



# **Muswellbrook Shire Council**

## **Muswellbrook South Business District**

### **Section 94 Developer Contributions Plan**

December 2016



# Executive summary

## Overview

The redevelopment of the Showground site in Muswellbrook is a significant opportunity for achieving a range of vehicle oriented commercial and bulky goods retail development to meet the needs of the local and Upper Hunter region community. This development will require an upgrade of existing public infrastructure, predominantly for traffic, stormwater management and public domain landscaping. Depending on how the development is achieved, Council intends to secure required external infrastructure either through a voluntary planning agreement in association with a single comprehensive development, as condition of consent at subdivision and/ or development stages and/or monetary contributions in accordance with this Plan.

Section 94 of the *Environmental Planning and Assessment Act 1979* authorises a consent authority responsible for determining a development application to grant consent to a proposed development subject to a condition requiring the payment of a monetary contribution or the dedication of land free of cost, or both, towards the provision of public amenities and public services.

This Plan was prepared in accordance with the *Environmental Planning and Assessment Act 1979* and the *Environmental Planning and Assessment Regulation 2000*. This Plan has been prepared taking into consideration the principles of nexus, apportionment and reasonableness. This plan describes the forecast future demands for select public amenities, services and infrastructure in Muswellbrook South Business District, the program of works (projects) which will be implemented to meet these demands, the anticipated costs of these programs, and the basis for determining a reasonable apportionment of the costs to development.

## Implementation

As a condition of development consent, Council will require payment of money and/or dedication of land and/or works as a contribution to the cost of the provision of infrastructure required to enable development in the Muswellbrook South Business District. The value of the contributions are based on the formulae shown in this Contributions Plan, using the cost of infrastructure and the extent of estimated development also shown in this Contributions Plan.

The table below provides a summary of the cost of the proposed infrastructure to be funded under this Contributions Plan and the funds to be collected under this Contributions Plan.

Purpose	Cost of works funded under this plan	Funds to be collected
Traffic and transport management facilities	\$3,146,500	\$3,146,500
Stormwater management facilities (including land acquisition)	\$1,099,350	\$1,099,350
Landscaping	\$100,750	\$100,750
<b>TOTAL</b>	<b>\$4,346,600</b>	<b>\$4,346,600</b>

## Contribution rates

The following contribution rates for traffic and transport management facilities, stormwater management facilities and landscaping are relevant at the date of adoption of this Contributions Plan. Over time these rates will be adjusted in accordance with the Consumer Price Index Number (Sydney All Groups).

### Traffic and transport management facilities contribution

Contribution Rate = \$28.48/m<sup>2</sup>

### Stormwater management facilities contribution

Contribution Rate = \$9.95/m<sup>2</sup>

### Landscaping contribution

Contribution Rate = \$0.91/m<sup>2</sup>

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# 1. Introduction

## 1.1 Name of the Plan

This Plan is referred to as the Muswellbrook South Business District Section 94 Developer Contributions Plan. This Contributions Plan has been prepared in accordance with the relevant provisions of the *Environmental Planning and Assessment Act 1979*, as amended, the *Environmental Planning and Assessment Regulation 2000*, the Department of Planning and Environment's Development Contributions Practice Notes, Circulars and Guidelines and relevant Ministerial Directions.

## 1.2 Commencement of Plan

This Contributions Plan takes effect on **XX of XXXX 2017**. Planning proposals (for the purposes of planning agreements), development applications and applications for complying development certificates determined on or after this date will be subject to the provisions of this Plan.

## 1.3 Purpose of the Plan

The purpose of this Plan is to enable Council to require a contribution from development towards the provision, extension or augmentation of public amenities, services and infrastructure that will be, or are likely to be, required as a consequence of the development within the Muswellbrook South Business District, including:

- Traffic and transport management facilities and associated land acquisition
- Stormwater management facilities and associated land acquisition
- Public domain landscaping

The contribution may involve the dedication of land (free of cost), works in kind, material public benefit or the payment of a monetary contribution.

## 1.4 Objectives

This Plan has the following objectives:

- To provide a framework for the assessment, collection, expenditure, accounting and review of developer contributions towards the provision of public amenities, services and infrastructure on an equitable basis and as an alternative to a voluntary planning agreement (VPA) or outcomes achieved as conditions of development consent
- To identify the additional public amenities, services and infrastructure required to meet the demands of the development of the Muswellbrook South Business District
- To provide an adequate level of public amenities, services and infrastructure to meet development demands within a reasonable time as development occurs and at a reasonable cost
- To ensure that the development contributions are based on reasonable estimates of cost



- To ensure that the existing community is not unduly burdened by the provision of public amenities, services and infrastructure which are needed (either partly or fully) as a result of the development of the Muswellbrook South Business District, and that there is a reasonable apportionment of cost between existing demand and new demand for public infrastructure provided by Council
- To ensure that contributions are fair and reasonable

## 1.5 Land to which the Plan applies

This Contributions Plan applies to all land shown in Figure 1-1 below.



**Figure 1-1 Development area**

## 1.6 Types of development to which this Plan applies

This Plan applies to any development proposal in accordance with the current zoning of the study area pursuant to Muswellbrook LEP 2009.

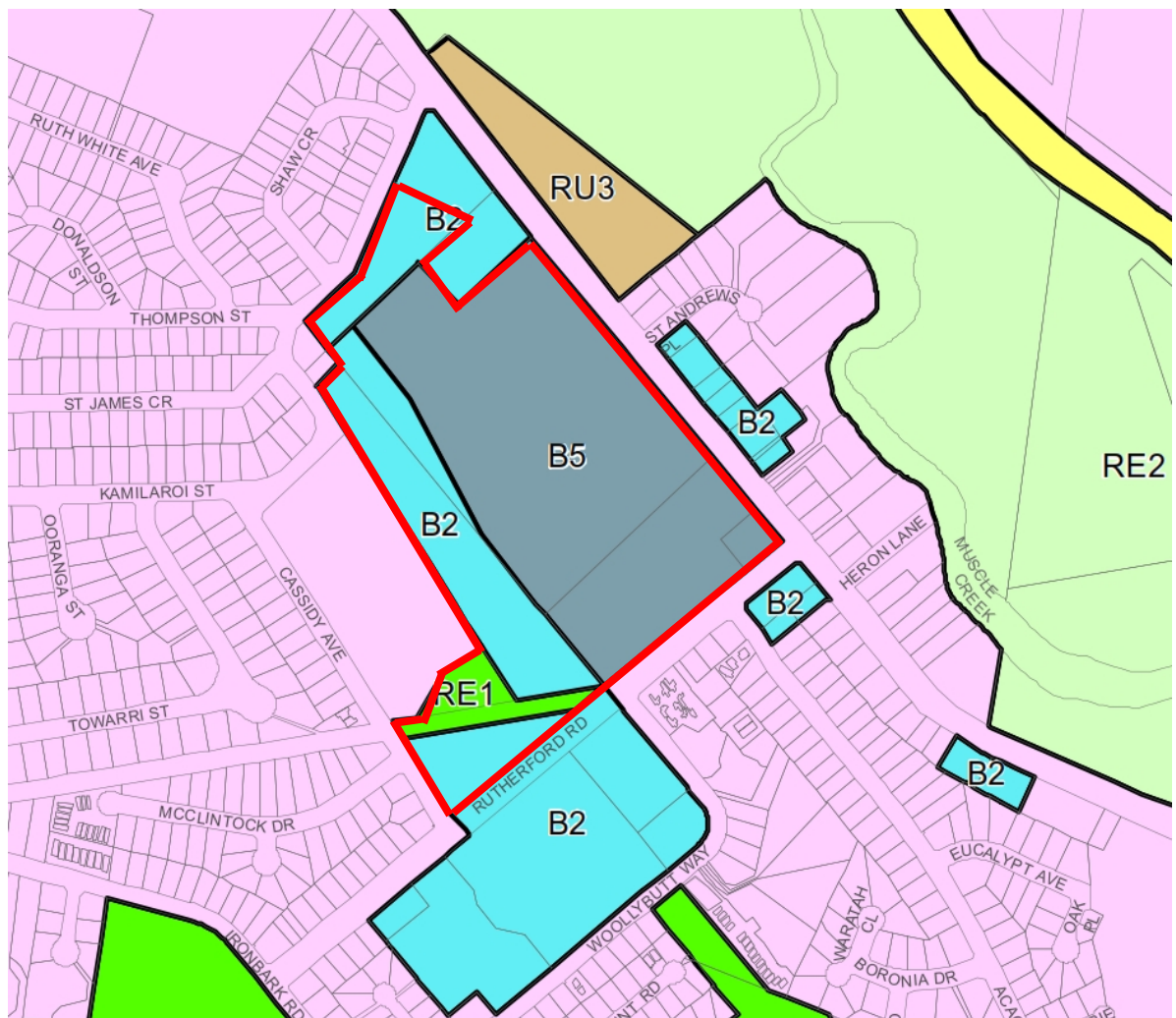
As identified in the DCP, the site has been identified for car-oriented commercial and bulky goods retail development (car dealerships; bulky goods retail; larger scale retail outlets). Infrastructure provision may also be included as conditions of consent on an overall subdivision of the site rather than as individual contributions on a site-by-site basis.



This Plan envisages predominantly car orientated commercial development of the study area in line with its current land use zoning (refer Figure 1-2). In this regard, the B2 zoning permits with development consent a range of uses, including but not limited to: Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Health services facilities; Highway service centres; Hostels; Information and education facilities; Medical centres; Passenger transport facilities; Places of public worship; Recreation areas; Recreation facilities (indoor); Registered clubs; Research stations; Respite day care centres; Restricted premises; Roads; Service stations; Tourist and visitor accommodation; Vehicle repair stations; Veterinary hospitals; and Wholesale supplies.

The B5 zone allows a range of uses subject to development consent including but not limited to: Bulky goods premises; Child care centres; Community facilities; Garden centres; Hardware and building supplies; Landscaping material supplies; Light industries; Shop top housing; Storage premises; Take away food and drink premises; Vehicle sales or hire premises; and Warehouse or distribution centres.

There may however be other types of development not specified in this Plan that generate a need for new or augmented public amenities, services and infrastructure. In such instances the applicant may be requested to prepare a needs analysis for the development to determine development contribution requirements.



**Figure 1-2 Current zoning under Muswellbrook LEP 2009**

## **1.7 Variations**

Council may consider an application to discount or exempt a development from contributions. Applicants seeking variations in the contributions rate must be able to demonstrate to the satisfaction of Council that the nature of the proposed development results in a lesser demand on public amenities, services and infrastructure than that envisaged by this Plan. Council will consider the merits of such a request, including the potential social and financial implications, and the ability of the proposed facilities to meet the demand generated by the incoming working population.

The applicant will need to make a written application to Council, including full documentation and justification of the variation. The acceptance of an application will be at Council's absolute discretion and will only be provided in exceptional circumstances.

## **1.8 Relationship to other Plans and Policies**

Muswellbrook Shire Council has the following general Section 94 Plans in place:

- Muswellbrook Section 94 Plan 2001
- Section 94A- Developer Contributions Plan 2010

These Plans do not apply to commercial development in the Muswellbrook South Business District. However any residential development proposed within the Muswellbrook South Business District would be subject to the above plans.

This Plan should be read in conjunction with Muswellbrook Local Environmental Plan 2009 and Muswellbrook Development Control Plan 2009.

## 2. Operation of the Plan

### 2.1 Application of the Plan

In determining a development application to which this Plan applies, this Plan authorises Council to impose a condition of consent requiring the provision of the infrastructure outlined in the plan and/or payment of a monetary contribution and/or the dedication of land free of charge in accordance with the provisions of this Plan, or in lieu accept the provision of a material public benefit or works in kind.

Prior to the issue of a subdivision certificate for development to which this Plan applies, Council will impose a condition pursuant to this Plan if such condition may be imposed. In accordance with section 94EC of the EP&A Act this Plan:

*“(b) can only authorise the imposition by an accredited certifier of a condition under Section 94 that requires the payment of a monetary contribution,”*

### 2.2 Types of contributions

Subject to Council approval, a developer can meet their obligations to provide the infrastructure needed as a result of rezoning of subject land, a Section 94 contribution by either, or a combination of:

- Monetary contribution
- Dedication of land
- Material Public Benefit
- Works in Kind

Where a developer negotiates a material public benefit, works in kind or the dedication of land in lieu of paying any part of the monetary contribution required under this Plan, the applicant must still pay Council's reasonable costs for the management of the Plan (plan management and administration contributions).

The Act also provides for the Council to consider entering into a Voluntary Planning Agreement (VPA) at either a development application or when rezoning land. Public amenities, services and infrastructure delivered through a VPA may be in addition to or instead of the payment of a monetary contribution under Section 94.

#### 2.2.1 Monetary contribution

This Plan identifies the monetary contribution required for the provision of public amenities, services and infrastructure, calculated on a per square metre basis. The contribution amount payable will be included as a condition of consent on a development approval.

#### 2.2.2 Dedication of land

This Plan authorises the Council to consent to the carrying out of development subject to a condition imposed under Section 94 of the Act requiring the dedication of land free of cost to the Council.

Such a condition may be imposed where the land is reasonably required towards the provision, extension or augmentation of a public amenity or public service identified in the works schedule or reviewed works schedule accompanying this Plan.

### **2.2.3 Works in kind/Material public benefits**

A Material Public Benefit (MPB), Works in Kind (WIK) or dedication of land may be offered as a means of partial or full settlement of a condition of consent requiring a monetary contribution.

Works in Kind (WIK) is undertaking a work that is specifically listed in the works schedule of a contributions plan, in lieu of the part or full payment of either a monetary contribution or the dedication of land that would normally apply. WIK are generally offered and assessed as part of the development application process. Applicants seeking Council's acceptance of a WIK arrangement should initially discuss such a proposal with Council officers to determine whether Council would agree to enter into such agreement and to establish Council's requirements.

A Material Public Benefit (MPB) may be offered by the developer in part or full satisfaction of a condition requiring the payment of a monetary contribution or the dedication of land. A MPB may include work that is not scheduled within the Plan.

Council may accept the provision of a MPB that is not nominated in the works schedule, if it satisfied that it is of equivalent or greater benefit to the community compared to what has been identified under the Plan.

Such alternative development contributions arrangements may be negotiated with the Council in connection with the carrying out of development in the following circumstances:

#### ***a) Offer made to the Council as part of a development application***

If an applicant does not wish to pay a monetary Section 94 contribution in connection with the carrying out of development, the applicant may include in the development application a proposal to carry out the works towards which the contribution or levy would have been applied.

The Council will consider the alternative arrangement as part of its assessment of the development application. If the Council agrees to the arrangement and grants consent to the application, it will impose a condition of consent requiring the works to be carried out. If the Council does not agree to the alternative arrangement, it may grant consent subject to a condition imposed under Section 94 requiring payment of the monetary contribution.

#### ***b) Offer made to Council following the granting of development consent***

If development consent has been granted to the carrying out of development subject to a condition under Section 94 requiring payment of a monetary contribution towards the cost of public amenities, services and infrastructure, the applicant may request in writing that they instead provide to the Council a MPB in part or full satisfaction of the requirements of the relevant condition.

The MPB may be the carrying out of work or another public benefit but not the payment of money or the dedication of land free of cost.

If the Council agrees to the applicant's request, the applicant will be required to comply with the alternative arrangement and is relieved of the obligation, to comply with the conditions imposed under Section 94, in part or whole, as the case requires. If the Council declines the applicant's request, the applicant will be required to comply with the conditions imposed under Section 94.

In either case the Council will have particular regard to the following matters deciding whether to accept a MPB:

- Whether the proposed benefit involves a public benefit, or is merely of benefit to the subject development or the developer
- Whether the proposed benefit addresses the demand for public facilities which the monetary contribution was intended to address

- The value of the benefit for the purposes of the contributions plan
- The likely impact on the implementation of the contributions plan of the acceptance of the benefit, including on timing and the nature of public facilities to be provided
- Whether, in all of the circumstances, the benefit should be accepted instead of a direct community infrastructure contribution
- The quantities, finishes and costings of the proposed works
- Recurrent maintenance costs to council

The acceptance of a WIK agreement or a MPB will be at Council's absolute discretion.

Only in exceptional circumstances will credits be granted for WIK carried out by the developer in excess of the required contribution amount. Where the value of the WIK, MPB or dedication of land is less than the value of the required contribution, the applicant will be required to settle the balance of the contribution by way of a monetary contribution and/or land dedication.

#### **2.2.4 Planning agreements**

An applicant may offer to enter into a Voluntary Planning Agreement (VPA) with the Council in connection with a development application or a planning proposal that is made for the purposes of being able to subsequently make a development application.

Under a VPA, the applicant may offer to pay money, dedicate land, carry out works, or provide other material public benefits for public purposes. A VPA may include public amenities, services and infrastructure that are also the subject of this Plan. This Plan and individual planning agreements should work in harmony to the fullest extent possible. The VPA may be additional to, or instead of, making contributions under Section 94 of the Act. This Plan and relevant contributions may need to be amended to reflect works provided through a VPA.

### **2.3 Payment of the contribution**

#### **2.3.1 Timing of payments**

The time of payment of contributions is as follows:

- Development applications involving subdivision – prior to the release of the subdivision certificate.
- Development applications involving building work – prior to the release of the construction certificate.
- Development applications involving both subdivision and building work – prior to the release of the construction certificate, or the release of the subdivision plan, whichever occurs first.
- Development applications where no subdivision or building approval is required – prior to the issue of development consent or issue of the occupation certificate.
- Complying development - prior to the issue of the complying development certificate. Certifying authorities should ensure compliance with Section 146 of the Environmental Planning and Assessment Regulation.

The amount of any monetary contribution to be paid will be the contribution payable at the time of consent, and depending upon the time of payment will be subject to reasonable adjustment due to movements in the Consumer Price Index and/or changes to the rates indicated within this Plan (refer to Sections 2.6 and 2.7).

### **2.3.2 Deferred or periodic payments**

Written application may be made to Council for the deferred payment of contributions, or payments made by periodic instalments, stating the proposed length of deferral. The following matters will be considered by Council in determining whether to accept the application:

- The impact on the timing or the manner of the provision of the public amenities, services and infrastructure included in the Works Schedule
- Cash flow impacts
- Whether the periodic or deferred contributions are to be paid, including interest, at no cost to Council
- The types of security required to ensure the contribution is paid in full within an agreed timeframe consistent with minimising the financial risk
- Whether there are valid reasons for the deferral or periodic payment
- Whether compliance with the standard timing of payment provisions in the contributions plan is unreasonable or unnecessary in the circumstances of the case; or
- Whether the applicant intends to make a contribution by way of a planning agreement, works-in-kind or land dedication in lieu of a monetary contribution

Council may accept deferred payment by way of a bank guarantee which:

- Is by an Australian Bank
- Is for a maximum period of twelve months
- Is for the total contribution or the amount of the outstanding contribution at the time of deferring payment, plus an amount estimated to cover any likely adjustments in contribution rates calculated from the date a condition requiring the payment of a contribution was imposed on the development until the date of final payment
- Is unconditionally guaranteed by the bank to be paid if Council so demands in writing, no earlier than 6 months from the provision of the guarantee or completion of the work, whichever occurs first
- Is to be paid by the bank without reference to the applicant or landowner or other person who provided the guarantee, and without regard to any dispute, controversy, issue or other matter relating to the development consent or the carrying out of development in accordance with the development consent
- Discharges the bank's obligations when payment to the Council is made in accordance with the approved bank guarantee or when Council notifies the bank in writing that the guarantee is no longer required
- Meets Council's costs and any fees payable to Council

The conditions under which Council may accept periodic payment for a staged development are:

- The instalments are paid before the work commences on each relevant stage of the development.
- The contribution amount payable is to be proportional to the demand generated by that stage and is to include any adjustments made to contribution rates from the date that the condition was imposed requiring a contribution.



## 2.4 Construction certificates

Certifying authorities must ensure that a receipt(s) confirming that contributions have been paid is to be included with copies of the certified plans provided to the Council in accordance with Clause 142(2) of the Environmental Planning and Assessment Regulation. Failure to follow this procedure may render such a certificate invalid.

An exception to this requirement is where a WIK, MPB, dedication of land or deferred arrangement has been agreed and confirmed in writing by the Council.

## 2.5 Goods and services tax

Monetary Section 94 development contributions are exempt from the Federal Government Goods and Services Tax (GST).

## 2.6 Adjustment and 'indexing' of contribution rates

The indexing of contributions is important to underpin the financial viability of the Contributions Plan to negate the effects of inflation on construction costs, plan administration and other factors, and the adverse effects of land value escalation over time.

Council will index the contribution rates indicated in this Plan, on a quarterly basis, with reviewed rates to apply from the first working day of December, March, June and September.

Clause 32 of the Environmental Planning and Assessment Regulation allows a development contributions plan to revise the rates of Section 94 monetary contributions set out in the plan to reflect quarterly or annual variations to:

- Readily accessible index figures adopted by the Plan (such as a Consumer Price Index), or
- Index figures prepared by or on behalf of the Council from time to time that are specifically adopted by the Plan

This Plan adopts the Consumer Price Index (All Groups) for Sydney (Catalogue No. 6401.0), which is published by the Australian Bureau of Statistics as the basis for indexation of the non land contribution rates in this Plan

When land is to be acquired or an easement sought over land, the current market value of this land would be assessed, by an independent valuer at the time of acquisition or determination of compensation with regard to current market conditions, the availability of services, appropriate heads of compensation and the provisions of the Land Acquisition (Just Terms Compensation) Act, 1991.

Non land contributions will be reviewed quarterly in accordance with the following formula:

$$\text{Revised Contribution Rate (RC)} = \frac{\text{IC} \times \text{CPI 2}}{\text{CPI 1}}$$

where:

- IC is the initial contribution rate at the time of adoption of the Plan, expressed in dollars
- CPI 2 is the Consumer Price Index Number (Sydney All Groups) available at the time of the review
- CPI 1 is the Consumer Price Index Number (Sydney All Groups) available at the date of adoption of the Plan, or its subsequent amendment



## **2.7 Adjustment and ‘indexing’ of contributions at the time of payment**

Contribution amounts will be calculated at the time development consent is granted. The contributions amounts imposed in a condition of development consent will be adjusted to reflect the applicable contribution rates at the time of the payment and not at the date of the approval of the development.

Adjustments to the non land contributions amount in a consent will be made as follows:

$$\text{Contribution payable (CP)} = \frac{\text{CD} \times \text{CPI 2}}{\text{CPI 1}}$$

where:

- CP is the amount of the contribution calculated at the time of payment
- CD is the amount of the original contribution imposed as a condition of the development consent
- CPI 2 is the Consumer Price Index Number (Sydney All Groups) available at the date of payment
- CPI 1 is the Consumer Price Index Number (Sydney All Groups) available at the date of development consent

The current contribution rates are published by Council and are available from Council Offices.

## **2.8 Reassessment of contributions**

A written application may be made to Council for the reassessment of the development contribution payable. This may result in no change, or in the contribution being reduced or waived or modified.

Where a condition of development consent has already been imposed requiring the payment of a contribution, the applicant will need to lodge an application to review the consent in accordance with Section 82 or Section 96 of the Environmental Planning and Assessment Act 1979, as amended.

The application must provide sufficient information to satisfy Council of the inappropriate nature of the contribution and identify the implications to Council of reducing or waiving the contribution.

## **2.9 Review of the Plan**

Regular reviews of this Plan will be undertaken to ensure its appropriateness.

A major review of this Plan is anticipated every five (5) years from the date of commencement of the Plan.

## **2.10 Funding and timing of works**

Public amenities, services and infrastructure are required at the time demand is created, which may be before completion of development and before sufficient contributions are received. Council’s ability to forward fund these public amenities, services and infrastructure is limited, and consequently their provision is largely contingent upon the availability of contributions. Pooling of funds to assist with the provision of infrastructure, as detailed in Section 2.11 will be considered and used when necessary.

To provide a strategy for the implementation of the public amenities, services and infrastructure levied for in this Plan, and to use contributions in the most effective manner, the individual work schedules may be re-prioritised. This will take into account development trends, population characteristics, existing funds, funds from other sources (where required) and anticipated revenue flows.

### **2.11 Pooling of contributions**

This Plan authorises monetary Section 94 Contributions paid for different purposes to be pooled and applied (progressively or otherwise) for those purposes.

## 3. Administration of the Plan

### 3.1 Management costs of the Plan

The costs associated with the preparation, administration, periodic review, and management of this Plan are included in the contribution rate. These costs are shown separately in the rates schedule and the method of calculation is described in Section 4. Studies have been undertaken to determine the demand arising from the proposed development, and the design and costing of works included in the Plan are also shown and included in the contribution rate.

The Plan Administration and Management elements of the contribution rate still apply where a MPB or WIK agreement is negotiated between a developer and the Council, in order to cover Council's costs of Plan review and other costs associated with administering the MPB or WIK.

#### 3.1.1 Explanation of contribution formulae

A formula is used in this Plan to calculate the contribution rate applicable to a specific service or facility. The contribution rate is a function of the total cost of the facility divided by the developable area, as shown below:

$$\text{Contribution Per } m^2 = \frac{TC}{CA}$$

where:

- TC = Total cost of infrastructure generated by new commercial development
- CA = Commercial area (ha) within Muswellbrook South Business District

### 3.2 Land values including easements

Council's objective is to ensure that the funds Council receives for land acquisition from Section 94 contributions are equivalent to the amount required to fund the purchase of all the land and the creation of easements identified for acquisition in the Plan.

Costs associated with land acquisition and creation of easements are to be included in the determination of contribution rates.

When land is to be acquired or an easement is to be created, the current market value of this land or the value of the easement will be assessed by an independent valuer at the time of acquisition or creation of the easement or determination of compensation with regard to current market conditions, the availability of services, appropriate heads of compensation and the provisions of the *Land Acquisition (Just Terms Compensation) Act, 1991*, and a contribution rate determined accordingly.

## 4. Strategy plans

This section of the Plan establishes the relationship (nexus) between the expected types of development in the Muswellbrook South Business District and the demand for additional public amenities, services and infrastructure to meet the needs of that development.

There is a nexus between the public amenities, services and infrastructure for which contributions are sought in this Plan and the demand created by anticipated development in the Muswellbrook South Business District. Nexus exists between the development and the contributions sought in the following ways:

- Causal nexus (what) – the expected types of development will or are likely to increase demand for public amenities, services and infrastructure
- Spatial or physical nexus (where) – the proposed facility will be located so as to serve the identified demand for public amenities, services and infrastructure created by the expected types of development
- Temporal nexus (when) – the public amenities, services and infrastructure will be provided in a timely manner to benefit those who have contributed towards it

New public amenities, services and infrastructure are needed to meet the demand arising from development at Muswellbrook South Business District. Demand will exceed the capacity of certain existing infrastructure and will require new infrastructure such as traffic and transport facilities, stormwater management systems, and public domain facilities in order to serve the new community. It is considered that the level of public amenities, services and infrastructure for which contributions are sought is reasonable and consistent with generally accepted standards of provision.

Further details of the relationship between the demand arising from new development and the need for public amenities, services and infrastructure is provided below.

### 4.1 Traffic and transport management facilities

#### 4.1.1 Nexus

The nexus between development and the increased demand for roads is based on the accepted practice that efficient traffic management is facilitated best by a hierarchy of roads from local roads which are characterised by low traffic volumes, slow speeds and serve a small number of properties up to arterial roads which are characterised by large volumes of traffic travelling at higher speeds.

In establishing new land releases, it is desirable for Council to provide for major roads to allow for the large volumes of relatively high-speed traffic. At the Muswellbrook South Business District site, the New England Highway adjoins the site and currently caters for through traffic and the distribution to the local surrounding road network. Rutherford Road and Thompson Street currently act as collector roads to surrounding residential areas and would provide direct access to the site.

#### Access

The Structure Plan, as shown in Appendix A, includes internal roads within the site that provide access to New England Highway, Kamilaroi Street, Rutherford Road and Thompson Street.

The access points for the site will be located as follows:

- From Rutherford Road opposite Woollybutt Way
- A left in/left out off New England Highway
- Traffic signals at the Thompson Street/ New England Highway intersection
- A new roundabout from Thompson Street opposite Shaw Crescent (west)

These access roads and intersections have been included in Council's DCP for this site. Any proposed amendment to the overall layout of the site will need to be approved by Council. Sight distance has not been assessed as detailed design of the accesses has not been completed. Sight distance will be required in accordance with AS2890.1. For a 50 km/hr frontage road speed, the desirable sight distance is 69 metres, and the minimum safe sight distance is 45 metres.

Service vehicles will require access to the site and will need to be considered in the design including turning paths for manoeuvrability.

### **Circulation**

There are two internal roads perpendicular to each other providing access within and through the site. These are an extension of Kamilaroi Street through to the New England Highway and Rutherford Road at the Woollybutt Way intersection through to Thompson Street.

The internal roads are proposed to be two lane, two way with a wide median, and will be designed in accordance with Council and RMS requirements. Manoeuvrability of service vehicles will need to be considered in the design.

### **Parking**

Each part of the development will provide parking in accordance with Muswellbrook Shire Council's Development Control Plan (DCP). RMS also provides guidance on the number of parking spaces required in the Guide to Traffic Generating Developments 2002. For bulky goods retail, the Council requirement is one (1) parking space per 45 m<sup>2</sup>. The RMS Guide does not have a specific requirement for bulky goods retail.

The total parking requirement of the 8.5 ha bulky goods site would be about 1,133 spaces. Residential parking will be provided at the rate of 1 per dwelling (on site).

At this stage of the site planning the layout of parking areas have not been designed in detail. Compliance with the Muswellbrook DCP and AS2890.1 will be required.

GHD (2016) prepared a traffic study for the Muswellbrook South Business District for the purposes of informing this Plan. To assess the traffic impacts of the future development a SIDRA Intersection model was developed for the surrounding road network.

The study found that signalisation of Thompson Street/New England Highway is required to provide for the increased demand for turns onto the New England Highway northbound. Currently the Thompson Street/New England Highway intersection performs at level of service (LOS) F (generally considered to be poor) in the peaks and the signalisation of the Thompson Street junction will improve the performance of that intersection. The remainder of the intersections surrounding the site will continue to perform well under the increased traffic conditions.

A roundabout was considered necessary at the Thompson Street/ Shaw Crescent intersection to control traffic flow along Thompson Street from the highway and the site and to improve safety at the intersection.

The Woollybutt Way/Rutherford Road intersection was modelled as a four leg unsignalised intersection. While the intersection performed well, a roundabout at this intersection was considered necessary to improve traffic flow along Rutherford Road from the highway and improve safety at the intersection.

Conceptual designs of the proposed traffic and transport management infrastructure are contained in Appendix A.

Any additional access points along Rutherford Road, particularly to the south eastern part of the site, should be left-in left-out to avoid negative safety implications. A roundabout at Woollybutt Way or the existing roundabout at Muswellbrook Fair would allow U-turns for traffic using this access from New England Highway.

Pedestrian and cyclist connectivity and safety would be improved by a footpath or shared path constructed along the south side of Thompson Street as well as within the site. As per the Bitzios Consulting 2015 report, footpaths are also recommended along the eastern side of Cassidy Street and both sides of Rutherford Road.

#### 4.1.2 Reasonableness

The core principle of development contributions is that they must be reasonable. A contribution for traffic and transport management facilities is considered to be reasonable as it will ensure that the additional traffic generated by the future development of the area will not have undue impact upon the performance and safety of the existing surrounding road network.

#### 4.1.3 Apportionment

The need to provide the traffic and transport management facilities identified in this part of the plan is generated by the future development of Muswellbrook South Business District. Traffic and transport management facilities are considered essential in order to allow the proposed development to occur and will primarily benefit that development. It is therefore appropriate that all development within this Plan be subject to the full cost of providing these facilities.

#### 4.1.4 Works program

**Table 4-1 Traffic and transport management facilities - works program**

Works	Qty	Unit	Rate	Costs
Upgrade Thompson Street/New England Highway Intersection	1	Item	\$850,000.00	\$850,000.00
New intersection Thompson Street/Shaw Crescent	1	Item	\$450,000.00	\$450,000.00
Land Acquisition for New Intersections	1	Item	\$230,000.00	\$230,000.00
New intersection at Woollybutt Way/Rutherford Road roundabout	1	Item	\$450,000.00	\$450,000.00
Street signs, line marking, concrete footpaths	1	Item	\$50,000.00	\$50,000.00
Contractor preliminaries/overhead/profit		\$2,030,000	(15%)	\$304,500.00
Design consultant/client management		\$2,030,000	(15%)	\$304,500.00
Contingency		\$2,030,000	(20%)	\$406,000.00
Administration		\$2,030,000	(5%)	\$101,500.00
TOTAL				<b>\$3,146,500.00</b>

#### 4.1.5 Formula and contribution rates

Contributions will be collected from commercial development within the Muswellbrook South Business District toward traffic and transport management facilities as outlined in Table 4-2.

**Table 4-2 Traffic and transport management facilities contribution formula**

Development type	Contribution formula
Contribution per m <sup>2</sup> = $\frac{TC}{CA}$	Contribution per m <sup>2</sup> = $\frac{\$3,146,500}{11.05}$ = \$284,751.13/ha or \$28.48/m <sup>2</sup>

Where:

- TC = Total cost of infrastructure generated by new commercial development
- CA = Commercial area (ha) within Muswellbrook South Business District

## 4.2 Stormwater

### 4.2.1 Nexus

The impact of urban development on flow regimes, erosion and siltation, and flooding can be substantially reduced by adopting stormwater management techniques that concentrate on continuing the function of the natural drainage system as far as possible. Therefore, future development in the Muscle Creek catchment will need to manage stormwater run-off both up and down stream of development. This is best achieved through trunk stormwater facilities and structures.

To facilitate the efficient delivery of trunk infrastructure, it is reasonable for the costs associated with stormwater management be recouped through contributions. The schedule of works includes stormwater management facilities to adequately detain and treat stormwater at the development site.

New development can result in an increase in impervious surfaces, leading to higher volumes and flow rates of urban stormwater runoff, increased stormwater velocities, and increased transfer of pollutants from urban to natural environments. Given the Muswellbrook South Business District development site would incorporate large areas of impervious surfaces, trunk stormwater management is required to ensure that the site is considered holistically rather than on a lot by lot basis.

GHD prepared Drainage Options Assessment (March 2016) for the Muswellbrook South Business District. This assessment summarised the modelling undertaken to determine the existing drainage regime and assessed a number of options to deal with post development stormwater volumes and treatment and to recommend a preferred option.

Four options for the proposed drainage strategy were investigated and modelled. Option 3 was identified as the preferred option and would involve creating a stormwater basin (main basin) adjacent to the New England Highway and a separate smaller stormwater basin within Skellatar Park. Alternatives to the main basin would be a detention basin within the Muswellbrook Golf Course or within proposed car parking areas within the future development.

The main basin would need to have an area of 6,380 m<sup>2</sup>, requiring approximately 0.81 - 0.85 ha and the Skellatar Park basin would need to have an area of 900 m<sup>2</sup> which could be used as a feature for the park. Alternatively, the Skellatar Park basin could utilise tanks under the public car parking area.

The main basin would drain via a new pipe under the highway and through the nursery site (via an easement) and the Muswellbrook golf course into Muscle Creek. The Skellatar Park basin would drain into the existing drainage network that currently runs down Rutherford Road discharging at Heron Lane.

In addition to stormwater quantity, water quality would need to be addressed through:



- An open swale along Woollybutt Way extension approximately 340 m long with a maximum top width of 5 m collecting flow from Skellatar Park and the residential/aged care areas.
- A HumeGard separator between the swale and the basin.
- A 1,000 m<sup>2</sup> of bio retention which could be constructed within the road reserve, public open space or within the carpark areas as islands/tree planters adjacent to the automotive and commercial areas.
- Two Humes Jelly Fish Filters would be required based on mean daily maximum flow rate.

Conceptual designs of the proposed stormwater management infrastructure are contained in Appendix B.

GHD also recommended the channel through the golf course is deepened to the invert level of the 900 mm pipes to better contain the 1% AEP flows. If deepening the channel causes additional flood concern due to back flow from Muscle Creek, consideration should be given to at least deepening the channel part way to provide additional storage at the outlet, or constructing a weir at the Muscle Creek outlet.

#### 4.2.2 Reasonableness

The core principle of development contributions is that they must be reasonable. A contribution for stormwater management facilities is considered to be reasonable as it levies for the needs of new workers and ensures the equitable provision of trunk stormwater management for the development site. The additional flows, and need for water quality treatment are generated directly by the development site.

#### 4.2.3 Apportionment

The need to provide the stormwater management identified in this part of the plan is generated by the development of the Muswellbrook South Business District. Stormwater management works are considered essential in order to allow the proposed development to occur and will primarily benefit that development. It is therefore appropriate that all development within this Plan be subject to the full cost of providing these facilities.

The costs included in this Plan for stormwater only include those items to be considered trunk stormwater facilities. Other drainage infrastructure required to drain internal roads, such as kerb and gutter, subsoil drainage below kerb lines, transverse drainage lines, and inlet pits (not associated with the trunk stormwater facilities) are not included in this Plan.

#### 4.2.4 Works program

**Table 4-3 Stormwater management facilities - works program**

Works	Qty	Unit	Rate	Costs
Subsoil Drainage, inc 375 slotted drain, clean fill and bidim liner	150	m	\$45.00	\$6,750.00
450 mm concrete pipe	150	m	\$205.00	\$30,750.00
600 mm concrete pipe	150	m	\$275.00	\$41,250.00
675 mm concrete pipe	480	m	\$320.00	\$153,600.00
900 mm concrete pipe	195	m	\$540.00	\$105,300.00
Headwall	5	No.	\$1,500.00	\$7,500.00
Access Chambers	14	No.	\$2,600.00	\$36,400.00
Total Bioretention area - includes filtration	1800	m <sup>2</sup>	\$130.00	\$234,000.00

media, liners, planting				
Excavation of basins- allows cut/fill	8200	m <sup>3</sup>	\$10.00	\$82,000.00
Land acquisition	700	m <sup>2</sup>	\$95.00	\$66,500.00
Land acquisition administration	1	Sum	\$30,000.00	\$30,000.00
Contractor preliminaries/overhead/profit		\$615,550	(18%)	\$110,799.00
Design consultant/client management		\$615,550	(16%)	\$98,488.00
Contingency		\$712,050	(20%)	\$142,410.00
Administration		\$712,050	(5%)	\$35,602.50
TOTAL				<b>\$1,099,350</b>

#### 4.2.5 Formula and contribution rates

**Table 4-4 Stormwater management facilities contribution formula**

Development type	Contribution formula
Contribution per m <sup>2</sup> = $\frac{TC}{CA}$	Contribution per m <sup>2</sup> = $\frac{\$1,099,350}{11.05}$ = \$99,488.68 or \$9.95/m <sup>2</sup>

Where:

- TC = Total cost of infrastructure generated by new commercial development
- CA = Commercial area (ha) within Muswellbrook South Business District

### 4.3 Landscaping

#### 4.3.1 Nexus

Improvement of the public domain of the Muswellbrook South Business District is necessary to accommodate an anticipated increase in population from the viewpoint of safety and amenity of pedestrians as well as providing a major component of the recreation system. Public domain works will also improve the environmental quality, physical appearance and character of streets in the Muswellbrook South Business District.

The Muswellbrook Development Control Plan – Section 28 Muswellbrook Showground recommends a water sensitive urban design street connecting Rutherford Road to Thompson Street. Street trees and landscape planting is also proposed to soften the public domain. Provision has been made for this landscaping in the works program.

#### 4.3.2 Reasonableness

The core principle of development contributions is that they must be reasonable. A contribution for public domain landscaping is considered to be reasonable as it levies for the needs of new workers and ensures the equitable provision of public domain landscaping for all to enjoy.

#### 4.3.3 Apportionment

The need to provide the public domain landscaping identified in this part of the plan is generated by the future development of the Muswellbrook South Business District development site. The works program presented has been based on the Muswellbrook Development Control Plan 2009 – Section 28 Muswellbrook Showground (Version 6, June 2016) and the Structure Plan presented in Appendix A. Public domain landscaping works are considered essential in order to achieve a sense of place within the development site.

#### 4.3.4 Works program

**Table 4-5 Landscaping - works program**

Works	Qty	Unit	Rate	Costs
Landscaping - trees/shrubs vegetation in swales	1	Item	\$65,000.00	\$65,000.00
Contractor preliminaries/overhead/profit		\$65,000	(15%)	\$9,750.00
Design consultant/client management		\$65,000	(15%)	\$9,750.00
Contingency		\$65,000	(20%)	\$13,000.00
Administration		\$65,000	(5%)	\$3,250.00
<b>TOTAL</b>				<b>\$100,750.00</b>

#### 4.3.5 Formula and contribution rates

**Table 4-6 Landscaping contribution formula**

Development type	Contribution formula
Contribution per m <sup>2</sup> = $\frac{TC}{CA}$	Contribution per m <sup>2</sup> = $\frac{\$100,750}{11.05}$ = \$9,117.65 or \$0.91/m <sup>2</sup>

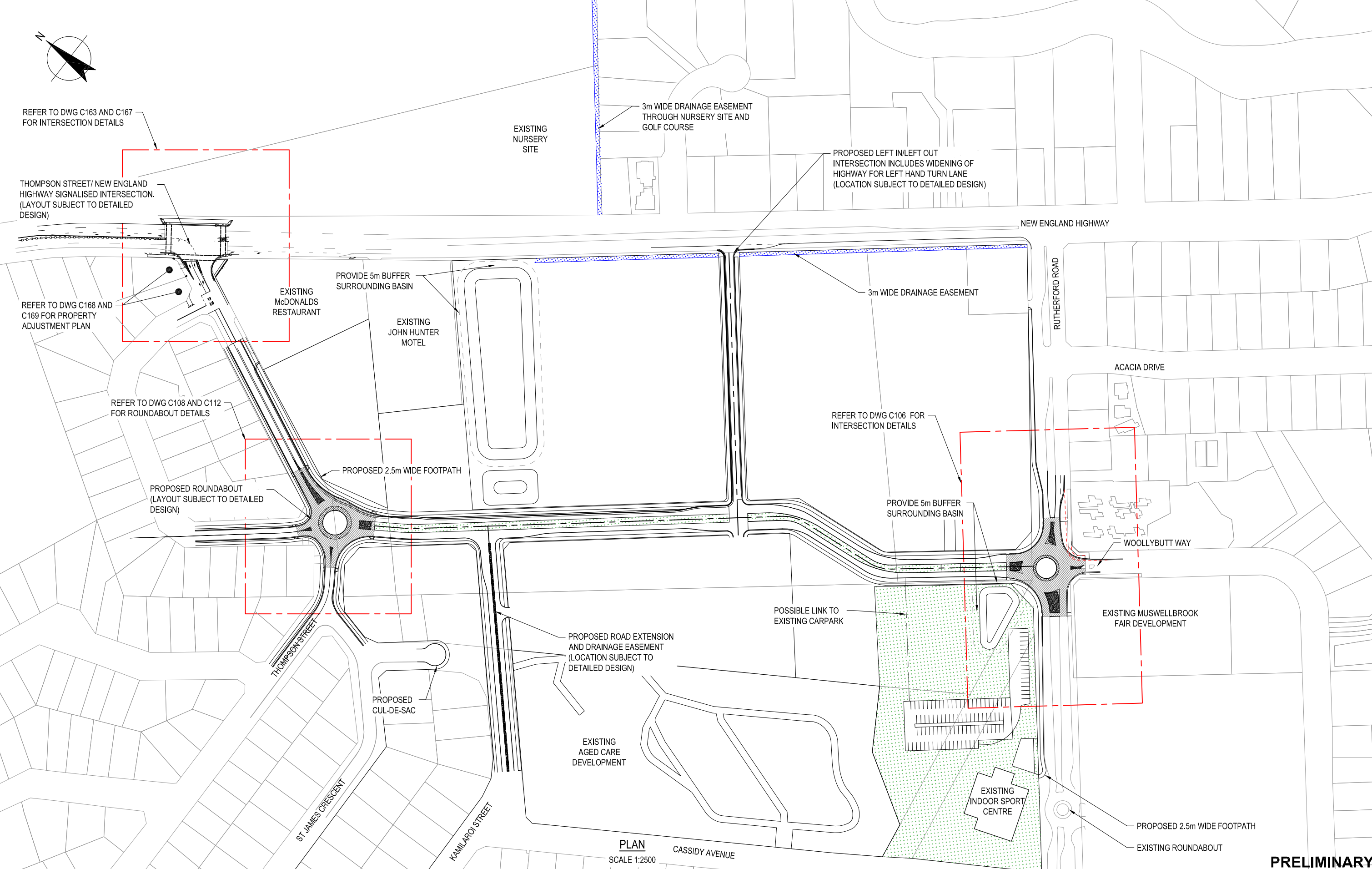
Where:

- TC = Total cost of infrastructure generated by new commercial development
- CA = Commercial area (ha) within Muswellbrook South Business District



## **Appendices**

# **Appendix A** – Structure plan



PRELIMINARY

A		ISSUED TO CLIENT	B.D	S.R	S.L	14.12.16
No	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

Plot Date: 14 December 2016 - 11:25 AM    Plotted By: Blake Drew

Cad File No: G:\22\18250\CADD\Drawings\22-18250-C500.dwg



PLAN

SCALE 1:2500



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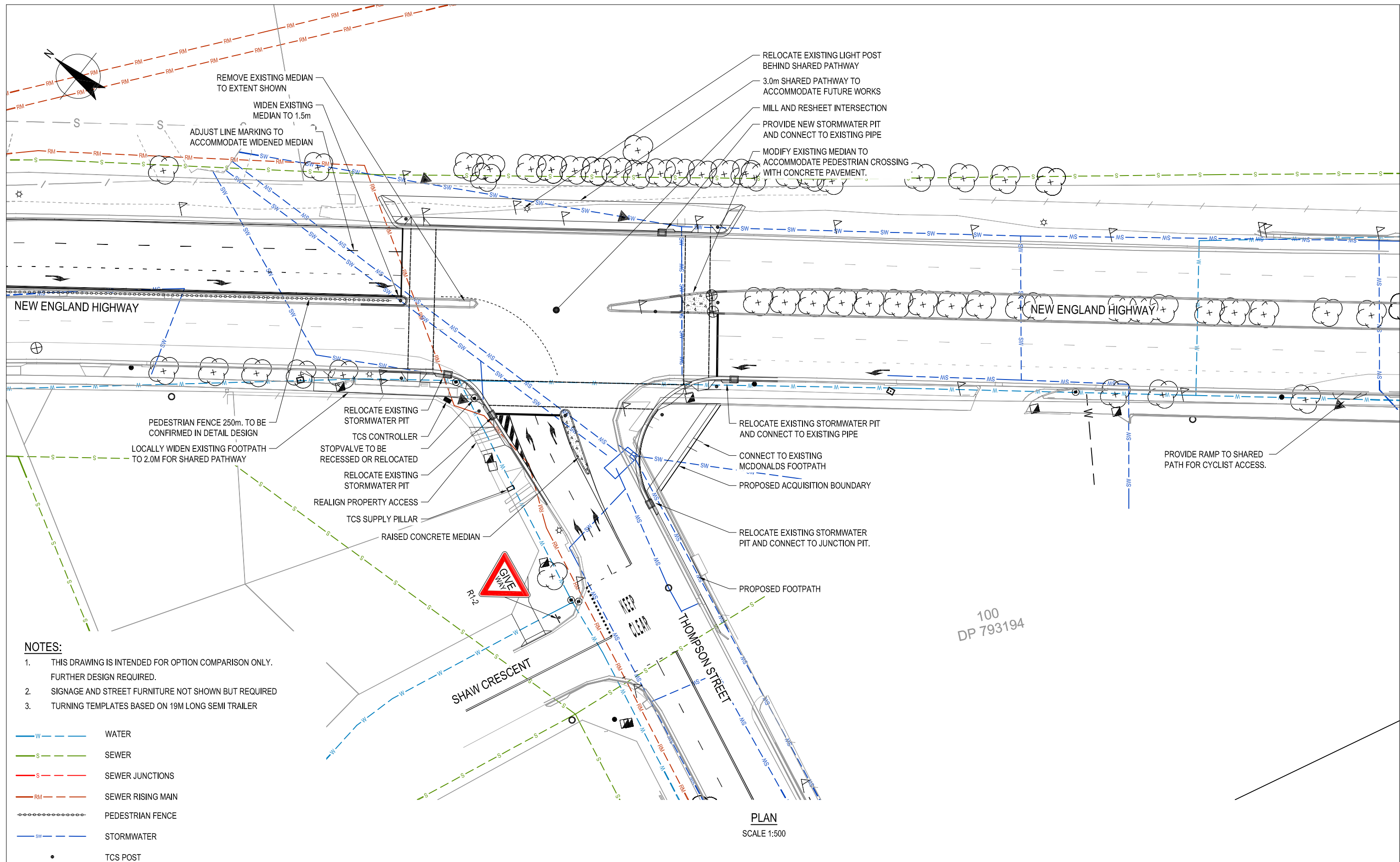
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Project **MUSWELLBROOK SHOWGROUND**  
Title **STRUCTURE PLAN**

Original Size **A3**    Drawing No: **22-18250-C500**

Rev: **A**



## **Appendix B** – Traffic and transport management facilities



NOTES:

1. THIS DRAWING IS INTENDED FOR OPTION COMPARISON ONLY. FURTHER DESIGN REQUIRED.
2. SIGNAGE AND STREET FURNITURE NOT SHOWN BUT REQUIRED
3. TURNING TEMPLATES BASED ON 19M LONG SEMI TRAILER

— W —	WATER
— S —	SEWER
— S —	SEWER JUNCTIONS
— RM —	SEWER RISING MAIN
— ○ —	PEDESTRIAN FENCE
— SW —	STORMWATER
•	TCS POST

D	TCS POST AMENDMENTS	B.D	S.L	P.Y	01.12.16
C	PEDESTRAIN FENCE AMENDED	B.D	S.L	P.Y	25.11.16
B	REVISED LAYOUT	B.D	S.L	P.Y	23.11.16
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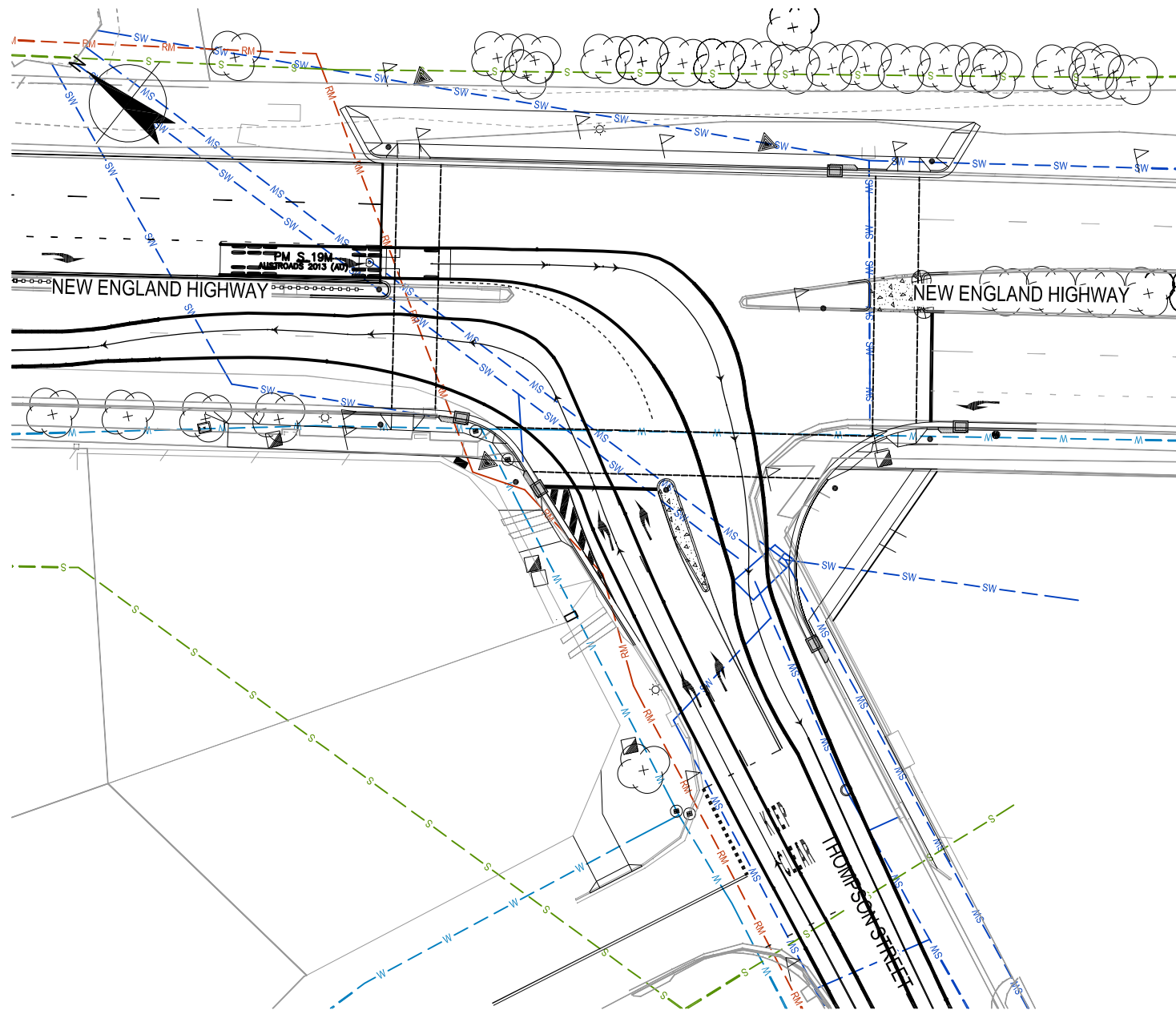
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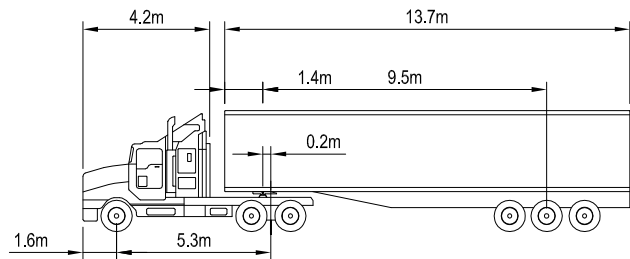
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Client	MUSWELLBROOK SHIRE COUNCIL
Project	MUSWELLBROOK SHOWGROUND S94 PLAN
Title	NEW ENGLAND HIGHWAY AND THOMPSON STREET INTERSECTION PLAN
Original Size	A3
Drawing No:	22-18250-C163
Rev:	D

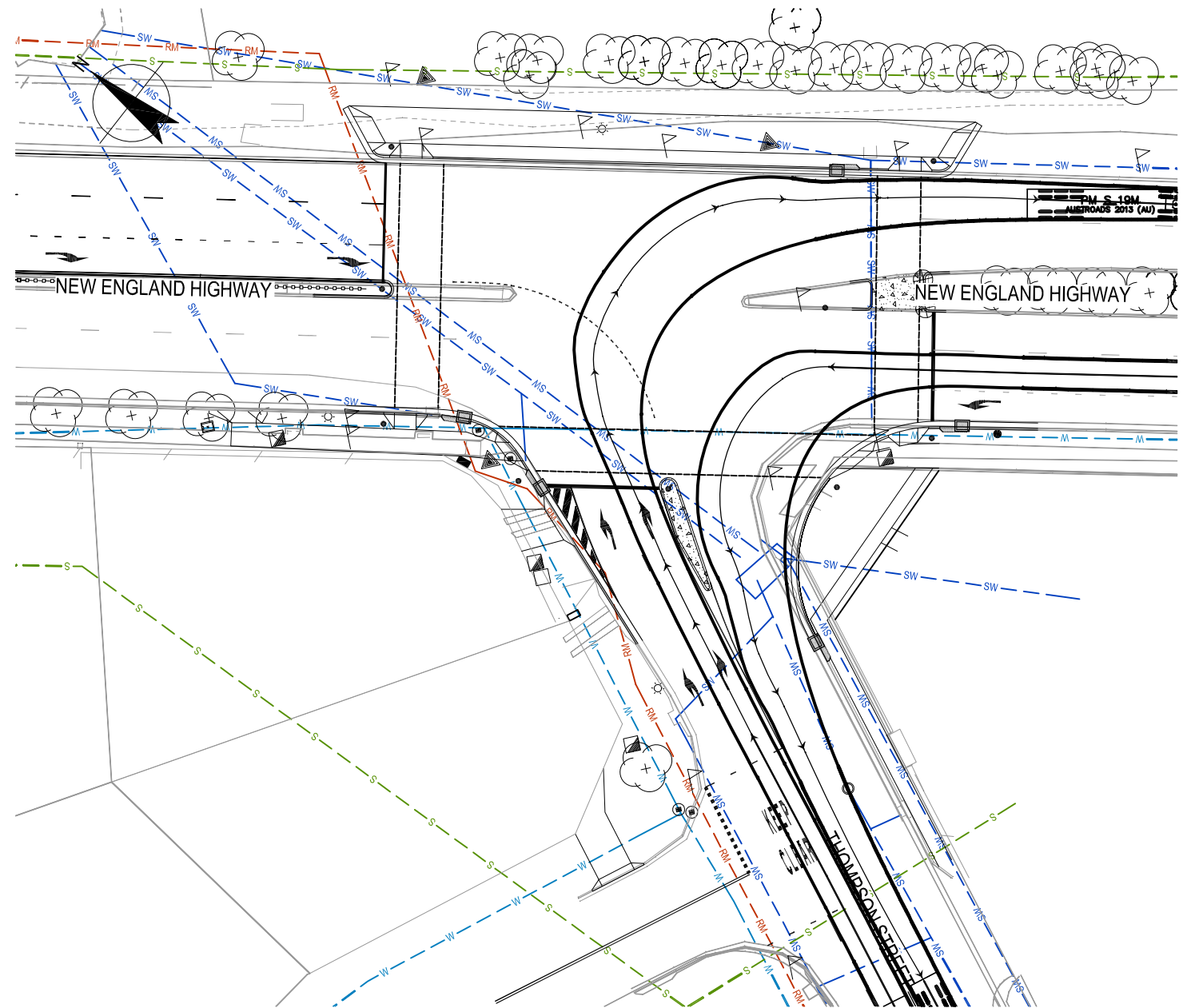


PLAN  
SCALE 1:500



**PM S 19M**  
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TRAILER WIDTH : 2.5m  
TRACTOR TRACK : 2.5m  
TRAILER TRACK : 2.5m  
LOCK TO LOCK TIME : 6.0  
STEERING ANGLE : 27.8  
ARTICULATING ANGLE : 70.0

**NOTE**  
1. TURNING TEMPLATES BASED  
ON 19M LONG SEMI TRAILER



PLAN  
SCALE 1:500

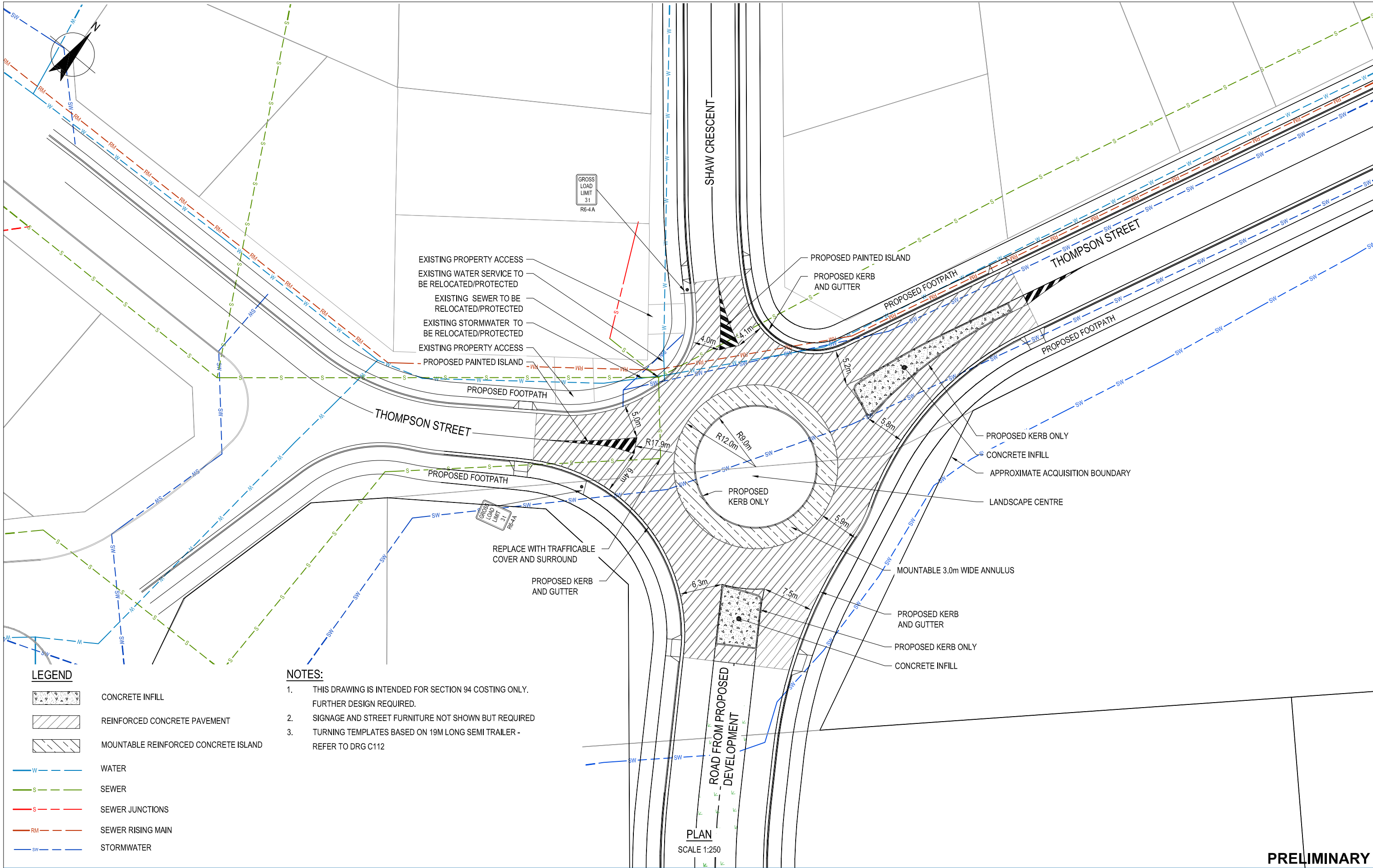
**PRELIMINARY**

No	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
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B	REVISED LAYOUT		B.D	S.L	P.Y	23.11.16
A	ISSUED TO CLIENT		B.D			



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		Approved (Project Director)				Title	NEW ENGLAND HIGHWAY AND THOMPSON STREET INTERSECTION PLAN	
		Date				Original Size		
		Scale	AS SHOWN	This Drawing must not be used for Construction unless signed as Approved		A3	Drawing No:	22-18250-C167
							Rev:	C





**LEGEND**

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MOUNTABLE REINFORCED CONCRETE ISLAND

WATER

SEWER

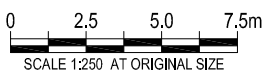
SEWER JUNCTIONS

SEWER RISING MAIN

STORMWATER

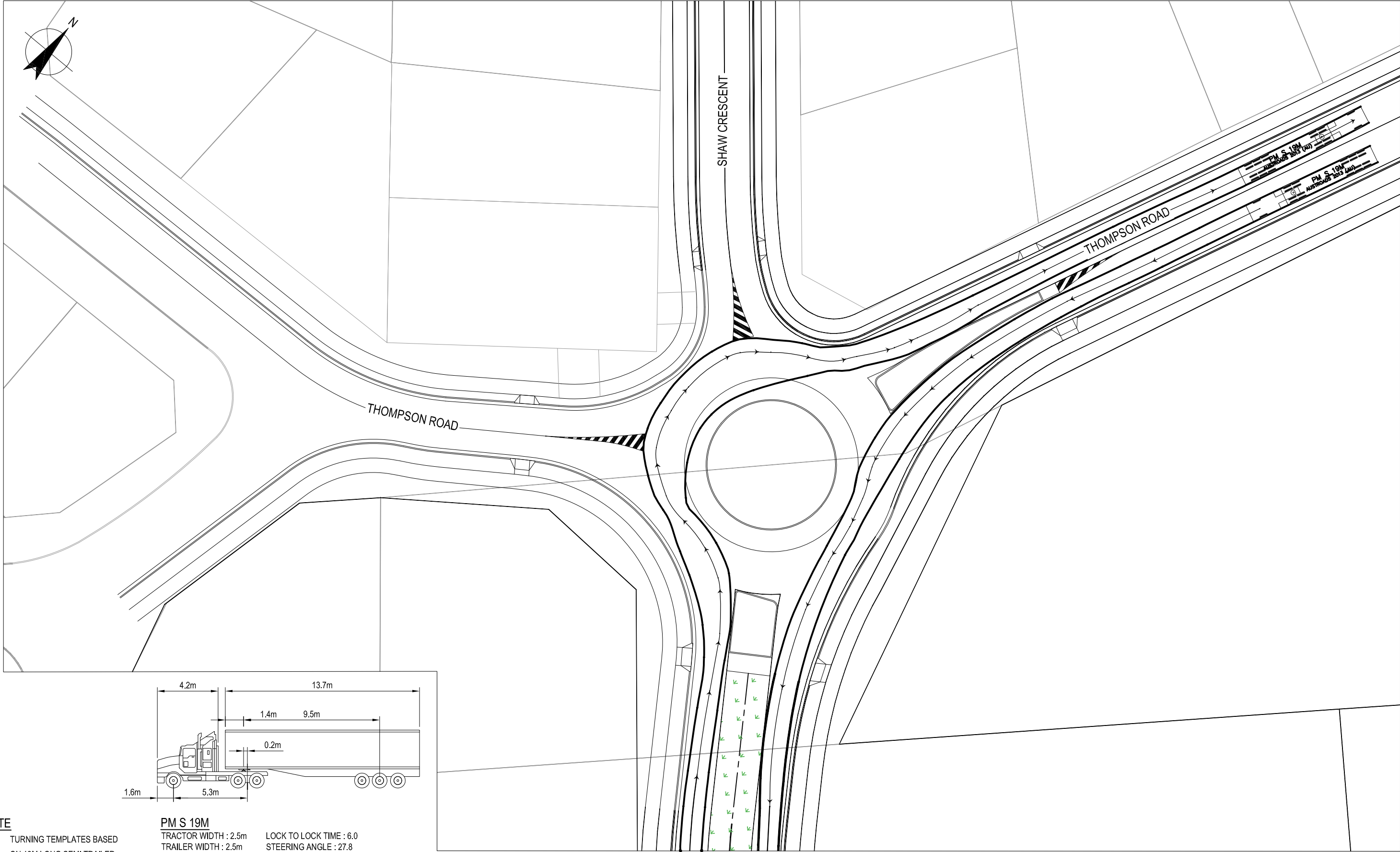
- NOTES:**
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  - SIGNAGE AND STREET FURNITURE NOT SHOWN BUT REQUIRED
  - TURNING TEMPLATES BASED ON 19M LONG SEMI TRAILER - REFER TO DRG C112

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**NOTE**

1. TURNING TEMPLATES BASED  
ON 19M LONG SEMI TRAILER

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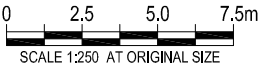
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TRACTOR TRACK : 2.5m  
TRAILER TRACK : 2.5m  
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STEERING ANGLE : 27.8  
ARTICULATING ANGLE : 70.0

**PLAN**

SCALE 1:500

**PRELIMINARY**

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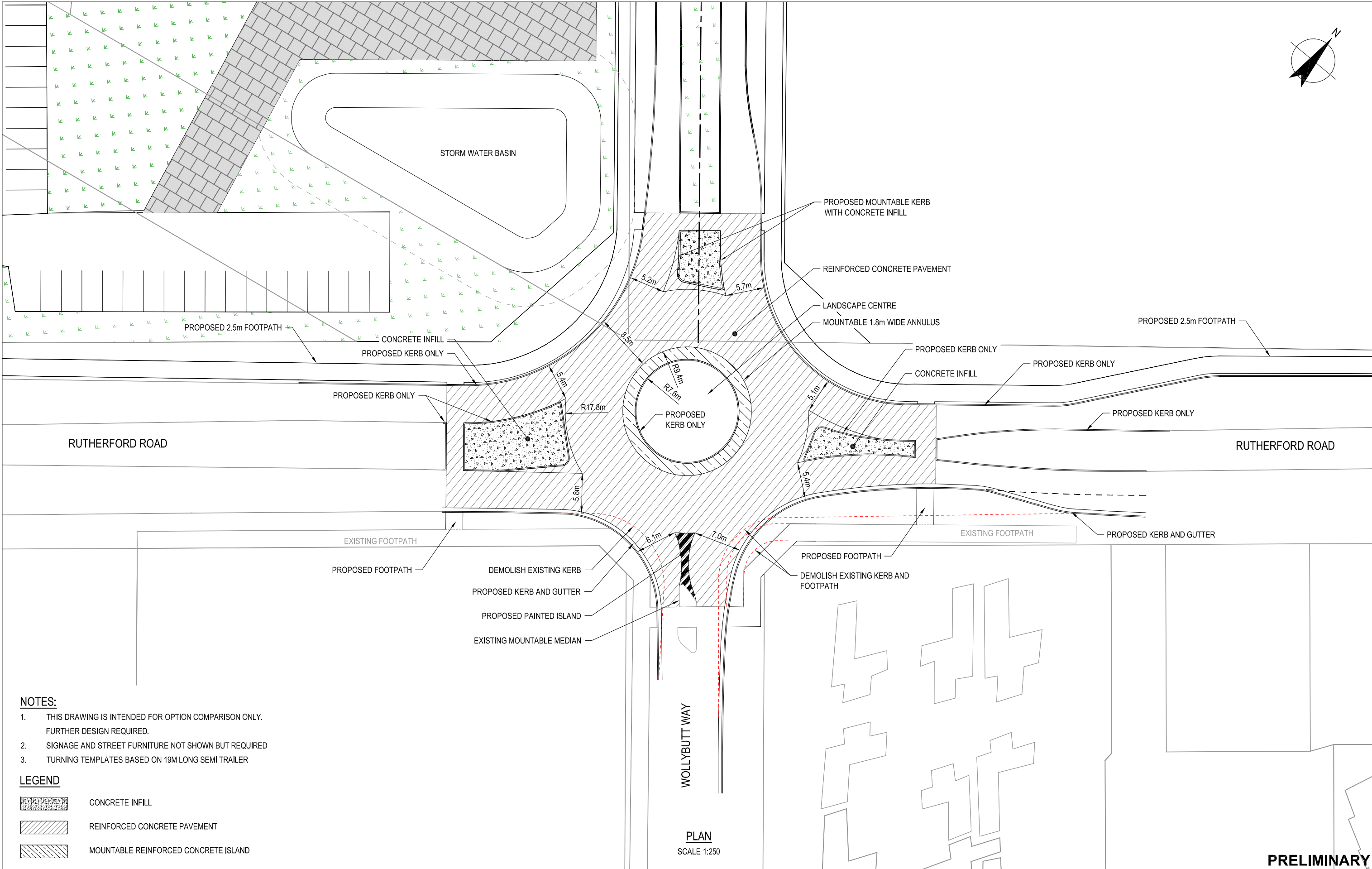
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Project	MUSWELLBROOK SHOWGROUND		
Title	THOMPSON STREET AND SHAW CRESCENT CONCEPT ROUNDABOUT TURNING PATHS		
Original Size	A3	Drawing No:	22-18250-C112
Rev:	A		



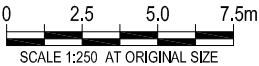
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3. TURNING TEMPLATES BASED ON 19M LONG SEMI TRAILER

**LEGEND**

	CONCRETE INFILL
	REINFORCED CONCRETE PAVEMENT
	MOUNTABLE REINFORCED CONCRETE ISLAND

B	PRELIMINARY ISSUE	B.D	S.R	S.L	23.03.16	
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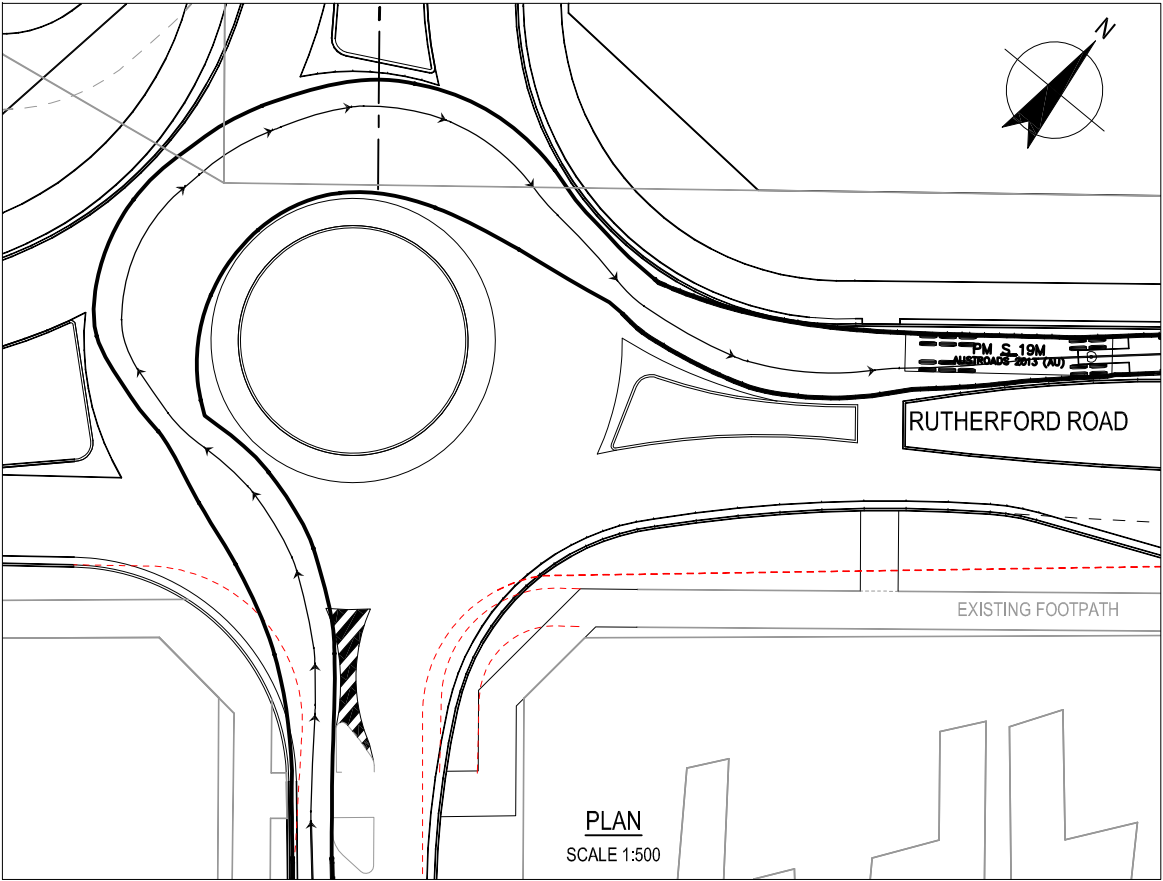
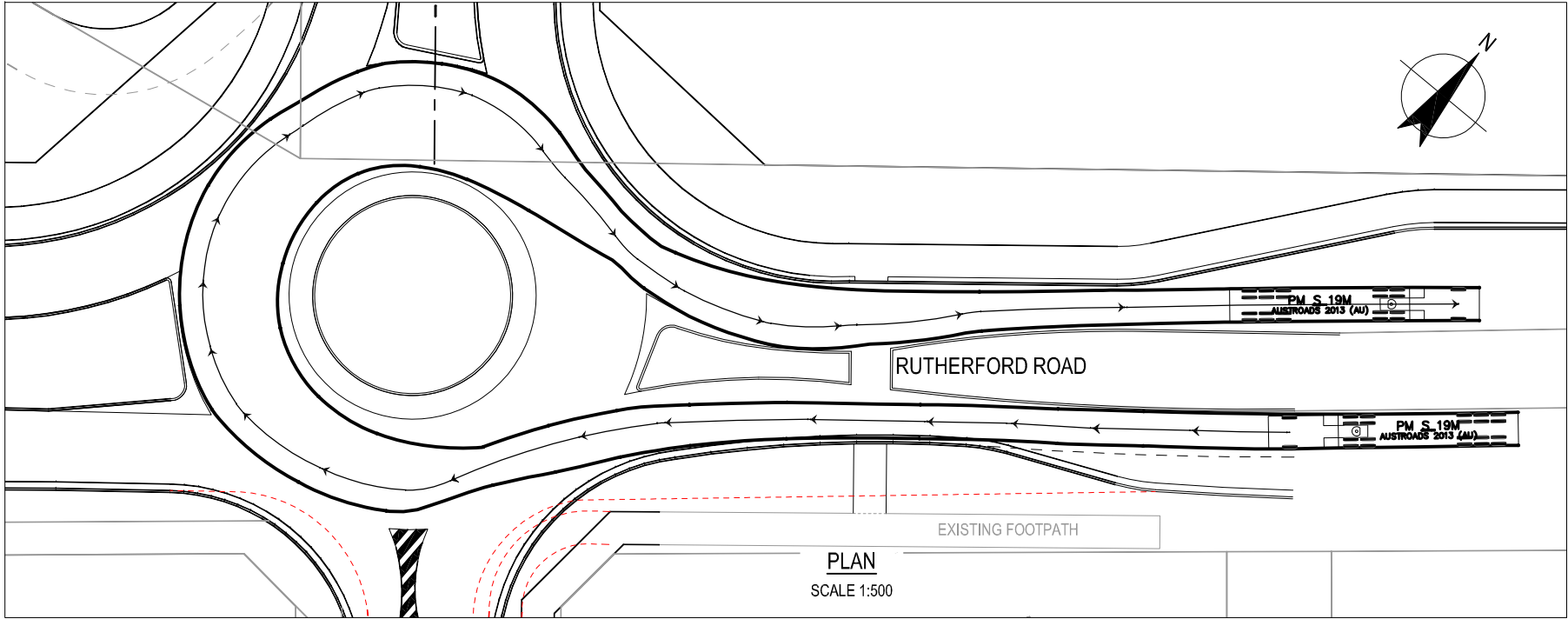
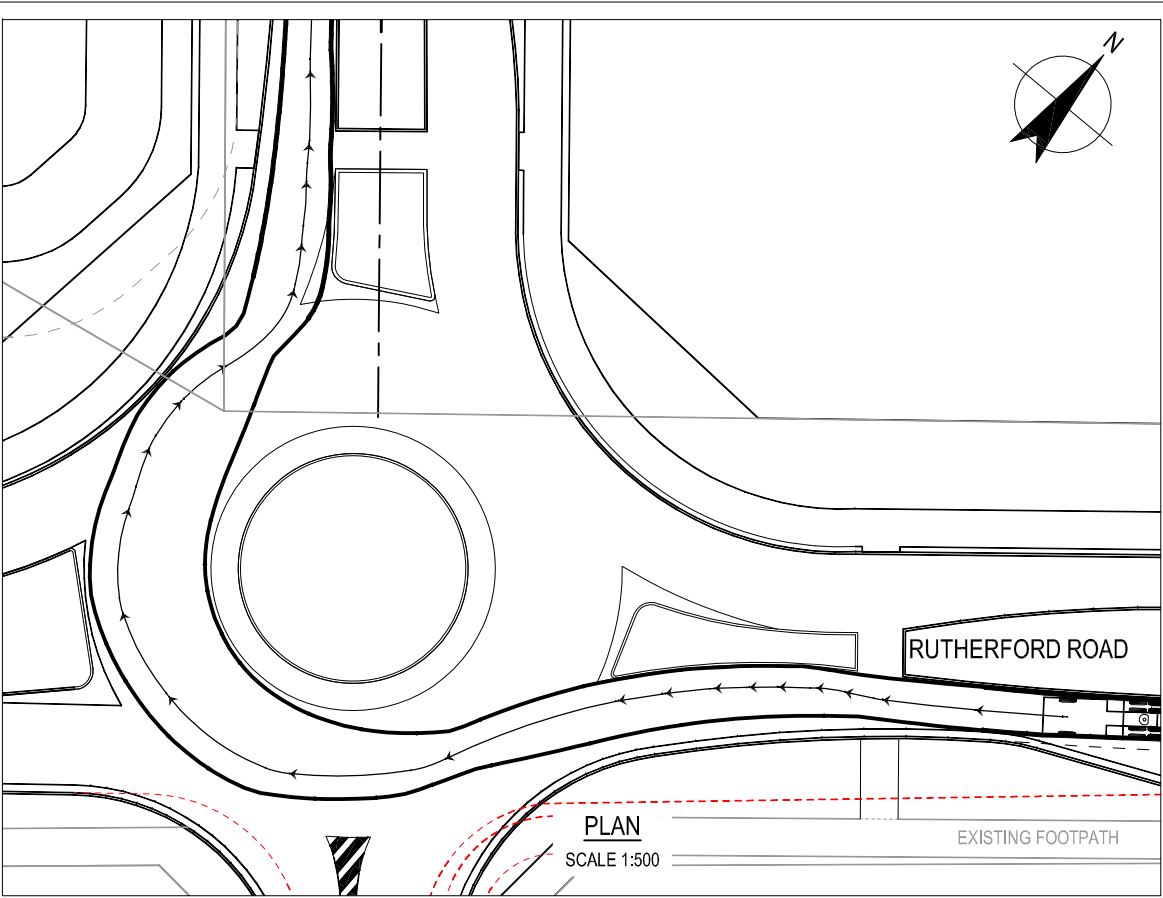
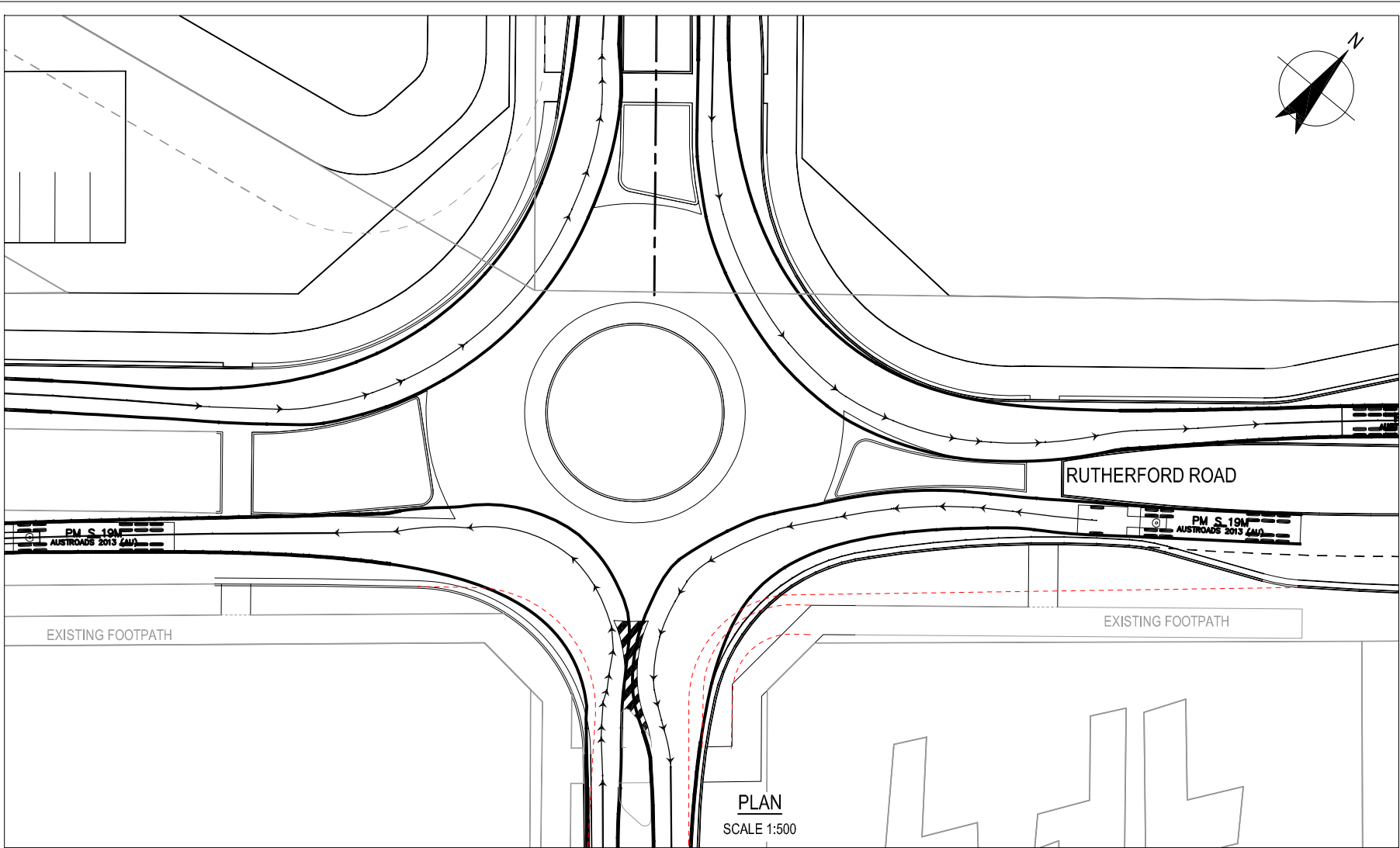
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Title	RUTHERFORD ROAD AND WOOLLYBUTT WAY CONCEPT ROUNDABOUT
Original Size	A3
Drawing No:	22-18250-C106
Rev:	B

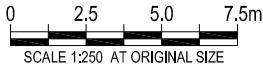




NOTE

1. TURNING TEMPLATES BASED ON 19M LONG SEMI TRAILER

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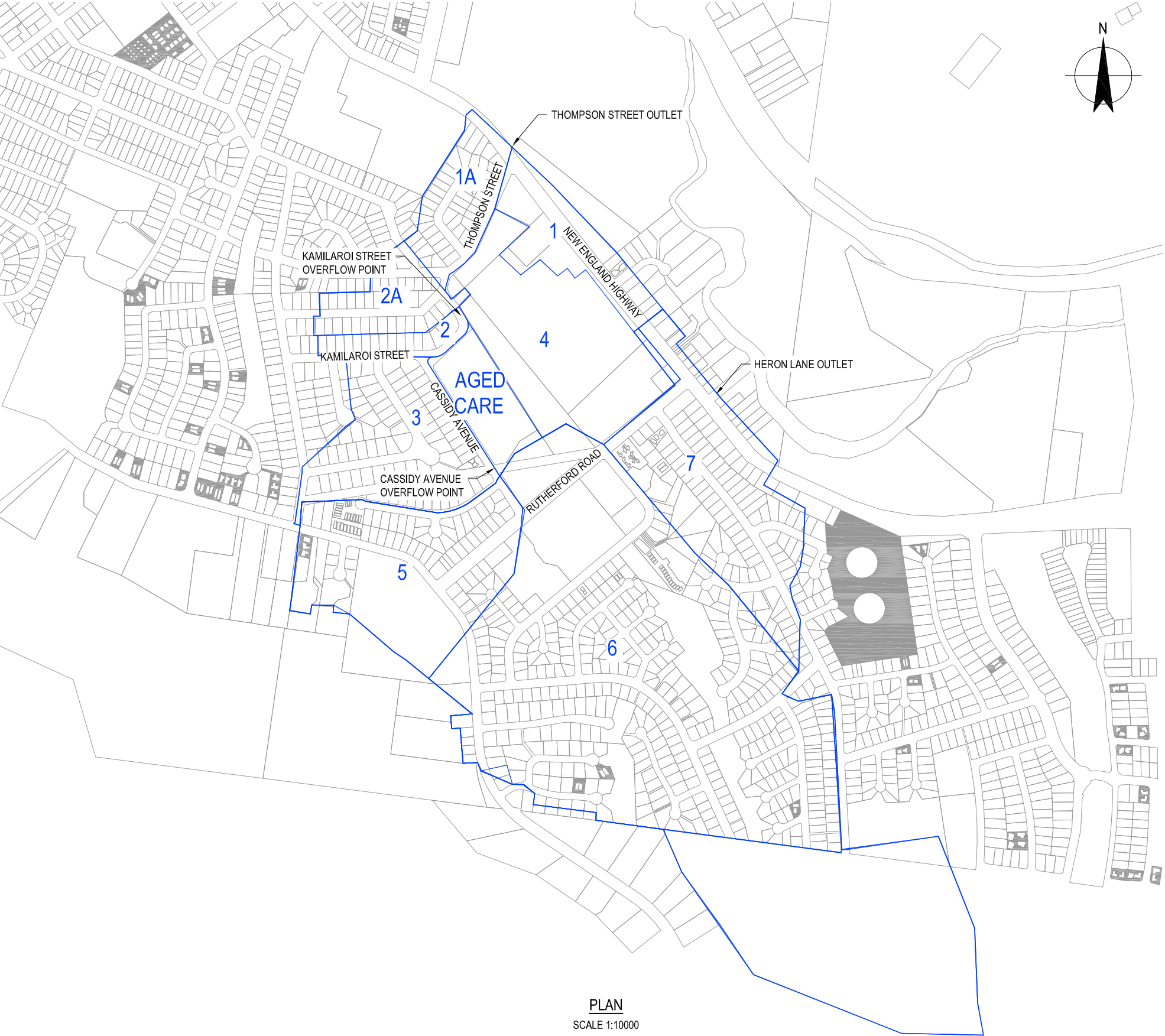
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Project	MUSWELLBROOK SHOWGROUND		
Title	INTERSECTION OPTION 1 CONCEPT ROUNDABOUT TURNING PATHS		
Original Size	A3	Drawing No:	22-18250-C110
Rev:	A		



## **Appendix C** – Stormwater management facilities



DRAINAGE CATCHMENTS			
CATCHMENT	TOTAL AREA	PERVIOUS	IMPERVIOUS
1A	47331.98m²	50%	50%
1	52412.97m²	85%	15%
2A	38634.76m²	50%	50%
2	18306.43m²	50%	50%
3	102118.09m²	40%	60%
4	129779.13m²	99%	01%
5	141009.45m²	25%	75%
6	512391.93m²	35%	65%
7	144644.90m²	50%	50%
AGED CARE	36040.59m²	90%	10%

PLAN  
SCALE 1:10000

A	ISSUED TO CLIENT		B.D		
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					Date



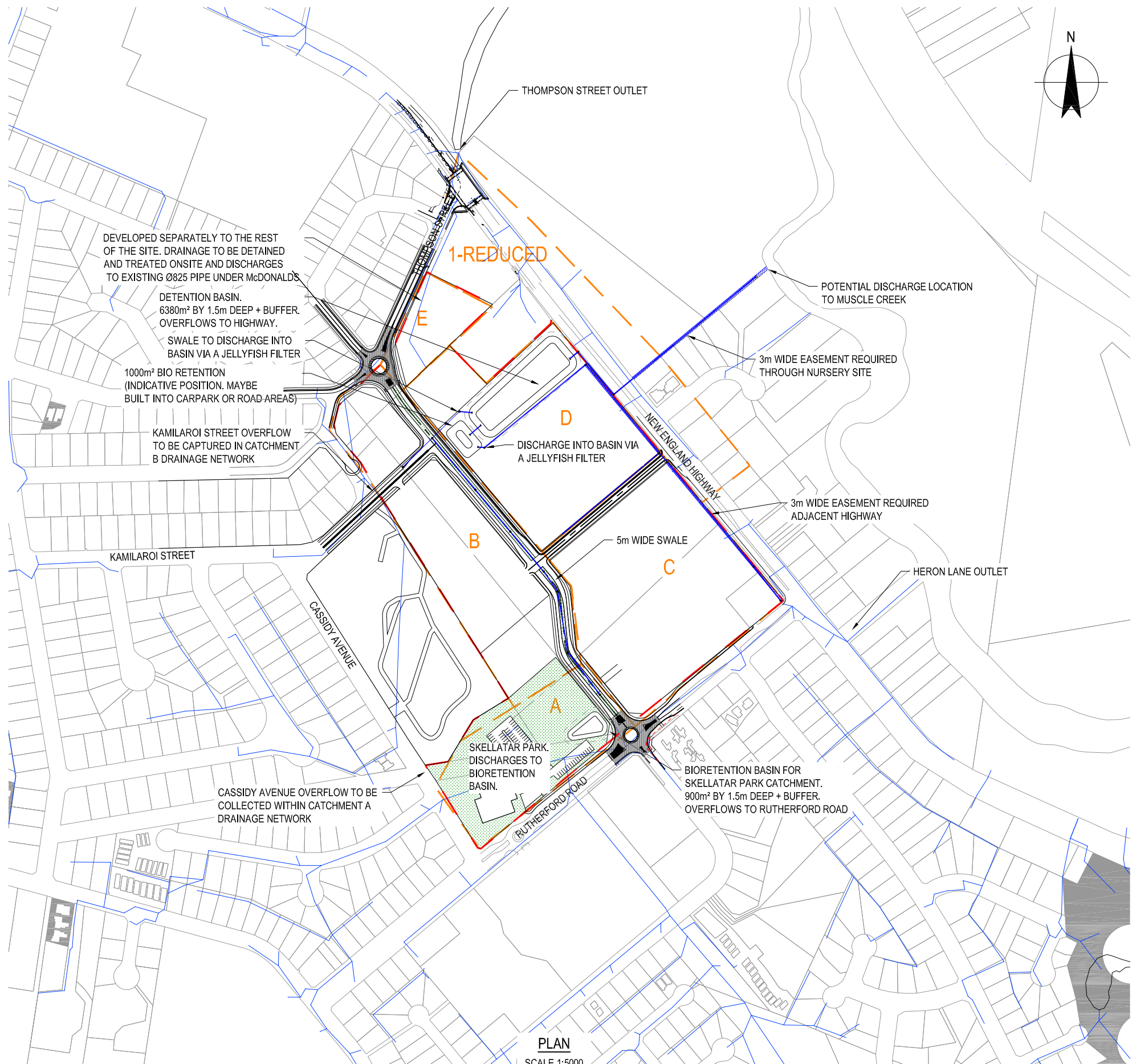
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Drawn	B.DREW	Designer	S.ROOTH
Drafting Check		Design Check	
Approved (Project Director)		Date	
Scale	AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	

Client	MUSWELLBROOK SHIRE COUNCIL		
Project	MUSWELLBROOK SHOWGROUND		
Title	EXISTING CATCHMENTS		
Original Size	A3	Drawing No:	22-18250-C200
		Rev:	A



DRAINAGE CATCHMENTS			
CATCHMENT	TOTAL AREA	IMPERVIOUS	PERVIOUS
1-REDUCED	42489.64m²	85%	15%
A	23073.05m²	70%	30%
B	45076.42m²	60%	40%
C	46376.31m²	90%	10%
D	39455.64m²	90%	10%
E	8014.15m²	90%	10%

B	UPDATED TO MATCH APPROVED STRUCTURE PLAN	S.R.			
A	ISSUED TO CLIENT	B.D			
No	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director
					Date



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Drawn	B.DREW	Designer	S.ROOTH
Drafting Check		Design Check	
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Client **MUSWELLBROOK SHIRE COUNCIL**  
Project **MUSWELLBROOK SHOWGROUND**  
Title **OPTION 3 PROPOSED CATCHMENTS AND DRAINAGE LAYOUT**

Original Size **A3** Drawing No: **22-18250-C203**

Rev: B

GHD

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#### Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	S Lawer	A Oliver	<i>A Oliver</i>	A Oliver	<i>A Oliver</i>	2/06/2016
1	S Lawer	A Oliver	<i>A Oliver</i>	A Oliver	<i>A Oliver</i>	16/06/2016
2	S Lawer	A Oliver		A Oliver		13/12/2016

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