



DOUGLAS SHIRE COUNCIL	
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Attention	SKA orig
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28 January 2016

PDR 15510

Chief Executive Officer,
Douglas Shire Council,
64-66 Front Street,
Mossman Qld 4873

Attention: Neil Beck,

Dear Neil,

**RE: Stages 4B and 4C of Ocean Breeze Estate located adjacent to Cooya Beach Road
Cooya Beach – Jonpa Pty Ltd – Application for Operational Works Approval – ROL
3546/2009 (420183) [original CA46]**

Council issued an amended decision notice for the above project on the 7th September 2007. The approval was for a staged development and this application is to construct stage 4B and 4C comprising 25 allotments. These stages are located between Cooya beach Road and Bonnie Doon road.

We, on behalf of the applicant, are seeking operational works approval to enable construction to proceed. The OWA application fee has been calculated to be \$15,574.00 and was determined as follows:

Base fee.....	\$3579.00
25 lots @ \$479.50.....	\$11995.00
Total.....	\$15574.00

To assist Council in assessing this application we enclose the following:

- Our Client's cheque for \$15574.00 in payment of the fee.
- Certificate of compliance – engineering design
- Security Lodgement form
- 3 X A3 copies of the engineering drawings.
- IDAS forms 1 and 6.
- Copy of the amended decision notice.

The security bond of \$52,500.00 will be lodged prior to the prestart meeting in a form that will allow the bond to be converted to the 12 month maintenance guarantee when the project is completed.

We provide the following comments regarding the design approach and addressing conditions:-

Road and Earthworks:

- Site re-grading and filling will not affect any existing allotments
- Fill material will be obtained from the site of the works and existing stockpiles.
- All lots fall from rear to the front and no inter allotment drainage is required. Grades and falls are detailed on drawing C04.
- Footpaths have been provided and extended in accordance with agreed conditions.
- Cooya Beach Road has been widened and partly reconstructed to comply with conditions and design requirements. Verge widths vary from standard requirements due to location of existing road pavement and services. Alignment has been finalised as agreed with Council Officers.
- All road grades and design comply with FNQROC requirements, however, the grade of Julaji Close is, in parts, below the desirable minimum grade of 0.5%. This has been done to match the existing constructed grade and to ensure that the cul-de-sac bowl is not too low. We have checked overland flows in the close and they are contained within the road reserve. We therefore request Council to accept the reduced grade.

Water and Sewer Reticulation:

- Water reticulation layout is generally in accordance with the accepted overall water reticulation concept plan.
- The reticulation has been designed in accordance with FNQROC requirements and condition 4 – parts 3 to 6 of the Decision notice.
- The sewer reticulation design is in accordance with FNQROC requirements and condition 4 – parts 9 and 10 of the decision notice.

Stormwater Drainage:

- Stormwater drainage has been designed generally in accordance with the overall stormwater concept plans and the requirements of FNQROC.
- Required easements have been shown in accordance with condition 4 – part 22.
- Conditions 4 – parts 23 to 26 have been complied with in the design and drawings. Council should note that stormwater lines A7 to A10 have been designed to carry the Q100 storm event to prevent flooding of the Julaji Close cul-de-sac.
- In relation to condition 4 – part 27 no pollution control device has been installed in this stage. There will be a requirement for such an installation at the end of the stormwater line serving this stage. This will be part of a later stage of the development.
- A temporary earth drain has been provided at the outlet of the stormwater system. This drain has been designed to have batters constructed at 1:4 slopes to improve stability and to facilitate easy mowing of the drain.

We trust that the provision of these comments together with the attached drawings and documentation is sufficient for your requirements and enables you to issue the operational works approval for this project.

We look forward to your response and should you have any queries or wish to discuss any aspect of the design please do not hesitate to contact our office.

Yours faithfully
PDR Engineers

A handwritten signature in black ink, appearing to read 'Alan McPherson', with a long horizontal flourish extending to the right.

Alan McPherson
Senior Civil Engineer

FNQROC DEVELOPMENT MANUAL

Douglas Shire Council

STATEMENT OF COMPLIANCE
OPERATIONAL WORKS DESIGN

This form duly completed and signed by an authorized agent of the Consulting Engineers shall be submitted with the Operational Works Application for Council Approval.

Name of Development: Stages 4B & 4C Ocean Breeze Estate

Location of Development: Cooya Beach Rd Cooya Beach

Applicant: Jonpa Pty Ltd

Consulting Engineer: PDR Engineers

It is hereby certified that the Calculations, Drawings, Specifications and related documents submitted herewith have been prepared, checked and amended in accordance with the requirements of the FNQROC Development Manual and that the completed works comply with the requirements therein, except as noted below.

Compliance with the requirements of the Operational Works Design Guidelines	Compliance Yes/No	Non-Compliance refer to non-compliance report / drawing number
Plan Presentation	Y	
Geometric Road Design	Y	
Geotechnical requirements	N/A	
Pavements	Y	
Structures / Bridges	N/A	
Subsurface Drainage	Y	
Stormwater Drainage	Y	
Site Re-grading	Y	
Erosion and Sediment Control Strategy	Y	
Pest Plant Management	N/A	
Cycleway / Pathways	Y	
Landscaping	N	To be lodged separately
Water source & disinfection/treatment infrastructure	N/A	
Water Reticulation	Y	
Sewer reticulation	Y	
Electrical Reticulation and Street Lighting	N	To be lodged separately
Associated Documentation/ Specification	Y	Included on drawings
Priced Schedule of Quantities	N	Yet to be finalised
Supporting information (AP1.08)	Y	
Referral Agency Conditions	N/A	

Consulting Engineers: PDR Engineers

Signature



for and on Behalf of PDR Engineers

Name in Full: Alan McPherson RPEQ: 809

Date: 28th January 2016

FNQROC DEVELOPMENT MANUAL

Douglas Shire Council

SECURITY LODGEMENT FORM

This sheet must be completed prior to the acceptance of any bond by Council.

Development Name: Ocean Breeze Estate Cooya Beach

Stage: stages 4B and 4C

File No.: CA46

Applicant: Jonpa Pty Ltd

Consultant: PDR Engineers

Purpose of Bond:

☐ Construction Security

Uncompleted Works Bond Assessment

Estimated time to complete bond works (not greater than 90 days) days

Current Contract Completion date

Anticipated Completion date

Engineer's estimated value of uncompleted works \$

Bond Value (apply Factor 1.50) \$

Construction/Defects Liability Bond Assessment

Engineer's estimated value of completed works \$ 1,050,000

Construction/Maintenance Bond Value (apply Factor 0.05)(min \$500.00) \$ 52,500

Council shall retain any interest accrued on cash monies paid to Council and held in trust fund by Council, including monies paid pursuant to Section 6.3 of the Local Government (*Planning and Environment*) Act 1990.

Engineer: Alan McPherson for and on behalf of **PDR Engineers**

Signature:



RPEQ No.: 809

Date: 28th January 2016

IDAS form 1—Application details

(Sustainable Planning Act 2009 version 3.0 effective 1 July 2013)

This form must be used for **ALL** development applications.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications, you must:

- complete this form (*IDAS form 1—Application details*)
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA) or the Sustainable Planning Regulation 2009.

This form and any other IDAS form relevant to your application must be used for development applications relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994* and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. Whenever a planning scheme is mentioned, take it to mean land use plan for the strategic port land, Brisbane core port land or airport land.

PLEASE NOTE: This form is not required to accompany requests for compliance assessment.

This form can also be completed online using MyDAS at www.dsdip.qld.gov.au/MyDAS

Mandatory requirements

Applicant details (Note: the applicant is the person responsible for making the application and need not be the owner of the land. The applicant is responsible for ensuring the information provided on all IDAS application forms is correct. Any development permit or preliminary approval that may be issued as a consequence of this application will be issued to the applicant.)

Name/s (individual or company name in full)

PDR Engineetrs

For companies, contact name

Alan McPherson

Postal address

PO Box 2551

Suburb Cairns

State Qld

Postcode 4870

Country Australia

Contact phone number

4040515599

Mobile number (non-mandatory requirement)

0428772311

Fax number (non-mandatory requirement)

Email address (non-mandatory requirement)

amcpherson

@pdrengineers.com.au

Applicant's reference number (non-mandatory requirement)

15510

1. What is the nature of the development proposed and what type of approval is being sought?

Table A—Aspect 1 of the application (If there are additional aspects to the application please list in Table B—Aspect 2.)

- a) What is the nature of the development? (Please only tick one box.)
- ☐ Material change of use ☐ Reconfiguring a lot ☐ Building work ☒ Operational work
- b) What is the approval type? (Please only tick one box.)
- ☐ Preliminary approval under s241 of SPA ☐ Preliminary approval under s241 and s242 of SPA ☒ Development permit
- c) Provide a brief description of the proposal, including use definition and number of buildings or structures where applicable (e.g. six unit apartment building defined as a *multi-unit dwelling*, 30 lot residential subdivision etc.)
- 25 lot subdivision being 2 stages of an overall staged approval
- d) What is the level of assessment? (Please only tick one box.)
- ☐ Impact assessment ☒ Code assessment

Table B—Aspect 2 of the application (If there are additional aspects to the application please list in Table C—Additional aspects of the application.)

- a) What is the nature of development? (Please only tick one box.)
- ☐ Material change of use ☐ Reconfiguring a lot ☐ Building work ☒ Operational work
- b) What is the approval type? (Please only tick one box.)
- ☐ Preliminary approval under s241 of SPA ☐ Preliminary approval under s241 and s242 of SPA ☒ Development permit
- c) Provide a brief description of the proposal, including use definition and number of buildings or structures where applicable (e.g. six unit apartment building defined as a *multi-unit dwelling*, 30 lot residential subdivision etc.)
- 25 lot subdivision being 2 stages of an overall staged approval
- d) What is the level of assessment?
- ☐ Impact assessment ☒ Code assessment

Table C—Additional aspects of the application (If there are additional aspects to the application please list in a separate table on an extra page and attach to this form.)

- ☐ Refer attached schedule ☒ Not required

2. Location of the premises (Complete Table D and/or Table E as applicable. Identify each lot in a separate row.)

Table D—Street address and lot on plan for the premises or street address and lot on plan for the land adjoining or adjacent to the premises (Note: this table is to be used for applications involving taking or interfering with water). (Attach a separate schedule if there is insufficient space in this table.)

- ☒ Street address **and** lot on plan (All lots must be listed.)
☐ Street address **and** lot on plan for the land adjoining or adjacent to the premises (Appropriate for development in water but adjoining or adjacent to land, e.g. jetty, pontoon. All lots must be listed.)

Street address					Lot on plan description		Local government area (e.g. Logan, Cairns)
Lot	Unit no.	Street no.	Street name and official suburb/ locality name	Post-code	Lot no.	Plan type and plan no.	
i)			Cooya beach Rd and Bonnie Doon Rd Cooya beach Qld	4873	Lot 905	SP270331 and	
ii)					Lot 901	SP274762	
iii)							

Planning scheme details (If the premises involves multiple zones, clearly identify the relevant zone/s for each lot in a separate row in the below table. Non-mandatory)

Lot	Applicable zone / precinct	Applicable local plan / precinct	Applicable overlay/s
i)			
ii)			
iii)			

Table E—Premises coordinates (Appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay.) (Attach a separate schedule if there is insufficient space in this table.)

Coordinates (Note: place each set of coordinates in a separate row)				Zone reference	Datum	Local government area (if applicable)
Easting	Northing	Latitude	Longitude			
					<input type="checkbox"/> GDA94 <input type="checkbox"/> WGS84 <input type="checkbox"/> other	

3. Total area of the premises on which the development is proposed (indicate square metres)

136630

4. Current use/s of the premises (e.g. vacant land, house, apartment building, cane farm etc.)

Vacant land

5. Are there any current approvals (e.g. a preliminary approval) associated with this application? (Non-mandatory requirement)

☐ No ☒ Yes—provide details below

List of approval reference/s	Date approved (dd/mm/yy)	Date approval lapses (dd/mm/yy)
Douglas Shire Council Decision notice Ref CA4	07/09/2007	Unknown part of staged development

6. Is owner's consent required for this application? (Refer to notes at the end of this form for more information.)

☒ No
☐ Yes—complete either Table F, Table G or Table H as applicable

Table F

Name of owner/s of the land	
I/We, the above-mentioned owner/s of the land, consent to the making of this application.	
Signature of owner/s of the land	
Date	

Table G

Name of owner/s of the land	
<input type="checkbox"/> The owner's written consent is attached or will be provided separately to the assessment manager.	

Table H

Name of owner/s of the land	
<input type="checkbox"/> By making this application, I, the applicant, declare that the owner has given written consent to the making of the application.	

7. Identify if any of the following apply to the premises (Tick applicable box/es.)

- ☐ Adjacent to a water body, watercourse or aquifer (e.g. creek, river, lake, canal)—complete Table I
- ☐ On strategic port land under the *Transport Infrastructure Act 1994*—complete Table J
- ☐ In a tidal water area—complete Table K
- ☐ On Brisbane core port land under the *Transport Infrastructure Act 1994* (No table requires completion.)
- ☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008* (no table requires completion)

Table I

Name of water body, watercourse or aquifer

Table J

Lot on plan description for strategic port land	Port authority for the lot

Table K

Name of local government for the tidal area (if applicable)	Port authority for the tidal area (if applicable)

8. Are there any existing easements on the premises? (e.g. for vehicular access, electricity, overland flow, water etc)

☐ No ☒ Yes—ensure the type, location and dimension of each easement is included in the plans submitted

9. Does the proposal include new building work or operational work on the premises? (Including any services)

☐ No ☒ Yes—ensure the nature, location and dimension of proposed works are included in plans submitted

10. Is the payment of a portable long service leave levy applicable to this application? (Refer to notes at the end of this form for more information.)

☐ No—go to question 12 ☒ Yes

11. Has the portable long service leave levy been paid? (Refer to notes at the end of this form for more information.)

☒ No
☐ Yes—complete Table L and submit with this application the yellow local government/private certifier's copy of the receipted QLeave form

Table L

Amount paid	Date paid (dd/mm/yy)	QLeave project number (6 digit number starting with A, B, E, L or P)

12. Has the local government agreed to apply a superseded planning scheme to this application under section 96 of the *Sustainable Planning Act 2009*?

☒ No
☐ Yes—please provide details below

Name of local government	Date of written notice given by local government (dd/mm/yy)	Reference number of written notice given by local government (if applicable)

- 13. List below all of the forms and supporting information that accompany this application** (Include all IDAS forms, checklists, mandatory supporting information etc. that will be submitted as part of this application. Note: this question does not apply for applications made online using MyDAS)

Description of attachment or title of attachment	Method of lodgement to assessment manager
PDR letter for OWA, IDAS form 6, PDR engineering drawings 15510 C01 to C22	Over the Counter

14. Applicant's declaration

- ☒ By making this application, I declare that all information in this application is true and correct (Note: it is unlawful to provide false or misleading information)

Notes for completing this form

- Section 261 of the *Sustainable Planning Act 2009* prescribes when an application is a properly-made application. Note, the assessment manager has discretion to accept an application as properly made despite any non-compliance with the requirement to provide mandatory supporting information under section 260(1)(c) of the *Sustainable Planning Act 2009*

Applicant details

- Where the applicant is not a natural person, ensure the applicant entity is a real legal entity.

Question 1

- Schedule 3 of the *Sustainable Planning Regulation 2009* identifies assessable development and the type of assessment. Where schedule 3 identifies assessable development as "various aspects of development" the applicant must identify each aspect of the development on Tables A, B and C respectively and as required.

Question 6

- Section 263 of the *Sustainable Planning Act 2009* sets out when the consent of the owner of the land is required for an application. Section 260(1)(e) of the *Sustainable Planning Act 2009* provides that if the owner's consent is required under section 263, then an application must contain, or be accompanied by, the written consent of the owner, or include a declaration by the applicant that the owner has given written consent to the making of the application. If a development application relates to a state resource, the application is not required to be supported by evidence of an allocation or entitlement to a state resource. However, where the state is the owner of the subject land, the written consent of the state, as landowner, may be required. Allocation or entitlement to the state resource is a separate process and will need to be obtained before development commences.

Question 11

- The *Building and Construction Industry (Portable Long Service Leave) Act 1991* prescribes when the portable long service leave levy is payable.
- The portable long service leave levy amount and other prescribed percentages and rates for calculating the levy are prescribed in the *Building and Construction Industry (Portable Long Service Leave) Regulation 2002*.

Question 12

- The portable long service leave levy need not be paid when the application is made, but the *Building and Construction Industry (Portable Long Service Leave) Act 1991* requires the levy to be paid before a development permit is issued.
- Building and construction industry notification and payment forms are available from any Queensland post office or agency, on request from QLeave, or can be completed on the QLeave website at www.qleave.qld.gov.au. For further information contact QLeave on 1800 803 481 or visit www.qleave.qld.gov.au.

Privacy—The information collected in this form will be used by the Department of State Development, Infrastructure and Planning (DSDIP), assessment manager, referral agency and/or building certifier in accordance with the processing and assessment of your application. Your personal details should not be disclosed for a purpose outside of the IDAS process or the provisions about public access to planning and development information in the *Sustainable Planning Act 2009*, except where required by legislation (including the *Right to Information Act 2009*) or as required by Parliament. This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

OFFICE USE ONLY

Date received

Reference numbers

NOTIFICATION OF ENGAGEMENT OF A PRIVATE CERTIFIER

To

Council. I have been engaged as the private certifier for the building work referred to in this application

Date of engagement	Name	BSA Certification license number	Building classification/s
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

QLEAVE NOTIFICATION AND PAYMENT (For completion by assessment manager or private certifier if applicable.)

Description of the work	QLeave project number	Amount paid (\$)	Date paid	Date receipted form sighted by assessment manager	Name of officer who sighted the form
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

The *Sustainable Planning Act 2009* is administered by the Department of State Development, Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.

IDAS form 6—Building or operational work assessable against a planning scheme

(Sustainable Planning Act 2009 version 3.0 effective 1 July 2013)

This form must be used for development applications for building work or operational work assessable against a planning scheme.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications, you must:

- complete *IDAS form 1—Application details*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA) or the Sustainable Planning Regulation 2009.

This form must be used for building work or operational work relating on strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994* and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008* that requires assessment against the land use plan for that land. Whenever a planning scheme is mentioned, take it to mean land use plan for the strategic port land, Brisbane core port land or airport land.

This form can also be completed online using MyDAS at www.dsdip.qld.gov.au/MyDAS

Mandatory requirements

1. What is the nature of the work that requires assessment against a planning scheme? (Tick all applicable boxes.)

- ☐ Building work—complete Table A ☒ Operational work—complete Table B

Table A

a) What is the nature of the building work (e.g. building, repairing, altering, underpinning, moving or demolishing a building)?

--

b) Are there any current approvals associated with this application? (e.g. material change of use.)

- ☐ No ☐ Yes—provide details below

List of approval reference/s	Date approved (dd/mm/yy)	Date approval lapses (dd/mm/yy)

Table B

a) What is the nature of the operational work? (Tick all applicable boxes.)

- ☒ Road works ☒ Stormwater ☒ Water infrastructure
☒ Drainage works ☒ Earthworks ☒ Sewerage infrastructure
☐ Landscaping ☐ Signage ☐ Clearing vegetation under the planning scheme
☐ Other—provide details

b) Is the operational work necessary to facilitate the creation of new lots? (E.g. subdivision.)

- ☐ No ☒ Yes—specify the number of lots being created

c) Are there any current approvals associated with this application? (E.g. material change of use.)

- ☐ No ☒ Yes—provide details below

List of approval reference/s	Date approved (dd/mm/yy)	Date approval lapses (dd/mm/yy)
Douglas Shire Council Decision Notice ref CA	07/09/2007	Unknown part of Staged approval

2. What is the dollar value of the proposed building work?
(Inc GST, materials and labour.)

\$

3. What is the dollar value of the proposed operational work?
(Inc GST, materials and labour.)

\$ 1050000

Mandatory supporting information

4. Confirm that the following mandatory supporting information accompanies this application

Mandatory supporting information	Confirmation of lodgement	Method of lodgement
All applications involving building work or operational work		
A site plan drawn to an appropriate scale (1:100, 1:200 or 1:500 are recommended scales) which shows the following: <ul style="list-style-type: none"> the location and site area of the land to which the application relates (<i>relevant land</i>) the north point the boundaries of the relevant land the allotment layout showing existing lots, any proposed lots (including the dimensions of those lots), existing or proposed road reserves, building envelopes and existing or proposed open space (note: numbering is required for all lots) any existing or proposed easements on the relevant land and their function any access limitation strips all existing and proposed roads and access points on the relevant land. 	<input checked="" type="checkbox"/> Confirmed	over the Counter

A statement about how the proposed development addresses the local government's planning schemes and any other planning documents relevant to the application.	<input checked="" type="checkbox"/> Confirmed	over the Counter
A statement addressing the relevant part(s) of the State Development Assessment Provisions (SDAP).	<input type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not applicable	
Applications for building work (including extensions and demolition that is assessable development)		
Floor plans drawn to an appropriate scale (1:50, 1:100 or 1:200 are recommended scales) which show the following: <ul style="list-style-type: none"> the north point the intended use of each area on the floor plan (for commercial, industrial or mixed use developments only) the room layout (for residential development only) with all rooms clearly labelled the existing and the proposed built form (for extensions only) the gross floor area of each proposed floor area. 	<input type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not applicable	
Elevations drawn to an appropriate scale (1:100, 1:200 or 1:500 are recommended scales) which show plans of all building elevations and facades, clearly labelled to identify orientation (e.g. north elevation).	<input type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not applicable	
Plans showing the size, location, proposed site cover, proposed maximum number of storeys, and proposed maximum height above natural ground level of the proposed new building work.	<input type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not applicable	
Plans showing the extent of any demolition that is assessable development.	<input type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not applicable	
Applications for operational work involving earthworks (filling and excavating)		
Drawings showing: <ul style="list-style-type: none"> existing and proposed contours areas to be cut and filled the location and level of any permanent survey marks or reference stations used as datum for the works the location of any proposed retaining walls on the relevant land and their height the defined flood level (if applicable) the fill level (if applicable). 	<input checked="" type="checkbox"/> Confirmed <input type="checkbox"/> Not applicable	over the Counter
Applications for operational work involving roadworks		
Drawings showing: <ul style="list-style-type: none"> existing and proposed contours the centreline or construction line showing chainages, bearings, offsets if the construction line is not the centreline of the road and all intersection points information for each curve including tangent point chainages and offsets, curve radii, arc length, tangent length, superelevation (if applicable) and curve widening (if applicable) kerb lines including kerb radii (where not parallel to centreline) and tangent point changes (where not parallel to centreline) edge of pavement where kerb is not constructed position and extent of channelisation location and details of all traffic signs, guideposts, guardrail and other street furniture pavement markings including details on raised pavement markers 	<input checked="" type="checkbox"/> Confirmed <input type="checkbox"/> Not applicable	over the Counter

<ul style="list-style-type: none"> • catchpit, manhole and pipeline locations • drainage details (if applicable) • cross road drainage culverts (if applicable) • concrete footpaths and cycle paths • location and details for access points, ramps and invert crossings • changes in surfacing material. 		
Applications for operational work involving stormwater drainage		
Drawings showing: <ul style="list-style-type: none"> • existing and proposed contours • drainage locations, diameters and class of pipe, open drains and easements • manhole location, chainage and offset or coordinates and inlet and outlet invert levels • inlet pit locations, chainage and offset or coordinates and invert and kerb levels. 	<input checked="" type="checkbox"/> Confirmed <input type="checkbox"/> Not applicable	over the Counter
Applications for operational work involving water reticulation		
Drawings showing: <ul style="list-style-type: none"> • kerb lines or edge of pavement where kerb is not constructed • location and levels of other utility services where affected by water reticulation works • pipe diameter, type of pipe and pipe alignment • water main alignments • water supply pump station details (if applicable) • minor reservoir details (if applicable) • conduits • location of valves and fire hydrants • location of house connections (if applicable) • location of bench marks and reference pegs. 	<input checked="" type="checkbox"/> Confirmed <input type="checkbox"/> Not applicable	over the Counter
Applications for operational work involving sewerage reticulation		
Drawings showing: <ul style="list-style-type: none"> • location of all existing and proposed services • location of all existing and proposed sewer lines and manhole locations • location of all house connection branches • kerb lines or edge of pavement where kerb is not constructed • chainages • design sewer invert levels • design top of manhole levels • type of manhole and manhole cover • pipe diameter, type of pipe and pipe alignment • location of house connections (if applicable) • sewer pump station details (if applicable). 	<input checked="" type="checkbox"/> Confirmed <input type="checkbox"/> Not applicable	over the Counter
Applications for operational work involving street lighting		
Drawings showing: <ul style="list-style-type: none"> • location of all light poles and service conduits • location of all other cross road conduits • type of wattage and lighting • any traffic calming devices • additional plans for roundabouts and major roads (if applicable) • details of any variations to normal alignment 	<input type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not applicable	

<ul style="list-style-type: none"> • details of lighting levels. 		
Applications for operational work involving public utility services		
Drawings showing: <ul style="list-style-type: none"> • any existing light poles and power poles • any existing underground services • details of proposed services • alteration to existing services. 	<input checked="" type="checkbox"/> Confirmed <input type="checkbox"/> Not applicable	over the Counter
Applications for operational work involving landscaping works		
Drawings showing: <ul style="list-style-type: none"> • the location of proposed plant species • a plant schedule indicating common and botanical names, pot sizes and numbers of plants • planting bed preparation details including topsoil depth, subgrade preparation, mulch type and depth, type of turf, pebble, paving and garden edge • the location and type of any existing trees to be retained • construction details of planter boxes, retaining walls and fences • the proposed maintenance period • irrigation system details. 	<input type="checkbox"/> Confirmed <input checked="" type="checkbox"/> Not applicable	

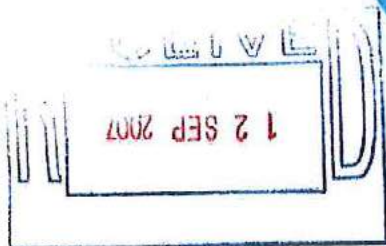
Privacy—Please refer to your assessment manager, referral agency and/or building certifier for further details on the use of information recorded in this form.

OFFICE USE ONLY

Date received

Reference numbers

The *Sustainable Planning Act 2009* is administered by the Department of State Development, Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.



ENQUIRIES:
DEPARTMENT:
EMAIL:

Mr Paul Gleeson – Manager Planning Services
Planning Services - ☎ (07) 4099 9450

OUR REF:
YOUR REF:

PTG
CA46

Salson Pty Ltd as Trustee for the Simon White Family Trust
C/- C & B Group
P O Box 1949
CAIRNS QLD 4870

7 September 2007

INTEGRATED PLANNING ACT AMENDED DECISION NOTICE

DEVELOPMENT APPLICATION

Applicant's Name : Salson Pty Ltd as Trustee for the Simon White Family Trust

Owner's Name : Salson Pty Ltd

Proposal : Material Change of Use and Reconfiguring a Lot to permit 250 Residential A lots, 38 Residential B lots, 0.7 hectares to be used for commercial and community uses and 11.1 hectares to be used generally as open space

Application Number : CA46

Site Address : Cooya Beach Road, Bonnie Doon Road and Melaleuca Drive, Cooya Beach

Property Description : Lot 1 on RP 720316 and Lots 2 and 3 on SR 614

This Amended Decision Notice supersedes the Negotiated Decision Notice dated 15 June 2005. Advice note 1 has been added to reflect the specific conditions required to be addressed with each stage of the subdivision. All other conditions remain unchanged.

1. **Decision:**

Decision Date: 8 June 2005

Approved subject to Conditions

ADMINISTRATION CENTRE
(ALL DEPARTMENTS)
64-66 FRONT STREET, MOSSMAN

LIBRARY 14 MILL ST., MOSSMAN

PHONE (07) 4099 9444 FACSIMILE (07) 4098 2902
INTERNET www.dsc.qld.gov.au

PHONE (07) 4099 9496 FACSIMILE (07) 4098 3298

ALL COMMUNICATIONS TO BE
ADDRESSED TO:
THE CHIEF EXECUTIVE OFFICER
P.O. BOX 357
MOSSMAN, QLD 4873

2. Type of Development Approval:

Material Change of Use
Reconfiguration a Lot

Preliminary Approval
Development Permit

3. Referral Agencies:

Concurrence Agencies:

Department of Main Roads
Environmental Protection Agency
Natural Resources & Mines

Conditions attached

4. Conditions

Assessment Manager Conditions

Plan of Reconfiguration

1. The approved reconfiguration and the carrying out of any works on the premises associated with the development must generally be in accordance with Plan of Reconfiguration No. 8021-3, Issue G, dated 18th May 2004, prepared by the C & B Group, and attached to this approval subject to:
 - (a) Modifications required by any condition of this approval and any minor alterations found necessary by Council at the time of examination of engineering plans; and
 - (b) Any development permit for operational works relating to the reconfiguration.
2. The Plan of Reconfiguration No. 8021-3 Issue G, dated 18th May 2004, must be amended as follows:
 - (a) A pathway with a minimum width of four (4) metres must be provided from the cul-de-sac in the south-eastern corner of the site to Melaleuca Drive and a 1.5 metre wide concrete footpath must be constructed within the pathway.

Water Supply

3. The reticulated water supply must be constructed with the design plans approved by Council.

Internal

4. The applicant must provide a reticulated water supply to the development.
5. This system must make provision for services to the boundaries of all lots, including main works, enveloper pipes at cross street services, valve and hydrant markers and a water meter to each lot.
6. The plans and specifications of the internal water supply must be submitted to Council at Operational Works application stage for this reconfiguration for review.

External

7. Provision of water supply headworks contributions in accordance with Council's Policy on Applicant Contributions for Water Supply and Sewerage Services and Council's Schedule of Fees and Charges which provides for contribution amounts to be varied if not paid in full within 12 months of the date of this approval. Headworks are to apply based on \$4,449.00 per E.D.C. for water supply. Payment of such contributions shall be made prior to Council Signing and Sealing of the Plan of Survey except that in relation to the Commercial/Community Purpose land (proposed Lot 900) the payment equivalent to one (1) EDC for water supply headworks shall be paid prior to Council Signing and Sealing the Plan of Survey. The balance of the water supply headworks contribution is to be paid prior to the issue of a Building Works Development Permit in respect of any development on the Commercial/Community Purposes land (proposed Lot 900). A notice will be placed on Council's rates database to this effect on Lot 900 when the title is created.
8.
 - (a) The applicant is responsible for the external works to connect the site with Council's water supply at Cooya Beach Road and to upgrade the water main to 200mm diameter for the full length of the site frontage to Cooya Beach Road.
 - (b) The applicant must design and construct a 3.5 megalitre reservoir at the existing reservoir site.

The total cost of the works to install this reservoir will be determined on the basis of the ratio of the number of lots in the proposed development to the number of existing and currently approved lots in Cooya Beach. The applicant will construct all works and the equivalent amount for Council's contribution (existing allotments) to the reservoir will be subtracted from the applicant's water supply headworks contributions for the development.

Sewerage

Internal

9. Provision of sewerage reticulation to plans approved by Council. Provision shall be made for house connection branches for each allotment.
10. The plans and specifications of the internal sewerage works must be submitted to Council at Operational Works application stage for review.
11. Pumping stations are to be located on land vested under Council's control.
12. The design information submitted for Operational Works approval shall include design flows, pipe sizes, grades, pump rates, catchments and pressure main hydraulics.
13. Pumping stations shall incorporate aluminium fabricated covers to Council's standards. Switchboards are to be aluminium or stainless steel construction. Amp meters are required for each pump motor.

External

14. Provision of sewerage headworks contributions in accordance with Council's Policy on Applicant Contributions for Water Supply and Sewerage Services and Council's Schedule of Fees and Charges which provides for contribution amounts to be varied if not paid in full within 12 months of the date of this approval. Headworks are to apply based on \$2,665.00 per E.D.C. for sewerage. Payment of such contributions shall be made prior to Council Signing and Sealing of the Plan of Survey except that in relation to the Commercial/Community Purpose land (proposed Lot 900) the payment equivalent to one (1) EDC for sewerage headworks shall be paid prior to Council Signing and Sealing the Plan of Survey. The balance of the sewerage headworks contribution is to be paid prior to the issue of a Building Works Development Permit in respect of any development on the Commercial/Community Purposes land (proposed Lot 900). A notice will be placed on Council's rates database to this effect on Lot 900 when the title is created.
15.
 - (a) The applicant must construct a pump station and rising main between the site and the Mossman Treatment Plant to provide a sewerage service to the proposed lots.
 - (b) The pump station is to be located adjacent to Cooya Beach Road at the eastern end of the park.
 - (c) The pump station and the rising main are to be sized to cater for the proposed development and for other areas of Cooya Beach which may ultimately be included in the sewerage scheme.
 - (d) The total cost of these works to install this reservoir will be determined on the basis of the ratio of the number of lots in the proposed development to the number of existing and currently approved lots in Cooya Beach. The applicant will construct all works and the equivalent amount for Council's contribution (existing allotments) to the reservoir will be subtracted from the applicant's water supply headworks contributions for the development.

Electrical & Telephone Services

16. Prior to the approval of the Plan of Survey, the Applicant must submit to Council a copy of a letter from Ergon Energy stating that satisfactory arrangements have been made for the provision of:
 - (a) an underground electrical supply to each lot; and
 - (b) street lighting in accordance with Council's adopted standards.
 - (c) locating of all above ground transformer cubicles clear of footpath and parkland areas.
17. Prior to the approval of the Plan of Survey, the Applicant must submit to Council a copy of a letter from Telstra stating that satisfactory arrangements have been made for the provision of:

- (a) an underground telephone service to each lot; and
 - (b) locating of all above ground switching station cubicles clear of footpath and parkland areas.
18. (a) The applicant must transfer the area shown as Park and Mangrove on the Proposed Plan to Council in partial satisfaction of the applicant's obligation to provide parkland to Council in accordance with Local Planning Policy No.5 – Applicant Contributions – Parks. The applicant must bear all costs of the transfer.
- (b) The applicant must contribute \$250.00 per lot in partial satisfaction of the applicant's obligation to provide parkland to Council in accordance with the Local Planning Policy. This amount is based on the usable parkland area being 75% of the total parkland required and \$250.00 being 25% of the standard Parkland Contribution under Planning Policy No. 5.

Alternatively, the amount of the contribution may be expended on works within the proposed parkland including landscaping, pathways, play equipment, shelter structures and water supply. In this case, a detailed design and costing is to be submitted for approval by Council at Operational Works stage.

Earthworks

19. All proposed lots must be drained from the rear boundary to the frontage of the lot in accordance with the Far North Queensland Regional Organisation of Councils Development Manual, except as otherwise modified by these conditions or an Operational Works Development Permit.
20. All allotment and footpath slopes must be designed in accordance with the Far North Queensland Regional Organisation of Councils Development Manual.
21. Details of the proposed filling and excavation for the reconfiguration must be included in a plan and submitted at the time of lodgement of the application for Operational Works.

Stormwater Drainage

22. The proposed drainage area must be designed in accordance with the Far North Queensland Regional Organisation of Councils Development Manual. All easements and/or reserves are to be transferred to Council as a drainage easement and/or reserve in fee simple at the applicant's cost.
23. Prior to lodgement of the Plan of Survey for Signing and Sealing / an application for Operational Works, the applicant must submit to Council a plan:
- (a) Detailing the drainage works to be undertaken on the land in connection with the reconfiguration;
 - (b) Detailing the ability of the proposed drainage works to meet with the requirements of the Far North Queensland Regional Organisation of Councils Development Manual.

24. Drainage (including underground), together with acceptable points of discharge are required in localities to be determined following submission of engineering drawings and designs at Operational Works stage.
25. The calculated design frequency for all storm water drainage shall be determined on a five (5) year recurrence interval and all relevant design data shall be submitted with the engineering drawings at Operational Works application stage.
26. Such storm water drainage work shall be designed and constructed in accordance with the requirements of the Far North Queensland Regional Organisation of Councils Development Manual and will not cause scouring, erosion, loss of vegetation, excess turbidity and landslip either within or external to the site.
27. The Applicants are required to place pollution control devices in stormwater drains in accordance with the requirements of the Far North Queensland Regional Organisation of Councils Development Manual. The design and location of these devices must be submitted at Operational Works application stage.

Truncations

28. Truncations in accordance with the provisions of Council's subdivisional Local Laws are to be provided.

Bikeway/Pathway

- 29
 - (a) A bikeway/walkway shall be constructed to a minimum width of two (2) metres on the southern side of Cooya Beach Road for the full frontage of the site from the eastern extent of the site to the north-western extent of the site adjacent to the unnamed road reserve along the northern boundary of the site. This pathway is intended to be constructed of bitumen with concrete edge restraints. This part of the bikeway/walkway is to be constructed at the applicant's expense.
 - (b) A bikeway/walkway shall be constructed to a minimum width of two (2) metres from the north-western extent of the site along Cooya Beach Road to connect to the existing bikeway/walkway at the Junction Bridge. . This pathway is intended to be constructed of bitumen with concrete edge restraints. This part of the bikeway/walkway is to be constructed by Council. The total cost of these works to install this part of the bikeway/walkway will be determined on the basis of the ratio of the number of lots in the proposed development to the number of existing and currently approved lots in Cooya Beach. The applicant is to provide cost estimates for this work at Operational Works stage.
30. The bikeway/walkway shall be suitably designed in accordance with the relevant Standards Association of Australia Code. The style and construction of all footpaths and bikeways internal and external to the development is to be bitumen centre with concrete edge restraints.

Operational Works Development Permit

31. The applicant must submit as part of an application for a Development Permit for Operational Works information and plans in accordance with the Far North Queensland Regional Organisation of Councils Development Manual.
32. Full engineering drawings, prepared and/or checked by a Registered Professional Engineer, shall be submitted for all road works, stormwater drainage and allotment improvement at Operational Works Application stage. Drawings should, in general, include the following:
 - (a) locality plan;
 - (b) layout and staging plan, where applicable;
 - (c) layout plan for each new road;
 - (d) longitudinal section of each road;
 - (e) cross sections for each road, including standard cross sections;
 - (f) detailed plan of each intersection and cul-de-sac head where longitudinal grades do not exceed 1%;
 - (g) layout plan for each stormwater drainage;
 - (h) longitudinal sections for each stormwater drain line;
 - (i) details for non-standard drainage structures; and
 - (j) such other details for the proper construction of the works i.e. retaining walls etc.

Street Names

33. At the time of lodging the Survey Plan with Council for endorsement, the applicant must lodge a plan of the reconfiguration displaying the proposed street names for the reconfiguration.
34. The street name signs shall be supplied and erected by the Applicant. The signs shall be aluminium on steel posts with reflective white legend (on both sides) on a green background.

Currency Period

35. The development authorised by this Development Permit must cease at the expiration of four (4) years from the day that this Development Permit takes effect under the *Integrated Planning Act 1997* unless a detailed plan of survey has been lodged with Council for endorsement and all conditions of this approval complied with.

Compliance with Conditions

36. The Plan of Survey with associated documents shall not be endorsed by Council until all of the conditions of approval have been complied with.

Acid Sulphate Soils

37. At the time of lodgement of an application for development approval for Operational Works for the reconfiguration, the applicant must submit to Council a report identifying:
- (a) The location and extent of acid sulphate soils on the site;
 - (b) The applicant's proposed treatment of the acid sulphate soils identified.

Road Works

38. The applicant must undertake the following works:

Internal

Provision of kerb-to-kerb bitumen streets to widths required by the Far North Queensland Regional Organisation of Councils Development Manual.

Construction of a 1.5 metre wide footpath on one side of the full length of the internal loop road in the southern sector of the site and on one side of the full length of the loop road in the northern sector of the site and, in both cases, extending to Cooya Beach Road.

External

Provision is to be made for the following works external to the subject site in accordance with the Far North Queensland Regional Organisation of Councils Development Manual (FNQ ROC Development Manual).

The plans and specifications of the internal and external road works must be submitted to Council at Operational Works application stage for review.

39. Cooya Beach Road

Upgrading to the full frontage of the site in accordance with the Development Manual and generally as described in the Engineering Report submitted with the application to provide:

- a ten (10) metre wide sealed carriageway;
- kerb and channel and any associated drainage works on both sides of the carriageway;
- formed footpaths with a nominal width of 4.5 metres.

The design and construction of the works must provide for the retention of the grove of Melaleucas and other trees at the eastern end of Cooya Beach Road.

Bonnie Doon Road

Upgrading to the full frontage of the site in accordance with the FNQ ROC Development Manual. In regard to the minimum standard for the construction of Bonnie Doon Road

for the frontage of the development. Council's engineers have indicated that the carriageway will need to be upgraded to the following minimum standards in accordance with Section D1.27 part 1 of the FNQ Development Manual:

Traffic Volume/Road Class:	1000 – 7999 vpd (or sub-arterial)
Formation	10m
Pavement Width	8m
Seal Width	8m
Shoulders	Incl. 0.5m seal on each side

Cooya Beach Road/Bonnie Doon Road Intersection

Construction of a channelised intersection in accordance with the FNQ ROC Development Manual.

Landscaping, Buffering and Fencing

40. (a) A street landscaping plan providing for street tree planting within the proposed internal roads and Cooya Beach Road and for landscaping of the proposed roundabouts must be submitted for approval at Operational Works stage.
- (b) A planted buffer must be established to the full frontages of the site to Melaleuca Drive, Bonnie Doon Road and the un-constructed Palm Road adjacent to the northern boundary of the site. This buffer is to be densely planted and is to have a minimum width of 6.0metres.

The buffer must generally be in accordance with the details provided in the advice from the C&B Group dated 22nd October 2004.

Details including design of the buffer must be submitted for approval at the Operational Works stage.

The buffer must be established to the respective road frontages of each stage of the proposed development as a particular stage is constructed.

The applicant is to install a 1.8metre high fence along the un-constructed road reserve frontage to separate the agricultural uses from the residential uses. The purpose of this fence is for safety.

41. The subdivider shall lodge with the Council cash or bank bond calculated at the rate of ten percent (10%) of the contract price for the works concerned in the subdivision as a security that the maintenance works be not completed to the satisfaction of the Director Engineering Services the Council shall make good any of the said defects and deduct the costs thereof from the cash deposit or bank bond.

Commercial Development

42. The maximum permissible gross floor area for retail uses on the land designated for commercial purposes is 450m².
43. A detailed plan of development will be required to be submitted to Council prior to any self-assessable use commencing on the area designated for commercial and community purposes.
44. The Applicant shall pay to the Council headworks contributions for water supply and sewerage in accordance with Council's Local Planning Policy: "*Determination of Contributions for Water Supply and Sewerage Headworks and External Works*" ("the Policy").

The contribution shall be calculated at the rate per Equivalent Domestic Connection ("EDC") applicable at the time of payment in accordance with the Policy.

For information purposes only:

- (a) The current rates per EDC at the time of this approval are:

Water Supply	\$ 4,449.00
Sewerage	\$ 2,665.00

- (b) The current number of EDCs for the approved use are:

Water Supply	7
Sewerage	7

The payment equivalent to one (1) EDC each for water supply and sewerage headworks shall be paid prior to Council Signing and Sealing the Plan of Survey. The balance of the water supply and sewerage headworks contribution is to be paid prior to the issue of a Building Works Development Permit in respect of any development on the Commercial/ Community Purposes land (proposed Lot 900). A notice will be placed on Council's rates database to this effect on Lot 900 when the title is created.

Advice Note 1

The following is a ready reference to the specific conditions that must be met before the Plan of Survey for each stage can be endorsed by Council. The reference to stages is specific to Plan No.8021-3. If staged layout is amended, then the conditions relevant to the lots contained within the stages as shown on Plan No.8021-3 will need to be met when those lots are submitted for endorsement. All other conditions not referenced below relate to all stages and are to be met prior to the endorsement of the Plan of Survey.

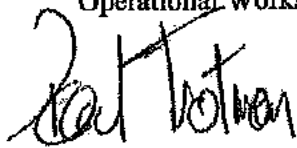
Condition	Stages as shown staged on Plan 8021-3 Issue G
2	2
part 7 (commercial)	3
8	1
part 14 (commercial)	3
15	1
18(a)	1

29(a)	1; 2; 3; 4; 5
38	1
39 (Cooya Beach Rd)	1; 2; 3; 4; 5
39 (Bonnie Doon Rd)	4;
40(b)	2; 3; 4; 5; 6
42	2
43	2
44	2

5. Further Development Approvals Required:

Operational Works

Development Permit



Paul Trotman
General Manager Development & Environment

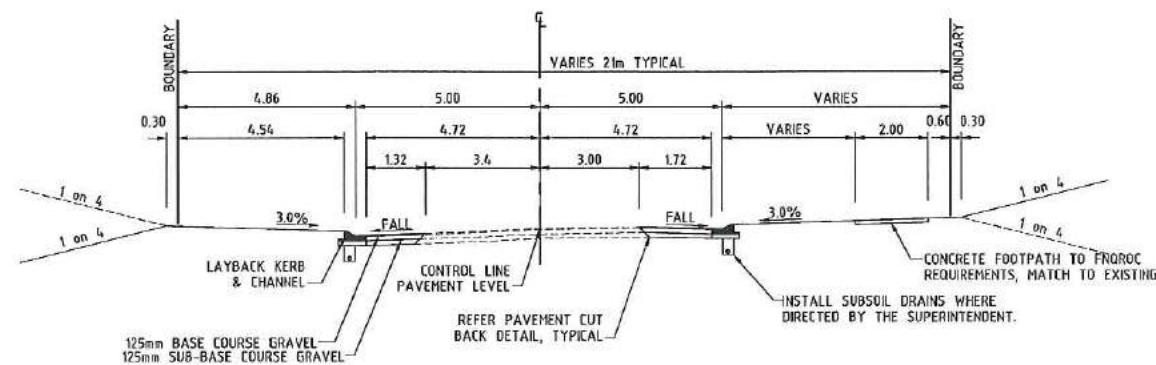
OCEAN BREEZE SUBDIVISION
AT
COOYA BEACH ROAD, COOYA BEACH
STAGES 4B & 4C
FOR
JONPA PTY LTD



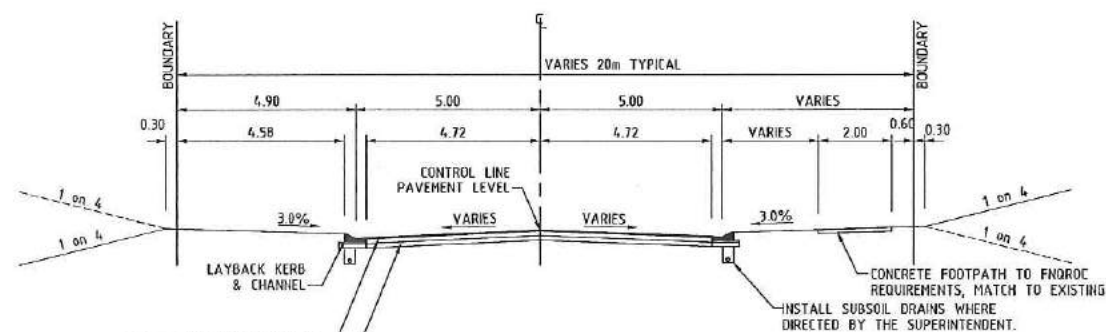
Level 1 / 258 Mulgrave Road
Westcourt
PO Box 2551
CAIRNS QLD 4870

Ph: (07) 4051 5599
Fax: (07) 4051 5455
Email: admin@pdrengineers.com.au

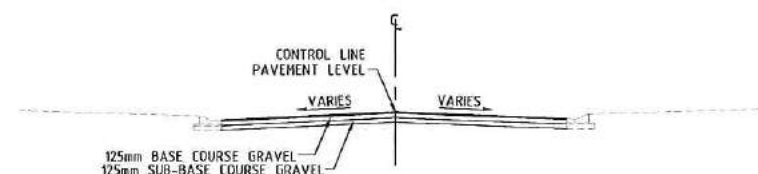
PROJECT No. 15510
JANUARY 2016



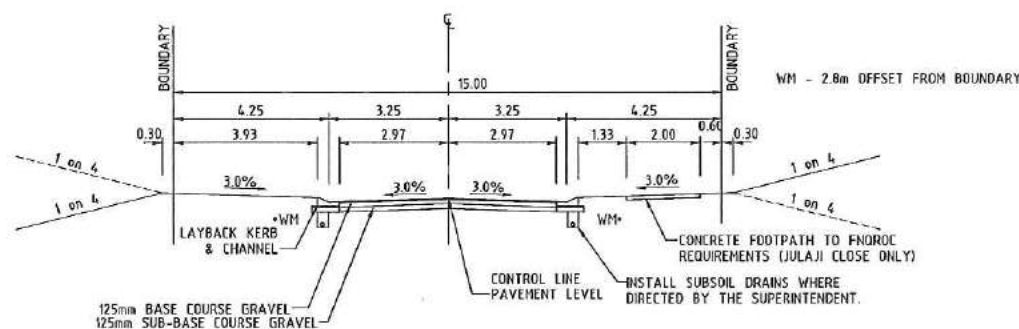
COOYA BEACH ROAD
CH 3.797 TO CH 80.000
SCALE: NTS



COOYA BEACH ROAD
CH 80.000 TO CH 105.165
SCALE: NTS



COOYA BEACH ROAD
CH 105.165 TO CH 112.000
SCALE: NTS



JULAJI CLOSE
CH 117.856 TO END
SCALE: NTS

ROAD 1
CH 0.000 TO END
SCALE: NTS

CROSS SECTION NOTES:
REFER ALLOTMENT GRADING / EARTHWORKS PLAN AND CROSS SECTIONS DRAWINGS FOR SIDE BATTER AND ALLOTMENT EARTHWORKS TREATMENT. (TYPICAL)

ALL KERB AND CHANNEL TYPES TO BE ACCORDANCE WITH FNDRDC DWG No. S1000

SINGLE TURF STRIP WITH RETURNS BEHIND ALL KERB AND CHANNEL (TYPICAL). IN ACCORDANCE WITH FNDRDC DEVELOPMENT MANUAL.

PAVEMENT DATA:

125mm TYPE 2.2 BASE COURSE (CBR 80) COMPACTED TO 100% SRDD, OVERLAYING 125mm TYPE 2.3 SUB-BASE COURSE (CBR 60) COMPACTED TO 98% SRDD.

SUB-GRADE TO BE TRIMMED AND COMPACTED TO 98% SRDD. SUB-GRADE CBR TO BE CHECKED AND SUBMITTED TO ENGINEER FOR CONFIRMATION OF PAVEMENT DESIGN AND APPROVALS BY CAIRNS CITY COUNCIL. REFER TO SUBGRADE AND FILL NOTES 13030-C02

ASSUMED DESIGN SUBGRADE SOAKED CBR = 7 AT 98% SRDD.

ASPHALT SURFACE (30mm TYPICAL)

PRIME COAT -

C170 BITUMEN 8% CUT BACK 0.8 litres/sqm.

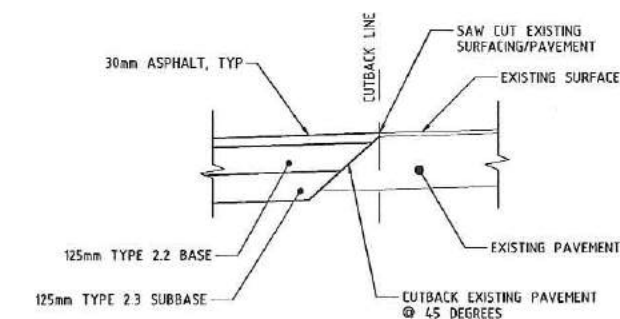
ASPHALT 48 HOURS MIN. AFTER PRIME COAT

THE CONTRACTOR IS TO ENSURE THAT THE PAVEMENT COURSES ARE SET DOWN SUFFICIENTLY TO ALLOW FOR THE THICKNESS OF ASPHALT SURFACING

VERGE (FOOTPATH) CROSSFALLS NOT TO EXCEED THOSE SPECIFIED.

SEEDING DETAILS:

ALL FOOTPATHS ARE TO BE HYDROMULCHED / GRASSED (DRILL SEEDING WITH APPROVED GRASS SPECIES), FERTILISED, AND MAINTAINED FOR THE REQUIRED MAINTENANCE PERIOD.



TYPICAL CUT BACK DETAIL
AT CUT BACK LOCATIONS

DWG No.	TITLE
15510 - C01	LOCALITY PLAN, DRAWING INDEX & TYPE SECTIONS
15510 - C02	GENERAL NOTES
15510 - C03	EXISTING SURVEY AND DEMOLITIONS PLAN
15510 - C04	ALLOTMENT GRADING AND EARTHWORKS SETOUT PLAN
15510 - C05	ROADWORKS AND DRAINAGE PLAN
15510 - C06	EARTHWORKS, ROADWORKS AND DRAINAGE SETOUT TABLES
15510 - C07	COOYA BEACH ROAD LONGITUDINAL SECTION
15510 - C08	COOYA BEACH ROAD CROSS SECTIONS - SHEET 1 OF 2
15510 - C09	COOYA BEACH ROAD CROSS SECTIONS - SHEET 2 OF 2
15510 - C10	JULAJI CLOSE & ROAD 1 LONGITUDINAL SECTION
15510 - C11	JULAJI CLOSE CROSS SECTIONS - SHEET 1 OF 2
15510 - C12	JULAJI CLOSE CROSS SECTIONS - SHEET 2 OF 2
15510 - C13	ROAD 1 CROSS SECTIONS
15510 - C14	INTERSECTION SETOUT
15510 - C15	DRAINAGE CATCHMENTS PLAN
15510 - C16	DRAINAGE LONGITUDINAL SECTIONS
15510 - C17	DRAINAGE CALCULATION TABLES
15510 - C18	EROSION AND SEDIMENT CONTROL PLAN
15510 - C19	WATER RETICULATION PLAN
15510 - C20	SEWER RETICULATION PLAN
15510 - C21	SEWER LONGITUDINAL SECTIONS - SHEET 1 OF 2
15510 - C22	SEWER LONGITUDINAL SECTIONS - SHEET 2 OF 2

ISSUE	DESCRIPTION	DATE
A	FOR COUNCIL APPROVAL	27/01/16

Drawing Status
COUNCIL APPROVAL

SCALE N/A
DO NOT SCALE DRAWINGS
Scales Before Reduction

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pdr engineers
Level 1, 255 Melaleuca Road PO Box 2551 CAIRNS QLD 4870 Ph: (07) 4051 5599 Fax: (07) 4051 5425 Email: admin@pdrengineers.com.au A.R.N. 80 126 211 481 A.C.N. 126 211 481

Client
JONPA PTY LTD

Project
STAGES 4B & 4C OCEAN BREEZE ESTATE COOYA BEACH, 4873

Drawing Title
LOCALITY PLAN, DRAWING INDEX & TYPE SECTIONS

Drawn	Designed	Verified
NP	GCH	AMCP
Approved		Date
		JAN 2016
Drawing Number		Revision
15510 - C01		A

CONCRETE NOTES

150mm THICK CONCRETE SLAB PAVEMENT (APPROVED BROOM FINISH). SLT2 MIN FABRIC, 50mm TOP COVER. OVERLAYING - 150mm THICK CBR15 MIN SELECT FILL, COMPACTED TO 98% SRDD.

SUBGRADE AND FILL NOTES

AREA TO BE CLEARED AND GRUBBED OUT TO REMOVE TOPSOIL AND ORGANIC MATERIAL.

WHERE NECESSARY APPROVED IMPORTED FILL TO BE SPREAD IN LAYERS NOT EXCEEDING 200mm AND COMPACTED USING VIBRATORY ROLLER TO 98% SRDD AT OPTIMUM MOISTURE CONTENT.

ANY TREES TO BE REMOVED SHALL BE EXCAVATED AND THE HOLE FILLED WITH APPROVED IMPORTED FILL COMPACTED AS ABOVE.

FILLING TO BE BROUGHT UP TO THE UNDERSIDE OF THE ROAD PAVEMENT AND TRIMMED TO THE DESIRED LEVELS.

APPROVED IMPORTED FILLING UNDER THE PAVEMENT TO HAVE A CBR OF 15 AND A MIN DEPTH OF 250mm. IMPORTED GRAVEL TYPE MUST COMPLY WITH ALL ASPECTS OF THE "MAIN ROADS STANDARD SPECIFICATION MRS 1105 - UNBOUND PAVEMENTS".

ALL SOFT SPOTS SHALL BE EXCAVATED BACK TO FIRM GROUND. THE BASE OF THE EXCAVATION COMPACTED AND BACKFILLED WITH APPROVED IMPORTED FILL COMPACTED AS ABOVE.

ALL FILL SHALL BE TESTED FOR COMPACTION IN ACCORDANCE WITH AS3798 AND FNRDROREQUIREMENTS.

SUB-GRADE TO BE TRIMMED AND COMPACTED TO 98% SRDD (ASSUMED SOAKED CBR 7 MIN).

THE CONTRACTOR SHALL CHECK THE PAVEMENT SUBGRADE CBR AND SUBMIT THE CBR TEST RESULTS TO THE SUPERINTENDENT FOR CONFIRMATION OF PAVEMENT DESIGN AT LEAST TWO WEEKS PRIOR TO THE PLACEMENT OF ANY GRAVEL. REFER SPECIFICATION FOR TEST FREQUENCY AND LOCATION.

THE CONTRACTOR SHALL ADVISE THE COUNCIL, IN WRITING, OF THE SOURCE OF GRAVEL SUPPLY, PROOF OF GRADINGS, CBR'S AND TYPE, AT LEAST ONE WEEK PRIOR TO PAVEMENT GRAVEL BEING DELIVERED TO THE SITE.

NO PAVEMENT GRAVEL IS TO BE DELIVERED TO THE SITE UNTIL AFTER THE CONTRACTOR HAS RECEIVED WRITTEN CONFIRMATION OF THE PAVEMENT DESIGN FROM THE SUPERINTENDENT.

THE CONTRACTOR IS TO ENSURE THAT THE PAVEMENT COURSES ARE SET DOWN SUFFICIENTLY TO ALLOW FOR THE THICKNESS OF ASPHALT (AND/OR BITUMEN) SEAL COAT.

ASPHALT SURFACE (WHERE SPECIFIED)

THE PAVEMENT IS TO BE BROOMED CLEAN AND SHALL BE DRY PRIOR TO APPLYING PRIME COAT.

PRIME COAT SHALL BE APPLIED 48 HOURS PRIOR TO ASPHALT SEALING.

APPLY 30mm OF APPROVED ASPHALT.

THE PRIME COAT AND HOT MIX DESIGN SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH COUNCIL DEVELOPMENT MANUAL REQUIREMENTS, WITH POLYMER ADDITIVES.

CONSTRUCTION UNDER TRAFFIC

THE CONTRACTOR SHALL PROVIDE A TRAFFIC MANAGEMENT PLAN IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR APPROVAL BY COUNCIL PRIOR TO THE PRESTART MEETING.

ROADWORKS NOTES

1. TRAFFIC CONTROL DEVICES (ROAD EDGE GUIDE POSTS, SIGNS, ETC) SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT ISSUE OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS ISSUED BY THE DEPARTMENT OF TRANSPORT, QUEENSLAND.

2. REFER TO THE "TYPE CROSS SECTIONS" DRAWING FOR PAVEMENT DETAILS.

3. CONSTRUCTION AND INSTALLATION OF ALL WORKS AS DETAILED ON THIS DRAWING IS TO BE IN ACCORDANCE WITH THE PROCEDURES, SPECIFICATIONS AND DRAWINGS CONTAINED IN THE CURRENT ISSUE OF THE "REGIONAL DEVELOPMENT MANUAL" AS ISSUED BY FNRDRC KERB INLET PIT, AND TO THE REQUIREMENTS OF THE COUNCIL.

4. THE CONTRACTOR SHALL LIAISE WITH THE RELEVANT AUTHORITIES TO CONFIRM THE LOCATION OF ALL EXISTING SERVICES, AND SHALL ARRANGE FOR THE REMOVAL OR RELOCATION OF ANY SERVICES WHICH WILL BE AFFECTED BY THE WORKS.

5. THE CONTRACTOR/BUILDER SHALL OBTAIN COUNCIL APPROVALS PRIOR TO COMMENCING ANY CONSTRUCTION WORKS EXTERNAL TO THE SITE.

6. THE CONTRACTOR SHALL REMOVE ALL EXISTING CONSTRUCTION, TREES, SERVICES ETC AS NECESSARY TO PERMIT CONSTRUCTION OF THE NEW WORKS.

7. THE CONTRACTOR SHALL PROVIDE "AS CONSTRUCTED" DRAWINGS PREPARED BY A REGISTERED SURVEYOR IN ACCORDANCE WITH FNRDRC TO THE SUPERINTENDENT PRIOR TO PRACTICAL COMPLETION.

8. ALL TREES ON THE SITE ARE TO REMAIN UNLESS NOTED OTHERWISE. PROTECTION OF EXISTING TREES SHALL BE IN ACCORDANCE WITH AS4979 -2009 -PROTECTION OF TREES ON DEVELOPMENT SITES.

9. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF THE COUNCIL'S DECISION NOTICE/NEGOTIATED DECISION NOTICE ISSUED FOR THE PROJECT -COPIES ARE AVAILABLE ON REQUEST.

10. SUBSOIL FLUSH POINTS TO BE IN ACCORDANCE WITH FNRDRC DWG No. S1095. WHERE FLUSH POINTS OCCUR AT STORMWATER PITS, ENSURE FLUSHING POINT IS PROVIDED INSIDE THE PIT TO THE DETAILS SHOWN ON FNRDRC DWG No. S1095.

SUBSOIL DRAINAGE NOTES

1. FOR SUBSOIL/SUBSURFACE DRAINAGE DETAILS AND DIMENSIONS REFER TO FNRDRC DRAWING S1095 FOR DETAILS.

2. SUBSOIL FLUSHING POINTS AND OUTLETS TO BE POSITIONED ON SITE AS LOCATED ON ROADWORKS AND STORMWATER PLANS.

3. INFILL/FILTER MATERIAL TO BE TO SUPERINTENDENTS APPROVAL AND SUBSOIL TRENCH BE LINED WITH A GEOTEXTILE FABRIC (BIDIM A34 OR APPROVED EQUIVALENT).

4. SUBSOIL DRAIN TO BE #100mm SOXED DRAIN COIL WITH A MIN. GRADE OF 1%.

SURVEY & EXISTING SERVICES

1. HORIZONTAL DATUM IS MGA 55

2. LEVEL DATUM IS AHD.

3. THE ORIGIN FOR THE LEVELS IS - PSM1377 RL9.777 AND LOCATED AT E. 100.319 N. 461.869

4. REFER TO THE SURVEYOR FOR THE SURVEY STATION SETOUT DETAILS

5. THE EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE DERIVED FROM SURFACE SURVEY AND COUNCIL RECORDS AND MAY NOT REPRESENT THE EXISTING SERVICES PRESENT BELOW THE SURFACE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE ALL EXISTING SERVICES PRIOR TO ANY EXCAVATION, PARTICULARLY ON FOOTPATHS.

7. ALL DAMAGE TO EXISTING SERVICES SHALL BE MADE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT AND THE RELEVANT AUTHORITY, ALL AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL NOTIFY THE RELEVANT AUTHORITY IMMEDIATELY WHEN ANY DAMAGE OCCURS.

8. THE LINE AND LEVEL OF EXISTING UNDERGROUND SERVICES SHALL BE DETERMINED BY THE CONTRACTOR AND THE ENGINEER SHALL BE NOTIFIED OF ANY POTENTIAL CLASHES WITH DESIGN STRUCTURES AND SERVICES PRIOR TO COMMENCING CONSTRUCTION.

9. EXISTING OUTLET LEVELS OR CONNECTION LEVELS FOR ALL DESIGN STORMWATER AND SEWER SHALL BE CONFIRMED BY THE CONTRACTOR AND THE ENGINEER SHALL BE NOTIFIED OF ANY VARIATIONS PRIOR TO COMMENCING CONSTRUCTION.

10. EXISTING SERVICES ON THE DRAWINGS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE. NO RESPONSIBILITY IS TAKEN BY THE PRINCIPAL OR SUPERINTENDENT FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN.

11. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR IS TO ESTABLISH ON SITE THE EXACT POSITION OF ALL UNDERGROUND SERVICES IN THE PROPOSED WORKS AREA. METHODS FOR ACHIEVING THIS WILL INCLUDE BUT NOT BE LIMITED TO:

- CAREFUL EXAMINATION OF THE CONTRACT DRAWINGS.
- CONSULTATION WITH THE RELEVANT SERVICE AUTHORITIES.
- COMPREHENSIVELY SCANNING THE AFFECTED AREAS WITH A CABLE DETECTOR AND MARKING ON THE GROUND THE POSITION OF ALL SERVICES.
- HAND EXCAVATING TO EXPOSE ALL SUCH SERVICES WHICH MAY BE AFFECTED BY THE PROPOSED WORKS UNDER THE DIRECTION OF THE RELEVANT SERVICE AUTHORITY.

12. THE CONTRACTOR IS TO BRING TO THE SUPERINTENDENTS ATTENTION ANY DISCREPANCIES BETWEEN THE EXISTING SERVICES THUS IDENTIFIED AND DOCUMENTED SERVICES WHICH MIGHT AFFECT THE PROPOSED WORKS. APPROPRIATE MEASURES TO RESOLVE ANY CONFLICT WILL BE DOCUMENTED BY THE SUPERINTENDENT.

13. THIS DESIGN HAS BEEN BASED ON SERVICE AUTHORITY "AS CONSTRUCTED" INFORMATION AND LIMITED POTHOLES OR NO POTHOLES HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POTHOLES TO VERIFY THE DESIGN. NOTIFY THE DESIGN CONSULTANTS OF ANY SERVICE CLASHES.

14. THE CONTRACTOR SHALL EXCAVATE BY HAND TO EXPOSE THE WATER MAINS AND/OR SEWERS AND SHALL CONSTRUCT A CONCRETE SPANNING SLAB TO COUNCIL REQUIREMENTS OVER THE WATER MAINS OR SEWERS SO THAT NO LOADS ARE IMPOSED ONTO THOSE MAINS.

WATER RETICULATION NOTES

1. 150 DIA AND 100 DIA uPVC WATER MAINS TO BE CLASS 16 (90N) AND 63mm PE 100 DN16 (MIN).

2. VALVES AND HYDRANTS MUST BE LOCATED OPPOSITE BOUNDARY JUNCTIONS AND TRUNCATIONS.

3. WATER SUPPLY FITTINGS ARE TO INCORPORATE SOCKETS WITH AN EFFECTIVE SEALING LENGTH EQUAL OR GREATER THAN THAT OF THE uPVC PIPE USED.

4. ALIGNMENT OF WATER RETICULATION MAINS WITHIN ROAD RESERVES TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CAIRNS REGIONAL COUNCIL.

5. INSTALLATION OF VALVES AND FIRE HYDRANTS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DOUGLAS SHIRE COUNCIL.

6. ALL WORKS AND MATERIALS SHALL BE IN ACCORDANCE WITH FNRDRC.

7. FOR DETAILS FOR KERB AND PAVEMENT MARKINGS AND RETROREFLECTIVE MARKERS AT HYDRANTS REFER TO FNRDRC STANDARD DRAWINGS S2005 AND S2010.

SEWERAGE RETICULATION

1. ALL SEWER PIPES SHALL BE 150 DIA PVC, CLASS 50N UNLESS NOTED OTHERWISE

2. ALL PCB's SHALL BE OF TYPE AS NOTED SHALL BE IN ACCORDANCE WITH FNRDRC DWG No. S3005. ALL PCB's SHALL BE PLACED CLEAR OF ANY EASEMENTS, AND WHERE PCB'S CROSS UNDER EASEMENTS OR BATTERS SHALL BE EXTENDED 1000mm BEYOND (AND CLEAR OF) THE EASEMENT OR BATTER. AN I.D. SHALL BE PROVIDED AT THE DOWNSTREAM END OF THE HOUSE DRAIN, WITHIN 10m OF THE BOUNDARY, TO DELINEATE THE END OF THE PROPERTY CONNECTION BRANCH (PCB).

3. END CAPS ARE SHALL BE PROVIDED AT ALL LINE ENDS WHERE MANHOLES ARE NOT TO BE CONSTRUCTED.

4. WHERE MANHOLES OCCUR AT THE ENDS OF SEWER LINES, THE PROPERTY CONNECTION BRANCH (PCB) IS TO BE CONNECTED DIRECTLY TO MANHOLE TO AVOID DRY MANHOLE SITUATIONS. REFER TO PLAN FOR PCB LOCATIONS.

5. REFER TO THE SEWERAGE LONGITUDINAL SECTIONS FOR SEWER PIPE GRADES, INVERT LEVELS, STORMWATER CLASHES, ETC.

6. CONSTRUCTION OF THE SEWERAGE RETICULATION SHALL BE IN ACCORDANCE WITH THE PROCEDURES, SPECIFICATIONS AND DRAWINGS INCLUDING REQUIREMENTS FOR "AS CONSTRUCTED" DRAWINGS AS CONTAINED IN THE CURRENT ISSUE OF THE "REGIONAL DEVELOPMENT MANUAL" AS ISSUED BY FNRDRC, AND SHALL BE TO THE REQUIREMENTS OF THE COUNCIL.

7. CONTRACTOR SHALL USE FIBREGLASS REINFORCED JUNCTIONS AT PCB'S WHERE REQUIRED BY DOUGLAS SHIRE COUNCIL.

8. INSTALL PIPE ANCHOR BLOCKS TO ALL 100 AND 150 DIA SEWERS AT GRADES GREATER THAN 1 ON 6 IN ACCORDANCE WITH FNRDRC DWG No. S3015-CRC AND WSA.

9. THE CONTRACTOR SHALL MAKE ALL APPLICATIONS AND PAY ALL FEES TO COUNCIL FOR THE SEWERAGE WORKS AND SHALL ARRANGE AND MANAGE COUNCIL'S INSPECTIONS AND TESTING OF THE WORKS. A COPY OF COUNCIL'S INSPECTION CERTIFICATE SHALL BE PROVIDED BY THE CONTRACTOR TO THE OWNER PRIOR TO PRACTICAL COMPLETION.

10. THE CONTRACTOR SHALL OBTAIN COUNCIL INSPECTIONS AND THEIR WITNESS TO TESTING PRIOR TO MAKING SEWERS LIVE. A COPY OF COUNCIL'S INSPECTION CERTIFICATE SHALL BE PROVIDED TO THE SUPERINTENDENT PRIOR TO PRACTICAL COMPLETION.

EARTHWORKS NOTES

1. ALL FOOTPATHS SHALL BE GRASSED (DRILL SEEDING WITH APPROVED GRASS SPECIES) IN ACCORDANCE WITH LANDSCAPE SPECIFICATIONS, FERTILIZED AND MAINTAINED FOR THE REQUIRED MAINTENANCE PERIOD.

2. ALL BARE EARTHWORKS AREAS (LOTS, DRAINS, PARKS, VERGES, ETC.), SHALL BE GRASSED (DRILL SEEDING WITH APPROVED GRASS SPECIES) FOR SLOPES UP TO AND INCLUDING 1 ON 4, OR HYDROMULCHED FOR SLOPES GREATER THAN 1 ON 4. USE APPROVED SEED MIX AND MAINTAIN, WATER AND FERTILISE FOR MAINTENANCE PERIOD.

3. CLEAR TREES, LARGE SHRUBS ETC FROM THE AREA OF LOTS AND ROAD RESERVES. ONLY FOR CONSTRUCTION OF ROADS AND SERVICES, AND EITHER REMOVE FROM SITE OR ALTERNATIVELY CHIP MULCH AND STOCKPILE FOR RE-USE IN LANDSCAPING. CONTRACTOR SHALL OBTAIN COUNCIL INSPECTION AND APPROVAL PRIOR TO COMMENCING ANY TREE AND VEGETATION CLEARING. ALL VEGETATION/CONSERVATION ZONES SHALL BE RETAINED AND SHALL BE ADEQUATELY FENCED/SEGREGATED PRIOR TO COMMENCING CONSTRUCTION.

4. SLASH THE EARTHWORKS AREA. RAKE AND STOCKPILE CUT VEGETATION FOR RE-USE IN THE LANDSCAPING. CONTINUE SLASHING AND RAKING LOTS AND PARK AREAS AS NECESSARY AND AS INSTRUCTED BY THE SUPERINTENDENT DURING THE CONTRACT AND MAINTENANCE PERIOD TO KEEP GRASS TO A MAXIMUM 50mm TO 100mm HIGH.

5. ALL GULLIES AND DEPRESSIONS REQUIRING FILLING SHALL BE CLEARED, GRUBBED AND CLEANED OUT OF SILT, BUILDERS, DEBRIS ETC TO PROVIDE A CLEAN, FIRM BASE PRIOR TO PLACING ANY FILL OR FILTER MATERIALS. COMPACT ALL NATURAL SUBGRADES WITH 6 TO 8 PASSES OF A 10 TONNE VIBRATING ROLLER PRIOR TO PLACING ANY FILL MATERIALS. PLACE SUBSOIL DRAINS/HATS TO ENGINEERS APPROVALS AT THE BASE OF ALL SUCH FILLS AND OUTLET TO THE STORMWATER DRAINAGE SYSTEM. NOTIFY THE SUPERINTENDENT FOR AN INSPECTION PRIOR TO PLACING ANY FILL MATERIALS.

6. WHERE FILL IS PLACED ON SLOPING EXISTING SURFACE, THE EXISTING SURFACE SHALL BE BENCHED AND THE BENCH COMPACTED TO 98% SRDD PRIOR TO PLACING THE FILL MATERIAL.

7. REMOVE SURFACE ROCKS FROM THE LOTS, FOOTPATHS, VERGES AND PARKLAND AREAS. REUSE IN SECUR PROTECTION. REMOVE EXCESS FROM SITE OR STOCKPILE AS DIRECTED. ALL COSTS TO BE INCLUDED IN CONTRACT LUMP SUM.

8. THE CONTRACTOR SHALL ENSURE NO PONDING AREAS RESULT FROM THE EARTHWORKS OPERATION. ANY SUCH AREAS WHICH DEVELOP SHALL BE RECTIFIED AS DIRECTED BY THE SUPERINTENDENT. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT OF THE DEVELOPMENT OR EXISTENCE OF ANY SUCH PONDING AREAS.

9. BATTERS IN EXCESS OF 15m HIGH SHALL BE ASSESSED AND REPORTED FOR STABILITY DURING CONSTRUCTION BY A GEOTECHNICAL ENGINEER. COPIES OF REPORTS SHALL BE FORWARDED TO THE SUPERINTENDENT AND TO COUNCIL.

10. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY BERMS AT THE TOP OF ALL BATTERS TO DIRECT AND CONTROL RUNOFF TO A SINGLE LOCATION. THE DISCHARGE OVER THE BATTER SHALL BE THROUGH A STABILIZED CHUTE ADDRESSED IN THE CONTRACTORS PLAN, e.g. REINFORCED TURF, GEOTEXTILE, CONCRETE OR SIMILAR.

11. THE CONTRACTOR SHALL SET OUT (BY REGISTERED SURVEYOR) THE LOCATION OF ALL CUT BATTERS PRIOR TO COMMENCING THESE EARTHWORKS. HE SHALL ENGAGE A GEOTECHNICAL ENGINEER TO INSPECT, REPORT AND CHECK THE DESIGN PROFILE AND THE INSITU MATERIAL FOR LONG TERM STABILITY. DESIGN AMENDMENTS AND ANY RETAINING WALLS SHALL BE FINALIZED TO COUNCIL'S APPROVALS PRIOR TO COMMENCEMENT OF ANY OF THESE EARTHWORKS.

12. ALL BOUNDARIES WITH EXISTING CREEKS AND VEGETATION MUST BE TEMPORARILY DELINEATED AND FENCED OFF/SEGREGATED TO RESTRICT BUILDING ACCESS FOR THE DURATION OF THE CONSTRUCTION ACTIVITY.

13. THE CONTRACTOR SHALL ENSURE THE PROPOSED CONSTRUCTION EQUIPMENT TO BE USED ON THE SITE WILL NOT DAMAGE EXISTING UNDERGROUND INFRASTRUCTURE, IN PARTICULAR HEAVY EQUIPMENT TRAVERSING OVER A.C. MAINS WITH NOMINAL COVERS.

EROSION SEDIMENT CONTROL STRATEGY AND ENVIRONMENTAL PROTECTION

1. THE CONTRACTOR IS RESPONSIBLE WITHIN THE LIMITS IMPOSED BY THE WORKS, TO PROTECT AND PRESERVE THE NATURAL ENVIRONMENT AND AVOID POLLUTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INCORPORATION OF APPROPRIATE CONTROL MEASURES CONFORMING WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITY. DRILL SEED ALL BARE EARTH AREAS, FOOTPATHS, DRAINS AND CUT BATTERS UP TO 1 ON 4 SLOPES SHALL BE DRILLED SEEDING WITH APPROVED GRASS SPECIES, FERTILIZED AND MAINTAINED FOR THE REQUIRED MAINTENANCE PERIOD. HYDROMULCH ALL CUT AND FILL BATTERS STEEPER THAN 1 ON 4 SHALL BE HYDROMULCHED WITH APPROVED SUITABLE GRASS SPECIES AND MAINTAINED FOR THE REQUIRED MAINTENANCE PERIOD.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INCORPORATION OF APPROPRIATE CONTROL AND MANAGEMENT MEASURES CONFORMING TO THE REQUIREMENTS OF THE ACT AND THE RELEVANT AUTHORITIES.

3. THE EROSION AND SEDIMENT CONTROL STRATEGY, SHOWN OR NOTED ON THESE DRAWINGS, HAS BEEN PROVIDED AS A GUIDE.

4. THE CONTRACTOR SHALL PROVIDE AN EROSION SEDIMENT CONTROL PLAN (ESCP) FOR EACH PHASE OF HIS PROPOSED CONSTRUCTION PROGRAM AND WORK METHODS, AND IS WHOLLY RESPONSIBLE FOR THE IMPLEMENTATION, CONTROL AND MANAGEMENT OF SUCH PLAN.

5. THE CONTRACTOR SHALL INSTALL ALL DEVICES/MEASURES NECESSARY TO COMPLY WITH THE PROVISIONS OF THE ESCP FNRDRC DEVELOPMENT MANUAL, THE ENVIRONMENTAL PROTECTION ACT, AND COUNCIL REQUIREMENTS.

6. THE ESCP SHALL INCLUDE SUCH MEASURES AS SHOWN ON THE STRATEGIC PLAN.

7. PDR ENGINEERS DO NOT ACCEPT RESPONSIBILITY FOR THE CONTRACTOR'S DESIGN & IMPLEMENTATION OF HIS ESCP NOR THE CONSEQUENCES OF HIS FAILURE TO APPLY ALL REASONABLE CONTROLS.

8. ALL STORMWATER INLETS, TRENCHES, ETC, SHALL BE CONSTRUCTED IN SUCH A WAY AS TO PREVENT THE ENTRY OF SEDIMENT INTO THE STRUCTURE. IF IT IS NECESSARY TO DISCHARGE INTO SUCH INLETS THEN SUITABLE SILT TRAPS SHALL BE CONSTRUCTED UPSTREAM OF THE INLETS SUCH THAT OVERFLOW FROM TRAPS ENTERS THE DRAINS AFTER THE SEDIMENT HAS DROPPED OUT.

9. ALL SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THE END OF THE MAINTENANCE PERIOD, UNLESS NOTED OTHERWISE. ALL SEDIMENT CONTROL DEVICES ARE TO BE FULLY MAINTAINED IN AN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND THE MAINTENANCE PERIOD. THE CONTRACTOR SHALL ENSURE THAT ALL SEDIMENT CONTROL DEVICES ARE KEPT FREE OF SEDIMENT BUILD-UP.

10. SEDIMENT FENCES SHALL BE INSTALLED SUCH THAT THE BASE OF THE FENCE IS PLACED 150mm MINIMUM BELOW GROUND LEVEL, AND ANCHORED SECURELY IN SUCH POSITION.

11. ALL VEHICLE EXIT POINTS SHALL HAVE SHAKER GRIDS, WASH BAYS OR SIMILAR TO PREVENT VEHICLES FROM TRACKING SOIL AND MUD OFF SITE.

12. ALL SOIL STOCKPILES SHALL BE PROTECTED AGAINST WIND EROSION BY COVERING AND AGAINST STORMWATER RUNOFF BY SILT FENCES AT THE DOWNHILL SLOPES. STOCKPILE LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND EROSION/CONTROL MEASURES IMPLEMENTED & MAINTAINED FOR THE LIFE OF THE STOCKPILE.

13. THE CONTRACTOR SHALL INSTALL TURF STRIPS BEHIND ALL HERB & CHANNEL ADJACENT CONCRETE INVERTS AND ALLOTMENT DRAINS ETC WHERE DIRTY WATER SHEET FLOWS INTO DRAINAGE COLLECTION SYSTEMS.

14. DIVERT CLEAN WATER AROUND AREAS OF CONSTRUCTION.

15. DRILL SEED ALL ROAD SHOULDERS, FOOTPATHS, DRAINS AND CUT BATTERS UP TO 1 ON 4 SLOPE SHALL BE DRILL SEEDING WITH APPROVED GRASS SPECIES, FERTILIZED AND MAINTAINED FOR THE REQUIRED MAINTENANCE PERIOD.

16. HYDROMULCH ALL CUT AND FILL BATTERS STEEPER THAN 1 ON 4, WITH APPROVED SUITABLE GRASS SPECIES AND MAINTAINED FOR THE REQUIRED MAINTENANCE PERIOD.

17. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY BERMS AT THE TOP OF ALL BATTERS TO DIRECT AND CONTROL RUNOFF TO A SINGLE LOCATION. THE DISCHARGE OVER THE BATTER SHALL BE THROUGH A STABILIZED CHUTE ADDRESSED IN THE CONTRACTORS PLAN, e.g. REINFORCED TURF, GEOTEXTILE, CONCRETE OR SIMILAR.

18. ALL WORKS AND MATERIALS SHALL BE IN ACCORDANCE WITH FNRDRC.

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COUNCIL APPROVAL		DO NOT SCALE DRAWINGS		Scales Before Reduction		pdr engineers		Aerial 1, 250m Alderney Road PO Box 2531 GURRIG QLD 4870 Ph: (07) 4651 5659 Fax: (07) 4651 5485 Email: sales@pdrengineering.com.au Aerial 40 126 211 161 A.C.N. 126 211 481								
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ISSUE		DESCRIPTION		DATE												

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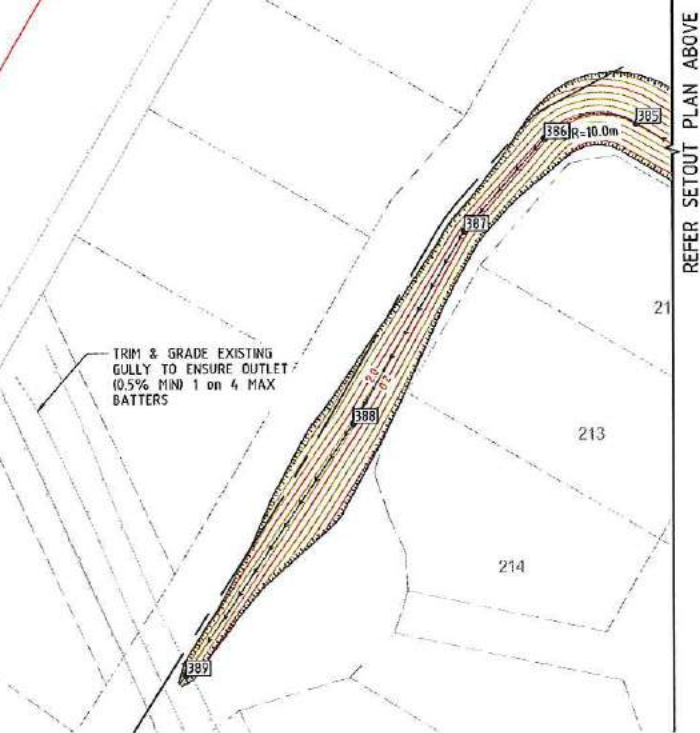
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- DESIGN BATTER TOP
- DESIGN BATTER TOE
- DESIGN CUT OPEN DRAIN INVERT
- EXISTING BATTER TOP
- EXISTING BATTER TOE
- EXISTING WATER COURSE/DRAIN
- EXISTING EDGE OF BITUMEN
- EXISTING STORMWATER PIPES/BOX CULVERTS
- EXISTING RAISED MEDIAN
- EXISTING KERB & CHANNEL
- EXTENT OF EARTHWORKS FILL
- EXTENT OF ASPHALT
- SETOUT POINT

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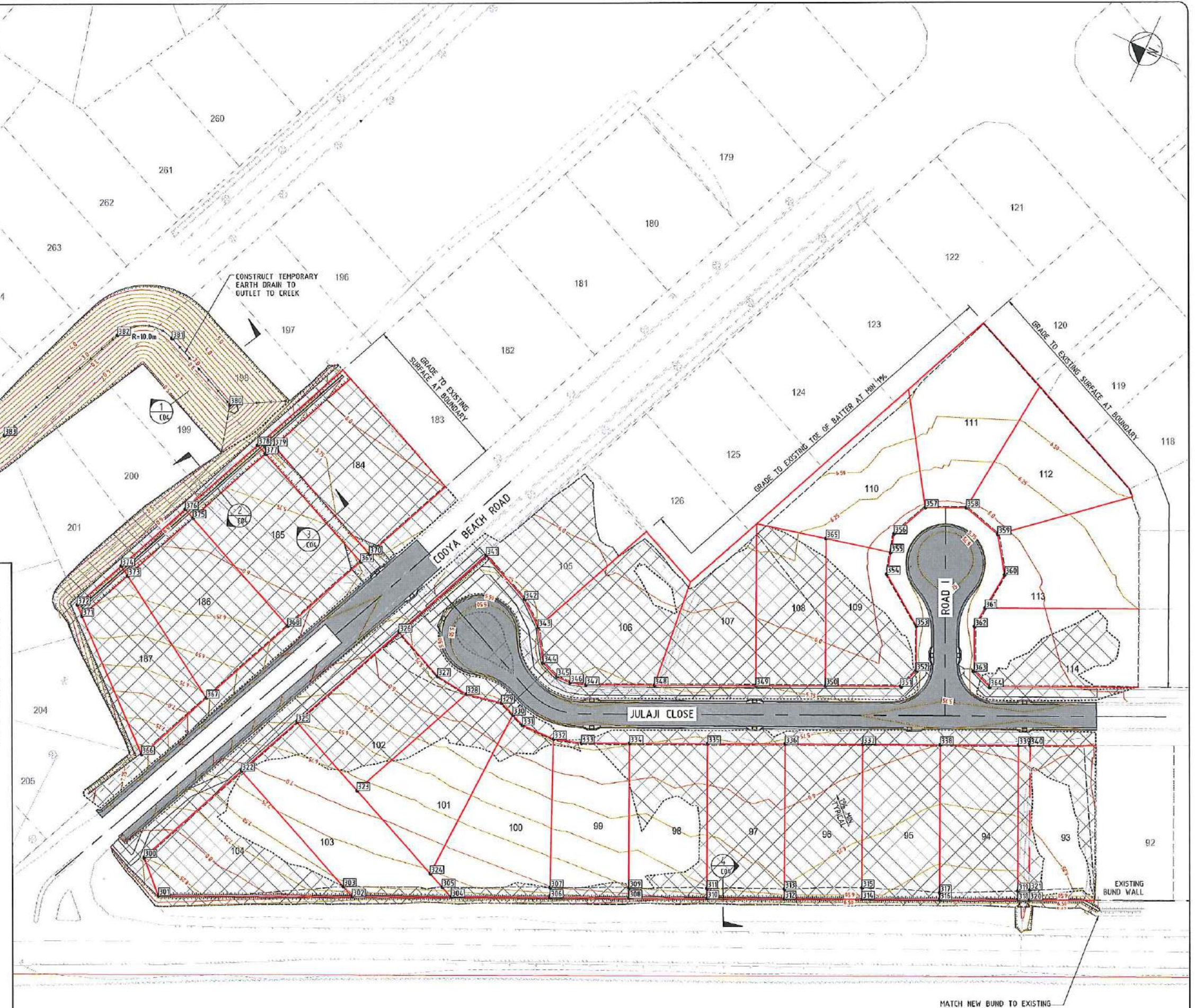
FOR EARTHWORKS, SUBGRADE AND FILL NOTES REFER TO DRG 15510-C02.

FOR SETOUT TABLES REFER TO DRG 15510-C06.

REFER SETOUT PLAN BELOW



REFER SETOUT PLAN ABOVE



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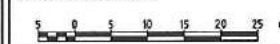
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Level 1, 288 Kildgrave Road
PO Box 2231
CARRIS QLD 4870
Ph: (07) 4261 8029
Fax: (07) 4261 8865
Email: admin@pdrengineers.com.au
ABN: 68 128 211 481
A.C.N. 128 211 481

Client

JONPA PTY LTD

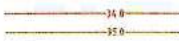









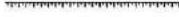



Project

**STAGES 4B & 4C
OCEAN BREEZE ESTATE
COOYA BEACH, 4873**

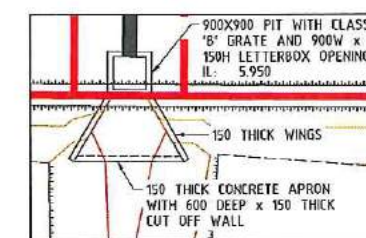
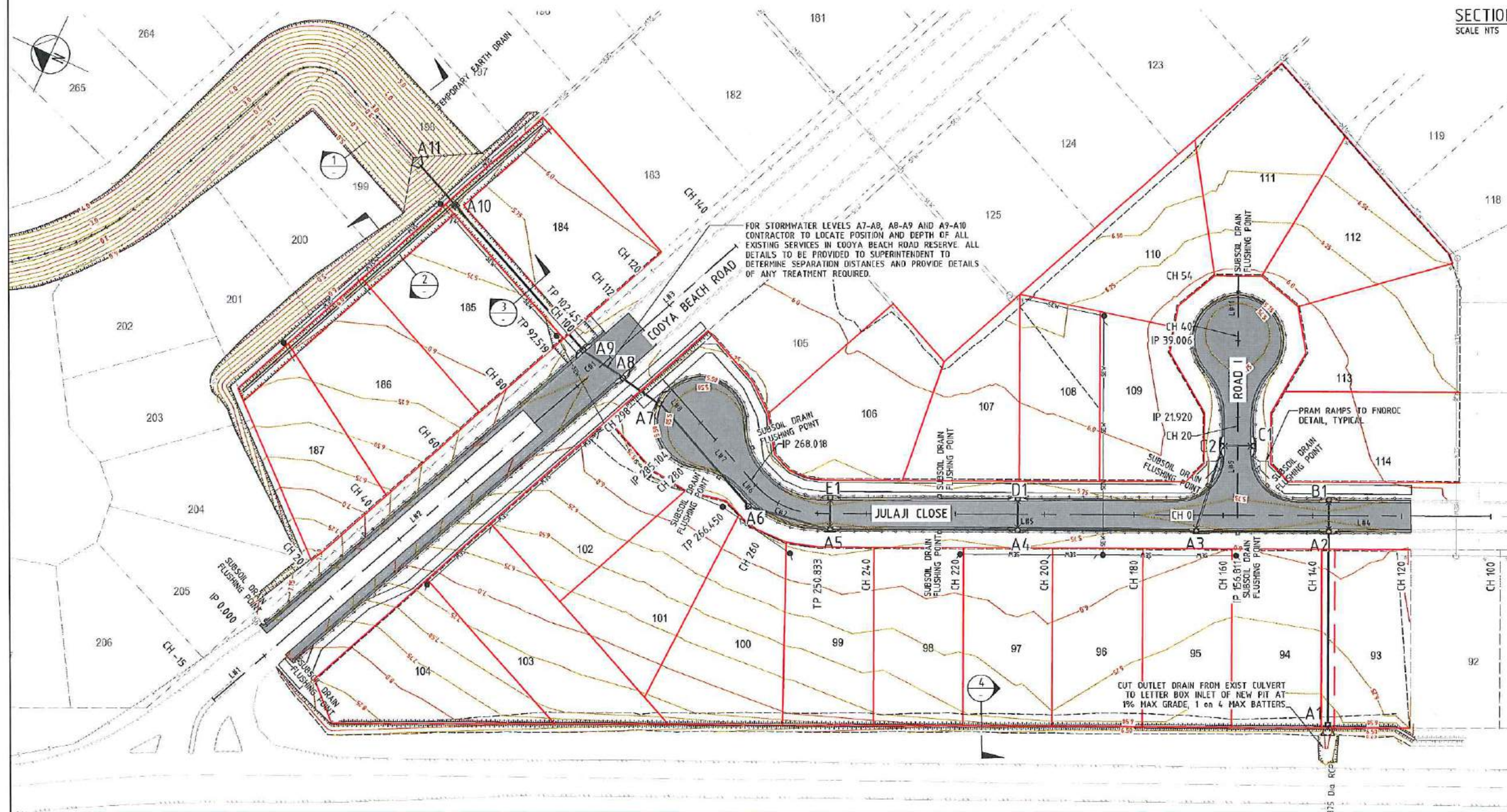
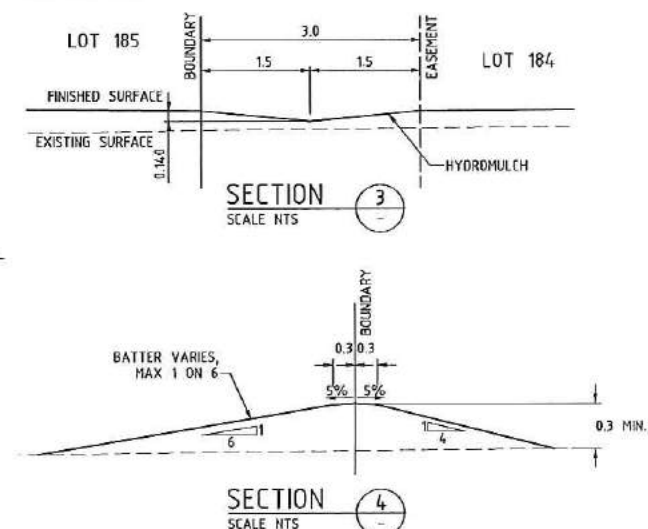
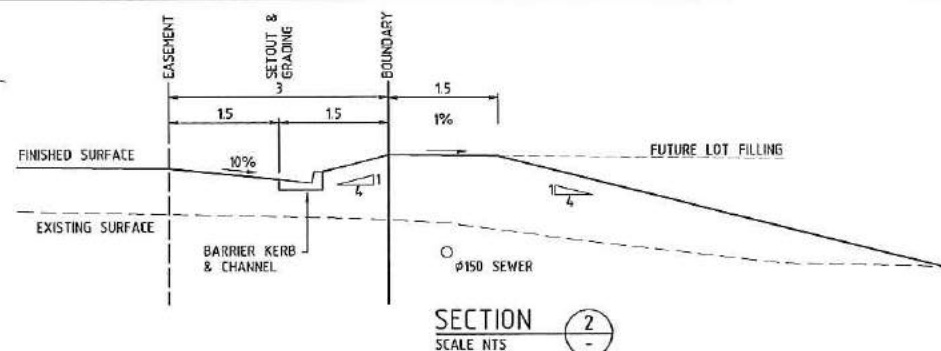
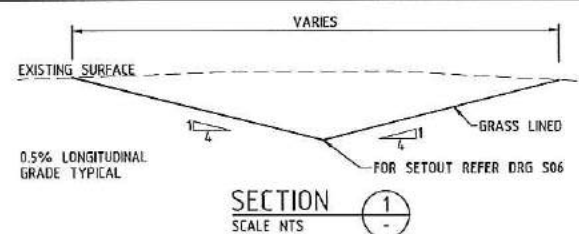
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**ALLOTMENT GRADING
& EARTHWORKS
SETOUT PLAN**

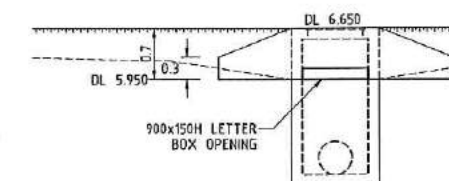
Drawn	Designed	Verified
NP	GCH	AMcP
Approved	Date	Revision
-	JAN 2016	A
Drawing Number	15510 - C04	

	DESIGN SURFACE CONTOURS
	DESIGN KERB AND CHANNEL
	DESIGN STORMWATER PIPES, PITS AND PIT DESIGNATION
	DESIGN SUBSOIL DRAIN WITH FLUSHING POINT
	DESIGN SEWER PIPES, MANHOLES AND MANHOLE DESIGNATION
	DESIGN ROAD CENTRELINES
	DESIGN BATTER TOP
	DESIGN BATTER TOE
	DESIGN CUT OPEN DRAIN INVERT
	EXISTING EDGE OF BITUMEN
	EXISTING RAISED MEDIAN
	EXISTING KERB & CHANNEL
	EXISTING SEWER RISING MAIN
	EXISTING SEWER

NOTES:
FOR ROADWORKS AND STORMWATER
NOTES REFER TO DRG 15510-C02.
FOR SETOUT TABLES REFER TO DRG
15510-C06



PIT A1 DETAIL PLAN
SCALE: NTS



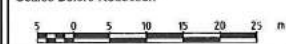
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ISSUE	DESCRIPTION	DATE

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engineers

Level 1, 258 Mulgrave Road
PO Box 2551
CAIRNS QLD 4870
Ph: (07) 4061 5599
Fax: (07) 4051 5455
Email: admin@pdfringnews.com.au
A.B.N. 88 126 211 461
A.C.N. 128 211 461

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STAGES 4B & 4C
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COOYA BEACH, 4873

ROADWORKS & STORMWATER DRAINAGE PLAN

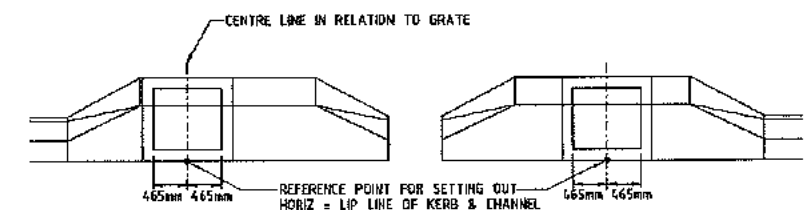
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Approved -		Date JAN 20
Drawing Number 15510 - C05		Revision A

ALLOTMENT & EARTHWORK SETOUT				ALLOTMENT & EARTHWORK SETOUT			
POINT #	EASTING	NORTHING	DESIGN LEVEL	POINT #	EASTING	NORTHING	DESIGN LEVEL
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302	8789.581	80429.207	7.911	352	8903.397	80321.560	5.783
303	8790.977	80432.368	7.533	353	8913.856	80326.333	5.802
304	8800.134	80406.068	7.718	354	8922.787	80338.869	5.918
305	8801.537	80409.245	7.367	355	8928.304	80340.299	5.908
306	8810.747	80382.795	7.681	356	8933.005	80341.518	5.952
307	8813.197	80383.836	7.013	357	8942.534	80336.979	5.975
308	8819.182	80364.298	7.148	358	8946.918	80327.377	5.975
309	8821.561	80365.383	6.760	359	8944.101	80317.284	5.952
310	8827.505	80346.046	6.899	360	8935.406	80311.221	5.918
311	8829.866	80347.122	6.513	361	8925.520	80312.167	5.869
312	8835.829	80327.794	6.650	362	8920.084	80312.687	5.882
313	8838.343	80328.850	6.261	363	8909.625	80307.914	5.784
314	8844.452	80309.542	6.650	364	8907.647	80302.614	5.930
315	8846.826	80310.761	6.426	365	8921.545	80358.883	6.127
316	8852.475	80291.291	6.650	366	8800.050	80493.990	1.580
317	8854.086	80292.025	6.620	367	8820.235	80483.830	6.789
318	8860.796	80273.046	6.650	368	8845.061	80473.517	6.137
319	8862.897	80274.005	6.595	369	8868.703	80463.417	5.784
320	8862.041	80270.316	6.650	370	8871.448	80462.205	5.703
321	8864.496	80271.281	6.525	371	8825.965	80521.745	6.298
322	8807.811	80468.676	7.181	372	8828.079	80525.091	6.454
323	8816.938	80439.592	6.851	373	8840.257	80516.431	6.126
324	8883.394	80413.451	7.278	374	8861.881	80518.993	6.307
325	8824.390	80460.998	6.496	375	8860.792	80507.359	5.880
326	8856.405	80446.854	5.868	376	8862.004	80510.183	6.065
327	8850.321	80433.076	5.707	377	8883.654	80497.259	5.605
328	8849.267	80424.432	5.749	378	8884.866	80500.003	5.790
329	8891.016	80415.221	5.767	379	8886.398	80496.047	5.604
330	8849.447	80411.251	5.755	380	8891.309	80510.873	2.868
331	8848.117	80407.886	5.758	381	8909.433	80531.525	2.755
332	8848.224	80399.111	5.726	382	8895.325	80544.715	2.677
333	8850.282	80392.178	5.707	383	8859.687	80560.447	2.482
334	8855.452	80380.851	5.736	384	8921.362	80625.654	2.078
335	8863.781	80362.602	5.793	385	8923.363	80647.250	1.969
336	8872.109	80344.352	5.787	386	8916.242	80657.761	1.901
337	8880.438	80326.103	5.892	387	8900.189	80662.510	1.817
338	8886.767	80307.854	5.998	388	8760.946	80665.313	1.665
339	8897.093	80289.612	5.918	389	8729.121	80671.678	0.000
340	8898.339	80286.882	5.929				
341	8883.846	80434.730	0.000				
342	8877.764	80420.958	5.724				
343	8872.708	80414.773	5.757				
344	8864.956	80409.710	5.778				
345	8863.152	80405.188	5.757				
346	8863.197	80401.319	5.734				
347	8864.363	80397.452	5.703				
348	8871.706	80381.364	5.761				
349	8882.588	80357.520	5.747				

COOYA BEACH ROAD						
Number		Chainage	Easting	Northing	Radius/A Value	Bearing
L#1	Start End	-5.000 0.000	8762.450 8776.098	80506.985 80494.743	-	1W*35°40' Straight
L#2	Start End	0.000 92.519	8776.098 8806.224	80494.743 80456.237	-	1W*35°40' Straight
C#1	Start End IP Co-ords	92.519 102.451 97.485	8806.224 8869.282 8864.739	80456.237 80452.183 80454.170	750.000	1W*35°40' Arc 1W*50°08' Arc
L#3	Start End	102.451 149.001	8869.282 8903.628	80452.183 80436.969	-	1W*50°08' Straight
JULAJI CLOSE						
Number		Chainage	Easting	Northing	Radius/A Value	Bearing
L#4	Start End	104.000 156.811	8919.637 8950.849	80258.288 80209.962	-	33°28'05" Straight
L#5	Start End	156.811 250.833	8950.849 8957.011	80209.962 80195.497	-	33°28'05" Straight
C#2	Start End IP Co-ords	250.833 266.459 258.141	8957.011 8956.919 8953.562	80195.497 80418.654 80403.655	10.500	33°28'05" Arc 23°50'08" Arc
L#6	Start End	266.459 268.018	8956.919 8952.553	80418.654 80412.088	-	23°50'08" Straight
L#7	Start End	268.018 285.104	8952.553 8956.458	80412.088 80427.217	-	23°50'08" Straight
L#8	Start End	285.104 297.986	8956.458 8959.664	80427.217 80439.501	-	23°50'08" Straight
ROAD 1						
Number		Chainage	Easting	Northing	Radius/A Value	Bearing
L#9	Start End	0.000 21.920	8896.849 8915.999	80309.962 80319.865	-	65°28'05" Straight
L#10	Start End	21.920 39.006	8915.999 8931.534	80319.865 80328.758	-	65°28'05" Straight
L#11	Start End	39.006 58.506	8931.534 8944.725	80328.758 80332.718	-	65°28'05" Straight
COOYA BEACH ROAD - LEFT EDGE OF BITUMEN						
Number		Chainage	Easting	Northing	Radius/A Value	Bearing
L#12	Start End	5.000 80.444	8882.609 8858.489	80496.953 80462.224	-	1W*35°40' Straight
C#3	Start End IP Co-ords	80.444 96.390 92.412	8858.489 8865.730 8862.096	80462.224 80458.965 80466.571	600.000	1W*35°40' Arc 1W*50°08' Arc
L#13	Start End	96.390 105.972	8865.730 8873.671	80458.965 80455.457	-	1W*50°08' Straight
L#14	Start End	105.972 111.571	8873.671 8879.606	80455.457 80452.807	-	1W*03°48' Straight
L#15	Start End	111.571 117.362	8879.606 8884.907	80452.807 80450.478	-	1W*42°59' Straight
L#16	Start End	117.362 123.038	8884.907 8890.089	80450.478 80448.160	-	1W*55°00' Straight
COOYA BEACH ROAD - RIGHT EDGE OF BITUMEN						
Number		Chainage	Easting	Northing	Radius/A Value	Bearing
L#17	Start End	5.000 96.686	8134.037 81391.878	81211.271 81221.593	-	20°35'40" Straight
C#4	Start End IP Co-ords	96.686 104.632 106.659	81391.878 81298.619 81308.224	81221.593 81200.656 81221.290	600.000	20°35'40" Arc 20°35'00" Arc
L#18	Start End	104.632 105.265	81298.619 81298.363	81200.656 81200.077	-	20°35'00" Straight
L#19	Start End	105.265 111.513	81298.363 81295.886	81200.077 81194.341	-	20°35'12" Straight
L#20	Start End	111.513 117.627	81295.886 81293.433	81194.341 81198.741	-	20°35'24" Straight
L#21	Start End	117.627 122.795	81293.433 81291.339	81198.741 81194.816	-	20°35'31" Straight

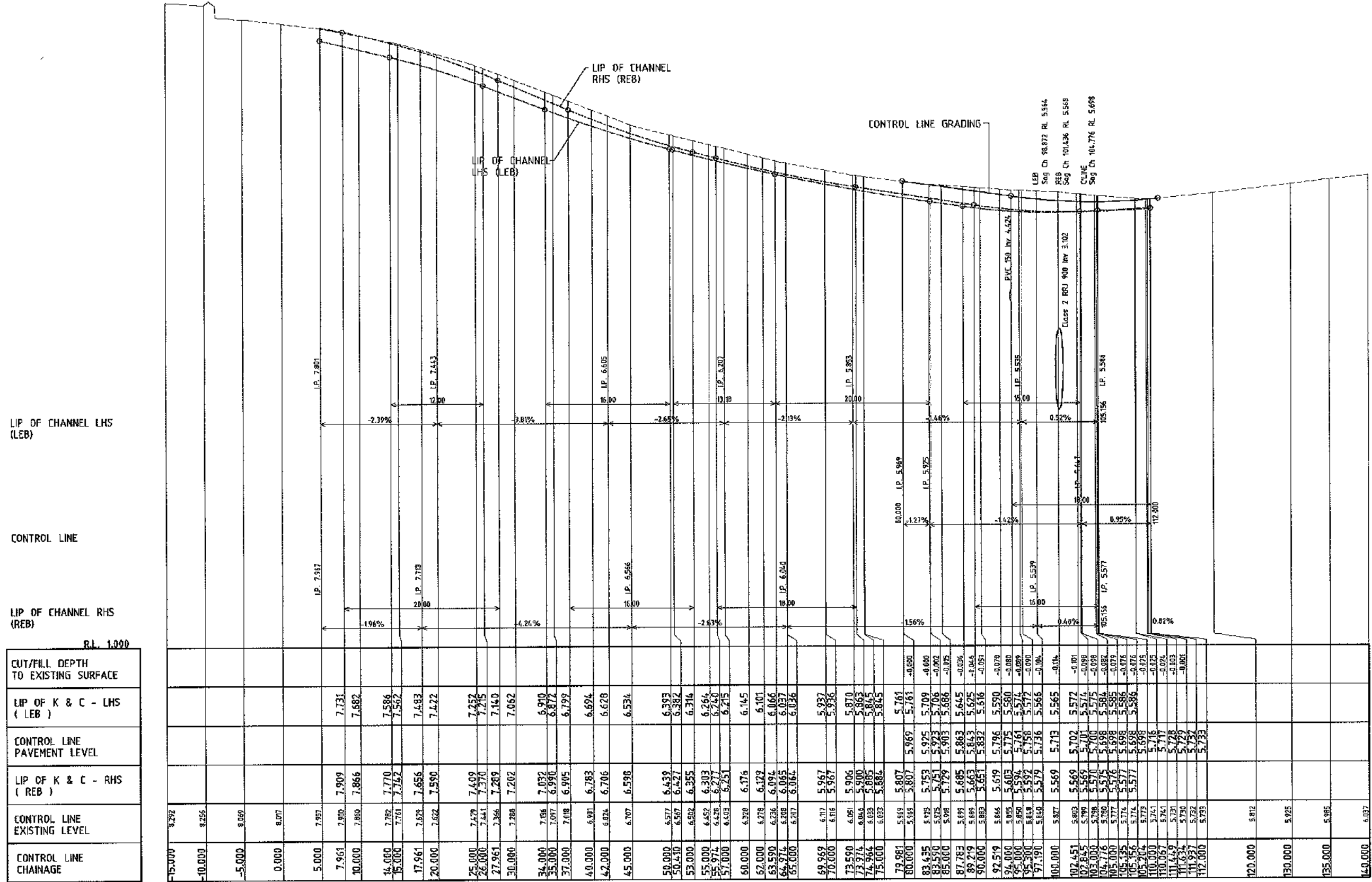
STORMWATER PIT DETAILS			
PIT ID	EASTING	NORTHING	DESIGN LEVEL (LIP)
A1	8861.418	80271.681	6.650
A2	8901.837	80290.128	5.695
A3	8889.532	80317.089	5.728
A4	8872.924	80353.478	5.517
A5	8855.486	80391.686	5.469
A6	8851.972	80410.229	5.672
A7	8864.432	80437.439	5.410
A8	8866.424	80448.228	5.568
A9	8867.944	80457.987	5.564
A10	8885.547	80497.833	5.456
A11	8898.317	80508.626	3.514
B1	8907.261	80292.594	5.695
C1	8908.917	80319.100	5.536
C2	8911.383	80313.696	5.536
D1	8878.328	80355.944	5.517
E1	8860.890	80394.153	5.469

NOTES:
STRUCTURE A6 SETOUT @ CENTRE OF H.H.
STRUCTURES A1 & A11 SETOUT @ PIPE INVERT
STRUCTURE A10 SETOUT @ CENTRE OF PIT



GRATED KERB INLET PIT SETOUT REFERENCE POINT
SCALE: NTS

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									Approved -	Date JAN 2016	Revision A
									Drawing Number 15510 - C06		



LIP OF CHANNEL LHS (LEB)

CONTROL LINE

LIP OF CHANNEL RHS (REB)

RL 1.000

CUT/FILL DEPTH TO EXISTING SURFACE
LIP OF K & C - LHS (LEB)
CONTROL LINE PAVEMENT LEVEL
LIP OF K & C - RHS (REB)
CONTROL LINE EXISTING LEVEL
CONTROL LINE CHAINAGE

SCALE: HORIZ 1:250
VERT 1:25

NOTE:
LIP OF KERB ON LHS (LEB) & RHS (REB) ARE GRADED INDEPENDENTLY FROM THE CONTROL LINE. REFER LONGITUDINAL SECTION, DRG C07

ISSUE	FOR COUNCIL APPROVAL	DATE
1	27/01/16	

Drawing Status
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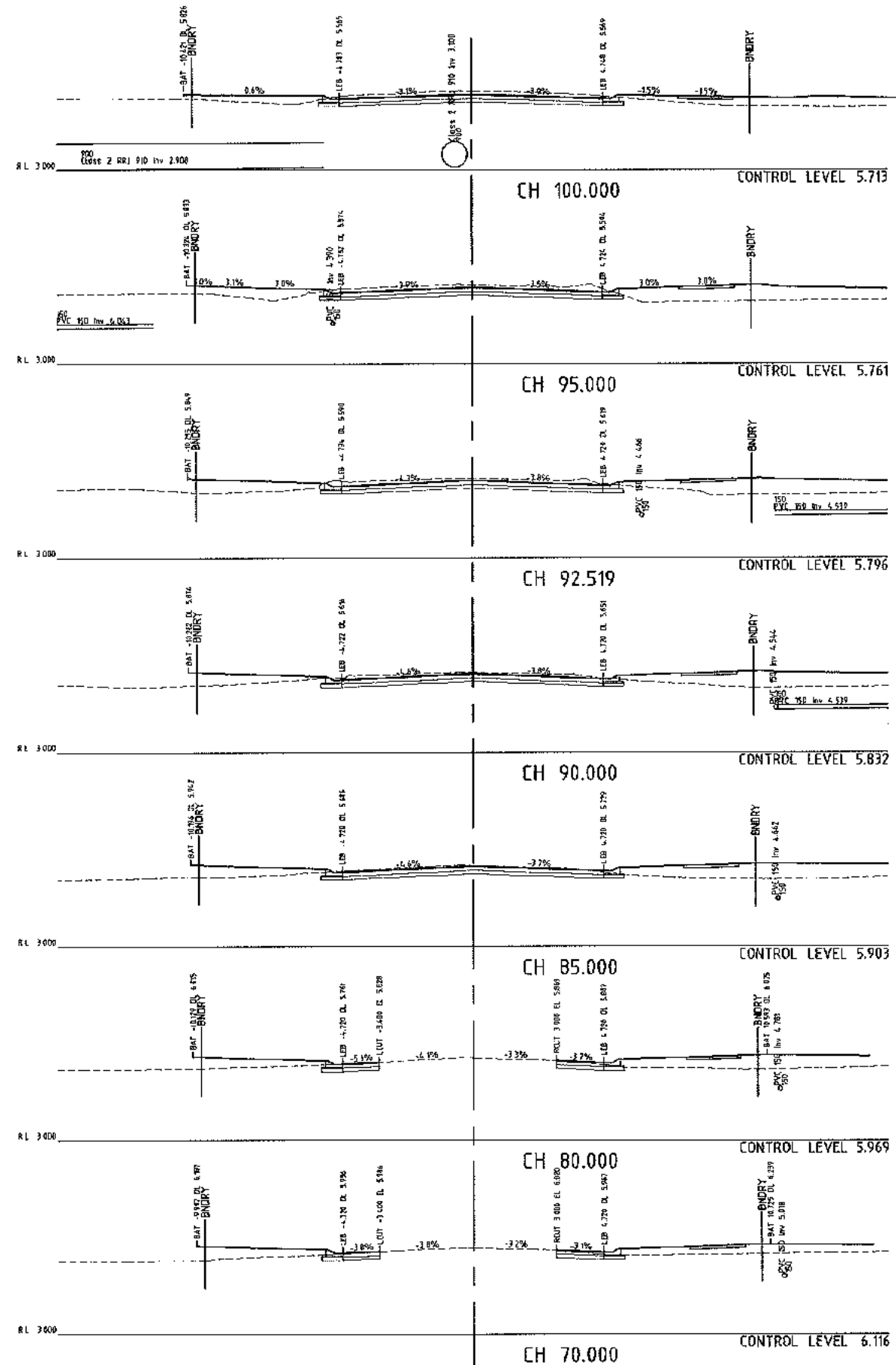
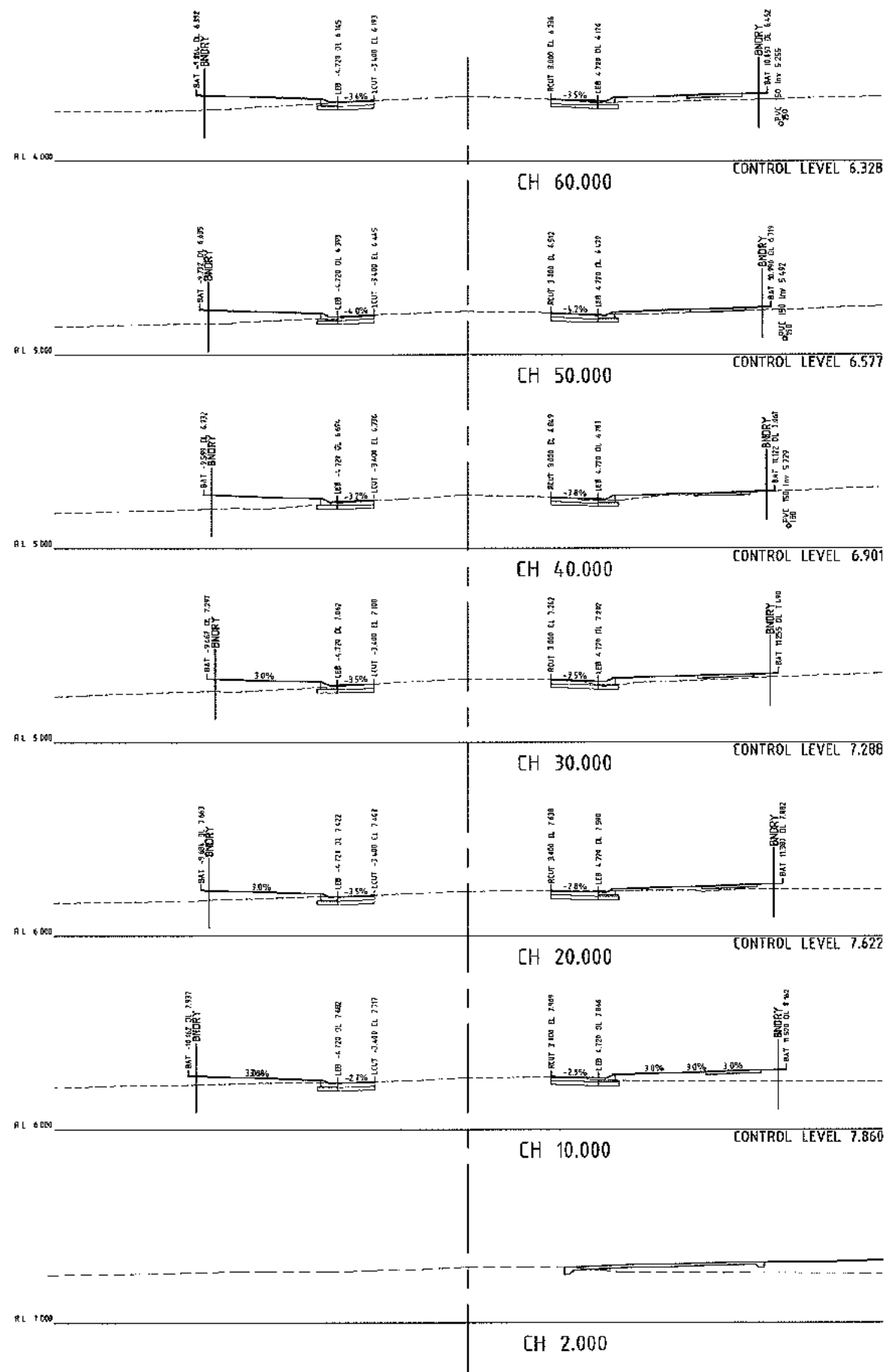
Level 1, 256 (2) Drive Point
PO Box 2251
GARDENS QLD 4870
Ph: (07) 4651 5590
Fax: (07) 4651 5355
Email: admin@pdrengineers.com.au
A.N.M. 68 120214461
A.C.N. 126 211 461

Client
JONPA PTY LTD

Project
**STAGES 4B & 4C
OCEAN BREEZE ESTATE
COOYA BEACH, 4873**

Drawing Title
**COOYA BEACH ROAD
LONGITUDINAL SECTION**

Drawn	Designed	Verified
NP	GCH	AMcP
Approved	Date	Revision
-	JAN 2016	A
Drawing Number	15510 - C07	



NOTE:
ELEVATION OF KERB ON LHS (LEB) & RHS (REB) ARE
GRADED INDEPENDENTLY FROM THE CONTROL
LINE. REFER LONGITUDINAL SECTION, DRG C07

ISSUE	DESCRIPTION	DATE
A	FOR COUNCIL APPROVAL	27/01/18

Drawing Status
COUNCIL APPROVAL

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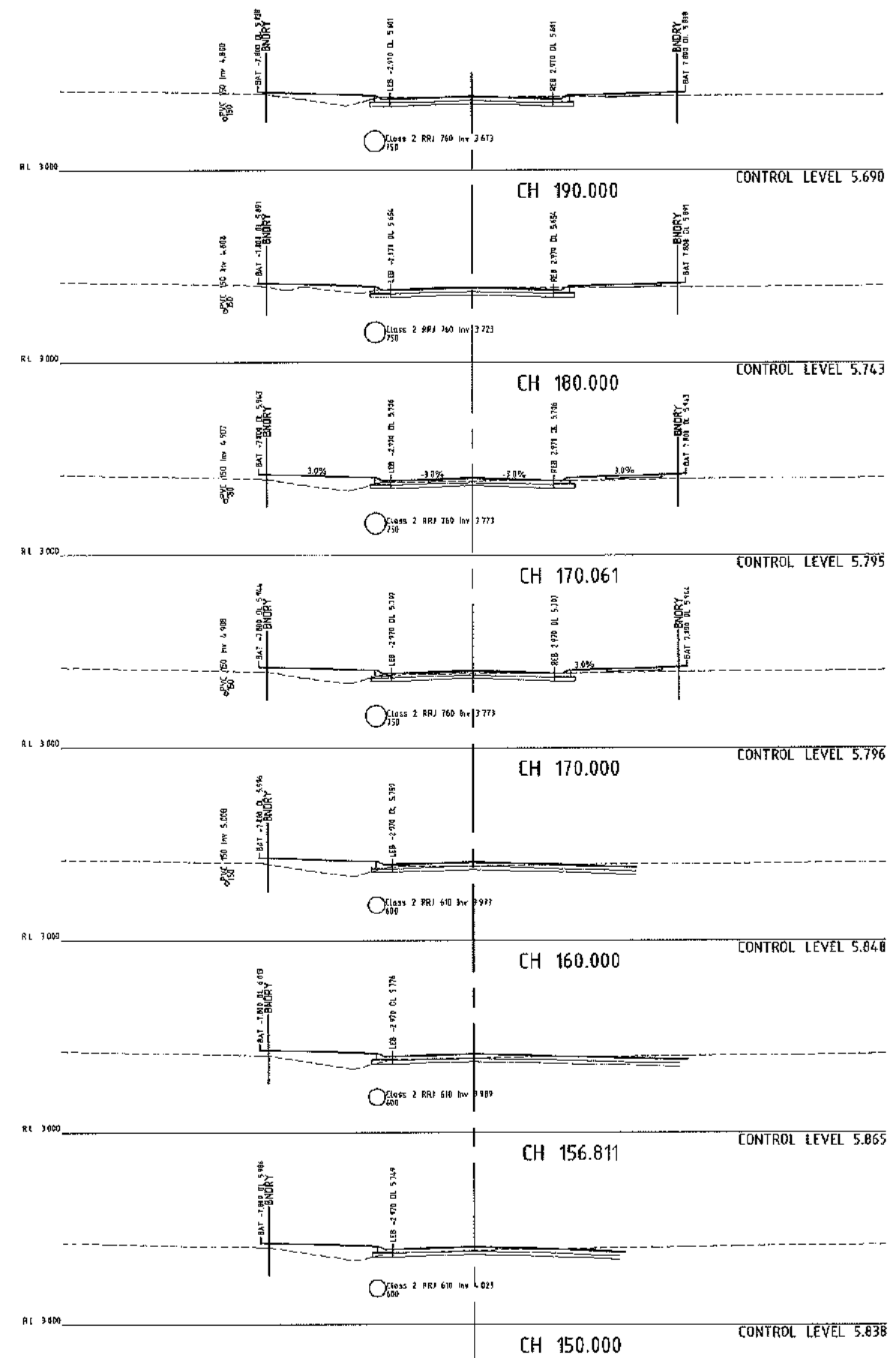
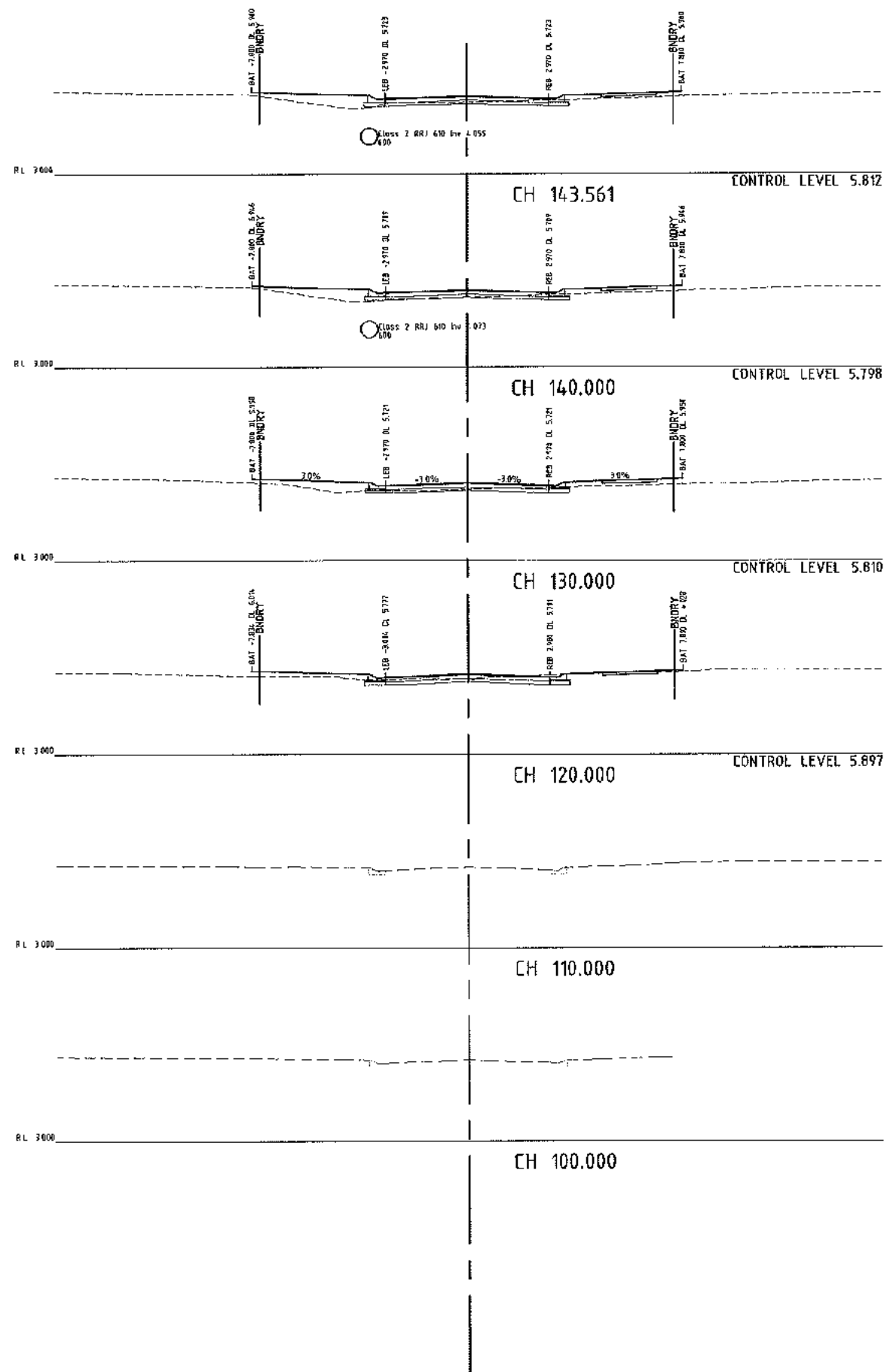
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Client
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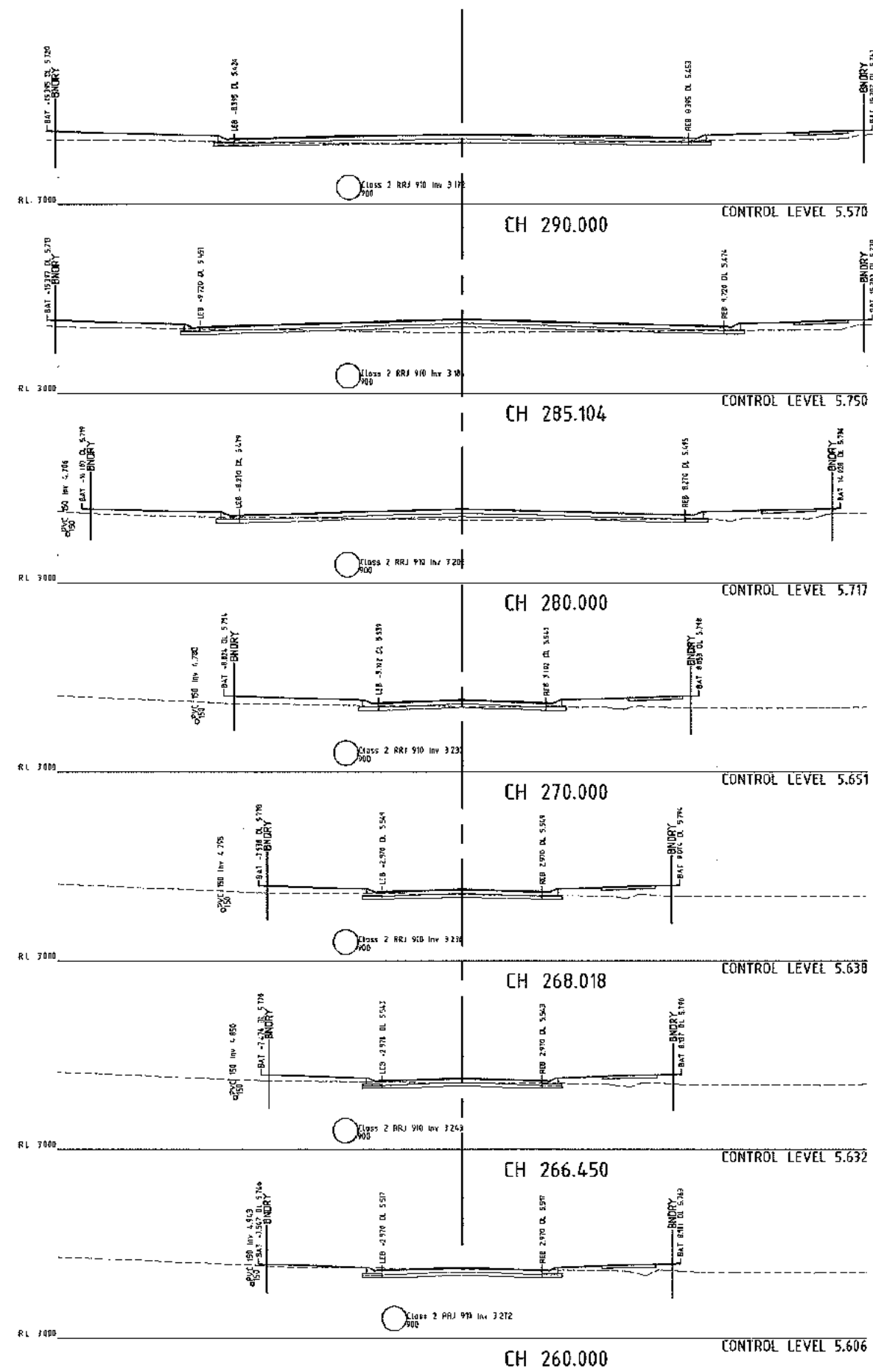
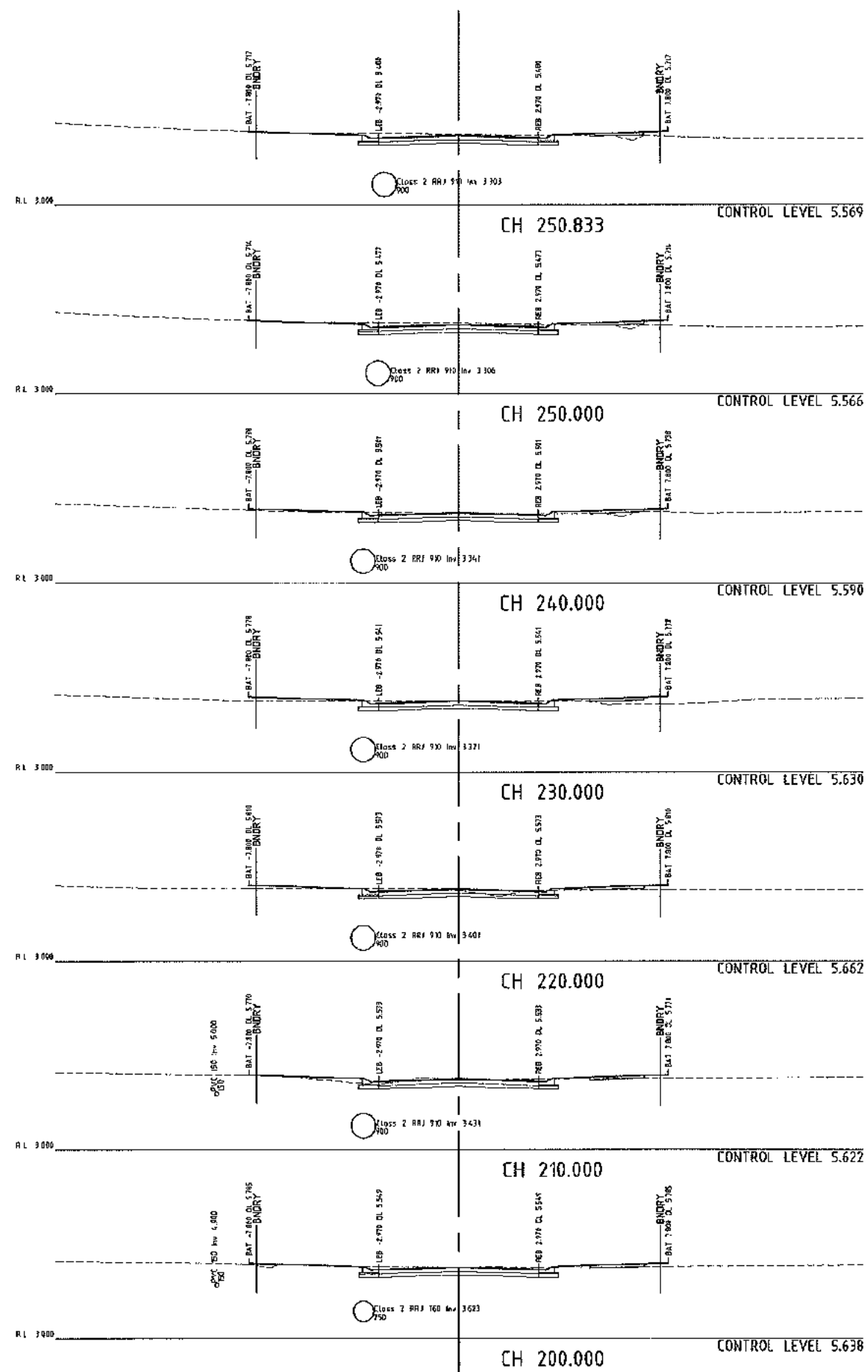
Project
STAGES 4B & 4C OCEAN BREEZE ESTATE COOYA BEACH, 4873




Drawing Title
COOYA BEACH ROAD CROSS SECTIONS SHEET 1 OF 2

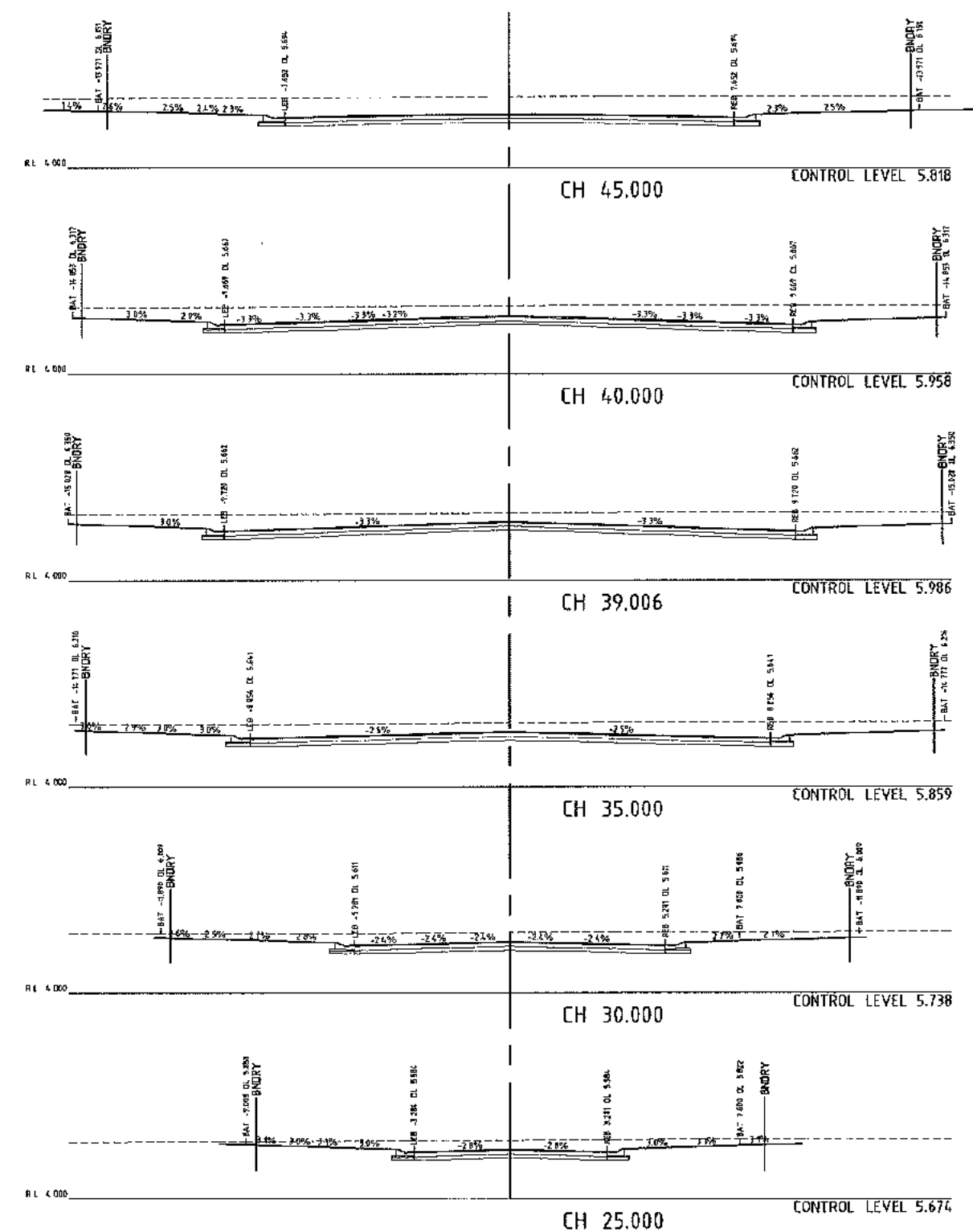
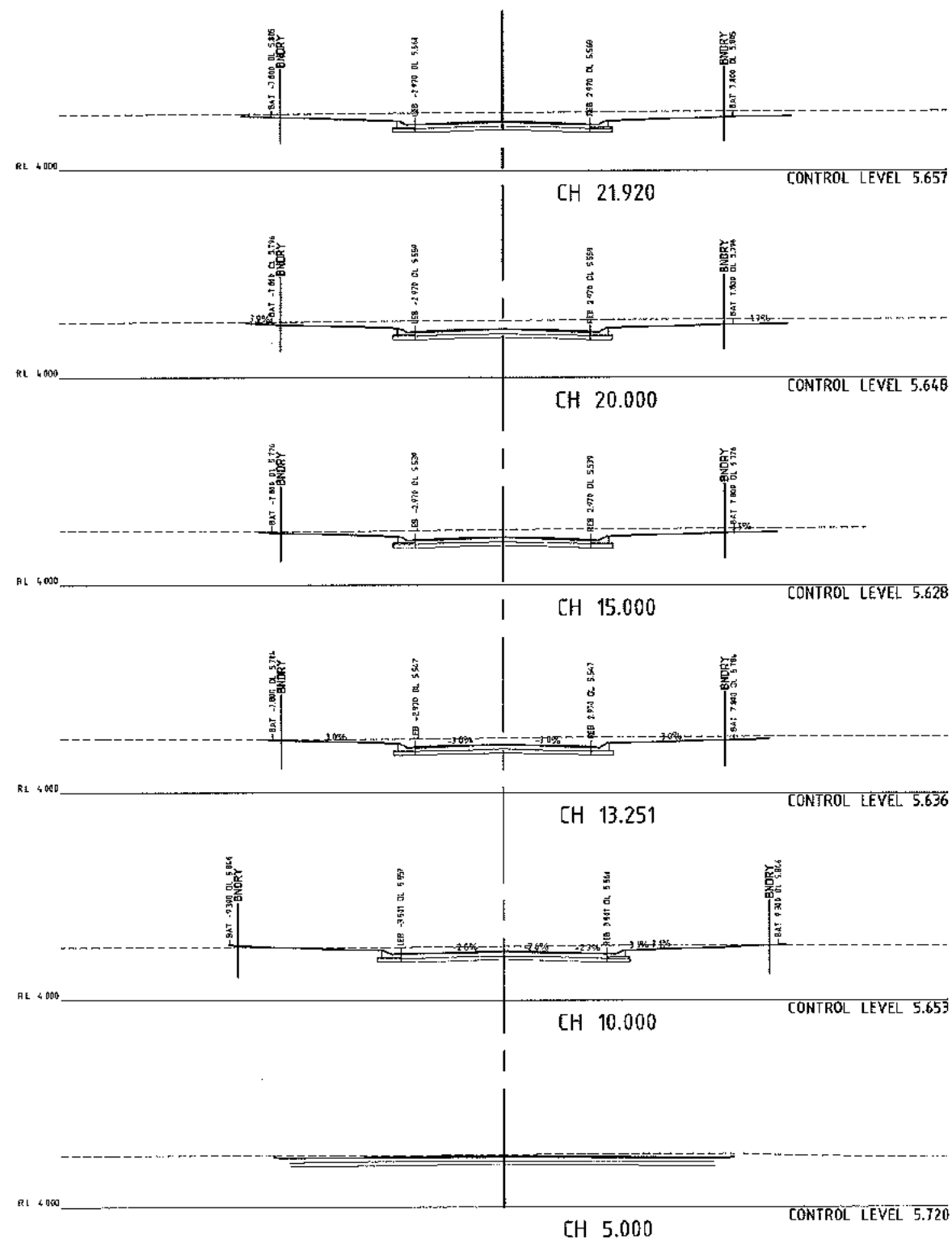
Drawn NP	Designed GCH	Verified AMCP
Approved -	Date JAN 2016	Revision A
Drawing Number 15510 - C08		





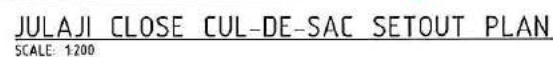
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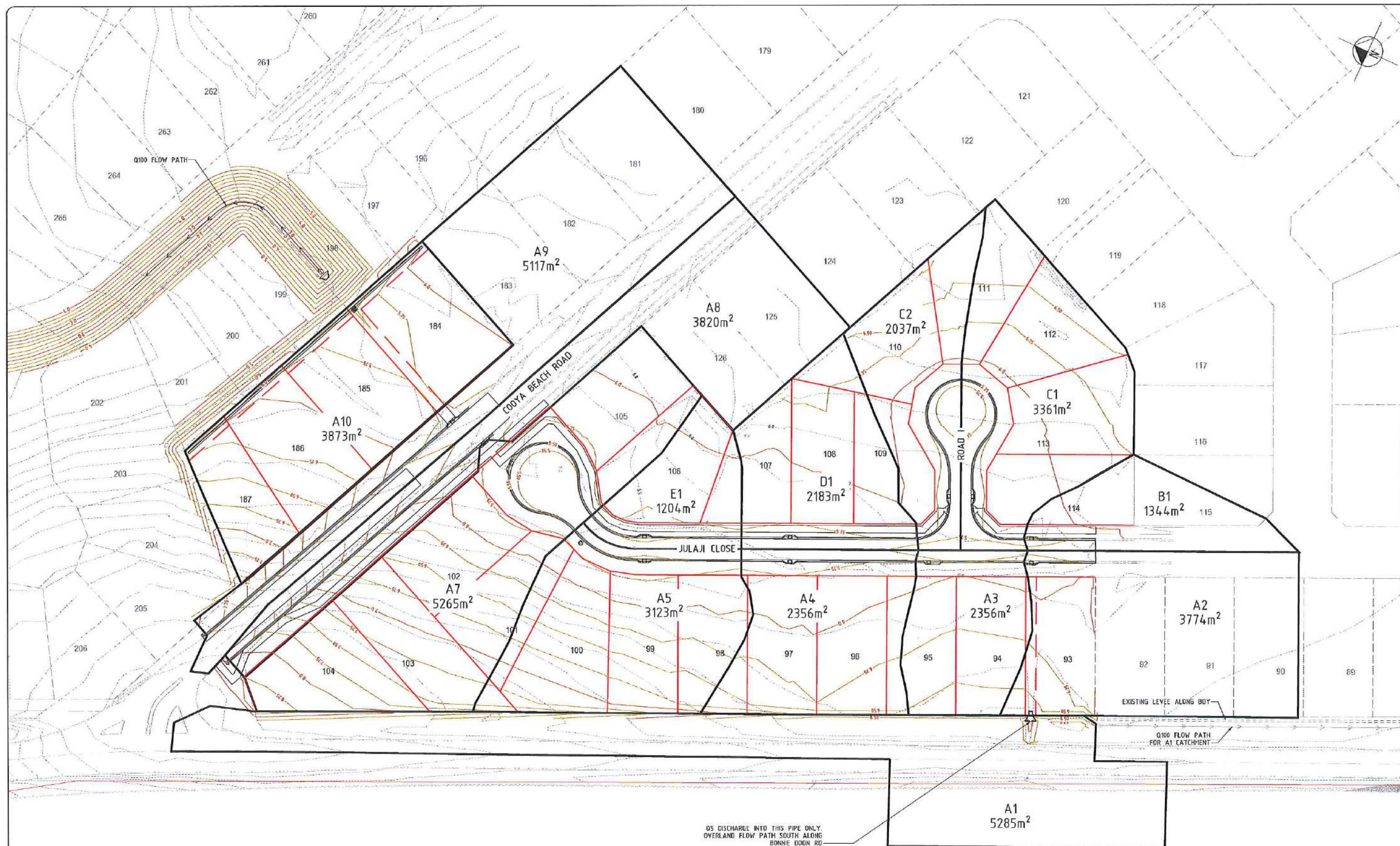
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- NOTES:
R = RADIUS
AL = ARC LENGTH
TP = TANGENT POINT
E = TRANSITION EVENLY


INTERSECTION SETOUT TABLES				INTERSECTION SETOUT TABLES				INTERSECTION SETOUT TABLES				INTERSECTION SETOUT TABLES				INTERSECTION SETOUT TABLES				INTERSECTION SETOUT TABLES			
POINT #	EASTING	NORTHING	DESIGN LEVEL	POINT #	EASTING	NORTHING	DESIGN LEVEL	POINT #	EASTING	NORTHING	DESIGN LEVEL	POINT #	EASTING	NORTHING	DESIGN LEVEL	POINT #	EASTING	NORTHING	DESIGN LEVEL	POINT #	EASTING	NORTHING	DESIGN LEVEL
200	8854.836	80413.289	5.549	212	8868.306	80436.608	5.413	224	8860.270	80410.888	5.549	236	8917.245	80323.197	5.583	248	8941.162	80327.492	5.711	260	8866.815	80459.142	5.676
201	8855.745	80416.011	5.534	213	8870.767	80435.111	5.424	225	8893.250	80323.249	5.706	237	8919.421	80325.069	5.597	249	8941.141	80324.679	5.705	261	8869.559	80457.930	5.675
202	8856.128	80418.856	5.519	214	8872.620	80432.995	5.435	226	8895.595	80319.995	5.700	238	8921.208	80327.314	5.612	250	8940.316	80321.990	5.696	262	8871.448	80462.205	5.703
203	8855.972	80421.722	5.504	215	8873.790	80430.437	5.446	227	8899.007	80317.887	5.628	239	8922.545	80329.854	5.626	251	8938.755	80319.650	5.682	263	8868.703	80463.417	5.704
204	8855.283	80424.508	5.489	216	8874.178	80427.651	5.458	228	8902.966	80317.244	5.570	240	8923.980	80332.274	5.640	252	8936.589	80317.855	5.668				
205	8854.748	80427.270	5.474	217	8873.752	80424.870	5.469	229	8906.870	80318.166	5.547	241	8926.047	80334.181	5.654	253	8934.000	80316.756	5.654				
206	8855.027	80430.069	5.459	218	8872.547	80422.328	5.480	230	8904.253	80299.141	5.723	242	8928.574	80335.416	5.668	254	8931.205	80316.443	5.640				
207	8856.095	80432.671	5.445	219	8870.665	80420.238	5.491	231	8903.331	80303.045	5.709	243	8931.349	80335.876	5.682	255	8928.437	80316.944	5.626				
208	8857.863	80434.858	5.430	220	8868.264	80418.773	5.503	232	8903.974	80307.005	5.635	244	8934.140	80335.522	5.696	256	8925.642	80317.599	5.612				
209	8860.184	80436.448	5.415	221	8865.740	80417.407	5.515	233	8906.082	80310.416	5.573	245	8936.712	80334.383	5.706	257	8922.775	80317.720	5.597				
210	8862.863	80437.306	5.410	222	8863.516	80415.592	5.526	234	8909.336	80312.762	5.547	246	8938.851	80332.556	5.711	258	8919.935	80317.303	5.583				
211	8865.675	80437.361	5.410	223	8861.671	80413.393	5.538	235	8914.757	80321.765	5.568	247	8940.377	80330.193	5.714	259	8917.223	80316.361	5.568				

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ISSUE DESCRIPTION DATE	27/01/16	2 0 2 4 6 8 10 m			A.B.J.L 88 126 211 451 A.C.N. 126 211 461				Drawing Number 15510 - C14	Revised	A



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PO Box 2531
CARINGALD 4870
Ph: (07) 4951 5699
Fax: (07) 4951 5459
Email: admin@pdrengineers.com.au
A.B.N. 63 126 211 461
A.C.N. 126 211 461

Client
JONPA PTY LTD

Project
**STAGES 4B & 4C
OCEAN BREEZE ESTATE
COOYA BEACH, 4873**

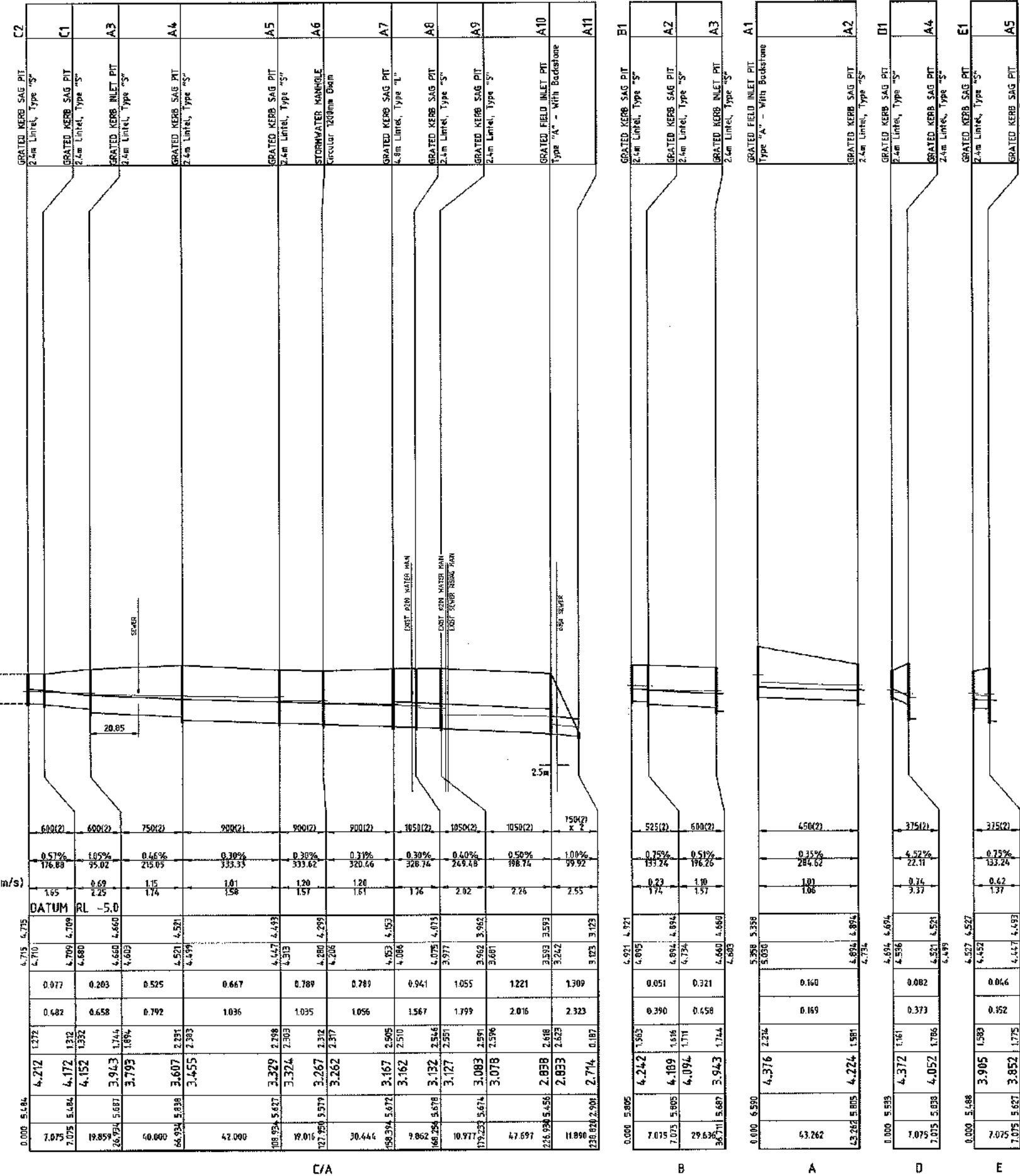
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Drawn NP	Designed GCH	Verified AMcP
Approved ---	Date JAN 2016	Revision A
Drawing Number 15510 - C15		

STRUCTURE NAME
STRUCTURE DESCRIPTION

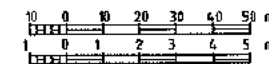
PIPE SIZE (mm)
AND PIPE CLASS
PIPE GRADE %
PIPE SLOPE 1 in
FULL PIPE FLOW (HGL) VELOCITY (m/s)
PIPE GRADE FLOW VELOCITY (m/s)

WATER LEVEL IN STRUCTURE
HYDRAULIC GRADE LEVEL
PIPE FLOW (Cumecs)
PIPE CAPACITY AT GRADE (Cumecs)
DEPTH TO INVERT
INVERT LEVEL OF DRAIN
DESIGN SURFACE LEVEL
RUNNING CHAINAGE



NOTE:
LINES A7-A11 DESIGNED TO
CONVEY Q100 FLOWS.

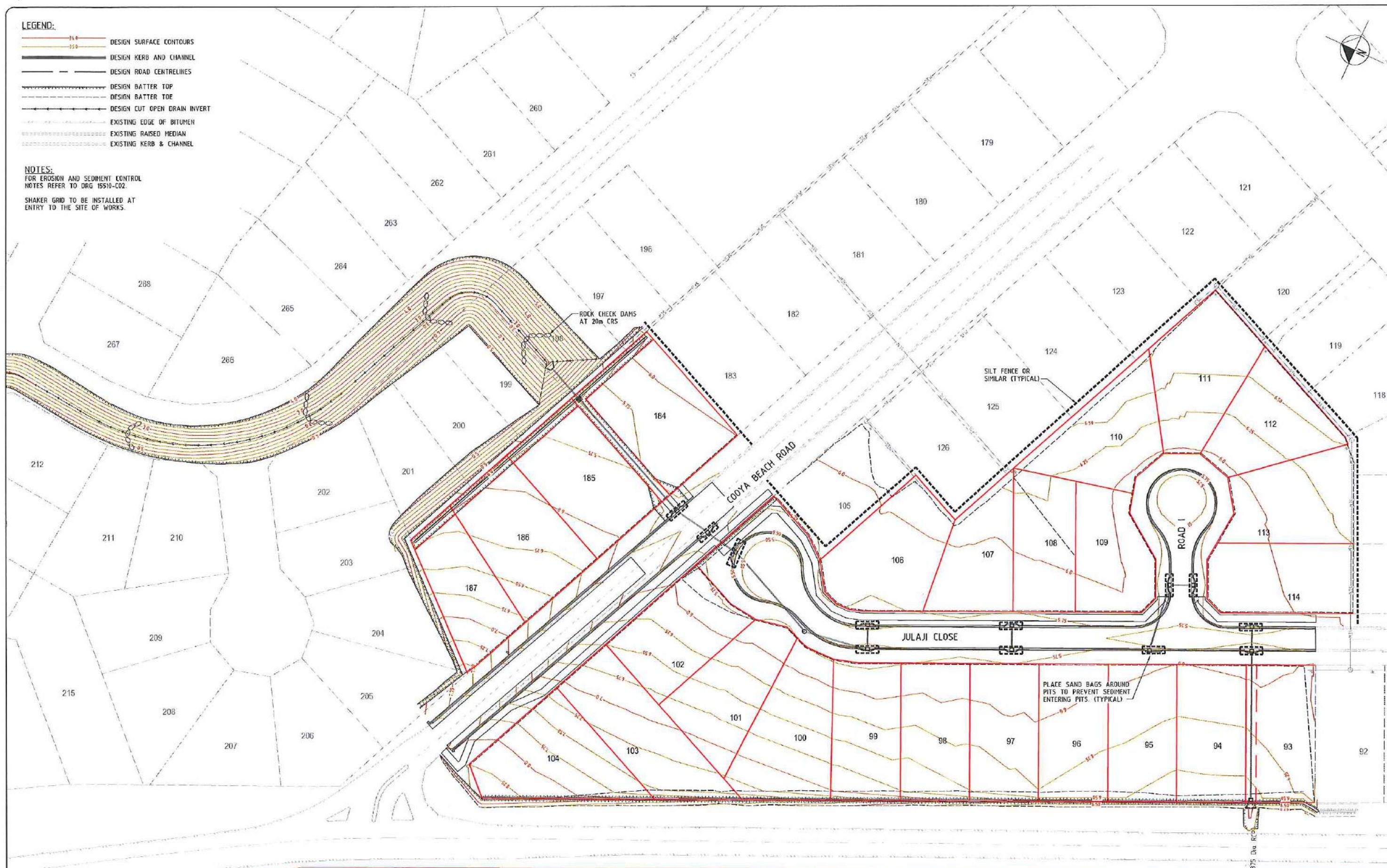
SCALE: HORIZ
VERT



Drawing Status		SCALE AS SHOWN	Orig. Sheet	Disclaimer & Copyright		Client	Project	Drawing Title	Drawn NP	Designed GCH	Modified AMcP
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A	FOR COUNCIL APPROVAL	27/01/16	DATE	pdr engineers		JONPA PTY LTD	STAGES 4B & 4C OCEAN BREEZE ESTATE COOYA BEACH, 4873	DRAINAGE LONGITUDINAL SECTIONS	Approved	Date JAN 2016	Revision A
ISSUE		DESCRIPTION		Scales Before Reduction		Level 1, 255 Hargrave Road PO Box 2551 OCEAN GROVE VIC 3207 Ph: (07) 4051 5595 Fax: (07) 4051 5555 Email: admin@pdr-engineers.com.au A.B.N. 68 128 211 481 A.C.N. 128 211 481		Drawing Number 15510 - C16		Revision A	

- LEGEND:**
- DESIGN SURFACE CONTOURS
 - DESIGN KERB AND CHANNEL
 - DESIGN ROAD CENTRELINES
 - DESIGN BATTER TOP
 - DESIGN BATTER TOE
 - DESIGN CUT OPEN DRAIN INVERT
 - EXISTING EDGE OF BITUMEN
 - EXISTING RAISED MEDIAN
 - EXISTING KERB & CHANNEL

NOTES:
FOR EROSION AND SEDIMENT CONTROL
NOTES REFER TO DRG 15510-C02.
SHAKER GRID TO BE INSTALLED AT
ENTRY TO THE SITE OF WORKS.



ISSUE	DESCRIPTION	DATE
A	FOR COUNCIL APPROVAL	21/01/16

Drawing Status

COUNCIL APPROVAL

SCALE 1:500

Orig. Sheet A1

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Scales Before Reduction

0 5 10 15 20 25 m

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pdr engineers

Level 1, 255 Mulgrave Road
PO Box 2551
CARPENTERS GLEN 4870
Ph: (07) 4851 5599
Fax: (07) 4851 5455
Email: admin@pdrengineers.com.au
A.B.U.M. 126 211 451
A.C.N. 126 211 451

Client

JONPA PTY LTD

Project

**STAGES 4B & 4C
OCEAN BREEZE ESTATE
COOYA BEACH, 4873**

Drawing Title

**EROSION SEDIMENT
CONTROL PLAN**

Drawn	Designed	Verified
NP	GCH	AMcP
Approved	Date	Revision
-	JAN 2016	A
Drawing Number	15510 - C18	

LEGEND:

- DESIGN SURFACE CONTOURS
- DESIGN KERB AND CHANNEL
- DESIGN ROAD CENTRELINES
- DESIGN BATTER TOP
- DESIGN BATTER TOE
- DESIGN STORMWATER PIPES
- EXISTING EDGE OF BITUMEN
- EXISTING RAISED MEDIAN
- EXISTING KERB & CHANNEL
- EXISTING WATER MAIN
- EXISTING SEWER RISING MAIN
- EXISTING SEWER

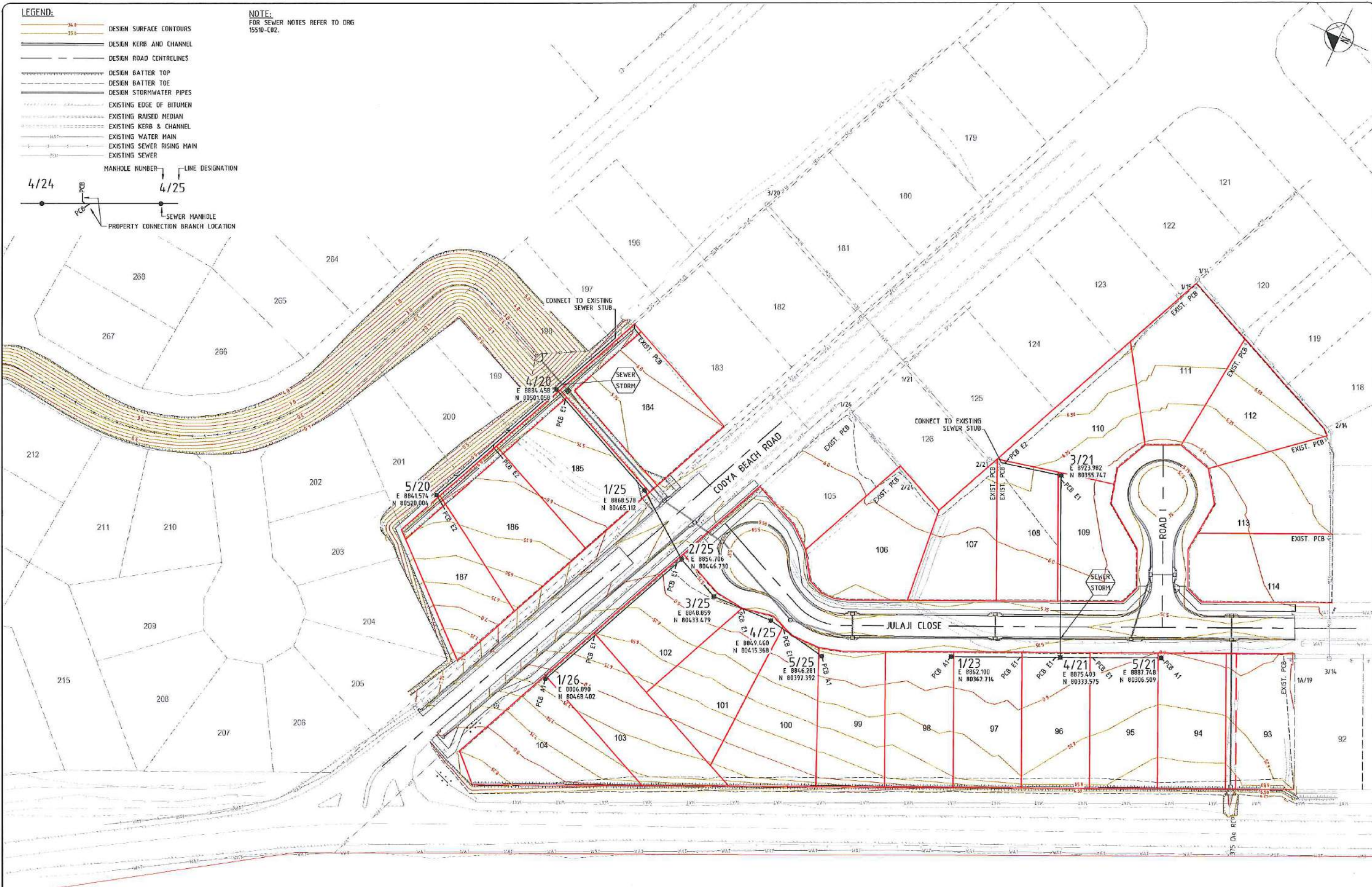
MANHOLE NUMBER **LINE DESIGNATION**

4/24 4/25

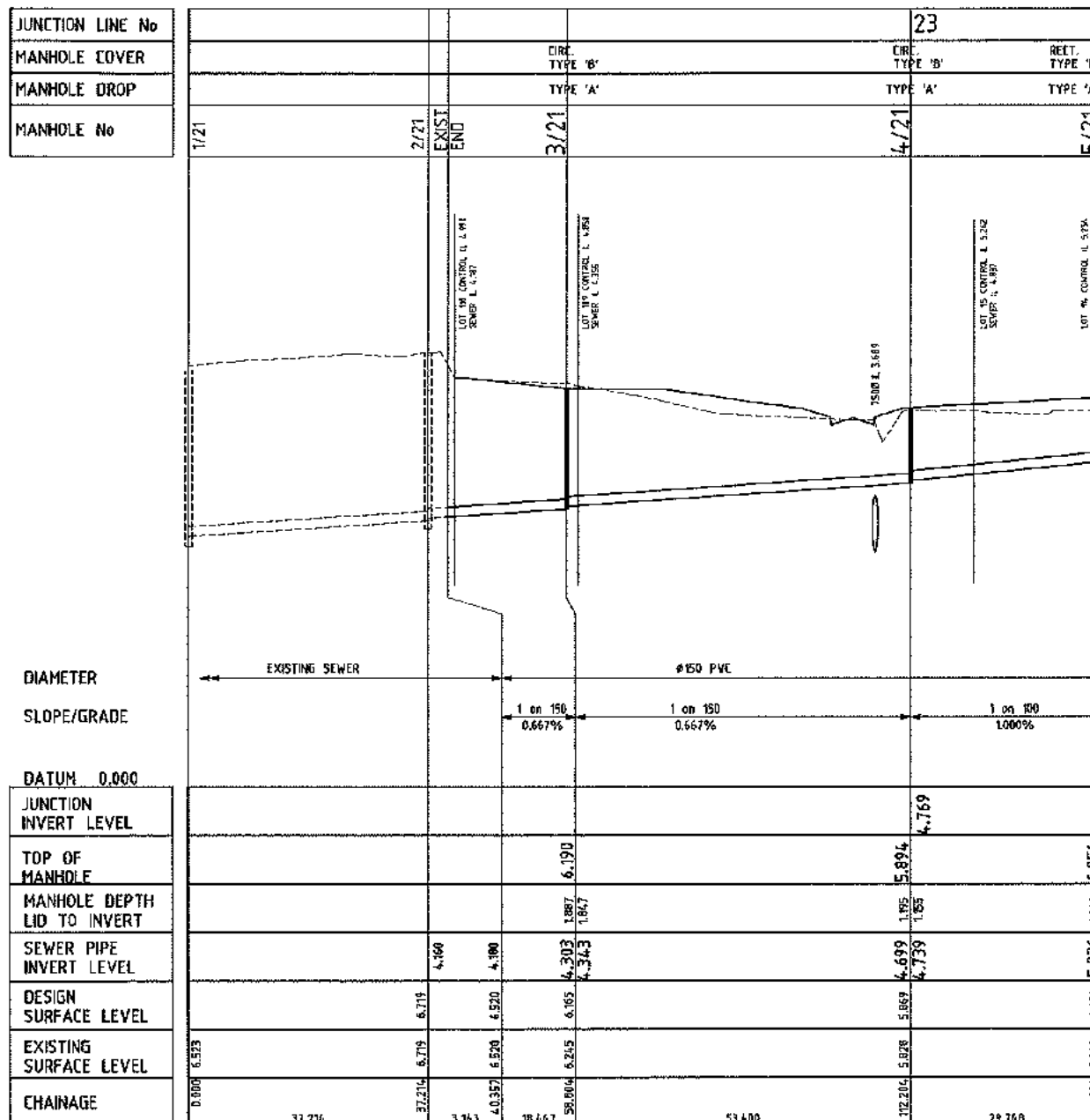
PCB SEWER MANHOLE

PROPERTY CONNECTION BRANCH LOCATION

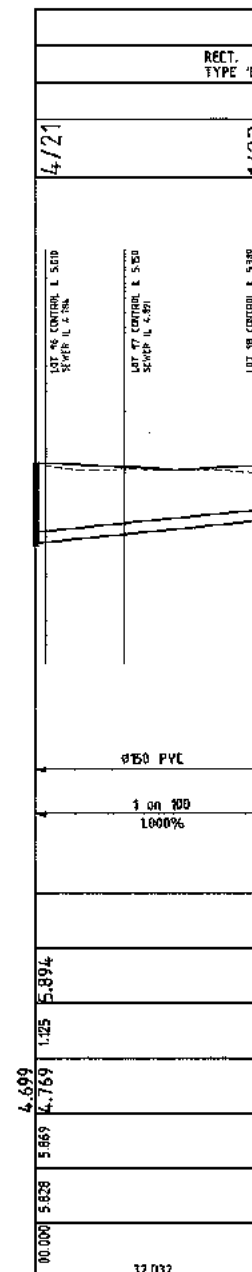
NOTE:
FOR SEWER NOTES REFER TO DRG 15510-C02.



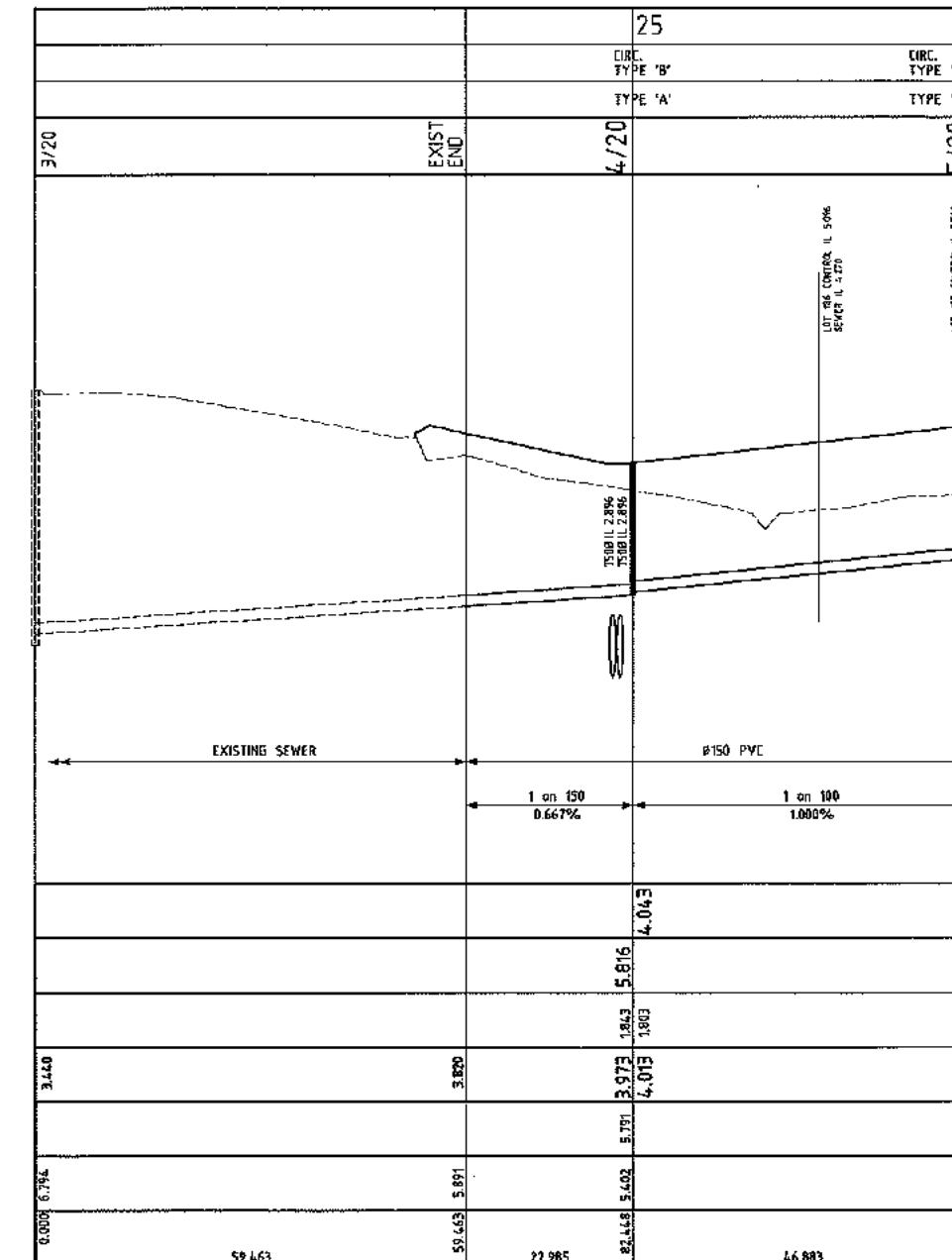
COUNCIL APPROVAL FOR COUNCIL APPROVAL 22/01/16 DATE		Drawing Status SCALE 1:500 DO NOT SCALE DRAWINGS Scales Before Reduction 0 5 10 15 20 25 m	Disclamer & Copyright THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF PDR ENGINEERS AND MAY NOT BE COPIED IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN APPROVAL FROM THIS COMPANY. © PDR Engineers Copyright	Level 1, 256 Mulgrave Road PO Box 2651 CARINGB. QLD 4870 Ph: (07) 4091 5099 Fax: (07) 4091 5455 Email: admin@pdrengineers.com.au A.B.J. 00 128 211 461 A.C.N. 128 211 461	Client JONPA PTY LTD	Project STAGES 4B & 4C OCEAN BREEZE ESTATE COOYA BEACH, 4873	Drawing Title SEWERAGE PLAN	Drawn NP Approved - Drawing Number 15510 - C20	Designed GCH Date JAN 2016 Revision A	Verified AMcP Date JAN 2016 Revision A
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SEWER LINE 21

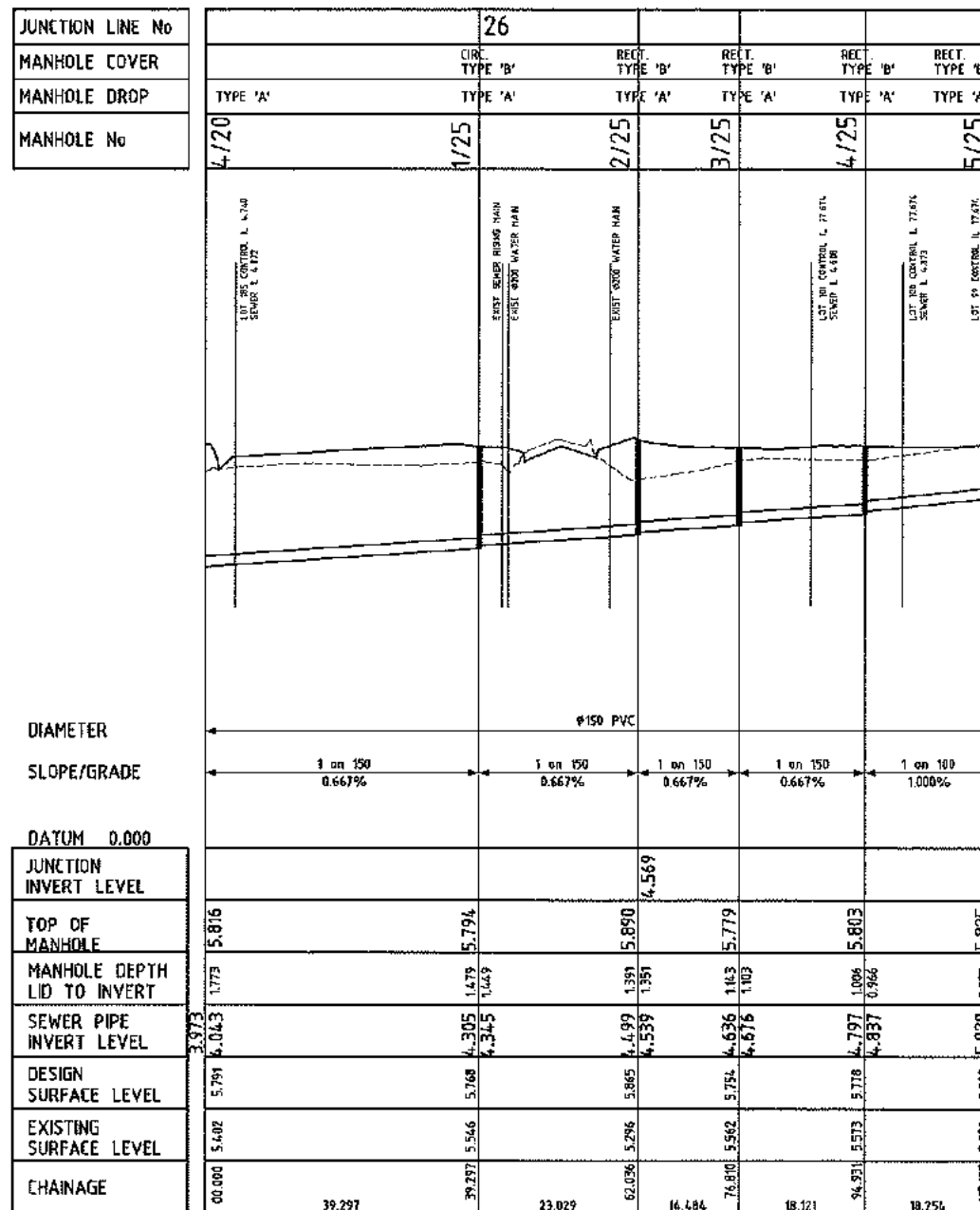


SEWER LINE 23

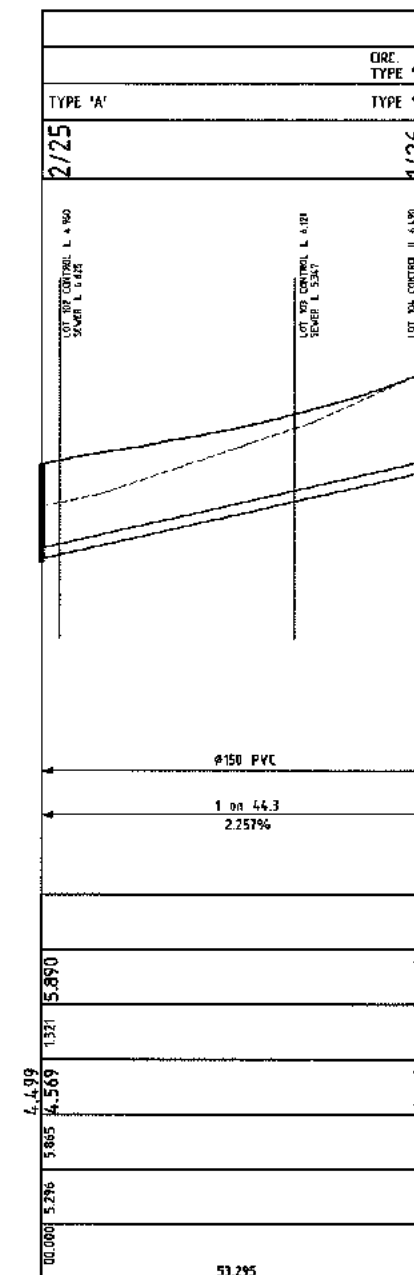


SEWER LINE 20

SCALE: HORIZ 1:100
VERT 1:10



SEWER LINE 25



SEWER LINE 26

SCALE: HORIZ 1" = 10' 0" VERT 1" = 2' 0"

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A FOR COUNCIL APPROVAL		27/01/16			© PDR Engineers Copyright		A.B.J.L. 120 211 481 A.C.N. 928 211 481						Approved		Date		JAN 2016		
ISSUE		DESCRIPTION		DATE										Drawing Number		Revision		15510 - E22 A	