

# Infrastructure Assessment

West Culburra Beach Expansion Area Revised Concept Plan NSWLEC Case Number 2019/00078149 (in response to Section 34 Conciliation Conference)

Prepared for Sealark Pty Ltd

SSD Application No: 3846

Site address
Part Lot 5 & Part Lot 6 of DP 1065111 and
Part Lot 1 DP 631825

Date 26 October 2020

# allen price & scarratts pty ltd land and development consultants

Surveying



Town Planning



Civil Engineering



Project Management



#### **Table of Revisions**

Initials	Rev	Date	Details
MAK	P0	10 March 2020	Draft for review
MAK	0	6 April 2020	s34 conciliation conference
MAK	1	27 October 2020	s34 conciliation conference – revised layout

#### Copyright Statement

#### © Allen Price & Scarratts Pty Ltd 2020

Other than as permitted by the Copyright Act 1968, no part of this report may be reproduced, transmitted, stored in a retrieval system or adapted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without written permissions. Enquiries should be addressed to Allen Price & Scarratts Pty Ltd.

The document may only be used for the purposes for which it was commissioned. Unauthorised use of this document in any form whatsoever is prohibited. Allen Price & Scarratts Pty Ltd assumes no responsibility where the document is used for purposes other than those for which it was commissioned.

This report has been prepared on behalf of and for the exclusive use of the Client and is subject to and issued in connection with the provisions of the agreement between Allen Price & Scarratts Pty Ltd and the Client. Allen Price & Scarratts Pty Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

Nowra Office: 75 Plunkett Street, Nowra NSW 2541 • PO Box 73, Nowra 2541 Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533 • PO Box 209, Kiama 2533 tel 02 4421 6544 • fax 02 4422 1821 • email consultants@allenprice.com.au

ABN 62 609 045 972

Liability limited by a scheme approved under Professional Standards Legislation

## **Table of Contents**

1.	Introduction	5
1.1	Purpose of this Report	5
1.2	Landowner Background	5
1.3	Site context - location	5
1.4	Land description	6
2. F	Project Description	7
2.1	Project Summary	7
2.2	Project Staging	7
3. I	Infrastructure Assessment	7
3.1	Response to Director General's Requirements	7
3.2	Water and Sewerage Development Servicing Plans	8
3.3	Sewerage Infrastructure	
	3.3.2 Development Contributions - Sewer	8
3.4	Water Supply Infrastructure	
	3.4.2 Development Contributions - Water	9
3.5	Electricity Infrastructure	
	3.5.2 Electricity Development Contributions	11
3.6	Waste Disposal Infrastructure	
	3.6.2 Waste Disposal Development Contributions	12
3.7	Telecommunications Infrastructure	
	3.7.2 Telecommunications Infrastructure Contributions	12
3.8	Gas Infrastructure	
3.9	General Infrastructure	13
3.10	0 Development Contributions	13
4.	Conclusion	14

## **Appendices**

- 1. Concept Plan
- 2. Stage delivery plans
- **3.** Shoalhaven Water DSP2005 sewer infrastructure
- **4.** Shoalhaven Water DSP2005 water infrastructure
- **5.** Endeavour Energy response to Technical Enquiry Review
- **6.** Preliminary engineering design plans.

Shared footpath plan

Bus route plan

### 1. Introduction

#### 1.1 Purpose of this Report

Allen Price & Scarratts (APS) has been commissioned by Sealark Pty Ltd to prepare an EIS to accompany an amended Concept Plan for West Culburra Beach Expansion Area.

The Proposal is for a staged mixed-use development. The Proposal is deemed to be State Significant Development after it was transitioned from Part 3A to Part 4 Division 4.7 of the EP&A Act in 2015.

A Section 34 Conciliation Conference, under the LEC Act, commenced on 14 November 2019. One outcome of the Conciliation Conference process was for the applicant to provide a revised Concept Plan (**Proposal**) to significantly reduce the size of the development and to provide additional environmental assessment to address the issues raised by the Independent Planning Commission(IPC).

The revised Concept Plan has an urban development footprint that has resulted in a greater than 50% reduction from 102.23ha to 47.34ha.

This primary purpose of this Infrastructure Assessment is to investigate the existing capacity and any required augmentation of sewerage, water, electricity, waste disposal, telecommunications and gas infrastructure required to service the proposed development.

#### 1.2 Landowner Background

Sealark Pty Ltd is administered by The Halloran Trust. The Halloran family were the original owners of land that now forms the township of Culburra Beach and surrounds. The Trust is a not-for-profit organisation that has a mandate to distribute is profits to several beneficiaries which include the community of Culburra Beach, The Jervis Bay Maritime Museum, The University of Sydney and The Scots College.

#### 1.3 Site context - location

The Proposal relates to land owned by Sealark Pty Ltd. (The Site) is located on the south coast of NSW and is located on the northern side of Culburra Road, immediately adjacent to the western edge of the Culburra Beach township, approximately 15km south-east of Nowra (**Figure 1**).

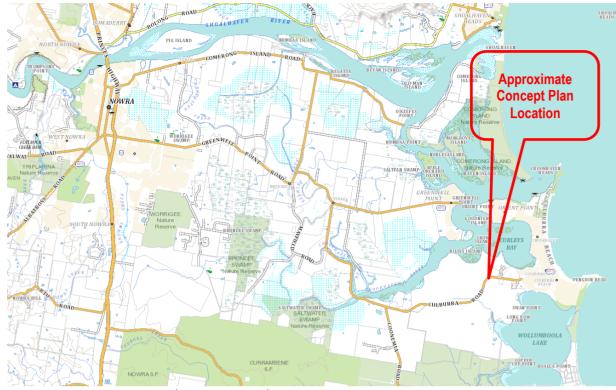


Figure 1 – Site Location Image (Source, SIXmaps)

#### 1.4 Land description

The Site, as shown in Figure 2 consists of:

- Part Lots 5 and 6 DP 1065111; and
- Part Lot 1 DP 631825

The Site is predominantly undeveloped and mostly covered in native bushland.



Figure 2 – Aerial Image of the Site showing Lots 5 & 6 (Source, SIXmaps)



## 2. Project Description

#### 2.1 Project Summary

The Proposal seeks Concept Plan approval to allow expansion of the Culburra Beach township to the west of the existing established urban area onto land which is largely zoned for this land use purpose.

The revised proposal has considered feedback from the original proposal lodged in 2010 and the Proposal reviewed at the Section 34 Conciliation Conference, under the Land & Environment Court Act, in November 2019.

The revised Concept Plan remains a staged mixed-use development which is consistent with the original application albeit a scaled down version of the original proposal (**Appendix 1**).

#### 2.2 Project Staging

The Proposal will be developed over a number of years and the exact layout of individual lots, roads, public reserves, etc will be addressed in subsequent DAs for each individual stage.

In recognition that development consent is sought for a Concept Plan only, and subsequent DAs for each individual stage will be applied for at a later date, the project staging plan concentrates on staged delivery of each of the three key precincts as summarised below and shown in (**Appendix 2**).

Town Centre Expansion – 5 stages Industrial Centre Expansion – 2 stages New Residential Area – 9 stages

### 3. Infrastructure Assessment

#### 3.1 Response to Director General's Requirements

The purpose of this report is to address the Director General's Environmental Assessment Requirements issued by then Department of Planning on 27 May 2010, the details of which are outlined below:

#### **Key Issues**

The EIS must address the following key issues:

#### 4. Infrastructure Provisions

**4.1** Address existing capacity and any required augmentation of sewerage, water, electricity, waste disposal, telecommunications and gas infrastructure, in consultation with relevant agencies. Identify and describe staging, if any, of infrastructure works. Ensure proposed infrastructure (such as stormwater basins, wetlands, cycling/walking tracks) are located on private land and outside of any riparian corridors/ecological buffers.



- **4.2** Identify any existing easements over the site.
- **4.3** Address proposed contingency measures to ensure sewage infrastructures does not negatively impact on water quality of the adjacent wetlands and the Crookhaven River.
- **4.4** Address and provide the likely scope of any planning agreements and/or development contributions with Council/Government agencies (including relevant community/state infrastructure contributions).

#### 3.2 Water and Sewerage Development Servicing Plans

Shoalhaven Water's current Development Servicing Plans (DSP's) for water supply and sewerage for its area of operation within the Shoalhaven LGA date back to 2005.

In mid-February 2020, Shoalhaven Water advised the exhibition period for the Draft new DSP's will be delayed due to the economic and social impacts of the recent bushfires and flooding within the Shoalhaven. The timing for the Draft new DSP document to go on exhibition is unknown.

#### 3.3 Sewerage Infrastructure

#### 3.3.1 Sewerage infrastructure and water quality

Shoalhaven Water will own and operate the sewerage reticulation collection, transfer and treatment infrastructure under its relevant Licences.

To ensure sewage infrastructures does not negatively impact on water quality of the adjacent wetlands and the Crookhaven River, the following risk management measures are recommended to be implemented as part of the design and construction of the sewerage reticulation scheme <sup>(1)</sup>;

- Implement best practice design and construction methods
- Undertake integrity testing during commissioning
- Certification of construction works
- 24 hour Emergency Response Plan
- Incorporate System Monitoring
- Provision of backup systems
- No system overflow points within the 100m buffer to the waterway
- Overflows to be directed to stormwater ponds

#### 3.3.2 Development Contributions - Sewer

Development contributions payable will be in accordance with the new DSP's when adopted and as published by Shoalhaven Water each year.

Currently, development contributions are in accordance with DSP2005 indexed to current rates. At the time of writing, the current development contribution for sewer (2019/2020) is \$8,339/ET.



This contribution is paid to Shoalhaven Water prior to the release of a Subdivision Certificate.

3.4 Water Supply Infrastructure

The site is currently not serviced with water supply infrastructure.

As part of Shoalhaven Water's Development Servicing Plans for Water Supply Services (November 2005), it has been identified that an additional trunk main will be required to service the proposed development.

Shoalhaven Water has proposed a single DN300 spur main from the existing trunk main located in Culburra Rd. The location of the proposed trunk main is shown indicatively on the plan attached in (Appendix 4).

(1) Integrated Water Cycle Management Strategy: Mixed Use Development, West Culburra, Martens & Associates Pty Ltd. April 2020.

As the trunk main is included in Shoalhaven Water's DSP2005, the construction of this infrastructure will be the responsibility of Shoalhaven Water. The work will be funded by developers through the contribution of Section 64 charges paid by developers in the Shoalhaven.

Water supply reticulation to each allotment will be the responsibility of the developer. Draft water reticulation layouts for the sites will be developed at DA stage. Water mains will be provided in each roadway adjacent the proposed lots and will be sized to cater for the necessary requirements of Shoalhaven Water for pressure and flow. Hydrants will be provided in accordance with AS2419.1 to ensure suitable water is available for firefighting purposes.

3.4.1 Water harvesting

Future building developments where the BASIX program is applicable will have opportunities to harvest rainwater for capture and storage in rainwater tanks for varying uses both within and external to buildings. This alleviates some of the load on town water supply.

Typical internal uses for collected rainwater include toilet flushing and laundry. Garden, lawn and washing of vehicles are external uses.

5kL tanks in residential development and 15kL tanks in industrial developments are typical of the tank sizes that may be provided.

3.4.2 Development Contributions - Water

Development contributions payable will be in accordance with the new DSP's when adopted and as published by Shoalhaven Water each year.

Currently, development contributions are in accordance with DSP2005 indexed to current rates. At the time of writing, the current development contribution for water (2019/2020) is \$6,578/ET. This contribution is paid to Shoalhaven Water prior to the release of a Subdivision Certificate.



#### 3.5 Electricity Infrastructure

#### 3.5.1 Physical electrical infrastructure

The site is currently not serviced with electricity.

The expected load for this development is significant and Endeavour Energy has identified that significant upgrading works are required.

In response to a Technical Enquiry Review for the current Proposal, Endeavour Energy provided the following information. A copy of the advice from Endeavour Energy is provided in (**Appendix 5**).

Your application has been registered under ENL3632. Your enquiry requires a load assessment for subdivision based on revised subdivision plan.

Proposed mixed-use subdivision consists of the following Lots with the following estimated maximum demands;

- · 244 residential Lots (>350sqm @ 6.5kVA per Lot or 1.6MVA)
- · 16 industrial Lots (<3500sqm Lot size @ 144kVA per Lot or 2.3MVA)
- · 6 medium density Lots(50 multi-dwellings at 3.5kVA per unit or 175kVA)
- · 45 integrated housing Lots (3.5kVA per Lot or 157.5kVA)
- $\cdot$  26 commercial/residential Lots (this load will be dependent on type of commercial development and has not been estimated at this stage)

The development is situated in an existing 11kV network area. There is one nearby 11kV feeder in close proximity to the site - Existing 11kV feeder available is CULBURRA - Culburra - CLC2. It has a 2019 winter peak reading of 218A. Based on above 11kV feeder max values, it may be possible to provide approximately 1MVA supply to the initial development from 11kV feeder CLC2. This depends on actual commencement date of the development and load assessment.

Exact determination of what Endeavour Energy can provide from feeder CLC2 will be determined upon submission of an Application for Subdivision. Endeavour Energy may be able to analyse closer as to whether we can accommodate more load from 11kV feeder CLC2. This development may look to consider non-network solutions to assist with load provision to the development.

Masterplan provided also suggests there will be future development. Ultimately, if supply cannot be provided from 11kV feeder CLC2, then a new 33kV/11kV zone substation will be required. Negotiations with Endeavour Energy Capacity Planning Manager Jason Lu will be required to obtain a zone substation site approximately 40m wide and 60m deep.

In addition to this, establishment of a 33kV overhead line will be required from Culburra Zone Substation to new 33kV/11kV zone substation.

All works on this project with relation to 11kV feeder CLC2 be contestable and will be customer funded and constructed.

If you wish to proceed with this project, the developer or their representative will need to submit an Application for Connection of Permanent Load to Endeavour Energy which is available on the Endeavour Energy website. Once the application is processed and a Supply Offer has been issued by Endeavour Energy, which will provide preliminary supply requirements, you will need to engage a level 3 Accredited Service Provider who will submit a formal Method of Supply.



Please note this enquiry is only a preliminary assessment and does not guarantee supply availability or provide final conditions of supply.

The above advice from Endeavour Energy is considered typical for provision of electrical infrastructure to subdivisions of this nature.

Low voltage electrical reticulation to each allotment, along with the supporting high voltage network, will be the responsibility of the developer. Draft electrical reticulation layouts for the site have not been prepared as these will not be a constraint to development. However, an overall electrical reticulation strategy will likely be provided during Stage 1 detailed design to limit the developer's infrastructure costs and to rationalise the location of substation infrastructure.

The Proposal includes a site for the new proposed zone substation that will be suited to Endeavour Energy's requirements and is based on previous discussions with Endeavour Energy.

The electrical infrastructure that is proposed to be installed by Endeavour Energy and the developer will adequately service the development.

Timing of the delivery of the Zone substation may be an issue for assessment and coordination as the development progresses and we will work closely with Endeavour Energy to allow staging of the development within their requirements.

#### 3.5.2 Electricity Development Contributions

Generally, high and low voltage underground electrical reticulation is provided by the developer to service their own development. Currently, Endeavour Energy provide reimbursements to developers for 11kV infrastructure installed in new subdivisions.

New zone substations are typically provided by Endeavour Energy on land provided by the developer.

The final breakdown on funding arrangements will be determined once detailed electrical designs are carried out and works approved by Endeavour Energy.

#### 3.6 Waste Disposal Infrastructure

#### 3.6.1 Physical Waste Disposal Infrastructure

Shoalhaven City Council currently operates waste collection services throughout the Shoalhaven LGA through waste disposal contractors, Suez. Council also self-operates waste disposal, waste/recycling and transfer depots throughout the LGA.

Council has previously advised, through its Waste Services unit, that kerbside collection services will be provided on the following conditions:

- The development is in an urban area;
- The roads within the development have been constructed to Council's standards;
- The roads are owned and maintained by Council;



- Properties requiring kerbside collection are residential in nature; and
- Commercial allotments will be assessed at the time of any future development application over the land

As the development proposed to comply with the above requirements, kerbside collection services will be available to the site.

#### 3.6.2 Waste Disposal Development Contributions

No development contributions for waste disposal services are payable by the developer. The waste collection service is paid by the individual allotment owners via Council rate payments.

#### 3.7 Telecommunications Infrastructure

#### 3.7.1 Physical Telecommunications Infrastructure

Telecommunications infrastructure will be provided by the developer to suit NBN Co's requirements.

The design and installation of "pits and pipes" will be at the developer's expense with design and installation to be approved by the relevant authority. All pits and pipes will be "NBN Co ready" in accordance with current design standards.

The Australian government's 'Telecommunications in New Developments Policy' allows telecommunications to be provided by compliant wholesale carriers. NBNCo and Opticomm are two such providers that have the capacity to service the development. The decision on which authority will provide the infrastructure will be determined at the design phase of each stage of the subdivision.

Telecommunications is a non-essential service so the provision thereof does not affect the timing or suitability of the development.

#### 3.7.2 Telecommunications Infrastructure Contributions

Typically, a per lot fee is payable to NBNCo at Compliance Certificate stage for the provision of telecommunications services to a development. In some cases the costs towards backhaul infrastructure is also paid for by the developer.

#### 3.8 Gas Infrastructure

#### 3.8.1 Physical Gas Infrastructure

Culburra Beach is not currently serviced with reticulated gas. Jemena is responsible for the installation and management of the gas reticulation system NSW and given the distance between Culburra Beach and the Eastern Gas Pipeline, it is highly unlikely in the foreseeable future that Jemena will supply gas to this site due to trunk main installation costs.



As an alternative to reticulated gas supply, bottled gas is available to both residential and commercial customers via a number of wholesale gas retailers.

Gas is a non-essential service so the provision thereof does not affect the timing or suitability of the development.

#### 3.9 General Infrastructure

The NSW Coastal Design Guidelines were used to shape the Proposal. The Guidelines contain a series of local scale objectives which have been followed in the preparation of the Proposal. General infrastructure such as stormwater basins, wetlands, cycling and walking tracks are as located on the Concept Plan and are an evolution of long periods of consultation with DOPI, DPIE and several consultation forums.

Preliminary engineering design plans, a shared footpath plan and the proposed bus route plan are provided in (Appendix 6).

#### 3.10 Development Contributions

The Shoalhaven Contributions Plan 2019 has a total of \$7,913.73/ET in Section 7.11 Development Contributions for this site. A summary list of the Projects that make up the Contribution is shown in the EIS.

### 4. Conclusion

The provision of all essential services (water, sewer, electricity) are on track and will not be a constraint to the timing or delivery of development Proposal.

Shoalhaven Water will be providing the sewer transportation system (sewerage pumping station and rising main) through its Development Servicing Plan as required by the delivery timeframe of the development. Sewerage reticulation will be provided throughout the development by the developers in accordance with the requirements of Shoalhaven Water.

Shoalhaven Water will also be providing trunk water infrastructure through its Development Servicing Plan as required by the delivery timeframe of the development. Water reticulation will be provided throughout the development by the developer in accordance with the requirements of Shoalhaven Water.

Endeavour Energy is able to supply the expected electrical demand through its existing network and through upgrades that will be funded by both the developer and Endeavour Energy. A new zone substation will likely need to be delivered at some stage in the future. Electrical reticulation infrastructure will be provided throughout the development by the developer in accordance with the requirements of Endeavour Energy.

Waste services will not be a constraint to development proceeding.

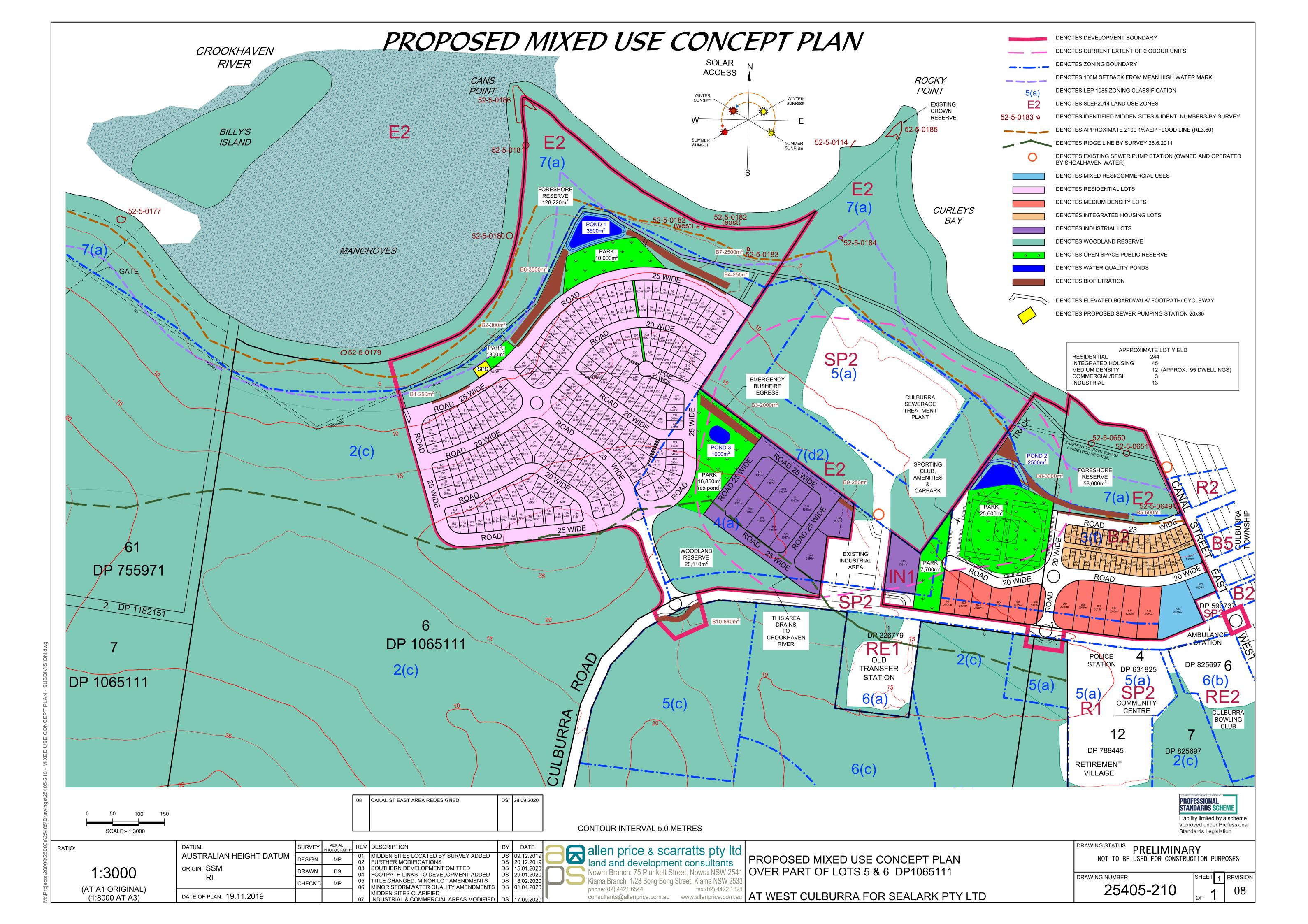
Telecommunications will not be a constraint to development as Government compliant telecommunications providers will supply the necessary services to the development.

Gas services will not be a constraint to development as they are non-essential service and will likely be supplied in bottle form by local gas retailers.

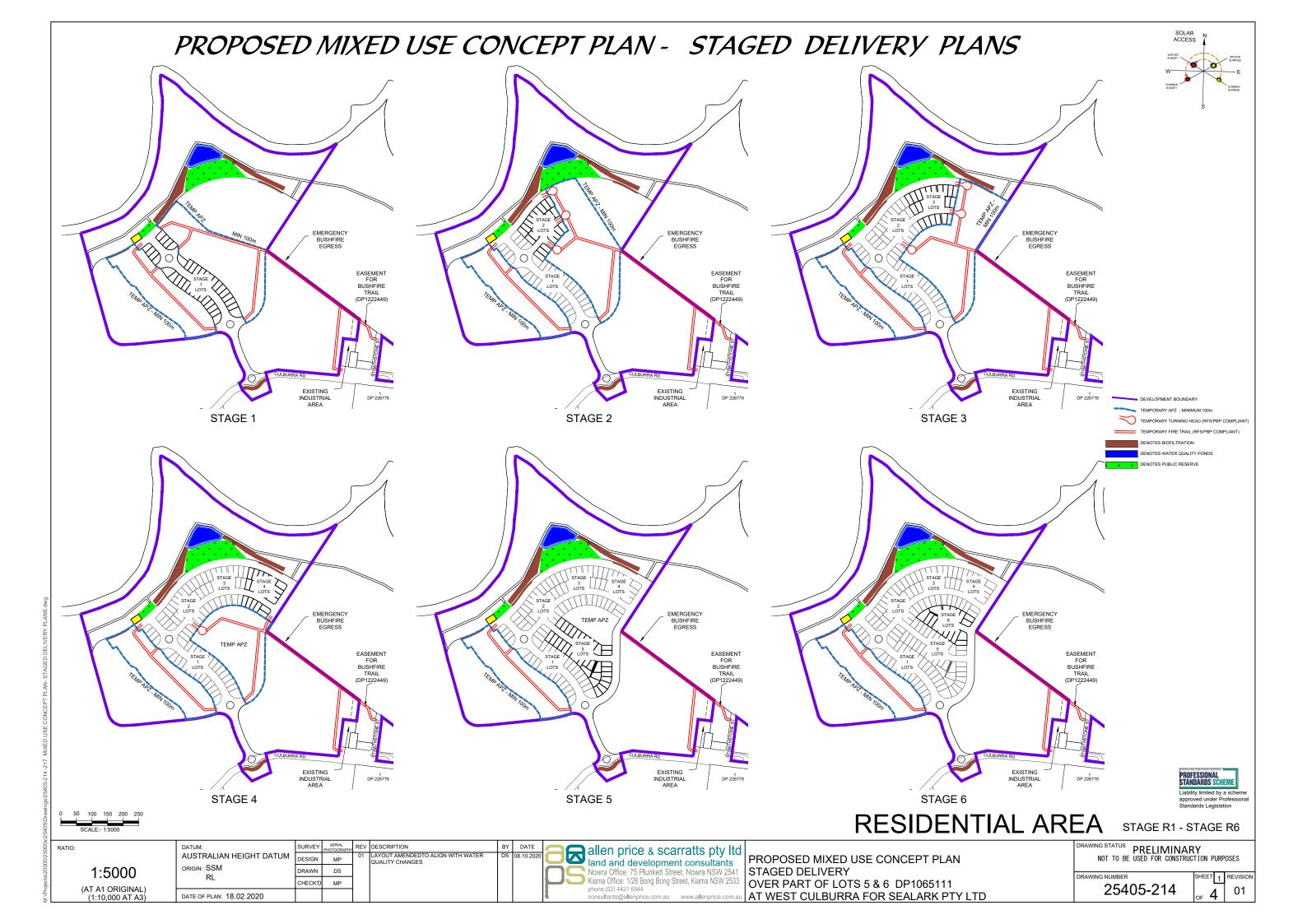
Other local and regional infrastructure will be provided by Council under the current Section 7.11 Development Contributions Plan for the area.

In conclusion, all infrastructure will be available to support the Proposal.

# Appendix 1 - Concept plan



# Appendix 2 – Stage delivery plans



# PROPOSED MIXED USE CONCEPT PLAN - STAGED DELIVERY PLANS EMERGENCY BUSHFIRE EGRESS EMERGENCY BUSHFIRE EGRESS EASEMENT FOR BUSHFIRE TRAIL (DP1222449) EASEMENT FOR BUSHFIRE TRAIL (DP1222449) TEMP APZ STAGE 7 STAGE 8 ENOTES PUBLIC RESERVE EMERGENCY BUSHFIRE EGRESS EASEMENT Liability limited by a scher approved under Professio Standards Legislation STAGE 9 - RESIDENTIAL SUBDIVISION COMPLETE RESIDENTIAL AREA STAGE R7 - STAGE R9 ALL TEMPORARY APZ's REMOVED allen price & scarratts pty ltd REV DESCRIPTION 01 LAYOUT AMENDEDTO ALIGN WITH WATER DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES AUSTRALIAN HEIGHT DATUM DESIGN PROPOSED MIXED USE CONCEPT PLAN land and development consultants ORIGIN: SSM DRAWN STAGED DELIVERY 1:5000 DS Nowra Office: 75 Plunkett Street, Nowra NSW 2541 RL DRAWING NUMBER CHECK'D MP

Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533

phone:(02) 4421 6544 consultants@allenprice.com.au

(AT A1 ORIGINAL) (1:10000 AT A3)

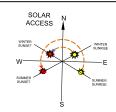
DATE OF PLAN: 18.02.2020

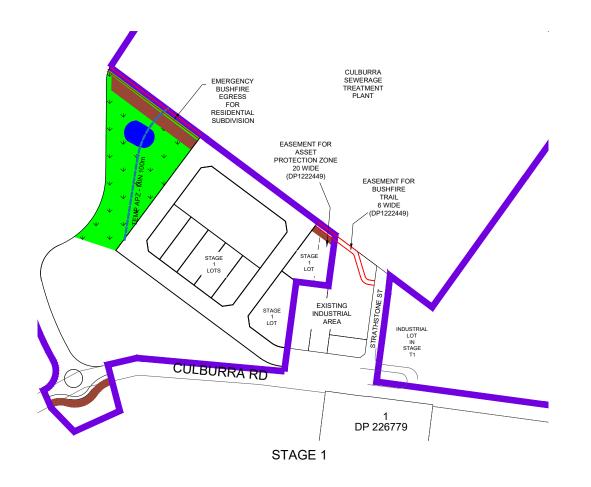
OVER PART OF LOTS 5 & 6 DP1065111 AT WEST CULBURRA FOR SEALARK PTY LTD

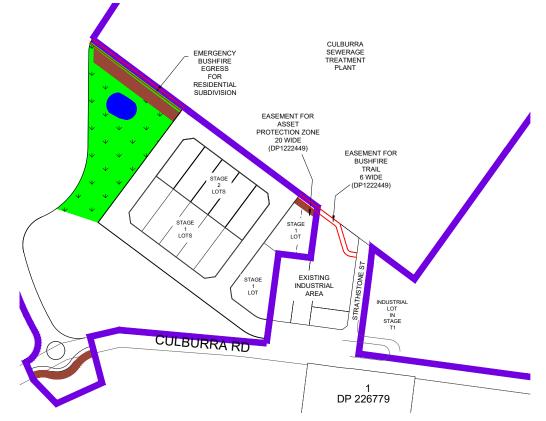
25405-215

01 4

## PROPOSED MIXED USE CONCEPT PLAN - STAGED DELIVERY PLANS







STAGE 2 - INDUSTRIAL SUBDIVISION COMPLETE

Liability limited by a scher

4

**INDUSTRIAL AREA** 

STAGE I1 - STAGE I3

ENOTES PUBLIC RESERVE

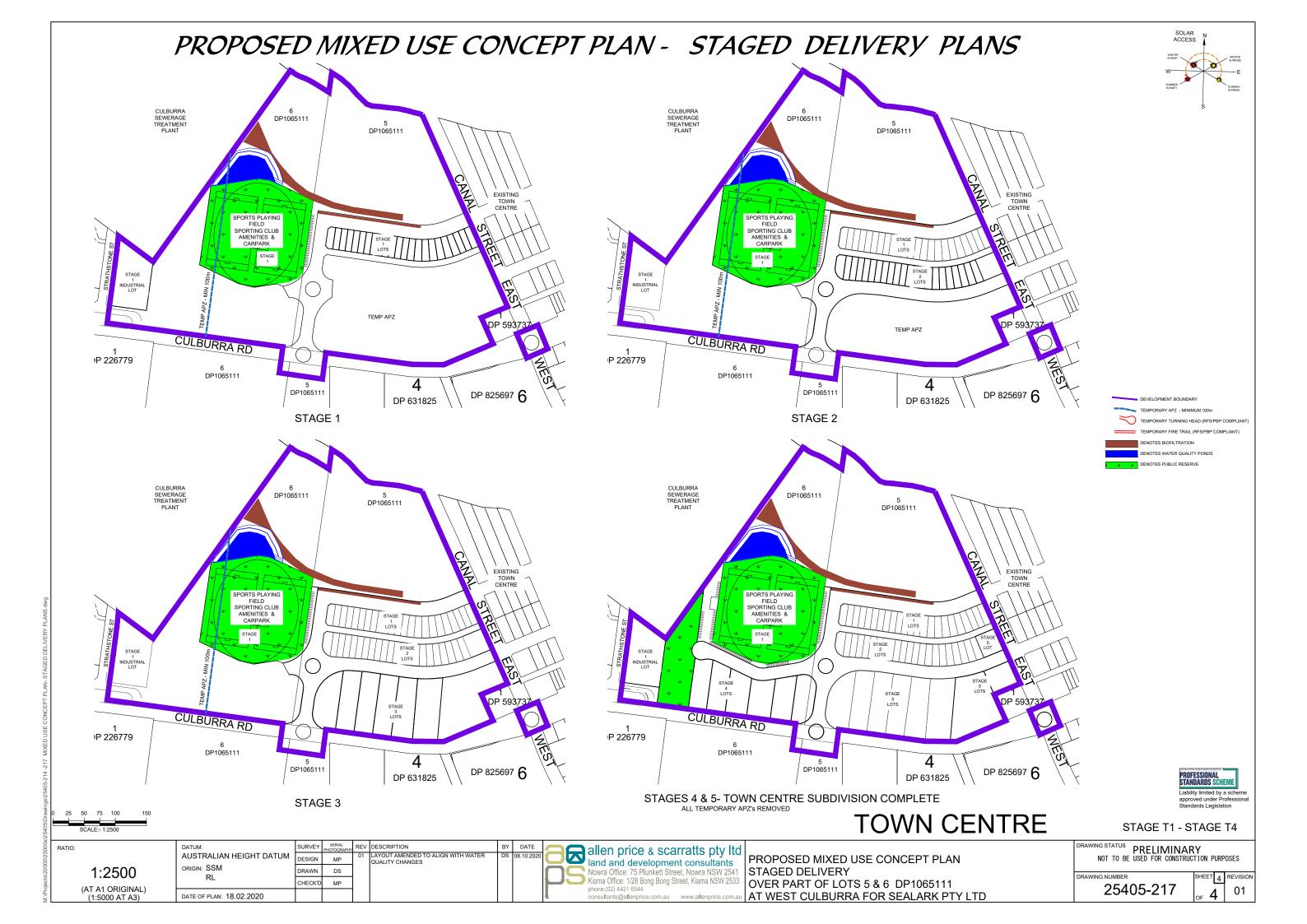
1:2500 (AT A1 ORIGINAL) (1:5000 AT A3)

REV DESCRIPTION

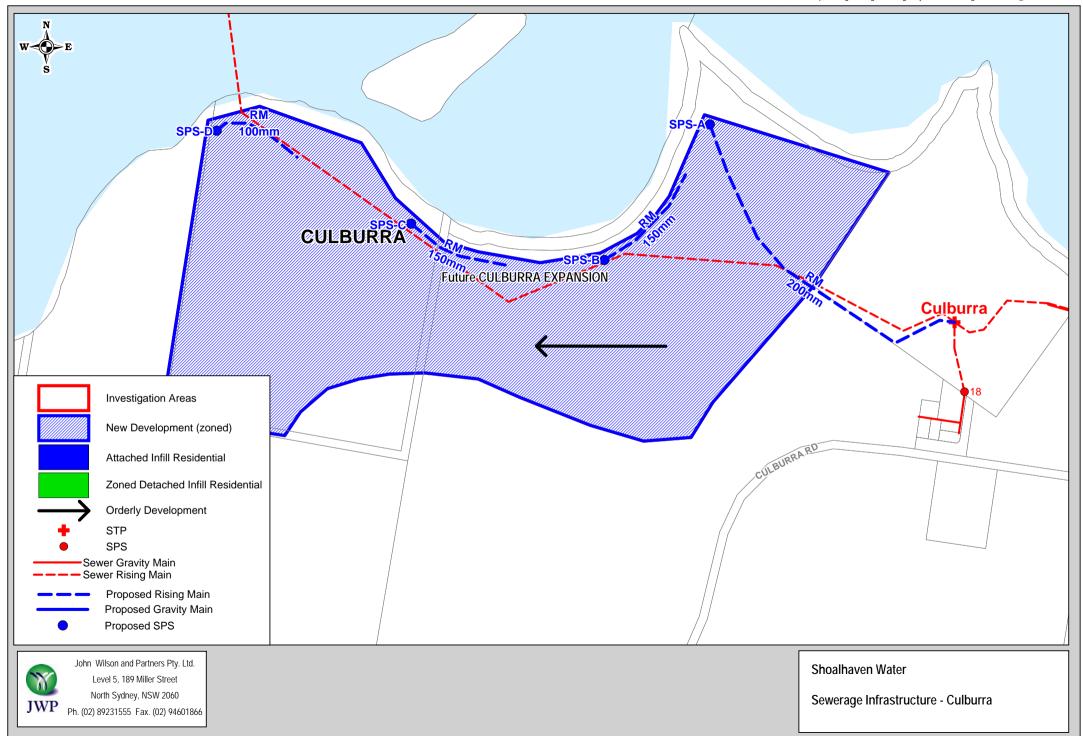
01 LAYOUT AMENDED TO ALIGN WITH WATER AUSTRALIAN HEIGHT DATUM DESIGN ORIGIN: SSM DRAWN DS RL CHECK'D MP DATE OF PLAN: 18.02.2020



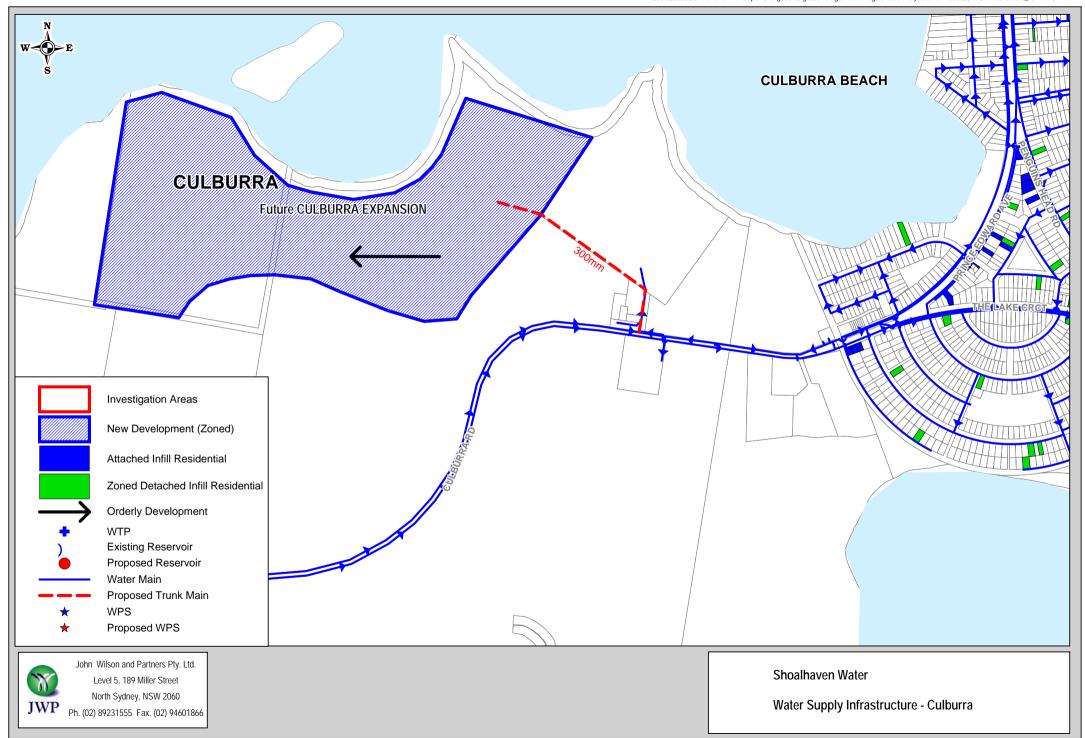
PROPOSED MIXED USE CONCEPT PLAN STAGED DELIVERY OVER PART OF LOTS 5 & 6 DP1065111 AT WEST CULBURRA FOR SEALARK PTY LTD DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES DRAWING NUMBER 25405-216 01



## Appendix 3 – Shoalhaven Water DSP2005 Sewer Infrastructure



# Appendix 4 – Shoalhaven Water DSP2005 Water Infrastructure



# Appendix 5 – Endeavour Energy response to Technical Enquiry Review



20 February 2020

Endeavour Energy Ref: ENL3632 - 2014/02306/001

Allen Price & Scarratts Pty Ltd PO Box 73 NOWRA NSW 2541

**Attention: Matt Philpott** 

#### **TECHNICAL ENQUIRY REVIEW**

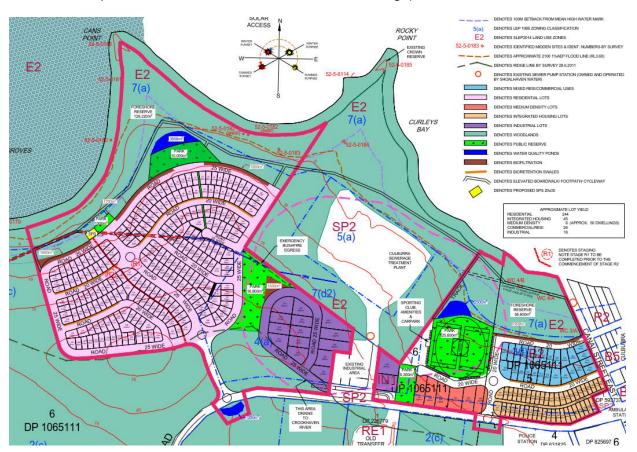
#### ENL3632 - LOT 5 & 6, DP 1065111, Off Culburra Road, WEST CULBURRA BEACH

Thank you for your enquiry application and the payment of fees to facilitate the enquiry request at the above location. Your application has been registered under ENL3632. Please quote this reference number on all future correspondence.

Your enquiry requires a load assessment for subdivision based on revised subdivision plan.

Proposed mixed-use subdivision consists of the following Lots with the following estimated maximum demands:

- 244 residential Lots (>350sqm @ 6.5kVA per Lot or 1.6MVA)
- 16 industrial Lots (<3500sgm Lot size @ 144kVA per Lot or 2.3MVA)
- 6 medium density Lots(50 multi-dwellings at 3.5kVA per unit or 175kVA)
- 45 integrated housing Lots (3.5kVA per Lot or 157.5kVA)
- 26 commercial/residential Lots (this load will be dependent on type of commercial development and has not been estimated at this stage)



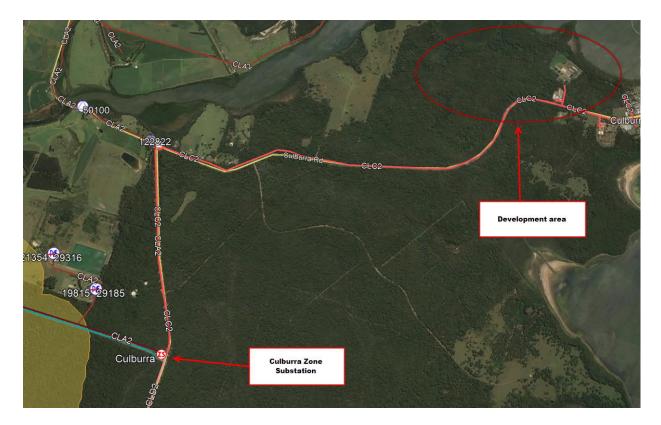
The development is situated in an existing 11kV network area. There is one nearby 11kV feeder in close proximity to the site;

 Existing 11kV feeder available is CULBURRA - Culburra - CLC2. It has a 2019 winter peak reading of 218A



Based on above 11kV feeder max values, it may be possible to provide approximately 1MVA supply to the initial development from 11kV feeder CLC2. This depends on actual commencement date of the development and load assessment. Exact determination of what Endeavour Energy can provide from feeder CLC2 will be determined upon submission of an Application for Subdivision. Endeavour Energy may be able to analyse closer as to whether we can accommodate more load from 11kV feeder CLC2. This development may look to consider non-network solutions to assist with load provision to the development.

Masterplan provided also suggests there will be future development. Ultimately, if supply cannot be provided from 11kV feeder CLC2, then a new 33kV/11kV zone substation will be required. Negotiations with Endeavour Energy Capacity Planning Manager Jason Lu(9853 5003) will be required to obtain a zone substation site approximately 40m wide and 60m deep. In addition to this, establishment of a 33kV overhead line will be required from Culburra Zone Substation to new 33kV/11kV zone substation.



All works on this project with relation to 11kV feeder CLC2 be contestable and will be customer funded and constructed.

If you wish to proceed with this project, the developer or their representative will need to submit an Application for Connection of Permanent Load to Endeavour Energy which is available on the Endeavour Energy website <a href="here">here</a>.

Once the application is processed and a Supply Offer has been issued by Endeavour Energy, which will provide preliminary supply requirements, you will need to engage a level 3 Accredited Service Provider who will submit a formal Method of Supply.

A list of the Accredited Service Providers is available at the NSW Trade and Investment website <a href="here">here</a> or can be obtained via phone 13 77 88.

Please note this enquiry is only a preliminary assessment and does not guarantee supply availability or provide final conditions of supply.

Should you have any enquiries regarding your application please contact me.

Yours faithfully,

### MGrimwood

Regards, Matt Grimwood Contestable Works Project Manager Network Connections

T: 98537916

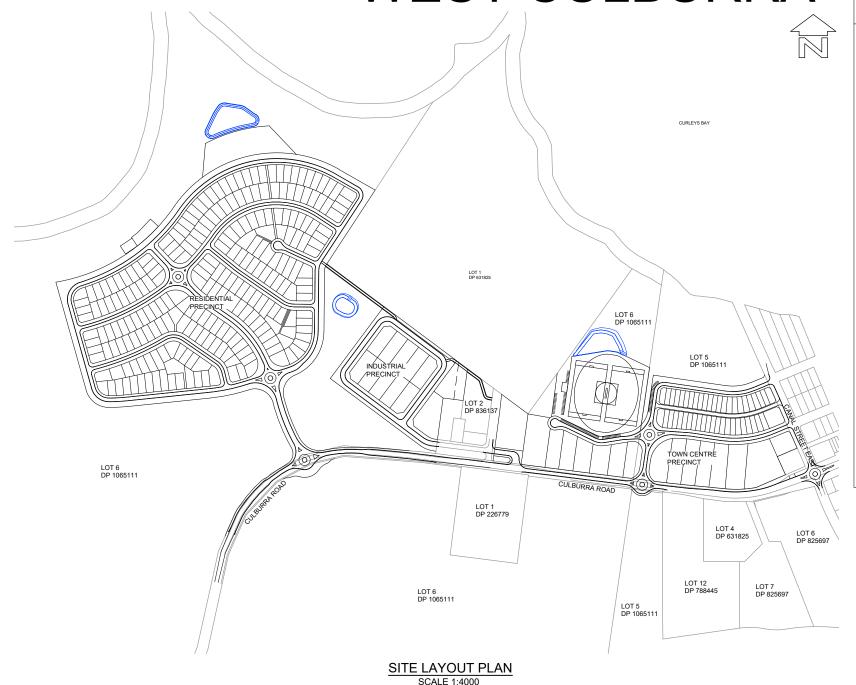
E: matthew.grimwood@endeavourenergy.com.au



## Appendix 6 – Preliminary engineering design plans Shared footpath plan Bus route plan

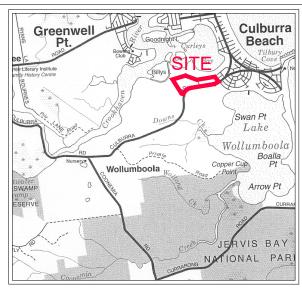
# PRELIMINARY ENGINEERING DRAWINGS FOR PROPOSED MIXED-USE SUBDIVISION AT

WEST CULBURRA



## DRAWING SCHEDULE

25405-100	COVER SHEET AND INDEX PLAN
25405-101	PRELIMINARY RESIDENTIAL PRECINCT LAYOUT PLAN
25405-102	PRELIMINARY INDUSTRIAL PRECINCT LAYOUT PLAN
25405-103	PRELIMINARY TOWN CENTRE PRECINCT LAYOUT PLAN
25405-104	PRELIMINARY OVERALL CONCEPT ROUNDABOUT 01 DESIGN
25405-105	PRELIMINARY CONCEPT ROUNDABOUT 01 DESIGN
25405-106	ROUNDABOUT 01 VEHICLE MOVEMENT LAYOUT PLAN SHEET 01
25405-107	ROUNDABOUT 01 VEHICLE MOVEMENT LAYOUT PLAN SHEET 02
25405-108	PRELIMINARY ROUNDABOUT 01 SIGHT LINE LAYOUT PLAN
25405-109	PRELIMINARY CONCEPT INDUSTRIAL ENTRY AND EXIT LAYOUT PLAN
25405-110	PRELIMINARY CONCEPT INDUSTRIAL ENTRY AND EXIT VEHICLE
	MOVEMENTS AND SIGHT DISTANCE LAYOUT PLAN
25405-111	PRELIMINARY CONCEPT ROUNDABOUT 02 LAYOUT PLAN
25405-112	PRELIMINARY CONCEPT ROUNDABOUT 02 DESIGN
25405-113	ROUNDABOUT 02 VEHICLE MOVEMENT LAYOUT PLAN
25405-114	PRELIMINARY ROUNDABOUT 02 SIGHT LINE LAYOUT PLAN
25405-115	PRELIMINARY CONCEPT ROUNDABOUT 03 LAYOUT PLAN
25405-116	PRELIMINARY CONCEPT ROUNDABOUT 03 DESIGN
25405-117	ROUNDABOUT 03 VEHICLE MOVEMENT LAYOUT PLAN SHEET 01
25405-118	ROUNDABOUT 03 VEHICLE MOVEMENT LAYOUT PLAN SHEET 02
25405-119	PRELIMINARY ROUNDABOUT 03 SIGHT LINE LAYOUT PLAN
25405-120	PRELIMINARY TYPICAL ROAD CROSS SECTIONS PLAN SHEET 01
25405-121	PRELIMINARY TYPICAL ROAD CROSS SECTIONS PLAN SHEET 02
25405-122	PRELIMINARY TYPICAL ROAD CROSS SECTIONS PLAN SHEET 03
25405-123	PRELIMINARY TYPICAL ROAD CROSS SECTIONS PLAN SHEET 04
25405-124	PRELIMINARY TYPICAL ROAD CROSS SECTIONS PLAN SHEET 05
25405-125	WESTERN POND CONCEPT LAYOUT PLAN
25405-126	CENTRAL POND CONCEPT LAYOUT PLAN
25405-127	EASTERN POND CONCEPT LAYOUT PLAN
25405-128	TYPICAL WESTERN AND EASTERN POND CROSS SECTIONS PLAN



THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHE RESPONSIBLE. AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.



LOCALITY PLAN MAP DRAWN & PUBLISHED BY CARTODRAFT AUST P/L allen price & scarratts pty Itd COVER SHEET AND INDEX PLAN

1:4000 (AT A1 ORIGINAL)

AUSTRALIAN HEIGHT DATUM ORIGIN: SSM DATE OF PLAN: MARCH 2020

REV DESCRIPTION DESIGN CJG DRAWN CJG CHECK'D MJP

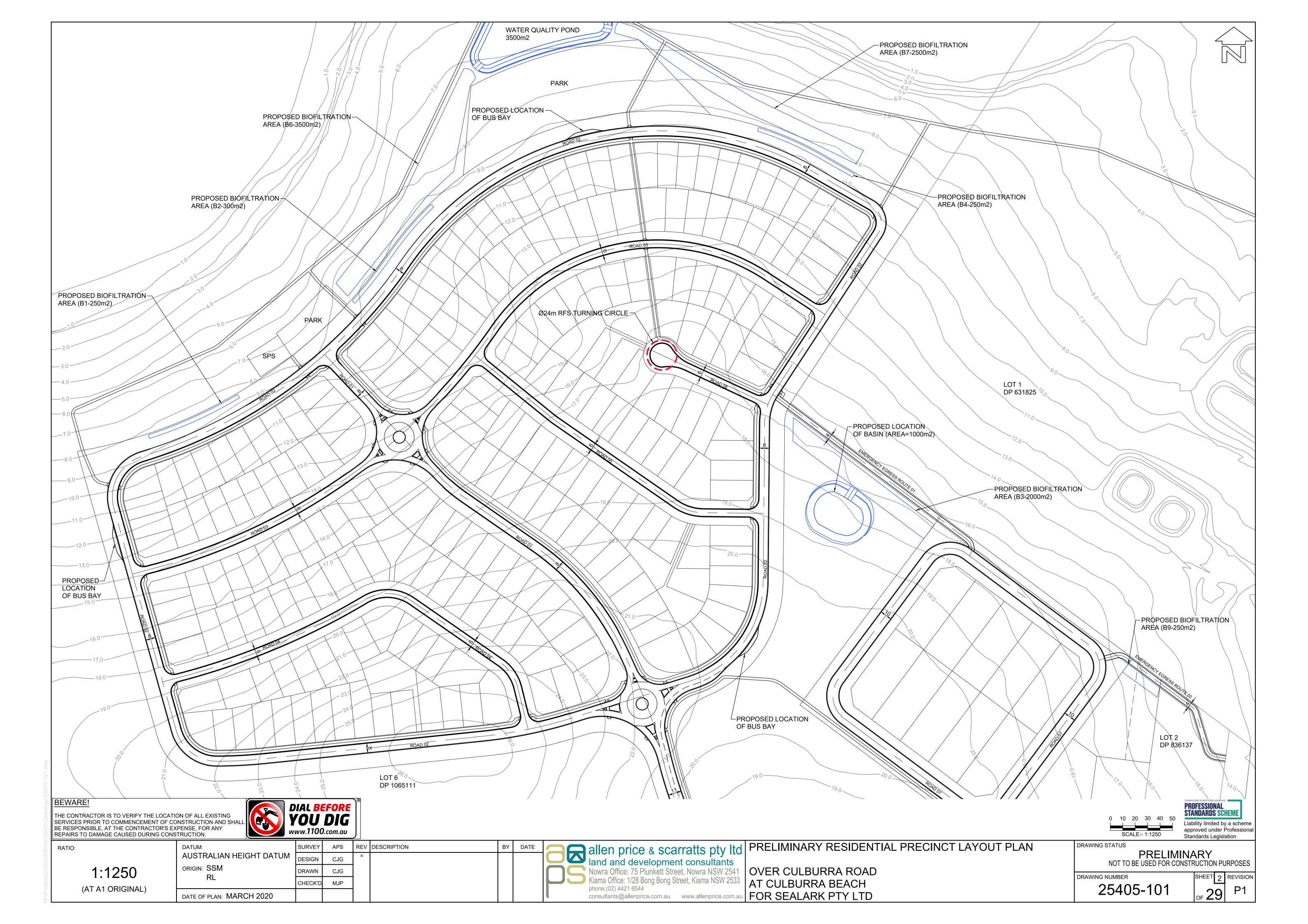
land and development consultants Nowra Office: 75 Plunkett Street, Nowra NSW 2541 Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533

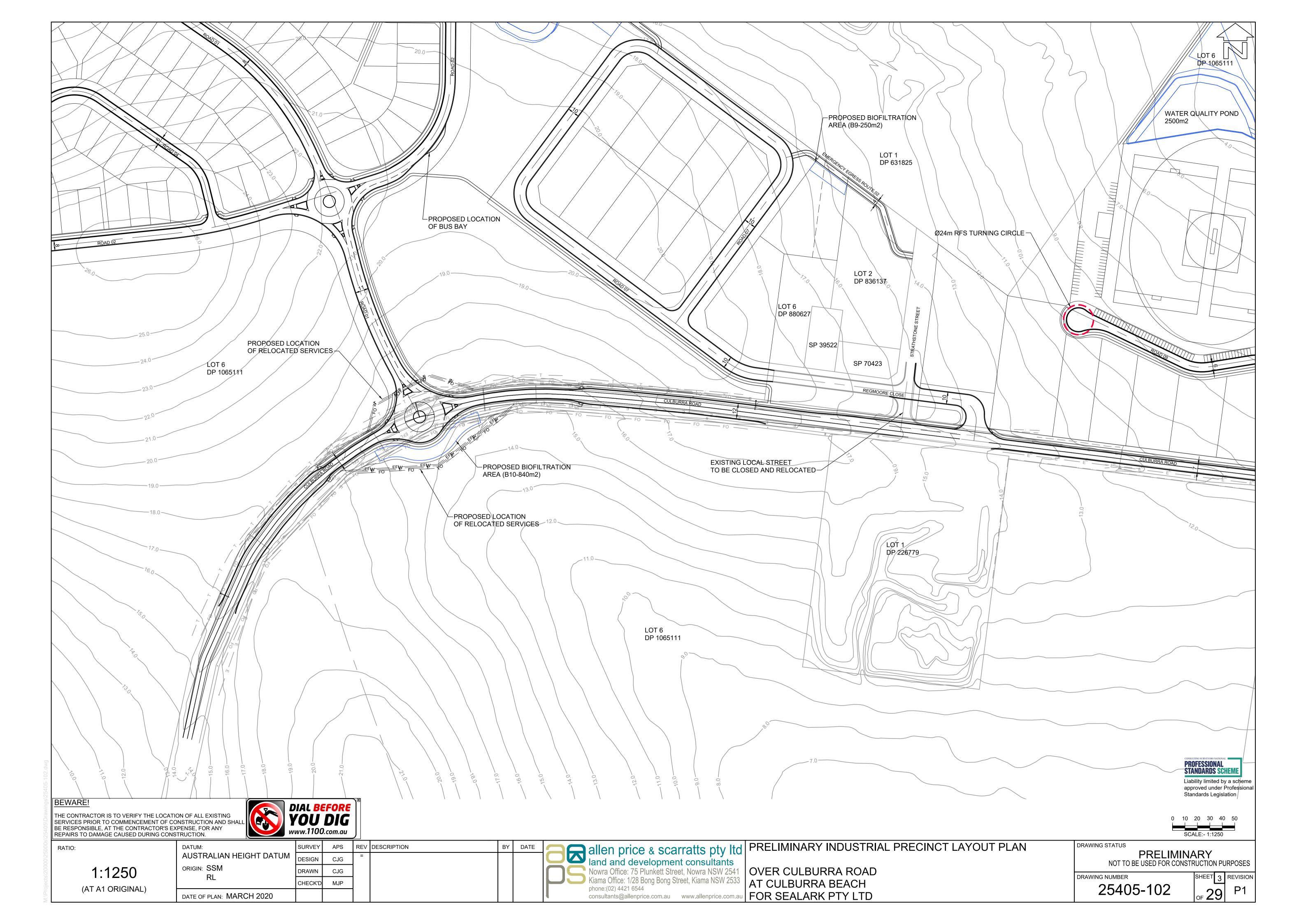
OVER CULBURRA ROAD AT CULBURRA BEACH FOR SEALARK PTY LTD

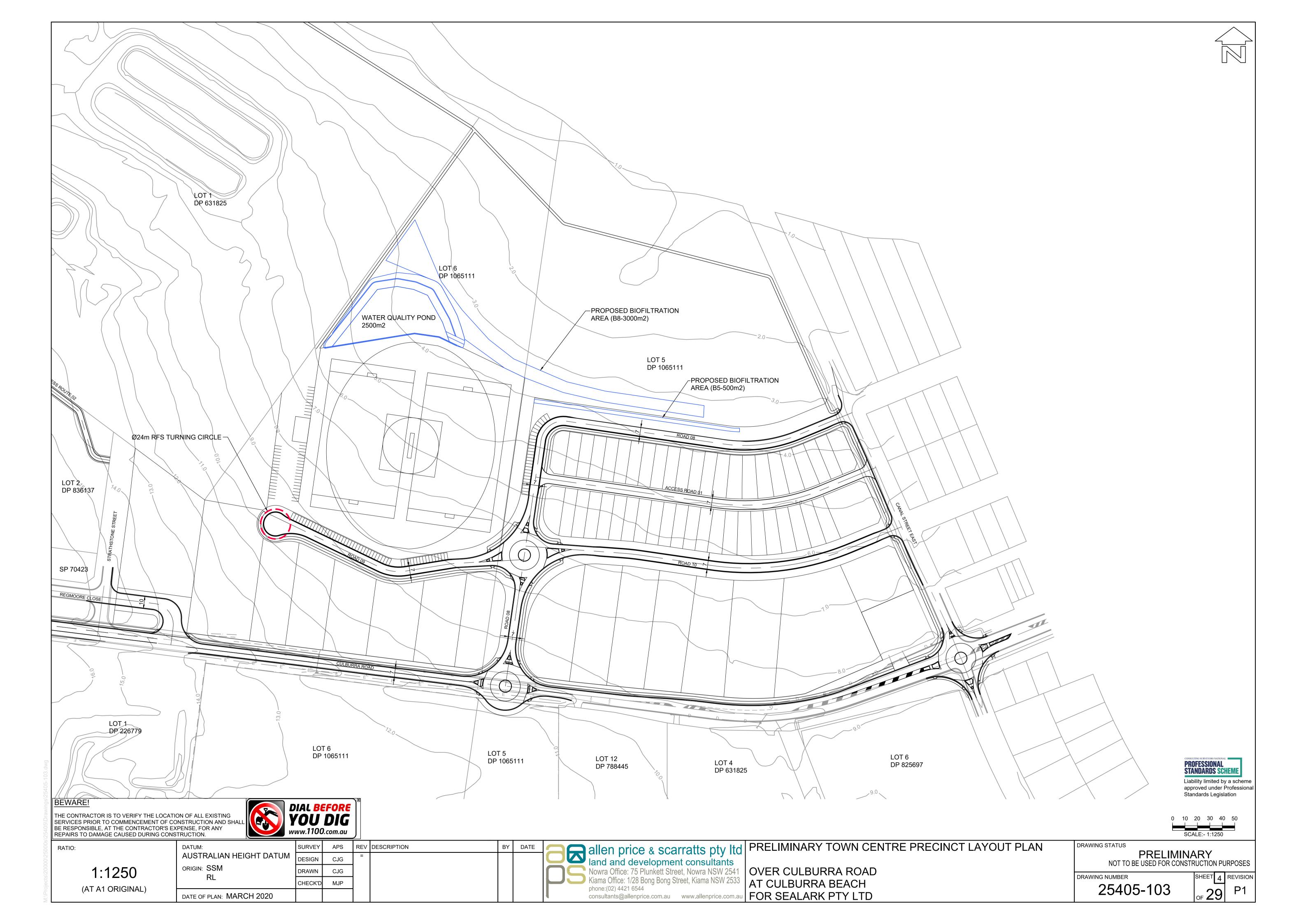
**PRELIMINARY** 

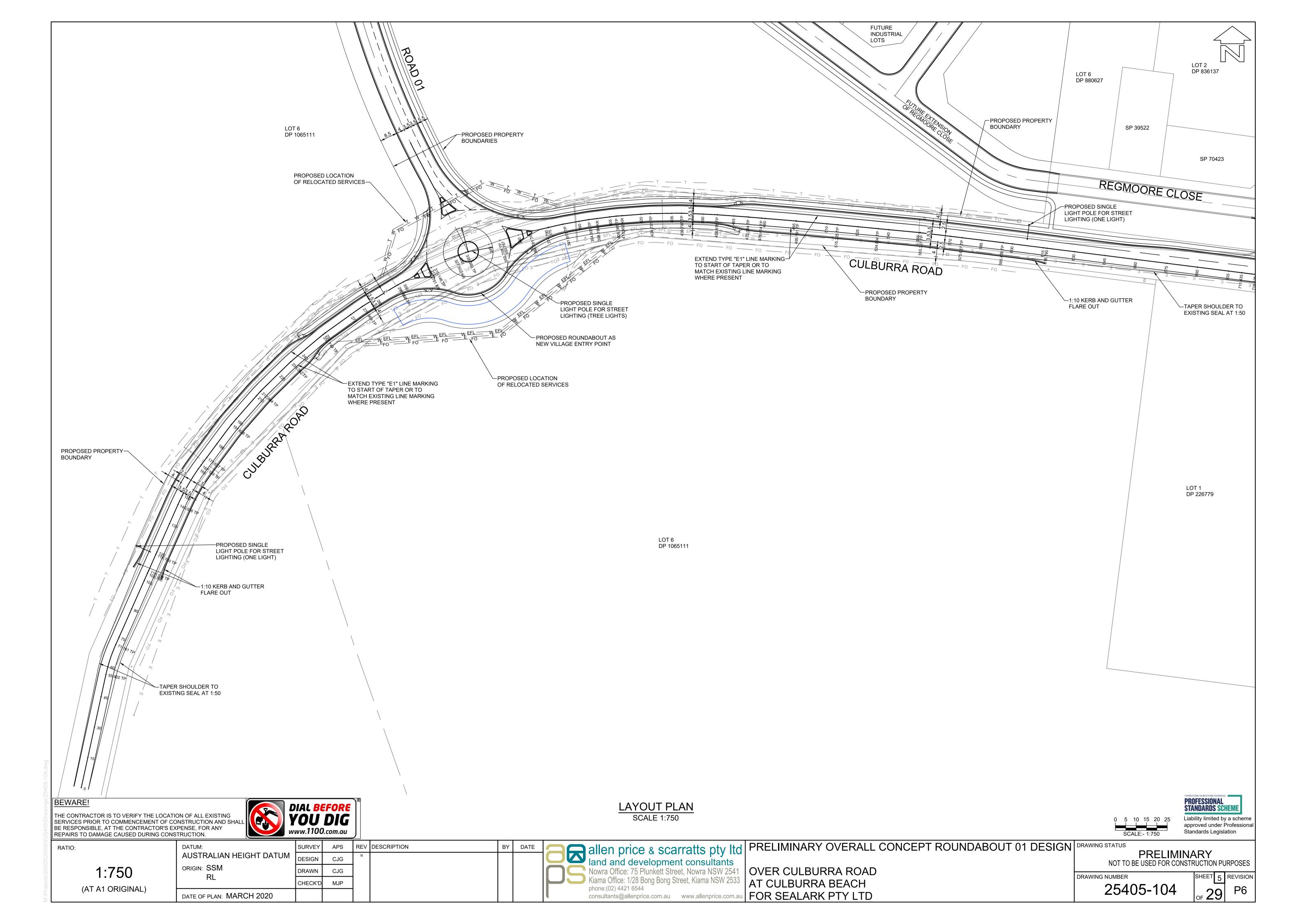
DRAWING NUMBER 25405-100

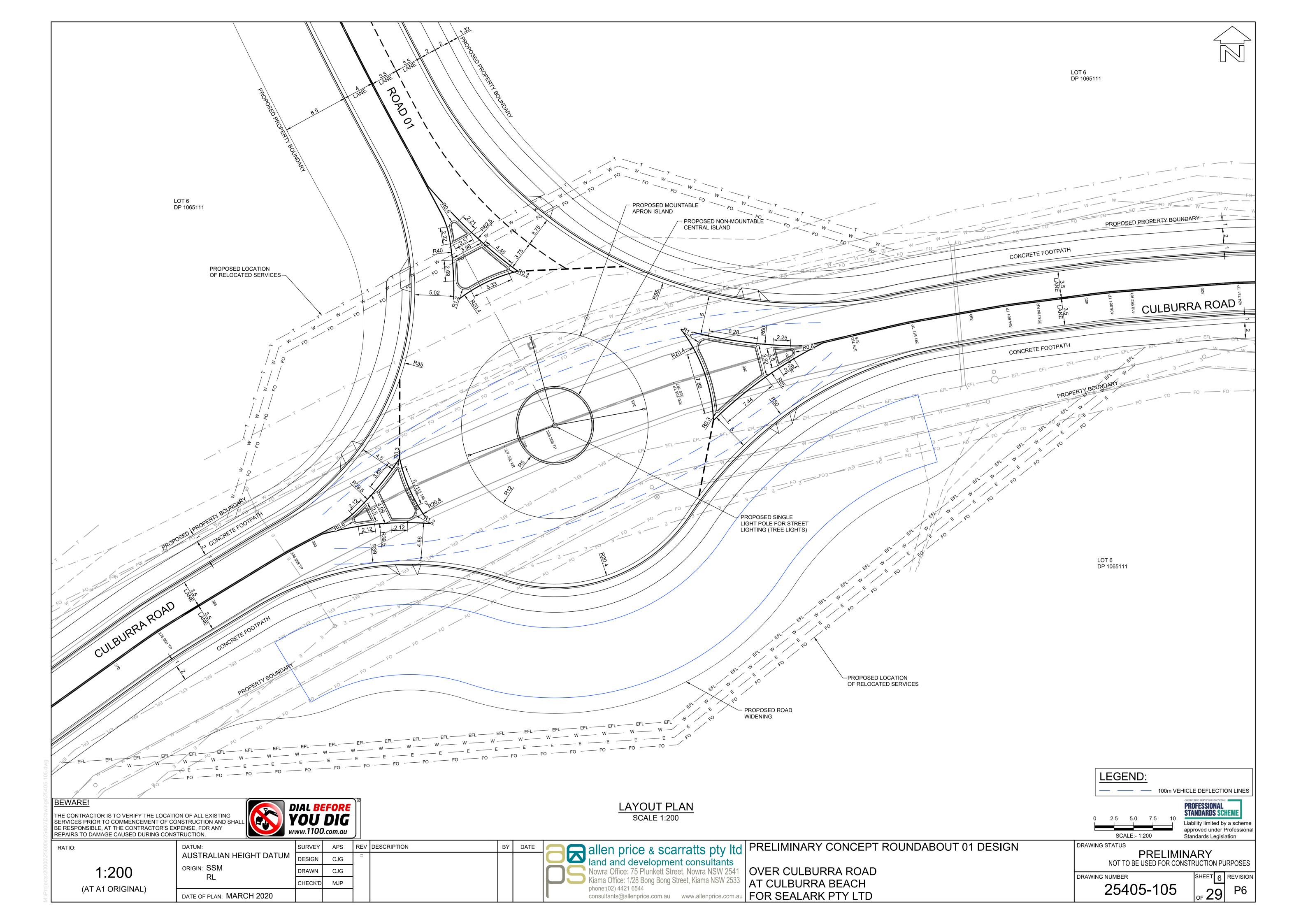
29

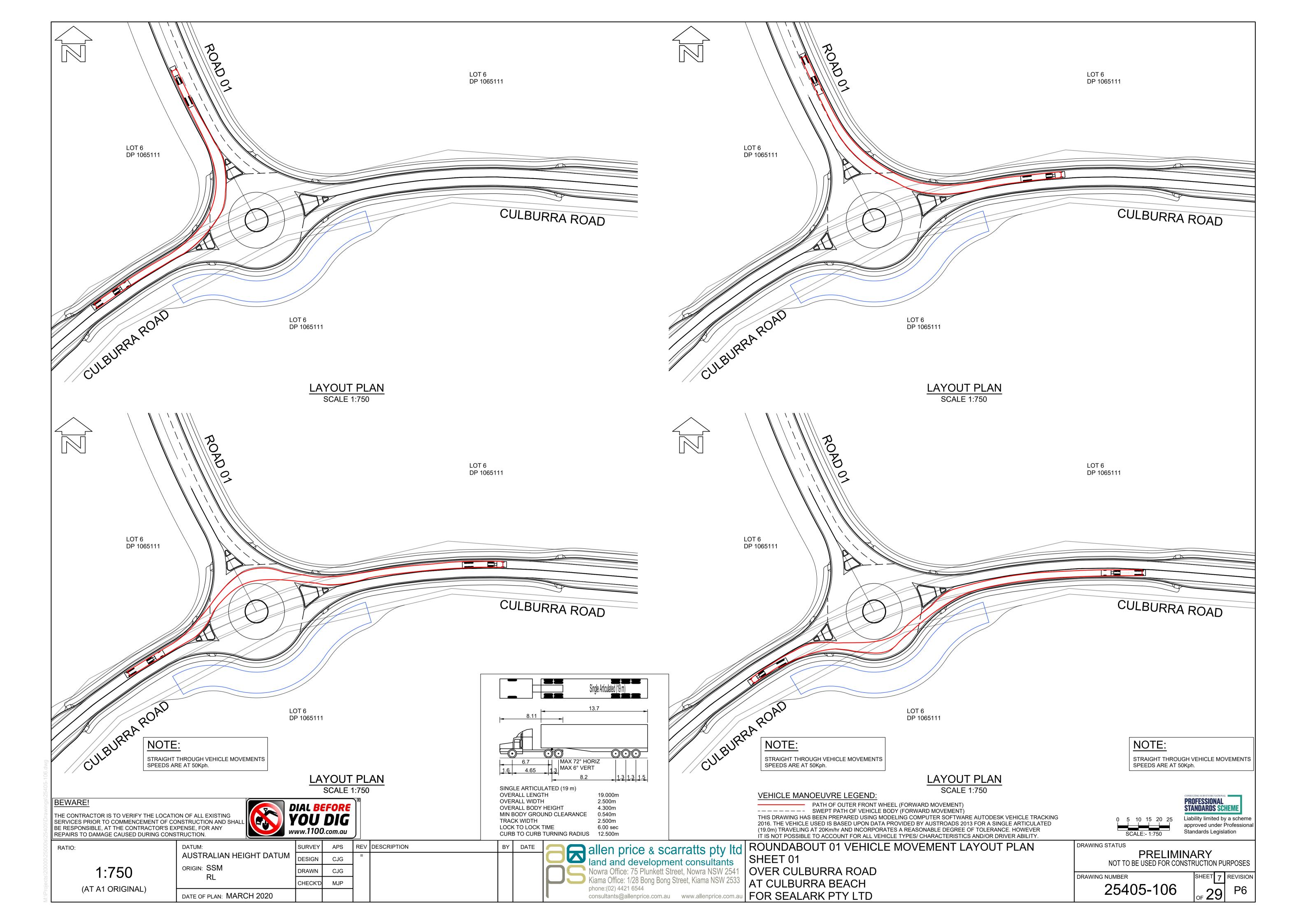


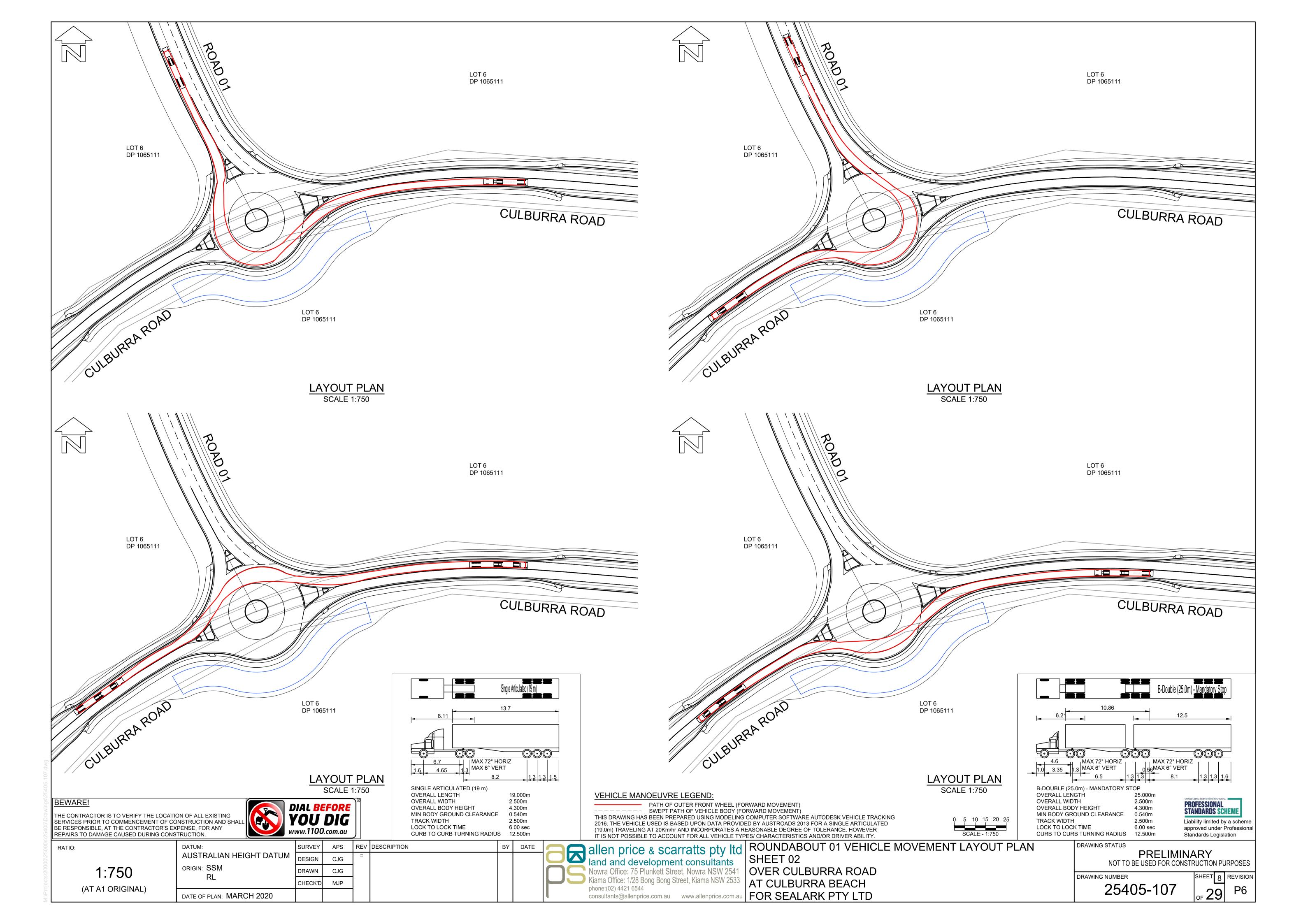


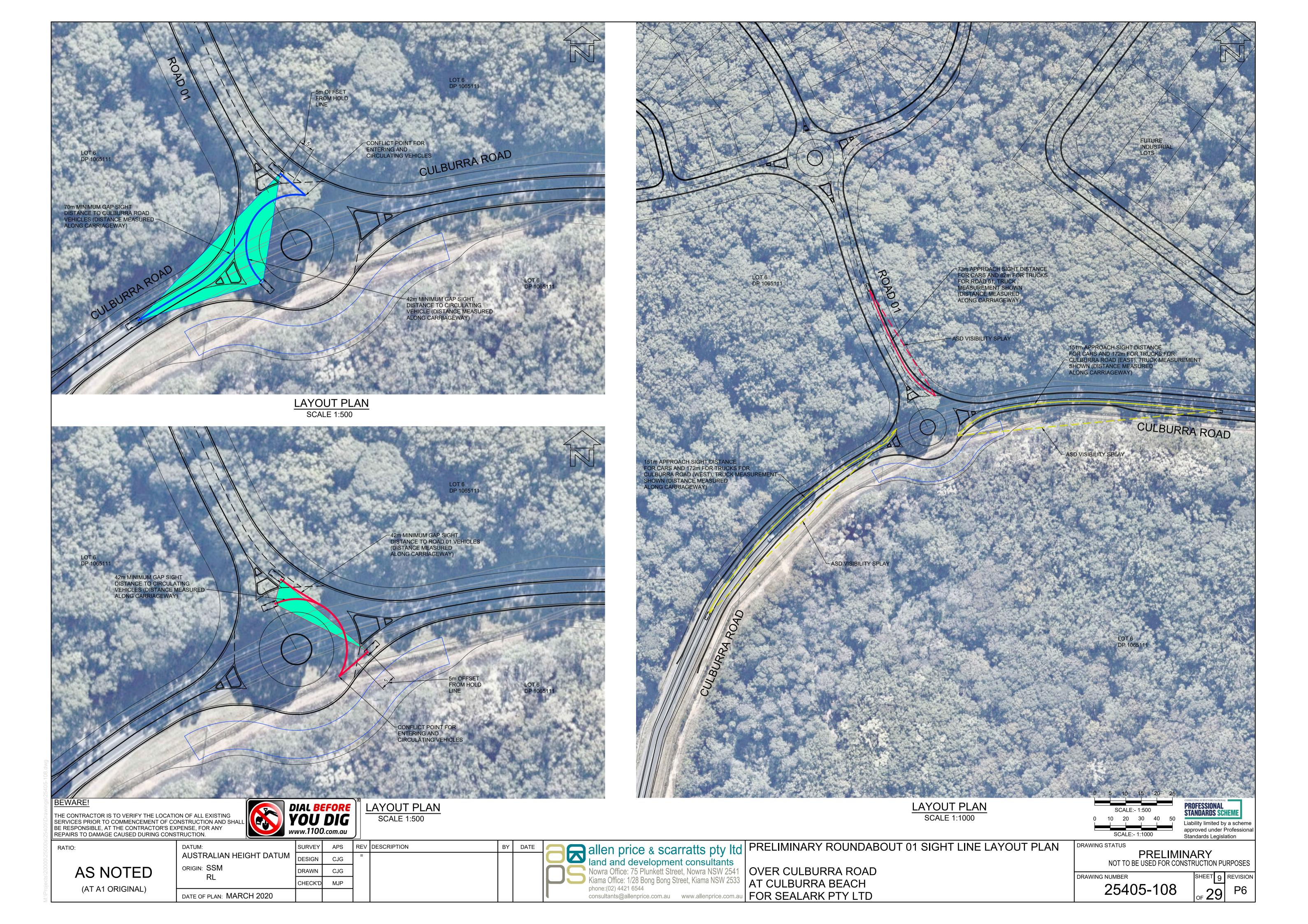


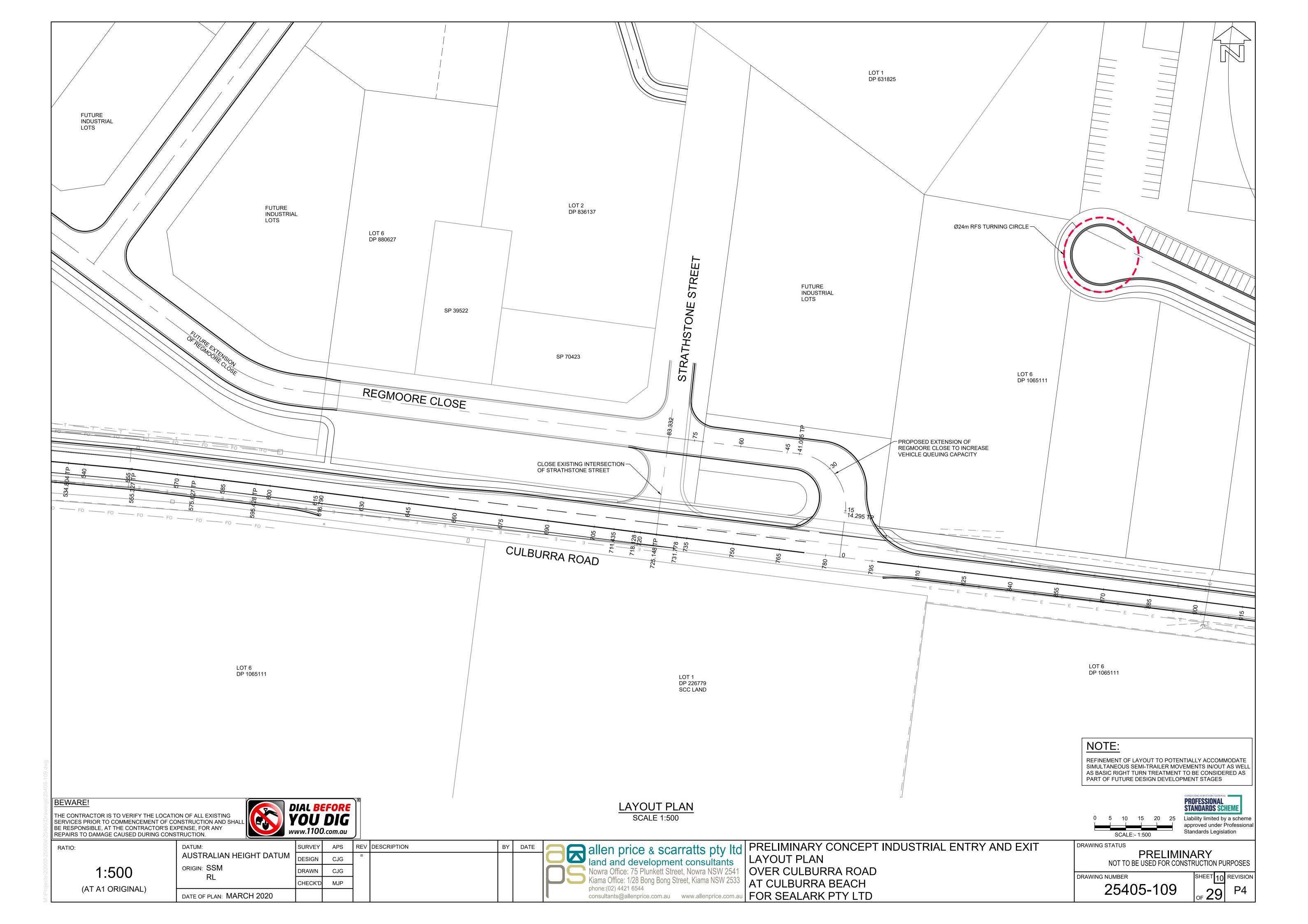


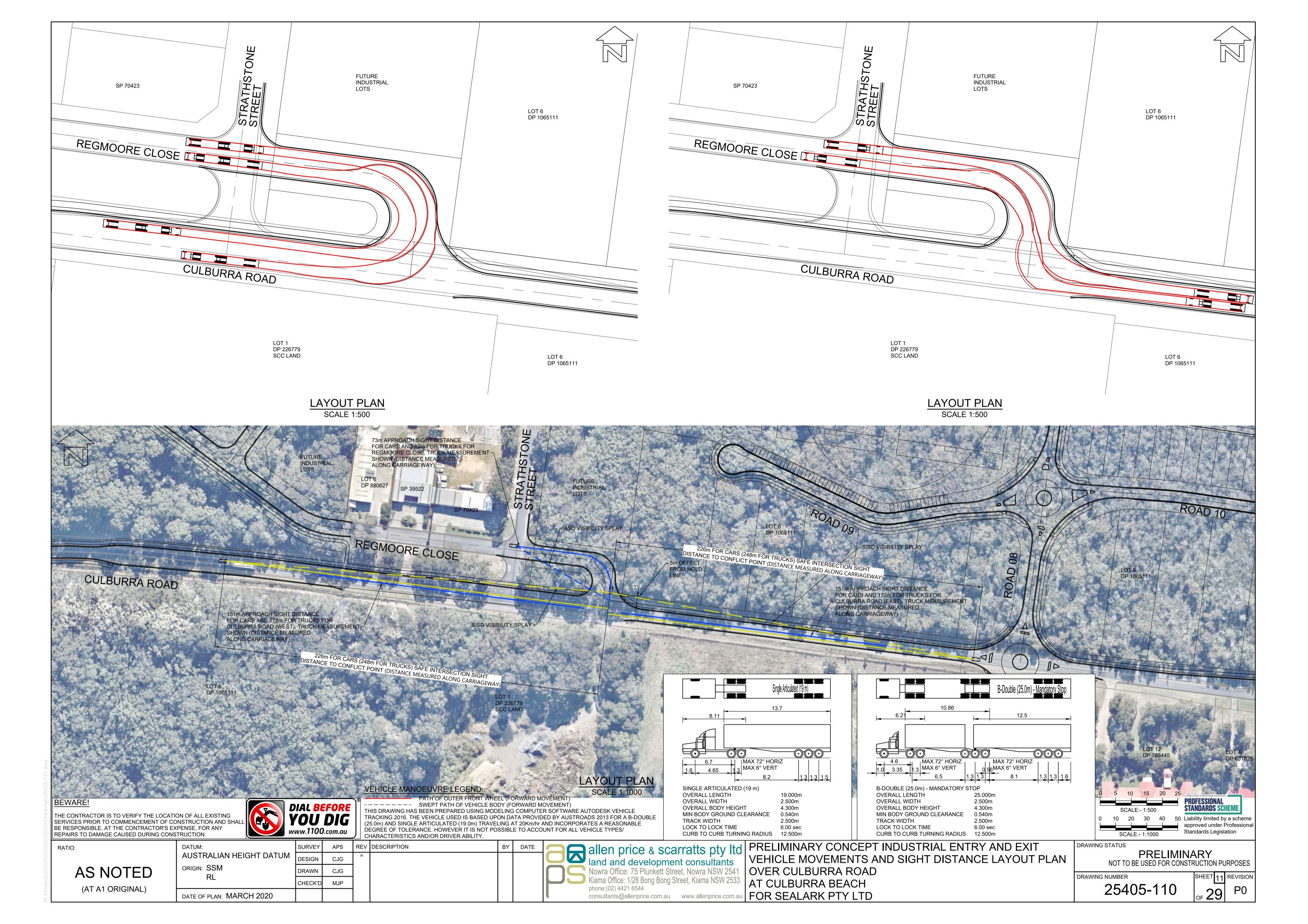


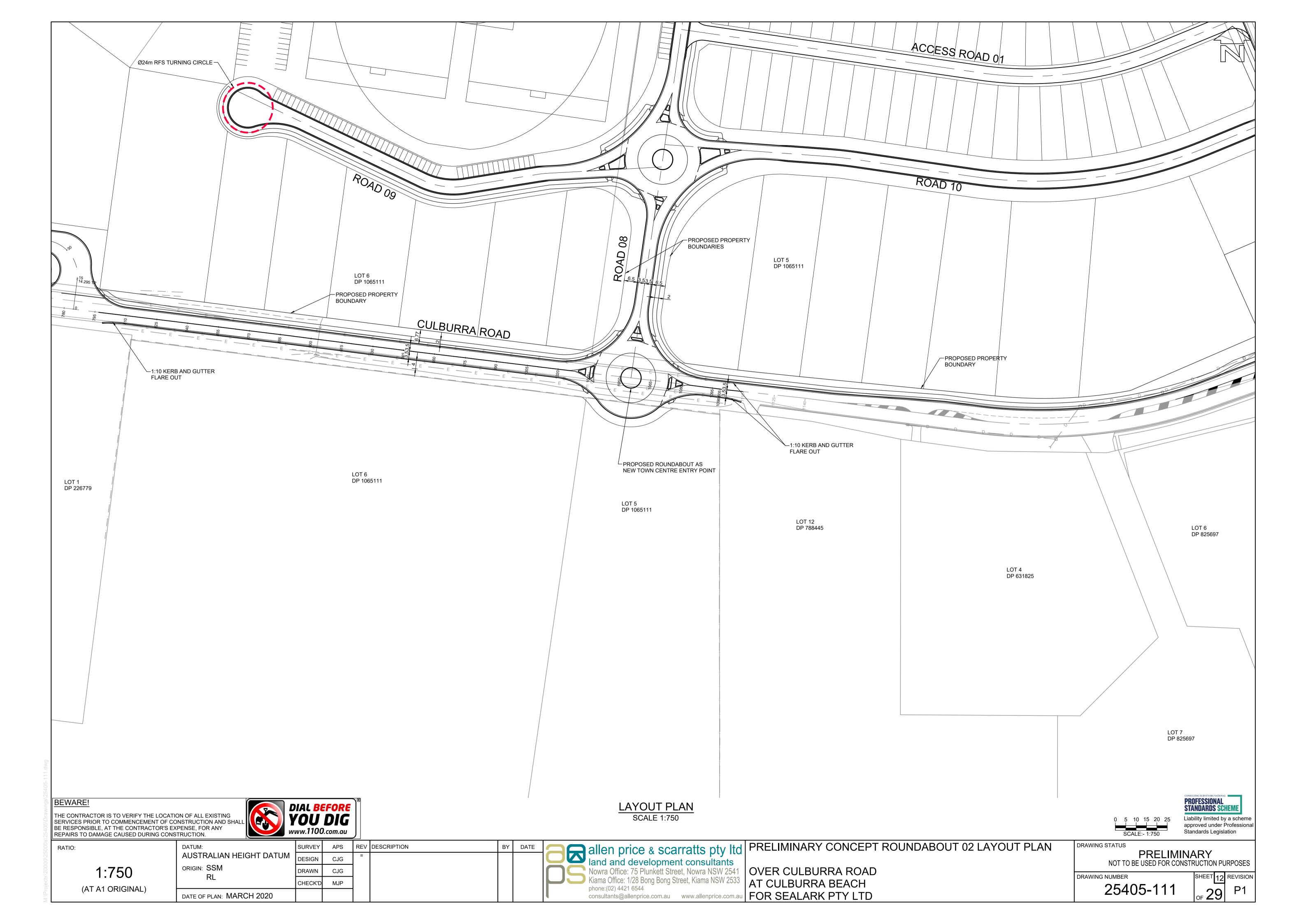


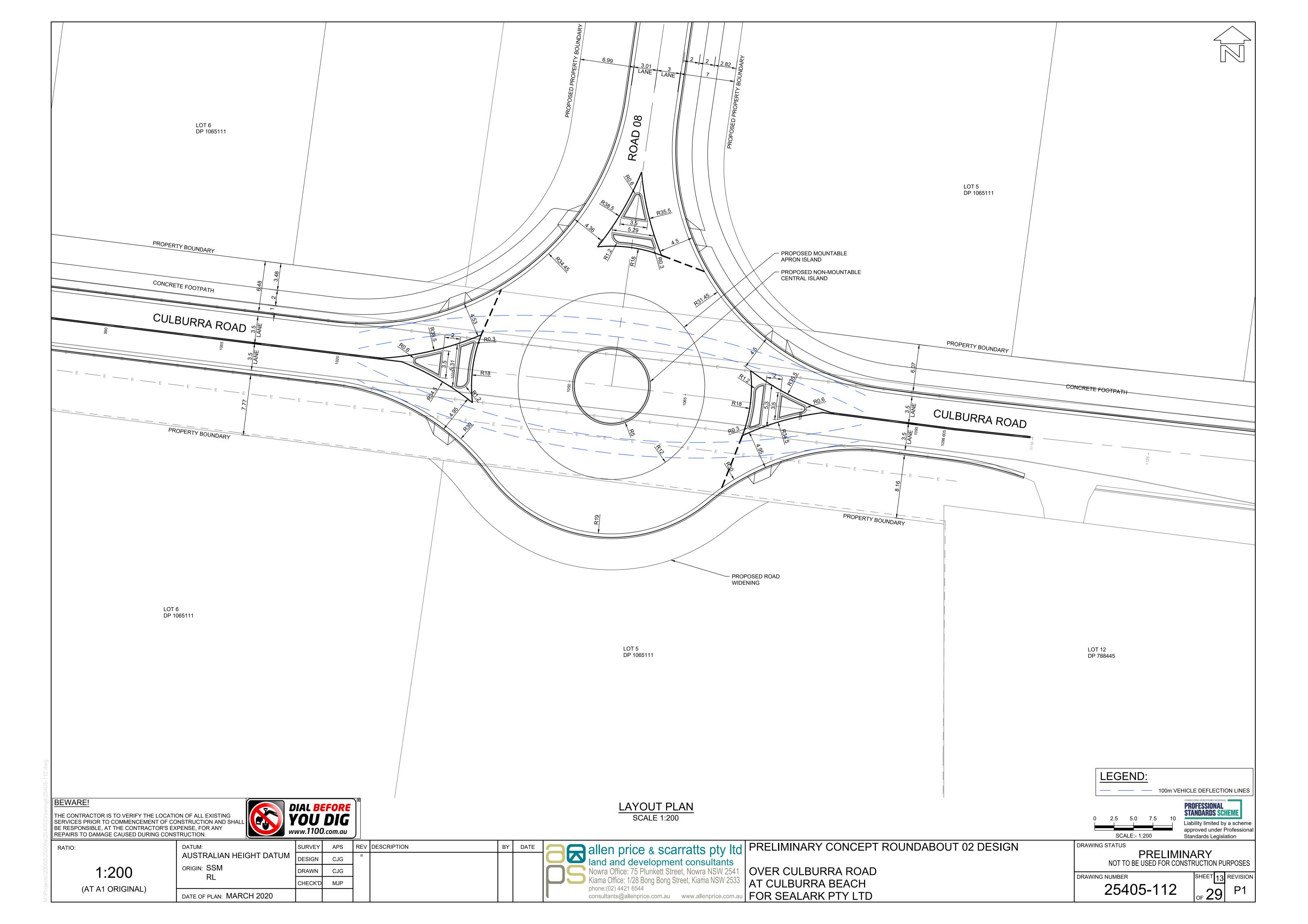


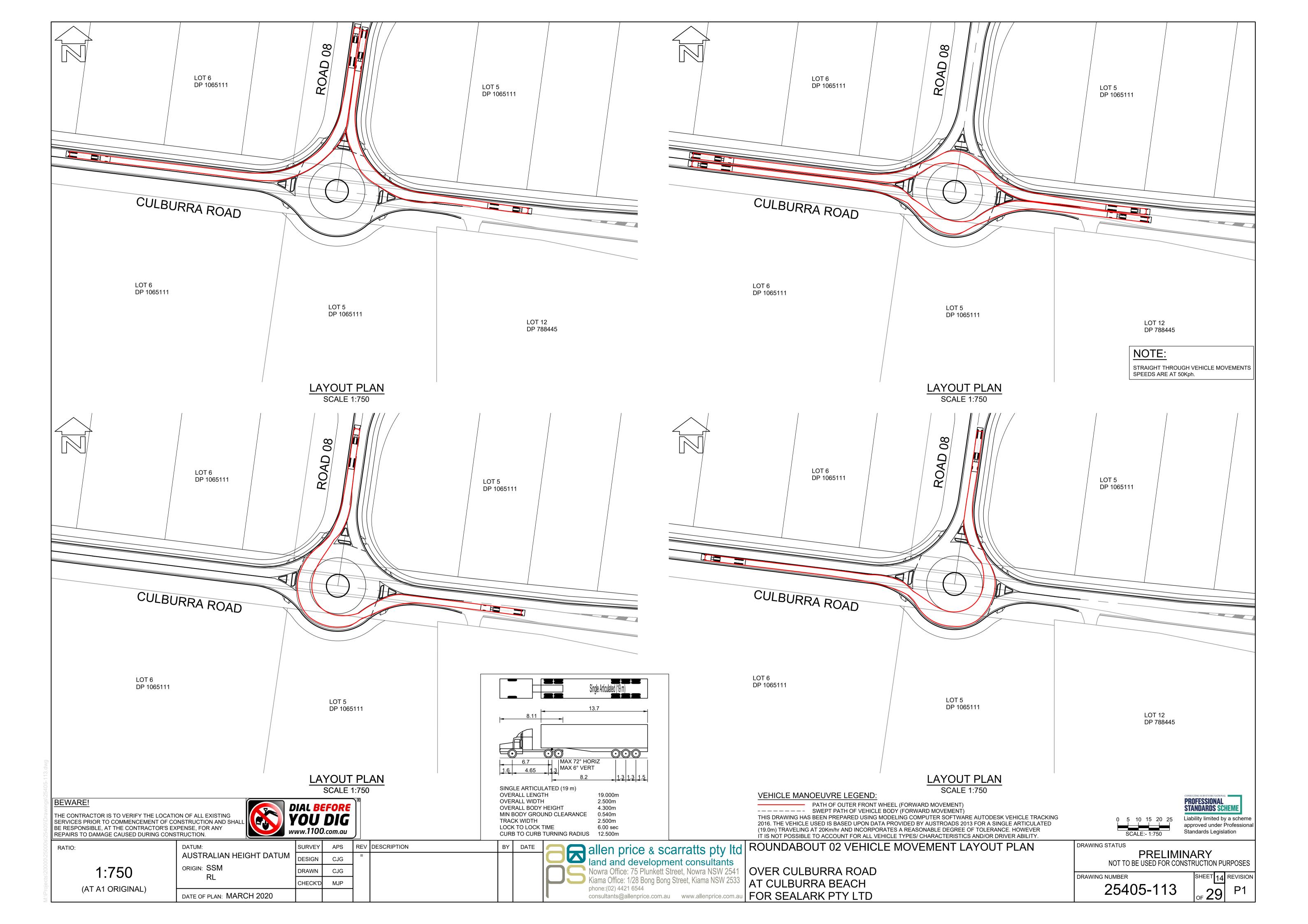


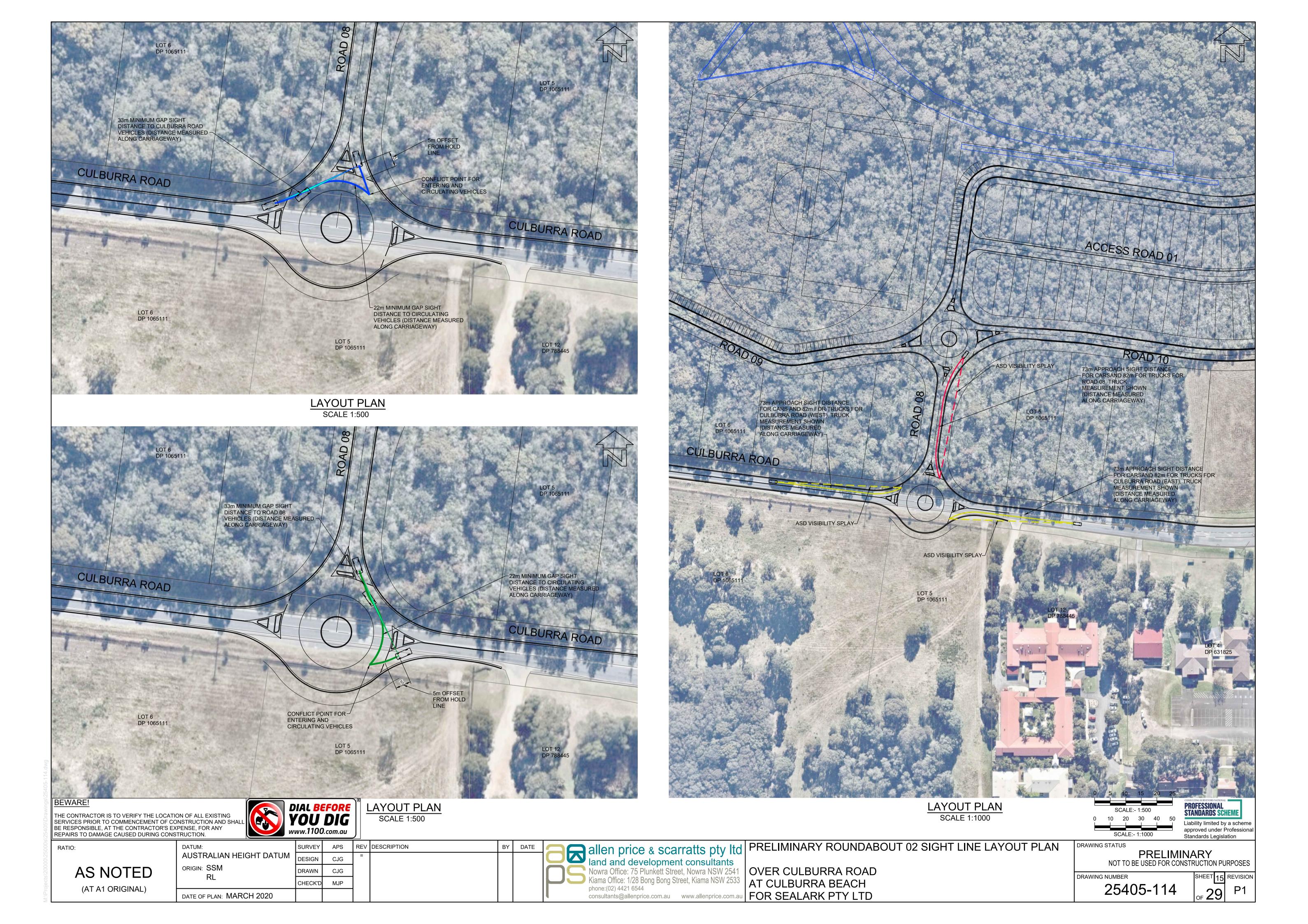


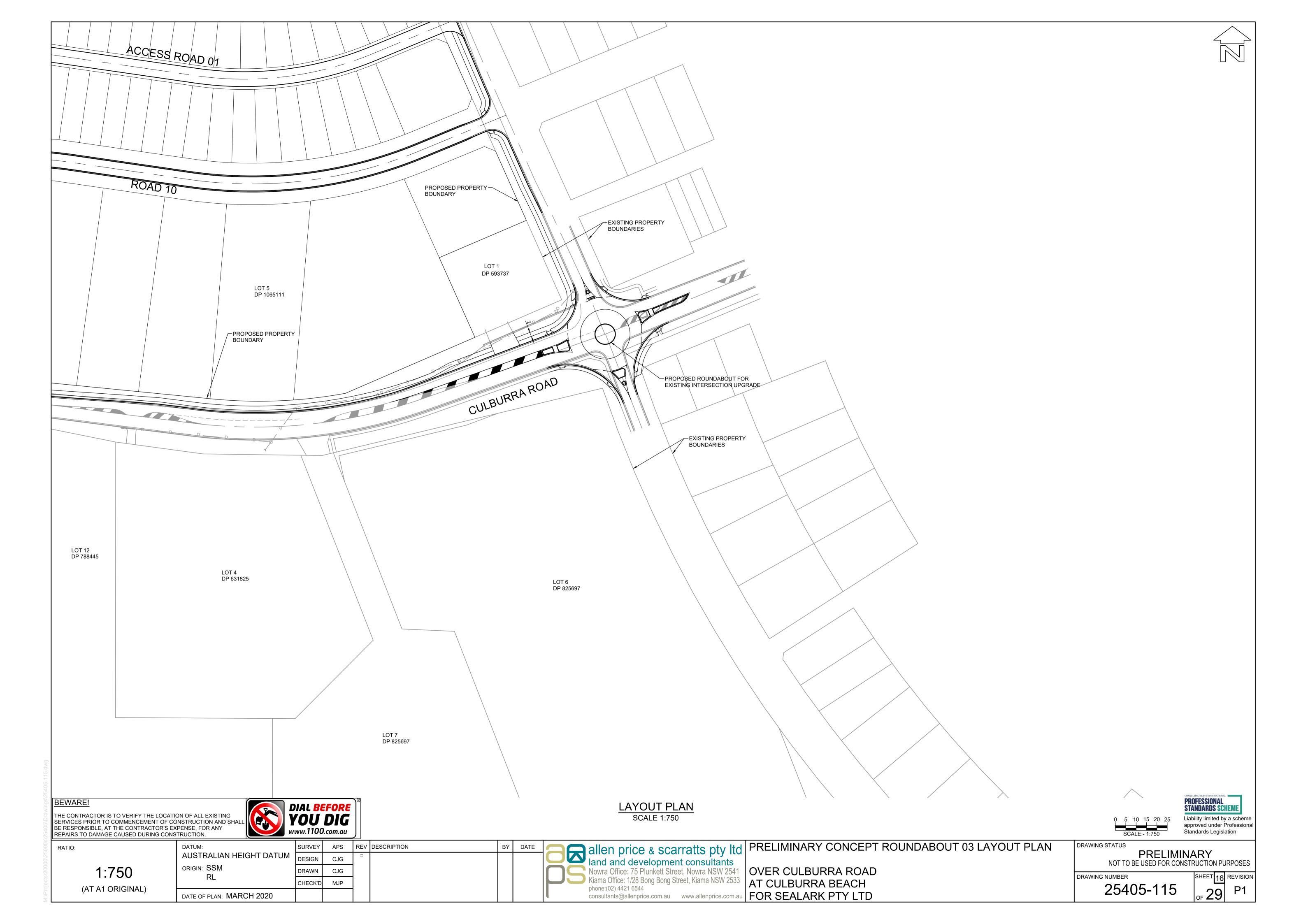


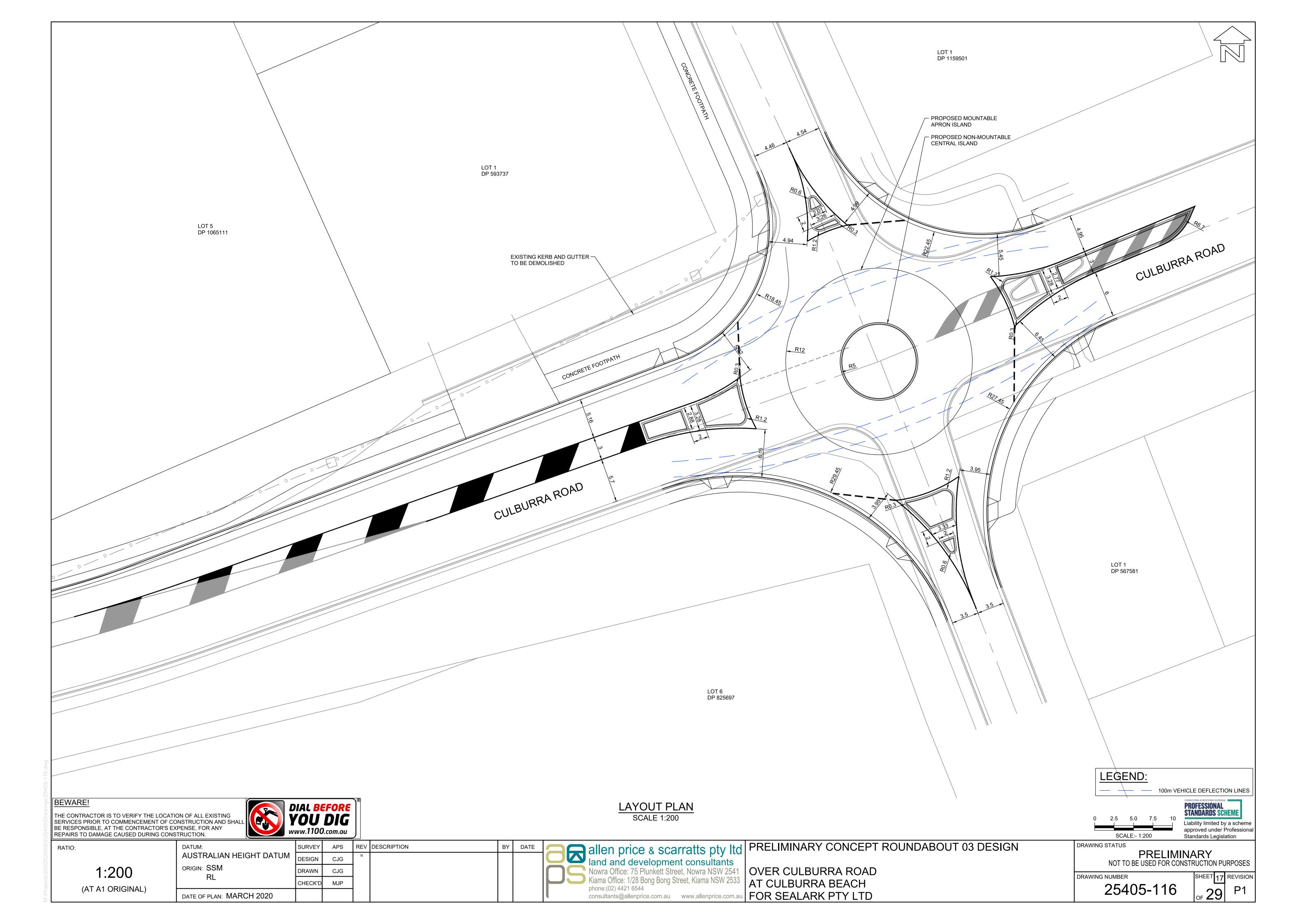


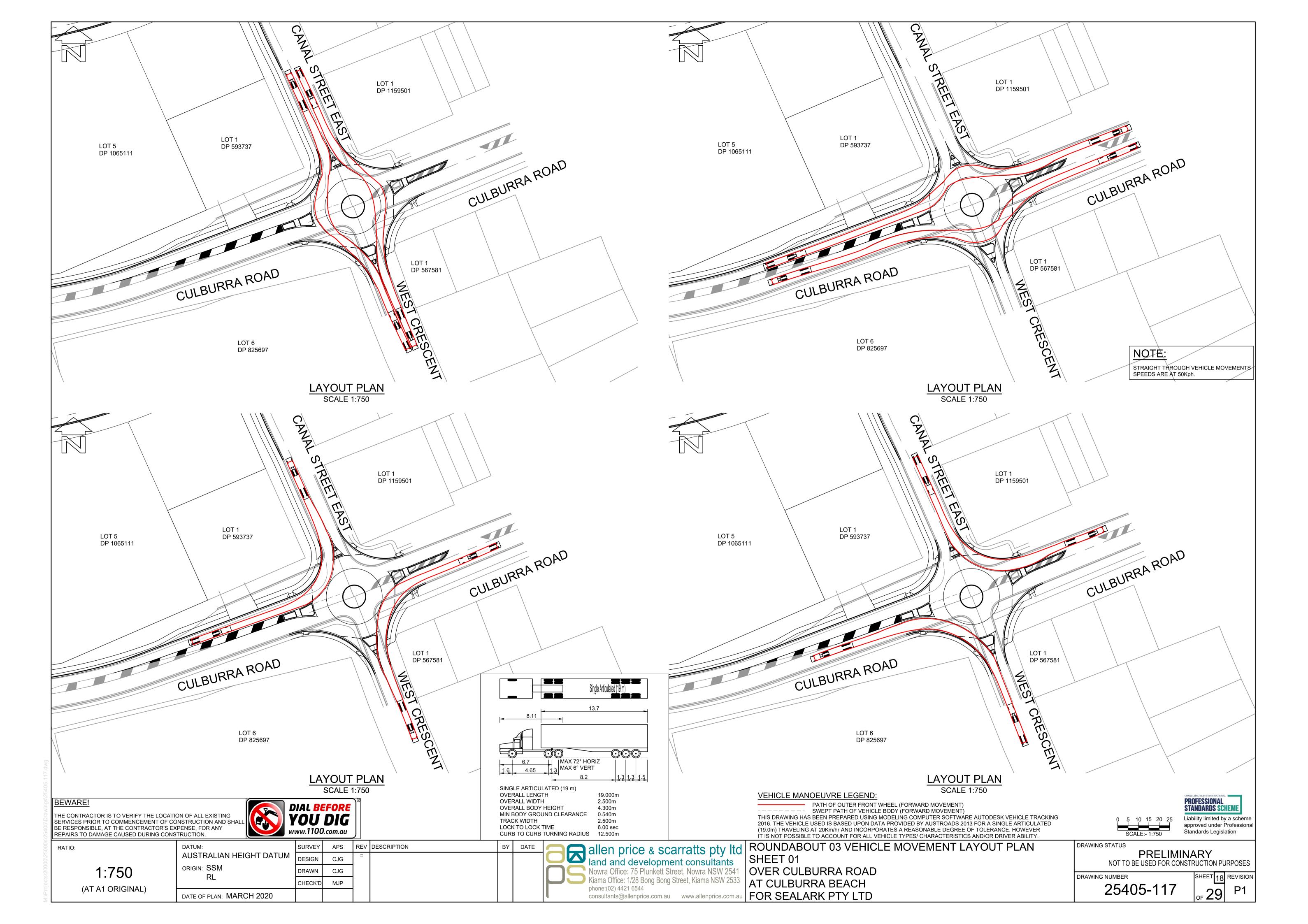


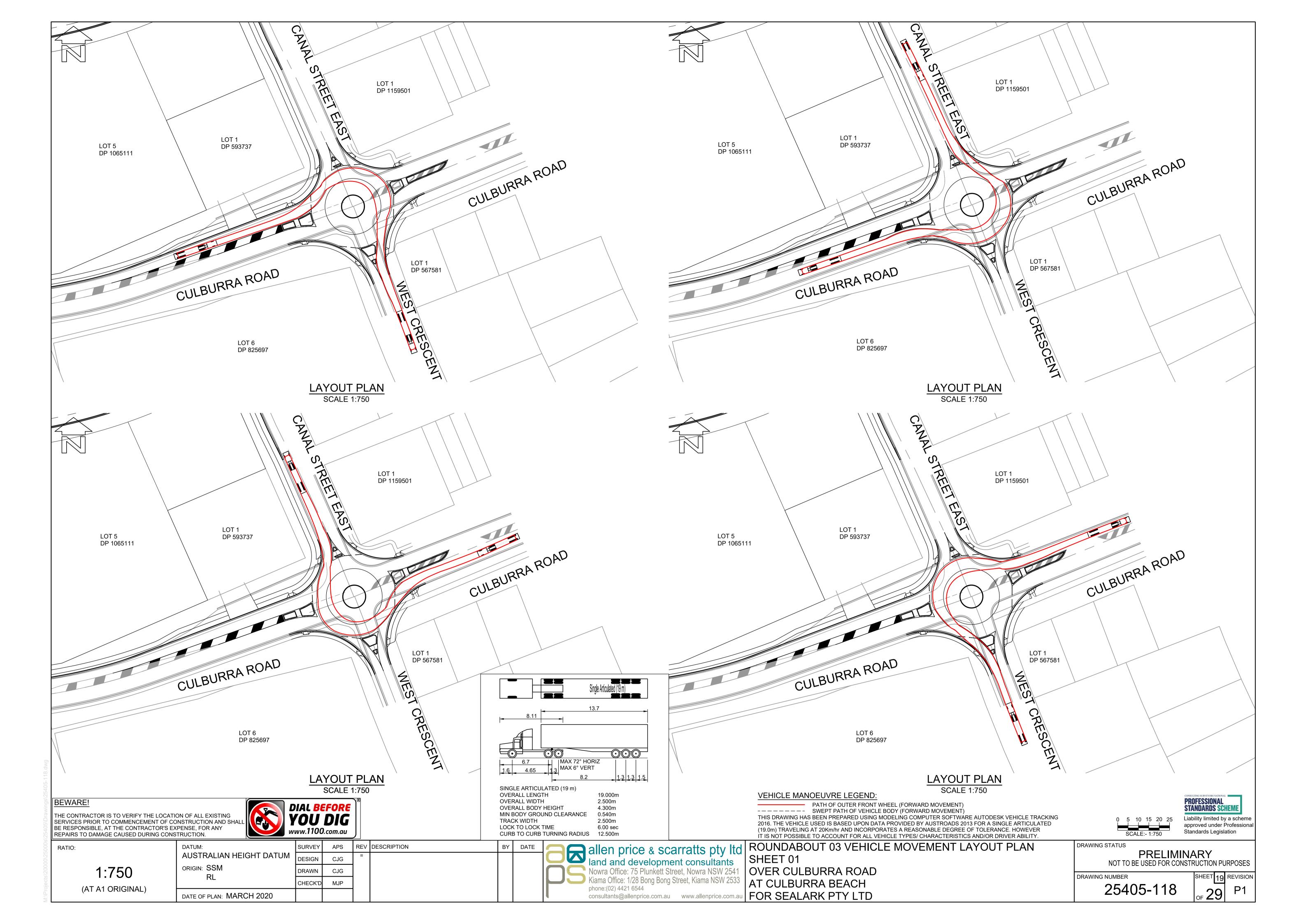


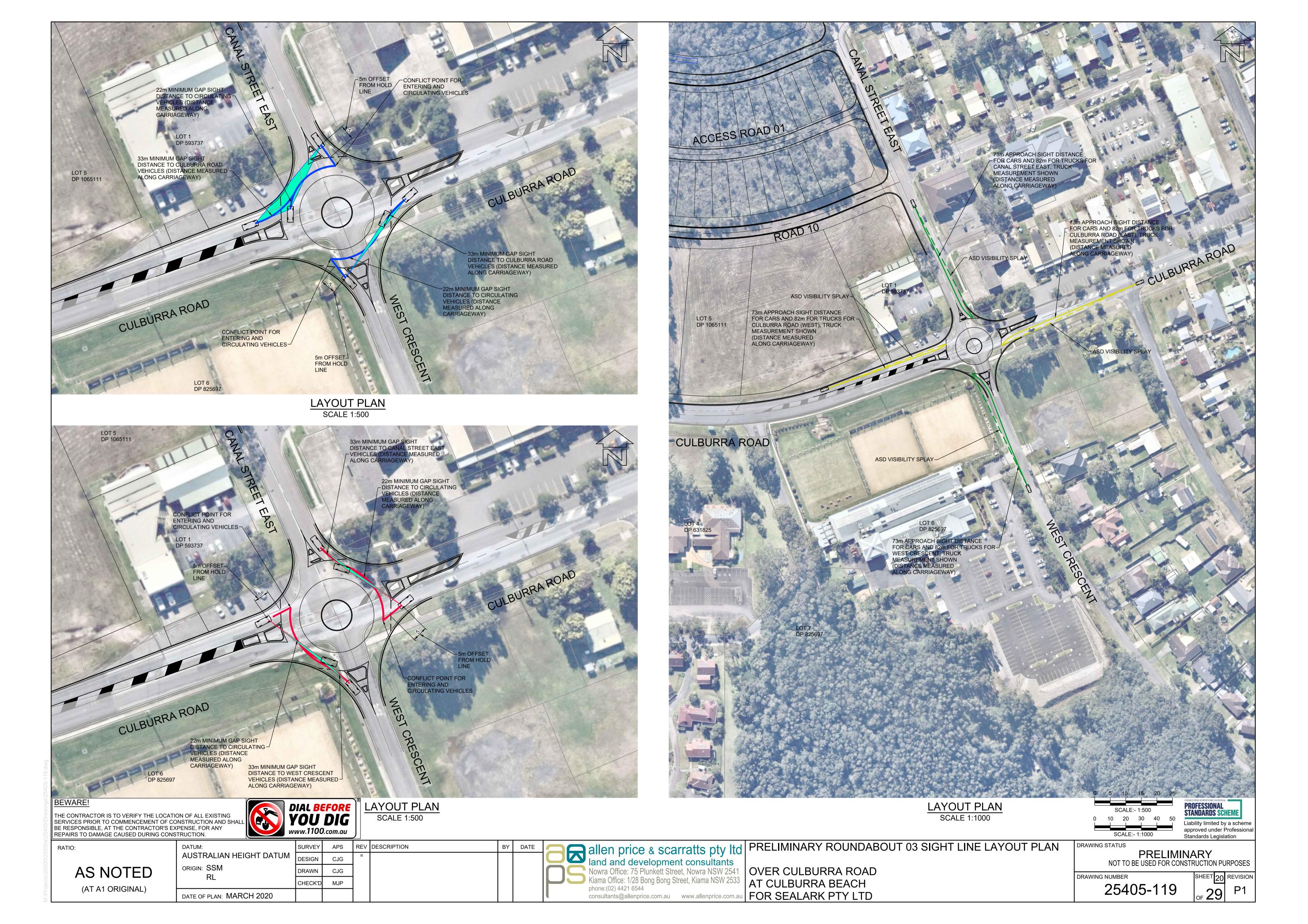


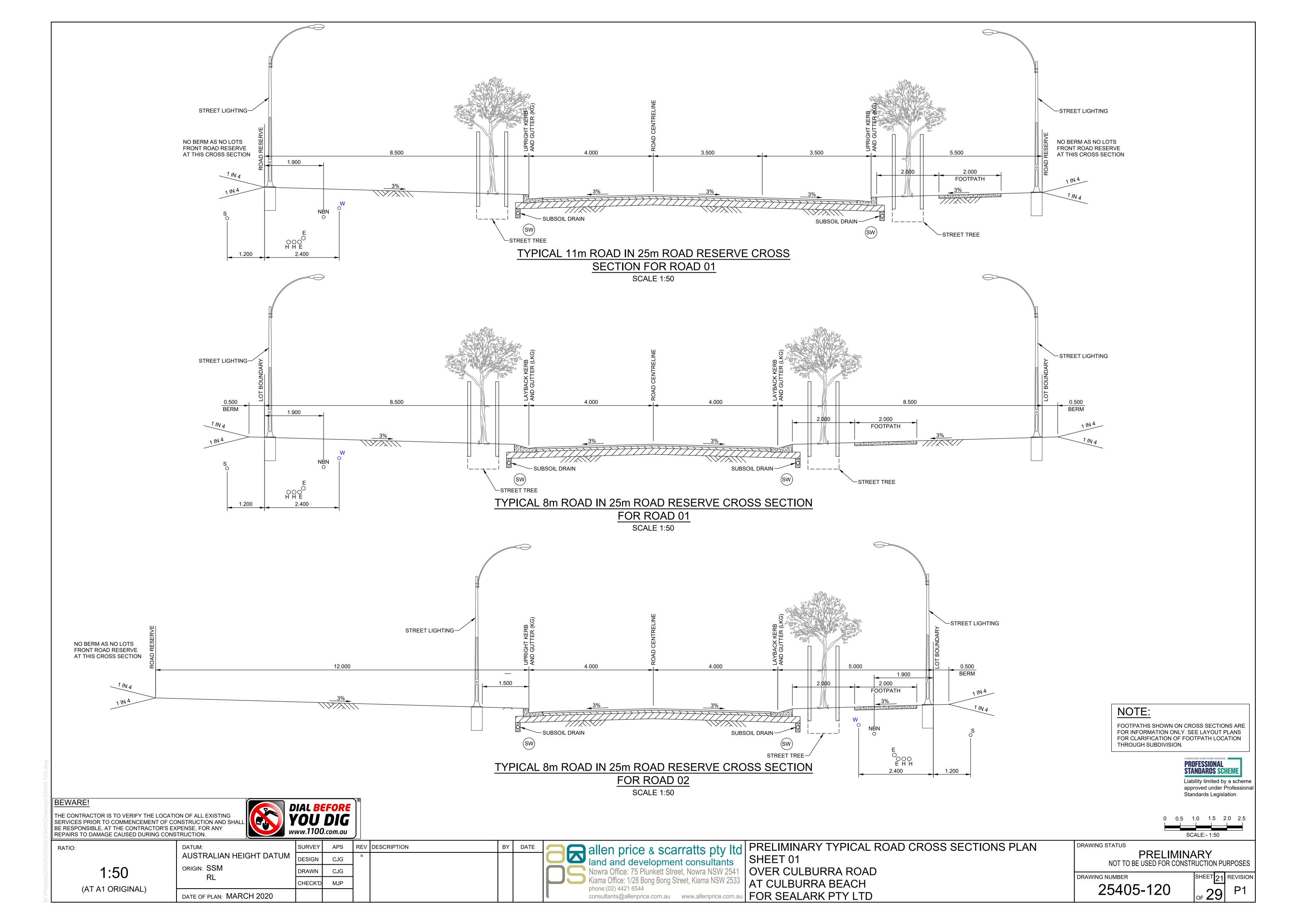


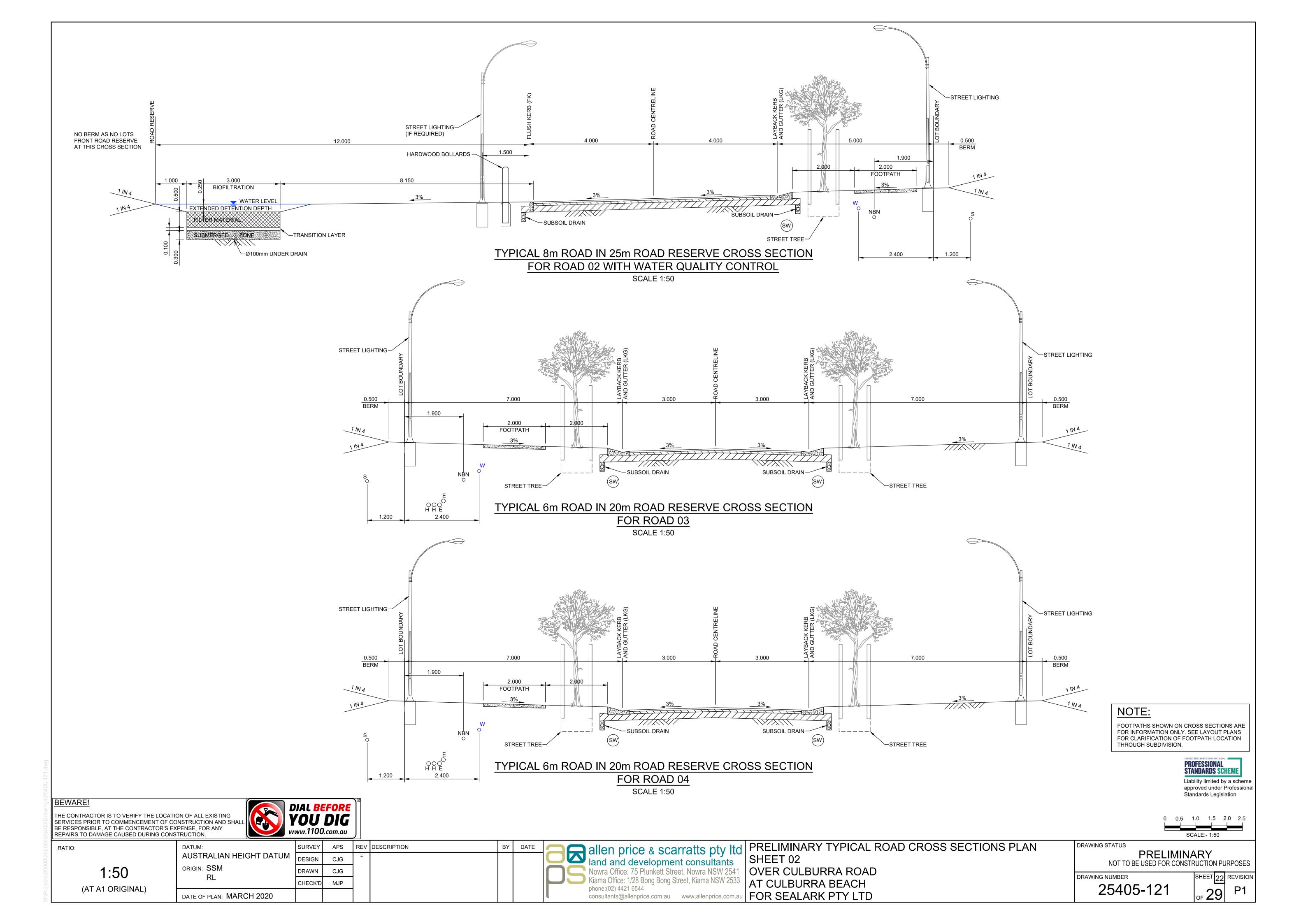


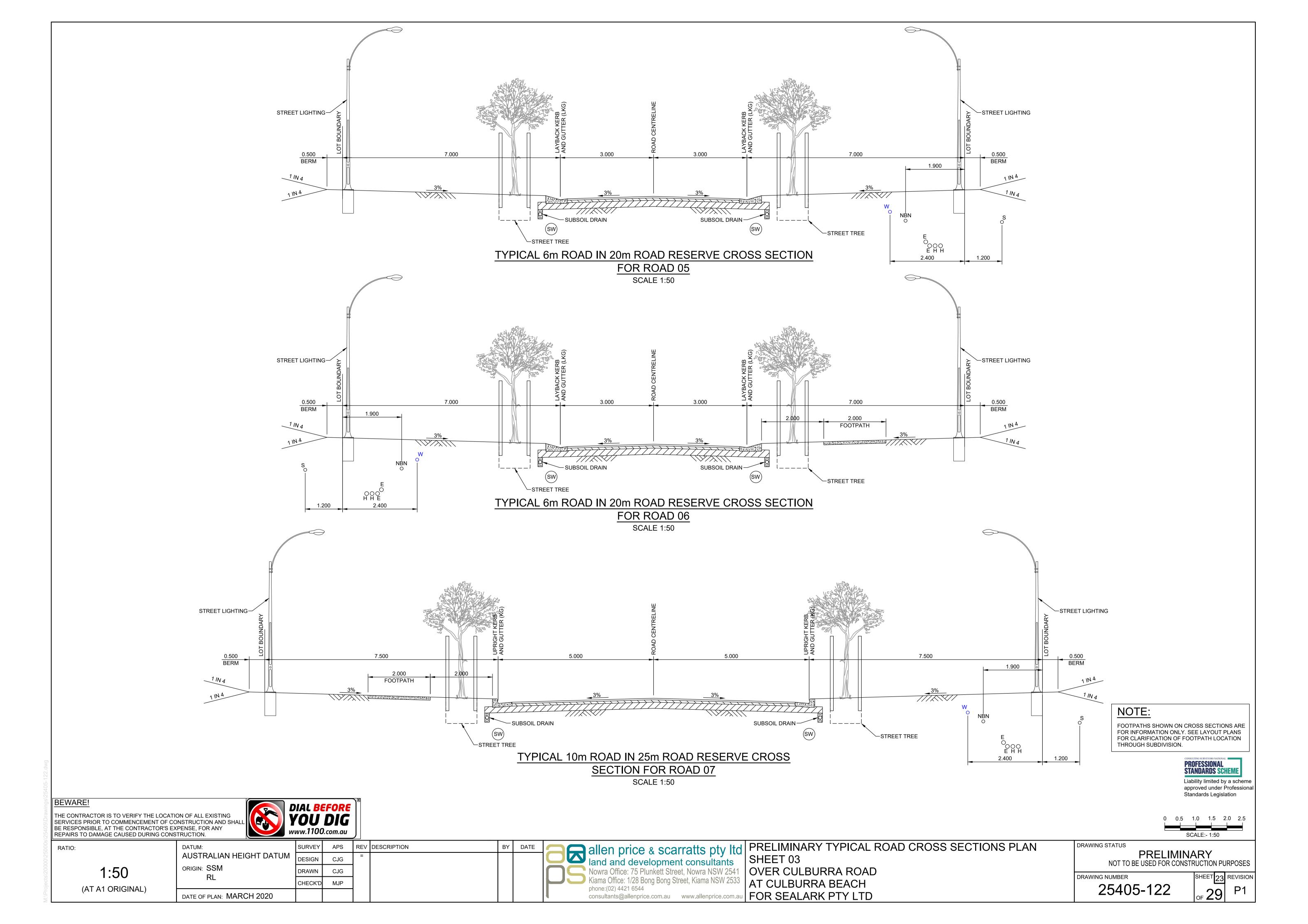


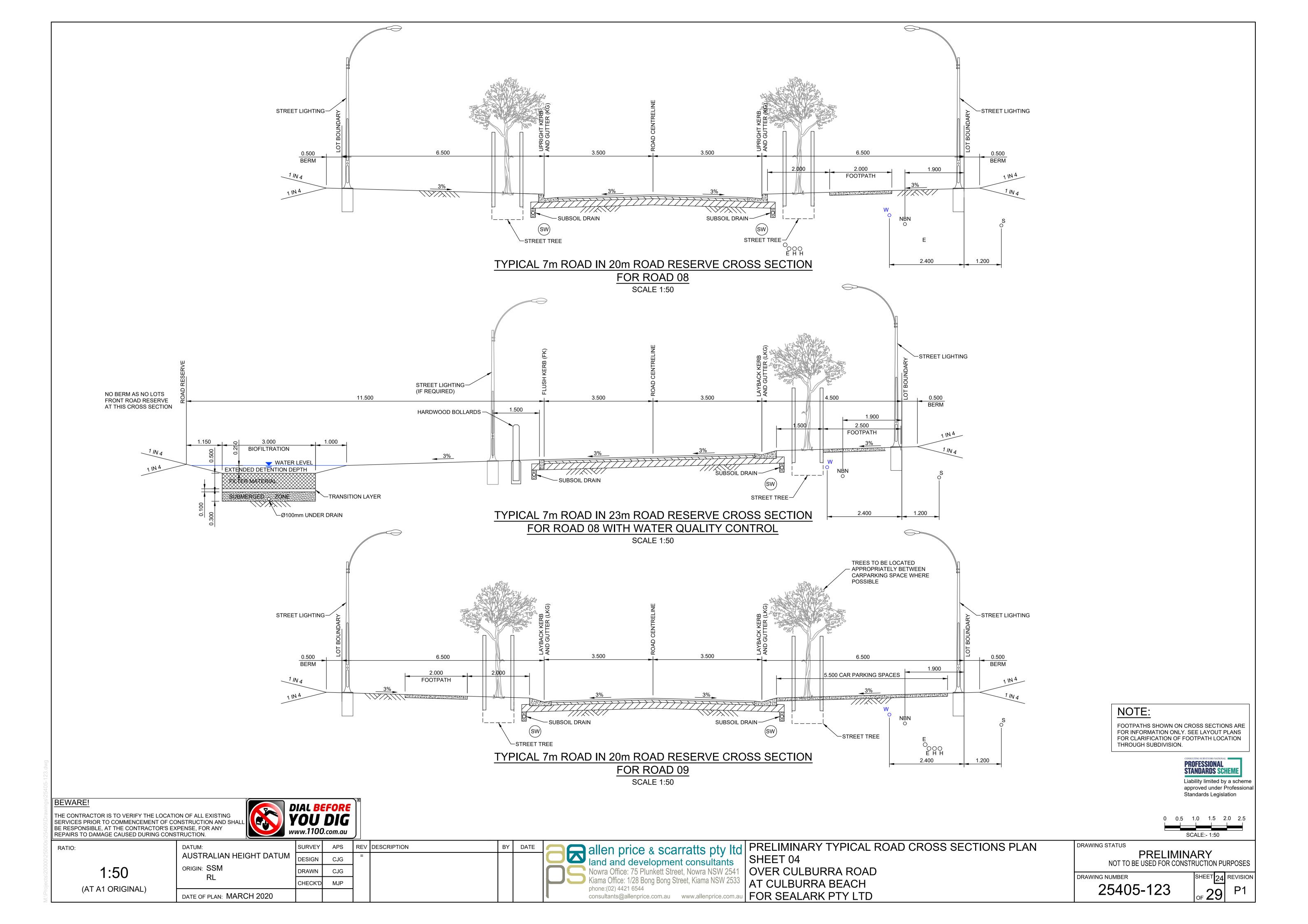


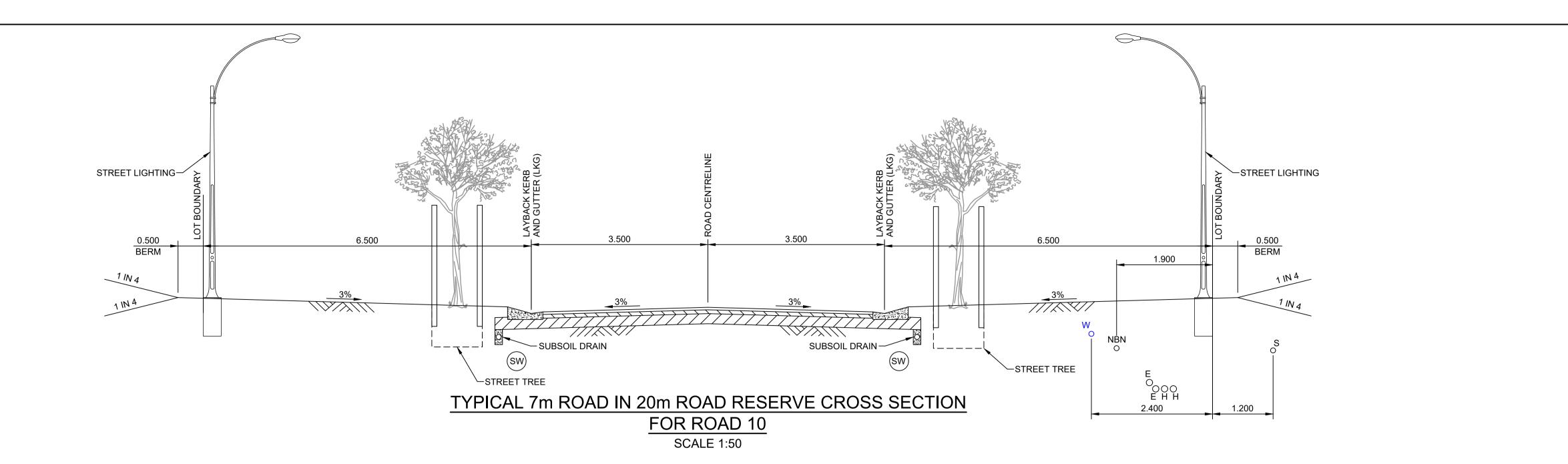


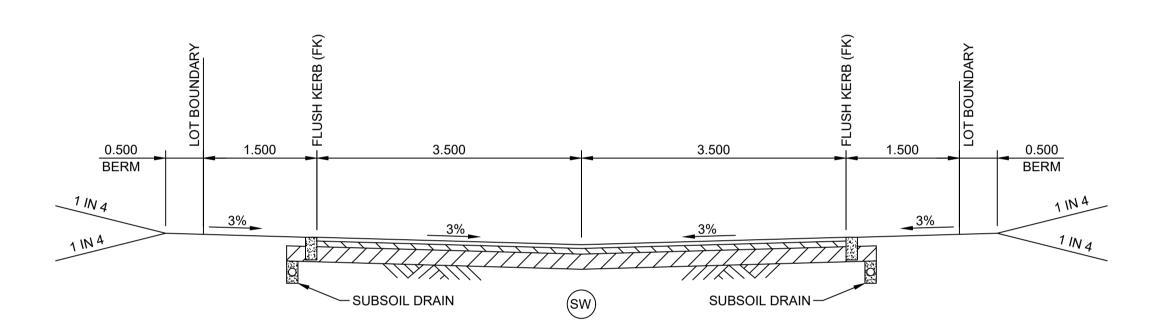




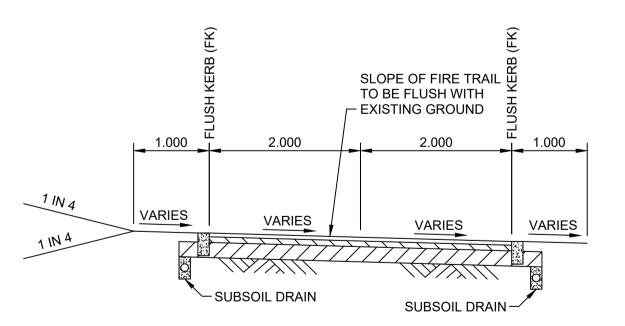








## TYPICAL 7m ROAD IN 10m ROAD RESERVE CROSS SECTION FOR ACCESS ROAD 01 SCALE 1:50



## TYPICAL 4m FIRE TRAIL PRIVATE PROPERTY/PUBLIC RESERVE CROSS SECTION FOR EMERGENCY EGRESS ROUTE 01 AND 02 SCALE 1:50

## NOTE:

FOOTPATHS SHOWN ON CROSS SECTIONS ARE FOR INFORMATION ONLY. SEE LAYOUT PLANS FOR CLARIFICATION OF FOOTPATH LOCATION THROUGH SUBDIVISION.



## Liability limited by a scheme approved under Professional Standards Legislation

0 0.5 1.0 1.5 2.0 2.5 SCALE:- 1:50

1:50

(AT A1 ORIGINAL)

BEWARE!

THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.



	DATUM:	SURVEY	APS	REV	DESCRIPTION
	AUSTRALIAN HEIGHT DATUM	DESIGN	CJG	=	
	ORIGIN: SSM	DRAWN	CJG		
RL	KL	CHECK'D	MJP		
					1

DATE OF PLAN: MARCH 2020



j	PRELIMINARY TYPICAL ROAD CROSS SECTIONS PLAN
	SHEET 05
1	OVER CULBURRA ROAD
33	OVER CULBURRA ROAD AT CULBURRA BEACH FOR SEALARK PTY LTD
.au	FOR SEALARK PTY LTD

RAWING STATUS	
NOT TO E	PRELIMINARY BE USED FOR CONSTRUCTION PURPO

DRAWING NUMBER 25405-124 OF 29

