

# Environmental Assessment

Description:  
**MAJOR PROJECT APPLICATION**  
**215 Lot Subdivision**

Property:  
**Lot 3 DP 588206**  
**Kanangra Drive, Gwandalan**

Applicant:  
**Rose Property Group Pty Ltd**



**CPP**  
CERTIFIED PRACTISING PLANNER

Unit 7/335 Hillsborough Road,  
Warners Bay NSW 2290  
Ph: (02) 4978 5100 Fax: (02) 4978 5199  
[www.asquithdewitt.com.au](http://www.asquithdewitt.com.au)

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# Section 1

## Executive Summary

Approval for a 215 Lot subdivision of Lot 3 DP 588206 is sought by the land owners Lakeside Living Pty Ltd. Approval is sought as a Major Project under Part 3 of the EPA Act 1979.

The site has been gazetted as a site to which Part 3A of the EPA Act applies. A State Significant Site Study covers the land. A Concept Plan has been prepared for the site.

The proposed subdivision has been designed in accordance with the concept plan for the site. The Concept Plan and accompanying Environmental Assessment address the broader environmental issues associated with the proposal.

A high level of environmental assessment for the site has been carried out in the State Significant Site Study for the Catherine Hill Bay/Gwandalan site and in the Environmental Assessment report for the site Concept Plan.

This report provides the detail of the proposed Gwandalan subdivision. This report also details compliance with the planning provisions for the Gwandalan site as contained in relevant SEPP's, the Concept Plan and Wyong Councils subdivision controls.

A set of Director General Requirements has provided the basis of this assessment. The full text of the DGR's is at **Appendix 2**. The following table details of compliance with the DGR's.

# Section 2

## Introduction

This report has been prepared to meet the requirements for subdivision of the Gwandalan Site under The Concept Plan applying to the land. The report is based on the set of Director Generals Requirements (DGRS) that apply to the site and the provisions of the Concept Plan.

### 2.1 COMPLIANCE WITH DGRS

CATHERINE HILL BAY/GWANDALAN DIRECTOR GENERALS REQUIREMENTS					
Director General's Requirement	Response Location				
	Concept Plan EA	Gwandalan PA EA	Moonee Hamlets Proposed Civil Works	CHB Hamlet 1 PA EA	CHB Hamlet 2 PA EA
EA must include:					
1.) Executive Summary;	EA s. 1	EA s. 1	EA s. 2	EA s. 2	EA s. 2
2.) Detailed description of project incl:	EA s. 3	Concept Plan	Concept Plan	Concept Plan	Concept Plan
a.) Strategic justification for the project;	EA s. 3.1	EA	EA	EA	EA
b.) Alternatives considered;	EA s. 3.2	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
c.) Various components and stages of the project;	EA s. 3.3		EA s. 3	EA s. 3	EA s. 3
3.) A statement that the proposal is being assessed under the Bilateral Agreement, which requires the NSW Government to undertake assessment of the proposal which will address matters of national environmental significance;	EA s.2.8	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA

4.) A Consideration of the following with any variations to be justified:					
a.) all relevant SEPP's (with particular regard to Major Projects SEPP, SEPP55, SEPP71 and SEPP(mining, Petroleum Production and Extractive Industries) 2007;	EA s.6.2 EA s.6.3 EA s.6.4 EA s.6.5	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
b.) applicable planning instruments;	EA s.6.11 EA s.6.12	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
c.) relevant legislation and policies, including the NSW Coastal Policy 1997, Lower Hunter Regional Strategy, and the draft Central Coast Regional Strategy;	EA s.6.6 EA s.6.7 EA s.6.8 EA s.6.9	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
d.) Commonwealth Environment Protection and Biodiversity Conservation Act 1999.	EA s.2.8 EA s.6.16 Appendix U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
5.) A consideration of the proposal and cumulative impacts in relation to the development of other future urban land identified in the Lower Hunter Regional Strategy;	EA s.7.6 State Significant Site Study	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
6.) A Draft Statement of Commitments, outlining commitments to the project's management, provision/contribution towards infrastructure, mitigation and monitoring measures with a clear identification of who is responsible for these measures;	EA Appendix A	EA Appendix 1	EA Appendix 4	EA Appendix 1	EA Appendix 1
7.) A conclusion justifying the project, taking into consideration the environmental and construction impacts of the proposal, mitigation measures to address these impacts, the cumulative impacts of the proposal, the suitability of the site, and whether or not the project is in the public interest;	EA s.8	EA s.7	Concept Plan EA	Concept Plan EA	Concept Plan EA

8.) Following consultation with relevant agencies, Councils and other proponents who are proposing development in the vicinity of the site: a.) Identify the development contributions or works in kind applicable to the site or within the LGA including regional and local infrastructure, public transport, social infrastructure and community facilities(including open space); and b.) identify any public benefits to be provided by the development and their consistency with any current development contributions plans;	Appendix A	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
	EA s.8	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
9.) A signed statement from the author of the EA certifying that the information contained in the report is neither false nor misleading; and	EA s.2.7	EA s.2.2	EA Page 2	EA Page 2	EA Page 2
10.) A report from a quantity surveyor identifying the capital investment value for the concept plan and the 4 individual project applications.	EA Appendix C	EA Appendix 3	EA Appendix 6	EA Appendix 3	EA Appendix 3
<b>The EA must address the following key issues:</b>					
<b>Independent Panel of Experts</b> Demonstrate that the proposal is consistent with the Interim report to Minister from the Independent Panel of Experts constituted to assess the proposed development. In the event that there are inconsistencies between the proposal and the recommendations of the Panel's Report, justification for the departure must be provided as well as evidence demonstrating how a better outcome will be achieved.	EA s.8  Concept Plan Synopsis of Process	Concept Plan  Synopsis of Process	Concept Plan  Synopsis of Process	Concept Plan  Synopsis of Process	Concept Plan  Synopsis of Process
<b>EPBC Act – Controlled Action</b>  1.) Impacts on species listed under section 18 & 18A of the EPBC Act 1999;	EA s.2.8, s.3.7 s.7.4.7 s.7.5.4 Appendix H, I, P, U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA

2.) Impacts on other threatened species, populations or ecological communities, critical habitat(including riparian habitat) and native vegetation generally;	EA Appendix T EA s7.4.7	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
3.) Impacts on migratory species listed under the EPBC Act 1999;	EA s7.5.4 Appendix U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
4.) Impacts on RAMSAR Wetlands;	Appendix U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
5.) Any relevant State and Commonwealth Govt Technical and policy guidelines, including the NSW DoP CEPBC Act 1999: Guide to Implementation in NSW(May 2007);	Appendix U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
6.) Proposed offset measures to avoid or mitigate impacts on matters of national environmental significance; and	Appendix U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
7.) Matters outlined in Schedule 4 of the EPBC Regulation 2000.	Appendix U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
<b>Heritage</b> Provide a heritage impact statement should be prepared in accordance with NSW Heritage Office guidelines and DECC's Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation that details the heritage significance of the area and any impacts the development may have upon this significance. The significance is to include an assessment of natural areas, places of Aboriginal, historic or archaeological significance and consider the impact on existing settlements and the iconic elements, such as the Coal Loader Jetty.	Appendix E Appendix F	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA

<b>Flora and Fauna</b> Address the impact of the development on threatened species and their habitat having regard to the Threatened Species Assessment Guidelines and recommend offset measures to avoid or mitigate impacts on threatened species and their habitat.	Appendix H, I, P & U	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
<b>Utilities and Infrastructure</b> 1) Prepare a utility and infrastructure servicing report and plan for the Site that includes but is not limited to: a.) Identifying and assessing the capacity of existing utility and infrastructure servicing the site;	EA s.7.4.9 EA s.7.5.5	EA Appendix 4 - Design Plans EA s.3.11	EA s.7	Moonee Civil works EA	Moonee Civil works EA
b.) Identifying that adequate water supply is available for bushfire suppression operations;	EA s.7.4.9 EA s.7.5.5	EA Appendix 4 - Design Plans	EA s.7	Moonee Civil works EA	Moonee Civil works EA
c.) Identifying all necessary augmentation works to service the site and whether these works can sustain this and other development foreshadowed for the Wallarah Peninsula shown in the Lower Hunter Regional Strategy; and	See civils PA's See civils PAs	EA Appendix 4 - Design Plans	EA s.7	Moonee Civil works EA	Moonee Civil works EA
d.) Demonstrate compliance with the requirements of any public authorities in regard to the connection to, relocation and/or adjustment of services affected by the development proposal.	See civils PAs	EA Appendix 4 - Design Plans	EA s.7	Moonee Civil works EA	Moonee Civil works EA

2) Provide appropriate detailed information on the drainage, sewerage and stormwater management measures to be incorporated on Site, including (but not limited to):  a.) Sustainable water measures (such as on site stormwater detention, water sensitive urban design measures, and water recycling);	Appendix L & R	Concept Plan  s.4.8  Concept Plan  EA Appendix R  EA s.3.11	Concept Plan  s.3.9  Concept Plan  EA Appendix L	Concept Plan  s.3.9  Concept Plan  EA Appendix L	Concept Plan  s.3.9  Concept Plan  EA Appendix L
b.) Sediment and erosion control measures; and	Appendix A, L, R	Design Plans sheet 601	EA Appendix 4	EA Appendix 1	EA Appendix 1
c.) The quality and quantity impacts on surface water, groundwater, the sea or any nearby beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or a rock platform.	Appendix L & Appendix R	Concept Plan EA	Concept Plan Appendix R	Concept plan Appendix R	Concept plan Appendix R
<b>Mining Activities</b>					
1) Assess the potential for the proposed development and associated conservation offsets to:  a.) Restrict access to and future mining of remnant coal resources at CHB and particularly below the Gwandalan site; and	EA 2.4  EA 6.5	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
b.) Restrict access for existing petroleum exploration on PEL No.'s 5 & 446 and any future exploration; and	EA 6.5  SoC	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
c.) Adversely affect or delay the progress of Lakecoal's Mine Closure Plan for Consolidated Coal Lease (CCL) 706 lodged with DPI.	EA 2.4	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA

2.) Assess the impact of the proposed development on options to retain or demolish and/or ongoing maintenance of the coal loading jetty, located on MPL 211.	EA 2.4	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
3.) Provide a risk analysis examining the impacts of the former mining use of the site, and in the vicinity of the site, has on future development.	EA 2.4	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
<b>Contamination and Geotechnical</b>					
1.) Identify and address contamination and geotechnical issues associated with the works. Proposed by the PA's. All relevant legislation and guidelines related to contamination and geotechnical issues are to be addressed.	Appendix A & M s. 6.2	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
2.) Provide a geotechnical report that includes details on the classification of soil type generally found within the subject site and demonstrate how the proposal complies with all relevant AS, incl. As2870(Residential Slabs and Footings).	See PA SoC's	Appendix 1	EA Appendix 4	EA Appendix 1	EA Appendix 1
<b>Urban Design &amp; Built Form</b>					
1.) Provide plans and documentation for the PA's that is of a quality suitable to assess the building typology(including the quantum of floor space). Plans and documentation should be equivalent to the standard ordinarily required for lodgement under Part 4.	See Concept Plan s.3.10	Concept Plan EA	EA s.1	EA s.1	EA s.1

2.) Address Crime Prevention through Environmental Design principles with consideration given to the relationship to surrounding areas; pedestrian and bicycle movement to, within and through the site; key connections to the existing village and coast.	See PAs for village centre and hamlet 2	EA s.4.4	Concept Plan EA	Concept Plan EA	Concept Plan EA
<b>Ecologically Sustainable Development</b> Demonstrate how the development will commit to ESD principles in design, construction and ongoing operation phases.	Concept Plan s3.13 & 4.9 EA s7.4.15 s7.5.13	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
<b>Energy Savings Action Plan</b>					
1.) Demonstrate that the development is capable of achieving the requirements of BASIX and what (if any) commitments will be made on other environmental rating tools such as Greenstar and the ABR Scheme.	See PAs & SoC Appendix A	Appendix 1	EA Appendix 4	EA Appendix 1	EA Appendix 1
2.) Prepare an Energy Savings Action Plan in accordance with the requirements of the DWE and the Guidelines for Energy Savings Action Plans, DEUS 2005.	SoC appendix A	Appendix 1	EA Appendix 4	EA Appendix 1	EA Appendix 1
<b>Traffic and Transport</b>					
1) Prepare a Traffic Study in accordance with the <i>RTA Guide to Traffic Generating Developments</i> that includes but not limited to the following:  a.) Identify all relevant traffic routes and intersection for access and egress;	See Appendix G & Q	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
b.) Current traffic counts for all of the above traffic routes and intersections;	See Appendix G & Q	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA

c.) The anticipated vehicular traffic generated from the proposed lots;	See Appendix G & Q	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
d.) Consideration of the traffic impact on the existing intersections and the capacity of the Pacific Hwy to safely and efficiently cater for the additional traffic generated;	See Appendix G & Q	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
e.) An analysis of the cumulative traffic and transport impacts of this development on the existing township and taking into consideration other proposed developments; and	See Appendix G & Q	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
f.) Traffic analysis, using SIDRA or similar traffic model, for the relevant intersections including: i) Current and traffic growth projects for the life of the project; ii) 95 <sup>th</sup> percentile back of queue lengths; and iii) Delays and level of service on all legs.	See Appendix G & Q	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
<b>Bushfire</b>					
1.) Demonstrate compliance with the current version of Planning for Bush Fire Protection and AS 3959 – Building in Bush Fire Prone Areas. The EA is to identify the ongoing management arrangements of any proposed APZ's.	Appendix O	Concept Plan EA	Concept Plan EA	EA s.6	EA s.6
2.) Identify future management regimes for any areas of hazard remaining within the subject area. This should focus on the level of hazard posed to future development by the land or adjacent land and how the hazard may change as a result of development.	Appendix O	Concept Plan Appendix O	Concept Plan EA	EA Appendix 4	EA Appendix 4

<b>Impacts on Crown Land</b> Identify potential direct and indirect impacts arising from the development upon the adjoining Munmorah State Recreation Area and Point Wollstonecraft State Recreation Area.	EA s.7.4.14 s.7.5.12	EA s.5.1.12	Concept Plan EA	Concept Plan EA	Concept Plan EA
<b>Site Preparation Works</b>					
Provide a report that includes but not limited to:  a.) A detailed survey showing existing and proposed levels and quantities of fill necessary for site preparation works;	See PA's for civil works	EA s.5.1.1	EA s.1	Moonee Civil works EA	Moonee Civil works EA
b.) Details of the source of fill including types of materials and their source; and	See PA's for civil works	EA s.5.1.1	EA s.1	Moonee Civil works EA	Moonee Civil works EA
d.) Details of the quantity and quality of any excess material and arrangements for its disposal.	See PA's for civil works	EA s.5.1.1	EA s.1	Moonee Civil works EA	Moonee Civil works EA
<b>Subdivision</b>					
1.) Provide proposed plans of subdivision that identify all covenants, easements and notations proposed for each land title and, if relevant, how the subdivision is to be staged.	See PA's for civil works	EA Design Plans Appendix 1	EA s.1	EA s.1	EA s.1
2.) Provide detail on the management arrangements for all land to be subdivided, but not limited to, titling arrangements; land ownership (particularly future public land); and all proposed covenants and restrictions, including those relating to access.	Concept Plan s3.8, s4.7 EA s.3.9	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
3.) Outline the long term management and maintenance of any areas of open space or conservation (incl. Offset areas) or both, incl. The ownership and control management and maintenance of funding public access revegetation and rehabilitation works and bushfire management.	EA s.3.9	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA

<p><b>Previous Submissions</b> The EA is to respond to the issues raised in submissions received by the Department following the public exhibition of the CP between Jan 3 2007 and Mar 2 2007.</p>	Appendix S	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA
<p>During the preparation of the EA an appropriate and justified level of consultation with any relevant party, having regard to previous consultation with the IPE and the Community Reference Group. Any such consultation prior to exhibition should be documented in the EA. In particular, consultation should be considered with:</p> <p>1) Agencies and other Authorities</p> <ul style="list-style-type: none"> <li>a) Commonwealth Dept of Environment &amp; Water Resources</li> <li>b) Lake Macquarie Council</li> <li>c) Wyong Shire Council</li> <li>d) Hunter Water</li> <li>e) Gosford/Wyong Council's Water Authority</li> <li>f) Local Aboriginal Land Council</li> <li>g) Catchment Management Authority</li> <li>h) NSW Dpt of Water &amp; Energy</li> <li>i) NSW DPI</li> <li>j) NSW DECC</li> <li>k) Heritage Office, DoP</li> <li>l) NSW RTA</li> <li>m) NSW Emergency Services agencies; and</li> <li>n) All utility providers.</li> </ul>	Appendix S	Concept Plan EA	Concept Plan EA	Concept Plan EA	Concept Plan EA

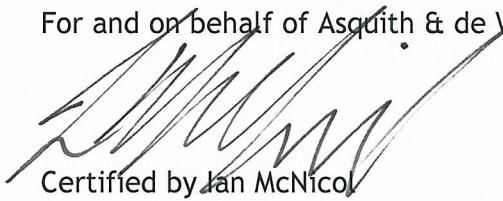
## Gwandalan Subdivision

### Environmental Assessment Report

#### Certificate by author

I certify that the information contained in this report is not false or misleading.

For and on behalf of Asquith & de Witt Pty Ltd.



Certified by Ian McNicol

Position: Senior Planner/Project Manager

#### Disclaimer

*This report was prepared from information and material from a large range of sources. While checking has taken place it is not possible for Asquith & de Witt to independently verify that all information and materials used are correct, current, complete and accurate.*

# Section 3

## Description of Development

### 3.1 PURPOSE

The subdivision will provide for further needed residential development of the Gwandalan-Summerland Point area.

The need for residential subdivision of the land is identified in the Lower Hunter Regional Strategy, the Draft Central Coast Regional Strategy and the Wyong Residential Strategy and the State Significant Site Study for Catherine Hill Bay/Gwandalan.

Subdivision will be by Torrens Title with roads dedicated to Council.

The subdivision design and landscape plans are at **Appendix 4**.

### 3.2 YIELD

The subdivision will comprise 215 lots for residential development. The target yield is 12 lots per ha which over 18 ha is 216 lots. The 215 lots is made up of 214 new lots and a residue lot for the existing foreshore dwelling.

### 3.3 CHARACTER

The character of the subdivision will be detached low density residential in keeping with existing Gwandalan development.

### 3.4 INCOMING POPULATION

The incoming population is described in Social Sustainability report see the Appendices which accompany the Environmental Assessment (EA) to the Concept Plan for the land.

The population is expected to be predominantly young families.

### 3.5 DESIGN

The subdivision design complements the location by respecting development on adjoining lands.

The guidelines and development standards contained in Wyong DCP 66 - Subdivisions have been applied to the proposal. See **Appendix 5**.

### 3.6 CONSTRUCTION

Construction will commence as soon as practicable after approval processes have been completed.

Construction will proceed as follows:

- i) clearing and site preparation for (ii) and (iii) and (iv);
- ii) civil works including:
  - earthworks & site regrading;
  - major drainage controls & infrastructure provision; and
  - perimeter road releases (a) and (b).
- iii) release (a) of 62 lots;
- iv) release (b) of 51 lots;
- v) civil works releases (c) and (d);
- vi) release (c) of 48 lots; and
- vii) release (d) of 53 lots.

### 3.7 STAGING

The residential subdivision will be in 4 releases as shown in the Concept Plan figure 4.10.1.

### 3.8 LANDSCAPING

The proposed subdivision will house a residential community set amongst the tall native Scribbly Gums, Peppermint and native Apple trees on the shores of Lake Macquarie. As many trees as possible will be retained on existing lots, roadside settings, parklands and perimeter buffer zones to create a distinctive 'Gwandalan' character and integrate the development with the surrounding dry sclerophyll bushland. The landscape concept plan is provided in **Appendix 4**.

### 3.9 ACCESS

Access to the proposed subdivision is provided for via 3 parallel access points off Kanangra Drive. Two of these access points will allow for bus access to the subdivision.

# Section 4

## Site Description

### 4.1 LEGAL

The development site is Lot 3 in DP 588206 and is owned by Lakeside Living Pty Ltd. There are no easements over the land.

### 4.2 LOCATION

The land is located on Kanangra Drive, Gwandalan in Wyong Shire Council's area.



Figure 1: Locality Plan

### 4.3 HISTORY

#### 4.3.1 Prior Development

The site has been partly developed. The site contains a caretakers dwelling, dams and orchard, fine trails and access to a dwelling on the foreshore. A high screen fence has been erected for the full Kanangra Drive frontage.

#### 4.3.2 Land Use

Some of the site, approximately 30%, has been cleared, the remainder is disturbed bushland.

#### 4.3.3 Heritage & Archaeology

There is a foreshore midden on Lot 3 in front of the existing dwelling.

#### 4.3.4 Previous Studies

A comprehensive range of studies has provided information on the development potential of Lot 104. The range of previous studies, in addition to the heritage work described above includes:

- Bushfire by Ecobiological, 2006 and Barry Eadie, 2007;
- Ecological Constraints Report by Wildthing 2003 and HSO 2007;
- Drainage & Stormwater by Umwelt and Asquith & de Witt 2007;
- Geotechnical by RCA Australia;
- Aboriginal Heritage by ERM, 2007; and
- Services, by Hyder Consulting 2003 and Asquith & de Witt Pty Ltd 2007.

### 4.4 ACCESS AND TRAFFIC

The existing access is off Kanangra Drive. The proposed access points will service the whole subdivision and will also be off Kanangra Drive. The traffic report is included in the Concept Plan EA.

### 4.5 AIR & NOISE

No issues are known to affect the area.

### 4.6 DRAINAGE

Despite drainage lines being shown on topographical maps, there are no perennial watercourses on the site. The site comprises a small catchment and it appears there is insufficient flow to create a natural watercourse. There is riparian vegetation on the North East corner of Lot 3. Drainage on the site is via constructed dams and drains.

### 4.7 SLOPE / TOPOGRAPHY

Generally the site forms a basin sloping east towards the lake. Slopes are generally less than 5% and there are no significant topographic features. See contour plan at **Appendix 4 Sheet 501**.

## 4.8 SOILS

Soils on the site are from the Doyalson landscape and are described in the Geotechnical Report. There are no soils issues apart from erosion and sediment controls, see appendix A Sheet 601, and an acid sulphate management plan will be required for the constructed wetland.

## 4.9 FLORA & FAUNA

Flora and fauna and ecological matters are dealt with as part of the Concept Plan.

## 4.10 EASEMENTS

No easements affect the site.

## 4.11 SERVICES

Services advice for the proposed subdivision of the site has been provided by Wyong Council in regard to the proposed upgrading of water supply and sewerage infrastructure.

The following was advised by Wyong Council in March 2007:

### A. Water Supply

The extension of 250 mm water main along Kanangra Dr is required in conjunction with the commencement of this development as identified in the DSP 12 in order to meet the fire fighting requirements. Council will not allow connection to the new 250 water main for servicing the proposed new lots. A rider main (100 mm or 150 mm) is to be constructed to service the new lots. The rider main will be part of the reticulation within the subdivision of Precinct 1A.

### B. Sewerage

- *Up to 20 lots*

No upgrading of the existing sewerage infrastructure is required.

- *Above 21 lots*

Upgrade (E&M) works of SPS G1 is required.

- *Above 71 lots*

Upgrade of sewer gravity main "Line AA" in accordance with DSP 12 is required.

- *Above 146 lots*

Upgrade (E&M) works of SPS G2 and upgrade its Rising Main as identified in DSP 12 is required.

- *Any increase beyond 250 lots will entail the following additional work:*
  - a. Upgrade the civil, electrical and mechanical works of SPS G1.
  - b. Upgrade 240 metres of the Rising Main G1 from 150 mm to 200 mm pipe.
  - c. Upgrade approximately 235 metres of the sewer gravity main of "Line AA" from 225 mm to 300 mm pipe in SPS G2 catchment area.

#### 4.12 FLOODING

While part of Lot 3 DP 588206 is flood affected, this part is not proposed for new residential subdivision. Flooding is restricted to foreshore areas.

#### 4.13 BUSHFIRE

The land is identified as a bushfire prone area. Bushfire hazards exist to the north and west of the site. Appropriate AP2's have been incorporated into the subdivision design in accordance with concept plan. See Appendix O of the Environmental Assessment Report to the Concept Plan.

#### 4.14 URBAN CAPABILITY

There are no significant urban capability limitations. Those areas with limitations for urban development are outside the proposed subdivision area.

#### 4.15 SCENIC QUALITY

No major scenic natural features are located on the land. The site is screened from view by the fence on Kanangra Drive.

#### 4.16 SITE ANALYSIS

The site analysis reveals no significant subdivision constraints other than the existing bushland. The site analysis is in the Concept Plan section 4.2.

# Section 5

## Planning

*This section briefly describes and assesses the planning controls that apply to the land.*

### 5.1 E P & A A C T

The site subdivision development is to be pursued in accordance with the MoU, mainly under Part 3A of the EPA Act. The processes of Part 3A will be used to establish appropriate planning controls for the site. The site was gazetted as subject to Part 3A on July 2007.

#### 5.1.1 State Significant Site Study

It is intended to rezone the site area for development through an amendment to the Major Projects SEPP.

A State Significant Site Study has been lodged in conjunction with the Concept Plan and the major project application. The proposal establishes the footprint of the proposed development through zonings and limits the development permitted within the respective zones. The zones establish the permissibility of proposed development on the Concept Plan site.

The zones as proposed for the site will be established by an amendment to SEPP Major Projects.

The zones as proposed are consistent with The Standard Instrument (Local Environmental Plans) Order 2006. The zones proposed are:

- Zone R1 General Residential.

The R1 zone will permit the proposed subdivision and subsequent residential housing development.

#### 5.1.2 Concept Plan

The overall development of the site must be consistent with the concept plan which establishes design parameters, staging and controls for development such as services, drainage, landscaping and streetscaping.

#### 5.1.3 Project Approval

This major project application for the subdivision is being lodged concurrently with the concept plan. These project applications will be dealt with under Part

3A of the EP&A Act by New South Wales Department of Planning and the Minister for Planning.

This project application should be viewed as part of the detail of the overall proposal.

Housing on the approved lots will be approved by Wyong Council under Part 4 of the EPA Act.

#### 5.1.4 Approvals under Part 5 of the EPA Act

Infrastructure including water and sewer will be approved under Part 5 of the EPA Act. It is believed Wyong Council will provide these works in accordance with DSP 12.

### 5.2 SEPP 55 REMEDIATION OF LANDS

The land use history of the Gwandalan site does not indicate any likelihood of contamination.

### 5.3 SEPP 71 COASTAL PROTECTION

The rezoning of the site to residential requires a Site Master Plan before a subdivision can be approved. The Master Plan must be approved by the Minister. The Concept Plan provides a “Masterplan” for the site in accordance with the SEPP.

Under SEPP 71 the aims of the SEPP and the matters specified in Clause 8 must be considered. The relevant considerations are addressed in the Concept Plan EA Section 6. The Gwandalan subdivision is part of the overall development under the CHBG Concept Plan and has been assessed accordingly.

### 5.4 SEPP BASIX

All residential buildings in the proposed development at Gwandalan will be subject to BASIX assessment.

### 5.5 SEPP MAJOR PROJECTS

The site was declared to be a State Significant Site by Ministerial Order on 6 July 2007.

### 5.6 SEPP MINING & PETROLEUM

Relevant matters are addressed in the Concept Plan EA.

## 5.7 LOWER HUNTER REGIONAL STRATEGY

The Lower Hunter Regional Strategy identifies the Gwandalan Draft Central Coast Regional Strategy land for urban development. Development of the land will help meet the objectives for residential development, jobs and conservation identified in the strategies.

The land is also identified as part of the North Wyong Structure Plan Area in the draft Central Coast Regional Strategy.

## 5.8 NSW COASTAL POLICY

The primary objective of the NSW Coastal Policy is to protect coastlines and beaches for the enjoyment of future generations and to ensure that coastal development is balanced, well planned and environmentally sensitive. The overriding vision is of an ecologically sustainable NSW coast.

The key themes of the policy set out some basic principles for development. While the focus is on conservation initiatives this does not mean that future urban development in coastal area should be sterilised. In particular the policy promotes the need for local housing strategies to provide opportunities to more efficiently use land. These opportunities can ensure that equity considerations are fulfilled by allowing more people to live in the coastal zone while preserving important environmental attributes.

Another key theme of the policy is ESD (Ecologically Sustainable Development). The principles of ESD provide guidance and an integrating role in the development of the policy. The policy states that ESD provides a framework for reconciling issues when necessary and making choices between competing demands for access to the resources of the coastal zone. The policy also states that ESD should be a guide to new development and resources exploitation in the coastal zone which balances human and ecological needs. Overall the ESD section of the policy advocates cautious, careful and well planned development. The precautionary principle is seen as an integrating mechanism rather than as advocating a no development approach.

The policy principles are to be read within the broader vision of the coast being a coastal environment which is preserved and enhanced for its natural and cultural values while also providing for the economic, social and spiritual well being of the community.

In the case of Gwandalan, the site has been identified for residential development since the 1980s and represents a logical extension of the existing urban area. The Gwandalan proposal is consistent with the Coastal Policy.

The major policy considerations for the site are addressed in Section 6 of the Concept Plan EA and the State Significant Site Study.

## 5.9 NSW COASTAL DESIGN GUIDELINES

The New South Wales Government has produced the Coastal Design Guidelines (CDG). The guidelines are to ensure that decision making about coastal development is approached on an urban design basis and is responsive to the character of a place. The guidelines seek to replace ad hoc decision making with a process more attuned to the character and environment of a place and to social and economic positively.

The Coastal Design Guidelines are addressed via the Concept Plan.

## 5.10 WYONG LEP

Under Wyong LEP 1991 the land is currently zoned 7(b) Scenic Protection and 7(e) Coastal Lands Acquisition.

The site is to be rezoned via SEPP Major Projects to permit the proposed development. The zone will be R1 General Residential in accordance with the Standard Order for Local Environmental Plans.

## 5.11 DEVELOPMENT CONTROL PLANS

Wyong DCP applies to land in that LGA.

Relevant controls from the DCP have been incorporated into the Concept Plan. The Gwandalan subdivision design is based on the Wyong subdivision code, i.e. Chapter 66 of the DCP. An assessment of the subdivision against Wyong's DCP controls is provided at **Appendix 5**.

## 5.12 SECTION 94 AND DEVELOPMENT CONTRIBUTIONS PLANS

The Gwandalan site is subject to the Gwandalan Section 94 contributions plan and the Wyong DSP for water and sewer services. The s94 plan however does not anticipate the proposed development. Contributions will be required as conditions of approval. Details of proposed contributions are provided in the draft Statement of Commitments.

## 5.13 COMPLIANCE WITH CONCEPT PLAN

The Concept Plan provides a level of detail consistent with a master plan. The concept plan establishes a subdivision pattern that is accurately reproduced in the design plans. A landscape plan consistent with the standard set in the concept plan is provided as **Appendix 4**.

# Section 6

## Assessment of Environmental Issues

The analysis and addressing of environmental issues is based on the draft Director General Requirements.

The background studies have informed the proposed design, management and mitigation measures.

The Concept Plan provides an overview of the subdivision while this Environmental Assessment and draft Statement of Commitments identify the management and mitigation measures needed to ensure that both the short and longer term effects of the proposal are not significant.

### 6.1 SITE SUITABILITY GWANDALAN

Significant considerations include:

- The MOU development areas;
- The established environmental offsets for the project;
- Existing site development;
- Integration with the existing Gwandalan urban form;
- Amenity; and
- Proximity to the primary school.

The site has few physical constraints being of low relief and located away from foreshore areas. Services are for the most part already in place.

There is on the site, some 13 hectares of bushland. As part of the proposal environmental offsets for the site have been negotiated. Although most of the bushland will be lost, the offsets cover the loss. Once the offsets are taken into account there are few constraints other than bushfire.

The Gwandalan site is proposed for subdivision only. Built form will be as provided for in Wyong Council's DCP controls.

### 6.1.1 Subdivision Works

Cut and fill will be required to establish the services roads and lots on the site. The details are shown on the design plans.

Works have been designed to balance cut and fill. No fill will be imported or extracted from the site.

#### **Management and Mitigation**

- An Environmental Management Plan will need to be prepared to ensure the works are constructed in keeping with best practice.
- Particular attention will need to be paid to erosion and sediment controls to ensure Lake Macquarie is protected.
- Noise should be controlled by applying standard construction hours as conditions of approval.

### 6.1.2 Visual Impact

The majority of the site is very well screened by existing fencing, vegetation and the foreshore dwelling.

There are filtered views into the site from adjoining dwellings to the south. The house is highly visible from, and across, the lake. The proposed subdivision will however have very little visibility from public places other than Kanangra Drive. From Kanangra Drive, immediately adjacent the site the appearance will be that of a standard subdivision. The proposed streetscaping will help set a high visual standard.

The visual impact of the subdivision will be affected by the standard of housing on the lots. The standard of housing will be determined by Councils DCP controls. Chapter 100 of Wyong Council's DCP - Quality Housing should ensure a satisfactory appearance low visual impact and high amenity.

#### **Management and Mitigation**

- Implementation of streetscaping in accordance with the concept plan will promote sound visual outcomes and high amenity.

### 6.1.3 Bushfire

A bushfire hazard assessment in accordance with the Planning for Bushfire Protection Guidelines has been prepared by Barry Eadie 2007, see Appendix O of the Concept Plan EA.

There is a bushfire hazard to the west and north that requires Asset Protection Zones (APZs) of varying widths.

The required APZs have been incorporated into the subdivision layout identified in the concept plan. Some dwellings will require construction in accordance with AS 3959.

#### **Management and Mitigation**

- APZ's will be incorporated into lots and appropriate management promoted through positive covenants and restrictions on title.
- Building construction standards where required will be noted as restrictions on title.

#### **6.1.4 Ecological Impact**

Ecological effects were addressed in the Concept Plan. The effects of development on the site are offset by the dedication of 310 ha of land for conservation purposes.

Other issues are the proximity to the State Conservation Area and drainage from the site to Lake Macquarie.

#### **Management and Mitigation**

- As part of the overall CHBG proposal the dedication of 310 hectares of land of high conservation value as an environmental offset.
- APZ's adjoining the Point Wollstoncroft Recreation Area to be managed to minimize weed invasion of adjoining bushland.
- Drainage to adjoining land will be managed consistent with protection of natural systems.
- Drainage direct to Lake Macquarie from the site will be managed to protect aquatic ecology.

#### **6.1.5 Coastal and Foreshore Public Access**

The adjoining land to the north is managed by both NPWS and NSW Sport and Recreation and is part of the Lake Macquarie State Conservation Area.

The opportunity for direct public access to the site foreshore is severely limited by the existing dwelling and associated structures such as the boatshed.

It is not proposed to provide any direct access to the foreshore and adjoining recreation camp area from the proposed subdivision. This is to protect the conservation values of this area. Access to the foreshore with the Point Wollstoncroft area is available from within the recreation camp.

### **Management and Mitigation**

- No access will be provided to the adjoining NPWS/Sport and Recreation Camp.

#### **6.1.6 Utilities and Infrastructure**

The site is addressed as part of the Development Servicing Plan for the Gwandalan District (DSP 12).

Water and sewer services are available to the land. A 150 mm water main fronts the site. A sewer pump station is located just outside the site near the boat shed, the site can drain to this station.

Consultation with Wyong Council and the Gosford Wyong Water Supply and Sewer Authority has identified the additional work needed to service the site.

An additional water main will be needed to adequately provide water to the site.

Staged upgrading of sewer infrastructure will be required. This will be in accordance with DSP 12.

Electricity and telecommunications infrastructure will be provided as additions to existing networks.

### **Management and Mitigation**

- No specific mitigation measures are required.
- Connections into the existing networks will be done to the satisfaction of relevant authorities.
- Infrastructure Developer Contributions will be made as required to the relevant local authorities.

#### **6.1.7 Social Infrastructure**

A Social Sustainability Report by Key Insights 2006, see Concept Plan EA, summarises local social infrastructure, summarises previous public consultations and assesses the likely social consequences of the subdivision development.

The social assessment identified a net positive effect as result of development.

### **Management and Mitigation**

The effects of additional population will be dealt with through contributions and conditions when or upon approval of the Concept Plan. The details are addressed in the draft Statement of Commitments.

#### 6.1.8 Traffic

A Traffic Assessment has been being carried out by Masson Wilson Twiney, and is included in the Concept Plan EA.

All subdivision construction traffic will access the site via Kanangra Drive. No access through residential streets will be required.

The subdivision will generate additional traffic with potential traffic effects. The existing street network has the capacity to provide adequate service levels for the predicted traffic increases.

The internal street layout of the subdivision has been assessed and will function adequately and safely.

#### **Management and Mitigation**

- Construction heavy traffic will be limited to Kanangra Drive
- Any damage to Kanangra Drive as a result of construction works will be made good.

#### 6.1.9 Water Quality and Drainage

Assessment has been undertaken by Asquith & de Witt 2007. The report is included in the Concept Plan EA.

Most of the site drains through a series of dams to the large pond and then through the harbour to the lake.

An erosion and sediment controls plan has been prepared as part of the proposal.

A constructed wetland is proposed as part of the treatment train. **See Appendix 4 Drawing 501.**

#### **Management and Mitigation**

- Implement water management measures in accordance with the Asquith & de Witt report 2007.
- Soil and water management plan to control run off during construction in accordance with Landcom guidelines.
- Provide the proposed wetland basin as the first step in Stage 1 construction.

#### 6.1.10 Aboriginal Heritage

A preliminary survey found no significant sites or relics on the area of land to be developed. Details are in the Concept Plan EA.

### **Mitigation and Management**

- No requirements have been identified.

#### **6.1.11 Mine Subsidence**

Advice from the Mine Subsidence Board was sought as part of previous investigations. The advice was that residential development on the site in accordance with applicable construction guidelines was acceptable.

### **Mitigation and Management**

- Dwellings on the site will need Mine Subsidence Board approval.

#### **6.1.12 Impact on Lake Macquarie State Conservation Area**

The site adjoins the Point Wollstoncroft recreation camp which is part of Lake Macquarie State Conservation Area. The specific management objectives for the SCA are:

- protection of visual and aesthetic qualities;
- conservation of biodiversity;
- promotion of community involvement in management; and
- provision of sustainable recreation opportunities.

The proposal will introduce an increased local population which has the potential to affect conservation of biodiversity through increased use. Offsetting this is the proposed dedication of lands that will provide additional areas of land specifically for conservation.

### **Management and Mitigation**

- No specific sustainability actions are required in addition to those inherent in approval processes and identified management actions.

#### **6.1.13 Cumulative Issues**

All matters likely to result in cumulative effects, such as traffic, drainage and services have been addressed and appropriate mitigation measures identified. No significant cumulative effects are likely.

# Section 7

## Project Justification and Conclusion

The development of the Gwandalan site will provide high quality housing outcomes, enhanced community facilities, improved pollution control and environmental protection.

### 7.1 PUBLIC BENEFITS

The proposed development compliments and is fully consistent with both the Lower Hunter and Draft Central Coast Regional Strategies, and associated MOUs.

The Gwandalan subdivision is part of an overall proposal that provides for urban development and the securing of a green buffer between the Central Coast and the Lower Hunter as envisaged under the Lower Hunter REP. The development will also comply with relevant SEPPs, the principles of the Coastal Policy and the NSW Coastal Design Guidelines.

Of particular note is that the proposal will help secure public ownership of some 310 ha of high value conservation land which the Department of Environment and Conservation has identified as priority habitat. This land currently has a number of development rights associated with it which will not be pursued as a result of this proposal. This conservation is more than adequate to offset any adverse ecological impacts on the development sites and will provide a major ecological legacy to the community.

All sites will use water sensitive urban design to protect water quality and will provide SEPP BASIX compliant housing thereby making a contribution to sustainable development.

The Gwandalan site has been identified as an area for urban land release since 1987. In effect, this Project Application simply enacts a long term Council policy outcome.

The proposal features a network of footpaths.

The development of Gwandalan is in the public interest. It accords with all relevant planning strategies, provides enhanced public access to coast and foreshore, respects heritage attributes, will enhance community facilities and services, and will lead to the creation of a large area of conservation reserve to meet a key conservation priority of the region.

The proposed subdivision meets Council requirements and is consistent with the capability and suitability of the site.

## 7.2 SITE CAPABILITY

No matters have been identified that indicate the site lacks the capability to support the proposed subdivision. Areas identified as having insufficient or doubtful capability have not been proposed for subdivision.

All relevant matters have been addressed. There are no environmental hazards that significantly affect the site. There are no particular problems with soils, vegetation, drainage or slope.

All essential services are available to the site.

## 7.3 SITE SUITABILITY

The suitability of the site for the proposed development has been assessed from several perspectives. These issues are dealt with in detail in the State Significant Study and the Concept Plan EA. The proposed offsets address the loss of local bushland.

The land use relationships in the immediate area have been examined, there are no potentially significant conflicts between adjoining land use and the subdivision layout as proposed.

Construction of urban subdivision is now subject to a high standard of environment controls that are readily accepted by the development and produce no unacceptable long term effects on the environment.

The site assessments and studies needed to prepare the subdivision proposal provide high level certainty of good design outcomes.

An environmental management plan (EMP) addressing the subdivision works will be required. The EMP can incorporate all relevant requirements and the management controls identified in the site specific studies. As such the EMP will provide a suitable vehicle for ensuring that subdivision works are carried out to the required standards.

## 7.4 CONCLUSION

The proposed subdivision is consistent with the Concept Plan, the DGRs and is unlikely to result in any significant environmental effects.

# Appendix 1

## DRAFT STATEMENT OF COMMITMENTS

## DEFINITIONS

In this statement the following definitions apply:

**Act** means the Environmental Planning and Assessment Act, 1979 (as amended).

**BCA** means the Building Code of Australia.

**Catherine Hill Bay/Gwandalan Concept Plan 2007** means the project described in Condition A2.

**Concept Plan Area** means the land shown in Figure 1.1.1 of the Catherine Hill Bay/Gwandalan Concept Plan 2007.

**Department** means the Department of Planning or its successors.

**Director General** means the Director General of the Department of Planning

**Minister** means the Minister for Planning.

**Project** means development that is declared under Section 75B of the Act to be a project to which Part 3A of the Act applies.

**Proponent** means the person proposing the carrying out of development comprising all or any part of the project, and includes persons certified by the Minister to be the proponent.

**Regulations** means the Environmental Planning and Assessment Regulations, 2000 (as amended).

**RTA** means the Roads and Traffic Authority.

**Subject Site** has the same meaning as the land identified in Part A of this schedule.

## **PART A — ADMINISTRATIVE CONDITIONS**

### ***A1. Development Description***

The Project Application is to permit the following:

- Bulk Earthworks
- Construct the principal road network and services
- Carry out landscape works as shown in the plans.
- Subdivide the site into two hundred and fourteen (215) lots.

### ***A2. Development in Accordance with Plans***

The development shall be generally in accordance with the Catherine Hill Bay/Gwandalan Concept Plan 2007.

## **PART B—PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE**

### ***Design Details and Changes***

#### **B1. Development Control**

Any departure from the terms of the Catherine Hill Bay/Gwandalan Concept Plan 2007 will require lodgement of further detailed plans and documentation to the Department addressing, and where required revising, development envelopes, the internal circulation network (within the Concept Plan area), and any other aspect of the proposal that requires amending.

The timing, format and content of further detailed plans and documentation to be lodged in respect of Condition B1 will be agreed by the Department.

*Responsibility – Proponent and Department of Planning*

#### **B2. Outdoor Lighting**

All outdoor lighting shall comply with, where relevant, AS/NZ1158.3: 1999 *Pedestrian Area (Category P) Lighting* and AS4282: 1997 *Control of the Obtrusive Effects of Outdoor Lighting*.

Details demonstrating compliance with these requirements are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the relevant Construction Certificate.

*Responsibility – Proponent*

#### **B3. Treatment of Vehicular Entry**

In order to improve the appearance of buildings when viewed from the street, any part of the walls and ceilings of vehicular entry points that are visible from the street shall be adequately finished and no service ducts or pipes are to be visible.

*Responsibility – Proponent*

#### **B4. Disabled Access**

Access and facilities for people with disabilities shall be provided in accordance with AS1428 parts 1-4 where applicable. Prior to the issue of a Construction Certificate for subsequent project applications, a certificate certifying compliance with this condition from an appropriately qualified person shall be provided to the Certifying Authority.

*Responsibility – Proponent*

#### **B5. Erosion and Sedimentation Control**

A Soil erosion and sediment control plan shall be submitted to the Certifying Authority. Details are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

*Responsibility – Proponent*

#### **B6. Geotechnical**

Provide a geotechnical report confirming classification of soil and that the house footing design complies with AS2870. Details are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

*Responsibility – Proponent*

## ***Traffic & Parking***

### **B7. Number of Car Spaces**

The maximum number of car spaces to be provided for the development shall comply with the Environmental Assessment. Details confirming the parking numbers shall be submitted to the satisfaction of the Certifying Authority prior to the issue of the relevant Construction Certificate for subsequent project applications.

*Responsibility – Proponent*

### **B8. Number of Bicycle Spaces**

Bicycle spaces are to be provided in accordance with the Environmental Assessment. Details shall be submitted to the satisfaction of the Certifying Authority prior to the issue of the relevant Construction Certificate for subsequent project applications.

*Responsibility – Proponent*

### **B9. State Environmental Planning Policy Building Sustainability Index (BASIX)**

The proponent will comply with the NSW Government Building Sustainability Index targeting 40% reduction for potable water consumption, 40% reduction for greenhouse gas emissions and improvement in the thermal performance of all new residential buildings.

An Energy Savings Action Plan will be prepared in accordance with the requirements of the DWE and the Guidelines for Energy Savings Action Plans, DEUS 2005.

*Responsibility – Proponent*

## ***Waste Management***

### **B10. Storage and Handling of Waste**

The design and management of facilities for the storage and handling of waste will comply with the requirements of the Waste Management Plan. Details are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the relevant Construction Certificate for the subsequent project applications.

*Responsibility – Proponent*

## **PART C — PRIOR TO COMMENCEMENT OF WORKS**

### ***Excavation Works***

#### ***C1. Notice to be Given Prior to Excavation***

The PCA and Council shall be given written notice, at least 48 hours prior to the commencement of excavation, shoring or underpinning works on the site.

*Responsibility – Contractor*

#### ***C2. Traffic & Pedestrian Management Plan***

Prior to the commencement of any works on the site, a Traffic and Pedestrian Management Plan prepared by a suitably qualified person shall be submitted to and approved by the Certifying Authority. The Plan shall address, but not be limited to, the following matters:

- (1) ingress and egress of vehicles to the site,
- (2) loading and unloading, including construction zones,
- (3) predicted traffic volumes, types and routes,
- (4) pedestrian and traffic management methods, and

The Applicant shall submit a copy of the approved plan to the Department.

*Responsibility – Contractor*

#### ***C3. Noise and Vibration Management Plan***

Prior to the commencement of any works on the site, a Noise and Vibration Management Plan prepared by a suitably qualified person shall be submitted to and approved by the Director. The Plan shall address, but not be limited to, the following matters:

- (1) Identification of the specific activities that will be carried out and associated noise sources,
- (2) Identification of all potentially affected sensitive receivers including residences, schools, and properties containing noise sensitive equipment,
- (3) The construction noise objective specified in the conditions of this consent,
- (4) The construction vibration criteria specified in the conditions of this consent,
- (5) Determination of appropriate noise and vibration objectives for each identified sensitive receiver,
- (6) Noise and vibration monitoring, reporting and response procedures,
- (7) Assessment of potential noise and vibration from the proposed construction activities including noise from construction vehicles and any traffic diversions,
- (8) Description of specific mitigation treatments, management methods and procedures that will be implemented to control noise and vibration during construction
- (9) Justification of any proposed activities outside the construction hours specified in the conditions of this consent.
- (10) Construction timetabling to minimise noise impacts including time and duration restrictions, respite periods, and frequency,
- (11) Procedures for notifying residents of construction activities that are likely to affect their amenity through noise and vibration,
- (12) Contingency plans to be implemented in the event of non-compliances and/or noise complaints,

The Applicant shall submit a copy of the approved plan to The Department..

*Responsibility – Contractor and Proponent*

#### ***C4. Construction Noise Objective***

Approved silencing measures shall be provided and maintained on all power-operated plant used in demolition, excavation, earthworks, and construction of the building, or work.

*Responsibility – Contractor*

## **PART D — PRIOR TO SUBDIVISION OR STRATA SUBDIVISION**

### ***D1. Subdivision of Land***

This consent allows for a 215 lot land subdivision. A subdivision certificate for complying development may be issued by an accredited private certifier under Division 3 of Part 23 of the Conveyancing Act 1919.

*Responsibility – Proponent*

### ***D2. Strata Subdivision***

This consent allows for the creation of a maximum of NIL strata lots. The Strata subdivision is Exempt Development and may be issued by an accredited private certifier.

*Responsibility – Proponent*

## **PART E — PRIOR TO OCCUPATION OR COMMENCEMENT OF USE**

### ***Engineering***

#### ***E1. Fire Safety Certificate***

A Fire Safety Certificate will be furnished to the PCA for all the Essential Fire or Other Safety Measures forming part of subsequent project approvals prior to issue of the relevant Occupation Certificate(s). A copy of the Fire Safety certificate must be submitted to the consent authority and Department by the PCA.

*Responsibility – Private Certifying Authority*

#### ***E2. Mechanical Ventilation***

Following completion, installation and testing of all the mechanical ventilation systems, the applicant will provide evidence to the satisfaction of the PCA, prior to the issue of the relevant Occupation Certificates, that the installation and performance of the mechanical systems complies with:

- (1) The Building Code of Australia;
- (2) Australian Standard AS1668 and other relevant codes;
- (3) The relevant project approval(s) and any relevant modifications; and,
- (4) Any dispensation granted by the New South Wales Fire Brigade.

*Responsibility – Contractor*

#### ***E3. Structural Inspection Certificate***

A Structural Inspection Certificate or a Compliance Certificate must be submitted to the satisfaction of the PCA prior to the issue of the relevant Occupation Certificate(s) and/or use of the premises for subsequent project applications.

*Responsibility – Contractor*

### ***Easements***

#### ***E4. Registration of Easements***

Prior to the issue of the relevant Occupation Certificate for subsequent project applications, the applicant shall provide to the PCA evidence that all easements required by this approval and subsequent project approvals, and other relevant consents have been or will be registered on the certificates of title.

*Responsibility – Proponent*

# Appendix 2

## DIRECTOR GENERAL'S REQUIREMENTS



NSW GOVERNMENT  
Department of Planning

## Facsimile

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<b>To</b>	Bob Rose Rosegroup Pty Ltd	<b>Fax</b>	(02) 8302 1407
		<b>Phone</b>	(02) 8302 1444
<b>From</b>	Liz Peterson Strategic Assessments	<b>Fax</b>	(02) 9228 6224
		<b>Phone</b>	(02) 9228 6407
	Strategic Sites and Urban Renewals	<b>Email</b>	elizabeth.peterson@planning.nsw.gov.au
<b>Date</b>	2 August, 2007	<b>Total pages (incl cover sheet)</b>	8

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**Subject: Director Generals Requirements - Catherine Hill Bay/ Gwandalan**

Mr Rose,

Please find attached the covering letter and Director General's Requirements for the Concept Plan and four project applications for your proposed development at Catherine Hill Bay and Gwandalan.

Regards

Liz Peterson

OSDAA, 23-33 Bridge Street, Sydney NSW 2000 OR GPO Box 3927 Sydney NSW 2001

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NSW GOVERNMENT  
**Department of Planning**

**Office of the Director General**

Contact: Stephanie Ballango  
Phone: 02 9228 6101  
Fax: 02 9228 6570  
Email: [stephanie.ballango@planning.nsw.gov.au](mailto:stephanie.ballango@planning.nsw.gov.au)

Mr Bryan Rose  
Managing Director  
Rosegroup Pty Ltd  
51 Riley St  
Woolloomooloo NSW 2011

Our ref: Y07/1866  
File Ref: S06/00813

Dear Mr Rose,

**Subject: Catherine Hill Bay and Gwandalan – Director General's Requirements**

I refer to your letter and preliminary documentation dated 14 June 2007 requesting the Ministers authorisation to submit a revised concept plan and four individual project applications and the issuing of Director Generals Requirements (DGRs) pursuant to Part 3A project in the *State Environmental Planning Policy (Major Projects) 2005* (Major Projects SEPP) for land at Catherine Hill Bay and Gwandalan.

I can advise that the Minister for Planning made a declaration on 25 June 2007 that the revised concept plan and 4 project applications are subject to Part 3A of the EP&A Act. A notice of the Minister's declaration was published in the Government Gazette on 6 July 2007.

I have attached a copy of the DGRs for the concept plan and four individual project applications. These requirements have been prepared in consultation with the relevant Government authorities, and are based on the information you provided. Please note that under Section 75F(3) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), I may alter these requirements at any time.

As you are aware, the Australian Department of Environment and Water Resources (DEWR) has advised that the proposed development at Catherine Hill Bay and Gwandalan is a controlled action under the Commonwealth *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). As part of the recent bilateral agreement between the NSW Government and the Australian Government, the Department of Planning sought input from DEWR to the preparation of the DGRs under Part 3A of the EP&A Act. DEWR's comments have been included in the attached DGRs.

Once you lodge the EA for the Concept Plan and four individual project applications they will be the subject of individual tests of adequacy to determine whether the DGRs have been adequately addressed. I may choose to consult with the relevant authorities to determine if they adequately addresses the DGRs. If I consider the EAs to be inadequate, you will be required to revise them prior to public exhibition.

Once the test of adequacy has been undertaken, you will be advised on the consultation and public exhibition arrangements that will apply, including the number of copies (hard copy and CD-ROM) of the EA that will be required for exhibition purposes.

The DGRs will be placed on the Department's website along with other relevant information which becomes available during the assessment of the project. It would be appreciated if all documents submitted are in a suitable format for the web (such as, PDF) and preferably less than 2Mb but no more than 5Mb. Could you please make arrangements for an electronic version of the individual EAs for the project to be hosted on a suitable website and confirm the proposed URL at your earliest convenience.

Finally, please note that the DGRs require a report from a quantity surveyor identifying the capital investment value for the concept plan and the four individual project applications. This report is to be provided at the time of lodgement so that the fees applicable to the applications (see Division 1A, Part 15 of the *Environmental Planning and Assessment Regulation 2000*) can be determined prior to public exhibition of your documentation. At this time, you should provide your completed application form.

Should you have any enquiries, please contact Stephanie Ballango, Team Leader – Strategic Assessments or Antony Pedroza, Senior Planner – Strategic Assessment on 9228 6545.

Yours sincerely



Sam Haddad  
**Director General**

1/8/07

cc. Matthew Crozier  
Crozier CGS Pty Ltd

## Director-General's Requirements

### Section 75F of the Environmental Planning and Assessment Act 1979

<b>Project</b>	<p><b>Concept approval</b></p> <p>A residential subdivision of the Gwandalan portion of the site and the following for the Catherine Hill Bay portion of the site:</p> <ul style="list-style-type: none"> <li>▪ An extension of the existing village and restoration of heritage buildings;</li> <li>▪ A new coastal village of up to 600 dwellings;</li> <li>▪ Conservation and public areas comprising approximately 85% of the site;</li> <li>▪ Commercial/retail component; and</li> <li>▪ Associated infrastructure.</li> </ul> <p><b>4 Project applications</b></p> <ul style="list-style-type: none"> <li>▪ Site preparation works and subdivision at Gwandalan;</li> <li>▪ Site preparation works across the entire Catherine Hill Bay / Moonee site along with subdivision of the site into "super lots";</li> <li>▪ Subdivision and construction of the Village Centre Precinct; and</li> <li>▪ Subdivision and construction of Hamlet 3.</li> </ul>
<b>Location</b>	<p><b>Catherine Hill Bay</b></p> <p>(Lots 5, 6 and 7 in DP 774923, Part Lot 2031 in DP841175, Lot 2 in DP8049795, Lot 201 in DP702669, Lot A in DP 384745, Lot B in DP 384745, Lot 2 in DP 809795, Lots 3 and 4 in DP 129431)</p> <p><b>Gwandalan</b></p> <p>(Lot 3 in DP 588206).</p>
<b>Proponent</b>	Lakeside Living Pty Ltd and Coastal Hamlets Pty Ltd
<b>Date issued</b>	1 August 2007
<b>Expiry date</b>	1 August 2009
<b>General requirements</b> (to be addressed by concept plan and each project application individually)	<p>Each Environmental Assessment (EA) must include</p> <ol style="list-style-type: none"> <li>(1) an executive summary;</li> <li>(2) a detailed description of the project including the: <ol style="list-style-type: none"> <li>(a) strategic justification for the project;</li> <li>(b) alternatives considered; and</li> <li>(c) various components and stages of the project;</li> </ol> </li> <li>(3) a statement that the proposal is being assessed under the Bilateral Agreement, which requires the NSW Government to undertake assessment of the proposal which will address matters of national environmental significance;</li> <li>(4) a consideration of the following with any variations to be justified: <ol style="list-style-type: none"> <li>(a) all relevant State Environmental Planning Policies (with particular regard to Major Projects SEPP, SEPP 55, SEPP 71 and <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>,</li> <li>(b) applicable planning instruments,</li> <li>(c) relevant legislation and policies, including the <i>NSW Coastal Policy 1997</i>, <i>Lower Hunter Regional Strategy</i>, and the draft <i>Central Coast Regional Strategy</i>,</li> <li>(d) <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i></li> </ol> </li> <li>(5) a consideration of the proposal and cumulative impacts in relation to the development of other future urban land identified in the <i>Lower Hunter Regional Strategy</i>;</li> <li>(6) a draft Statement of Commitments, outlining commitments to the project's management, provision / contribution towards infrastructure, mitigation and monitoring measures with a clear identification of who is responsible for these measures;</li> </ol>

	<p>(7) a conclusion justifying the project, taking into consideration the environmental and construction impacts of the proposal, mitigation measures to address these impacts, the cumulative impacts of the proposal, the suitability of the site, and whether or not the project is in the public interest;</p> <p>(8) following consultation with relevant agencies, Councils and other proponents who are proposing development in the vicinity of the site:</p> <p>(a) identify the development contributions or works in kind applicable to the site or within the LGA including regional and local infrastructure, public transport, social infrastructure and community facilities (including open space); and</p> <p>(b) identify any public benefits to be provided by the development and their consistency with any current development contribution plans;</p> <p>(9) A signed statement from the author of the EA certifying that the information contained in the report is neither false nor misleading; and</p> <p>(10) A report from a quantity surveyor identifying the capital investment value for the concept plan and the four individual project applications.</p>
<p><b>Key Issues</b> (to be addressed by concept plan and each project application individually)</p>	<p>Each EA must address the following key issues:</p> <p><b>Independent Panel of Experts</b> Demonstrate that the proposal is consistent with the Interim Report to Minister from the Independent Panel of Experts constituted to assess the proposed development. In the event that there are inconsistencies between the proposal and the recommendations of the Panel's Report, justification for the departure must be provided as well as evidence demonstrating how a better outcome will be achieved.</p> <p><b>EPBC Act – Controlled action</b></p> <p>(1) Impacts on species listed under Section 18 and 18A of the <i>Environment Protection and Biodiversity Conservation Act 1999</i>;</p> <p>(2) Impacts on other threatened species, populations or ecological communities, critical habitat (including riparian habitat) and native vegetation generally;</p> <p>(3) Impacts on migratory species listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>;</p> <p>(4) Impacts on RAMSAR Wetlands;</p> <p>(5) Any relevant State and Commonwealth Government Technical and policy guidelines, including the NSW Department of Planning's <i>Commonwealth Environmental Protection and Biodiversity Conservation Act 1999: Guide to implementation in NSW</i> (May 2007);</p> <p>(6) Proposed offset measures to avoid or mitigate impacts on matters of national environmental significance; and</p> <p>(7) Matters outlined in Schedule 4 of the <i>Environment Protection and Biodiversity Conservation Regulation 2000</i>.</p> <p><b>Heritage</b> Provide a heritage impact statement in accordance with current NSW Heritage Office guidelines and DECC's <i>Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation</i> that details the heritage significance of the area and any impacts the development may have upon this significance. The significance is to include an assessment of natural areas, places of Aboriginal, historic or archaeological significance and consider the impact on existing settlements and the iconic elements, such as the Coal Loader Jetty.</p> <p><b>Flora and Fauna impact</b> Address the impact of the development on threatened species and their habitats having regard to the Threatened Species Assessment Guidelines and recommend offset measures to avoid or mitigate impacts on threatened species and their habitat.</p> <p><b>Utilities and Infrastructure</b></p> <p>(1) Prepare a utility and infrastructure servicing report and plan for the Site that</p>

includes (but is not limited to):

- (a) identifying and assessing the capacity of existing utility and infrastructure servicing the site,
  - (b) identifying that adequate water supply is available for bushfire suppression operations,
  - (c) identifying all necessary augmentation works to service the site and whether these works can sustain this and other development foreshadowed for the Wallarah Peninsula shown in the Lower Hunter Regional Strategy, and
  - (d) demonstrate compliance with the requirements of any public authorities in regard to the connection to, relocation and/or adjustment of services affected by the development proposal.
- (2) Provide appropriate detailed information on the drainage, sewerage and stormwater management measures to be incorporated on Site, including (but not limited to):
- (a) sustainable water measures (such as on site stormwater detention, water sensitive urban design measures, and water recycling);
  - (b) sediment and erosion control measures; and
  - (c) the quality and quantity impacts on surface water, groundwater, the sea or any nearby beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or a rock platform.

#### **Mining Activities**

- (1) Assess the potential for the proposed development and associated conservation offsets to:
- (a) restrict access to and future mining of remnant coal resources at Catherine Hill Bay and particularly below the Gwandalan site; and
  - (b) restrict access for existing petroleum exploration on Petroleum Exploration Licence (PEL) Nos. 5 and 446 and any future exploration; and
  - (c) adversely affect or delay the progress of Lakecoal's Mine Closure Plan for Consolidated Coal Lease (CCL) 706 lodged with Department of Primary Industries.
- (2) Assess the impact of the proposed development on options to retain or demolish and/or on-going maintenance of the coal loading jetty, located on Mining Purpose Lease (MPL) 211.
- (3) Provide a risk analysis examining the impacts of the former mining use of the site, and in the vicinity of the site, has on future development.

#### **Contamination and Geotechnical**

- (1) Identify and address contamination and geotechnical issues associated with the works proposed by the project applications. All relevant legislation and guidelines related to contamination and geotechnical issues are to be addressed.
- (2) Provide a geotechnical report that includes details on the classification of soil type generally found within the subject site and demonstrate how the proposal complies with all relevant Australian Standards, including AS2870 (Residential Slabs and Footings).

#### **Urban design and built form**

- (1) Provide plans and documentation for the project applications that is of a quality suitable to assess the building typology (including the quantum of floor space). Plans and documentation should be equivalent to the standard ordinarily required for lodgement under Part 4.
- (2) Address Crime Prevention Through Environmental Design principles with consideration given to the relationship to surrounding areas; pedestrian and bicycle movement to, within and through the site; key connections to the existing village and coast.

**Ecologically Sustainable Development**

Demonstrate how the development will commit to ESD principles in design, construction and ongoing operation phases.

**Energy Savings Action Plan**

- (1) Demonstrate that the development is capable of achieving the requirements of BASIX and what (if any) commitments will be made on other environmental rating tools such as Greenstar and the Australian Building Rating Scheme.
- (2) Prepare an Energy Savings Action Plan in accordance with the requirements of the DWE and the *Guidelines for Energy Savings Action Plans*, DEUS 2005.

**Traffic and Transport**

Prepare a Traffic Study in accordance with RTA's *Guide Traffic Generating Developments* that includes (but is not limited to) the following:

- (a) Identify all relevant vehicular traffic routes and intersection for access and egress;
- (b) Current traffic counts for all of the above traffic routes and intersections;
- (c) The anticipated vehicular traffic generated from the proposed lots;
- (d) Consideration of the traffic impact on the existing intersections and the capacity of the Pacific Highway to safely and efficiently cater for the additional vehicular traffic generated;
- (e) An analysis of the cumulative traffic and transport impacts of this development on the existing township and taking into consideration other proposed developments; and
- (f) Traffic analysis, using SIDRA or similar traffic model, for the relevant intersections including:
  - (i) Current and traffic growth projects for the life of the project;
  - (ii) 95<sup>th</sup> percentile back of queue lengths; and
  - (iii) Delays and level of service on all legs.

**Bushfire**

- (1) Demonstrate compliance with the current version of *Planning for Bush Fire Protection* and AS3959 (Building in Bush Fire Prone Areas). The EA is to identify the ongoing management arrangements of any proposed APZ.
- (2) Identify future management regimes for any areas of hazard remaining within the subject area. This should focus on the level of hazard posed to future development by the land or adjacent land and how the hazard may change as a result of development.

**Impacts on Crown land**

Identify potential direct and indirect impacts arising from the development on the adjacent Munmorah State Conservation Area and Point Wollstonecraft State Recreation Area.

**Site preparation works**

Provide a report that includes (but is not limited to):

- (a) a detailed survey showing existing and proposed levels and quantities of fill necessary for site preparation works;
- (b) details on the source of fill including types of materials and their source; and
- (c) details of the quantity and quality of any excess material and arrangements for its disposal.

**Subdivision**

- (1) Provide proposed plans of subdivision that identify all covenants, easements and notations proposed for each land title and, if relevant, how the subdivision is to be staged.
- (2) Provide detail on the management arrangements for all land to be subdivided, including (but not limited to) titling arrangements; land ownership (particularly future public land); and all proposed covenants and restrictions, including

	<p>those relating to access.</p> <p>(3) Outline the long-term management and maintenance of any areas of open space or conservation (including off-set areas) or both, including the ownership and control, management and maintenance of funding public access revegetation and rehabilitation works and bushfire management.</p> <p><b>Previous Submissions</b></p> <p>The EA is to respond to the issues raised in submissions received by the Department following the public exhibition of the Concept Plan between 3 January 2007 and 2 March 2007.</p>
<b>Consultation</b>	<p>During the preparation of the EA, you should undertake an appropriate and justified level of consultation with any relevant parties, having regard to previous consultation with the Independent Panel of Experts and the Community Reference Group. Any such consultation prior to exhibition should be documented in the EA. In particular, consultation should be considered with:</p> <p>(1) <i>Agencies and other authorities:</i></p> <ul style="list-style-type: none"> <li>(a) Commonwealth Department of Environment and Water Resources;</li> <li>(b) Lake Macquarie Council;</li> <li>(c) Wyong Shire Council;</li> <li>(d) Hunter Water;</li> <li>(e) Gosford/Wyong Council's Water Authority;</li> <li>(f) Local Aboriginal Land Council;</li> <li>(g) Catchment Management Authority - Hunter - Central Rivers;</li> <li>(h) NSW Department of Water and Energy;</li> <li>(i) NSW Department of Primary Industries;</li> <li>(j) NSW Department of Environment and Climate Change;</li> <li>(k) Heritage Office, Department of Planning;</li> <li>(l) NSW Roads and Traffic Authority;</li> <li>(m) NSW Emergency Service agencies, namely NSW Police Department, the Ambulance Service of NSW, the State Emergency Service, NSW Rural Fire Service, and NSW Fire Brigades; and</li> <li>(n) All utility providers.</li> </ul>
<b>Deemed Refusal Period</b>	120 days

# Appendix 3

## QUANTITY SURVEYORS REPORT

15 August 2007

Rose Pty Ltd  
51 Riley Street  
WOOLLOOMOOLOO NSW 2011

ATTENTION: NICK JACKMAN

Dear Sir

RE: **CATHERINE HILL BAY AND GWANDALAN  
DIRECTOR GENERAL'S REQUIREMENTS – GWANDALAN  
SITE PREPARATION AND SUBDIVISION WORKS**

We understand that you will be submitting a revised concept plan for the development of Catherine Hill Bay and Gwandalan in accordance with Part 3A of the Environmental Planning Policy – Major Projects 2005 (Major Projects SEPP) for land at Catherine Hill Bay and Gwandalan.

We further understand that in accordance with the Director General's requirements (item 10) that we are required to prepare a report identifying the capital investment value for the concept plan.

We confirm that we have prepared an estimate of capital cost for the proposed Gwandalan for this proposal and we advise you that the estimated cost at rates current in August 2007 is \$16,000,000 (excluding GST).

We note that the Director General's requirements defines "Capital Investment Value" (CIV) in item 10 and for further clarification we assume that CIV includes the cost of site preparation, site infrastructure services and civil works, building works, head contractors preliminaries, supervision, overheads and margins together with design and consultant fees, project management fees and costs to provide BASIX and ESD principles. The CIV shall however exclude land costs, legal fees, interest and holding costs, sales commissions, marketing costs, council and authority fees and contributions and developer's margin and contingency. We also note that costs are at August 2007 rates and exclude provision for escalation.

We specifically note that the above estimate is based on preliminary and conceptual design information made available to ourselves at this point and therefore we have had to make a number of assumptions in relation to the requirements. The estimates may be subject to change as design develops.

**Quantity Surveyors  
and Construction  
Cost Consultants**

Level 24 Northpoint  
100 Miller Street  
North Sydney  
New South Wales 2060  
Australia

Locked Bag 2137  
North Sydney NSW 2059  
DX 10544 North Sydney

Tel: (+61) 2 9929 7422

Fax: (+61) 2 9957 3161

Email:

[jferrarin@wtpartnership.com.au](mailto:jferrarin@wtpartnership.com.au)

Website:

[www.wtpartnership.com.au](http://www.wtpartnership.com.au)

**Directors**

R C Moir MRICS AAIQS AIAMA  
J J Ferrarin BBlid AAIQS  
K R McGowan FRICS FAIQS  
P Anseline BappSc (QS) AAIQS  
N C Deeks BSc MRICS AAIQS MACostE  
M A Tebbatt BappSc (QS) AAIQS  
P T Elphick BSc MRICS AAIQS

**Associates**

E C W Chan BSc (QS) AAIQS  
L Ferlauto BBlid (CE) Hons  
M M Lee MRICS AAIQS ACIOB  
J Lum BBlid (CE) Hons AAIQS  
S J McCondach BCon (QS) MRICS  
J S Osenton BSc Hons  
D M Faugust BSc Hons MRICS  
I R Menzies BCon Mgt Hons AAIQS  
G O Heaton BSc (QS)

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JAS-ANZ

Member of the  
Australian Institute of Quantity Surveyors



CATHERINE HILL BAY AND GWANDALAN  
DIRECTOR GENERAL'S REQUIREMENTS - GWANDALAN  
SITE PREPARATION AND SUBDIVISION WORKS

15 AUGUST 2007

Should you require any further information or wish to discuss any aspect of the attached please do not hesitate to contact us.

Yours faithfully

**WT PARTNERSHIP**



PP

**JOHN FERRARIN**

# Appendix 4

## DESIGN & LANDSCAPE PLANS

CONCEPT CIVIL ENGINEERING DESIGN PLANS  
FOR PROPOSED RESIDENTIAL SUBDIVISION  
KANANGRA DRIVE, GWANDALAN  
WYONG SHIRE COUNCIL

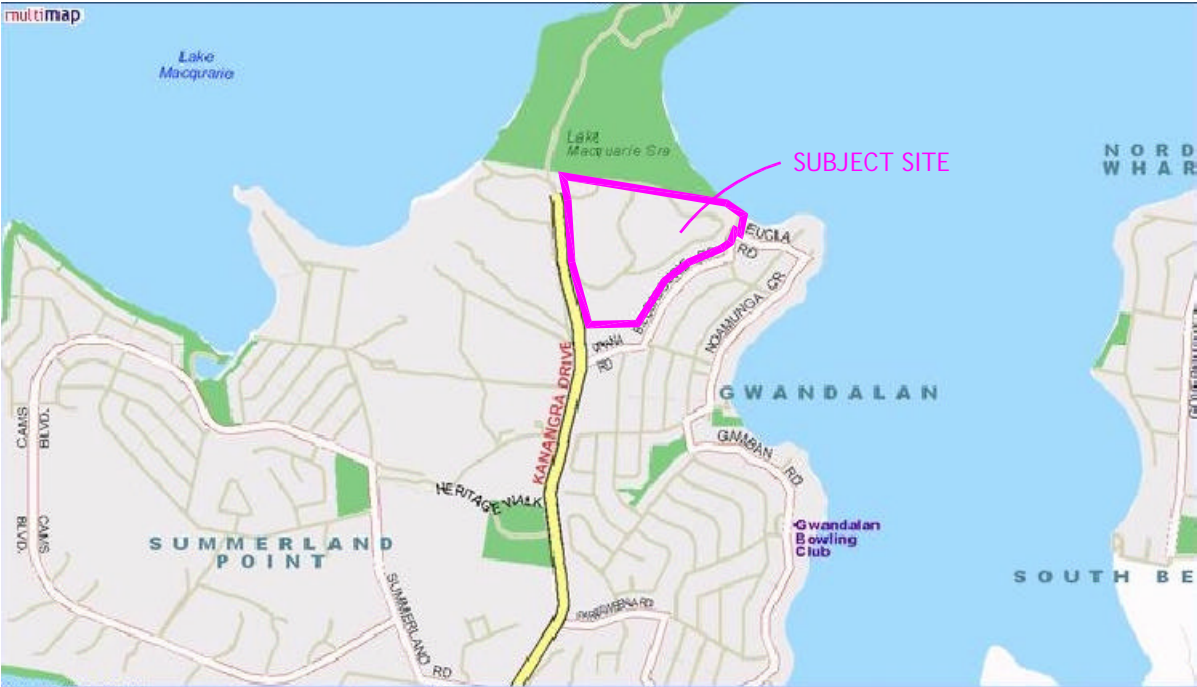


CLIENT: ROSECORP PTY. LTD.



AutoCAD File: N:\11778\Dwg\Eng\11778eng-3c

DWG No.	SHEET TITLE	VER.
000	TITLE SHEET, INDEX, LOCATION DIAGRAM & GENERAL NOTES	
001	PROPOSED SUBDIVISION LAYOUT	B
101	DETAIL PLAN 1	B
102	DETAIL PLAN 2	B
103	DETAIL PLAN 3	C
201	LONGITUDINAL SECTION - KANANGRA DRIVE	B
211	LONGITUDINAL SECTION - ROAD 1 (CH.0 - 330)	B
212	LONGITUDINAL SECTION - ROAD 1 (CH.330 - 660)	B
213	LONGITUDINAL SECTION - ROAD 1 (CH.660 - CH.1086.99)	B
221	LONGITUDINAL SECTION - ROAD 2 (CH.0 - CH.330)	B
222	LONGITUDINAL SECTION - ROAD 2 (CH.330 - CH.447.21)	B
231	LONGITUDINAL SECTION - ROAD 3	B
241	LONGITUDINAL SECTION - ROAD 4 (CH.0 - CH.330)	B
242	LONGITUDINAL SECTION - ROAD 4 (CH.330 - CH.630)	B
25a1	LONGITUDINAL SECTION - ROAD 5a (NORTH ARM)	B
25b1	LONGITUDINAL SECTION - ROAD 5b (SOUTH ARM)	B
501	STORMWATER CATCHMENTS	B
502	CONSTRUCTED WETLAND	B
601	SOIL AND WATER MANAGEMENT	B
701	TYPICAL SECTIONS	C
702	SEWER MAIN LAYOUT	B
703	WATER MAIN LAYOUT	B
704	LEAD-IN WATER MAIN	B



LOCALITY PLAN  
(FROM MULTIMAP)



LEGEND

- SITE BOUNDARY
- PROPOSED BOUNDARY
- MAJOR NATURAL CONTOUR
- MINOR NATURAL CONTOUR
- WETLAND DEVELOPMENT CONTROL PLAN AREA

THIS SHEET IS NOT TO SCALE

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**ASQUITH & deWITT**  
SURVEYING, PLANNING, MAPPING  
PROPERTY DEVELOPMENT MANAGERS

ASQUITH & DE WITT PTY. LTD.  
UNIT 7 / 335 HILLSBOROUGH ROAD  
WARNERS BAY 2282  
PHONE: (02) 4978 5100  
FAX: (02) 4978 5199

Ver.	Date	Comment
B	07/2007	Project Application
A	06/2007	Initial Release

LOCATION

**KANANGRA DRIVE,  
GWANDALAN**

Plan of Proposed Subdivision Layout

Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	1.0m (Nat)	Checklist:	MJH

Version:	B (July 2007)	Original Size <b>A1</b>
Client:	Rosecorp Pty. Ltd.	
AutoCAD Ref:	N:\11778\Dwg\Eng\11778eng-3b	
Job No:	11778	

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Sheet  
**001**



NOTES:-  
1. EACH DWELLING TO HAVE A  
MINIMUM 5KL RAINWATER TANK.

LEGEND

REGRADE AREA

NEW ROAD/FOOTPAVING

EXISTING ROAD

DESIGN CONTOURS

BOUNDARY

ROAD CENTRELINE

EXISTING CONTOURS

STORMWATER DRAINAGE (CONCEPT)

0 2 4 6 8 10 20 30 40 60

Bar Scale 1: 500 (A1), 1:1000 (A3)

RETAINING WALLS SEE  
SECTION "A"-"A" SHEET 701

HALF-ROAD  
CONSTRUCTION

EXISTING  
PAVEMENT

ASQUITH & deWITT

PROPERTY DEVELOPMENT MANAGERS

ASQUITH & DE WITT PTY. LTD.  
UNIT 7 / 335 HILLSBOROUGH ROAD  
WARNERS BAY 2282  
PHONE: (02) 4978 5100  
FAX: (02) 4978 5199

Ver.	Date	Comment
B	07/2007	Project Application
A	06/2007	Initial Release

LOCATION

KANANGRA DRIVE,  
GWANDALAN

Plan of Detail 1

Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	1.0m (Des & Nat)	Checklist:	MJH

Version: B (July 2007)

Client: Rosecorp Pty. Ltd.

AutoCAD Ref: N:\11778\DWG\Eng\11778eng-3b

Job No: 11778

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Original Size  
A1

Sheet  
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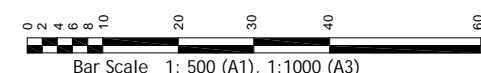


#### LEGEND

	DESIGN CONTOURS		REGRADE AREA
	BOUNDARY		NEW ROAD/FOOTPAVING
	ROAD CENTRELIN		EXISTING ROAD
	EXISTING CONTOURS		
	STORMWATER DRAINAGE (CONCEPT)		

#### NOTES:-

1. EACH DWELLING TO HAVE A MINIMUM 5KL RAINWATER TANK.



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UNIT 7 / 335 HILLSBOROUGH ROAD  
WARNERS BAY 2282  
PHONE: (02) 4978 5100  
FAX: (02) 4978 5199

Ver.	Date	Comment
B	07/2007	Project Application
A	06/2007	Initial Release

#### LOCATION

KANANGRA DRIVE,  
GWANDALAN

#### Plan of Detail 2

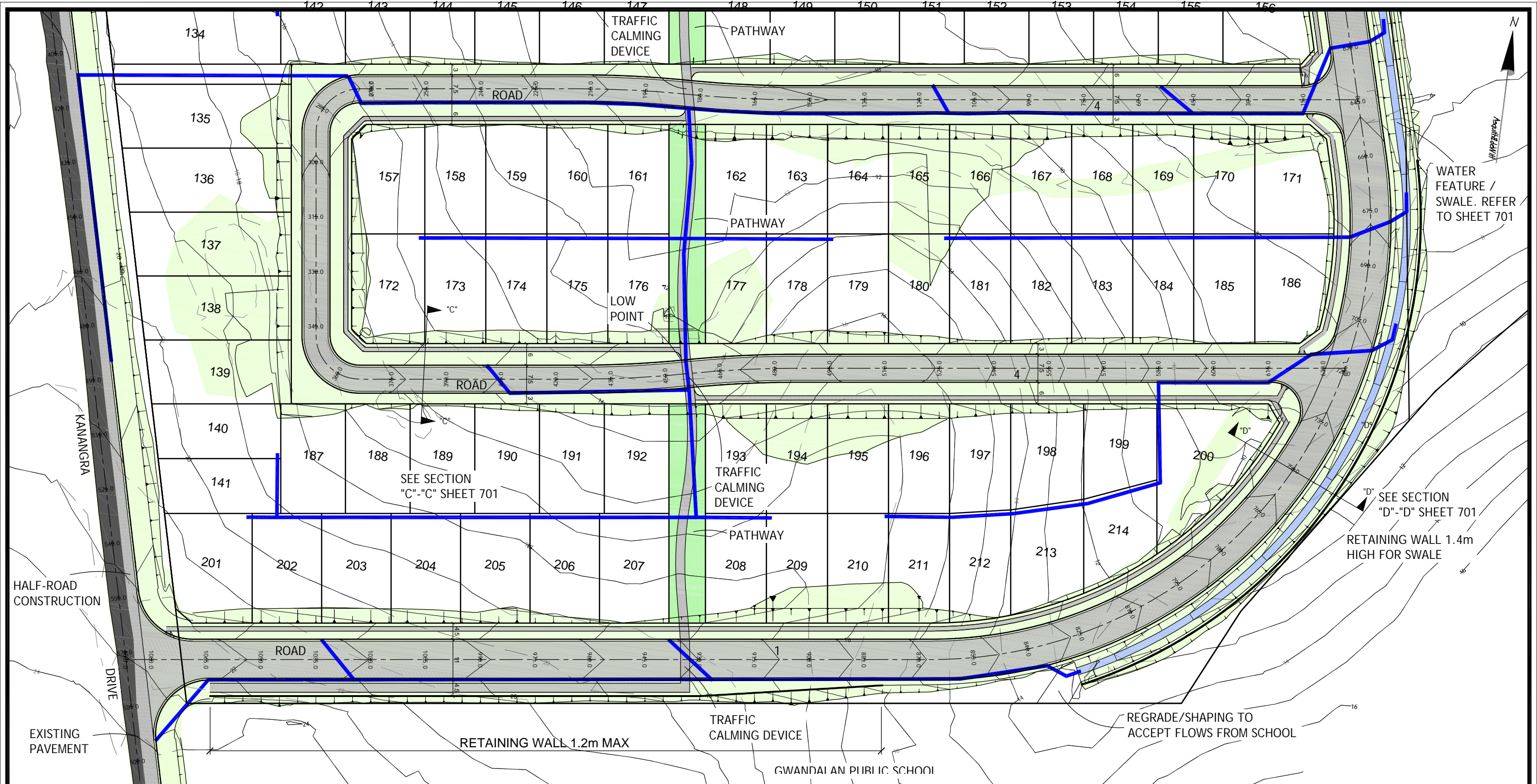
Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	1.0m (Des & Nat)	Checklist:	MJH

Version:	B (July 2007)
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Job No:	11778

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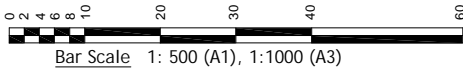


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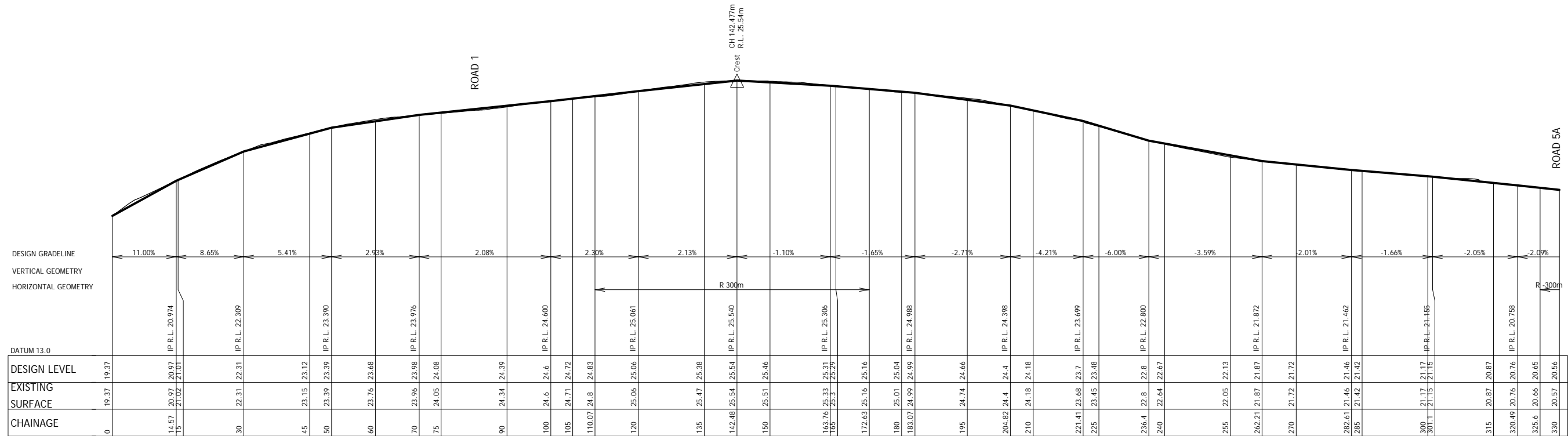
- REGRADE AREA
- NEW ROAD/FOOTPAVING
- EXISTING ROAD
- DESIGN CONTOURS
- BOUNDARY
- ROAD CENTRELINE
- EXISTING CONTOURS
- STORMWATER DRAINAGE (CONCEPT)

NOTES:-

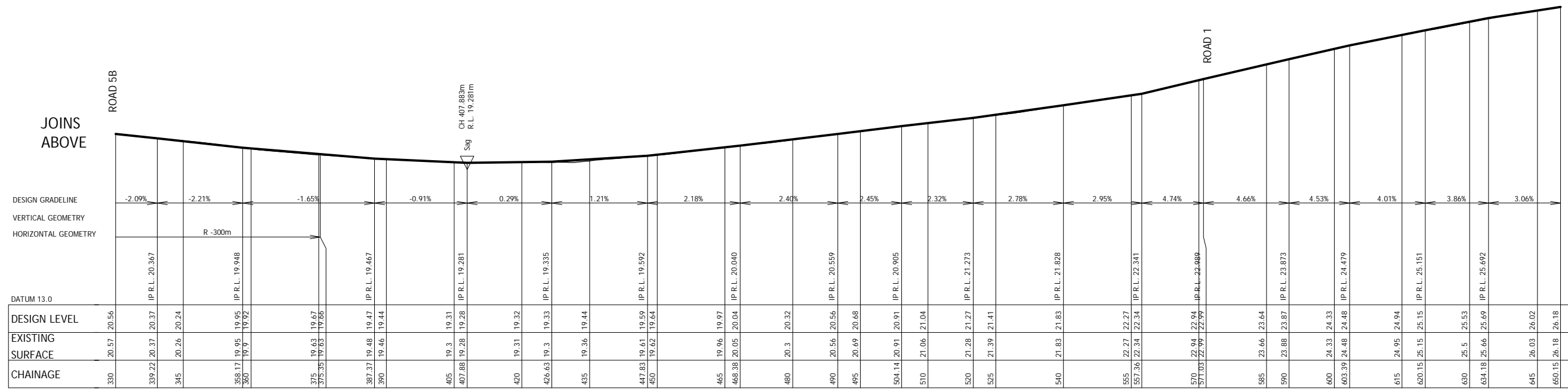
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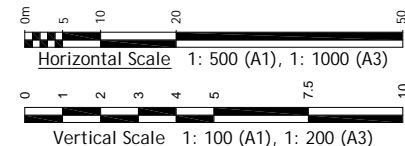
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LONGITUDINAL SECTION KANANGRA DR  
Horizontal scale 1:500  
Vertical scale 1:100



LONGITUDINAL SECTION KANANGRA DR  
Horizontal scale 1:500  
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Ver.	Date	Comment
B	07/2007	Project Application
A	06/2007	Initial Release

LOCATION  
**KANANGRA DRIVE,  
GWANDALAN**

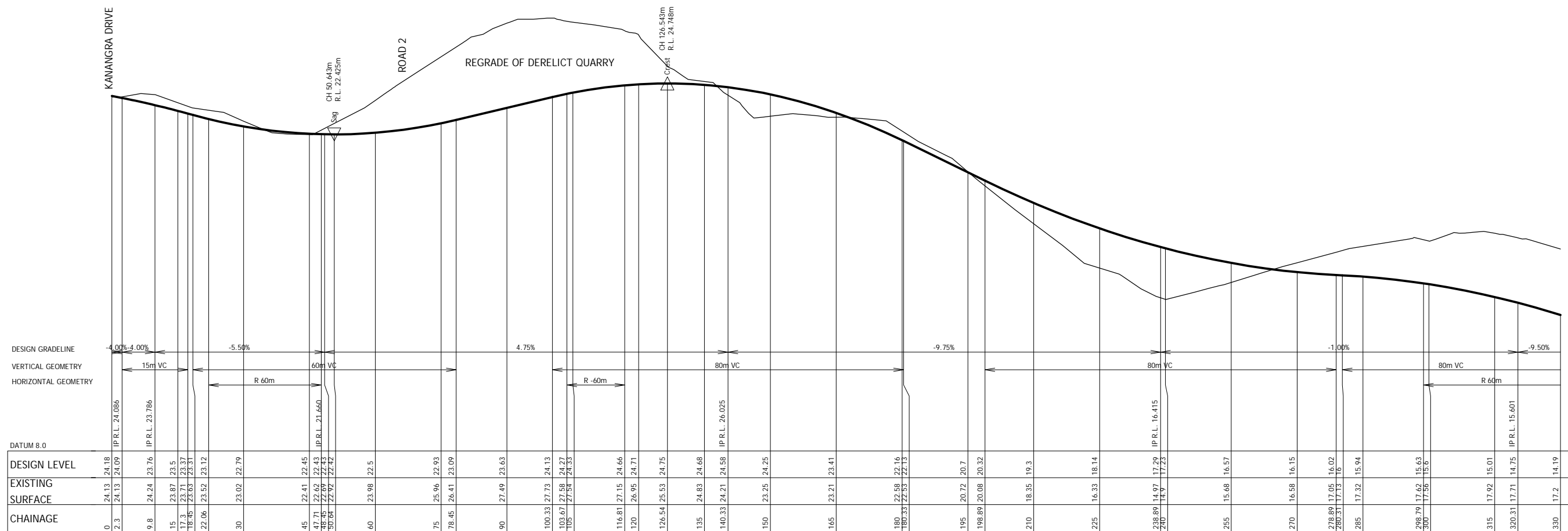
Plan of Longitudinal Section - Kanangra Drive

Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	N/A	Checklist:	MJH

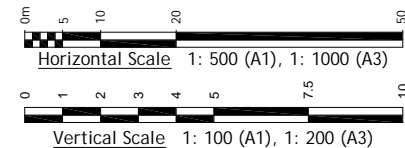
Version: B (July 2007)  
Client: Rosecorp Pty. Ltd.  
AutoCAD Ref: N:\11778\Drawg\Eng\11778eng-3b  
Job No: 11778

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Ver.	Date	Comment

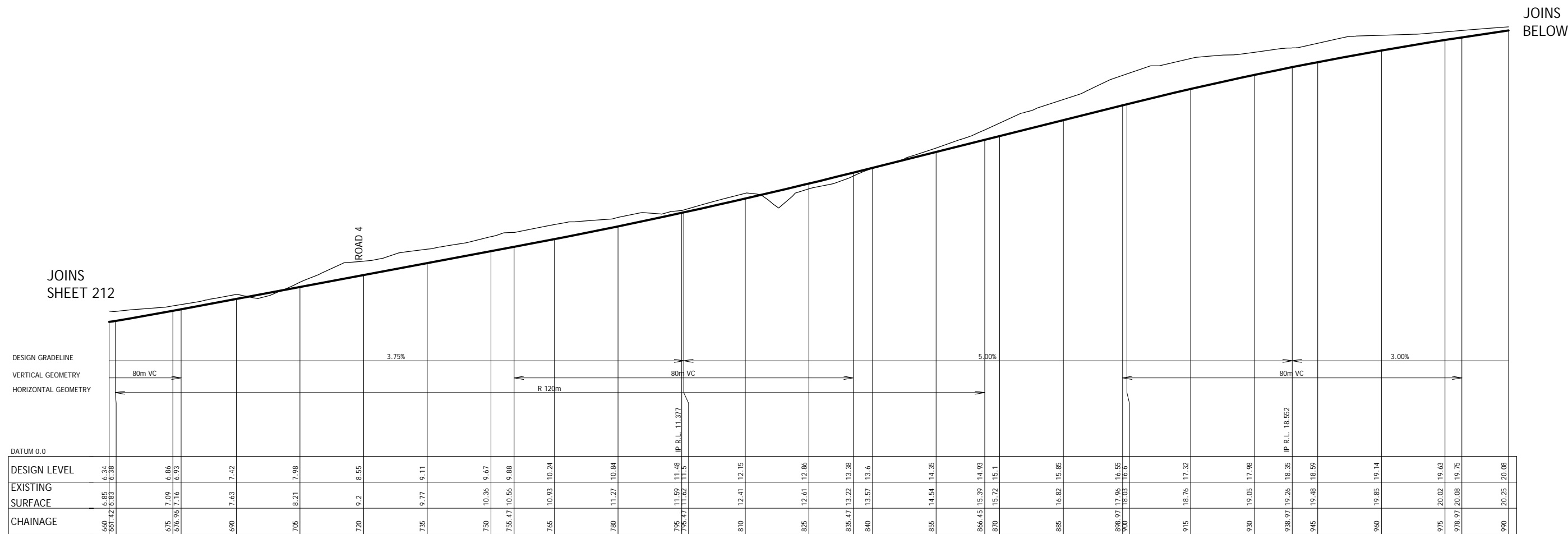
LOCATION  
  
KANANGRA DRIVE,  
GWANDALAN

Plan of Longitudinal Section - Road 1 Ch. 0 - Ch. 330		
Council:	Wyong	Projection: M.G.A.
Datum:	A.H.D.	North Direction: Grid
Source:	ADW Survey	Plan By: MJH
Contour Interval:	N/A	Checklist: MJH

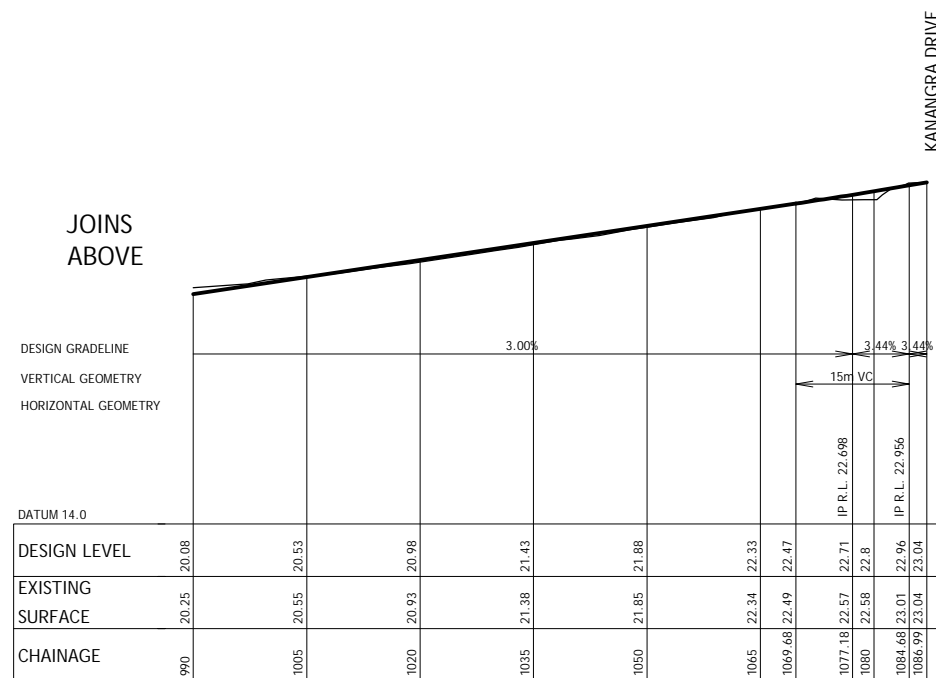
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AutoCAD Ref:	N:\11778\Dwg\Eng\11778eng-3b
Job No:	11778
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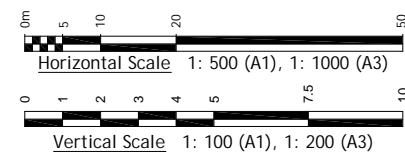




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LONGITUDINAL SECTION ROAD 1  
Horizontal scale 1:500  
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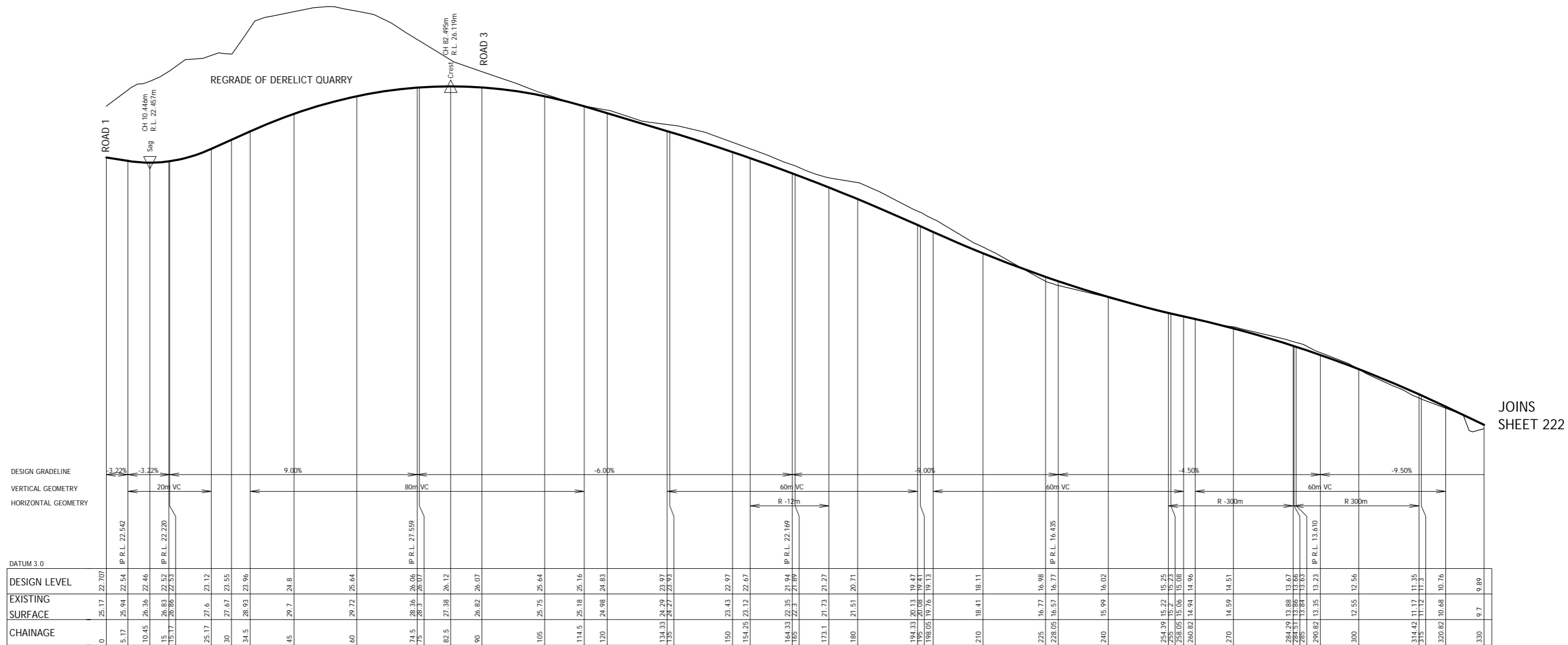
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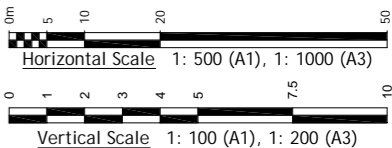
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Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	N/A	Checklist:	MJH

Version:	B (July 2007)
Client:	Rosecorp Pty. Ltd.
AutoCAD Ref:	N:\11778\Drawg\Eng\11778eng-3b
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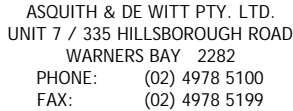
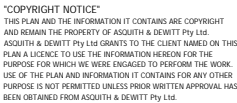
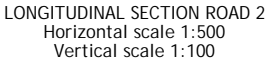
LOCATION

KANANGRA DRIVE,  
GWANDALAN

Plan of Longitudinal Section - Road 2 Ch. 0 - Ch. 330		
Council:	Wyong	Projection: M.G.A.
Datum:	A.H.D.	North Direction: Grid
Source:	ADW Survey	Plan By: MJH
Contour Interval:	N/A	Checklist: MJH

Version:	B (July 2007)
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221



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KANANGRA DRIVE,  
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Plan of Longitudinal Section - Road 2  
Ch. 330 - Ch. 447.21

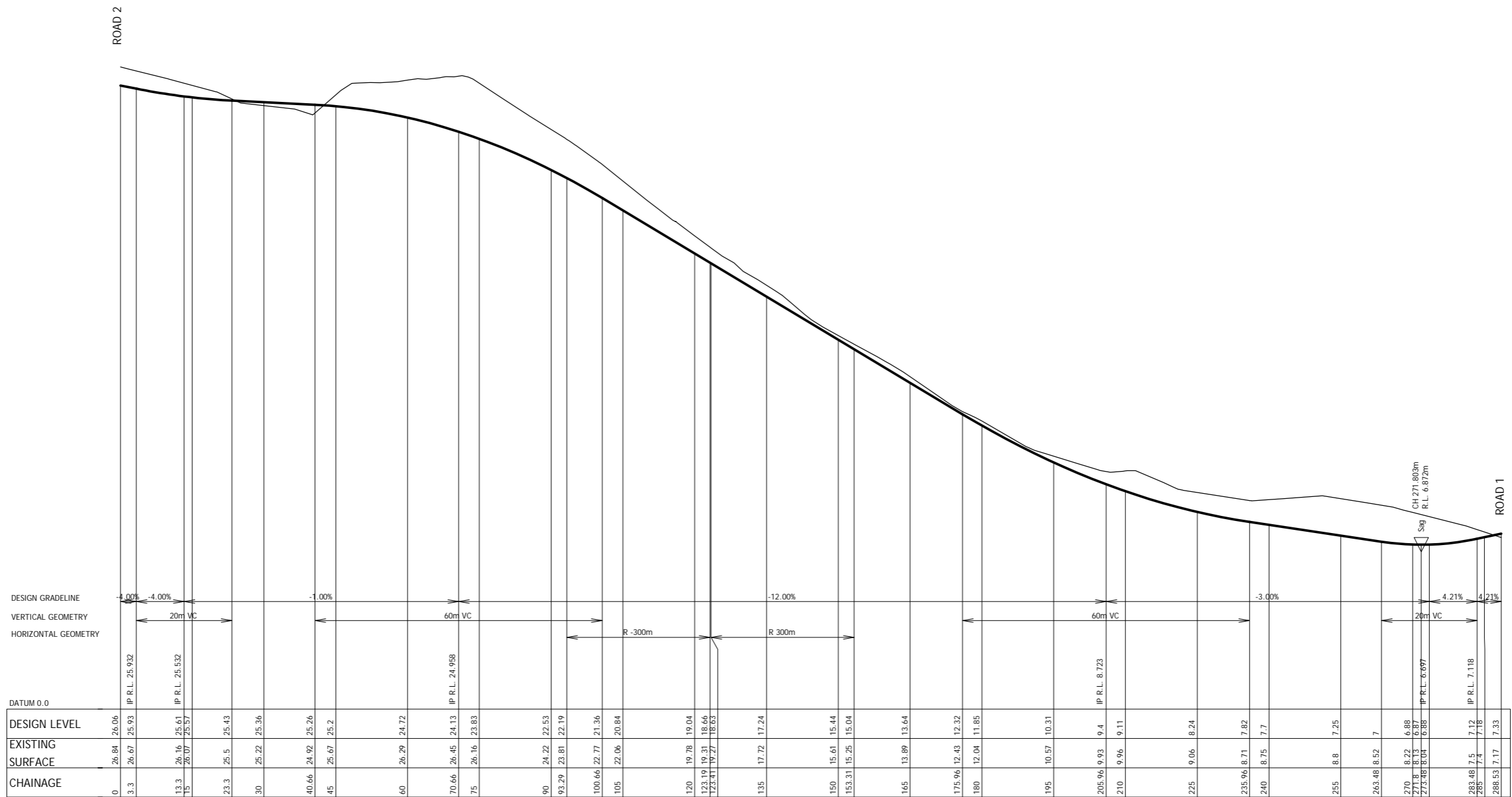
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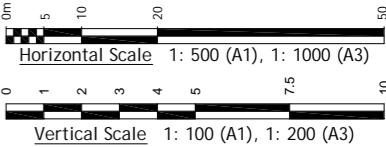
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222



LONGITUDINAL SECTION ROAD 3  
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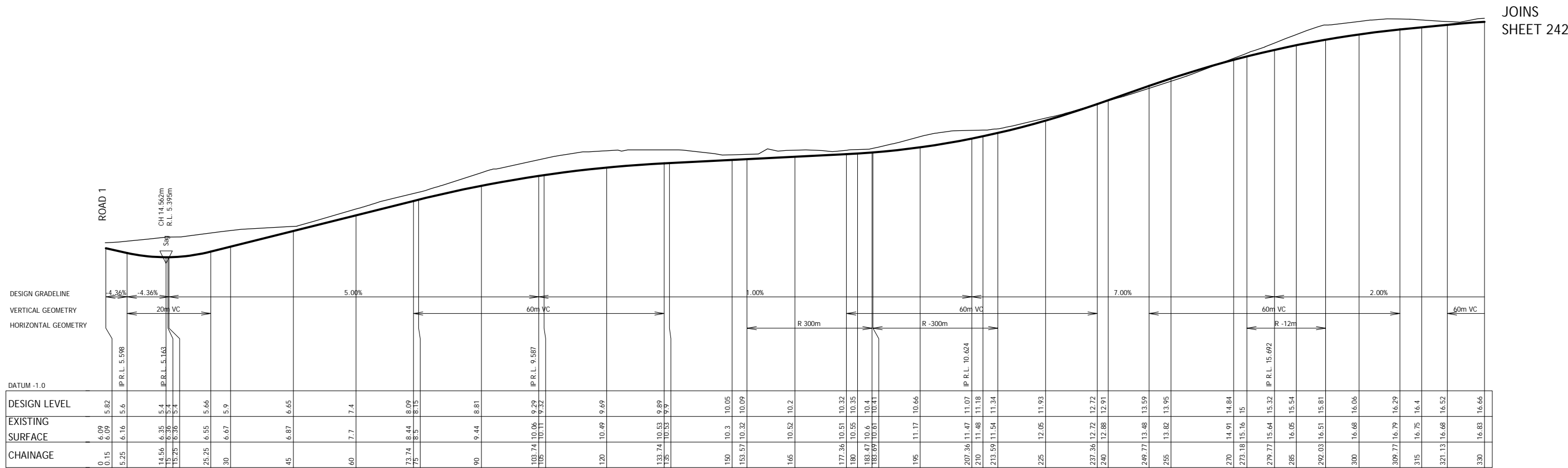
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Ver.	Date	Comment

LOCATION  
  
KANANGRA DRIVE,  
GWANDALAN

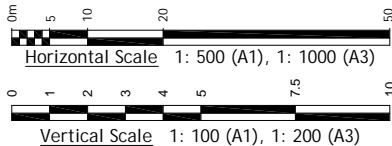
Plan of Longitudinal Section - Road 3			
Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	N/A	Checklist:	MJH

Version:	B (July 2007)
Client:	Rosecorp Pty. Ltd.
AutoCAD Ref:	N:\11778\Dwg\Eng\11778eng-3b
Job No:	11778
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**231**



LONGITUDINAL SECTION ROAD 4  
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Vertical scale 1:100



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Ver.	Date	Comment

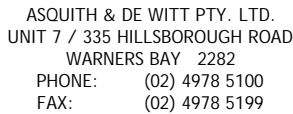
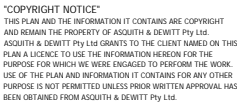
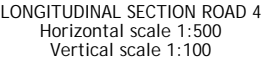
LOCATION

KANANGRA DRIVE,  
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Plan of Longitudinal Section - Road 4 Ch. 0 - Ch. 330			
Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	N/A	Checklist:	MJH

Version:	B (July 2007)
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LOCATION

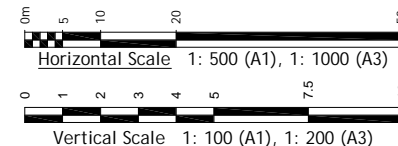
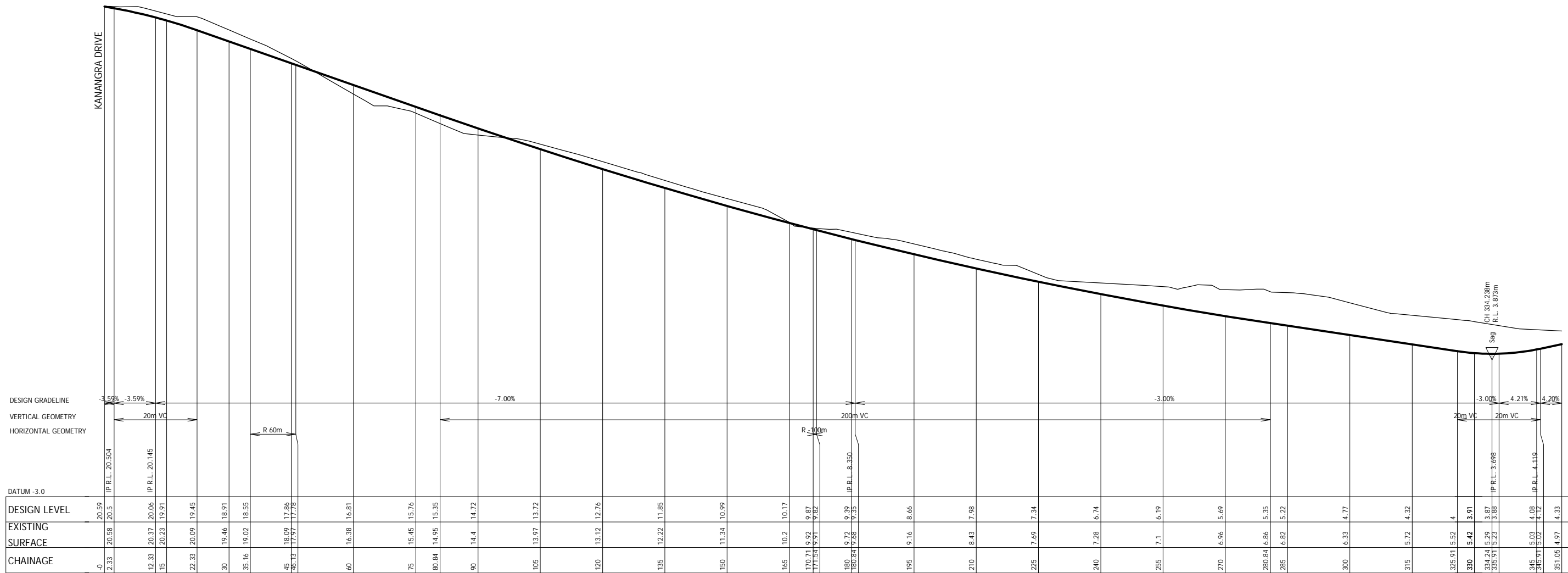
KANANGRA DRIVE,  
GWANDALAN

Version:	B (July 2007)
Client:	Rosecorp Pty. Ltd.
AutoCAD Ref:	N:\11778\Dwg\Eng\11778eng-3b
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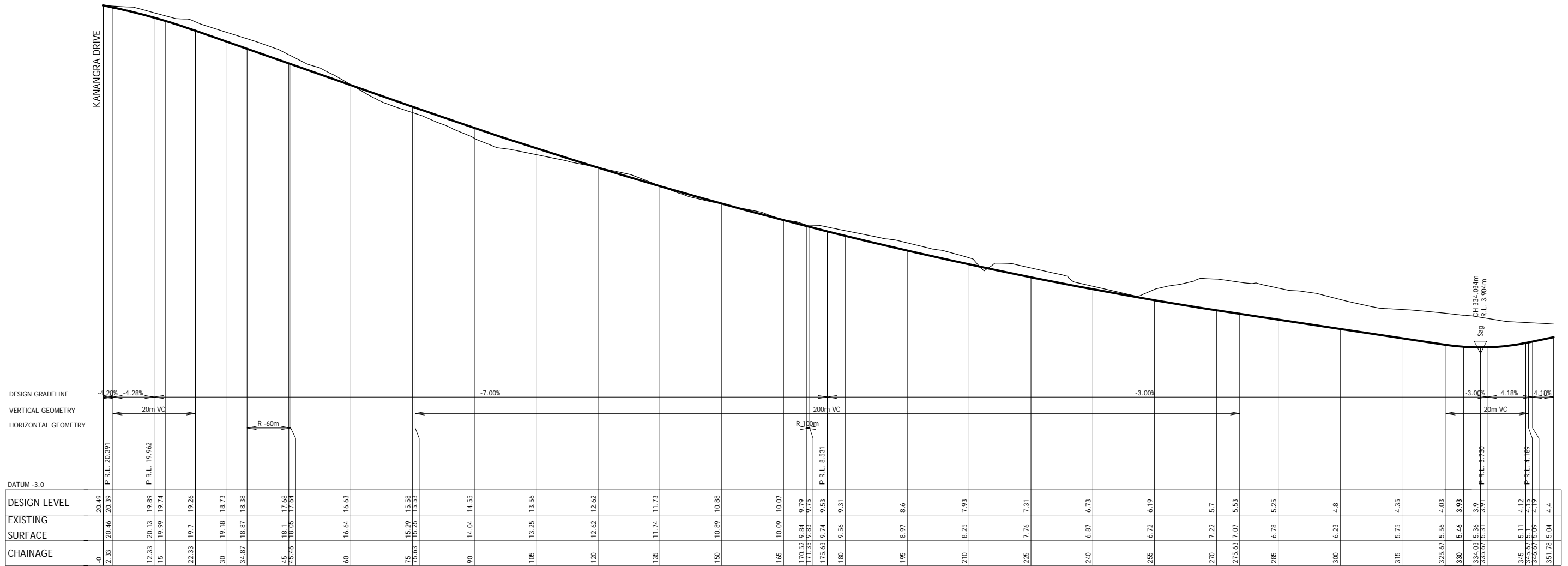
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KANANGRA DRIVE,  
GWANDALAN

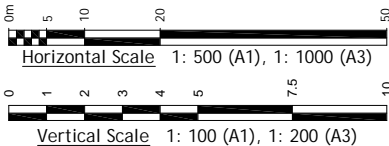
Plan of Longitudinal Section - Road 5a			
Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	N/A	Checklist:	MJH

Version:	B (July 2007)
Client:	Rosecorp Pty. Ltd.
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LONGITUDINAL SECTION ROAD 5b  
Horizontal scale 1:500  
Vertical scale 1:100



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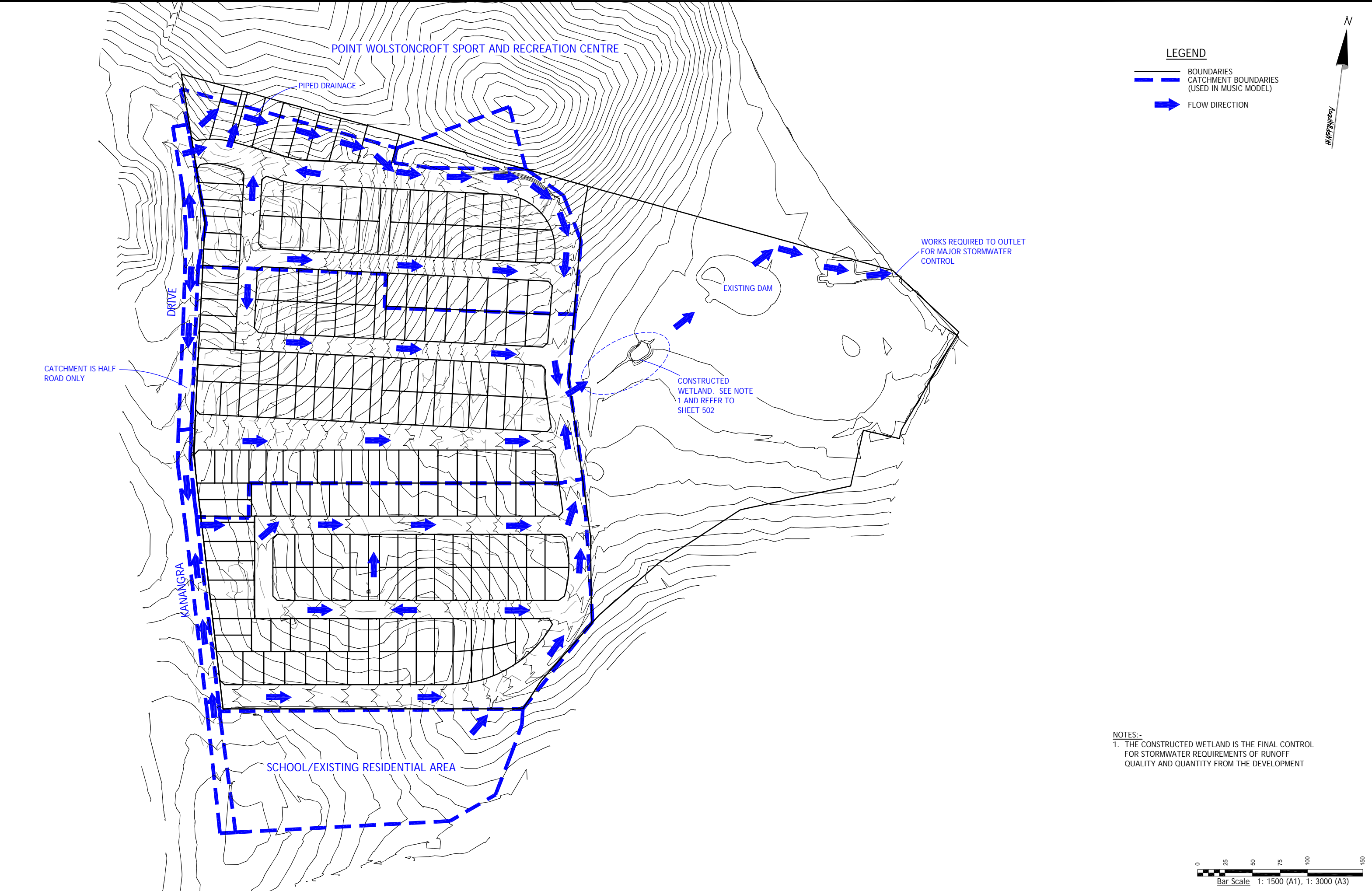
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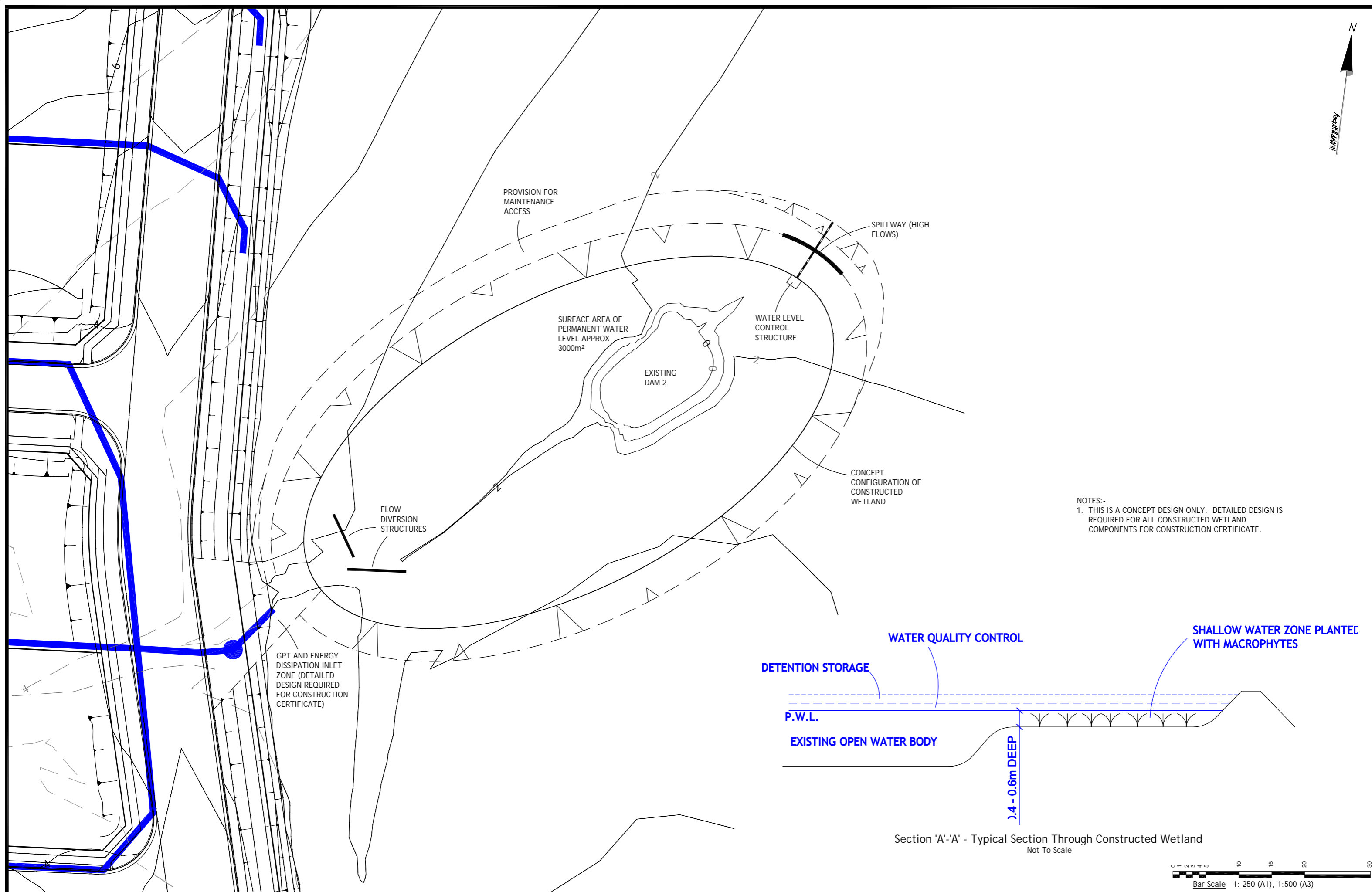
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GWANDALAN

Plan of Longitudinal Section - Road 5b			
Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	N/A	Checklist:	MJH

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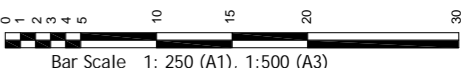
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25b1






NOTES:-  
1. THIS IS A CONCEPT DESIGN ONLY. DETAILED DESIGN IS REQUIRED FOR ALL CONSTRUCTED WETLAND COMPONENTS FOR CONSTRUCTION CERTIFICATE.

Section 'A'-A' - Typical Section Through Constructed Wetland  
Not To Scale



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LOCATION

**KANANGRA DRIVE,  
GWANDALAN**

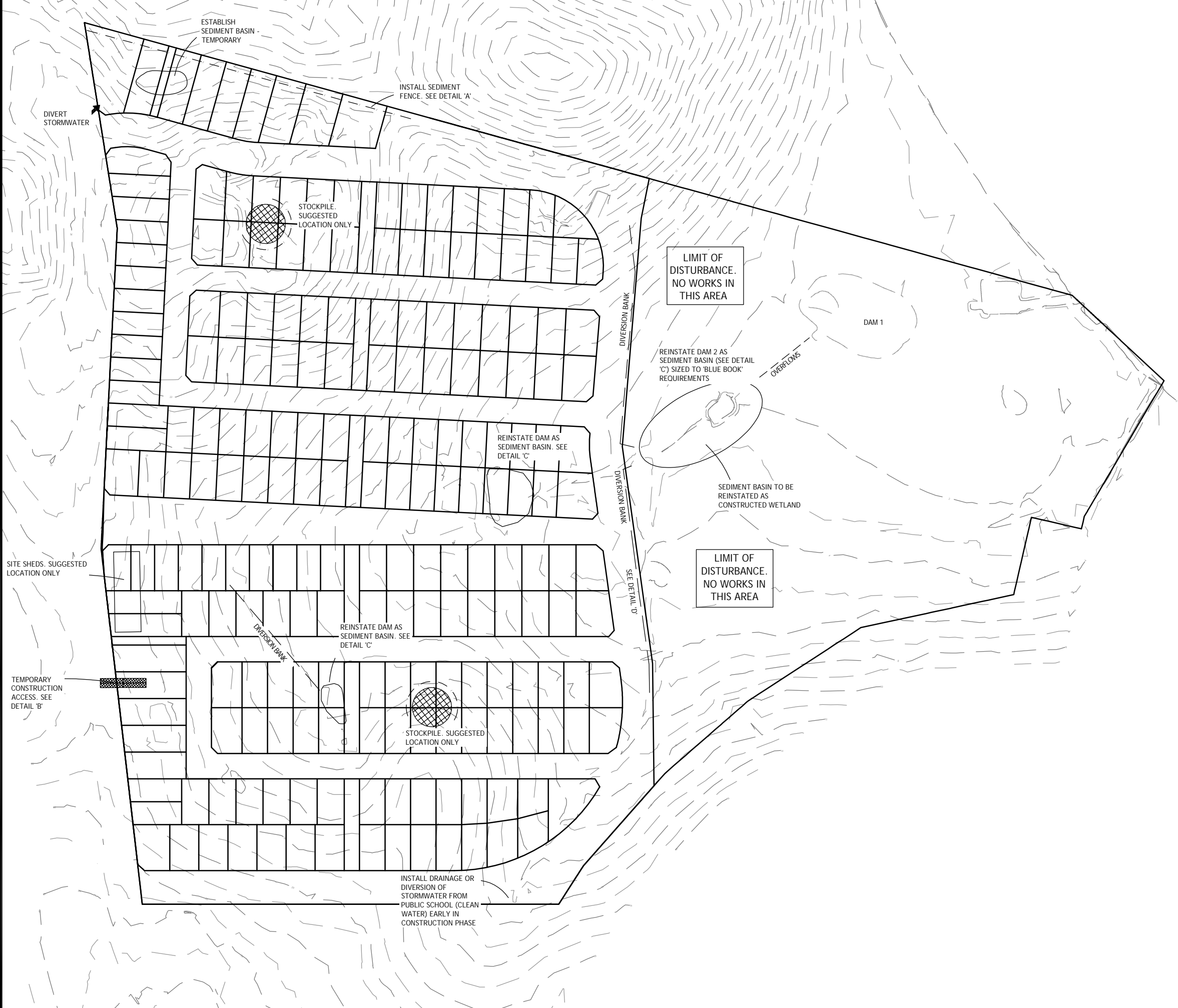
Plan of Constructed Wetland (Concept)

Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	1.0m (Des & Nat)	Checklist:	MJH

Version:	B (July 2007)
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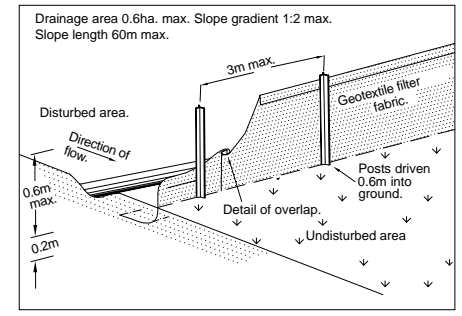
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Sheet  
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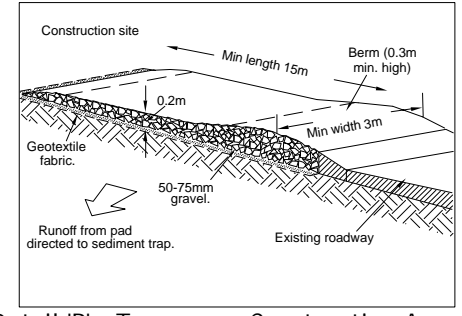


**LEGEND**

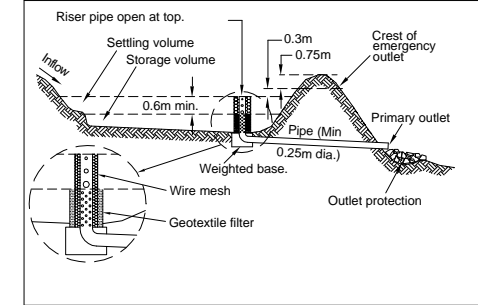
- SITE BOUNDARY
- PROPOSED BOUNDARY
- MAJOR NATURAL CONTOUR
- MINOR NATURAL CONTOUR



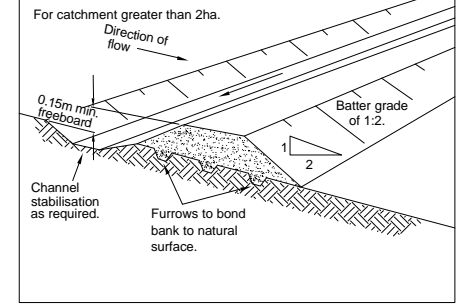
Detail 'A' - Sediment Fence



Detail 'B' - Temporary Construction Access

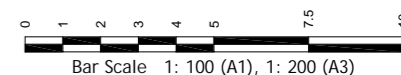
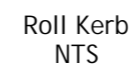
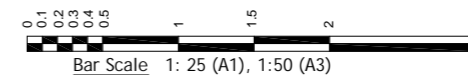
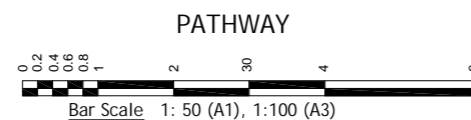
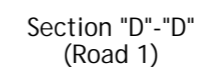
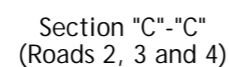
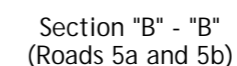
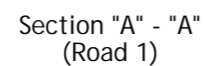


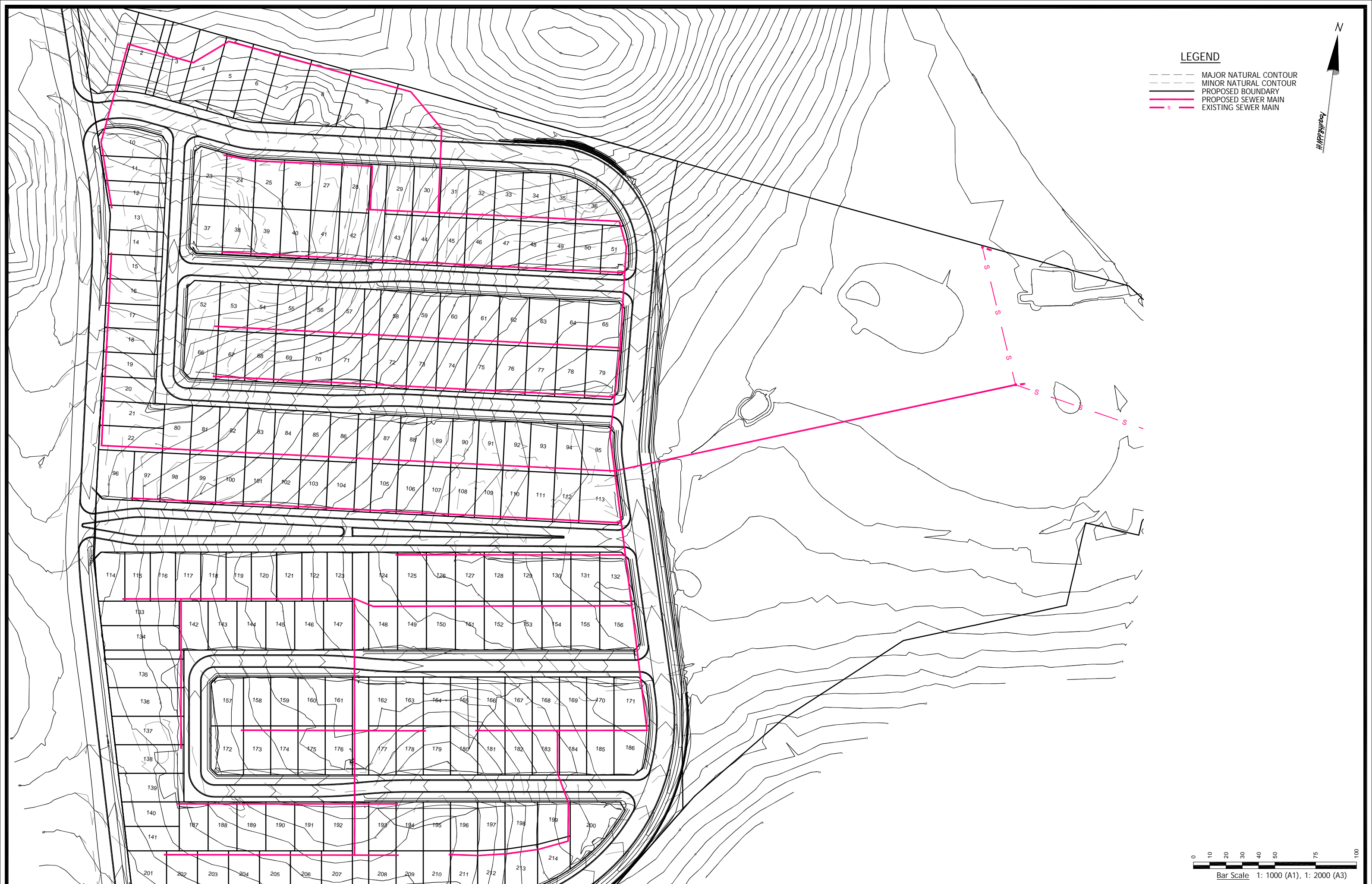
Detail 'C' - Typical Sediment Basin Section



Detail 'D' - Diversion Drain

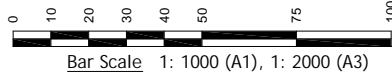
THIS SHEET IS NOT TO SCALE





LEGEND

- MAJOR NATURAL CONTOUR
- MINOR NATURAL CONTOUR
- PROPOSED BOUNDARY
- PROPOSED SEWER MAIN
- EXISTING SEWER MAIN



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LOCATION  
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GWANDALAN**

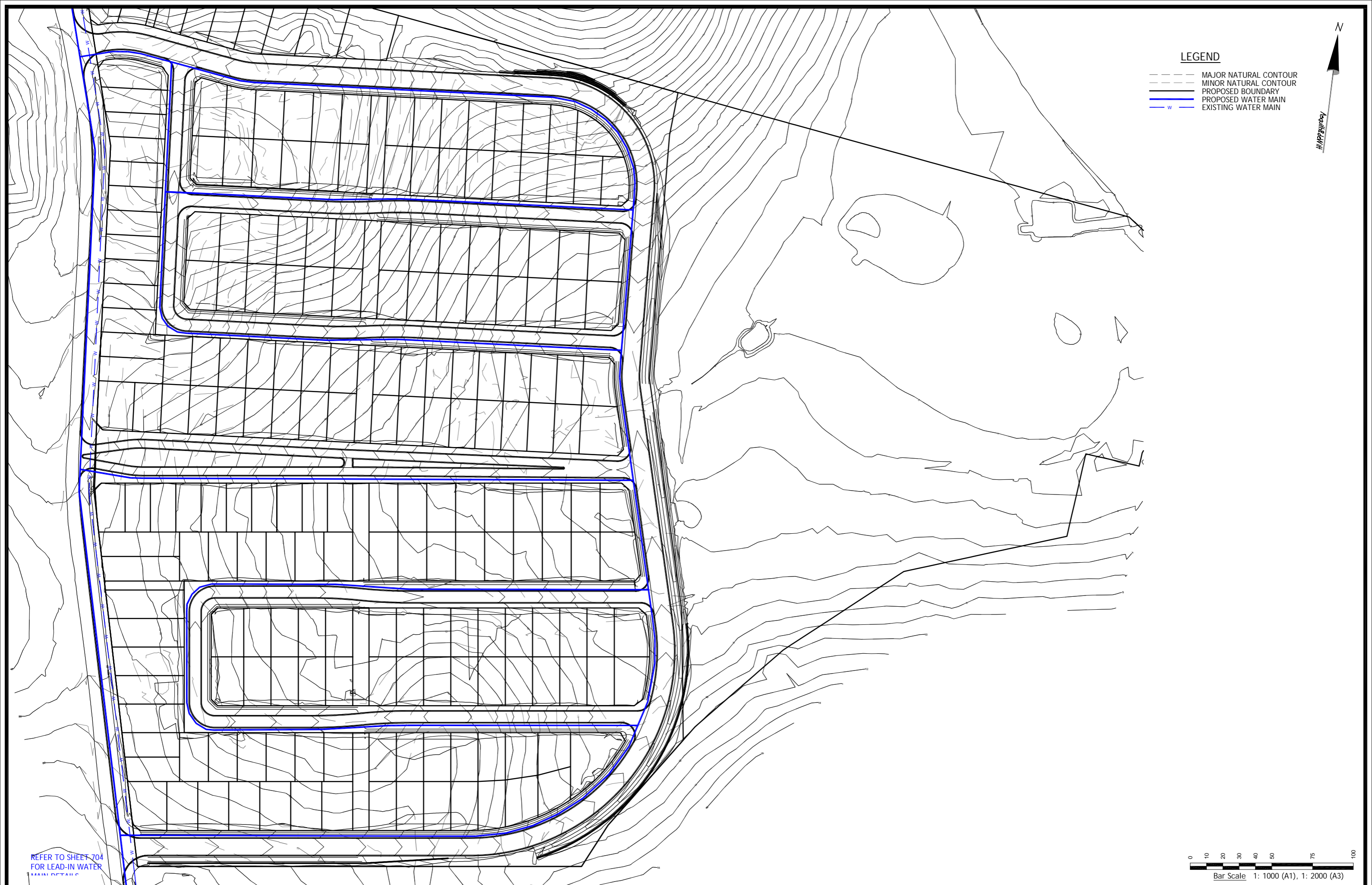
Plan of Proposed Sewer Main Layout

Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	1.0m (Des & Nat)	Checklist:	MJH

Version:	B (July 2007)
Client:	Rosecorp Pty. Ltd.
AutoCAD Ref:	N:\11778\DWG\Eng\11778eng-3b
Job No:	11778

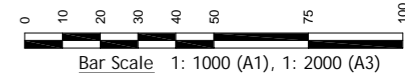
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**702**



LEGEND

- MAJOR NATURAL CONTOUR
- MINOR NATURAL CONTOUR
- PROPOSED BOUNDARY
- PROPOSED WATER MAIN
- EXISTING WATER MAIN



REFER TO SHEET 704  
FOR LEAD-IN WATER  
DETAILS

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GWANDALAN

Plan of Proposed Water Main Layout

Council:	Wyong	Projection:	M.G.A.
Datum:	A.H.D.	North Direction:	Grid
Source:	ADW Survey	Plan By:	MJH
Contour Interval:	1.0m (Des & Nat)	Checklist:	MJH

Version:	B (July 2007)
Client:	Rosecorp Pty. Ltd.
AutoCAD Ref:	N:\11778\Dwg\Eng\11778eng-3b
Job No:	11778

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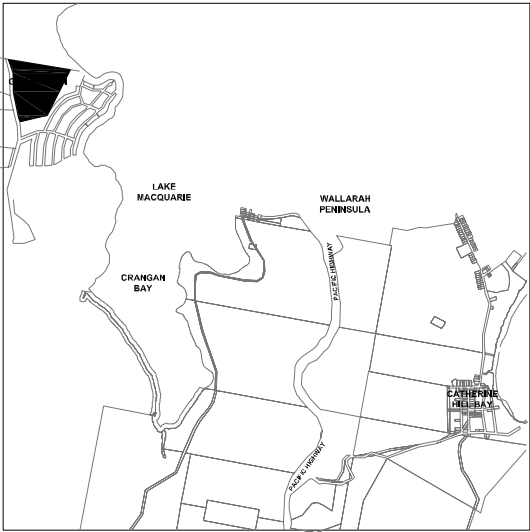
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703



# GWANDALAN, NSW PROJECT APPLICATION

## LOCATION PLAN



## DRAWING INDEX

07520 G L - 0	Cover Sheet
07520 G L - 1	Gwandalan Landscape Plan
07520 G L - 2	Gwandalan Landscape Sections



Notes  
Verify all dimensions on site before commencing work.  
Report all discrepancies to the Architect Prior to construction. Use figured dimensions in preference to scaled dimensions.

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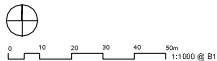
All work is to conform to relevant Australian Standards and Codes together with all Authorities' requirements and Regulations.



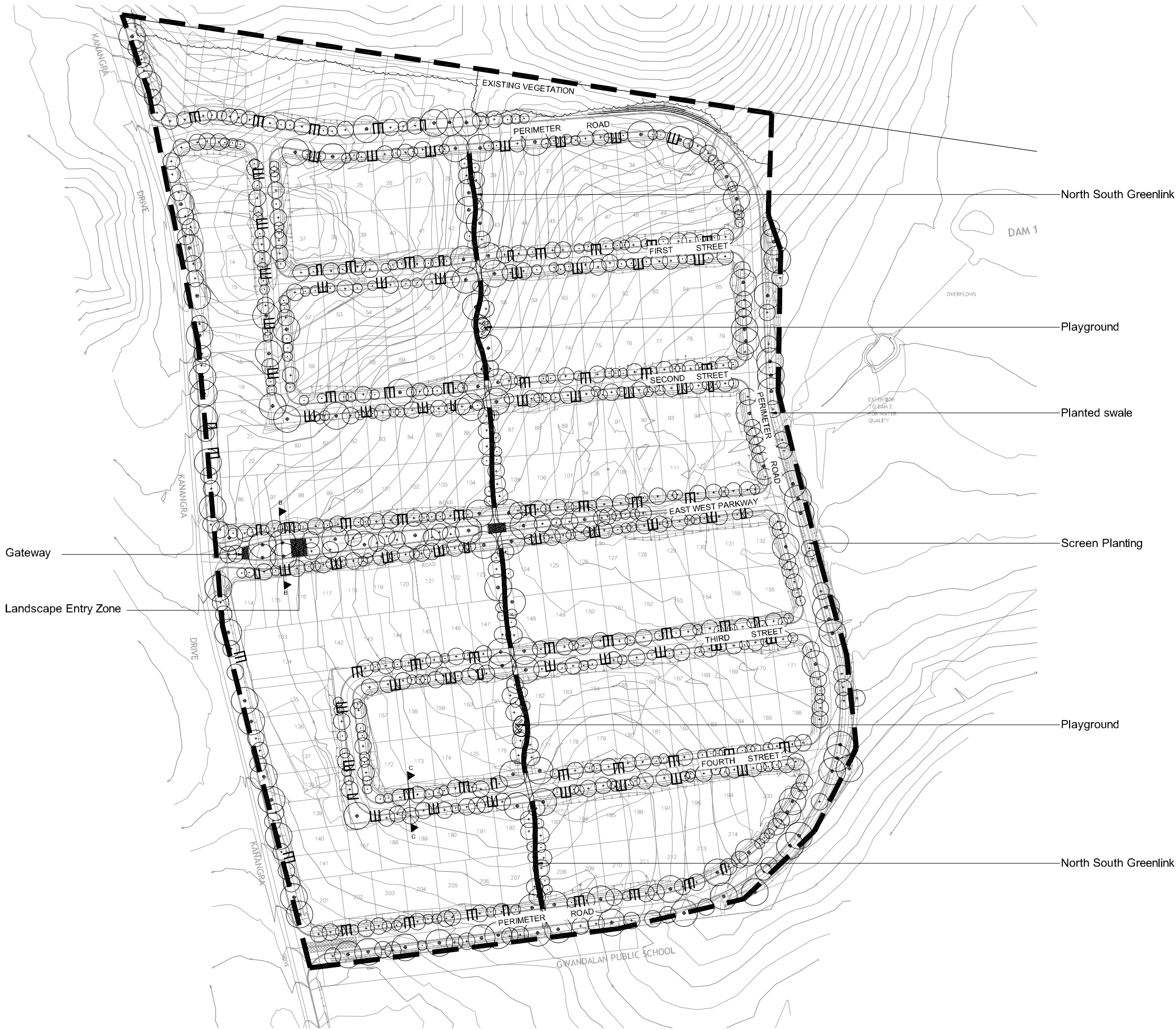
LANDSCAPE ARCHITECT  
32-38 Wills Street, East Sydney NSW 2011  
P.O. Box 8088 Sydney South NSW 1235  
T: 61 2 8244 6950 F: 61 2 8244 6888  
E: context@context.net.au  
www.context.net.au A/CN 035 972 248

context

PRELIMINARY not for Construction



Project	Gwandalan Project Application	Title	Coversheet
Date	10 August 2007	Drawn	MM/OC
Client	Rose Property Group Pty Ltd	Dwg No	07520 G L - 1
		Issue	A



- LEGEND
- TURF
  - SHRUBS/GROUNDCOVERS
  - PROPOSED TREES  
Existing trees to remain where possible
  - INDICATIVE CHILDRENS PLAYGROUND
  - EXTENT OF WORKS
  - SHARED PATHWAY
  - PLANTED SWALE
  - DRIVEWAY

GWANDALAN PLANT SCHEDULE

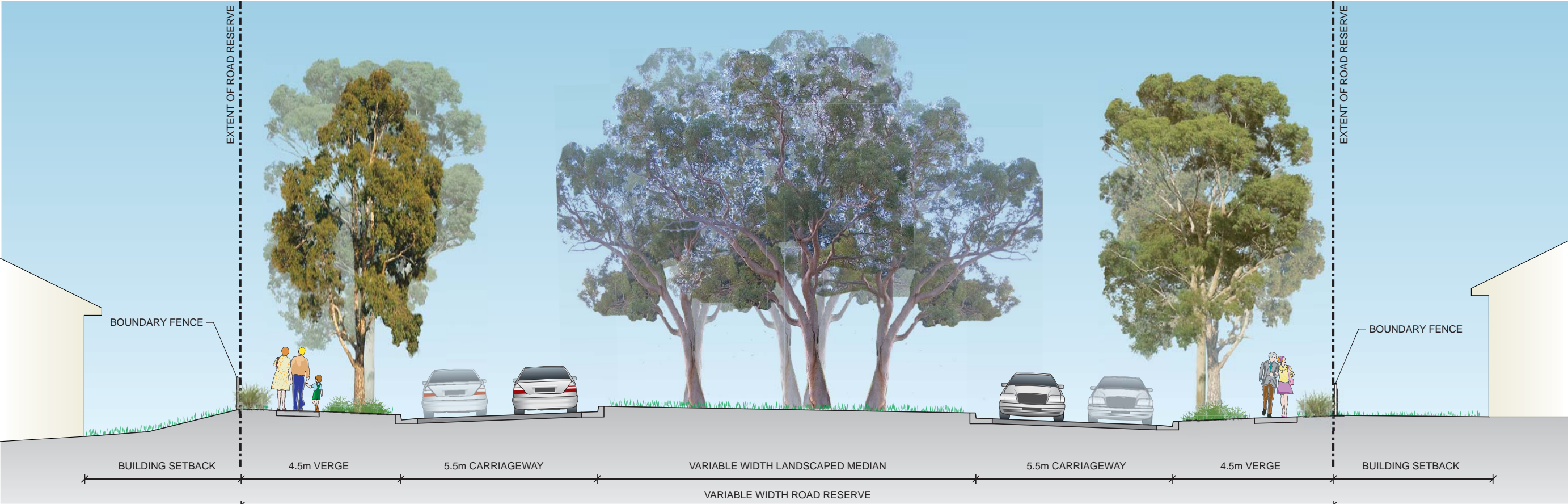
Botanical Name	Common Name	Mature Height
TREES		
First Street		
<i>Cupaniopsis anacoides</i>	Tuckeroo	8-10m
<i>Eucalyptus racemosa</i>	Scribbly gum	10-15m
<i>Banksia integrifolia</i>	Coast banksia	5-8m
<i>Plumeria</i>	Frangipani	5m
Second Street		
<i>Eucalyptus piperita</i>	Sydney peppermint	10-15m
<i>Angophora costata</i>	Sydney red gum	10-15m
<i>Tree hibiscus</i>	Rosemallow	8-10m
<i>Eucalyptus umbra</i>	Broad leaved white mahogany	10-15m
East West Parkway		
<i>Angophora costata</i>	Sydney red gum	10-15m
<i>Melaleuca quinquinerva</i>	Paper barked tea tree	5-10m
<i>Ficus rubiginosa</i>	Port Jackson Fig	8-10m
<i>Eucalyptus racemosa</i>	Scribbly gum	10-15m
Third Street		
<i>Angophora costata</i>	Sydney red gum	10-15m
<i>Tibouchina spp.</i>	Glory tree	5m
<i>Eucalyptus racemosa</i>	Scribbly gum	15-20m
<i>Eucalyptus punutata</i>	Gray gum	10m
Forth Street		
<i>Eucalyptus capitellata</i>	Brown stringybark	8-12m
<i>Cupaniopsis anacoides</i>	Tuckeroo	8-10m
<i>Lagerstroemia indica</i>	Crape myrtle	8-10m
Perimetre Road / North South Green Link		
<i>Angophora costata</i>	Sydney red gum	10-15m
<i>Eucalyptus capitellata</i>	Brown stringybark	8-12m
<i>Eucalyptus piperita</i>	Sydney peppermint	10-15m
<i>Eucalyptus racemosa</i>	Scribbly gum	10-15m
<i>Eucalyptus gummiifera</i>	Red bloodwood	15-20m

Notes  
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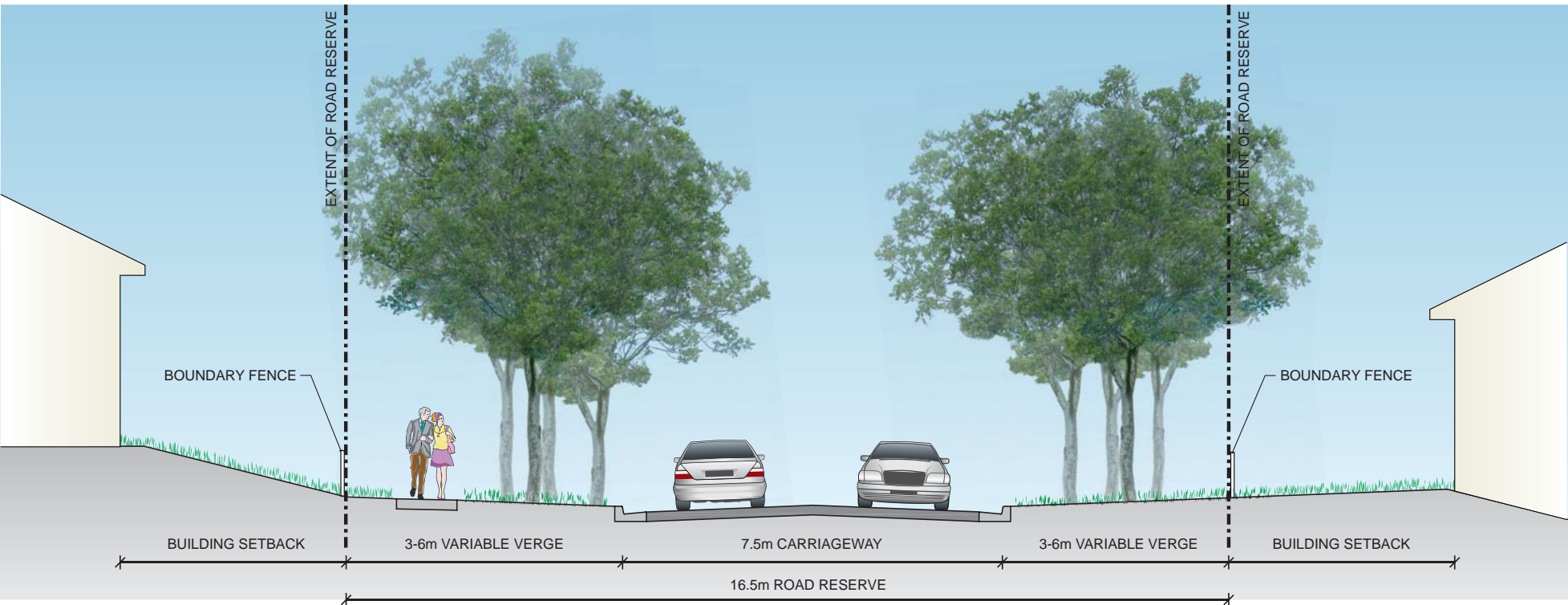
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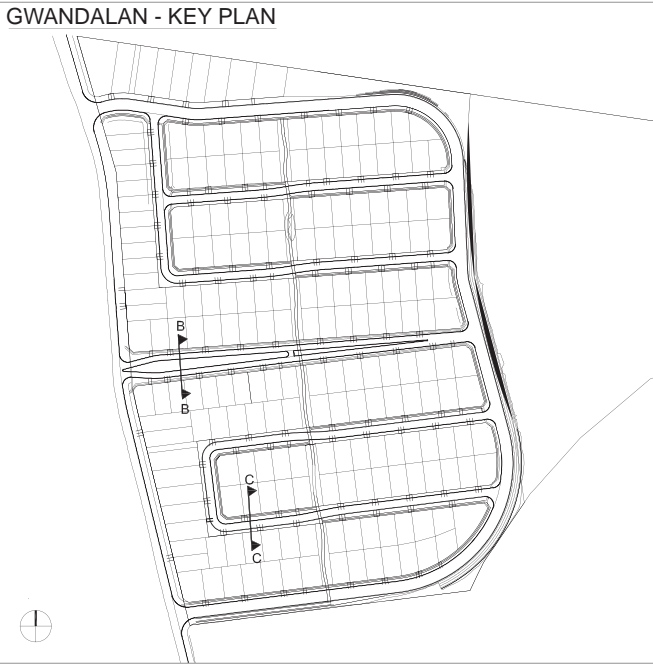
10/08/07 Project Application A  
Date Amendment Issue



PARKWAY STREET SECTION BB  
SCALE: 1:50



FOURTH STREET SECTION CC  
SCALE: 1:50



Notes

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52-58 William Street, East Sydney NSW 2011  
PO Box 4366 Sydney South NSW 1225  
T: 01 2 5544 1800 F: 01 2 5544 6969  
E: context@context.net.au  
www.context.net.au ACN 055 912 248

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PRELIMINARY not for Construction



10.08.07	Project Application	A
Date	Amendment	Issue

Project	Gwandalan
Client	Rose Property Group Pty Ltd

Title	Gwandalan Landscape Sections
Date	10 August 2007
Drawn	Dr Ch. M. V. O. C.
Issue	A

# Appendix 5

## COMPLIANCE WITH WYONG SUBDIVISION CONTROLS

## WYONG SHIRE DCP 66 - SUBDIVISION COMPLIANCE

4.1.1 LOT SIZE		
ISSUE	RELEVANCE	COMMENT AND SECTION
Sufficient area	YES	Lot sizes are sufficient enough to encompass all aspects of the DCP performance criteria.
Lot Categories A). -minimum lot size = 500m <sup>2</sup> - minimum width = 15m at building line	YES	Majority of Lots are > 500m <sup>2</sup> Smallest Lot width is 15.5m
B.) -minimum lot size = 232m <sup>2</sup> - minimum width = 7.5m at building line	YES	Smallest Lot size is 465m <sup>2</sup> Smallest Lot width is 15.5m
C.) (battleaxe) - minimum lot size = 750m <sup>2</sup> - minimum width = 4m accessway, 15m at shortest boundary - Frontage to no more than 4 adjoining residential lots	NO	No battleaxe lots proposed
General	YES	A range of Lot sizes are provided within the plans All Lots are provided with street frontage Finished site will not exceed slope of 10 degrees. There are mixed width Lots, the average Lot width being > 15m

4.1.2 LOT DESIGN		
ISSUE	RELEVANCE	COMMENT AND SECTION
Optimisation of solar access	YES	The majority of Lots have a north-south orientation, which

		aims to optimise solar access.
Adjacent lot boundaries should coincide with the minimum number of abutting Lots	YES	Regular subdivision pattern minimises the number of adjoining lots.
Street frontage orientation of Lots	YES	All Lot frontages within the plan are oriented towards streets.
Category B Lots should generally be rectangular in shape	YES	Most of the category B lots are rectangular in shape.
Pattern of Development	YES	The design of the Lots and overall layout provides for an ordered pattern of developments.

4.1.3 STREET DESIGN		
ISSUE	RELEVANCE	COMMENT AND SECTION
Encouraging innovation through flexibility	YES	Streets have been configured so that street plantings “shorten” appearance of street lengths.
Satisfaction of objectives, performance criteria, “design speed” and “verge width”.	YES	<p>All roads except the bus route comply with the standard for access streets.</p> <p>The bus route has been narrowed where there is proposed development only on one side.</p> <p>Bus route road meets the 5.5m x 5.5m verge width requirements.</p> <p>Paved footpaths meet the 1.2m wide requirements.</p>
Attractive and pleasant streetscape	YES	See Landscape Plan
Minimisation of vehicle presence	YES	Streets will be pedestrian friendly.

4.1.4 PUBLIC OPEN SPACE		
ISSUE	RELEVANCE	COMMENT AND SECTION
Open space provided and developed in accordance with strategies and principles of Wyong Open Space Plan	YES	See Landscape Plan
Walking distance from public open space - no Lot more than 400m		
Walking distance from playground - no Lot more than 500m		No playground provided
Character of the subdivisions	YES	Consistent with low density residential nature of Gwandalan. The subdivision character is established by streetscaping.
No more than 25% of Lots adjacent to Open Space shall abut that Open Space on a side or rear boundary	YES	The subdivision complies with this requirement of the DCP
Development in flood prone land	N/A	No development is proposed on or below the flood level.

4.1.5 STORMWATER MANAGEMENT		
ISSUE	RELEVANCE	COMMENT AND SECTION
Stormwater drainage systems and networks meeting Council requirements.	YES	See Stormwater Report Stormwater treatment as proposed will help protect the Lake.
Erosion and Sediment Control	YES	Erosion and sediment control plan provided.
Public drainage	YES	Drainage system flows to adjoining private land.

4.1.6 UTILITY SERVICES		
ISSUE	RELEVANCE	COMMENT AND SECTION
Utility Services Installation accordance with WSC's Engineering Requirements for Development/	YES	Existing services systems to be augmented to accommodate development.

Proposed subdivision services encouraged to be provided in a shared trench	YES	Services Plan provided. Shared trench proposed.
Established area services shall have regard to existing mode of installation	YES	Shared trenching.
All services shall be provided underground	YES	Underground provision provided
Communication infrastructure to be provided underground	??	Ask Scott Day
Attractiveness of lights installed in public places	YES	See streetscaping plans

#### 4.1.7 COMMUNITY SAFETY AND SECURITY

ISSUE	RELEVANCE	COMMENT AND SECTION
Streets designed in accordance with Street Design criteria	YES	Designed to Council requirements.
Sight lines preserved at all intersections Compliance with Council's policy on Fencing and Planting on Residential Land	YES	Achieved
Lighting shall be provided for safety and to engender a feeling of security	YES	Lights to be located to illuminate paths and cycleways.

#### 4.1.8 HERITAGE

ISSUE	RELEVANCE	COMMENT AND SECTION
Provision of details of any identified heritage item or aboriginal archaeological site	No	No items on sites known on proposed development area.
Compliance with the provisions of the WSC Draft DCP for Conservation of the Built Environment	N/A	
Aboriginal archaeological sites found to be treated in accordance with the provisions of the National Parks and Wildlife Act 1974.		No sites will be disturbed or affected by development.

#### 4.1.9 BENCHING

ISSUE	RELEVANCE	COMMENT AND SECTION
Provision of details on batters and the	Yes	Details in design plans.

means of retention along the street boundary of all Lots where the extent of cut and fill is likely to exceed 1000m		
Retaining walls adjoining and extending over 2 Lots shall not exceed a combined height of 1000mm	N/A	Details in design plans. No retaining walls n house lots.
Retaining walls for cutting shall not extend as a continuous straight wall over more than two Lots.		Comply
Retaining walls along side boundaries shall only be constructed behind the building line.		More proposed.
Any change of level achieved along the side boundary in front of the building line shall be by the use of batters.		Achieved.
Retaining wall materials should be similar to and complement the character of the proposed residential development		Can be achieved.
Retaining walls across a site at or near the front boundary shall be landscaped.		No front boundary retaining walls.
All retaining walls shall be designed with a minimum life expectancy of 50 years		CC detail.
Information on the size and slope of each proposed Lot should be provided with the DA,		See design plans
Proposed residential Lots should have capacity to accommodate high quality dwellings and any ancillary developments	YES	Lots have been sized to accommodate standard project homes.