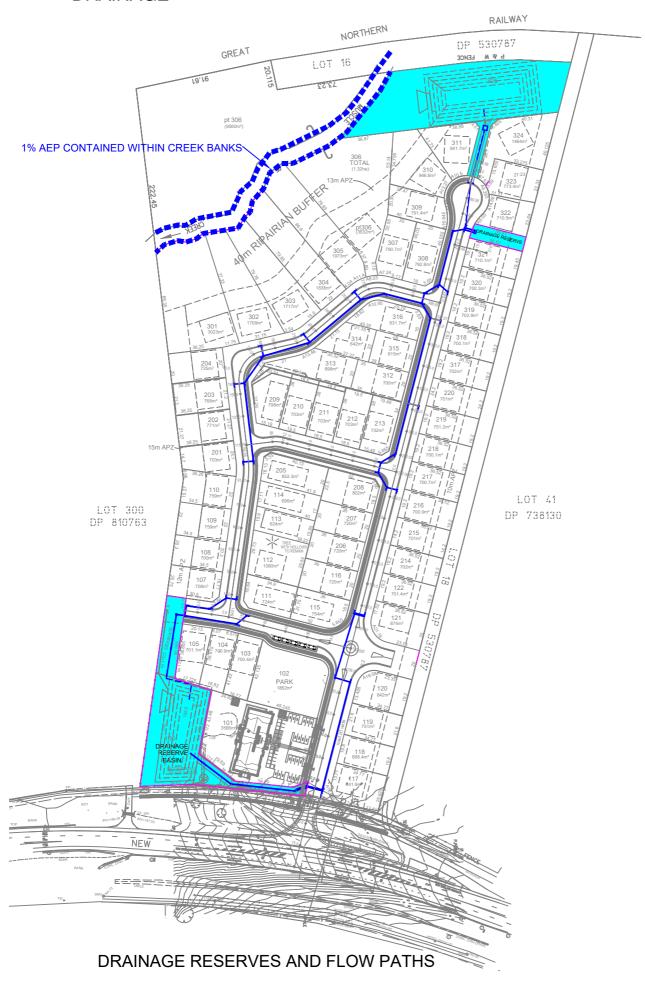
APPENDIX 5 LANDSCAPE

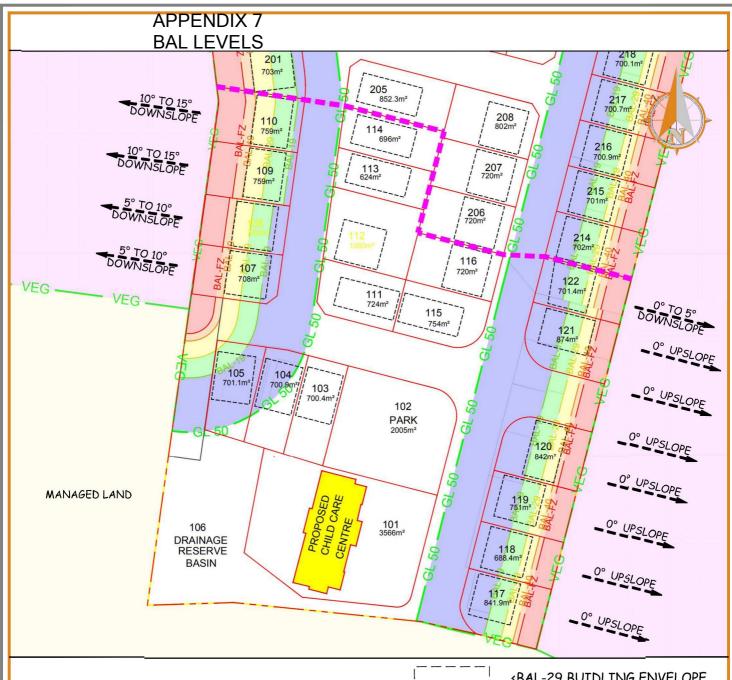


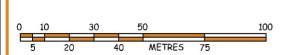


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APPENDIX 6 DRAINAGE







BAL ANALYSIS STAGE 1 - LOTS 107-111

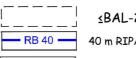
NOT TO SCALE

PREDOMINANT VEGETATION CLASSIFICATION -

DEPICTION OF THE BUSHFIRE ATTACK LEVELS THAT MAY BE EXPERIENCED BY THE SUBJECT BLOCK IN THE EVENT OF A BUSHFIRE

NOTE: THE EFFECTIVE WIDTH OF BAL'S IS A FUNCTION OF VEGETATION CLASSIFICATION AND THE SLOPE UNDER THE VEGETATION IN RELATION TO THE PROPOSAL. FOR THIS REASON THE WIDTH OF BAL'S MAY VARY AROUND A PROPOSAL DUE TO CHANGES IN THE TOPOGRAPHY OF THE SITE AND ITS SURROUNDS. MEASUREMENTS DISPLAYED ON THIS DIAGRAM ARE FOR THE PREDOMINANT VEGETATION GROUP(S).

Note; This drawing is indicative only. It does not purport to be a surveyed work nor does it constitute a surveyed work. Bushfire Consultant Pty Ltd assumes no responsibility for any reliance on this as a surveyed work.



GL 50

≤BAL-29 BUIDLING ENVELOPE

40 m RIPARIAN BUFFER

50 m GRASSLAND OFFSET

BUSHFIRE ATTACK LEVEL (BAL)

GRASSLAND	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
0° & UPSLOPE	<8 m	8-<10 m	10-<15 m	15-<22 m	22-<50 m
	4				
GRASSLAND	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
5° to 10° DOWNSLOPE	<10 m	10-<13 m	13-<20 m	20-<28 m	28-<50 m
GRASSLAND	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
10° to 15° DOWNSLOPE	<11 m	11-<15 m	15-<23 m	23-{32 m	32-<50 m
SOURCE: PRP 2019 TARIE 41 12 5 EDT 100					

CONSULTANT

BUSHFIRE THREAT ASSESSMENT REPOR PRE-PURCHASE INSPECTION REPORTS BUSHFIRE ATTACK LEVEL MAPPING T: 02 4952 7376 M: 0402 027 376 E: baz@bushfire

9036 New England Hwy Muswellbrook NSW 2333

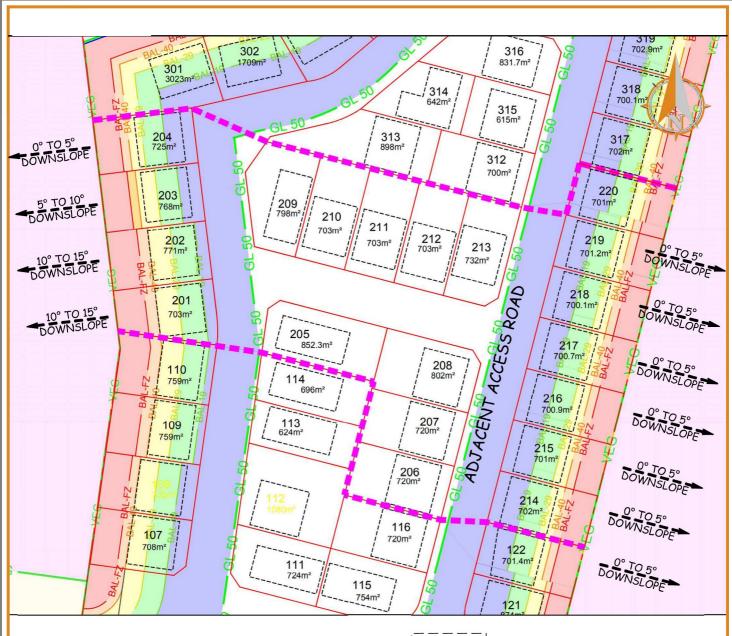


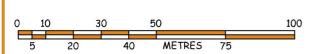
Bushfire Attack Level (BAL) Analisys

Date: Version Sheet 14-03-2023 V-4.0

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≤BAL-29 BUIDLING ENVELOPE

40 m RIPARIAN BUFFER

50 m GRASSLAND OFFSET

BAL ANALYSIS LOTS 201-203 STAGE 2 - LOTS 201-203

NOT TO SCALE

PREDOMINANT VEGETATION CLASSIFICATION - GRASSLAND,

DEPICTION OF THE BUSHFIRE ATTACK LEVELS THAT MAY BE EXPERIENCED BY THE SUBJECT BLOCK IN THE EVENT OF A BUSHFIRE

NOTE: THE EFFECTIVE WIDTH OF BAL'S IS A FUNCTION OF VEGETATION CLASSIFICATION AND THE SLOPE UNDER THE VEGETATION IN RELATION TO THE PROPOSAL. FOR THIS REASON THE WIDTH OF BAL'S MAY VARY AROUND A PROPOSAL DUE TO CHANGES IN THE TOPOGRAPHY OF THE SITE AND ITS SURROUNDS. MEASUREMENTS DISPLAYED ON THIS DIAGRAM ARE FOR THE PREDOMINANT VEGETATION GROUP(S).

Note; This drawing is indicative only. It does not purport to be a surveyed work nor does it constitute a surveyed work. Bushfire Consultant Pty Ltd assumes no responsibility for any reliance on this as a surveyed work.

BUSHFIRE ATTACK LEVEL (BAL)

GRASSLAND	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5	
0° to 5° DOWNSLOPE	<9 m	9-<12 m	12-<17 m	17-∢25 m	25-<50 m	
GRASSLAND	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5	
5° to 10° DOWNSLOPE	<10 m	10-<13 m	13-<20 m	20-{28 m	28-<50 m	
GRASSLAND	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5	
10° to 15° DOWNSLOPE	<11 m	11-<15 m	15-<23 m	23-{32 m	32-<50 m	
SOURCE: PBP 2019 TABLE A1.12.5 FDI 100						



BUSHFIRE THREAT ASSESSMENT REPORTS PRE-PURCHASE INSPECTION REPORTS BUSHFIRE ATTACK LEVEL MAPPING Muswellbrook
NSW 2333

9036 New England Hwy

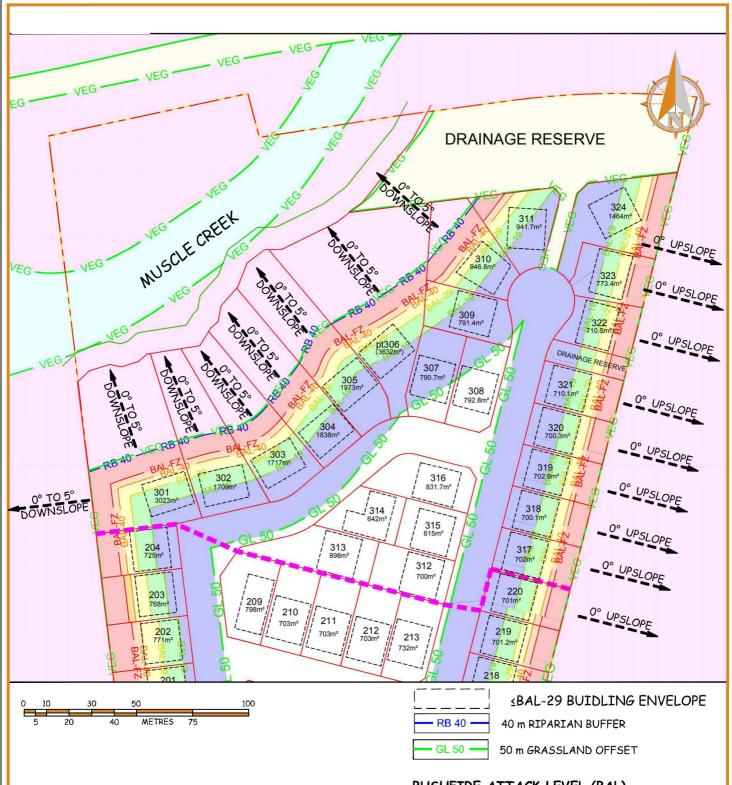


Bushfire Attack Level (BAL) Analisys

Date: Version Sheet 14-03-2023 V-4.0 6

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BAL ANALYSIS LOTS 301-307

NOT TO SCALE

PREDOMINANT VEGETATION CLASSIFICATION -GRASSLAND.

DEPICTION OF THE BUSHFIRE ATTACK LEVELS THAT MAY BE EXPERIENCED BY THE SUBJECT BLOCK IN THE EVENT OF A BUSHFIRE

NOTE: THE EFFECTIVE WIDTH OF BAL'S IS A FUNCTION OF VEGETATION CLASSIFICATION AND THE SLOPE UNDER THE VEGETATION IN RELATION TO THE PROPOSAL. FOR THIS REASON THE WIDTH OF BAL'S MAY VARY AROUND A PROPOSAL DUE TO CHANGES IN THE TOPOGRAPHY OF THE SITE AND ITS SURROUNDS. MEASUREMENTS DISPLAYED ON THIS DIAGRAM ARE FOR THE PREDOMINANT VEGETATION GROUP(S).

Note; This drawing is indicative only. It does not purport to be a surveyed work nor does it constitute a surveyed work. Bushfire Consultant Pty Ltd assumes no responsibility for any reliance on this as a surveyed work.

BUSHFIRE ATTACK LEVEL (BAL)

GRASSLAND	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
0° to 5° DOWNSLOPE	<9 m	9-<12 m	12-<17 m	17-∢25 m	25-<50 m
RAINFOREST	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
15° to 20° DOWNSLOPE	<23 m	23- <30 m	30-∢42 m	42-{56 m	56-<100 m

SOURCE: PBP 2019 TABLE A1.12.5 FDI 100



BUSHFIRE THREAT ASSESSMENT REPORTS PRE-PURCHASE INSPECTION REPORTS BUSHFIRE ATTACK LEVEL MAPPING

9036 New England Hwy Muswellbrook NSW 2333

BPAD 19741

Bushfire Attack Level (BAL) Analisys

Date; Version Sheet 14-03-2023 V-4.0

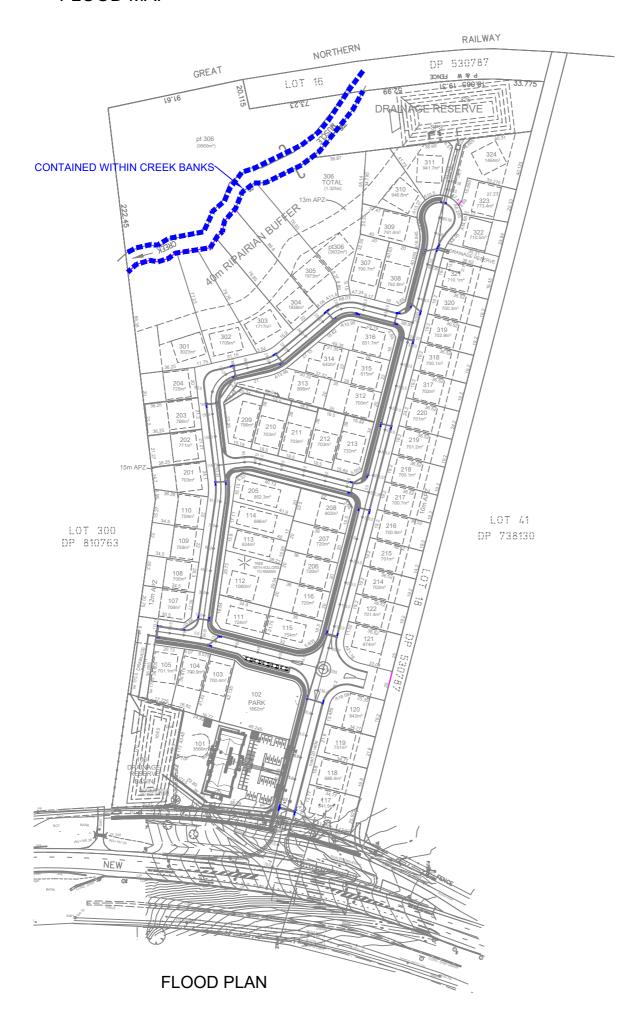
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APPENDIX 8 FLOOD MAP





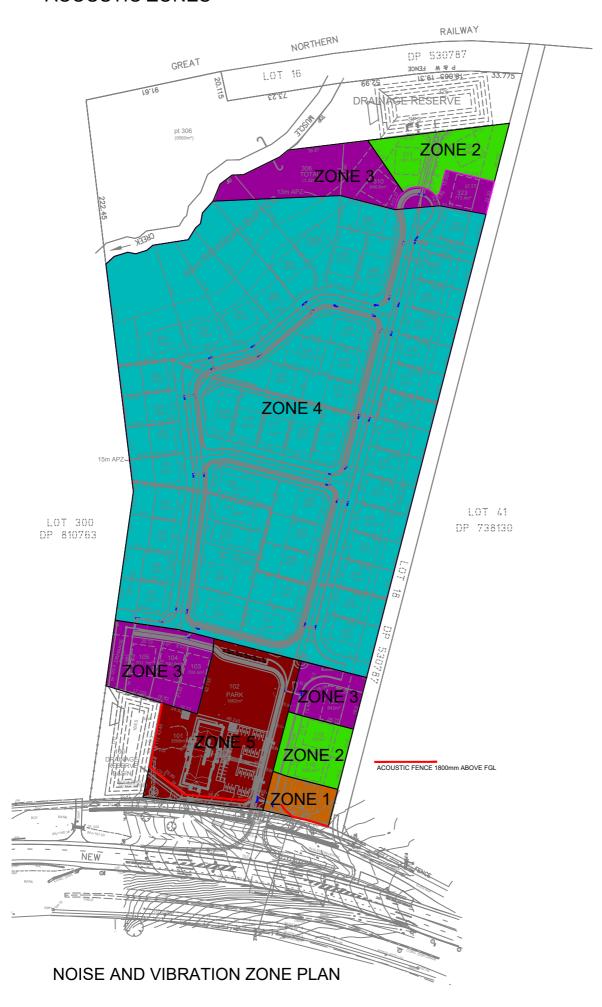
APPENDIX 9 TREES TO BE RETAINED





APPENDIX 10 ACOUSTIC ZONES





Page 14 of 24

6 RECOMMENDED NOISE CONTROL

6.1 Acoustic Fences

Acoustic fences 1800mm above ground level will be required on boundaries between the New England Highway and Lot 118 and the proposed ELC. Acoustic fences 1800mm in height will also be required between the ELC and adjoining residences to the west (see Appendix B for fence locations). An acoustic fence is one which is impervious from the ground to the recommended height, and is typically constructed from lapped and capped timber, Colorbond, Hebel Powerpanel, etc. No significant gaps should remain in the fence to allow the passage of sound below the recommended height. Other options are available if desired, providing the fence is impervious and of equivalent or greater surface mass than the above construction options.

6.2 Zone 1

The glazing systems sighted in the following Tables are presented as a guide for the supplier:

Glazing Systems: Type A: Standard glazing. No acoustic requirement.

Type B: Single-glaze 5-8mm clear float glass.

Type C: Single glaze laminated or Vlam Hush glass.

Note: The typical glazing shown in the following Table should be used as a guide only. The supplier of the window/door must be able to provide evidence that the complete system will achieve the specified Rw performance, i.e. do not simply install our recommended glass in a standard window frame.

Table 15: Recommended Construction - Zone 1

Element Facade Room Required Rw Typical Construction							
Element	racaue	ROOIII		Typical Construction			
			Must achieve	Not for Specification			
			for Compliance				
	Ground Floor						
Windows	South	Liv/Din/Bed	30	Type C			
/SI. Doors		Kitchen	28	Type B			
		Bath/WC/Lndry	26	Type B			
	East/West	Liv/Din/Bed	28	Туре В			
		Kitchen	26	Type B			
		Bath/WC/Lndry	24	Type B			
	North	Liv/Din/Bed	24	Type B			
		Kitchen	•	No acoustic requirement			
		Bath/WC/Lndry		No acoustic requirement			
		Firs	t Floor				
Windows	South	Liv/Din/Bed	33	Type C			
/SI. Doors		Kitchen	31	Type C			
		Bath/WC/Lndry	28	Type B			
	East/West	Liv/Din/Bed	31	Type C			
		Kitchen	29	Type B or C			
		Bath/WC/Lndry	26	Type B			
	North	Liv/Din/Bed	27	Type B			
		Kitchen	24	Type B			
		Bath/WC/Lndry	=	No acoustic requirement			
External	South	All		See Note 1			
Doors	East/West						
Roof		All		See Note 2			
Walls		All		See Note 3			

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Note 1: All external swinging doors, i.e. ground and first floor, are to be 30-40mm solid core with the vertical sides and top of the door frames fitting neatly to provide close contact when doors are closed. Proprietary acoustic seals are to be fitted at the perimeter of doors, i.e. Raven Rp10 or Lorient/Kilargo equivalent. All glazed sections must be minimum 6mm safety glass.

Note 2: Roof construction should consist of sisalation or wire mesh laid down on roof trusses. This is to be completely covered with a 30-40mm foil faced building blanket or similar (in situations where trusses are at centres close enough to avoid excessive sagging of the blanket, the sisalation/wire mesh may be omitted), followed by Colorbond roof sheets. If Terra Cotta or concrete roof tiles are preferred, the building blanket may be omitted. All upper level ceilings are to consist of an impervious ceiling of 1 sheet taped and set 13mm Fire Rated plasterboard. To further assist in low frequency attenuation, all ceiling voids should contain a layer of fibreglass or rockwool insulation. The insulation is to be installed in addition to, not in lieu of the building blanket.

Specialised acoustic insulation is preferred, however dense thermal insulation (eg, R3 batts) will suffice and is much less expensive (\$15/m² for Rockwool and \$6/m² for R3 batts). Generally, Councils now require new dwellings to achieve an adequate energy rating, which will usually only be achieved if thermal insulation is installed in the ceiling void, therefore, builders would be obliged to install insulation in any case.

Note 3: We strongly recommend brick veneer or cavity-brick construction. These high-mass building elements will provide attenuation of the lower frequencies, typically around 125 to 500Hz, typically generated by road traffic. All internal lining for brick veneer to be minimum 1 sheet 13mm plasterboard. All lightweight cladding on the south, east and west facades (i.e. vinyl weatherboards, Colorbond, Weathertex, etc) is to be backed with either 6mm fibre cement sheeting (Villaboard, Hardiflex) or 10mm construction plywood. If upper level lightweight construction is preferred (i.e. Hebel Powerpanel, weatherboard, etc) modification to the south, east and west facades will be required consisting of cavity infill of R2/S2 insulation, together with internal lining 1 sheet 13mm fire rated plasterboard.

6.3 Zone 2

Table 16: Recommended Construction – Zone 2

Element	Facade	Room	Required Rw Must achieve for Compliance	Typical Construction Not for Specification				
	Ground Floor							
Windows	South	Liv/Din/Bed	28	Type B				
/SI. Doors		Kitchen	26	Type B				
		Bath/WC/Lndry	24	Type B				
	East/West	Liv/Din/Bed	26	Туре В				
		Kitchen	24	Type B				
		Bath/WC/Lndry	-	No acoustic requirement				
	North	Liv/Din/Bed	-	No acoustic requirement				
		Kitchen	-	No acoustic requirement				
		Bath/WC/Lndry	-	No acoustic requirement				
		Firs	st Floor					
Windows	South	Liv/Din/Bed	31	Type C				
/SI. Doors		Kitchen	29	Type B or C				
		Bath/WC/Lndry	26	Type B				
	East/West	Liv/Din/Bed	29	Type B or C				
		Kitchen	27	Type B				
		Bath/WC/Lndry	24	Туре В				
	North	Liv/Din/Bed	25	Type B				
		Kitchen	-	No acoustic requirement				
		Bath/WC/Lndry	-	No acoustic requirement				
External	South	All		See Note 1				
Doors	East/West							
Roof		All		See Note 2				
Wa ll s		All		See Note 3				

Note 1: All external swinging doors, i.e. ground and first floor, are to be 30-40mm solid core with the vertical sides and top of the door frames fitting neatly to provide close contact when doors are closed. All glazed sections must be minimum 5-6mm safety glass.

Note 2: Roof construction should consist of sisalation or wire mesh laid down on roof trusses. This is to be completely covered with a 30-40mm foil faced building blanket or similar (in situations where trusses are at centres close enough to avoid excessive sagging of the blanket, the sisalation/wire mesh may be omitted) followed by Colorbond roof sheets. If Terra Cotta or concrete roof tiles are preferred, the building blanket may be omitted. All upper level ceilings are to consist of an impervious ceiling of 1 sheet taped and set 13mm plasterboard. To further assist in low frequency attenuation, all ceiling voids should contain a layer of fibreglass or rockwool insulation. The insulation is to be installed in addition to, not in lieu of the building blanket. Specialised acoustic insulation is preferred, however dense thermal insulation (eg, R3 batts) will suffice.

Note 3: We strongly recommend brick veneer or cavity-brick construction. These high-mass building elements will provide attenuation of the lower frequencies, typically around 125 to 500Hz, typically generated by road traffic. All internal lining for brick veneer to be minimum 1 sheet 13mm plasterboard. If upper level lightweight construction is preferred (i.e. Hebel Powerpanel, weatherboard, etc) modification to the south, east and west facades will be required consisting of cavity infill of R2/S2 insulation, together with internal lining 1 sheet 13mm plasterboard.

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6.4 Zone 3

Table 17: Recommended Construction – Zone 3

Element	Facade	Room	Required Rw Must achieve for Compliance	Typical Construction Not for Specification			
	Ground Floor						
Windows	South	Liv/Din/Bed	26	Type B			
/SI. Doors		Kitchen	24	Type B			
		Bath/WC/Lndry	=	No acoustic requirement			
	East/West	Liv/Din/Bed	24	Type B			
		Kitchen	-	No acoustic requirement			
		Bath/WC/Lndry	-	No acoustic requirement			
	North	Liv/Din/Bed	-	No acoustic requirement			
		Kitchen	-	No acoustic requirement			
		Bath/WC/Lndry	-	No acoustic requirement			
		Firs	st F l oor				
Windows	South	Liv/Din/Bed	29	Type B or C			
/SI. Doors		Kitchen	24	Type B			
		Bath/WC/Lndry	24	Type B			
	East/West	Liv/Din/Bed	27	Type B			
		Kitchen	25	Type B			
		Bath/WC/Lndry	-	No acoustic requirement			
	North	Liv/Din/Bed	-	No acoustic requirement			
		Kitchen	=	No acoustic requirement			
		Bath/WC/Lndry	-	No acoustic requirement			
External	South	All		See Note 1			
Doors	East/West						
Roof		All		See Note 2			
Wa ll s		All		See Note 3			

Note 1: All external swinging doors, i.e. ground and first floor, are to be 30-40mm solid core with the vertical sides and top of the door frames fitting neatly to provide close contact when doors are closed. All glazed sections must be minimum 5mm safety glass.

Note 2: Roof construction should consist of sisalation or wire mesh laid down on roof trusses. This is to be completely covered with a 30-40mm foil faced building blanket or similar (in situations where trusses are at centres close enough to avoid excessive sagging of the blanket, the sisalation/wire mesh may be omitted) followed by Colorbond roof sheets. If Terra Cotta or concrete roof tiles are preferred, the building blanket may be omitted. All upper level ceilings are to consist of an impervious ceiling of 1 sheet taped and set 10-13mm plasterboard. To further assist in low frequency attenuation, all ceiling voids should contain a layer of fibreglass or rockwool insulation. The insulation is to be installed in addition to, not in lieu of the building blanket. Specialised acoustic insulation is preferred, however dense thermal insulation (eg, R3 batts) will suffice.

Note 3: We strongly recommend brick veneer or cavity-brick construction. These high-mass building elements will provide attenuation of the lower frequencies, typically around 125 to 500Hz, typically generated by road traffic. All internal lining for brick veneer to be minimum 1 sheet 13mm plasterboard. If upper level lightweight construction is preferred (i.e. Hebel Powerpanel, weatherboard, etc) modification to the south, east and west facades will be required consisting of cavity infill of R2/S2 insulation, together with internal lining 1 sheet 10-13mm plasterboard.

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6.5 Zone 4

NO ACOUSTIC REQUIREMENT.

6.6 **Zone 5 – ELC**

- **6.6.1** Proposed operating hours of 7am to 7pm are acceptable.
- **6.6.2** Acoustic barriers minimum 1800mm above FGL are to be erected at the locations shown in Appendix B. Also see Section 6.1.
- **6.6.3** Recommended construction ELC:

Table 18: Recommended Construction – Zone 5

Element	Facade	Room	Required Rw Must achieve for Compliance	Typical Construction Not for Specification
Windows	West	All Play Rooms	26	Type B
/SI. Doors		Cot Room	24	Type B
		All Amenities		No acoustic requirement
	North	All	•	No acoustic requirement
Windows	East	Play Room 4	26	Туре В
/SI. Doors		Entry/Reception	24	Туре В
		All Staff	28	Type B
		Play Room 1	26	Type B
	South	Play Room 1	29	Type B or C
Externa l	South	All		See Note 1
Doors	East/West			
Roof	-	All		See Note 2
Wa ll s	_	All		See Note 3

Note 1: All external swinging doors are to be 30-40mm solid core with the vertical sides and top of the door frames fitting neatly to provide close contact when doors are closed. All glazed sections must be minimum 5mm safety glass.

Note 2: Roof construction should consist of sisalation or wire mesh laid down on roof trusses. This is to be completely covered with a 30-40mm foil faced building blanket or similar (in situations where trusses are at centres close enough to avoid excessive sagging of the blanket, the sisalation/wire mesh may be omitted) followed by Colorbond roof sheets. If Terra Cotta or concrete roof tiles are preferred, the building blanket may be omitted. All ceilings are to consist of an impervious ceiling of 1 sheet taped and set 10-13mm plasterboard. To further assist in low frequency attenuation, all ceiling voids should contain a layer of fibreglass or rockwool insulation. The insulation is to be installed in addition to, not in lieu of the building blanket. Specialised acoustic insulation is preferred, however dense thermal insulation (eg, R3 batts) will suffice.

Note 3: We strongly recommend brick veneer or cavity-brick construction. These high-mass building elements will provide attenuation of the lower frequencies, typically around 125 to 500Hz, typically generated by road traffic. All internal lining for brick veneer to be minimum 1 sheet 13mm plasterboard. If lightweight construction is preferred (i.e. Hebel Powerpanel, weatherboard, etc) modification to the south, east and west facades will be required consisting of cavity infill of R2/S2 insulation, together with internal lining 1 sheet 10-13mm plasterboard.

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LEGEND

SITE BOUNDARY



PROPOSED PARK Refer L02 for details



PROPOSED ENTRY FEATURE Refer L04 for details



DRAINAGE RESERVE BASINS Refer Surveyor Plans for details



PROPOSED BUFFER PLANTING Refer L05 for details







9036 NEW ENGLAND HWY, MUSWELLBROOK, NSW

DATE: MARCH 2023