

16 October 2007

Director General  
Department of Planning  
Email: [michael.file@planning.nsw.gov.au](mailto:michael.file@planning.nsw.gov.au)

Attention: Michael File

*Our Reference: 0046611amended application*



Dear Michael,

**RE: SOUTHERN EMPLOYMENT LANDS**

## **1. INTRODUCTION**

Boral proposes to modify Major Project No 06\_0181 for the Greystanes Southern Employment Lands.

The project was assessed in accordance with Part 3(A) of the *Environmental Planning and Assessment Act, 1979 (EP&A Act)*. The Minister for Planning approved the project on 20 July 2007. Detailed engineering design for construction and subdivision is currently being prepared. As a result of more detailed design work a number of changes to the development are now proposed. These are:

- o creation of five super lots;
- o revised design and management of stormwater and groundwater systems and the consequential deletion of an industrial lot in Widemere East. ;
- o an amendment to Concept Plan condition 10 Heritage Site Interpretation Strategy; and
- o minor, consequential amendments to the approval conditions.

A modification to the Minister's approval is sought in accordance with section 75W of the *EP&A Act, 1979*:

*(2) The proponent may request the Minister to modify the Minister's approval for a project. The Minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.*

*(3) The request for the Minister's approval is to be lodged with the Director-General. The Director-General may notify the proponent of environmental assessment requirements with respect to the proposed modification that the proponent must comply with before the matter will be considered by the Minister.*

*(4) The Minister may modify the approval (with or without conditions) or disapprove of the modification.*

To facilitate this modification, discussions were held with the Department of Planning (DoP) on 18 September 2007. This letter provides the following information to assist the Minister in assessing the proposed modification:

- o a full description of the proposed amendments;
- o justification for the amendments; and
- o implications of the amendments.

Detailed stormwater and groundwater reports and plans accompany the application.

## 2. PROJECT DESCRIPTION

### 2.1 SUBDIVISION DESIGN

#### 2.1.1 *Proposed Amendment*

The approved project includes:

- o a preliminary stage being the creation of lot 101 and lot 102, the construction and dedication of the section of the proposed spine road that fronts Lot 101, an easement to access and service to SP1140 adjacent to the toe of the eastern batter and identification of community property; and
- o creation of 75 industrial lots plus a lot for hotel use including the subsequent subdivision of lot 101. An indicative staging plan formed part of the preferred project. Six stages were nominated that may be varied over time due to changes in market conditions.

Approval is now sought to modify the project to include:

- o a preliminary stage being the creation of lot 101 to lot 106 including the construction and dedication of the sections of the proposed spine road that fronts Lots 101 to lots 104 respectively, (refer *Annex A*) an easement to access lot 105 and identification of community property, including all the land known as Widemere East and the quarry batters; and
- o creation of 74 industrial lots plus a lot for hotel use including the subsequent subdivision of lots 101 to 104 and lot 106; and
- o modification of the indicative staging plan formed part of the approved project to reflect the proposed amendments.

#### 2.1.2 *Justification*

The proposed amendment gives greater flexibility during construction allowing Boral to respond to changing market conditions. The potential to create superlots will enable large portions of the property to be sold yet still ensure that the original subdivision design and Urban Design Plan applies to the subsequent development of the site.

The reduction from 75 to 74 lots is referred to in Section 2.3.

### 2.1.3 *Implications*

There are no environmental implications relating to the proposed amendments. Service infrastructure will be provided incrementally with the release of super lots and subsequent industrial lots.

## 2.2 REDESIGN OF STORMWATER AND GROUNDWATER SYSTEMS

### 2.2.1 *Proposed Amendment*

The approved project includes infrastructure works including water management as outlined in section 3.5.2 of the Environmental Assessment report prepared by ERM (2006).

Approval is sought to modify the project to revise the design and management of stormwater and groundwater systems including.

#### *Stormwater:*

- o a detention basin at Widemere East with a storage volume of approximately 202,255 cubic metres of storage capacity covering an area of 11.1ha;
- o Capability to accommodate for a bio-retention system at Widemere East with a minimum surface area of 6,400 square metres in the event that the stormwater harvest operations are terminated;
- o a 5 Mega litre storage dam/harvesting pond that collects and stores the peak 3 month low stormwater flows from the site for pumping to the Cumberland County Golf Club for re-use purposes;
- o limiting the discharge from the site to Prospect Creek to 0.2 cubic metre per second for the 100 year ARI design storm; and
- o a maintenance management plan for the perimeter channels, detention basin and stormwater treatment basins.

### *Groundwater*

- o the collection of groundwater at a pump well and a pumping station in Widemere East for pumping to the Cumberland County Golf Club for re-use purposes. A concept layout for the pumping station is illustrated on plans in *Annex A*. The treatment of groundwater shall be undertaken at the Cumberland County Golf Club as and if necessary for intended re-use purpose; and

As a consequence of these changes:

- o the groundwater treatment system proposed in the initial project is no longer required;
- o the industrial lot at Widemere East will be deleted, reducing the number of industrial lots from 75 to 74;
- o on site detention is proposed for industrial and retail development . It is not proposed in the industrial lots;
- o sections 3.7, 3.8 and 4.08 of the Urban Design Plan (UDP) will be amended to reflect the changes; and
- o deletion of bio-retention treatment cell in Widemere East.

### **2.2.2 Justification**

#### *i. Groundwater*

In the original investigations two options were considered to manage groundwater.

The first management option considered a pumping network whereby groundwater would be pumped to a centralised collection system prior to discharge or use on or off site.

The second management option considered a lateral drainage system to intercept and deliver the groundwater flows to a centralised collection system prior to discharge or use on or off site use.

These options were intended to intercept groundwater flows below the finished landform levels and maintain the groundwater levels to a predetermined level below the finished landform levels to minimise groundwater impacts on the proposed development. Subsequent detailed modelling of the groundwater undertaken by GHD (July 2007) throughout the site identified that the groundwater flows during the full developed site scenario are relatively small and the perimeter drain system at the base of the batters would be sufficient to control the groundwater level within the site to the predetermined levels below the finished landform levels. (*Refer Annex B Greystanes Estate - Southern Employment Lands - Groundwater Management Plan, July 2007 prepared by GHD*).

The characteristics of the groundwater system (PB, 2006) requires treatment prior to discharge with the main criteria to lower the pH and ammonia levels. Four treatment options were previously considered, as follows:

- o groundwater dilution and wetland treatment;
- o re-injection of groundwater;
- o groundwater evaporation trenches; and
- o pH adjustment and wetland treatment (PB, 2006).

The preferred option considered in the project application was the adjustment of the pH and ammonia stripping at the downstream collection point with nutrients treated within the Widemere East detention basin bio-filtration system in combination with stormwater (PB, 2006). The revised peak groundwater flows (GHD, July 2007) make the treatment facility required for pH adjustment and ammonia stripping uneconomical consequently alternative options have been investigated. The alternative options are to:

- o reduce the level of treatment of groundwater quality sufficient for discharge to the SWC sewer system under a trade waste agreement; or
- o harvest and pump untreated groundwater, combined with stormwater, to the Cumberland County Golf Club (CCGC) at Greystanes to satisfy their water management requirements.

A water balance assessment was undertaken (*refer Annex C to Greystanes Estate - Southern Employment Lands - Widemere East Water Balance Assessment, GHD August 200*) Harvesting of the groundwater and stormwater for re-use at the CCGC is the preferred option that achieves the requirements of the CCGC. (Refer Section 2.3.3)

A Groundwater Management Plan has been developed, Greystanes Estate - Southern Employment Lands - Groundwater Management Plan, July 2007 prepared by GHD, to ensure the ongoing management and maintenance of the groundwater collection system on the SEL site. (*Refer Annex B*)

*ii. Surface Water Management*

The proposed development will consist of a number of lots of varying sizes for employment generating uses, a parcel of land for the purposes of a service retail centre and business park. The development will include major infrastructure including roads and stormwater. The stormwater system includes channels and pipes for conveyance of surface water collected from the quarry batters and landform developed in the quarry floor. A stormwater detention basin is incorporated in the system to control peak outflow from the development.

Water quality treatment in the form of bioretention system is incorporated at the service retail centre and business park development areas.

The approved development included on site detention (OSD) on each lot within the development. Further detailed assessment and calculations indicate that OSD cannot be achieved within the relatively small industrial lots whilst still maintaining a viable development footprint. The whole of the proposed commercial and industrial development will be party to the community title and the stormwater detention basins on Widemere East are an integral part of the community title. It is therefore proposed to transfer on -site' detention obligations of each individual industrial development parcel to the detention basin at Widemere East.

On-site detention storage is maintained as a requirement on the business park and service retail precinct sites to provide these developments with the opportunity for stormwater harvesting and re-use within each of the respective developments. A bio-retention basin system will be incorporated into the design of the business park and service retail precinct sites to facilitate treatment of low flows. Higher flows would bypass this system and discharge directly to the stormwater perimeter channels and then to the detention basin in Widemere East.

The perimeter stormwater channels will carry the full 1 in 100 year ARI flows for the site to the Widemere East detention basin. The peak discharge to Prospect Creek will be maintained at 0.2 cum/s so there will be no increase in the risk of flooding. Currently the basin has been designed so that all low flows are discharged into the "harvesting" basin for collection and discharge to the CCGC site. (see section 2.2.3). Surplus flows will overflow to the main basin and discharge to Prospect Creek. The requirements of the CCGC will ensure that all low stormwater flows are pumped to the CCGC site and only the higher flows will overflow to the main detention basin for direct discharge to Prospect Creek. With the low flows being pumped off site, bio-retention within the basin is no longer required.

The detention basin will be designed to cater for stormwater events up to the 100 year ARI event and have a flood storage volume of approximately 202,255 cubic metres. The approved storage volume is approximately 164,000 cubic metres.

A Stormwater Maintenance Plan has been developed, (Refer Annex D Greystanes Estate - Southern Employment Lands - Stormwater Maintenance Plan, August 2007 prepared by GHD) to ensure the ongoing management and maintenance of the stormwater system

### **2.2.3 Implications**

Boral is entering into a deed with the CCGC that includes a minimum 25 year contractual obligation between Boral and CCGC for water harvesting by the CCGC with an option to extend by a further 25 years. The deed outlines the CCGC responsibilities to include the construction of the groundwater pump station, rising main, all associated infrastructure and all receiving and water management operations at the CCGC site. - Boral's obligation is to connect the groundwater and stormwater infrastructure to the pump station and collection well location. A development application for the construction of the pipeline between the SEL and the CCGC is currently being assessed by Holroyd Council. (refer *Annex E* for a copy of the draft deed of agreement). This application pertains to the installation of the pipeline from Boral's boundary to the golf course.

As detailed in the Development Application submitted to Holroyd Council, prior to discharge into the on course storage dams the transferred water will be treated to control pH and salinity. This treatment will be by automatic acid dosing to correct pH and then passing water through gypsum ponds. The treatment ponds and treatment system is already in existence at the golf course and the CCGC has been trucking ground water and stormwater from the quarry for reuse at the golf club for a lengthy period of time.

The proposed harvesting by the CCGC is inline with the NSW Government's policy of conserving water and providing alternate supplies to industry and other large users. Cumberland Country Golf Club has successfully applied for funding under the Community Water Grants scheme for construction of the water transfer pipeline and associated works. It is anticipated that the DA will be approved prior to the final consideration of this Part 3A amendment being considered by the Department and the Minister.

Modifications to the stormwater and groundwater management system have resulted in the whole of the area known as Widemere East being taken up with stormwater management systems and the consequential deletion of the industrial lot at Widemere East and deletion of the groundwater treatment plant, bio-retention treatment for stormwater.

Modifications to the Urban Design Plan are also required to reflect these amendments.

### **2.3 HERITAGE SITE INTERPRETATION STRATEGY**

Condition 10 of the Concept Plan approval states:

*The site interpretation strategy as committed to by the proponent in Statement of Commitment No.17 shall require the proponent to use to retain a selected number of industrial heritage items (eg short shaft cone crusher, traylor jaw crusher, cone crushers and excavation buckets) on the site in recognition of the site's past usage as a quarry.*

### **2.3.1 Proposed Amendment**

It is requested that condition 10 be amended as follows:

*The site interpretation strategy as committed to by the proponent in Statement of Commitment No.17 shall require the proponent to use to retain a selected number of industrial heritage items (eg jaw crusher and cone crusher) on the site in recognition of the site's past usage as a quarry.*

### **2.3.2 Justification**

Borals intends to prepare an interpretive strategy as required by Statement of Commitment No. 17. This strategy was intended to provide some flexibility to record the items found on site and allow the potential for reuse of certain items at other operating facilities. For example, the short shaft cone crusher originally operated as part of the cone crushing plant and has now been relocated for use at another operating plant.

Whilst Boral is happy to comply with the spirit of the condition and will prepare an interpretive strategy for the site, condition 10 is restrictive in terms of its limitations on the ability for adaptive reuse of industrial items.

### **2.3.3 Implications**

There will be no adverse implications resulting from the proposed amendment. An interpretive strategy will be prepared and appropriate means of display for items such as the jaw crusher and cone crusher will be considered and documented in the interpretive strategy.

## **2.4 OTHER AMENDMENTS**

### **2.4.1 Modification To Conditions Of Approval**

Modifications to the Statement of Commitments (SoC) and conditions of approval are requested:

- o as a consequence of the proposed amendments to the project; and
- o as a result of a review of the conditions by Boral and its consultants.

The following amendments are requested:

*i. Modifications to Statement of Commitments*

The following modifications to the SoC are requested to reflect the proposed alterations to the stormwater and groundwater management strategies:

*Item 1*

*The development will be carried out as outlined in the documentation and subdivision plans listed below, except where amended by Section 3 of this report and other items of this Statement of Commitments.*

- *Environmental Assessment Report (EAR), prepared by ERM, September 2006 and supporting reports as amended by EAR modification dated 16 October 2007 ;*
- *Drawing ref no 108-MP-5 prepared by Turner Hughes and Associates;*
- *Drawing numbers 111636012, 111636013, 111636014 and 111636015 prepared by Hard and Forester.*

*Item 13*

The revised stormwater management strategy prepared by GHD Pty, 2007, which includes the following will be implemented:

- a detention basin at Widemere East with a storage volume of approximately 202,255 cubic metres of storage capacity covering an area of 11.1Ha; and
- a 5 Mega litre storage dam/harvesting pond that collects and stores the peak 3 month low stormwater flows as a minimum for the site for pumping to the Cumberland County Golf Club for purposes;

*Item 14*

The revised groundwater management strategy prepared by GHD Pty, 2007, including the collection of groundwater at a pump well in Widemere East for pumping to the Cumberland County Golf Club for re-use purposes will be implemented.

ii. *Modifications to the Concept Plan Conditions*

The following modifications to the Concept Plan conditions are requested to reflect the proposed alterations to the development proposal and to correct some minor discrepancies as detailed following.

*Condition 1(f)*

add "*as amended in \*\*\* 2007*"

*Condition 1(i)*

delete and replace with "*Staging in accordance with Staging plan ref no. 108-SK60F dated 12 October 2007 prepared by Turner and Hughes Architects*"

*Condition 2*

add to (a) and (b) "*as amended by ERM letter dated 16 October 2007*"

in (c) delete the words "*issue H September 2006*" and replace with "*Issue \*\* dated \*\**)

*Conditions 10 and 11*

Delete reference to Blacktown Council.

*Reason:* There are no associated works proposed within the Blacktown Council area.

*Condition 12*

Insert after "*Within three months*" the words "*following the issue of the amended approval dated \*\*\**"

*Reason:* Changes to the UDP will be required to reflect the modifications to the development proposal. Consequently additional time to complete all the required changes is requested.

iii. *Modifications to the project application conditions*

The following modifications to the project application conditions are requested to reflect the proposed alterations to the development proposal and to correct some minor discrepancies as detailed following.

*Condition A1*

1. Delete 76 and insert 75

*Reason:* To reflect the deletion of the Widemere East industrial lot.

4. add reference to lot 101 DP 1097310.

*Reason:* The concept plan shows some boundary adjustments on both lot 143 and lot 101. Both lots are owned by Boral and will eventually be dedicated to Council as public reserve.

Lot 101 should also be referred to in the Tables to Part A of Schedules 1 and 2.

6. Creation of a lot for the sewer pump station.
11. Amend references to staging as follows:

*Staging Plans (Drawing numbers 00.108.SK60F dated 12 October 2007 prepared by Turner Hughes Architects*

*Condition A2*

- (a) add "*as amended by ERM letter dated 16 October 2007*"
- (b) Amend drawing reference to 108-MP-5
- (c) Amend drawing reference to add "*as amended by drawing ref no. 108-SK56F dated 27 August 2007*"
- (g) Amend to read *as amended by ref no. 108-SK60F dated 12 October 2007*
- (h) Amend to read *Stormwater Management Strategy Dwg no. 21-15443-Sk-0505(2) Prepared by GHD*
- (i) Amend to read *stormwater management maintenance plan re \*\* GHD*

*Condition B2, B3 and B4*

Add reference to Holroyd Council.

*Reason:* Works will be in both Holroyd and Fairfield Council areas.

### 3. CONCLUSIONS

The proposed amendments are relatively minor and have arisen primarily to provide greater flexibility in the sales and marketing of the industrial estate and as a result of more detailed stormwater and groundwater investigation. The ability to coordinate with the golf course to facilitate stormwater harvesting is consistent with the principles of water reuse. There will be no increase in discharge to Prospect Creek and all treatment of stormwater and Groundwater will take place at the CCGC. The proposed amendment will have no environmental impacts over and above those considered in the original EAR.

Should you have any questions please contact the undersigned

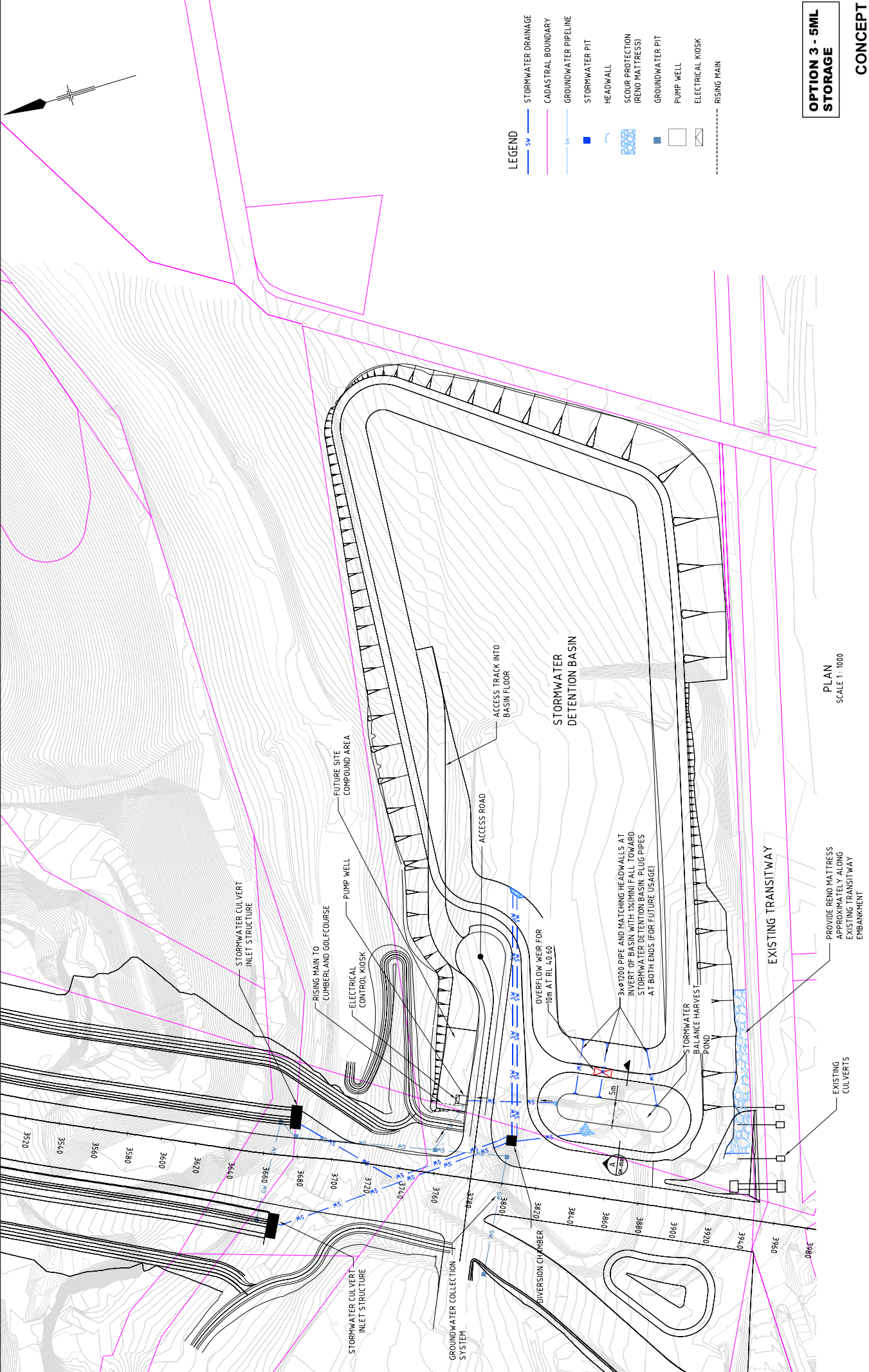
Yours sincerely,  
for Environmental Resources Management Australia Pty Ltd



Christine Allen  
Principal Planner

Appendix A

# PLANS



- LEGEND**
- SW — STORMWATER DRAINAGE
  - CADASTRAL BOUNDARY
  - GROUNDWATER PIPELINE
  - STORMWATER PIT
  - HEADWALL
  - ▨ SCOUR PROTECTION (RENO MATRESS)
  - GROUNDWATER PIT
  - PUMP WELL
  - ▨ ELECTRICAL KIOSK
  - - - RISING MAIN

**OPTION 3 - 5ML STORAGE**

**CONCEPT**

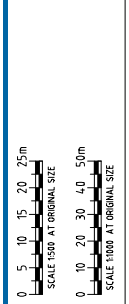
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**Project** GREYSTANES ESTATE SEL  
**Title** CUMBERLAND GOLF COURSE  
**Design Check** Approved  
**Drawn** VTHAGARAJAH  
**Scale** AS SHOWN  
**Design Check** Approved  
**Drawn** AS SHOWN  
**Scale** AS SHOWN  
**Client** BORAL RECYCLING PTY. LTD.  
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**Scale** AS SHOWN  
**Design Check** Approved  
**Drawn** AS SHOWN  
**Scale** AS SHOWN

PLAN  
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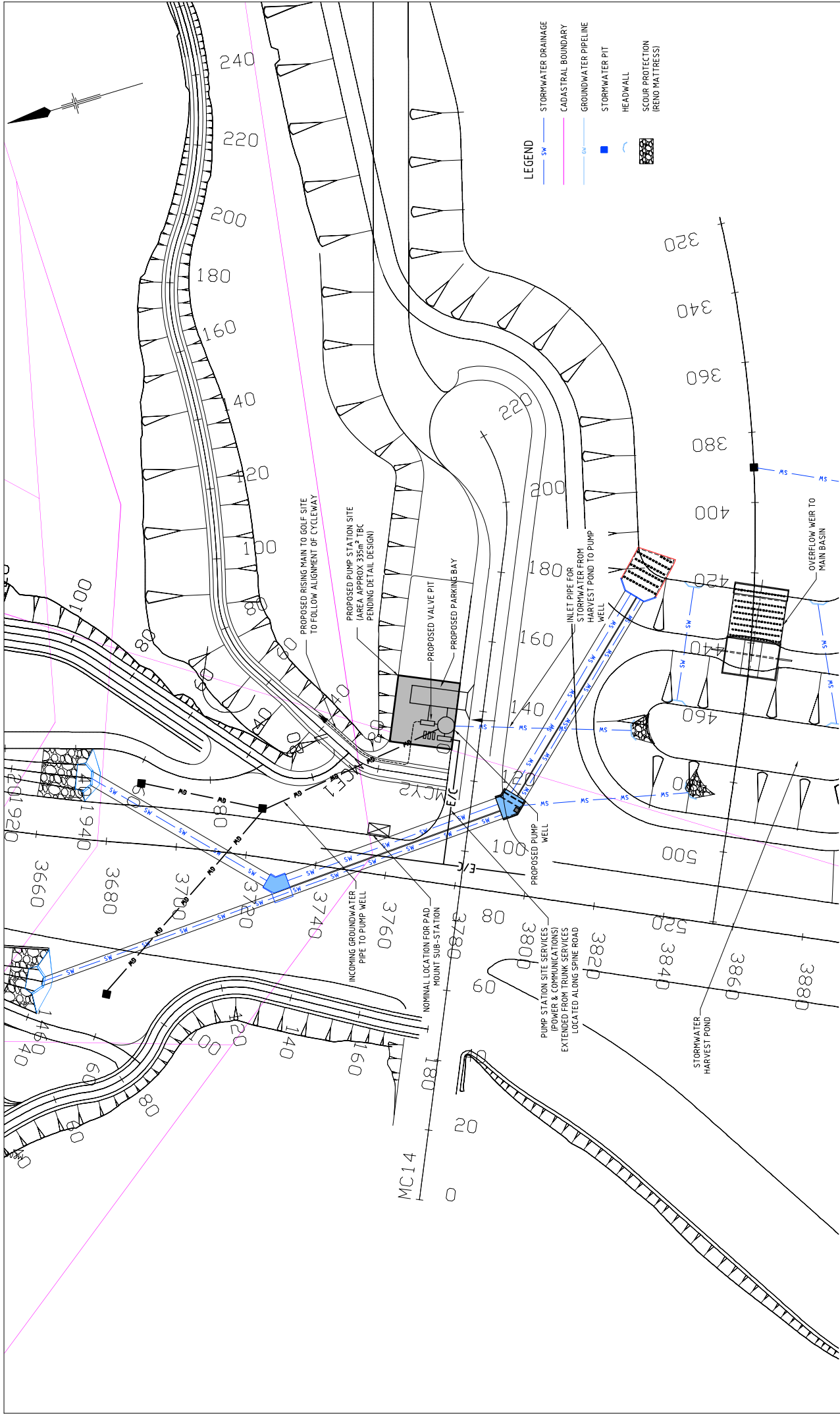
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No.	Revision	Note	Drawn	Checked/Approved	Date
B	DESIGN CHANGES FOLLOWING MEETING		VT		28-07-07
A	CONCEPT DESIGN ONLY	Note: * indicates signature on original issue of drawing or revision of drawing.	VT		28-07-07



- LEGEND**
- SW — STORMWATER DRAINAGE
  - GB — GROUNDWATER PIPELINE
  - MS — MAINS
  - CB — CADASTRAL BOUNDARY
  - STORMWATER PIT
  - HW — HEADWALL
  - ▨ SCOUR PROTECTION (RENO MATTRESS)

**PRELIMINARY**

**BORAL RECYCLING PTY. LTD.**  
**GREYSTANES ESTATE SEL**  
**WIDEMERE EAST**  
**CCGC PUMP STATION CONCEPT LAYOUT**

Client: BORAL RECYCLING PTY. LTD.  
 Project: GREYSTANES ESTATE SEL  
 Title: WIDEMERE EAST  
 Drawing No: 21-15443-SK-2144

Drawn: V. THAGARAJAH  
 Design Check: [ ]  
 Approved: [ ]  
 Date: [ ]  
 Scale: AS SHOWN

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**BORAL**

Scale: 1:500 AT ORIGINAL SIZE  
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No.	Revision	Date	Drawn	Checked/Approved
1	PRELIMINARY - FOR INFORMATION	05/10/07	KVR	[ ]

Rev: A

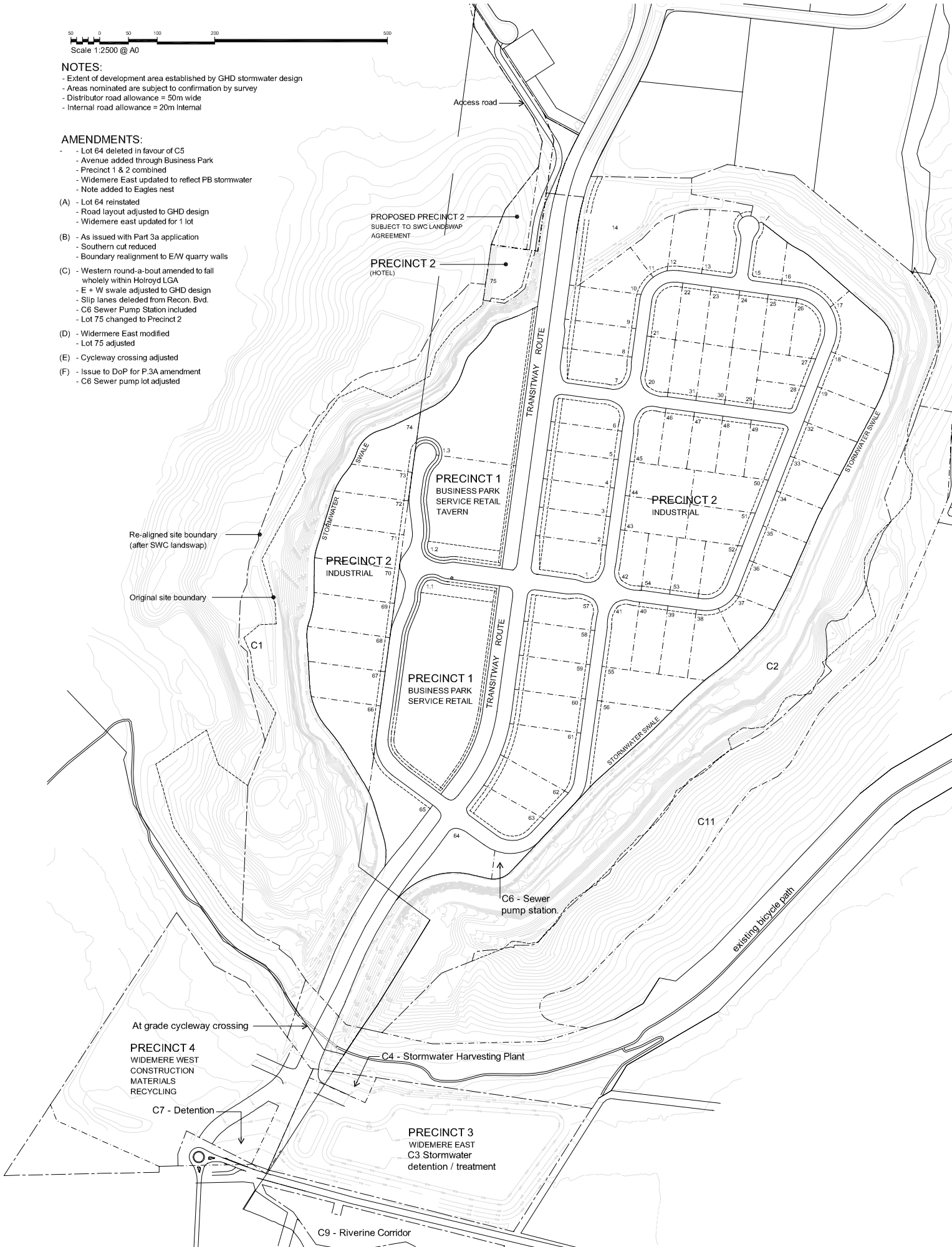


**NOTES:**

- Extent of development area established by GHD stormwater design
- Areas nominated are subject to confirmation by survey
- Distributor road allowance = 50m wide
- Internal road allowance = 20m internal

**AMENDMENTS:**

- Lot 64 deleted in favour of C5
- Avenue added through Business Park
- Precinct 1 & 2 combined
- Widemere East updated to reflect PB stormwater
- Note added to Eagles nest
- (A) - Lot 64 reinstated
- Road layout adjusted to GHD design
- Widemere east updated for 1 lot
- (B) - As issued with Part 3a application
- Southern cut reduced
- Boundary realignment to EMW quarry walls
- (C) - Western round-a-bout amended to fall wholly within Holroyd LGA
- E + W swale adjusted to GHD design
- Slip lanes deleted from Recon. Blvd.
- C6 Sewer Pump Station included
- Lot 75 changed to Precinct 2
- (D) - Widemere East modified
- Lot 75 adjusted
- (E) - Cycleway crossing adjusted
- (F) - Issue to DoP for P.3A amendment
- C6 Sewer pump lot adjusted



# CONCEPT MASTERPLAN

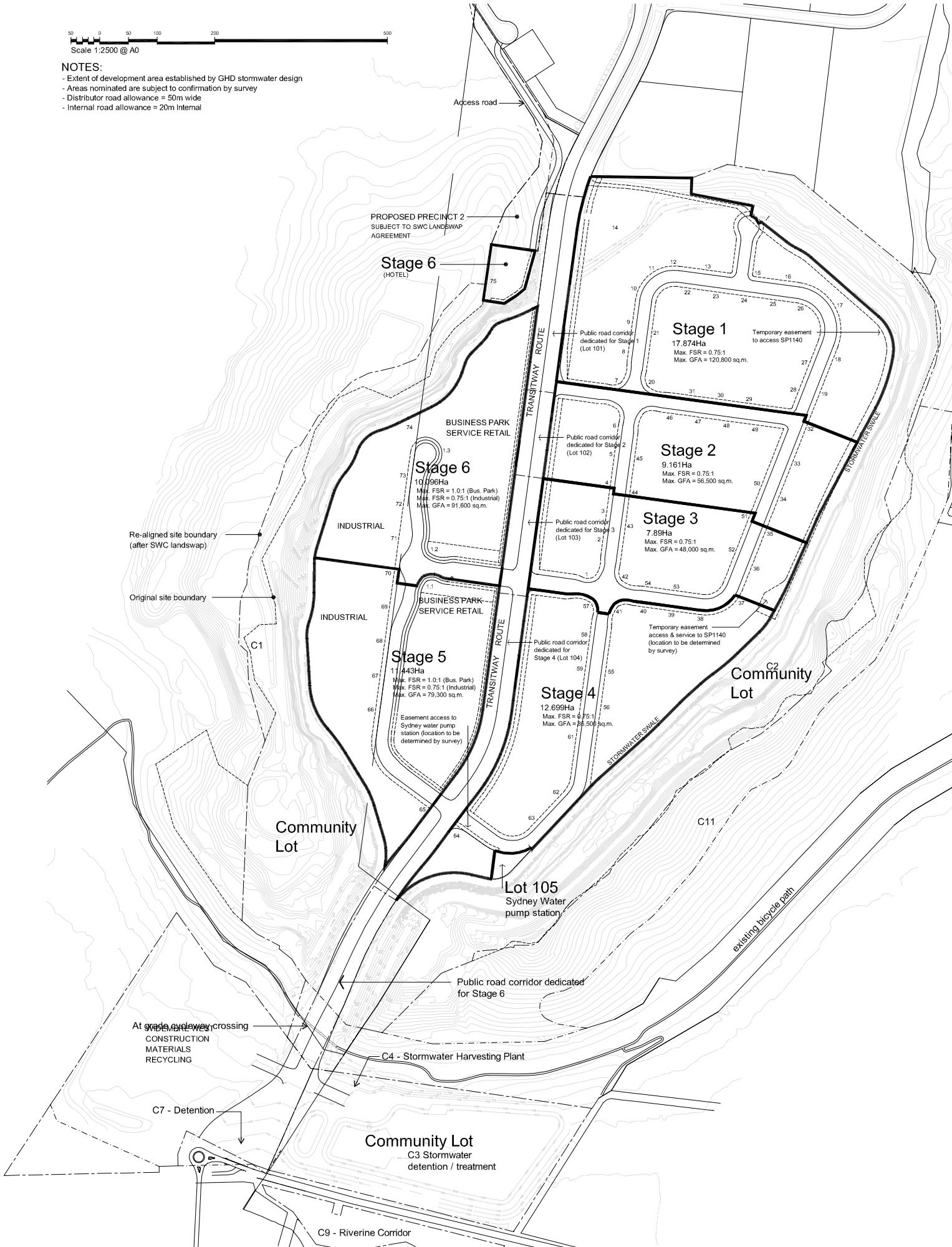






**NOTES:**

- Extent of development area established by GHD stormwater design
- Areas nominated are subject to confirmation by survey
- Distributor road allowance = 50m wide
- Internal road allowance = 20m internal



# CONCEPT MASTERPLAN

