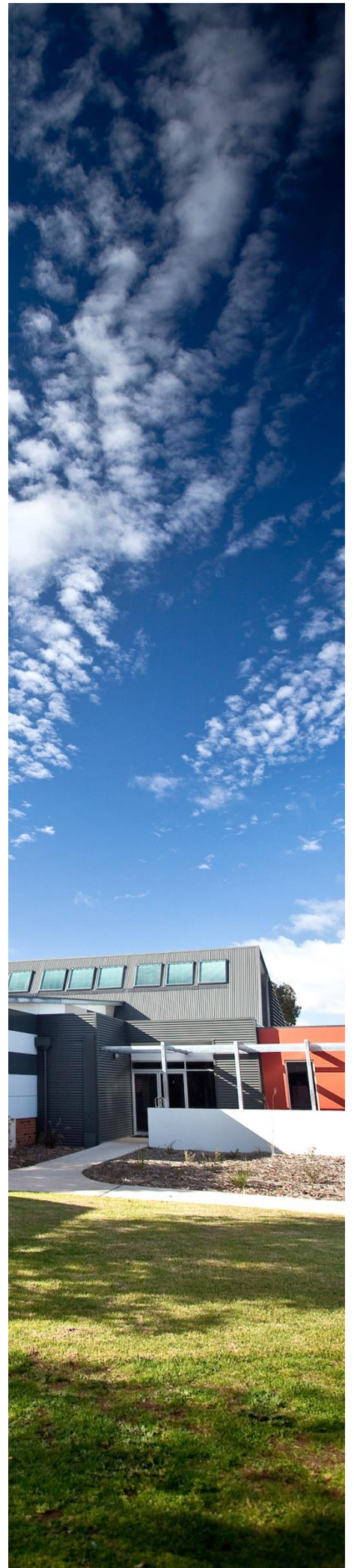




Statement of Environmental Effects

Commercial and Shop Top
Housing Development
23 Lewis Street
Mudgee

(Our Reference: 35200-PR01_B)
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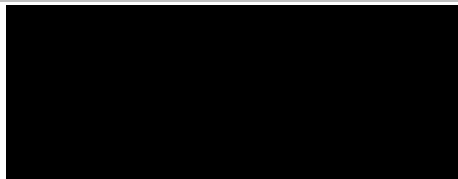



Disclaimer

This report has been prepared solely for Michael Fergus (the client) in accordance with the scope provided by the client and for the purpose(s) as outlined throughout this report.

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Report Title:	Statement of Environmental Effects
Project Name:	Commercial and Shop Top Housing Development
Client:	Michael Fergus
Project No.	35200
Report Reference	35200-PR01_B
Date:	21/06/2021
Revision:	Final

Prepared by:	Reviewed by:
	
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1 INTRODUCTION

1.1 Background

Barnson Pty Ltd has been engaged by Michael Fergus to prepare information in support of a Development Application (DA) for a commercial and shop top housing development at 23 Lewis Street, Mudgee.

The subject site is located on the corner of Lewis and Mortimer Streets and has a property area of approximately 808.4m². The site is currently vacant land.

The project will consist of the erection of a new two (2) storey mixed used building consisting of three (3) ground floor commercial tenancies and three (3) upper floor residential units as well as a post supported verandah and service infrastructure throughout. The proposed development also includes formal off-street parking, landscaping and heritage design considerations.

The site is zoned B3 Commercial Core pursuant to the provisions under the *Mid-Western Regional Local Environmental Plan 2012*. The proposed development is permissible in the zone.

This application consists of:

- A completed development application form; and
- One (1) PDF copy of this written statement, including plans and supporting documentation.

1.2 Proponent

The proponent for the DA is Michael Fergus.

1.3 Consultant

Barnson Pty Ltd

Jack Massey

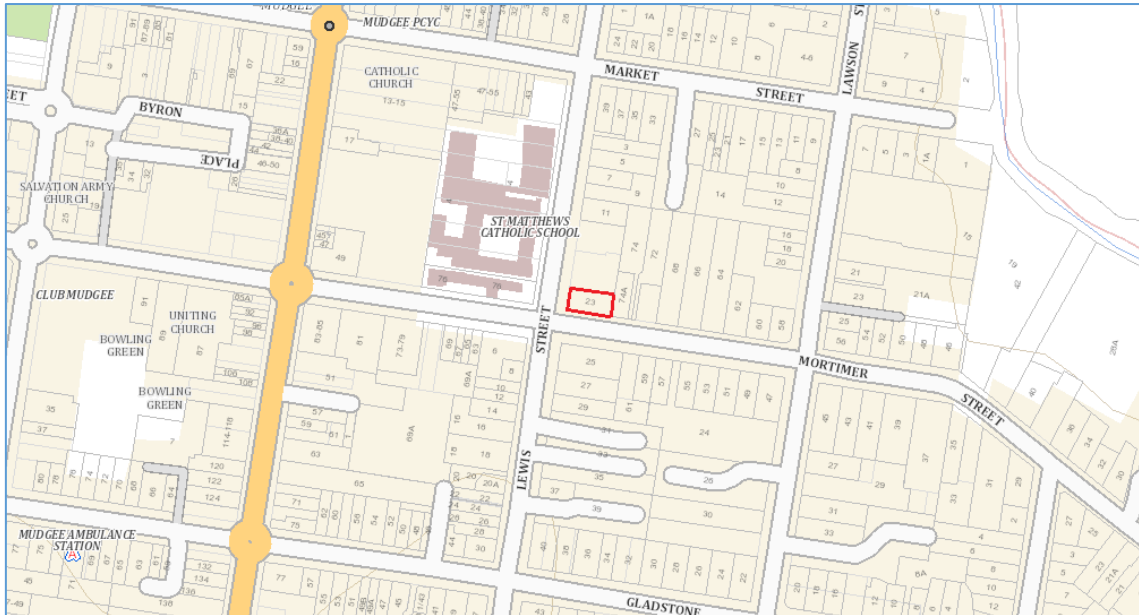
Unit 4 / 108-110 Market Street

Mudgee NSW 2850

2 EXISTING ENVIRONMENT

2.1 Location and Title

The subject site of this application is Lot 1 DP 59498, known as 23 Lewis Street, Mudgee. The site is located on the corner of Lewis and Mortimer Streets, as shown in **Figure 1** below.



Source: (NSW Government Spatial Services, 2021)

Figure 1 – Site Location

The site has an overall area of approximately 808.4m² (refer to Deposited Plan in **Appendix A** and Detail Survey in **Appendix B** of this report). Access to the site is currently gained via both street networks.

Refer to **Figure 2** and **Plates 1-4** for photos of the site and the locality.



Source: (NSW Government Spatial Services, 2021)

Figure 2 – Site Aerial



Plate 1 – View of the subject site from Mortimer Street



Plate 2 – View of the subject site



Plate 3 – View of the subject site from Lewis Street



Plate 4 – View of the front of the site and development opposite

2.2 Land Use

The subject site is located in an area characterised by commercial, educational and residential activities. The Lot to be developed is currently vacant and has historically been utilised as a car storage yard for a local car dealership. The Mudgee CBD is located to the west and there are residential and commercial uses in all other directions.

2.3 Topography

The topography of the site is relatively flat, with the wider locality gradually falling to the north towards the Cudgegong River.

2.4 Flora and Fauna

The site is devoid of any vegetation.

2.5 Natural Hazards

The subject site is not mapped as being within the flood planning area, or as bushfire prone under the *Mid-Western Regional Local Environmental Plan 2012* (the LEP) or NSW Planning Portal.

2.6 Groundwater

The subject site is mapped as Groundwater Vulnerable in accordance with the *Mid-Western Regional Local Environmental Plan 2012* (the LEP). Refer to **Figure 3** below.

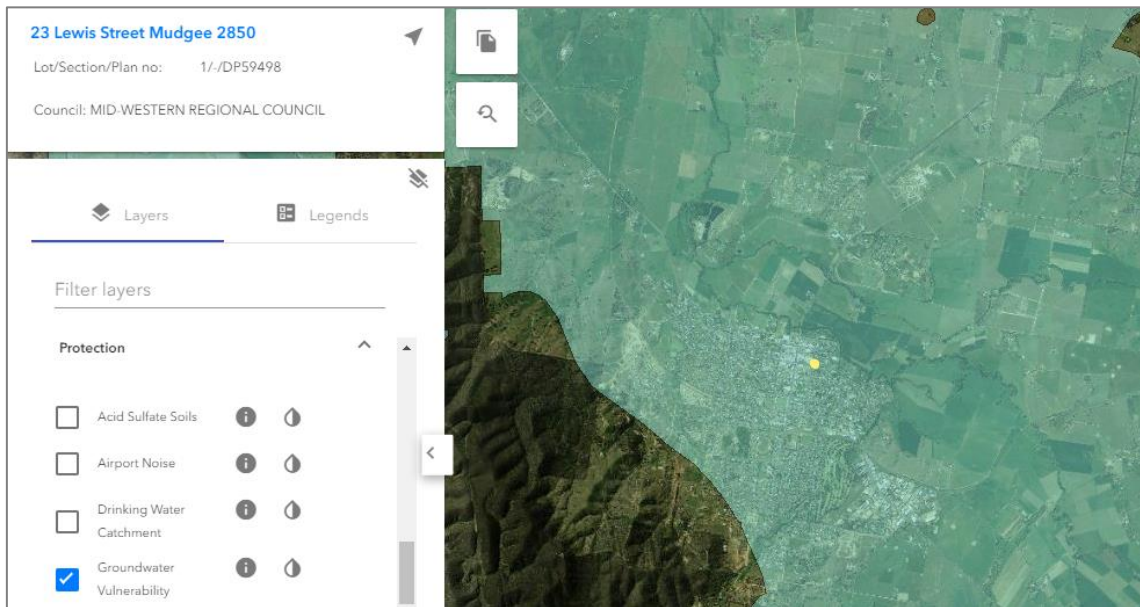


Figure 3 – Groundwater Vulnerability Map

2.7 Services

All services including reticulated water supply, sewerage, stormwater management, electricity and telephone infrastructure are available to the site. The existing infrastructure is considered capable of supporting the proposed development.

2.8 Open Space

There are open space areas throughout the township of Mudgee, consisting of playgrounds, skate parks, oval, cycling tracks, cricket pitches, bowling clubs, golf course, cultural centres and a variety of recreational shelters.

2.9 Access and Traffic

Vehicular access to the subject land is provided via Lewis and Mortimer Streets. There are two existing access crossovers and laybacks.

2.10 Heritage

The subject site does not contain any heritage listed items under the State Heritage Register or LEP, but is located within the Mudgee Heritage Conservation Area pursuant to Schedule 5 of the LEP and as shown in **Figure 4** below.

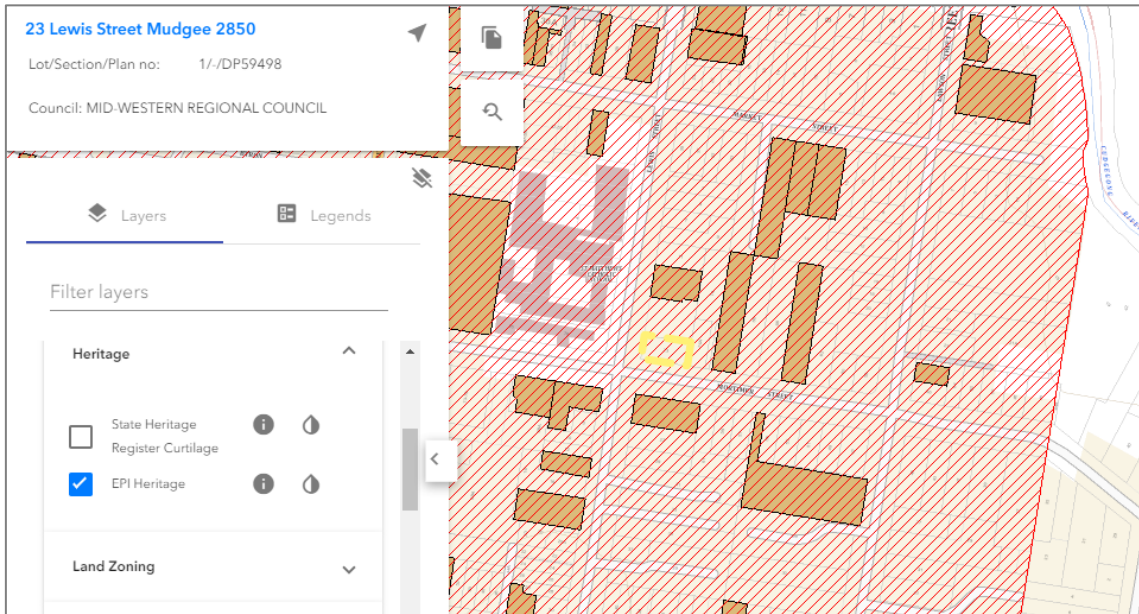


Figure 4 – Heritage Conservation Area Mapping

The Aboriginal Heritage Information Management System (AHIMS) search provided in **Appendix B** reveals that there are no known items of Aboriginal significance located on the site.

3 PROPOSED DEVELOPMENT

3.1 Overview

The proposed development involves the erection of a two (2) storey mixed use building and associated infrastructure on Lot 1 DP 59498, 23 Lewis Street, Mudgee. The development shall consist of a commercial ground floor and residential upper floor. The site is currently vacant and ready to be developed.

The design objectives were to create a multi-use building that captures the demand for new commercial development and housing within the Mudgee CBD. The design has been sympathetic to the heritage conservation area and heritage items within proximity of the proposed development site.

The development application seeks consent for the following works:

- Removal of existing bitumen seal and site preparation works (earthworks) to prepare the site for construction;
- Excavation works and footing construction for the overall development;
- Construction of a two (2) storey mixed use building with attached post supported verandah;
- The building is to comprise three (3) commercial tenancies and three (3) residential units;
- Materials are to consist of a combination of paint rendered and brick walls, select colorbond steel roof sheeting and cladding throughout, concrete tile panels in some areas, vertical timber features and black aluminium framed windows and doors;
- Establishment of three (3) fire isolated stairwells for access to the residential units;
- Provision of mechanical areas and garbage storage areas to the rear;
- Three (3) carparking spaces on the site for the residential units; and
- Some minor landscaping on the site.

Refer also to Development Plans in **Appendix C**, Preliminary Civil Design Drawings in **Appendix D** and BASIX Certificate in **Appendix E** of this report.

3.2 Numerical Overview

Key numerical aspects of the proposal are provided in **Table 1** below.

Table 1 – Numerical Overview of Proposal	
Component	Proposed
Site Area	Combined property area of 808.4m ² .
Zoning	B3 Commercial Core

Land Use	Mixed use development, encompassing retail/business premises and shop top housing
Gross Floor Area	1052m ²
<ul style="list-style-type: none"> Retail/Commercial 	408m ²
<ul style="list-style-type: none"> Residential 	480m ²
Building height/ Storeys	8.3m/ 2 storeys
Number of Apartments	3 x two bedroom units
Car Parking	Three (3) spaces for the residential units.

3.3 Proposed Uses

The proposed development includes provision for three (3) commercial premises and three (3) residential units across two floors. The proposed uses are characterised as *commercial premises* and *shop top housing*, as defined under the *Mid-Western Regional Local Environmental Plan 2012*. The overall proposal is appropriately defined as a *mixed use development*.

3.4 Materials and Finishes

The building references the architectural context of the area and uses contemporary forms, materials and construction methods. Heritage design considerations have been incorporated in the design of the structure, particularly with reference to the Oriental Hotel located opposite the development site. The proposal incorporates a variety of high-quality materials and finished to the facades of the building including neutral colours, timber inclusions, contemporary cladding and aluminium framed glazing.

3.5 Open Space and Landscaping

Each residential unit shall be provided with its own personal alfresco area, which will contribute to the overall amenity and experience of those living in the units. The space is designed for privacy and shade. These residential open spaces will contribute to the high amenity of the development and are considered beneficial for the comfort of the residents. Some minor landscaping is proposed on the site and frost and drought tolerant species shall be selected.

4 LAND USE ZONING

The subject site is zoned B3 Commercial Core pursuant to the provisions under the *Mid-Western Regional Local Environmental Plan 2012* (LEP). The overall development is defined as a 'mixed use development', with particular uses being defined as 'retail premises' or 'business premises' and 'shop top housing'. These uses are all permissible with consent in the B3 zone.

The permissibility of the proposed development is assessed in terms of the heads of consideration in Section 4.15 of the *Environmental Planning & Assessment Act 1979*, which incorporates consideration of the LEP and the objectives and permissible uses outlined in the B3 zone, as outlined in **Section 5** of this report.

5 PLANNING CONSIDERATIONS

5.1 Environmental Planning & Assessment Act 1979

5.1.1 Evaluation

Section 4.15 of the EP&A Act (as amended) requires the Council to consider various matters in regard to the determination of the Development Application.

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

- (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 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*
 - (v) *the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and*
 - (v) *any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), that apply to the land to which the development application relates,*
- (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;*
- (c) *The suitability of the site for the development,*
- (d) *Any submissions made in accordance with this act or the regulations,*
- (e) *The public interest.*

The proposed development has been designed with consideration to the following matters, as outlined below.

5.2 Environmental Planning Instruments

5.2.1 State Environmental Planning Policies

While a number of SEPPs that apply to the subject land and development thereon, there will be no implications in terms of the requirements of the SEPPs that will apply to the proposed development. However, SEPP No. 55 Remediation of land, SEPP BASIX 2004 and SEPP No. 64 Advertising and Signage apply to the proposal.

5.2.2 State Environmental Planning Policy No. 55 - Remediation of Land

State Environmental Planning Policy (SEPP) No. 55 – Remediation of Land (SEPP 55) applies to the whole of the state. Clause 7(1) requires the consent authority to consider whether land is contaminated prior to consent of a development application. The site is not likely to be contaminated given its historic use and vacant presence.

5.2.3 State Environmental Planning Policy (Building Sustainability Index BASIX) 2004

The development is required to meet the provisions of *State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004* (SEPP BASIX). A BASIX certificate is included in **Appendix E** of this report, which outlines the minimum energy and water efficiency targets and thermal comfort criteria.

5.2.4 State Environmental Planning Policy No. 64 - Advertising & Signage

The aims and objectives of SEPP No. 64 are set out in Clause 3(1)(a) as follows:

(1) This Policy aims:

(a) to ensure that signage (including advertising):

(i) is compatible with the desired amenity and visual character of an area, and

(ii) provides effective communication in suitable locations, and

(iii) is of high quality design and finish,

Part 2 – Signage Generally

Clause 8 states that:

A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:

(a) that the signage is consistent with the objectives of this Policy as set out in clause 3 (1) (a), and

(b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 1

Comment – Signage is proposed under and on the fascia the post supported verandah, as shown on the Development Plans in **Appendix C**. The proposed signage meets the aims and objectives of SEPP No. 64 as set out in Clause (3)(1)(a). The proposed signage is compatible with the desired character of the locality and is suitably located to provide effective communication to pedestrians.

The signage shall be of high design quality, having been designed to integrate with the existing locality and employing quality finishes.

The proposed sign has been assessed against the criteria set out in Schedule 1 of SEPP No. 64, as follows:

1. Character of the area

The proposed signage is compatible with the character of the surrounding area. The signage is appropriate within the context of the locality, enabling the advertisement of each tenancy. Furthermore, the proposed signage is consistent with other signage promoting commercial and retail activities in the area.

2. Special Areas

The subject site is not located within any special areas that are sensitive to alterations of visual quality. The site is not located within an environmentally sensitive context and the signage has been designed accordingly.

3. Views and Vistas

The proposed signage does not obstruct any significant views or vistas and is to be positioned on the fascia of the existing building. This projection does not obscure or compromise any important views or vistas in the locality, nor does it block or impede on any viewing rights of other advertisers.

4. Streetscape, setting or landscape

The scale of the new signage is consistent with the existing streetscape and is appropriate for the locality. The proposed signage contributes to the visual interest of the area and will provide assistance in identifying each tenancy, enhancing the amenity of the area and the site. The signage is well integrated within the context of the site.

5. Site and Building

The signage will be appropriately sited and is to be positioned for the primary approach of pedestrians. The proposed signage responds to the pre-existing site conditions and layout.

6. Associated devices and logos with advertisement and advertising structures

The signage has been appropriately designed to ensure that any safety measures are an integral part of the design.

7. Illumination

The signage is not proposed to be illuminated.

8. Safety

The proposed signage will not in any way reduce the safety of the public road and is appropriately located on-site to be visible to pedestrians in the locality. As the signage is appropriately located and considered to be unobtrusive, the proposal will not obscure any significant sightlines from public areas.

The assessment above has shown that the proposed sign complies with all criteria set out by Schedule 1. There is no impediment under SEPP 64 to Council approving the signage.

Refer to details of the proposed signage in the Development Plans in **Appendix C** of this report.

5.2.5 Mid-Western Regional Local Environmental Plan 2012

5.2.5.1 Land Use Table

The subject site is zoned B3 Commercial Core pursuant to the *Mid-Western Regional Local Environmental Plan 2012* (LEP). The objectives of the B3 zone are:

- *To provide a wide range of retail, business, office, entertainment, community and other suitable land uses that serve the needs of the local and wider community.*
- *To encourage appropriate employment opportunities in accessible locations.*
- *To maximise public transport patronage and encourage walking and cycling.*
- *To promote the central business district of Mudgee as the major focus for retail and commercial activity in Mid-Western Regional.*
- *To consolidate business development in the Mudgee town centre and avoid unnecessary or inappropriate expansion of business-related land uses into surrounding residential neighbourhoods.*
- *To ensure that new development is compatible with the historic architectural character and streetscapes of the Mudgee commercial core area.*
- *To ensure that the form and layout of new development is designed to encourage free pedestrian movement and connectivity within the commercial core.*

Comment: The proposed development provides for retail and/or business premises and residential uses, which are permissible with consent in the B3 zone. The commercial component of the development shall provide appropriate employment opportunities for Mudgee in an accessible location. The proposed development is centrally located, and shall provide for a mixed use building that further activates the Mudgee CBD.

5.2.5.2 Height of buildings

Clause 4.3 'Height of buildings' is applicable to the proposed development. The maximum buildings height as specified under this Clause and LEP is 8.5m. As shown on the Development Plans in **Appendix C**, the maximum height of the proposed building is 8.3m, thereby complying with this clause.

5.2.5.3 Heritage conservation

Clause 5.10 'Heritage conservation' applies to the development proposal as the site is located within the Mudgee Heritage Conservation Area. The design of the building has been carried out to suit the heritage characteristics of the locality. The building references the architectural context of the area and uses contemporary forms, materials and construction methods. Heritage design considerations have been incorporated in the design of the structure, particular with reference to the Oriental Hotel located opposite the development site. The proposal incorporates a variety of high-quality materials and finished to the facades of the building including neutral colours, timber inclusions, contemporary cladding and aluminium framed glazing. Therefore, it is considered that the development proposal satisfies this Clause.

5.2.5.4 Earthworks

Clause 6.3 'Earthworks' applies to the subject application as earthworks are proposed as part of development works. The proposed structure will require a significant amount of earthworks to allow the development to proceed. The site and surrounding locality are relatively flat throughout and it is considered that there would be no significant disruption or detrimental effect on existing drainage patterns, soil stability or any cultural heritage items or features on the site or within proximity. Appropriate erosion and sediment controls will be undertaken on the site during development works to prevent and reduce any soil erosion that could occur on the site.

5.2.5.5 Groundwater vulnerability

Clause 6.4 'Groundwater vulnerability' applies to the application as the subject site is mapped as vulnerable. Essential services are available to the subject site and suitable connections shall be established during development works.

The proposed development works shall not significantly affect the function of any key groundwater systems, nor would it create any depletion or contamination of vulnerable groundwater resources.

5.2.5.6 Active street frontage

Clause 6.7 'Active street frontages' states that:

- (1) *The objective of this clause is to promote uses that attract pedestrian traffic along certain ground floor street frontages on land in Zone B3 Commercial Core.*
- (2) *This clause applies to land identified as "Active Street Frontage" on the [Active Street Frontages Map](#).*
- (3) *Development consent must not be granted to the erection of a building, or a change of use of a building, on land to which this clause applies unless the consent authority is satisfied that the building will have an active street frontage after its erection or change of use.*
- (4) *Despite subclause (3), an active street frontage is not required for any part of a building that is used for any of the following—*
 - (a) *entrances and lobbies (including as part of mixed use development),*
 - (b) *access for fire services,*
 - (c) *vehicle access.*
- (5) *In this clause, a building has an **active street frontage** if all premises on the ground floor of the building facing the street are used for the purposes of business premises or retail premises.*

Comment: The proposed development includes commercial tenancy (retail premises or business premises) on the ground floor, thus complying with subsection (5) of this Clause. The design of the development has considered the provisions of this clause by providing suitable openings and access for connectivity with persons within the locality.

5.2.5.7 Essential services

Clause 6.9 'Essential services' states that:

Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the proposed development are available or that adequate arrangements have been made to make them available when required—

- (a) the supply of water,*
- (b) the supply of electricity,*
- (c) the disposal and management of sewage,*
- (d) stormwater drainage or on-site conservation,*
- (e) suitable road access.*

Comment: Suitable services as per Clause 6.9 have been provided for the proposed development. The preliminary Civil Design Drawings are provided in **Appendix D** for Council's perusal.

5.3 Draft Environmental Planning Instruments

No draft Environmental Planning Instruments are applicable to the subject site or development.

5.4 Development Control Plans

The *Mid-Western Regional Development Control Plan 2013* (DCP) applies to the subject application.

In the case of the DCP guidelines for parking, strict compliance has not been achieved, which is detailed throughout this section of the report. Before providing satisfactory justifications to apply the DCP Guidelines, it is respectfully reminded to Council for the status and purpose of DCPs and how DCPs should be applied when evaluating a Development Application (DA) in accordance with Section 4.15 of the *Environmental Planning and Assessment Act 1979*.

The purpose and status of DCPs is confirmed in Section 3.42 of the EP&A Act, as follows:

(1) The principal purpose of a development control plan is to provide guidance on the following matters to the persons proposing to carry out development to which this Part applies and to the consent authority for any such development—

- (a) giving effect to the aims of any environmental planning instrument that applies to the development,*
- (b) facilitating development that is permissible under any such instrument,*
- (c) achieving the objectives of land zones under any such instrument.*

The provisions of a development control plan made for that purpose are not statutory requirements.

It is noted that the principle purpose of a DCP is to provide *guidance* rather than providing absolute development controls, which is further supported by the Act confirming they are not statutory requirements.

A further purpose of the DCP is to *facilitate* permissible development, and to take into account the context of the proposal and allow for a measure of merits-based assessment.

The flexibility of the application of DCPs is further confirmed in Section 4.15 of the EP&A Act where provisions are made as to how a DA should be evaluated, specifically with regard to the application of DCPs, as follows:

- (3A) **Development control plans** *If a development control plan contains provisions that relate to the development that is the subject of a development application, the consent authority—*
- (a) *if those provisions set standards with respect to an aspect of the development and the development application complies with those standards—is not to require more onerous standards with respect to that aspect of the development, and*
 - (b) *if those provisions set standards with respect to an aspect of the development and the development application does not comply with those standards—is to be flexible in applying those provisions and allow reasonable alternative solutions that achieve the objects of those standards for dealing with that aspect of the development, and*
 - (c) *may consider those provisions only in connection with the assessment of that development application.*

*In this subsection, **standards** include performance criteria.*

It is important to note that the provisions of the EP&A Act relate to the application of DCPs above which requires that the consent authority should be flexible in applying guidelines where numeric compliance is not met but where the proposal satisfies the relevant objectives.

It is certainly not the proponents position that the provisions of the DCP should be set aside, but rather the DCP be applied in accordance with the EP&A Act, and that it be applied with some flexibility taking into account the context of the site, development proposal and by considering the objectives of the DCP guidelines.

The relevant provisions under the DCP have been addressed in **Table 2** below.

Table 2 – DCP Requirements	
Provision	Comment
<i>Section 4.4 Signs</i>	
General Requirements	Fascia signage is proposed, which is permitted signage under this part of the DCP.
Signed in Towns and Villages	The proposed signage has intentionally been kept to a minimal to assist in the aesthetics of the designed development. It is considered that this signage shall be installed with high quality materials that match the architectural design features of the building, thus reducing any impact on the Heritage Conservation Area.
Business Areas	The proposed signage is well below the 25% figure stipulated under this part.
<i>Part 4.5 Commercial Development</i>	

Building Setbacks	All building setbacks comply with the provisions of the Building Code of Australia (BCA). The post supported verandah is overhanging the footpath and does not interfere with the operations of or access to public utilities or infrastructure.
Signage	Addressed in the Signage section of this Table.
Design	<p>The proposed development has been architecturally designed to improve the existing site and locality, and to provide a contemporary mixed use development that will support the Mudgee community.</p> <p>The subject site is located within the Mudgee Heritage Conservation Area. There are heritage listed items located within proximity to the site, with the most significant in terms of presence being the “Oriental Tavern” Hotel, which is located directly opposite to the site. The proposed development has been sympathetically designed to reflect the heritage value of the hotel and surrounding heritage items by utilising mixed materials, pitched roofs and contemporary design. The proposal is not anticipated to have a significant impact on the heritage items in proximity to the site and shall be an improvement to the area.</p> <p>The proposal complies with the provisions of this part in that:</p> <ul style="list-style-type: none"> • The proposal is compliant with the Active Street Frontage Clause under the LEP; • The ground level of the building is comprised of a variety of doors and windows that will encourage the interaction between pedestrians and the commercial tenancies; • A range of materials and colours have been chosen externally to ensure the building is well articulated and to reduce bulk and scale; • Elements such as the post supported verandah have been included on the design to ensure the building fits in with the locality; • The development does not intend to reproduce any heritage items in the locality, but rather create a modern, contemporary design that will fit in well with the locality; • All external infrastructure is shielded from the street frontage; • Architectural features address both street frontages; and • There are sufficient setbacks distances to nearby uses.
Scale form and height	The proposed height of the structure is 8.3m, thereby complying with the maximum height of buildings LEP control of 8.5m.
Mortimer & Church Street Mudgee	The site is located on the corner of Lewis Street and Mortimer Street, therefore the provisions under this part are applicable. Careful consideration has been included in the design of the development to ensure it enhances and maintains the streetscape in this area. The

	<p>development is consistent in terms of scale to the Oriental Hotel, which is located opposite. To ensure consistency, a zero front setback and post supported verandah has been incorporated in the design of the development. With the inclusion of changes in materials and facades, the development shall contribute well to the built form of this locality.</p>
Articulation and Façade Composition	<p>A number of architectural elements and changes in materials have been incorporated in the design to break the visual bulk and create interest. There are no blank walls of excessive length.</p>
Post Supported Verandahs and Balconies	<p>The part of the DCP states that a 600mm setback is required for the post supported verandah to the edge of the kerb. However, as shown on the Development Plans in Appendix C, a 300mm setback has been provided. Therefore a departure request is sought, and considered justified due to the following:</p> <ul style="list-style-type: none"> • There are a number of overhead power lines and water service infrastructure located in the vicinity of the post supported verandah. To ensure that minimal interference/relocation works, the verandah posts require a reduced setback to the edge of the kerb. By situating the verandah closer to the kerb, the proposed works will not traverse or impact upon any of that infrastructure; • The post supported verandah for the Oriental Hotel located opposite to the subject site is built right on the kerb. As such, the proposed reduced setback is consistent with the Oriental Hotel, being a prominent building in the locality; and • The proposed reduction shall not impact on any servicing, trafficability, pedestrian networks, sight lines or any other issues in the area. <p>The proposed post supported verandah has been integrated with the design of the building, creating areas upstairs for residents and visual interest for the locality. The verandah structure does not interfere with any access to public utilities or infrastructure and pedestrians will be able to traverse under the awning freely.</p> <p>Public liability insurance and approval for the works shall be formalised prior to the issue of a Construction Certificate/Occupation Certificate.</p> <p>Bollards shall be positioned at the base of posts where street carparks are available.</p>
Residential-Commercial Interface	<p>Land to the east and west is zoned R3 Medium Density Residential. The windows on the eastern façade of the building have been suitably positioned to avoid any overlooking to nearby residential properties. The two 92) windows within the bathrooms of Unit 3 are positioned higher so residents are not overlooking to those properties.</p>

	<p>On the verandah, a vertical timber screen has been included to further prevent residents within the upper level overlooking onto adjoining properties.</p> <p>Some new fencing is proposed along the eastern boundary. Automatic swing gates shall be established for cars to access the site and to provide security for the residential units.</p> <p>Shadow Diagrams have been prepared and are provided in the Development Plans in Appendix C. The diagrams show that there is no impact to any adjoining properties in terms of sunlight or solar access.</p>
Utilities and Services	<p>The site is improved with existing connections to water supply, sewerage, electricity, stormwater management and telecommunication infrastructure. Civil Design Drawings are provided in Appendix D for stormwater management procedures.</p> <p>There will be no Trade Waste generated on the site as it is expected that all waste will be limited to domestic allied only.</p>
Traffic and Access	<p>Vehicular access is proposed via the northern side of Mortimer Street. A new access driveway and concrete manoeuvrability/parking areas shall be established on the site. The existing access facing Lewis Street shall be decommissioned and provided with kerb and guttering.</p> <p>Three (3) parking spaces have been provided on site as shown on the Development Plans in Appendix C. The intended vehicles can enter and exit the site in a forward direction.</p> <p>In terms of loading/unloading for the commercial tenancies on the lower level, all deliveries shall be provided using small vans or trucks. There is a plethora of street parking areas in the vicinity of the site for these vehicles to park temporarily in order to deliver the items. Generally, items will either be hand delivered or delivered on trolleys, if required.</p>
Pedestrian Access	<p>Easy, convenient pedestrian access is provided to both the commercial and retail uses within the development.</p>
Parking	<p>Refer to discussion below.</p>
Landscaping	<p>Landscaping has been provided within the carparking area and shall consist of low maintenance, drought and frost tolerant species.</p>
<i>Part 5 Development Standards</i>	
Carparking	<p>The following rates apply to the development.</p> <p style="text-align: center;"><i>1 space per 2 bedroom flat (within Conservation Area)</i></p> <p style="text-align: center;"><i>1 space per 30m² GFA for office/business premises</i></p> <p>Calculations for the above provisions are provided below:</p> <ul style="list-style-type: none"> • Units – 3 spaces required

	<ul style="list-style-type: none"> • Commercial - $408\text{m}^2 / 30 = 13.6$ or 14 required spaces • Total required = 17 spaces <p>It is noted that the DCP allows for historic carparking credits. This included frontage credits relates to parking availability within the street frontages. There is a frontage credit of seven (7) spaces along Mortimer Street and four (4) spaces along Lewis Street, which equates to eleven (11) spaces in total.</p> <p>Therefore, the following is provided on the site and within the street frontages as frontage credits:</p> <ul style="list-style-type: none"> • Three (3) spaces on site; • Seven (7) spaces along Mortimer Street; • Four (4) spaces along Lewis Street; • Total provided = Fourteen (14) spaces. <p>There is a shortfall of three (3) spaces in total and as such, a departure request is sought. The departure is discussed below.</p>
Varying of Standards	<p>The DCP allows for a variation to the parking standards of up 10% with suitable justification to be provided. As discussed above, there is a shortfall of three (3) spaces, which equates to a 21% variation to the development standard. The following discussion shall justify the increased variation to the development standard, which is supported by the submission of a Traffic Impact Assessment that has been provided in Appendix F of this report.</p> <p>The departure is considered justified in that:</p> <ul style="list-style-type: none"> • A Parking Survey was completed as part of this submission, and is provided in the TIA in Appendix F. The survey identifies that there is an availability of 360 car parking spaces within close proximity to the site. During the business time of the day (3pm), 198 parking spaces are occupied within this area. This results in 162 empty spaces available within close proximity of the site during the busiest time of the day; • Given that there is a plethora of available spaces within proximity to the subject site, the shortfall of three (3) spaces is considered very minor. The available parking within this area is capable of catering for the shortfall without any significance impact to parking or traffic in this locality; • The use of street parking is consistent with existing commercial and retail land uses in this area. Similar uses utilise the street parking due to the limited availability of on-site parking that is available. It is considered that the proposed use/s are consistent in terms of traffic generation to other development in the

	<p>vicinity, and as such, the development would not create any adverse impacts in terms of carparking availability;</p> <ul style="list-style-type: none"> • The Parking Survey within the TIA defines survey zones within proximity to the site. The proposed development addresses both street networks, with the bulk of the structure addressing Mortimer Street. In this regard, it is assumed that survey zones E and F as shown in Appendix C of the TIA would be used more frequently in association with the subject development. <p>During the busiest time of the day (3pm), the following car parking opportunities were available for these zones:</p> <ul style="list-style-type: none"> ➤ Zone E (37 space capacity) – 6 spaces occupied, 31 spaces available; ➤ Zone F (37 space capacity) – 10 spaces occupied, 27 spaces available. <p>In total, there are fifty eight (58) spaces available within zones E and F during the busiest time of the day. In this regard, it is considered that there is an excessive amount of spaces immediately available within the street network for the proposed development, without impacting any nearby uses;</p> <ul style="list-style-type: none"> • Given the relatively small size of the allotment, its central locality and well-designed development, there are a number of site constraints for any additional onsite parking. Therefore it would not be appropriate to enforce strict numerical parking compliance for the site or intended use, nor would it be a good planning outcome; • It is necessary to consider the central location of the development site. Patrons of the commercial tenancies intending to visit the ground floor will often travel by foot to attend the premises. Whilst hard to quantify, it is important to note that there would be a considerable amount of persons attending the site who would not be travelling in a vehicle, thereby not requiring parking services; and • The existing traffic conditions in this area are considered suitable for the proposed use/s and existing operations in the immediate locality. <p>The abovementioned departure does not intend to undermine the DCP provisions, but rather provide a solution for a permissible development that is suitable for the site/locality, consistent with existing development trends in the area and deemed to be in the public interest.</p>
Car Parking Credits	There is a frontage credit afforded to the property. As shown on the Development Plans in Appendix C , there is a frontage credit of seven (7)

	spaces along Mortimer Street and four (4) spaces along Lewis Street, which equates to eleven (11) spaces in total.
Landscaping	Some minor landscaping has been provided within the carparking area situated on the site. This shall reduce the visual impact of the parking area and improve the amenity impact on the site and surrounding properties.
Stormwater Management	A Stormwater Management Plan has been provided in Appendix D of this report which details the proposed stormwater arrangement.
Environmental Controls	Address throughout this report.

5.5 Any Planning Agreement entered into

No Planning Agreements entered into are known to exist in relation to the development or site.

5.6 Any Matters Prescribed by the Regulations

For the purposes of Section 4.15(1)(a)(iv) of the EP&A Act, Clause 92 of the *Environmental Planning and Assessment Regulations 2000* (EP&A Regulations) specifies the additional matters a consent authority must take into consideration when determining a DA. None of these matters relate to the subject application.

5.7 Any Likely Impacts of the Development

5.7.1 Context & Setting

The subject site is located in an established environment characterised by commercial, retail and residential activities. The proposed development is compatible with the desired character of the locality and the design is in keeping with the heritage influence of the area. The location of the development provides the mixed use development with high exposure, in an area consisting of commercial and residential land uses. The residential units are set well above street level and will provide much needed housing within close proximity to the Mudgee CBD. In this regard, it is considered that the proposed mixed-use building is consistent with the existing locality, promoting the centre of Mudgee. The development would therefore not impact on the context or setting in the locality, rather it would contribute to the mixed-use of the area.

5.7.2 Access, Transport & Traffic

The subject site shall receive an increase in traffic generation on completion and operation of the development, however, the design has incorporated appropriate parking spaces and there are street parking availabilities along both street frontages that are

capable of supporting the proposed development and its use. The key consideration for addressing access, transport and traffic are provided below:

- Three (3) car parking spaces have been provided on the site for the residential tenancies and eleven (11) within the street frontages. As discussed in Table 2 and the supporting TIA, there is a plethora of parking opportunities within proximity to the site to cater for parking services;
- Vehicle access to the site shall be provided via Mortimer Street with a new access crossover and layback constructed in accordance with Council requirements;
- It is anticipated that given the central location of the site, higher levels of walking and cycling activity would be present from the development occupants; and
- The development is located within close proximity to transport, commercial, entertainment and retail outlets and nearby offsite parking opportunities.

For these reasons, the proposed development is not anticipated to create any adverse effects in terms of access, transport or traffic for the surrounding area.

5.7.3 Public Domain

The proposed development will not have any adverse impact on the public domain of the locality. The proposal would not create any negative impacts on the public domain as it is considered to be an improvement on the site/area and would significantly contribute to the Mudgee CBD and local economy.

5.7.4 Utilities

All services including reticulated water supply, sewerage, electricity, stormwater management, and telecommunications infrastructure are available to the site. New connections shall be established in accordance with Council requirements. A Preliminary Design for stormwater has been provided in **Appendix D** of this report.

5.7.5 Heritage

The subject site is located within the Mudgee Heritage Conservation Area pursuant to Schedule 5 of the *Mid-Western Regional Local Environmental Plan 2012*.

The design of the proposed development has been in respect to the heritage context of the area and heritage items within the vicinity by not obstructing significant views to or from or impacting on their fabric in any way. The bulk of the proposed building shall be read as part of the heritage setting of the area, and would be readily identifiable as contemporary, which supporting elements of the context of the locality.

The new development would present a new urban design in an iconic setting, which is something that is increasingly present in cities and starting to emerge in Mudgee. The building would take advantage of modern technology and financing to respond to the

demand and the need for mixed residential and commercial facilities within the Mudgee CBD, thereby revitalising the township.

The development not only offers the opportunity to activate the city centre and contribute to the architectural context, but to contribute to a vibrant, well trafficked area in Mudgee. It is important to note that the existing historical context of the locality is not a constraint, rather it is an opportunity to enable new ideas and responses to be developed, encouraging new buildings that can be admired for the heritage of the future. In this regard, the proposed development responds well to the heritage context of the locality and will contribute to its significance.

5.7.6 Privacy

The design of the proposed development acknowledges that the area contains residential properties that may be sensitive in terms of privacy. The design minimised overlooking opportunities by having few opening in the direction of nearby residences, and by utilising timber screened on the balconies.

5.7.7 Overshadowing

Shadow diagrams have been prepared for June 21 (mid-winter) at 9am, 10am, 11am, 12pm, 1pm, 2pm and 3pm (refer to Development Plans in **Appendix C** of this report). As shown on the diagrams, the two storey building will not create any adverse overshadowing to any surrounding properties. Therefore, the proposed development is considered acceptable and similar to what would be expected to comparable developments in Mudgee.

5.7.8 Noise

The noise from proposed construction works will be during normal business hours, as required by Council. The proposed noise is not expected to have a long term impact on the surrounding area and will be kept to a minimum. The commercial and residential aspects of the proposal for the site is not anticipated to have any significant effect on the surrounding locality.

5.7.9 Air & Microclimate

The proposed development will generate some air pollution during construction works, particularly from dust generated from the additional workers and equipment on the site. The incidence of air pollution can be reduced by using appropriate equipment; having a dedicated bin storage area on site, employing good work practices, and utilising a water spray where necessary, especially in conditions where dust is likely to be a nuisance.

5.7.10 Waste

Dedicated waste storage facilities have been shown on the Development Plans for the proposed use/s. All waste generated on the site would be domestic allied only, and as such, disposal via Council's weekly garbage collection is considered suitable.

5.7.11 Safety, Security & Crime Prevention

The design of the proposed building has considered safety, security and crime prevention through a number of design elements. The following Crime Prevention Through Environmental Design (CPTED) elements were considered:

- Secure carparking;
- Entry and exit points;
- Internal building layouts;
- Passive surveillance principles;
- Landscaping and lighting; and
- Maintenance and management

It is considered that the proposed development, as designed, will help activate and improve the safety and security of the local area.

5.7.12 Social & Economic Impacts in the Locality

The proposed development is considered an appropriate use of the site and shall enhance the appearance and value of the surrounding area. The development shall deliver employment opportunities both during construction and during operation for the commercial component. The residential units are set well above street level and will provide much needed residential accommodation within close proximity to the Mudgee CBD. There is a strong likelihood that the proposed development shall result in favourable multi-plier-effects and a positive economic and social contribution for the locality.

5.7.13 Other

There are no other issues such as flooding, flora/fauna or bushfire that would significantly impact upon the development.

5.8 Suitability of the Site for the Proposed Development

The suitability of the site for the proposed development has been addressed in the above sections of this report. There are no prohibitive constraints posed by adjacent developments. There does not appear to be any zoning, planning or environmental matters that should hinder the proposed development of the site. In this regard, it can be concluded that the proposal fits into the locality and the site attributes are conducive for the development.

5.9 The Public Interest

The proposal is unlikely to create any negative impacts on the amenity of the area and is therefore deemed to be positive in terms of the public interest.

6 CONCLUSION

It is recommended that the proposed commercial and shop top housing development on Lot 1 DP 59498, known as 23 Lewis Street, Mudgee be supported on the following grounds:


- The proposal is considered acceptable in terms of the provisions of Section 4.15 of the *Environmental Planning and Assessment Act 1979*;
- The proposal is permissible with consent and consistent with the relevant development standards and provisions of the *Mid-Western Regional Local Environmental Plan 2012*;
- The proposal generally complies with the relevant provisions of the *Mid-Western Development Control Plan 2013*;
- The DCP departure discussed in Table 2 is of minor impact and has been adequately justified for Council's consideration;
- The proposed development is not anticipated to generate any adverse impacts in the locality;
- The design of the development compliments the streetscape and is considered a positive impact to the heritage conservation area and nearby heritage items;
- The proposed development will result in appropriate uses for the Mudgee CBD, with positive social and economic benefits; and
- The proposed development is considered suitable for the site and its surrounds.

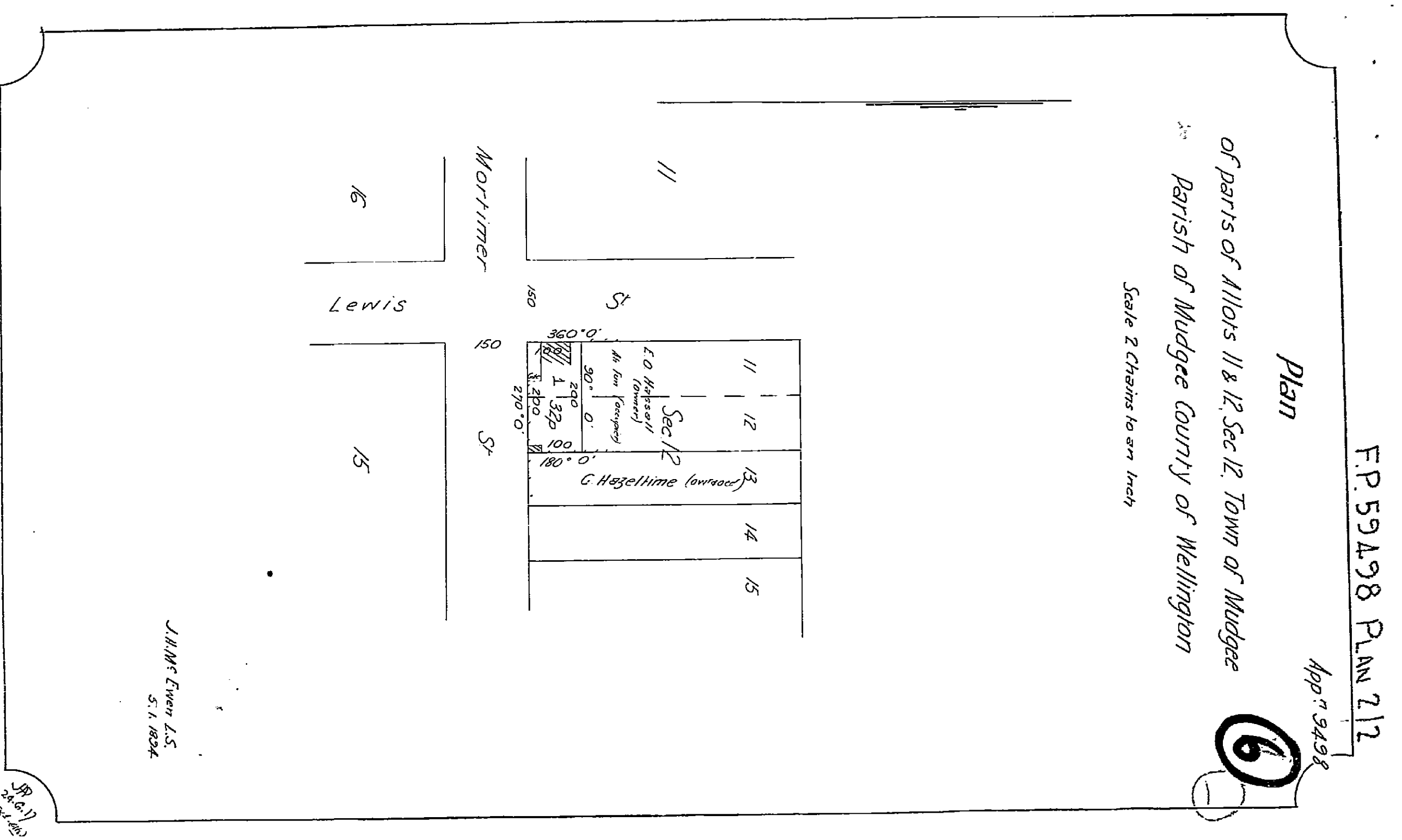
7 REFERENCES


- NSW Government. (2017, September 1). *Biodiversity Value Map*. Retrieved from <https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap>
- NSW Government Spatial Services. (2021, April 28). *Six Maps*. Retrieved from <http://maps.six.nsw.gov.au/>
- NSW Rural Fire Service. (2006). *Planning for Bush Fire Protection: A Guide for Council's, Planners, Fire Authorities and Developers*. Sydney: NSW RFS.

Appendix A - Deposited Plan

AMENDMENTS AND/OR ADDITIONS MADE ON
 PLAN IN THE LAND TITLES OFFICE.


 This negative is a photograph made as a permanent
 record of a document in the custody of the
 Registrar General this day. 24th March, 1987




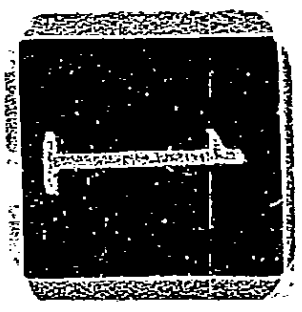

 CONVERSION TABLE ADDED IN
 REGISTRAR GENERAL'S DEPARTMENT

LINKS	METRES
5	1,006
100	20,117
150	30,175
200	40,234
500	100,584
AC RD P	SQ M
- - 32	809.44

DP 59498

AMENDMENTS AND/OR ADDITIONS MADE ON PLAN IN THE LAND TITLES OFFICE.

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 24th March, 1987

A. PLAN F P 59498 PLAN 1/2

of parts of allotments 11 and 12, section 12
 Parish of Mudgee, County of Wellington
 Town of Mudgee
 Scale 2 Chains to an Inch

Q.T. Vol. 1209 Fol. 200 0708

COPIED

MORTIMER STREET
 LEWIS STREET
 HASSALL STREET

11 12 13 14 15

16 15

This is the plan marked "A" referred to in the declaration by J. H. McEwen made before me this the 5th day of January 1894

Testify that the above diagram and description are correct for the purpose of the accompanying application by John Murray under the Real Property Act

Benjamin Street
John Murray
 Licensed Surveyor

CONVERSION TABLE ADDED IN REGISTRAR-GENERAL'S DEPARTMENT

DP 59498

LINKS	METRES
5	1.006
100	20.117
150	30.175
200	40.234
500	100.584
AC RD P	809.4
- - 32	

Appendix B - AHIMS Search

Barnson
Suite 6 11 White Street
Tamworth New South Wales 2340
Attention: Jack Massey
Email: jmassey@barnson.com.au

Date: 01 June 2021

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 1, DP:DP59498 with a Buffer of 50 meters, conducted by Jack Massey on 01 June 2021.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(http://www.nsw.gov.au/gazette\)](http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Appendix C - Development Plans

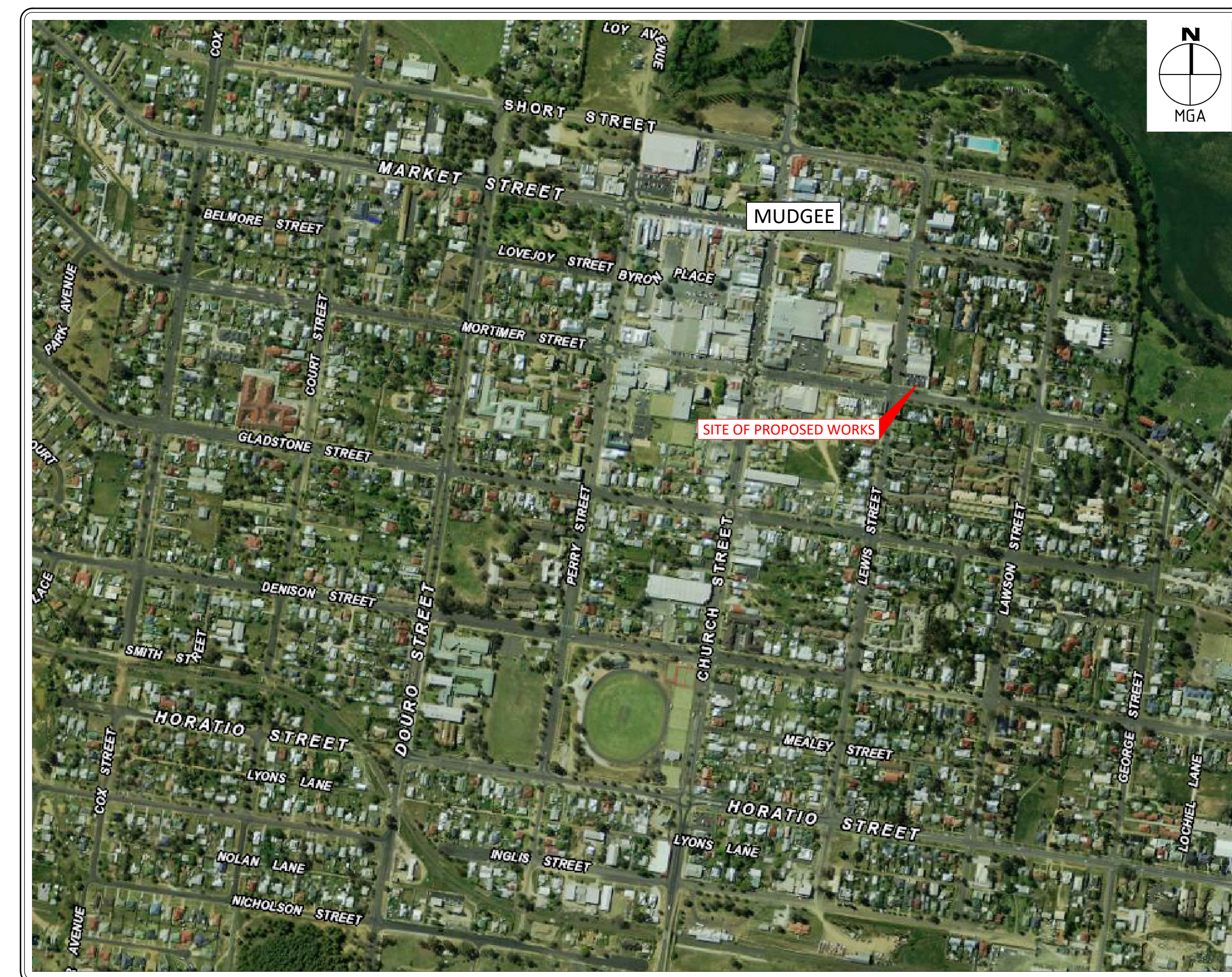
Appendix D - Preliminary Civil Design Drawings

Civil Construction Documentation for the Shoptop Housing Development

Lewis & Mortimer Streets, Mudgee, NSW 2850

SCHEDULE OF DRAWINGS

SHEET No.	DESCRIPTION
35200-C00	COVER SHEET & DRAWING SCHEDULE
35200-C01	EXISTING SITE PLAN
35200-C02	PROPOSED SITE PLAN
35200-C03	PAVEMENT PLAN
35200-C04	STORMWATER MANAGEMENT PLAN
35200-C05	STORMWATER NOTES & DETAILS
35200-C06	SEWER RETICULATION PLAN
35200-C07	SEWER NOTES & DETAILS
35200-C08	WATER RETICULATION PLAN
35200-C09	WATER NOTES & DETAILS



LOCALITY PLAN
NOT TO REDUCTION RATIO

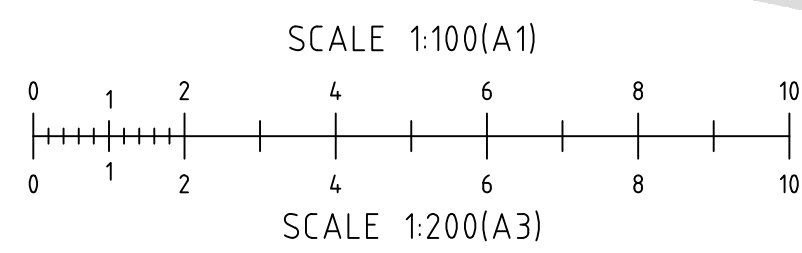
ISSUED FOR CLIENT REVIEW



LEGEND	
	EXISTING SUBJECT CADASTRAL BOUNDARIES
	EXISTING ADJOINING CADASTRAL BOUNDARIES
	EXISTING FENCE
	EXISTING WATER LINE
	EXISTING SEWER LINE APPROX. LOCATION
	EXISTING TELECOMS LINE
	EXISTING OVERHEAD POWER LINE
	EXISTING TELECOMMUNICATIONS PIT
	EXISTING SEWER MANHOLE



EXISTING SITE PLAN
REDUCTION RATIO 1:100 @ A1
1:200 @ A3



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Client: MICHAEL FERGUS
Project: SHOPTOP HOUSING DEVELOPMENT
LEWIS & MORTIMER STREETS, MUDGEE
Drawing Title: EXISTING SITE PLAN

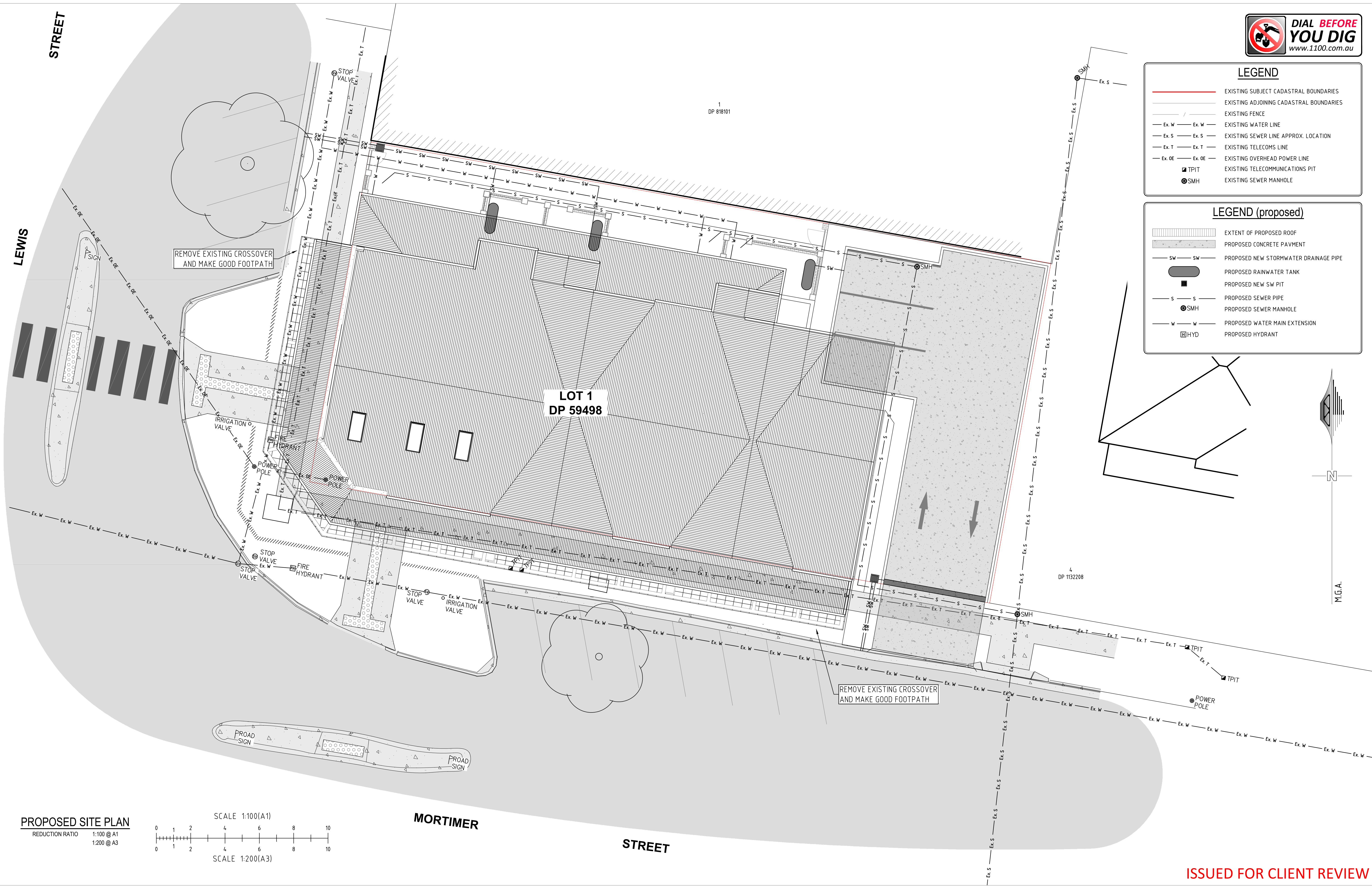
Rev Date Amendment
0 13.05.2021 CLIENT REVIEW

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Drawn	EG		
Check	LM	Drawing Number	Revision
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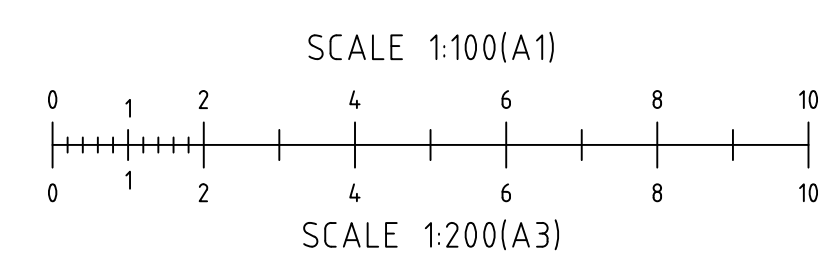


LEGEND	
	EXISTING SUBJECT CADASTRAL BOUNDARIES
	EXISTING ADJOINING CADASTRAL BOUNDARIES
	EXISTING FENCE
	EXISTING WATER LINE
	EXISTING SEWER LINE APPROX. LOCATION
	EXISTING TELECOMS LINE
	EXISTING OVERHEAD POWER LINE
	EXISTING TELECOMMUNICATIONS PIT
	EXISTING SEWER MANHOLE

LEGEND (proposed)	
	EXTENT OF PROPOSED ROOF
	PROPOSED CONCRETE PAVMENT
	PROPOSED NEW STORMWATER DRAINAGE PIPE
	PROPOSED RAINWATER TANK
	PROPOSED NEW SW PIT
	PROPOSED SEWER PIPE
	PROPOSED SEWER MANHOLE
	PROPOSED WATER MAIN EXTENSION
	PROPOSED HYDRANT



PROPOSED SITE PLAN
 REDUCTION RATIO 1:100 @ A1
 1:200 @ A3



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Client: **MICHAEL FERGUS**
 Project: **LEWIS & MORTIMER STREETS, MUDGEE SHOPTOP HOUSING DEVELOPMENT**
 Drawing Title: **PROPOSED SITE PLAN**

Rev	Date	Amendment
0	13.05.2021	CLIENT REVIEW

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Drawn	EG		
Check	LM	Drawing Number	Revision
Original Sheet Size = A1		35200 - C02	0

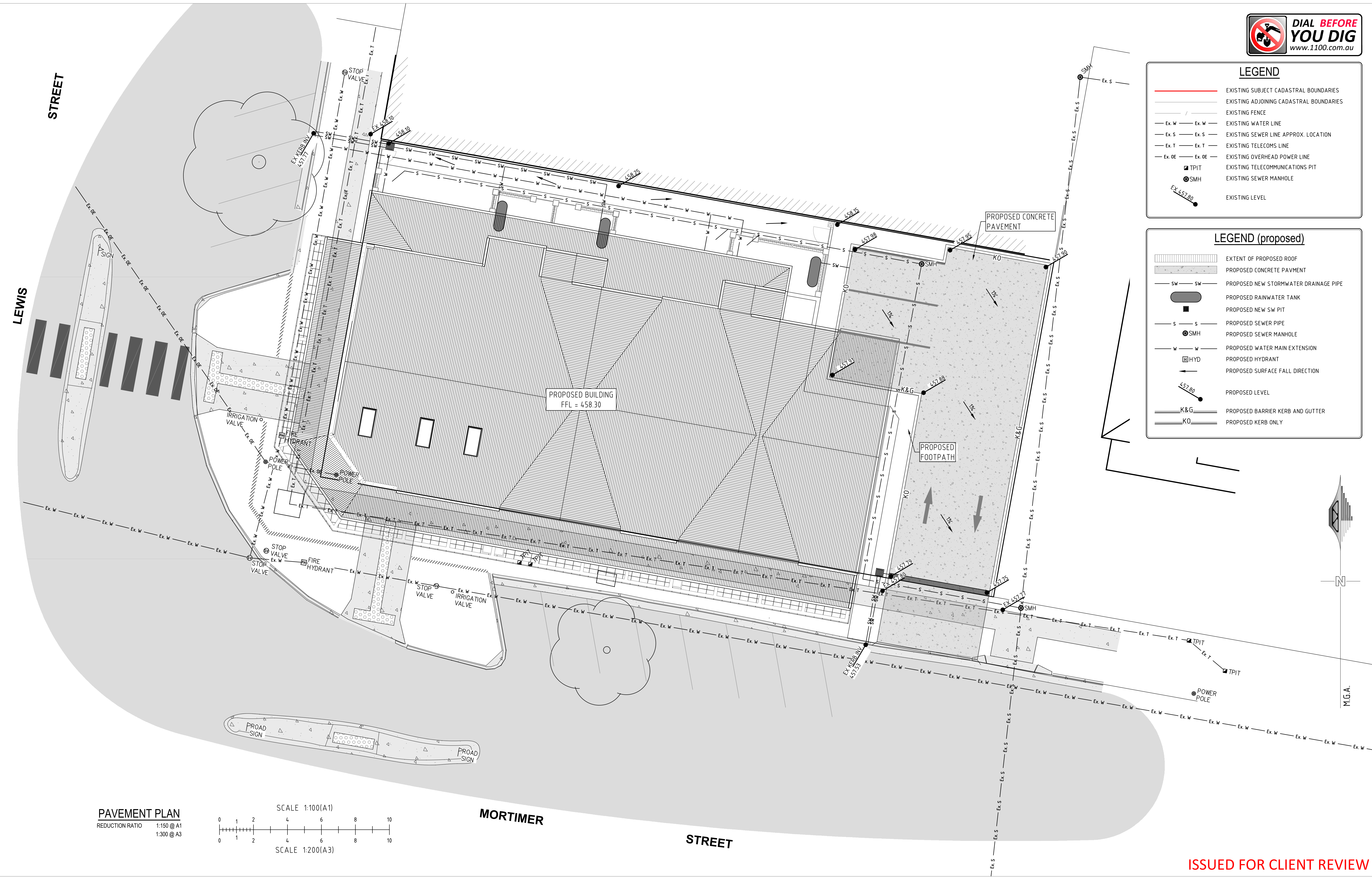


LEGEND

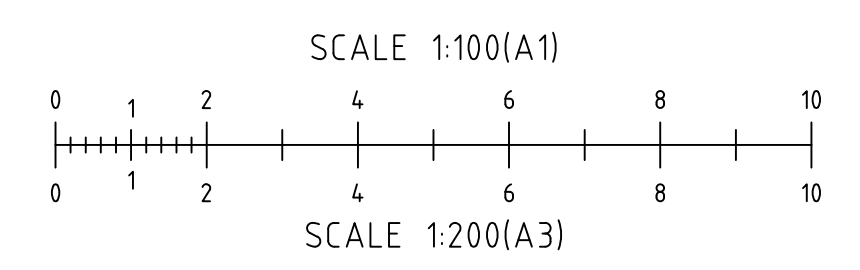
- EXISTING SUBJECT CADASTRAL BOUNDARIES
- EXISTING ADJOINING CADASTRAL BOUNDARIES
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING SEWER LINE APPROX. LOCATION
- EXISTING TELECOMS LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING TELECOMMUNICATIONS PIT
- EXISTING SEWER MANHOLE
- EXISTING LEVEL

LEGEND (proposed)

- EXTENT OF PROPOSED ROOF
- PROPOSED CONCRETE PAVEMENT
- PROPOSED NEW STORMWATER DRAINAGE PIPE
- PROPOSED RAINWATER TANK
- PROPOSED NEW SW PIT
- PROPOSED SEWER PIPE
- PROPOSED SEWER MANHOLE
- PROPOSED WATER MAIN EXTENSION
- PROPOSED HYDRANT
- PROPOSED SURFACE FALL DIRECTION
- PROPOSED LEVEL
- PROPOSED BARRIER KERB AND GUTTER
- PROPOSED KERB ONLY



PAVEMENT PLAN
 REDUCTION RATIO 1:150 @ A1
 1:300 @ A3



ISSUED FOR CLIENT REVIEW



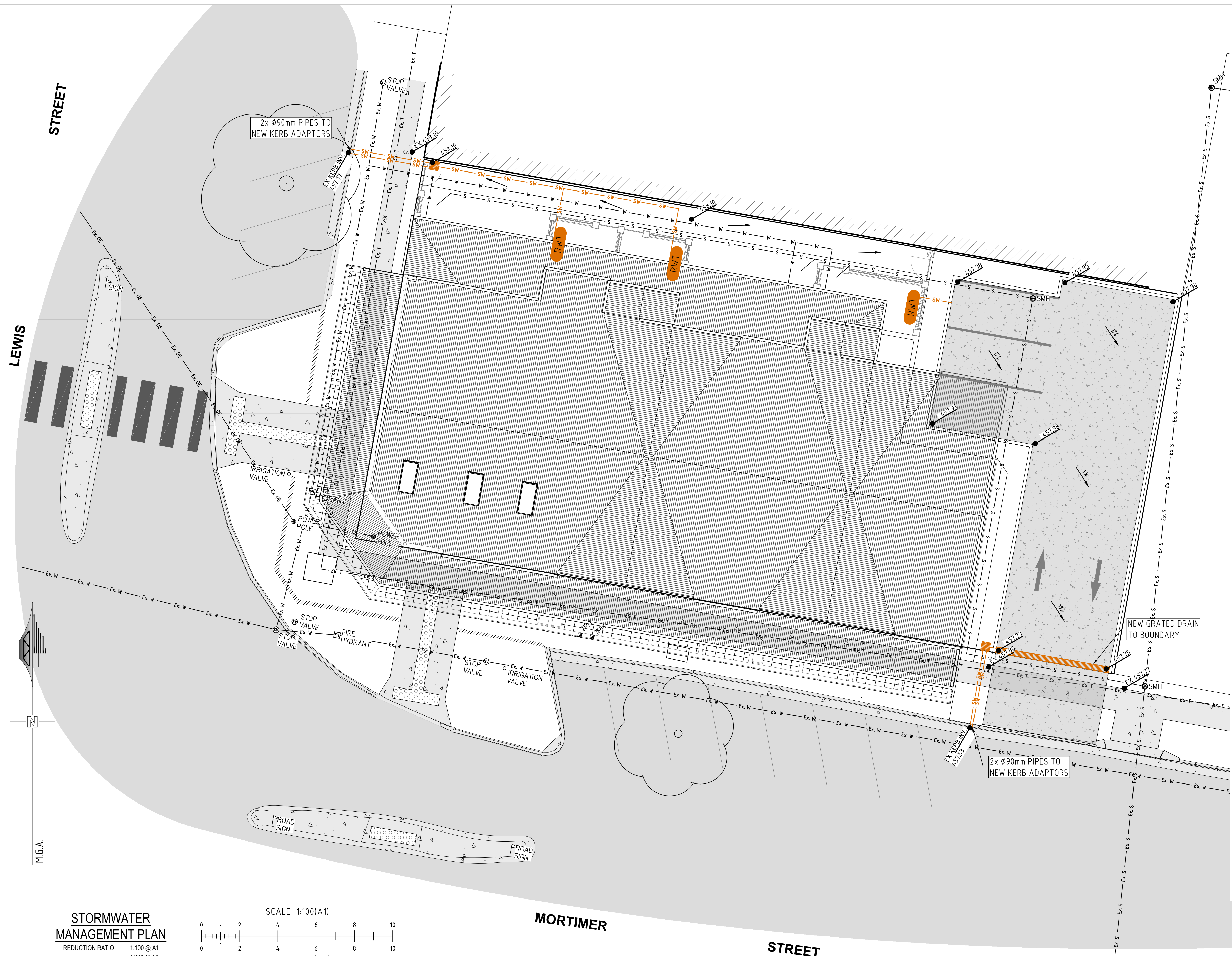
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Client: MICHAEL FERGUS
 Project: SHOPTOP HOUSING DEVELOPMENT
 LEWIS & MORTIMER STREETS, MUDGEE
 Drawing Title: PAVEMENT PLAN

Rev	Date	Amendment
0	13.05.2021	CLIENT REVIEW

Design	EG	Certification	
Drawn	EG		
Check	LM	Drawing Number	Revision
Original Sheet Size = A1	35200 - C03		0



LEGEND

	EXISTING SUBJECT CADASTRAL BOUNDARIES
	EXISTING ADJOINING CADASTRAL BOUNDARIES
	EXISTING FENCE
	EXISTING WATER LINE
	EXISTING SEWER LINE APPROX. LOCATION
	EXISTING TELECOMS LINE
	EXISTING OVERHEAD POWER LINE
	EXISTING TELECOMMUNICATIONS PIT
	EXISTING SEWER MANHOLE
	EXISTING LEVEL

LEGEND (proposed)

	EXTENT OF PROPOSED ROOF
	PROPOSED CONCRETE PAVEMENT
	PROPOSED NEW STORMWATER DRAINAGE PIPE
	PROPOSED RAINWATER TANK
	PROPOSED NEW SW PIT
	PROPOSED SEWER PIPE
	PROPOSED SEWER MANHOLE
	PROPOSED WATER MAIN EXTENSION
	PROPOSED HYDRANT
	PROPOSED SURFACE FALL DIRECTION
	PROPOSED LEVEL

DESIGN NOTE:
AEP = 5%
DURATION = 5 MIN.
RAINFALL INTENSITY = 14.7mm/hr

STORMWATER ANALYSIS
1. DESIGN CALCULATIONS AS PER AS3500.3-2015
2. RAINFALL INTENSITY FOR 5 MINUTES DURATION AND 5% AEP $i_5 = 14.7$ mm/hr.

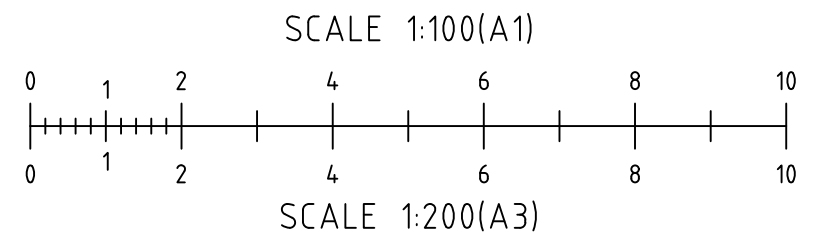
HYDRAULIC ANALYSIS
1. DESIGN CALCULATIONS AS PER AS3500.3-2015
A) PRE-DEVELOPED:
- TOTAL APPLICABLE CATCHMENT AREA (A) = 94.9 m²
- RAINFALL INTENSITY (i_5) = 14.7mm/hr (5min 5% AEP)
- Cr = RUNOFF COEFFICIENT FOR ROOF AREA = 1.0
- Ar = TOTAL ROOF AREA = 0 m²
- Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.8
- Ai = TOTAL UNROOFED IMPERVIOUS AREA = 923 m²
- Cp = RUNOFF COEFFICIENT FOR PERVIOUS LANDSCAPED AREA = 0.3
- Ap = TOTAL IMPERVIOUS GRAVEL AREA = 26 m²
- TOTAL FLOW $Q_{PRE} = (Cr \cdot Ar + Ci \cdot Ai + Cp \cdot Ap) \cdot I / 3600 = 30.5$ l/s

B) POST-DEVELOPED FLOW:
- TOTAL APPLICABLE CATCHMENT AREA (A) = 94.9 m²
- RAINFALL INTENSITY (i_5) = 14.7mm/hr (5min 5% AEP)
- Cr = RUNOFF COEFFICIENT FOR ROOF AREA = 1.0
- Ar = TOTAL ROOF AREA = 667 m²
- Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.8
- Ai = TOTAL UNROOFED IMPERVIOUS AREA = 282 m²
- Cp = RUNOFF COEFFICIENT FOR PERVIOUS LANDSCAPED AREA = 0.3
- Ap = TOTAL IMPERVIOUS AREA = 0 m²
- TOTAL FLOW $Q_{POST} = (Cr \cdot Ar + Ci \cdot Ai + Cp \cdot Ap) \cdot I / 3600 = 36.5$ l/s

2. **RAINWATER TANK:**
- ROOF AREA OF PROPOSED BUILDING = 667 m²
- RUNOFF FROM ROOF FOR 5% AEP = 27 l/s
- CONTROLLED OUTFLOW = 21 l/s
- REQUIRED STORAGE VOLUME = (27 l/s - 21 l/s) × 60s × 5 min = 1,800 l
- PROVIDE MIN 600 l DETENTION STORAGE PER RAINWATER TANK (3x TANKS TOTAL)
- TOTAL SITE OUTFLOW = 9.5 l/s (OVERLAND) + 21 l/s (RWT OUTFLOW) = 30.5 l/s = Q_{PRE}

3. **CONTROLLED OUTFLOW:**
- ORIFICE CALCULATIONS TO BE PROVIDED AT CC STAGE

STORMWATER MANAGEMENT PLAN
REDUCTION RATIO 1:100 @ A1
1:200 @ A3



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Client: MICHAEL FERGUS
Project: SHOPTOP HOUSING DEVELOPMENT
LEWIS & MORTIMER STREETS, MUDGEE
Drawing Title: STORMWATER MANAGEMENT PLAN

Rev Date Amendment
0 13.05.2021 CLIENT REVIEW

Design	EG	Certification	
Drawn	EG		
Check	LM	Drawing Number	Revision
Original Sheet Size = A1	35200 - C04		0

SITWORKS NOTES

- ORIGIN OF LEVELS :- AHD
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
- ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS, THE SPECIFICATIONS AND THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES HAVE BEEN OBTAINED FROM SURFACE INSPECTION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND THE LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- WHERE NEW WORKS ABOUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A QUALIFIED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- ON COMPLETION OF CONSTRUCTION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS.
- MAKE SMOOTH TRANSITION TO EXISTING AREAS.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIVERSION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS. ALL WORK TO BE UNDERTAKEN WITH ADHERENCE TO THE REQUIREMENTS OF THE SOIL AND WATER MANAGEMENT PLAN.
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS.

STORMWATER NOTES

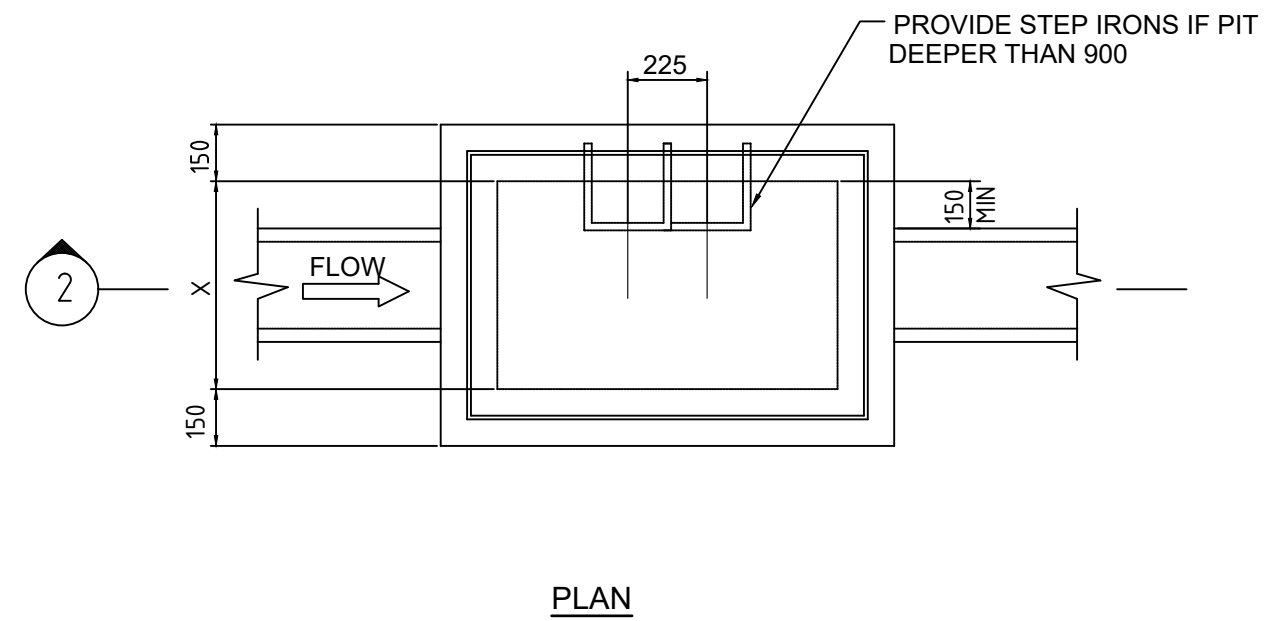
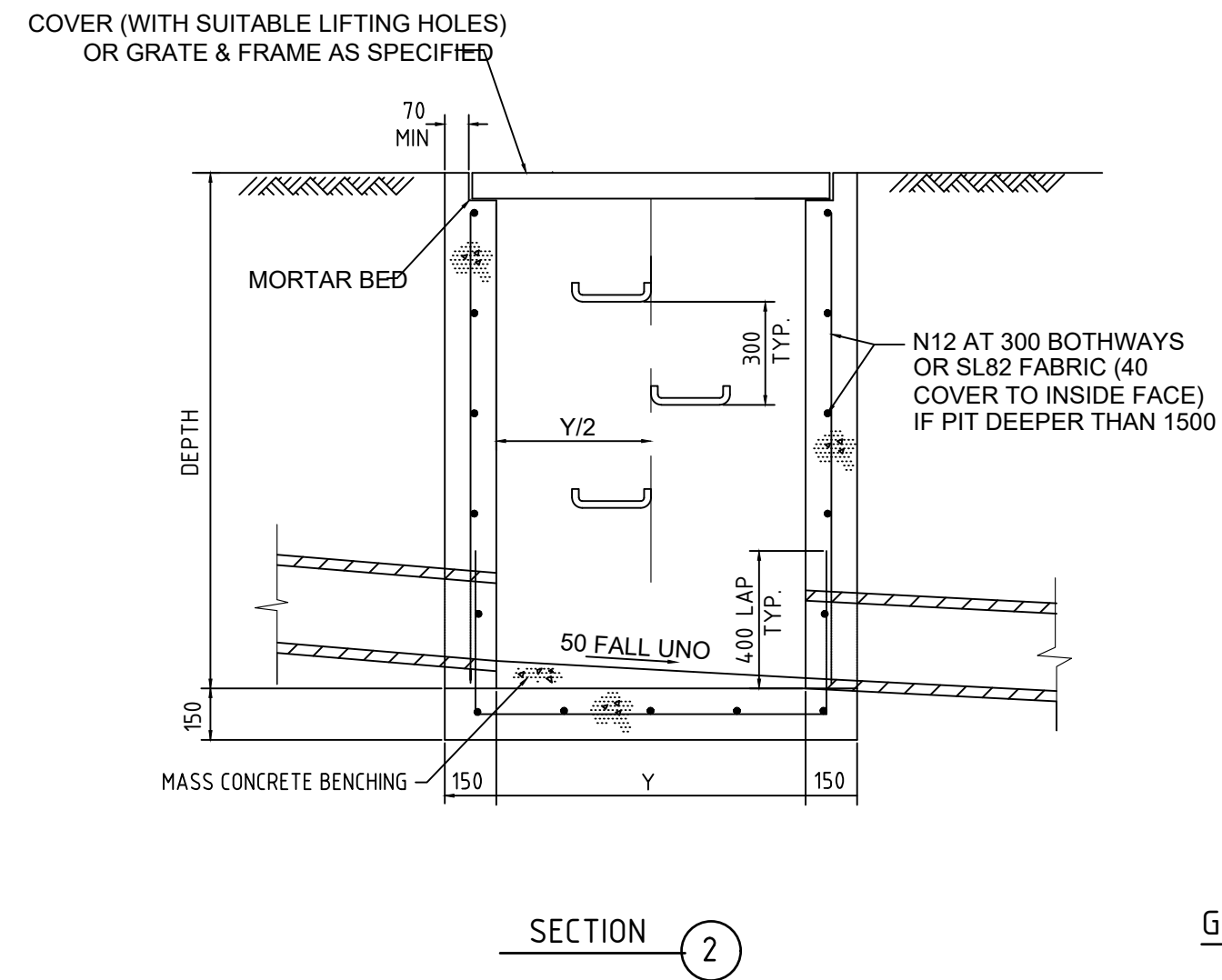
- ALL DOWNPIPE LINES SHALL BE SEWER GRADE uPVC WITH SOLVENT WELD JOINTS (U.N.O)
- EQUIVALENT STRENGTH VCP OR FCP PIPES MAY BE USED.
- MINIMUM GRADE TO STORMWATER LINES TO BE 0.5% MINIMUM (U.N.O)
- CONTRACTORS TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
- ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
- APPROVED PRECAST PITS MAY BE USED.
- WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75mm THICK SAND BED. IN ALL CASES, BACKFILL THE TRENCH WITH THE SAND TO 200mm ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS, BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150mm LAYERS TO 98% MAX. DRY DENSITY.
- WHERE STORMWATER LINES PASS UNDER FLOOR SLABS, SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.
- ALL PIPES IN THE ROADWAY AND FOOTPATH AREAS, WHERE THE DEPTH OF PIPE IS LESS THAN 500mm FROM THE FINISHED SURFACE LEVEL ARE TO BE CONCRETE ENCASED.

SURVEY NOTES

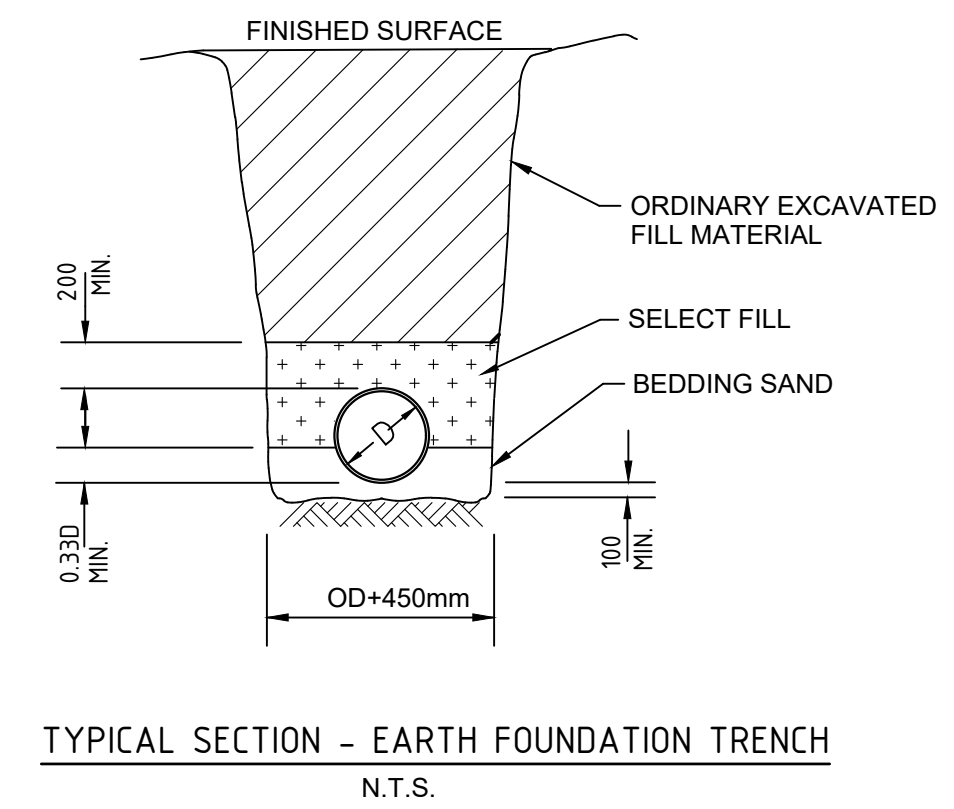
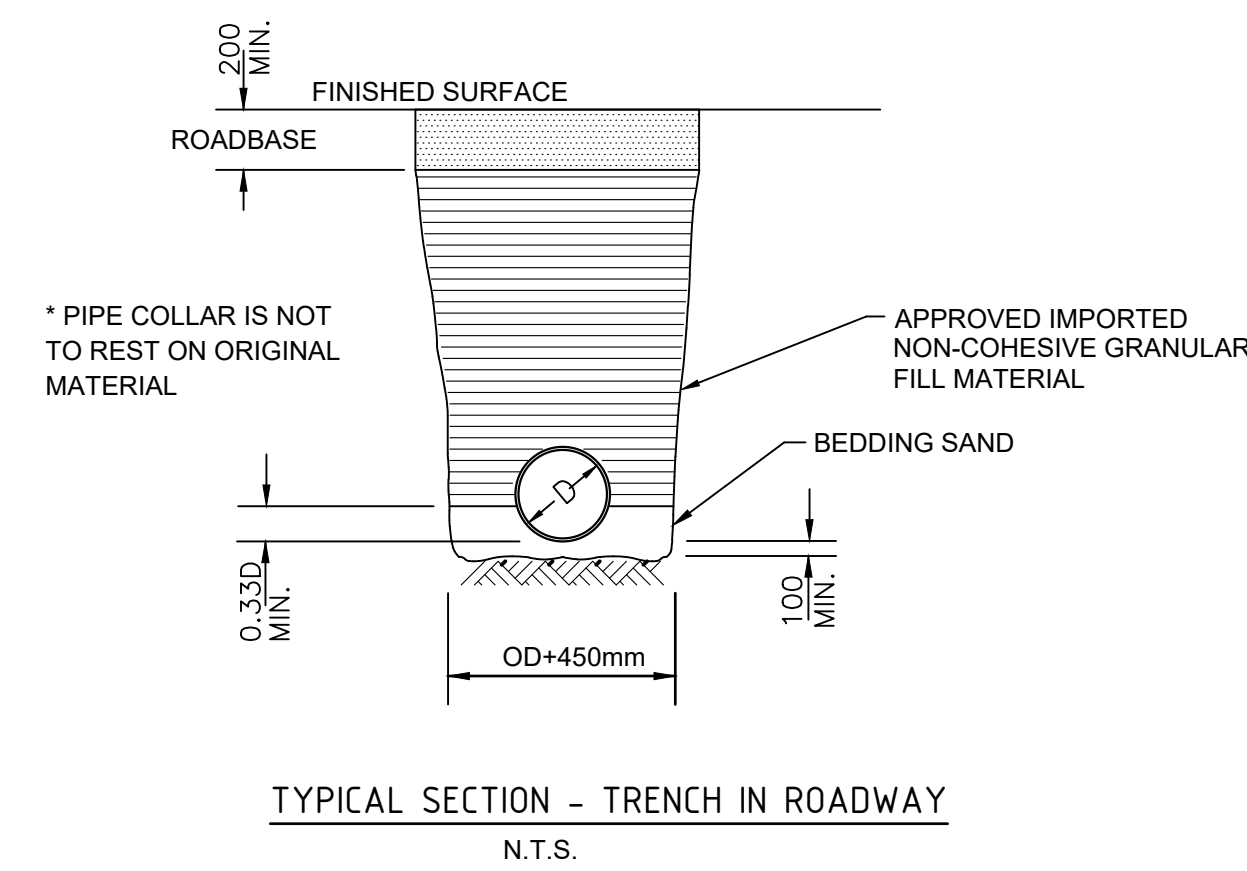
- CONTOURS SHOWN DEPICT THE TOPOGRAPHY. EXCEPT AT SPOT LEVELS SHOWN THEY DO NOT REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT.
- SERVICES SHOWN HEREON HAVE BEEN DETERMINED FROM VISUAL EVIDENCE AND ARE INDICATIVE ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE THE RELEVANT AUTHORITY SHOULD BE CONTACTED TO ESTABLISH DETAILED LOCATION AND DEPTH.

PIPE TRENCH - FILL NOTES:

- BEDDING SAND**
BEDDING SAND SHALL BE GRANULAR MATERIAL HAVING A LOW PERMEABILITY AND HIGH STABILITY WHEN SATURATED, CONFORMING TO THE GRADING LIMITS FOR BEDDING SAND AS INDICATED IN THE CONTRACT DOCUMENTS. BEDDING SAND SHALL BE COMPACTED TO A DENSITY INDEX OF 95% AS DETERMINED IN ACCORDANCE WITH AS1289.
- APPROVED IMPORTED GRANULAR FILL**
ONLY IMPORTED GRANULAR FILL MATERIAL APPROVED BY THE SUPERINTENDENT SHALL BE USED. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK TO A DRY DENSITY OF 100% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL AND WITH A MOISTURE CONTENT NO MORE THAN 1% ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.
- ORDINARY EXCAVATED FILL MATERIAL**
ORDINARY EXCAVATED FILL MATERIAL IS EXCAVATED TRENCH MATERIAL THAT IS FREE OF VEGETABLE MATTER, HUMUS, LARGE CLAY LUMPS AND ROCK BOULDERS. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK, TO A DENSITY OF 95% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL WITH A MOISTURE CONTENT OF NOT MORE THAN 1% ABOVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.



PIT DIMENSIONS		
DEPTH	X	Y
D<600	450	450
D<1000	600	600
D<1500	600	900
1500<D<2400	900	900
D>2400	750	1200



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Client: **MICHAEL FERGUS**
 Project: **SHOPTOP HOUSING DEVELOPMENT**
LEWIS & MORTIMER STREETS, MUDGEE
 Drawing Title: **STORMWATER NOTES & DETAILS**

Rev Date Amendment
 0 13.05.2021 CLIENT REVIEW

Design **EG** Certification

Drawn **EG**

Check **LM** Drawing Number

Original Sheet Size = A1 **35200 - C05**

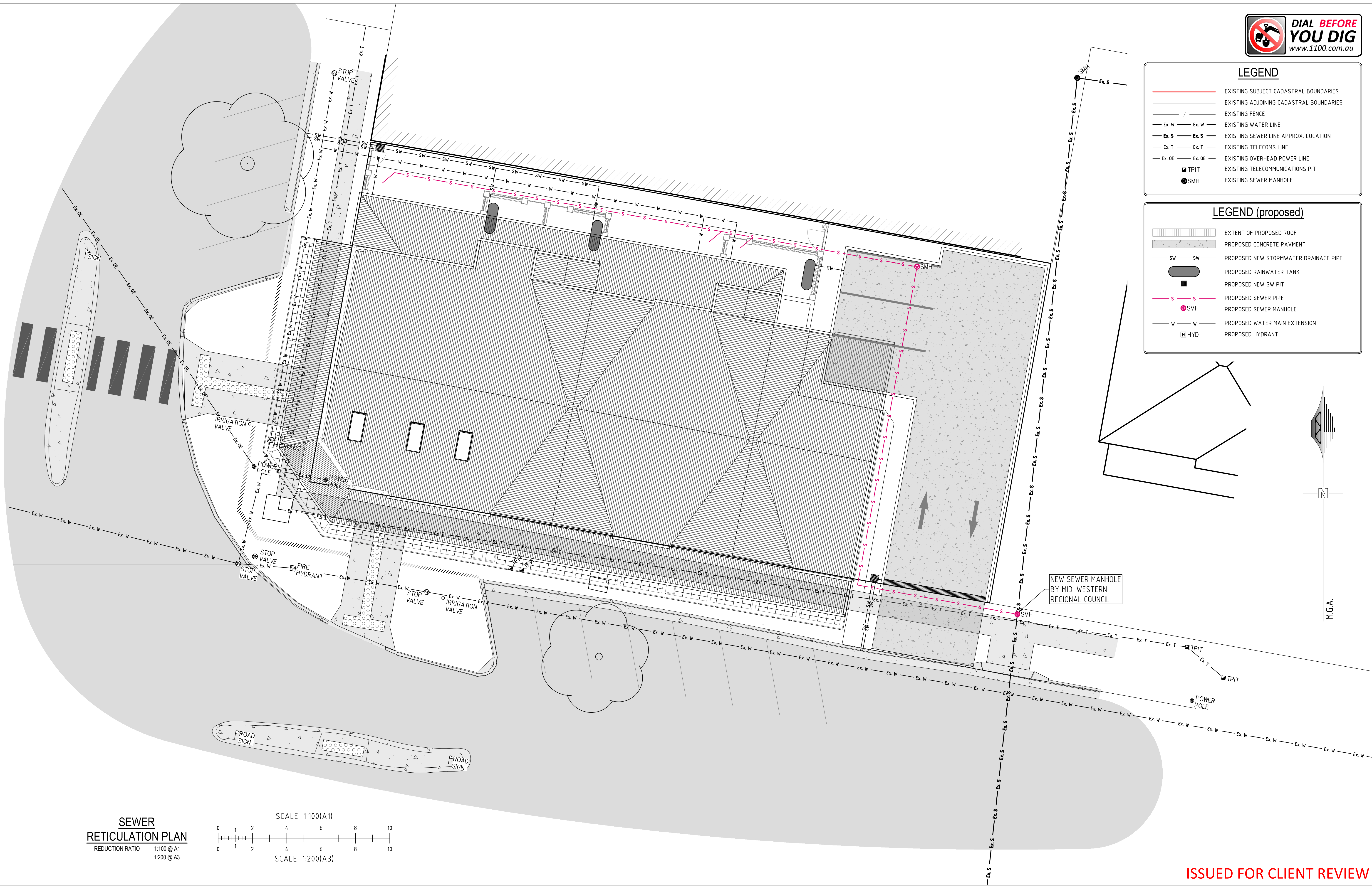
Revision

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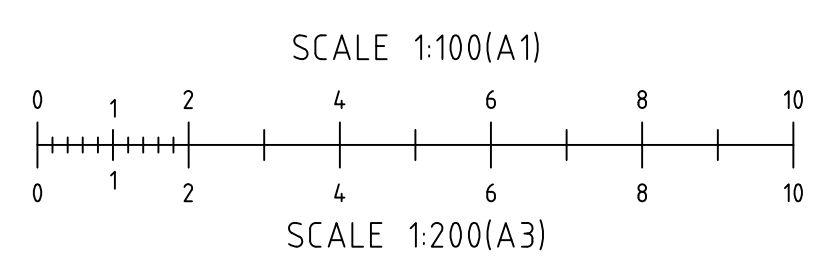
LEGEND	
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LEGEND (proposed)	
	EXTENT OF PROPOSED ROOF
	PROPOSED CONCRETE PAVEMENT
	PROPOSED NEW STORMWATER DRAINAGE PIPE
	PROPOSED RAINWATER TANK
	PROPOSED NEW SW PIT
	PROPOSED SEWER PIPE
	PROPOSED SEWER MANHOLE
	PROPOSED WATER MAIN EXTENSION
	PROPOSED HYDRANT



NEW SEWER MANHOLE
BY MID-WESTERN
REGIONAL COUNCIL

**SEWER
RETICULATION PLAN**
REDUCTION RATIO
1:100 @ A1
1:200 @ A3



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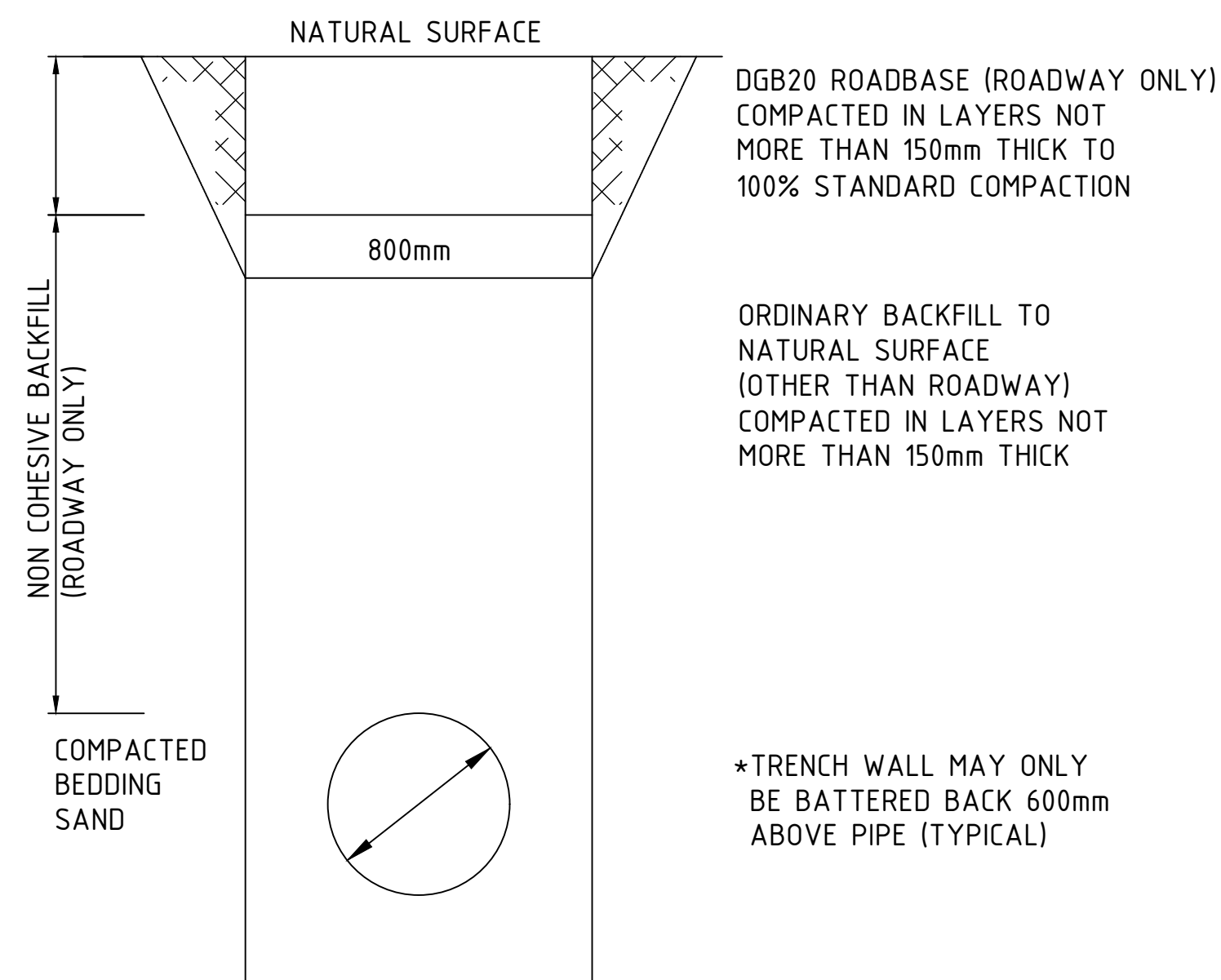
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Client: **MICHAEL FERGUS**
 Project: **SHOPTOP HOUSING DEVELOPMENT
LEWIS & MORTIMER STREETS, MUDGEE**
 Drawing Title: **SEWER RETICULATION PLAN**

Rev	Date	Amendment
0	13.05.2021	CLIENT REVIEW

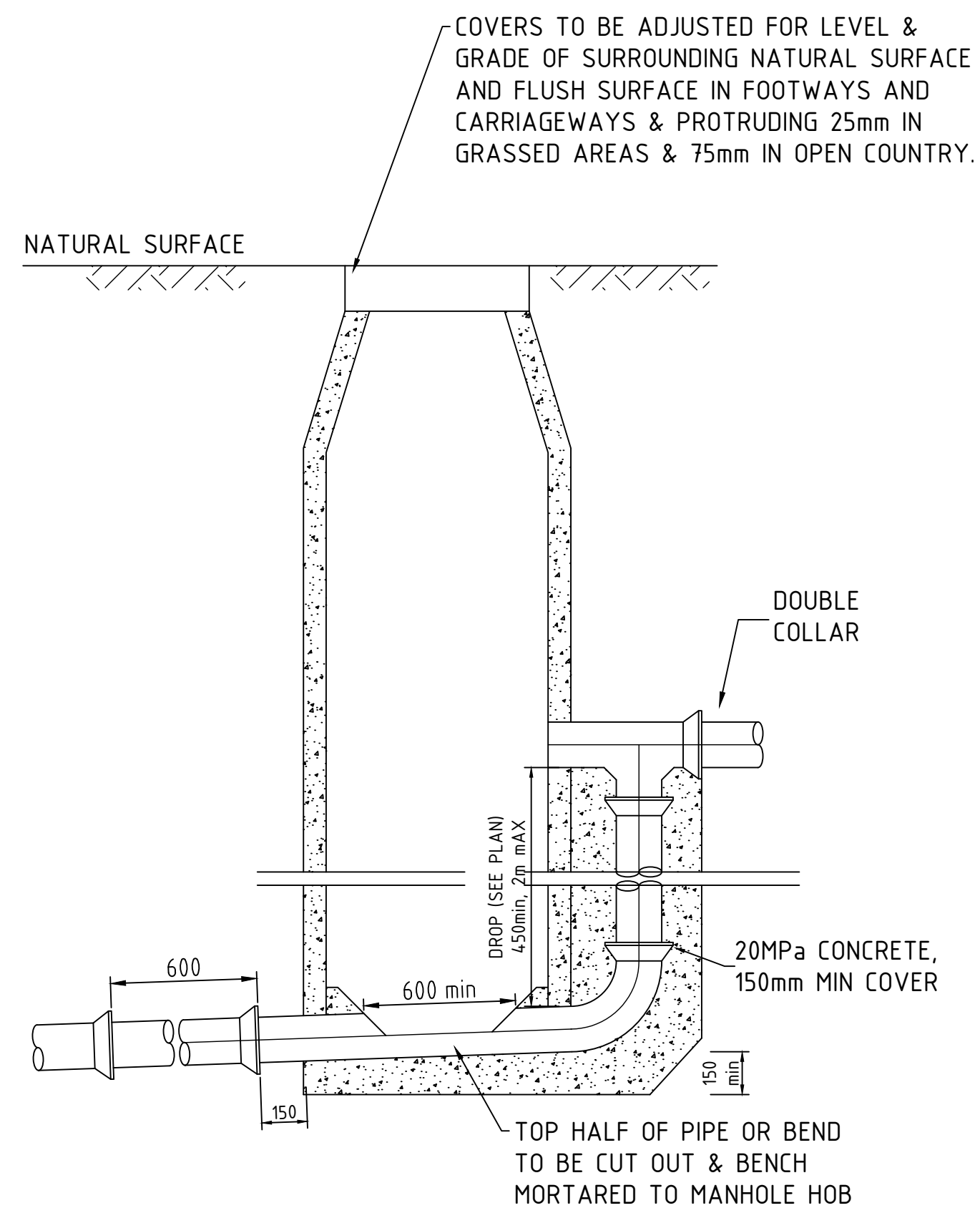
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Original Sheet Size = A1		35200 - C06	0



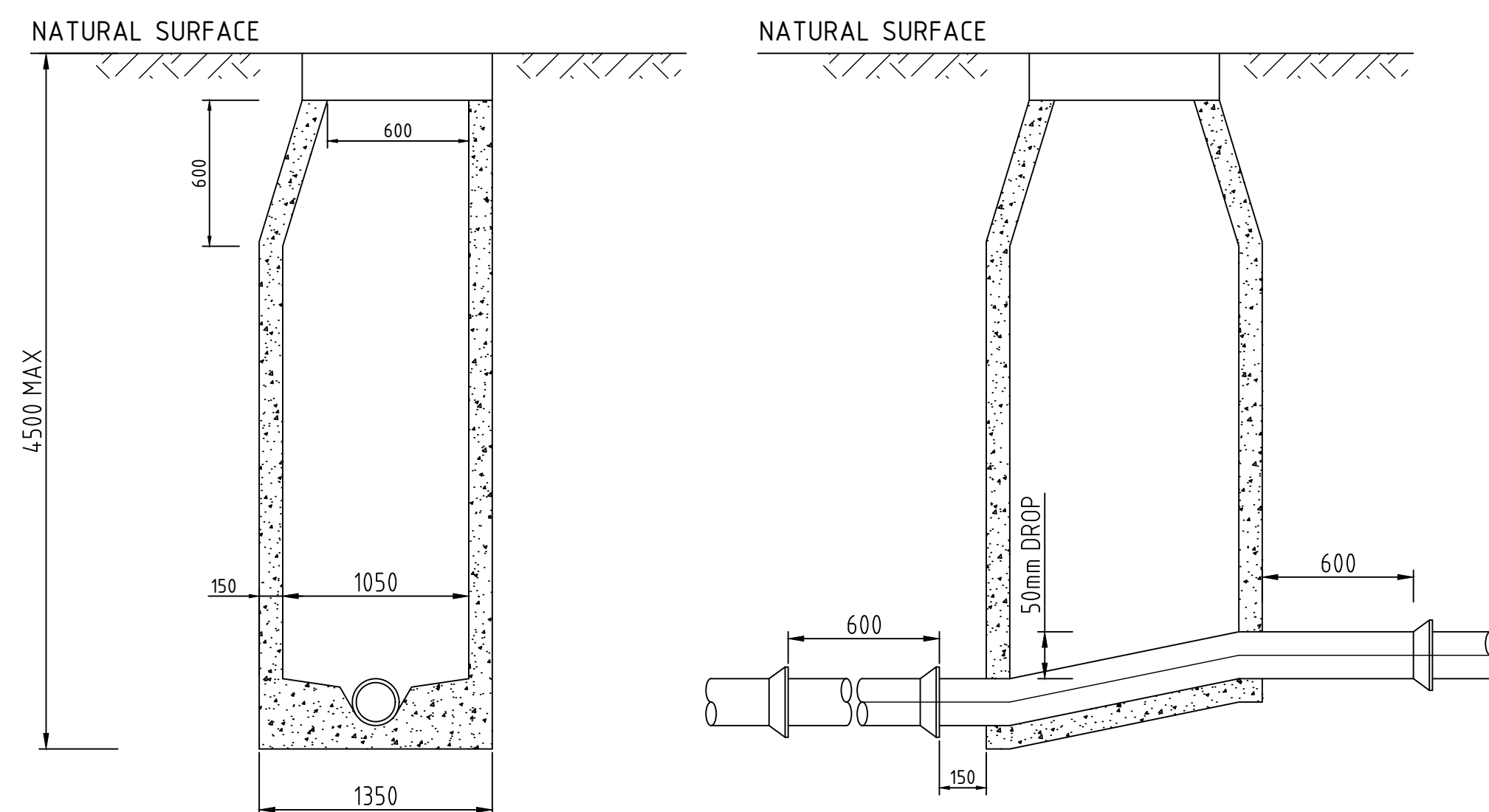
TYPICAL TRENCH SECTION

N.T.S.

* INSTALLATION OF UPVC PIPES SHALL TO CONFORM TO AS2032-1977 "INSTALLATION OF UPVC PIPE SYSTEMS", AS2566-1998 "BURIED FLEXIBLE PIPELINES", WSA-02 2002 AND MANUFACTURERS INSTRUCTIONS.



TYPICAL EXTERNAL DROP (150mmφ)



TYPICAL MANHOLE SECTION (150mmφ)

N.T.S.

SEWER NOTES

1. ALL SEWER MAINS SHALL BE 150φ/225φ CLASS SN8 RRJ UPVC PIPE. ALL GRAVITY LINES TO USE SEWER GRADE FITTINGS WHERE REQUIRED.
2. CONSTRUCTION OF SEWER MAINS AND MANHOLES SHALL BE CARRIED OUT IN ACCORDANCE WITH THE WSA SEWERAGE CODE, WSA-02, 2002.
3. ANY OTHER SERVICES INCLUDING TELSTRA, GAS, POWER, WATER AND STORMWATER MUST BE LOCATED BEFORE WORK COMMENCES.
4. MANHOLES SHALL BE PRECAST CONCRETE FROM A SUPPLIER APPROVED BY COUNCIL AND HAVE A ROUND REMOVABLE LIGHT DUTY GATIC COVER (UNO) AND A MINIMUM INTERNAL DIAMTER OF 1020mm.
5. 150mmφ BOUNDARY RISERS SHALL BE PROVIDED TO EACH LOT TO MID-WESTERN REGIONAL COUNCIL'S GUIDELINES FOR ENGINEERING WORKS.
6. RISERS AND SIDELINES TO BE CONSTRUCTED TO WSA-02 2002.
7. FLOW LINE CHANNELS AND INTERSECTIONS SHALL BE CONSTRUCTED THROUGH MANHOLES AS PER WSA-02 2002.
8. ALL SEWER MAINS TO BE PRESSURE TESTED AS PER WSA-02 2002 AND MID-WESTERN REGIONAL COUNCIL'S GUIDELINES FOR ENGINEERING WORKS.

BEDDING NOTES

1. THE MINIMUM DEPTH TO TOP OF PIPE SHALL BE 1000mm, EXCEPT UNDER ROAD PAVEMENT WHERE MINIMUM COVER TO TOP OF PIPE SHALL BE 1200mm MINIMUM UNLESS SHOWN OTHERWISE. PIPES WITH LESS COVER THAN THESE LIMITS TO BE CONCRETE ENCASED, AND DICL UNDER ROADS.
2. GRADES OF GRAVITY SEWER NOT TO BE FLATTER THAN 1:179 (0.55%) FOR 150mm DIAMETER PIPES AS PER WSA-2014.
3. MANHOLES SHALL BE PLACED AT EACH CHANGE IN DIRECTION OR GRADE OF THE PIPE LINE AT INTERVALS ALONG THE LINE NOT EXCEEDING 80m.

INSPECTION HOLD POINTS

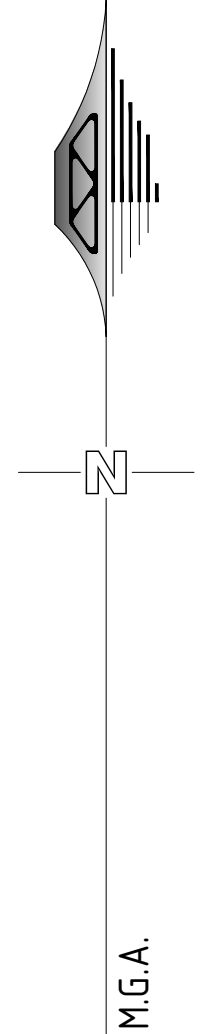
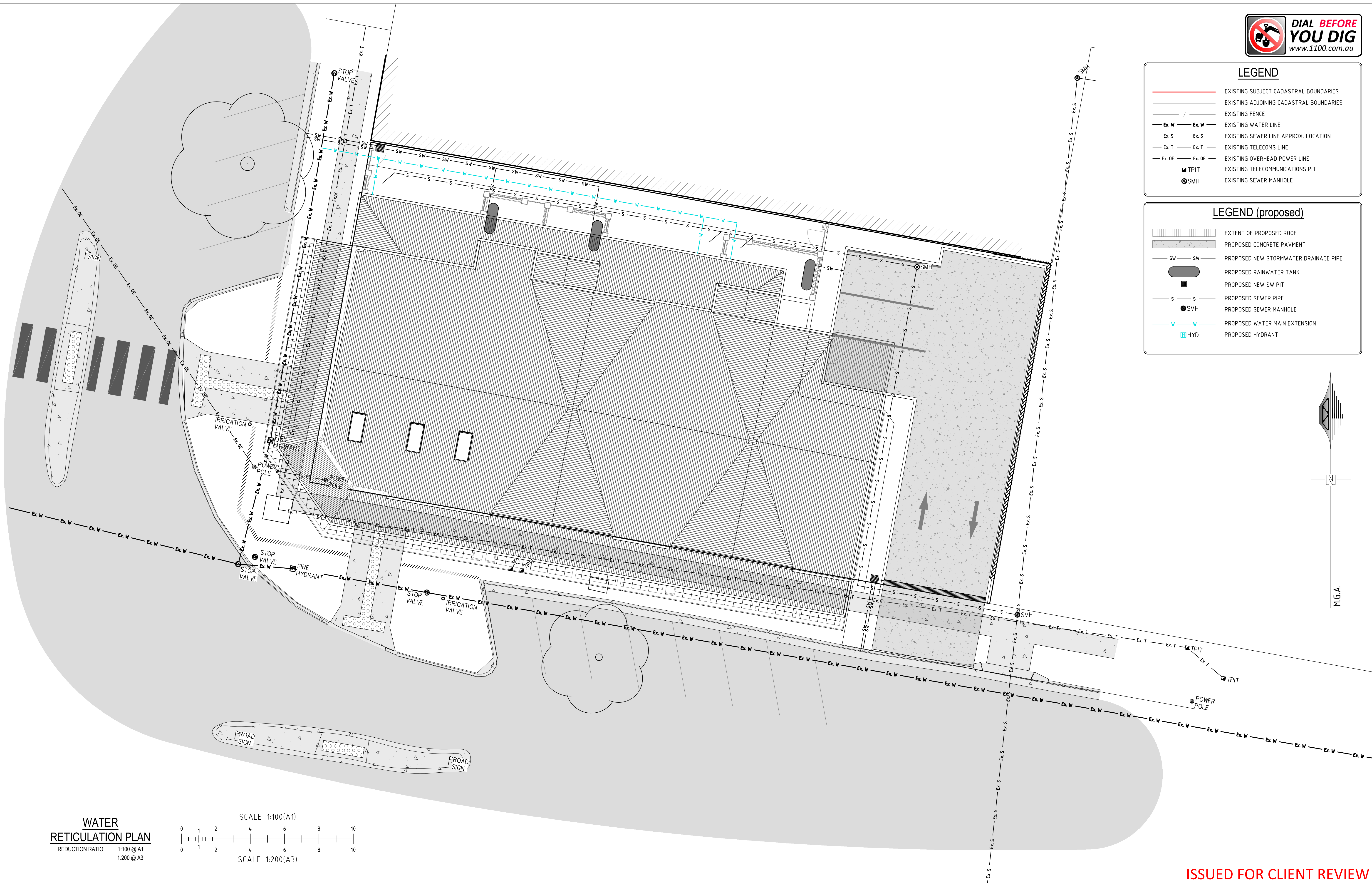
1. INSTALLATION OF SEDIMENT & EROSION CONTROL MEASURES.
2. WATER & SEWER LINE INSTALLATION PRIOR TO BACKFILL.
3. PRACTICAL COMPLETION.

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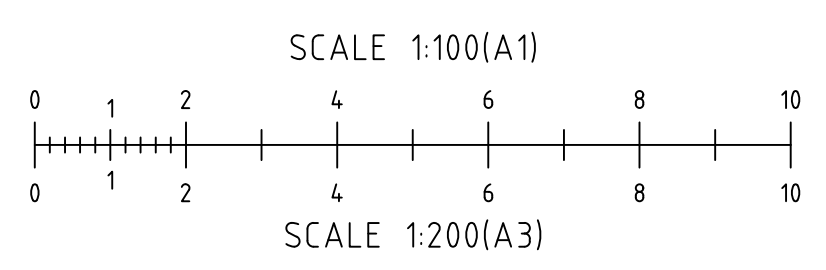


LEGEND	
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	EXISTING ADJOINING CADASTRAL BOUNDARIES
	EXISTING FENCE
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	EXISTING SEWER LINE APPROX. LOCATION
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	EXISTING TELECOMMUNICATIONS PIT
	EXISTING SEWER MANHOLE

LEGEND (proposed)	
	EXTENT OF PROPOSED ROOF
	PROPOSED CONCRETE PAVEMENT
	PROPOSED NEW STORMWATER DRAINAGE PIPE
	PROPOSED RAINWATER TANK
	PROPOSED NEW SW PIT
	PROPOSED SEWER PIPE
	PROPOSED SEWER MANHOLE
	PROPOSED WATER MAIN EXTENSION
	PROPOSED HYDRANT



WATER RETICULATION PLAN
 REDUCTION RATIO 1:100 @ A1
 1:200 @ A3



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Client: MICHAEL FERGUS
 Project: SHOPTOP HOUSING DEVELOPMENT LEWIS & MORTIMER STREETS, MUDGEE
 Drawing Title: WATER RETICULATION PLAN

Rev	Date	Amendment
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Design	EG	Certification	
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Original Sheet Size = A1	35200 - C08		0

WATER NOTES:

1. STOP VALVE & SCOUR VALVE CHAMBERS MAY EITHER BE CONSTRUCTED USING PREFABRICATED POLYPROPYLENE UNITS, 375mm DIAM. PVC OR CONCRETE PIPE, INTERLOCKING CONCRETE BLOCKS OR BRICKS WITH SAND/CEMENT MORTAR JOINTS.
2. THE BOTTOM OF THE BRICK, INTERLOCKING CONCRETE BLOCK OR PIPE CHAMBERS SHALL NOT REST DIRECTLY ON THE PIPE BUT ON A COURSE OF BRICKS OR A 100mm THICK CONCRETE FOUNDATION.
3. MINIMUM COVER OVER PIPELINES (ALL TYPES) SHALL BE 750mm IN AREAS SUBJECT TO VEHICULAR LOADING SUCH AS ROADS & FOOTPATHS AND 600mm ELSEWHERE.
4. IN AREAS PAVED WITH BITUMEN SEALING, ASPHALT, CONCRETE OR PAVING BLOCKS THE SURFACE OF VALVE AND HYDRANT COVERS SHALL FINISH FLUSH WITH THE PAVED SURFACE.
5. FOR STOP VALVES INSTALLATION, SOCKETS SHALL BE BUTTED UP TO SPIGOTS AND TRENCH WIDTHS SHALL BE KEPT TO A MINIMUM.
6. FILL SAND SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 150mm AND COMPACTED TO ACHIEVE A MINIMUM 70% DENSITY INDEX AND TO THE SATISFACTION OF THE SUPERINTENDENT.
7. INDICATOR POSTS SHALL BE WHITE IN COLOUR AND ONE OF THE FOLLOWING TYPES :
 - 100mm x 100mm REINFORCED CONCRETE WITH 20mm CHAMFERS.
 - POWDER COATED METAL SUCH AS "EZIDRIVE" POST OR EQUIVALENT.
 - RECYCLED PLASTIC POST WITH RECESSES FOR MARKER PLATES.
 - OTHER POSTS APPROVED BY COUNCIL.
8. DIMENSIONS OF SURFACE BOX COVERS SHOWN ON THIS DRAWING ARE NOMINAL. IF SURFACE BOX COVERS OTHER THAN THOSE SHOWN ARE SUPPLIED, THE DIMENSIONS OF THE CONCRETE SURROUNDS SHALL BE ADJUSTED ACCORDINGLY.
9. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AND COMPLY WITH THE AUS-SPEC SPECIFICATION FOR MINOR CONCRETE WORKS.
10. THE DIMENSION BETWEEN THE UNDERSIDE OF THE STOP VALVE SURFACE BOX LID AND THE TOP OF THE VALVE SPINDLE SHALL BE A MINIMUM OF 80mm. THE TOP OF VALVE SPINDLE SHALL BE NO MORE THAN 300mm BELOW TOP SURFACE OF SURFACE BOX LID. IF THIS CANNOT BE ATTAINED, A GALVANIZED OR EPOXY PAINTED VALVE KEY EXTENSION SECURED BY GRUB SCREWS SHALL BE FITTED. IF NECESSARY, TO ENSURE THAT THE KEY EXTENSION IS CENTERED CORRECTLY A SPIDER ASSEMBLY SHALL BE INCORPORATED IN THE EXTENSION.

PIPE NOTES:

THE FOLLOWING PIPE MATERIALS MAY BE USED FOR WATER RETICULATION MAINS:
ALL WATER MAINS LESS THAN 300mm IN DIAMETER SHALL BE CONSTRUCTED FROM CLASS K9 DUCTILE IRON CEMENT LINED (DICL), SPIGOT AND SOCKET, RUBBER RING JOINTED PIPE MANUFACTURED IN ACCORDANCE WITH AUSTRALIAN STANDARD 2280.
ALL WATER PIPES GREATER THAN 300MM IN DIAMETER SHALL BE CLASS K12 DICL. ALTERNATIVELY, CLASS 20 (MIN) "BLUE BRUTE" UPVC PIPE MAY BE USED, PROVIDED THAT OD COMPATIBILITY WITH DICL PIPING IS MAINTAINED.
POLYETHYLENE (AS/NZS4130) MINIMUM PN12.5, BLUE STRIPED FOR POTABLE SYSTEMS. LILAC STRIPED FOR RE-USE OR RAW WATER SYSTEMS. ALL JOINTING TO BE ELECTRO-FUSION OR BUTT-WELDED.
PRODUCTS IN CONTACT WITH POTABLE WATER SHALL BE TESTED AND COMPLY WITH THE REQUIREMENTS OF AS/NZS4020 FOR PRODUCTS IN CONTACT WITH DRINKING WATER.

CONSTRUCTION NOTES

1. WATER MAINS TO HAVE MINIMUM 800mm COVER IN FOOTPATH AND 800mm COVER IN ROADWAYS.
2. PIPES TO BE RACKED & BENDS PLACED AS REQUIRED.
3. STOP VALVES TO BE FBE/RILSAN COATED, ANTI-CLOCKWISE CLOSING AND TABLE C FLANGES.
4. ALL PIPES AND FITTINGS AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS & WSA WATER RETICULATION CODE.
5. MAIN SHALL BE PRESSURE-TESTED TO AS PER MID-WESTERN REGIONAL COUNCIL'S ENGINEERING GUIDELINE'S FOR ENGINEERING WORKS, SECTION 8.3.2.
6. ALL MAINS FOR CONNECTION TO THE PUBLIC WATER SUPPLY SYSTEM SHALL BE DISINFECTED TO THE SATISFACTION OF COUNCIL INSPECTOR.
7. ALL CONCRETE SHALL BE 20MPa.
8. WATER MAINS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH MID-WESTERN REGIONAL COUNCILS SPECIFICATIONS.
9. THE CONTRACTOR SHALL LOCATE AND POTHOLE ALL UTILITIES AND SERVICES INTERSECTING THE WORKS AND CONNECTIONS TO THE EXISTING WATER MAINS PRIOR TO COMMENCEMENT OF TRENCH EXCAVATION. PIPES SHALL BE DEFLECTED AT JOINTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS SUCH THAT CLEARANCES ARE MAINTAINED TO MEET UTILITY OR SERVICE OWNERS REQUIREMENTS

DICL NOTES:

1. ALL DUCTILE IRON CEMENT LINED PIPES TO BE IN ACCORDANCE WITH AS2280-2014.
2. ALL SLUICE VALVES TO BE IN ACCORDANCE WITH AS/NZS 2638.2-2011- GATE VALVES FOR WATERWORKS PURPOSES.
3. ALL POLYETHYLENE SLEEVING TO BE IN ACCORDANCE WITH AS3680-2008.
4. ALL ELASTOMETRIC SEALS TO BE IN ACCORDANCE WITH 1646-2007.

ISSUED FOR CLIENT REVIEW

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Client: **MICHAEL FERGUS**
Project: **SHOPTOP HOUSING DEVELOPMENT
LEWIS & MORTIMER STREETS, MUDGEE**
Drawing Title: **WATER NOTES & DETAILS**

Rev Date Amendment
0 13.05.2021 CLIENT REVIEW

Design **EG** Certification
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Check **LM** Drawing Number
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Appendix E - BASIX Certificate

Appendix F - Traffic Impact Assessment