



04 November 2024

Attention: Chief Executive Officer  
Mareeba Shire Council  
65 Rankin Street  
Mareeba QLD 4880  
Our reference: 004-2403

**Operational Works Application - REC/07/0083 - 189 Ray Road, Mareeba**

We refer to the operational works approval (REC/07/0083) issued by Mareeba Shire Council 31 January 2008. On behalf of T W Hedley Pty Ltd, please find enclosed an Operational Works Application for Stage 2 of this development (23 lots) for your consideration and approval:

- DA Form 1. – Development Application Details
- FNQROC Development Manual Statement of Compliance.
- Stormwater Calculations
- Engineering drawings.

A review of the previously approved design against the current FNQROC Development Manual and current engineering standards resulted in design amendments, in particular with respect to the stormwater drainage.

We have calculated the application assessment fee in the amount of \$5,284.00 (\$1,742 base fee plus \$154 per lot x 23 lots) based on Council's current schedule of fees and charges. The electrical engineering submission will be submitted in the same application under separate cover.

To assist with your approval of this application we are happy to attend a lodgement meeting to discuss the application details. Should you require any additional information, please do not hesitate to me on 0402 568 698 or the email address below.

Yours sincerely

A handwritten signature in blue ink that reads "Craig Caplick".

**Craig Caplick**

Principal Engineer | RPEng RPEQ 25102  
craig@consultneon.com.au | 0402 568 698

04 November 2024  
Operational Works Application - 189 Ray Road, Mareeba

# DA Form 1



# DA Form 1 – Development application details

Approved form (version 1.4 effective 15 December 2023) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application 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*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

**Note:** All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).

## PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (individual or company full name)	<b>T W Hedley Pty Ltd</b>
Contact name (only applicable for companies)	
Postal address (P.O. Box or street address)	<b>c-/ Neon Consulting – 11 Rosemont Court</b>
Suburb	<b>Mooroolbool</b>
State	<b>Queensland</b>
Postcode	<b>4870</b>
Country	<b>Australia</b>
Contact number	<b>0402 568 698</b>
Email address (non-mandatory)	<b>Craig@ConsultNeon.com.au</b>
Mobile number (non-mandatory)	
Fax number (non-mandatory)	
Applicant's reference number(s) (if applicable)	<b>004-2403</b>

2) Owner's consent
2.1) Is written consent of the owner required for this development application?
<input type="checkbox"/> Yes – the written consent of the owner(s) is attached to this development application
<input checked="" type="checkbox"/> No – proceed to 3)

## PART 2 – LOCATION DETAILS

### 3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

**Note:** Provide details below and attach a site plan for any or all premises part of the development application. For further information, see [DA Forms Guide: Relevant plans](#).

#### 3.1) Street address and lot on plan

- Street address **AND** lot on plan (all lots must be listed), **OR**  
 Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).

a)	Unit No.	Street No.	Street Name and Type	Suburb
		189	Ray Road	Mareeba
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4880	46	SP210288	Mareeba Shire Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)

#### 3.2) Coordinates of premises (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)

**Note:** Place each set of coordinates in a separate row.

- Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

- Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> 54 <input type="checkbox"/> 55 <input type="checkbox"/> 56	<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

#### 3.3) Additional premises

- Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application  
 Not required

#### 4) Identify any of the following that apply to the premises and provide any relevant details

- In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

- On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

- In a tidal area

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

Name of port authority for tidal area (if applicable):

- On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*

Name of airport:	
<input type="checkbox"/> Listed on the Environmental Management Register (EMR) under the <i>Environmental Protection Act 1994</i>	
EMR site identification:	
<input type="checkbox"/> Listed on the Contaminated Land Register (CLR) under the <i>Environmental Protection Act 1994</i>	
CLR site identification:	

**5) Are there any existing easements over the premises?**

*Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development*

- Yes – All easement locations, types and dimensions are included in plans submitted with this development application
- No

## PART 3 – DEVELOPMENT DETAILS

### Section 1 – Aspects of development

**6.1) Provide details about the first development aspect**

a) What is the type of development? *(tick only one box)*

- Material change of use     Reconfiguring a lot     Operational work     Building work

b) What is the approval type? *(tick only one box)*

- Development permit     Preliminary approval     Preliminary approval that includes a variation approval

c) What is the level of assessment?

- Code assessment     Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

**Stage 2 – 23 lot subdivision**

e) Relevant plans

*Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms guide: Relevant plans](#).*

- Relevant plans of the proposed development are attached to the development application

**6.2) Provide details about the second development aspect**

a) What is the type of development? *(tick only one box)*

- Material change of use     Reconfiguring a lot     Operational work     Building work

b) What is the approval type? *(tick only one box)*

- Development permit     Preliminary approval     Preliminary approval that includes a variation approval

c) What is the level of assessment?

- Code assessment     Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

e) Relevant plans

*Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).*

- Relevant plans of the proposed development are attached to the development application

**6.3) Additional aspects of development**

- Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
- Not required

## Section 2 – Further development details

7) Does the proposed development application involve any of the following?	
Material change of use	<input type="checkbox"/> Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	<input type="checkbox"/> Yes – complete division 2
Operational work	<input checked="" type="checkbox"/> Yes – complete division 3
Building work	<input type="checkbox"/> Yes – complete <i>DA Form 2 – Building work details</i>

### Division 1 – Material change of use

**Note:** This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use			
Provide a general description of the proposed use	Provide the planning scheme definition (include each definition in a new row)	Number of dwelling units (if applicable)	Gross floor area (m <sup>2</sup> ) (if applicable)

8.2) Does the proposed use involve the use of existing buildings on the premises?	
<input type="checkbox"/> Yes	
<input type="checkbox"/> No	

### Division 2 – Reconfiguring a lot

**Note:** This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?				

9.2) What is the nature of the lot reconfiguration? (tick all applicable boxes)	
<input type="checkbox"/> Subdivision (complete 10))	<input type="checkbox"/> Dividing land into parts by agreement (complete 11))
<input type="checkbox"/> Boundary realignment (complete 12))	<input type="checkbox"/> Creating or changing an easement giving access to a lot from a constructed road (complete 13))

10) Subdivision				
10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?	
<input type="checkbox"/> Yes – provide additional details below	
<input type="checkbox"/> No	
How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:

Number of parts created			

**12) Boundary realignment**

**12.1) What are the current and proposed areas for each lot comprising the premises?**

Current lot		Proposed lot	
Lot on plan description	Area (m <sup>2</sup> )	Lot on plan description	Area (m <sup>2</sup> )

**12.2) What is the reason for the boundary realignment?**

**13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? (attach schedule if there are more than two easements)**

Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? (e.g. pedestrian access)	Identify the land/lot(s) benefitted by the easement

**Division 3 – Operational work**

*Note: This division is only required to be completed if any part of the development application involves operational work.*

**14.1) What is the nature of the operational work?**

<input checked="" type="checkbox"/> Road work	<input checked="" type="checkbox"/> Stormwater	<input checked="" type="checkbox"/> Water infrastructure
<input checked="" type="checkbox"/> Drainage work	<input checked="" type="checkbox"/> Earthworks	<input type="checkbox"/> Sewage infrastructure
<input type="checkbox"/> Landscaping	<input checked="" type="checkbox"/> Signage	<input type="checkbox"/> Clearing vegetation
<input type="checkbox"/> Other – please specify: _____		

**14.2) Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)**

Yes – specify number of new lots: **23**

No

**14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)**

**\$1,200,000**

**PART 4 – ASSESSMENT MANAGER DETAILS**

**15) Identify the assessment manager(s) who will be assessing this development application**

**Mareeba Shire Council**

**16) Has the local government agreed to apply a superseded planning scheme for this development application?**

Yes – a copy of the decision notice is attached to this development application

The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached

No

**PART 5 – REFERRAL DETAILS**

**17) Does this development application include any aspects that have any referral requirements?**

*Note: A development application will require referral if prescribed by the Planning Regulation 2017.*

No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the Planning Act 2016:**

- Clearing native vegetation
- Contaminated land (*unexploded ordnance*)
- Environmentally relevant activities (ERA) (*only if the ERA has not been devolved to a local government*)
- Fisheries – aquaculture
- Fisheries – declared fish habitat area
- Fisheries – marine plants
- Fisheries – waterway barrier works
- Hazardous chemical facilities
- Heritage places – Queensland heritage place (*on or near a Queensland heritage place*)
- Infrastructure-related referrals – designated premises
- Infrastructure-related referrals – state transport infrastructure
- Infrastructure-related referrals – State transport corridor and future State transport corridor
- Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
- Infrastructure-related referrals – near a state-controlled road intersection
- Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
- Koala habitat in SEQ region – key resource areas
- Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
- Ports – Brisbane core port land – environmentally relevant activity (ERA)
- Ports – Brisbane core port land – tidal works or work in a coastal management district
- Ports – Brisbane core port land – hazardous chemical facility
- Ports – Brisbane core port land – taking or interfering with water
- Ports – Brisbane core port land – referable dams
- Ports – Brisbane core port land – fisheries
- Ports – Land within Port of Brisbane’s port limits (*below high-water mark*)
- SEQ development area
- SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
- SEQ regional landscape and rural production area or SEQ rural living area – community activity
- SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- SEQ regional landscape and rural production area or SEQ rural living area – combined use
- SEQ regional landscape and rural production area or SEQ rural living area – community activity
- SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- SEQ regional landscape and rural production area or SEQ rural living area – combined use
- Tidal works or works in a coastal management district
- Reconfiguring a lot in a coastal management district or for a canal
- Erosion prone area in a coastal management district
- Urban design
- Water-related development – taking or interfering with water
- Water-related development – removing quarry material (*from a watercourse or lake*)
- Water-related development – referable dams
- Water-related development – levees (*category 3 levees only*)
- Wetland protection area

**Matters requiring referral to the local government:**

- Airport land
- Environmentally relevant activities (ERA) (*only if the ERA has been devolved to local government*)
- Heritage places – Local heritage places

**Matters requiring referral to the Chief Executive of the distribution entity or transmission entity:**

- Infrastructure-related referrals – Electricity infrastructure



Matters requiring referral to: <ul style="list-style-type: none"> <li>• The <b>Chief Executive of the holder of the licence</b>, if not an individual</li> <li>• The <b>holder of the licence</b>, if the holder of the licence is an individual</li> </ul> <input type="checkbox"/> Infrastructure-related referrals – Oil and gas infrastructure
Matters requiring referral to the <b>Brisbane City Council</b> : <input type="checkbox"/> Ports – Brisbane core port land
Matters requiring referral to the <b>Minister responsible for administering the <i>Transport Infrastructure Act 1994</i></b> : <input type="checkbox"/> Ports – Brisbane core port land ( <i>where inconsistent with the Brisbane port LUP for transport reasons</i> ) <input type="checkbox"/> Ports – Strategic port land
Matters requiring referral to the <b>relevant port operator</b> , if applicant is not port operator: <input type="checkbox"/> Ports – Land within Port of Brisbane’s port limits ( <i>below high-water mark</i> )
Matters requiring referral to the <b>Chief Executive of the relevant port authority</b> : <input type="checkbox"/> Ports – Land within limits of another port ( <i>below high-water mark</i> )
Matters requiring referral to the <b>Gold Coast Waterways Authority</b> : <input type="checkbox"/> Tidal works or work in a coastal management district ( <i>in Gold Coast waters</i> )
Matters requiring referral to the <b>Queensland Fire and Emergency Service</b> : <input type="checkbox"/> Tidal works or work in a coastal management district ( <i>involving a marina (more than six vessel berths)</i> )

<b>18) Has any referral agency provided a referral response for this development application?</b>		
<input type="checkbox"/> Yes – referral response(s) received and listed below are attached to this development application <input checked="" type="checkbox"/> No		
Referral requirement	Referral agency	Date of referral response
Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application ( <i>if applicable</i> ).		

## PART 6 – INFORMATION REQUEST

<b>19) Information request under Part 3 of the DA Rules</b>
<input checked="" type="checkbox"/> I agree to receive an information request if determined necessary for this development application <input type="checkbox"/> I do not agree to accept an information request for this development application <b>Note:</b> <i>By not agreeing to accept an information request I, the applicant, acknowledge:</i> <ul style="list-style-type: none"> <li>• <i>that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties</i></li> <li>• <i>Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.</i></li> </ul> <i>Further advice about information requests is contained in the <a href="#">DA Forms Guide</a>.</i>

## PART 7 – FURTHER DETAILS

<b>20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)</b>			
<input type="checkbox"/> Yes – provide details below or include details in a schedule to this development application <input checked="" type="checkbox"/> No			
List of approval/development application references	Reference number	Date	Assessment manager

<input type="checkbox"/> Approval			
<input type="checkbox"/> Development application			
<input type="checkbox"/> Approval			
<input type="checkbox"/> Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

- Yes – a copy of the receipted QLeave form is attached to this development application
- No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid
- Not applicable (e.g. building and construction work is less than \$150,000 excluding GST)

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

- Yes – show cause or enforcement notice is attached
- No

23) Further legislative requirements

**Environmentally relevant activities**

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

- Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below
- No

**Note:** Application for an environmental authority can be found by searching “ESR/2015/1791” as a search term at [www.qld.gov.au](http://www.qld.gov.au). An ERA requires an environmental authority to operate. See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

- Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

**Hazardous chemical facilities**

23.2) Is this development application for a **hazardous chemical facility**?

- Yes – *Form 69: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application
- No

**Note:** See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information about hazardous chemical notifications.

**Clearing native vegetation**

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

- Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)
- No

**Note:** 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.

2. See <https://www.qld.gov.au/environment/land/vegetation/applying> for further information on how to obtain a s22A determination.

**Environmental offsets**

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

No

**Note:** The environmental offset section of the Queensland Government's website can be accessed at [www.qld.gov.au](http://www.qld.gov.au) for further information on environmental offsets.

### **Koala habitat in SEQ Region**

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

Yes – the development application involves premises in the koala habitat area in the koala priority area

Yes – the development application involves premises in the koala habitat area outside the koala priority area

No

**Note:** If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

### **Water resources**

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the Water Act 2000?**

Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development

No

**Note:** Contact the Department of Natural Resources, Mines and Energy at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) for further information.

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. If the development application involves:

- Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1
- Taking or interfering with water in a watercourse, lake or spring: complete DA Form 1 Template 2
- Taking overland flow water: complete DA Form 1 Template 3.

### **Waterway barrier works**

23.7) Does this application involve **waterway barrier works?**

Yes – the relevant template is completed and attached to this development application

No

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

### **Marine activities**

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

No

**Note:** See guidance materials at [www.daf.qld.gov.au](http://www.daf.qld.gov.au) for further information.

### **Quarry materials from a watercourse or lake**

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000*?

Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

No

**Note:** Contact the Department of Natural Resources, Mines and Energy at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) and [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

### **Quarry materials from land under tidal waters**

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995*?

- Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
- No

**Note:** Contact the Department of Environment and Science at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

### **Referable dams**

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

- Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application
- No

**Note:** See guidance materials at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) for further information.

### **Tidal work or development within a coastal management district**

23.12) Does this development application involve **tidal work or development in a coastal management district**?

- Yes – the following is included with this development application:
- Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)
  - A certificate of title
- No

**Note:** See guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

### **Queensland and local heritage places**

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

- Yes – details of the heritage place are provided in the table below
- No

**Note:** See guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for information requirements regarding development of Queensland heritage places.

Name of the heritage place:		Place ID:	
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### **Brothels**

23.14) Does this development application involve a **material change of use for a brothel**?

- Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*
- No

### **Decision under section 62 of the Transport Infrastructure Act 1994**

23.15) Does this development application involve new or changed access to a state-controlled road?

- Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)
- No

### **Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation**

23.16) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

- Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered
- No

**Note:** See guidance materials at [www.planning.dsdmip.qld.gov.au](http://www.planning.dsdmip.qld.gov.au) for further information.

## PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist	
I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17 <i>Note: See the Planning Regulation 2017 for referral requirements</i>	<input checked="" type="checkbox"/> Yes
If building work is associated with the proposed development, Parts 4 to 6 of <a href="#">DA Form 2 – Building work details</a> have been completed and attached to this development application	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
Supporting information addressing any applicable assessment benchmarks is with the development application <i>Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see <a href="#">DA Forms Guide: Planning Report Template</a>.</i>	<input checked="" type="checkbox"/> Yes
Relevant plans of the development are attached to this development application <i>Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see <a href="#">DA Forms Guide: Relevant plans</a>.</i>	<input checked="" type="checkbox"/> Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued ( <i>see 21</i> )	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable

25) Applicant declaration	
<input checked="" type="checkbox"/> By making this development application, I declare that all information in this development application is true and correct	
<input checked="" type="checkbox"/> Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the <i>Electronic Transactions Act 2001</i>	
<i>Note: It is unlawful to intentionally provide false or misleading information.</i>	
<p><b>Privacy</b> – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager’s and/or referral agency’s website.</p> <p>Personal information will not be disclosed for a purpose unrelated to the <i>Planning Act 2016</i>, Planning Regulation 2017 and the DA Rules except where:</p> <ul style="list-style-type: none"> <li>• such disclosure is in accordance with the provisions about public access to documents contained in the <i>Planning Act 2016</i> and the Planning Regulation 2017, and the access rules made under the <i>Planning Act 2016</i> and Planning Regulation 2017; or</li> <li>• required by other legislation (including the <i>Right to Information Act 2009</i>); or</li> <li>• otherwise required by law.</li> </ul> <p>This information may be stored in relevant databases. The information collected will be retained as required by the <i>Public Records Act 2002</i>.</p>	

## PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received:  Reference number(s):

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment	
<i>Note: For completion by assessment manager if applicable</i>	
Description of the work	
QLeave project number	
Amount paid (\$)	Date paid (dd/mm/yy)
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

## Statement of Compliance



# FNQROC DEVELOPMENT MANUAL

Council Mareeba Shire Council  
(INSERT COUNCIL NAME)

## STATEMENT OF COMPLIANCE OPERATIONAL WORKS DESIGN

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

Name of Development 189 Ray Road, Mareeba

Location of Development 189 Ray Road (Lot 46 SP210288)

Applicant T W Hedley Pty Ltd

Designer Neon Consulting

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.

<b>Compliance with the requirements of the Operational Works Design Guidelines</b>	<b>Non-Compliance refer to non-compliance report / drawing number</b>
Plan Presentation	<i>Generally complies</i>
Geotechnical requirements	<i>Generally complies</i>
Geometric Road Design	<i>Generally complies</i>
Pavements	<i>Generally complies</i>
Structures / Bridges	<i>n/a</i>
Subsurface Drainage	<i>Generally complies</i>
Stormwater Drainage	<i>Generally complies</i>
Site Re-grading	<i>Generally complies</i>
Erosion Control and Stormwater Management	<i>Generally complies</i>
Pest Plant Management	<i>Generally complies</i>
Cycleway / Pathways	<i>n/a</i>




Landscaping	<i>n/a</i>
Water Source and Disinfection/Treatment Infrastructure (if applicable)	<i>n/a</i>
Water Reticulation, Pump Stations and water storages	<i>Generally complies</i>
Sewer Reticulation and Pump Stations	<i>n/a</i>
Electrical Reticulation and Street Lighting	<i>n/a</i>
Public Transport	<i>n/a</i>
Associated Documentation/ Specification	<i>Generally complies</i>
Priced Schedule of Quantities	<i>n/a</i>
Referral Agency Conditions	<i>Generally complies</i>
Supporting Information (AP1.08)	<i>Generally complies</i>
Other	<i>n/a</i>

Conscientiously believing the above statements to be true and correct, signed on behalf of:

**Designer** *Consult Neon Pty Ltd* **RPEQ No** *25102*

**Name in Full** *Craig John Caplick*

**Signature**  **Date** *04 November 2024*

## Stormwater



### **Stormwater Philosophy**

Stage 1 of the development included the construction of a table drain along the western site boundary between Ray Road and the development which falls to a stormwater culverts beneath Ray Road which were upgraded by the developer outletting to a major flow path west along Jennings Road .

Stage 2 will include the construction of a drain along the eastern and northern site boundaries taking an external catchment through the site to Jennings Road. A review of the previous stormwater catchments in the area through on-site investigations and LiDAR survey has concluded that the original external catchment was overly conservative. The external catchment has been measured as 21.7ha. Nevertheless, the drainage easement size and location has been designed conservatively to gain additional material for site filling.

Lots 46-57 should be provided with Council rates notices for a minimum flood level of RL436.75m to ensure that the future dwellings are situated 500mm above the regional flood. In the event of any blockage or extreme events greater than the major design storm (1% AEP), water will overtop the northern road embankment at RL436.2m and flow to the north and west.



NOTE: Figures in [brackets] are based on a external 21.7Ha catchment allowance from the eastern side of the Sunwater access

OED1-D (Green + Red + Blue Catchments)  
18.61Ha [+ 21.7Ha (extra 10mins ToC)]  
+1mins (90m @ 1m/s)  
=31mins  
1%AEP = 3.62m<sup>3</sup>/s [8.25m<sup>3</sup>/s]

OED1-C (Green Catchment)  
4.64Ha [+ 21.7Ha]  
+7mins (430m @ 1m/s)  
=30mins  
1%AEP = 1.40m<sup>3</sup>/s [6.72m<sup>3</sup>/s]

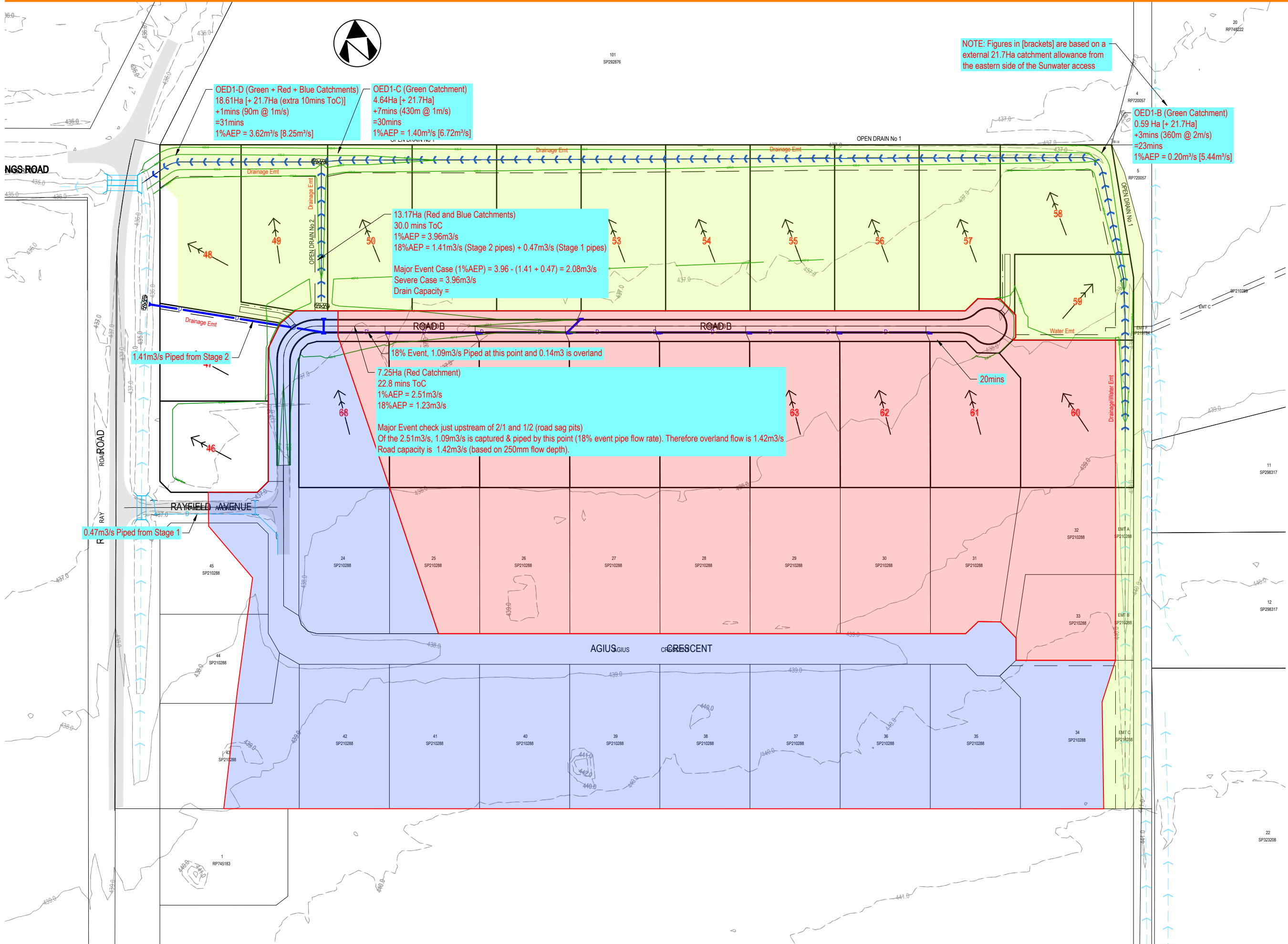
OED1-B (Green Catchment)  
0.59 Ha [+ 21.7Ha]  
+3mins (360m @ 2m/s)  
=23mins  
1%AEP = 0.20m<sup>3</sup>/s [5.44m<sup>3</sup>/s]

13.17Ha (Red and Blue Catchments)  
30.0 mins ToC  
1%AEP = 3.96m<sup>3</sup>/s  
18%AEP = 1.41m<sup>3</sup>/s (Stage 2 pipes) + 0.47m<sup>3</sup>/s (Stage 1 pipes)  
Major Event Case (1%AEP) = 3.96 - (1.41 + 0.47) = 2.08m<sup>3</sup>/s  
Severe Case = 3.96m<sup>3</sup>/s  
Drain Capacity =

18% Event, 1.09m<sup>3</sup>/s Piped at this point and 0.14m<sup>3</sup> is overlaid  
7.25Ha (Red Catchment)  
22.8 mins ToC  
1%AEP = 2.51m<sup>3</sup>/s  
18%AEP = 1.23m<sup>3</sup>/s  
Major Event check just upstream of 2/1 and 1/2 (road sag pits)  
Of the 2.51m<sup>3</sup>/s, 1.09m<sup>3</sup>/s is captured & piped by this point (18% event pipe flow rate). Therefore overlaid flow is 1.42m<sup>3</sup>/s  
Road capacity is 1.42m<sup>3</sup>/s (based on 250mm flow depth).

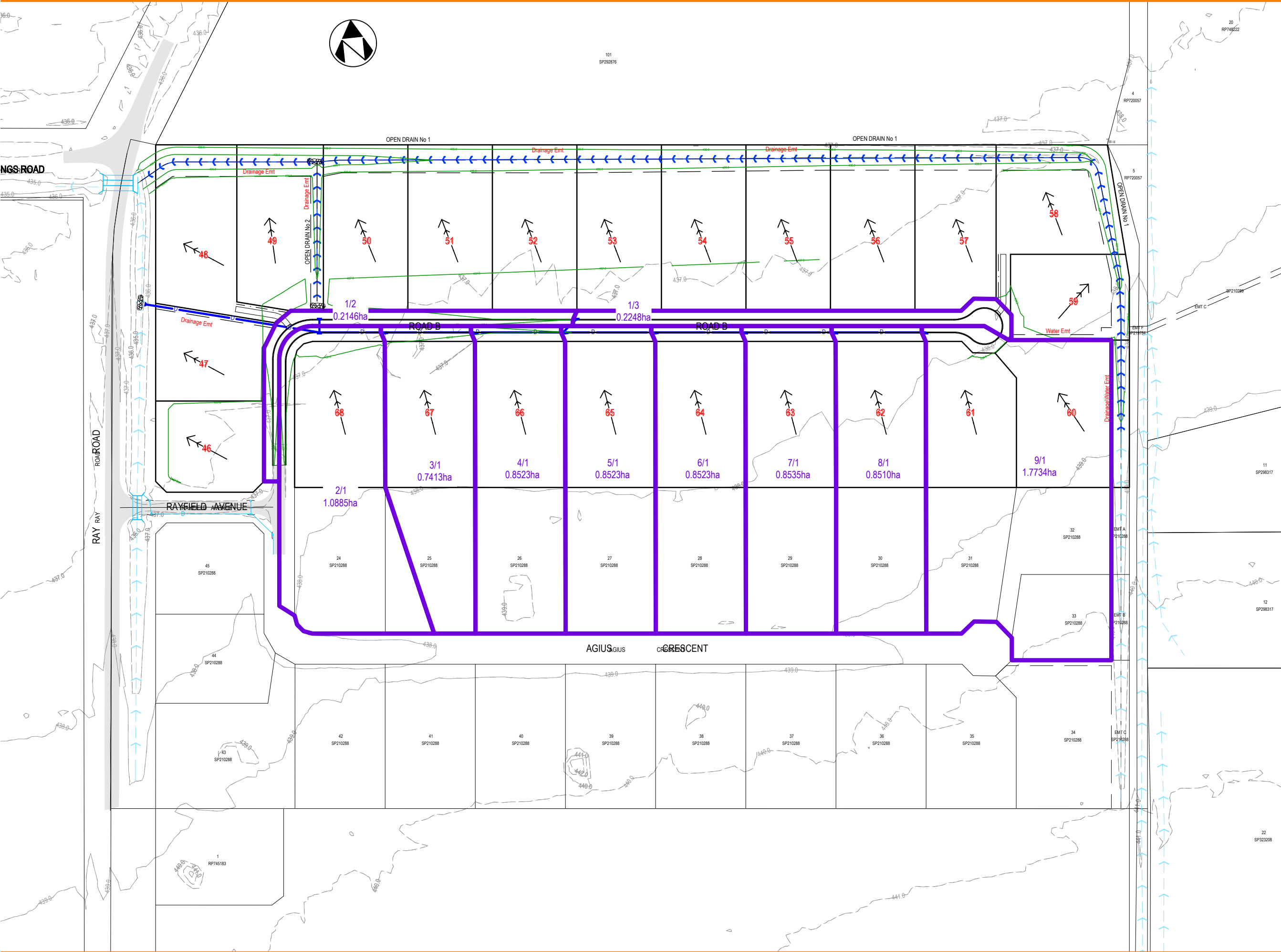
1.41m<sup>3</sup>/s Piped from Stage 2

0.47m<sup>3</sup>/s Piped from Stage 1



TW HEDLEY PTY LTD

RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
CATCHMENT PLANS  
SECONDARY FLOWPATH CATCHMENTS



A 28.10.24 INITIAL ISSUE

Rev Date Revision Notes

30/10/2024 5:47:06 PM File: I:\004\004-2403\10 Drawings\01 Drawings\004-2403-01-DRG-9101\_Stormwater Summary.dwg



TW HEDLEY PTY LTD

Drawn: PAM Design: PAM Check'd: CJC Appr'd: CJC RPEQ: 25102

A3 Full Size (Scale as shown) 30.10.24

RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
CATCHMENT PLANS  
PIPED DRAINAGE CATCHMENTS

004-2403-01-SK-9101

Project : Mareeba

Location : within zone 55, at 332000 , 8116070

## Design Rainfall Data System (2016)

<http://www.bom.gov.au/water/designRainfalls/revise-ifd/>

### Location

**Label:** Mareeba  
**Easting:** 332000  
**Northing:** 8116070  
**Zone:** 55



#### Coefficients for Very Frequent Events (Raw Data from Website)

Coefficient	12EY	6EY	4EY	3EY	2EY	1EY	0.5EY	0.2EY
C0	-0.224936	0.005086	0.282049	0.425111	0.582881	0.783274	1.009816	1.219917
C1	0.875143	0.872772	0.860951	0.840709	0.777008	0.678182	0.654232	0.603283
C2	-0.095246	-0.07381	-0.044595	-0.015238	0.065768	0.180947	0.210556	0.271728
C3	0.044413	0.033175	0.020481	8.56E-03	-0.025967	-0.073162	-0.086054	-0.111744
C4	-0.016073	-0.013453	-0.010819	-0.008486	-0.001495	0.007819	0.010305	0.015012
C5	0.002165	0.001886	0.001628	0.001411	0.000742	-0.00013	-0.000346	-0.000724
C6	-9.59E-05	-8.50E-05	-7.56E-05	-6.80E-05	-4.37E-05	-1.27E-05	-5.74E-06	5.12E-06

#### Coefficients for IFDs (Raw Data from Website)

Coefficient	63.20%	50%	20%	10%	5%	2%	1%
C0	0.783274	0.905456	1.200114	1.350623	1.472813	1.607155	1.694353
C1	0.678182	0.654232	0.603283	0.579946	0.561839	0.540275	0.512074
C2	0.180947	0.210556	0.271728	0.29847	0.318411	0.342968	0.37622
C3	-0.073162	-0.086054	-0.111743	-0.122285	-0.129686	-0.139291	-0.153198
C4	0.007819	0.010305	0.015012	0.016759	0.017854	1.94E-02	0.021993
C5	-0.00013	-0.000346	-0.000724	-0.00084	-0.000893	-0.00099	-0.001201
C6	-1.27E-05	-5.74E-06	5.12E-06	7.33E-06	7.30E-06	8.75E-06	1.50E-05

Requested coordinate: Latitude -17.03341521 Longitude 145.4215805  
Nearest grid cell: Latitude 17.0375 (S) Longitude 145.4125 (E)

Catchment									Adopted tc	( mm/h   m3/s ) for AEP												1% AEP Scenario			Catchment
	Area	c10	c1	c2	c5	c10	c50	c100		63%	39%	18%	10%	2%	1%	Piped flow	Overland flow	Capacity							
	(1 year ARI)		(2 year ARI)		(5 year ARI)		(10 year ARI)			(50 year ARI)		(100 year ARI)													
mm/h		m3/s		mm/h		m3/s		mm/h		m3/s		mm/h		m3/s		mm/h		m3/s							
Sag in road	7.25	0.69	0.55	0.59	0.66	0.69	0.79	0.828	22.80	60.37	0.67	75.72	0.89	93.48	1.23	106.60	1.48	137.99	2.21	150.71	2.51	1.09	1.42		Sag in road
Drain After Sag	8.30	0.69	0.55	0.59	0.66	0.69	0.79	0.828	23.00	60.13	0.77	75.41	1.02	93.09	1.41	106.16	1.69	137.41	2.51	150.07	2.86	1.41	1.45		Drain After Sag
OED1-A	0.00	0.69	0.55	0.59	0.66	0.69	0.79	0.828	20.00	64.05	0.00	80.37	0.00	99.31	0.00	113.29	0.00	146.73	0.00	160.30	0.00		0.00		OED1-A
OED1-B	0.59	0.69	0.55	0.59	0.66	0.69	0.79	0.828	23.00	60.13	0.05	75.41	0.07	93.09	0.10	106.16	0.12	137.41	0.18	150.07	0.20		0.20		OED1-B
OED1-C	4.64	0.69	0.55	0.59	0.66	0.69	0.79	0.828	30.00	52.73	0.38	66.06	0.50	81.37	0.69	92.70	0.82	119.83	1.23	130.77	1.40		1.40		OED1-C
OED1-D	18.61	0.69	0.55	0.59	0.66	0.69	0.79	0.828	31.00	51.83	1.48	64.93	1.97	79.95	2.71	91.07	3.25	117.70	4.83	128.43	5.50	1.88	3.62		OED1-D
OED2	13.17	0.69	0.55	0.59	0.66	0.69	0.79	0.828	30.00	52.73	1.06	66.06	1.42	81.37	1.95	92.70	2.34	119.83	3.48	130.77	3.96	1.88	2.08		OED2
+21.7Ha Sceario																									
OED1-A	21.70	0.69	0.55	0.59	0.66	0.69	0.79	0.828	30.00	52.73	1.75	66.06	2.34	81.37	3.22	92.70	3.86	119.83	5.73	130.77	6.53		6.53		OED1-A
OED1-B	22.29	0.69	0.55	0.59	0.66	0.69	0.79	0.828	33.00	50.13	1.71	62.78	2.28	77.26	3.14	87.99	3.76	113.67	5.58	124.02	6.36		6.36		OED1-B
OED1-C	26.34	0.69	0.55	0.59	0.66	0.69	0.79	0.828	40.00	45.03	1.82	56.34	2.42	69.22	3.32	78.77	3.98	101.66	5.90	110.85	6.72		6.72		OED1-C
OED1-D	40.31	0.69	0.55	0.59	0.66	0.69	0.79	0.828	41.00	44.39	2.74	55.54	3.65	68.21	5.01	77.62	6.00	100.16	8.90	109.21	10.13	1.88	8.25		OED1-D
OED2	13.17	0.69	0.55	0.59	0.66	0.69	0.79	0.828	30.00	52.73	1.06	66.06	1.42	81.37	1.95	92.70	2.34	119.83	3.48	130.77	3.96	1.88	2.08		OED2

Catchment	c10	c2	c2	c5	c10	c50	c100	Adopted tc	63%	39%	18%	10%	2%	1%				Catchment
( mm/h   m3/s ) for AEP																		









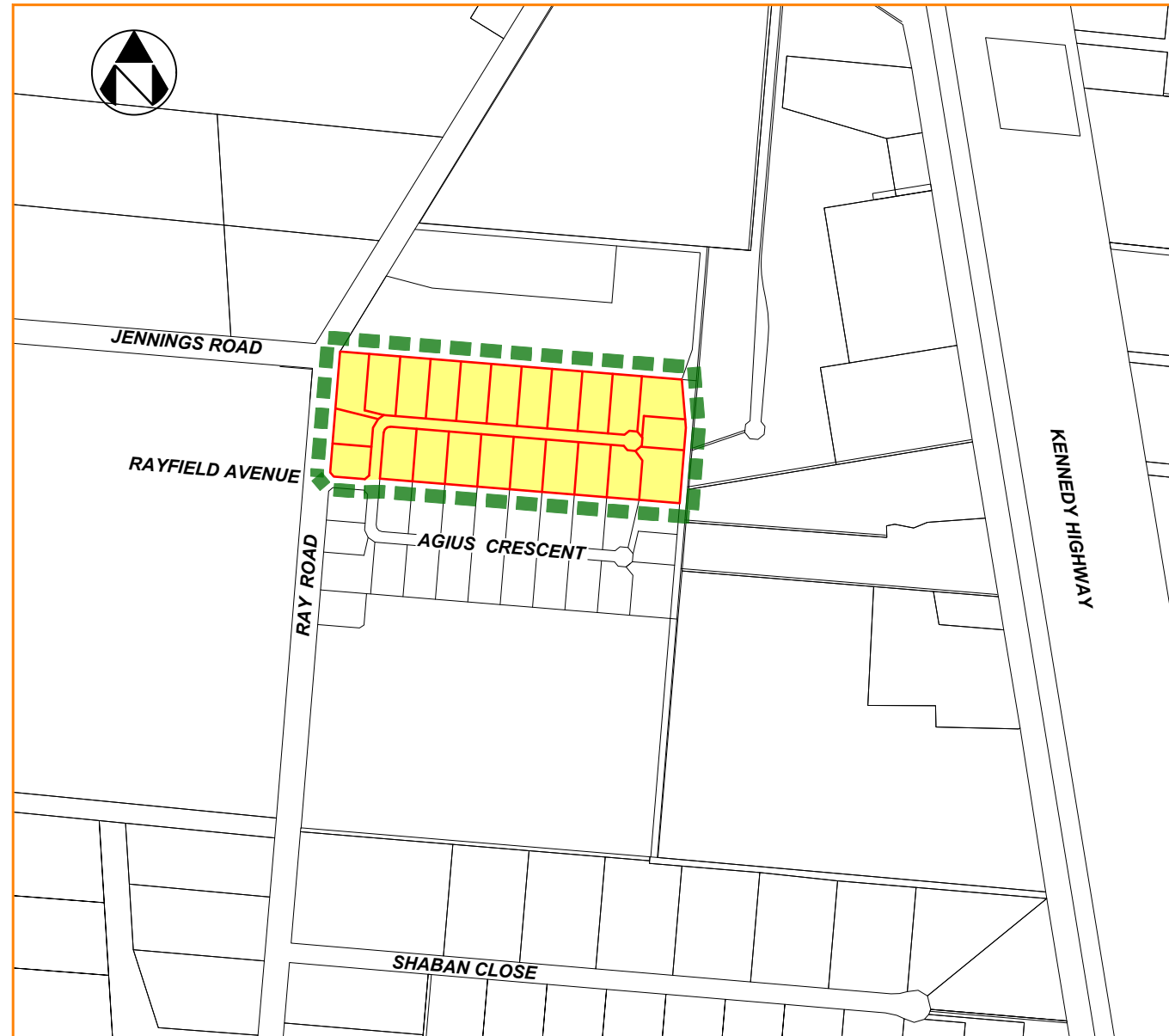


## Civil Engineering Drawings



# RAY ROAD SUBDIVISION 189 RAY ROAD, MAREEBA STAGE 2 CIVIL WORKS

## DRAWING INDEX



LOCALITY PLAN  
N.T.S.

DRAWING No.	DRAWING TITLE
004-2403-01-DRG-0101	LOCALITY PLAN
004-2403-01-DRG-0102	PROJECT NOTES
004-2403-01-DRG-0103	OVERALL SITE PLAN
004-2403-01-DRG-0104	GENERAL ARRANGEMENT, SHEET 1 OF 2
004-2403-01-DRG-0105	GENERAL ARRANGEMENT, SHEET 2 OF 2
004-2403-01-DRG-0201	EARTHWORKS PLAN, SHEET 1 OF 2
004-2403-01-DRG-0202	EARTHWORKS PLAN, SHEET 2 OF 2
004-2403-01-DRG-0203	EARTHWORKS DETAIL PLAN
004-2403-01-DRG-0301	TYPICAL SECTIONS AND DETAILS, SHEET 1 OF 2
004-2403-01-DRG-0302	TYPICAL SECTIONS AND DETAILS, SHEET 2 OF 2
004-2403-01-DRG-0303	INTERSECTION DETAILS
004-2403-01-DRG-0401	STORMWATER DRAINAGE PLAN, SHEET 1 OF 2
004-2403-01-DRG-0402	STORMWATER DRAINAGE PLAN, SHEET 2 OF 2
004-2403-01-DRG-0403	STORMWATER LONGITUDINAL SECTIONS, SHEET 1 OF 2
004-2403-01-DRG-0404	STORMWATER LONGITUDINAL SECTIONS, SHEET 2 OF 2
004-2403-01-DRG-0601	WATER RETICULATION, SHEET 1 OF 2
004-2403-01-DRG-0602	WATER RETICULATION, SHEET 2 OF 2
004-2403-01-DRG-0701	SITE BASED STORMWATER MANAGEMENT PLAN, SHEET 1 OF 2
004-2403-01-DRG-0702	SITE BASED STORMWATER MANAGEMENT PLAN, SHEET 2 OF 2
004-2403-01-DRG-0801	MASTER SERVICES PLAN, SHEET 1 OF 2
004-2403-01-DRG-0802	MASTER SERVICES PLAN, SHEET 2 OF 2
004-2403-01-DRG-0901	ROAD B LONGITUDINAL SECTION
004-2403-01-DRG-0902	ROAD B CROSS SECTIONS, SHEET 1 OF 2
004-2403-01-DRG-0903	ROAD B CROSS SECTIONS, SHEET 2 OF 2
004-2403-01-DRG-0904	OED 1 LONGITUDINAL SECTION, SHEET 1 OF 2
004-2403-01-DRG-0905	OED 1 LONGITUDINAL SECTION, SHEET 2 OF 2
004-2403-01-DRG-0906	OED 1 CROSS SECTIONS, 1 OF 3
004-2403-01-DRG-0907	OED 1 CROSS SECTIONS, SHEET 2 OF 3
004-2403-01-DRG-0908	OED 1 CROSS SECTIONS, SHEET 3 OF 3
004-2403-01-DRG-0908	OED 1 LONGITUDINAL AND CROSS SECTIONS

## INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA STANDARD DRAWINGS

DRAWING No.	DRAWING TITLE
D-0040	SEDIMENT CONTROL DEVICES - SEDIMENT FENCE, ENTRY/EXIT SEDIMENT TRAP
D-0041	SEDIMENT CONTROL DEVICES - KERB AND FIELD INLETS, CHECK DAMS & STRAW BALE BANKS

## FNQROC STANDARD DRAWINGS

DRAWING No.	DRAWING TITLE
S1000 - S1110	ROADWORKS AND DRAINAGE
S2000 - S2025	WATER
S3000 - S3015	SEWERAGE

## GENERAL ARRANGEMENT

### GENERAL

- G1. ALL WORKS ARE TO BE IN ACCORDANCE WITH THE FNQROC DEVELOPMENT MANUAL SPECIFICATIONS S1 TO S8.
- G2. CONTRACTOR TO PROVIDE PUBLIC NOTIFICATION/SIGNS (REFER FNQROC DEVELOPMENT MANUAL CP1.11).
- G3. CLEARED VEGETATION SHALL BE MULCHED ON SITE BY THE CONTRACTOR.
- G4. FOR KERB PROFILE DETAILS REFER FNQROC STD DRG S1000.
- G5. FOR STREET NAME POST DETAILS REFER FNQROC STD DRG S1040.
- G6. FOR CONCRETE DRIVEWAY DETAILS REFER FNQROC STD DRG S1110.

### EXISTING SERVICES

- ES1. EXISTING SERVICES 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.
- ES2. 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.
- ES3. THE CONTRACTOR IS TO BRING TO THE SUPERINTENDENT'S ATTENTION ANY DISCREPANCIES BETWEEN THE EXISTING SERVICES THUS IDENTIFIED AND DOCUMENTED SERVICES WHICH MIGHT AFFECT THE PROPOSED WORKS. APPROPRIATE MEASURES TO RESOLVE ANY CONFLICTS WILL BE DOCUMENTED BY THE SUPERINTENDENT.

### VEGETATION & CLEARING

- VC1. PRIOR TO THE REMOVAL OF ANY TREE. AN INSPECTION MUST BE CARRIED OUT OF ANY SIGNS OF PROTECTED WILDLIFE INCLUDING NESTS AND ANIMAL HABITATS. SHOULD ANY RECENT WILDLIFE ACTIVITY BE IDENTIFIED, REMOVAL OF THE TREE MUST NOT OCCUR UNTIL THE ANIMAL HAS VACATED THE AREA OF IMMEDIATE DANGER. IF THE ANIMAL DOES NOT MOVE FROM THE AREA OF DANGER, THE QUEENSLAND PARKS AND WILDLIFE MUST BE CONTACTED FOR ADVICE.
- VC1. AN ASSESSMENT IS TO BE UNDERTAKEN BY A SUITABLY QUALIFIED AND EXPERIENCED SPOTTER/CATCHER TO DETERMINE THE POSSIBLE PRESENCE OF NATIVE WILDLIFE. THE ASSESSMENT MUST INCLUDE THE IDENTIFICATION OF ANY BREEDING PLACES FOR ANY ENDANGERED/VULNERABLE OR NEAR THREATENED ANIMAL SPECIES, SPECIAL LEAST CONCERN OR COLONIAL BREEDING SPECIES PRIOR TO THE REMOVAL OF ANY TREE AND/OR VEGETATION AS PER THE REQUIREMENTS OF SECT. 332 OF THE NATURE CONSERVATION (WILDLIFE MANAGEMENT) REGULATION 2006 (CONDITION 59).
- VC2. COUNCIL MUST BE NOTIFIED TWO DAYS PRIOR TO THE PROPOSED DATE OF COMMENCEMENT OF ANY APPROVED VEGETATION CLEARING TO FACILITATE COMMUNITY AWARENESS OF SUCH WORKS.
- VC3. VEGETATION TO BE RETAINED MUST BE ADEQUATELY DEFINED BY FENCING, FLAGGING OR BARRIER MESH FOR PROTECTION PURPOSES PRIOR TO CONSTRUCTION COMMENCING ON SITE.
- VC4. A MINIMUM 2m WIDE BUFFER SHALL BE PROVIDED AROUND THE VEGETATION TO BE RETAINED. THIS BUFFER MUST CONSIST OF SUITABLE FENCING, FLAGGING OR BARRIER MESH TO ENSURE THAT MACHINERY, EQUIPMENT OR CONSTRUCTION MATERIALS ARE NOT STORED OR USED WITHIN THIS AREA. THIS BUFFER IS TO BE ESTABLISHED PRIOR TO THE COMMENCEMENT OF ANY WORKS ON SITE AND MUST BE MAINTAINED AT ALL TIMES FOR THE DURATION OF CONSTRUCTION.
- VC5. CLEARED VEGETATION TO BE MULCHED AND SPREAD OVER THE CLEARED AREA FOR EROSION AND SEDIMENT CONTROL OR LANDSCAPING PURPOSES.

## EARTHWORKS

- E1. ALL BATTERS TO ROAD FRONTAGES OF LOTS ARE 1 ON 4 OR FLATTER. ALL OTHER BATTERS ARE 1 ON 1 U.N.O.

- E2. UPON COMPLETION ALL BATTERS STEEPER THAN 1 IN 2 AND HIGHER THAN 1.5m SHALL REQUIRE CERTIFICATION BY A GEOTECHNICAL ENGINEER.

## INTERSECTION DETAILS

- I1. ALL KERB SETOUT DETAILS REFER TO THE LIP OF KERB AND CHANNEL OR FACE OF KERB AS APPLICABLE.
- I2. FOR KERB PROFILE DETAILS REFER FNQROC STD DRG S1000.
- I3. ALL TRAFFIC SIGNS AND PAVEMENT MARKING TO BE IN ACCORDANCE WITH 'T.M.R. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' PARTS 1-15.
- I4. ALL REGULATORY, WARNING AND HAZARD SIGNS TO BE SIZE 'A' UNLESS NOTED OTHERWISE.
- I5. NEW LINEMARKING WORKS TO BE 2 COAT APPLICATION OF WATERBORNE PAINT AS PER DTMR STANDARDS (MRTS45 CLAUSE 6.1.2)

## STORMWATER DRAINAGE

- D1. FOR STANDARD STORMWATER DRAINAGE DETAILS REFER FNQROC STD. DRGS. S1045-S1100 INCLUSIVE.
- D2. THE CONTRACTOR IS TO LOCATE ALL EXISTING SERVICES IN THE WORKS AREA PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. FOR NOTES REGARDING EXISTING SERVICES REFER DG-0001.
- D3. SUBSURFACE DRAINS TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATION, FLUSHING POINTS IN ACCORDANCE WITH FNQROC STD DRG S1095.
- D4. PRIOR TO COMMENCEMENT OF PIPEWORK, THE CONTRACTOR IS TO CONFIRM THE INVERT LEVEL OF DOWNSTREAM DRAINAGE TO ENSURE THE STORMWATER SYSTEM CAN DRAIN SATISFACTORILY. REFER ANY DISCREPANCY TO THE SUPERINTENDENT.
- D5. CCTV INSPECTIONS ARE TO BE CONDUCTED FOR ALL NEW STORMWATER PIPES FOR COUNCIL ASSESSMENT.
- D6. ALL STORMWATER PIPES SHALL BE EITHER REINFORCED CONCRETE PIPE (RCP) OR POLYPROPYLENE (PP). RCP PIPES SHALL BE CLASS 2 FJ UNLESS NOTED OTHERWISE. PP PIPES SHALL BE BLACKMAX OR STORMPRO. REFER DRG-0301 FOR PP BEDDING DETAILS.

## WATER

- W1. ALL WATER MAINS ARE ON A 2.0m ALIGNMENT FROM BOUNDARY U.N.O.
- W2. FOR STANDARD DETAILS REFER FNQROC. STD. DRGS. S2000 TO S2035 INCLUSIVE.
- W3. ALL WORKS ARE TO BE IN ACCORDANCE WITH FNQROC DEVELOPMENT MANUAL SPECIFICATION S5.
- W4. CONNECTIONS TO EXISTING COUNCIL MAINS TO BE MADE BY COUNCIL AND REQUIRE 30 DAYS NOTICE.
- W5. THE CONTRACTOR IS TO LOCATE ALL EXISTING SERVICES IN THE WORKS AREA PRIOR TO COMMENCEMENT OF CONSTRUCTION. REFER DRG-01 FOR NOTES REGARDING EXISTING SERVICES.
- W6. TEARDROP MARKERS AND BLUE RETRO REFLECTIVE MARKERS TO BE IN ACCORDANCE WITH FNQROC STD DRG S2010 REVISION B.
- W7. PROVIDE A COMPRESSIBLE LAYER BETWEEN ALL EXISTING AND PROPOSED HYDRANT OR VALVE SURROUNDS WITHIN AREAS OF CONCRETE.
- W8. PROVIDE 'OMNI' MARKER BALLS TO WATERMANS ON NON-STANDARD ALIGNMENTS AND INSTALL TO MANUFACTURERS SPECIFICATION. MARKERS ARE TO BE INSTALLED AT ALL HORIZONTAL CHANGES OF DIRECTION AND INTERVALS NOT GREATER THAN 50m ALONG THE PIPELINE. MARKER LOCATIONS ARE TO BE SHOWN ON AS-CONSTRUCTED DRAWINGS.
- W9. THRUST BLOCKS ARE TO BE INSTALLED AT VALVES IN ACCORDANCE WITH WSA STANDARD DRAWING SEQ-WAT-1206-1.

## EROSION AND SEDIMENT CONTROL STRATEGY

- SC1. SEQUENCING OF CONTROL MEASURES
- INSTALL STABLE POINT OF ENTRY
  - INSTALL SILT FENCES
  - PROTECT TOPSOIL STOCKPILES
  - CONSTRUCT TEMPORARY SEDIMENT BASINS
  - INSTALL STORMWATER PIPES

- IMPLEMENT PROTECTION MEASURES TO STORMWATER PITS
- REVEGETATE BARE AREAS UPON COMPLETION OF EARTHWORKS
- THE SEDIMENT CONTROL STRUCTURES ARE TO BE CLEANED & MAINTAINED AFTER EVERY SIGNIFICANT RAIN EVENT. ERODED SOILS SHALL BE STOCKPILED AS DIRECTED.

SC2. THE AMOUNT OF DISTURBANCE TO EXISTING VEGETATION BE KEPT TO A MINIMUM.

SC3. EXACT LOCATION OF SEDIMENT CONTROL STRUCTURES TO BE DETERMINED ON SITE BY COUNCIL & SUPERINTENDENT.

SC4. STOCKPILE LOCATIONS TO BE AGREED WITH COUNCIL & THE SUPERINTENDENT. STOCKPILES TO BE PROTECTED VIA DIVERSION DRAIN ON THE UPSLOPE & SILT FENCE ON THE DOWNSLOPE.

SC5. RETURNS IN SILT FENCE TO BE AT 20m INTERVALS WHEN INSTALLED ALONG THE CONTOUR. SPACING IS TO DECREASE TO 5-10m DEPENDING ON SLOPE IF THE SILT FENCE IS INSTALLED AT AN ANGLE TO THE CONTOUR. THE RETURN SHALL CONSIST OF EITHER:

- V-SHAPED SECTION EXTENDING AT LEAST 1.5m UP THE SLOPE; OR
- SANDBAG OR ROCK/AGGREGATE CHECK DAM A MINIMUM OF 1/3 AND MAXIMUM OF 1/2 FENCE HEIGHT, AND EXTENDING AT LEAST 1.5m UP THE SLOPE.

SC6. STORMWATER PIPES TO HAVE PIT PROTECTION MEASURES AS DETAILED IN FNQROC DEVELOPMENT MANUAL.

SC7. ALL SEDIMENT CONTROL MEASURES TO BE IN ACCORDANCE WITH THE CONTRACTORS ESC PLAN.

SC8. THE FOLLOWING REVEGETATION MEASURES ARE TO BE UNDERTAKEN IMMEDIATELY UPON COMPLETION OF EARTHWORKS.

- CUT & FILL BATTERS STEEPER THAN 1 IN 4 TO BE HYDROMULCHED.
- VERGES & ALLOTMENTS TO BE GRASS SEEDED.
- PLACE TURF STRIPS BEHIND ALL KERB LINES.

SC9. REVEGETATION IS TO BE WATERED & MAINTAINED UNTIL GROWTH IS ESTABLISHED.

SC10. CONTRACTOR MUST IMPLEMENT A SUITABLE DUST MANAGEMENT STRATEGY TO MINIMISE DUST NUISANCE ON ADJACENT PROPERTIES. DETAILS OF THE DUST MANAGEMENT STRATEGY TO BE INCORPORATED INTO EROSION AND SEDIMENT CONTROL STRATEGY.

SC11. SEDIMENT BASIN

- INLET PROTECTION TO MINIMISE SCOUR & EVENLY DISTRIBUTE FLOW THROUGH BASIN.
- A MARKER PEG SHOULD BE INSTALLED TO SHOW THE STORAGE DEPTH. SEDIMENT SHALL BE REMOVED FROM BASIN WHEN 30% STORAGE DEPTH IS ENCRACHED & APPROPRIATELY DISPOSED ON SITE BY RESPREADING IN AREAS OF NON-EROSIVE FLOWS.

SC12. WATER QUALITY MONITORING SHOULD BE UNDERTAKEN DURING SIGNIFICANT RAINFALL EVENTS (I.E. > 10mm).

SC13. DESIGN CRITERIA FOR CONTRACTOR'S EROSION & SEDIMENT CONTROL PLAN TO BE IN ACCORDANCE WITH SECTION CP1.05 OF THE FNQROC DEVELOPMENT MANUAL.

## SURVEY AND SETOUT

SS1. SURVEY, DATUM, LEVELS & SERVICES HAVE BEEN DERIVED FROM MD LAND SURVEY JOB NO 1873 CAD FILE "Ray Road Detail.dwg" DATED 22/09/2024.





AZIMUTH: MGA vide SP292876  
HORIZONTAL DATUM: Arbitrary  
VERTICAL DATUM: AHD vide PSM 94627 RL 425.910

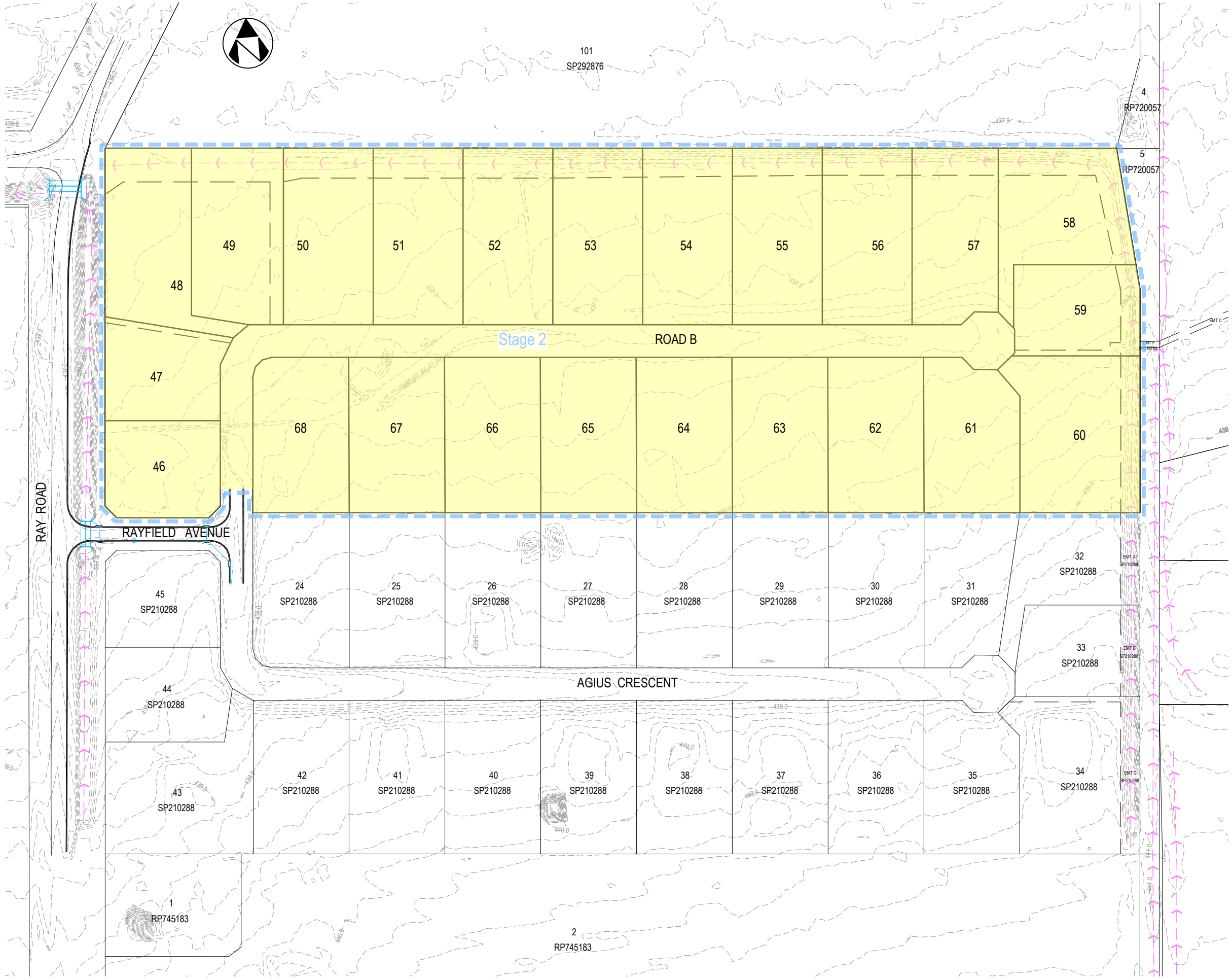
SS2. DIGITAL CAD FILES OF THE CIVIL WORKS WILL BE PROVIDED FOR SETOUT PURPOSES.



101  
SP292876

4  
RP720057  
5  
RP720057

- LEGEND**
-  STAGE BOUNDARY
  -  SUBJECT STAGE
  -  EXISTING SURFACE CONTOURS
  -  EXISTING OPEN DRAIN/CREEK/GULLY



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RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
OVERALL SITE PLAN

A 28.10.24 INITIAL ISSUE

Rev Date Revision Notes

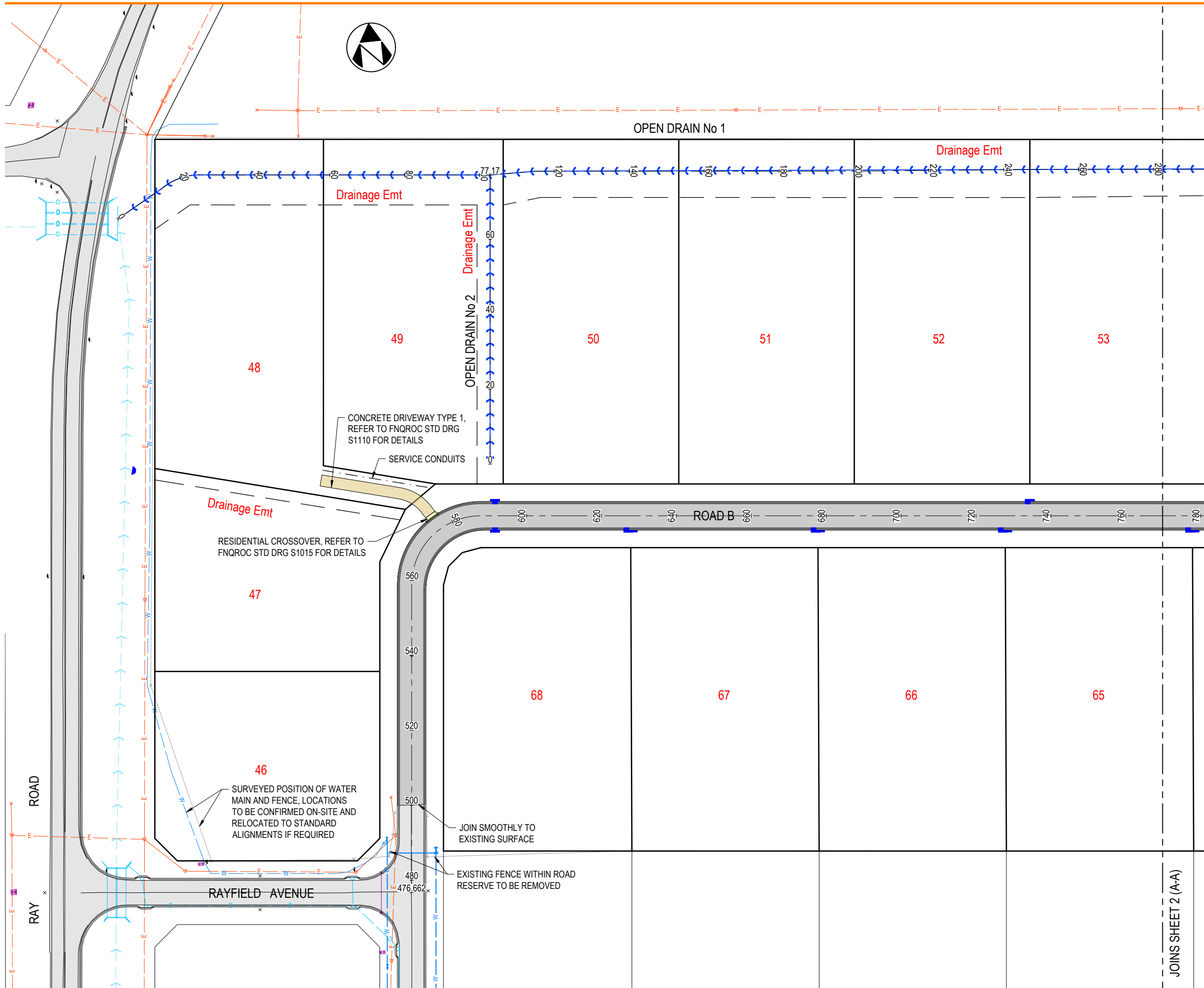
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**LEGEND**

- ASPHALT SEALED PAVEMENT
- CONCRETE DRIVEWAY (3.0m WIDE U.N.O.)
- EXISTING STORMWATER
- EXISTING SEWER
- EXISTING WATER
- EXISTING COMMS
- EXISTING ELECTRICAL
- SERVICES CONDUIT
- EASEMENT BOUNDARY
- DRAINAGE KERB INLET PIT
- EXISTING DRAIN (REMAINS)
- PROPOSED DRAIN

**NOTE**

1. FOR NOTES REFER TO DRG-0102.



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RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
GENERAL ARRANGEMENT  
SHEET 1 OF 2

A 28.10.24 INITIAL ISSUE

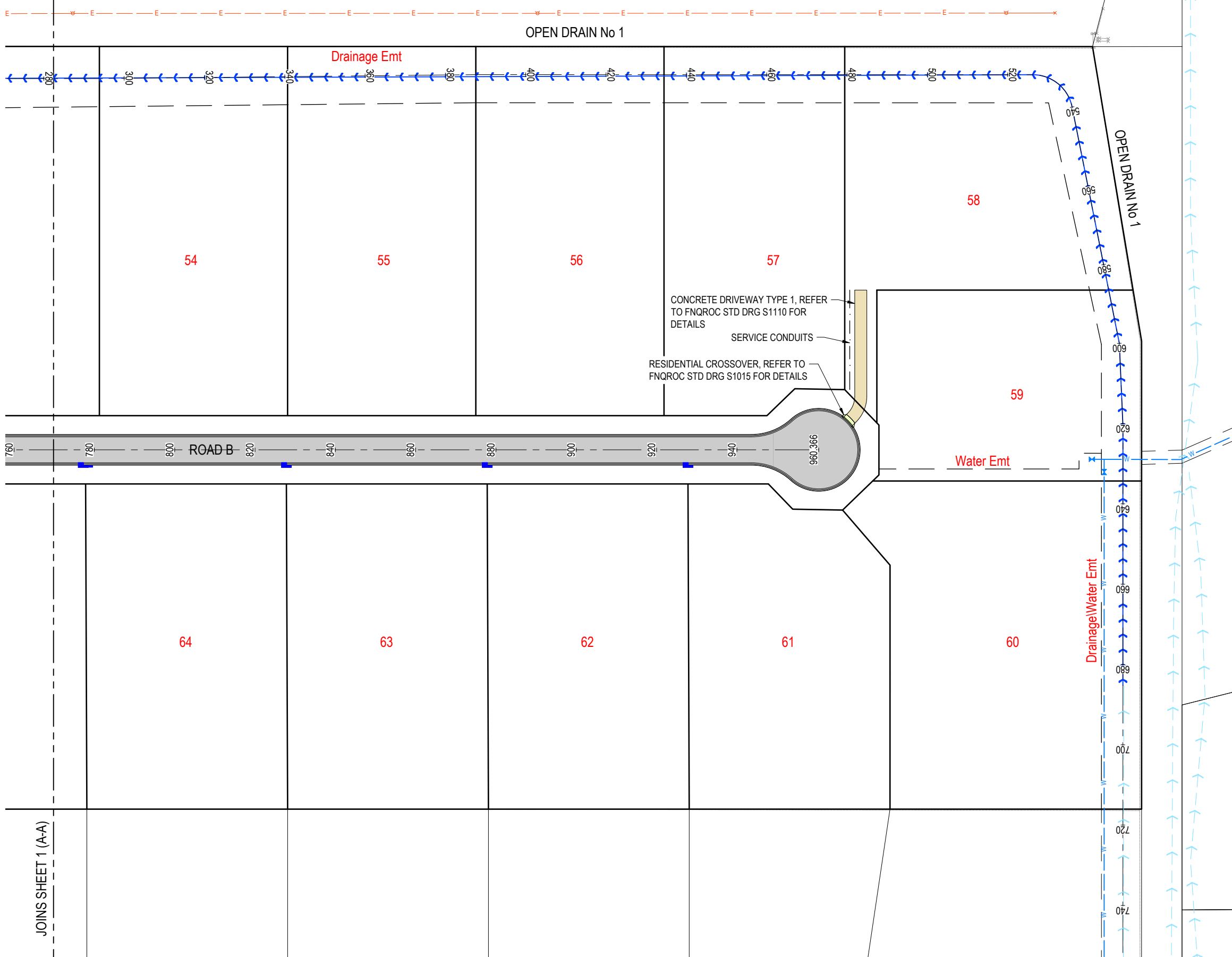
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JOINS SHEET 1 (A-A)

**NOTE**

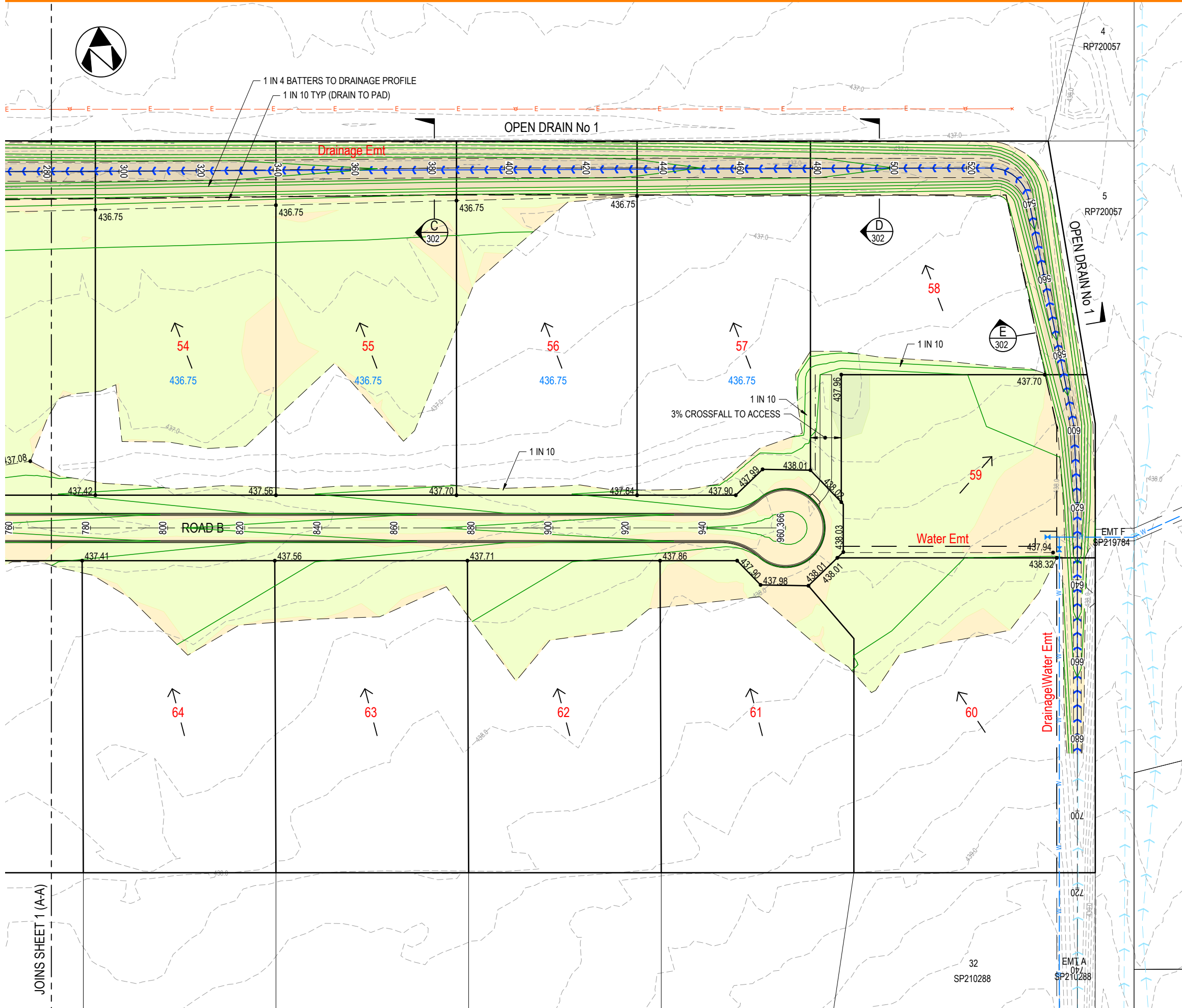
- 1. FOR LEGEND REFER SHEET 1.
- 2. FOR NOTES REFER TO DRG-0102.

RURAL RESIDENTIAL SUBDIVISION  
 189 RAY ROAD, MAREEBA  
 GENERAL ARRANGEMENT  
 SHEET 2 OF 2



TW HEDLEY PTY LTD





JOINS SHEET 1 (A-A)

- NOTE**
1. FOR LEGEND REFER SHEET 1.
  2. FOR NOTES REFER TO DRG-0102.

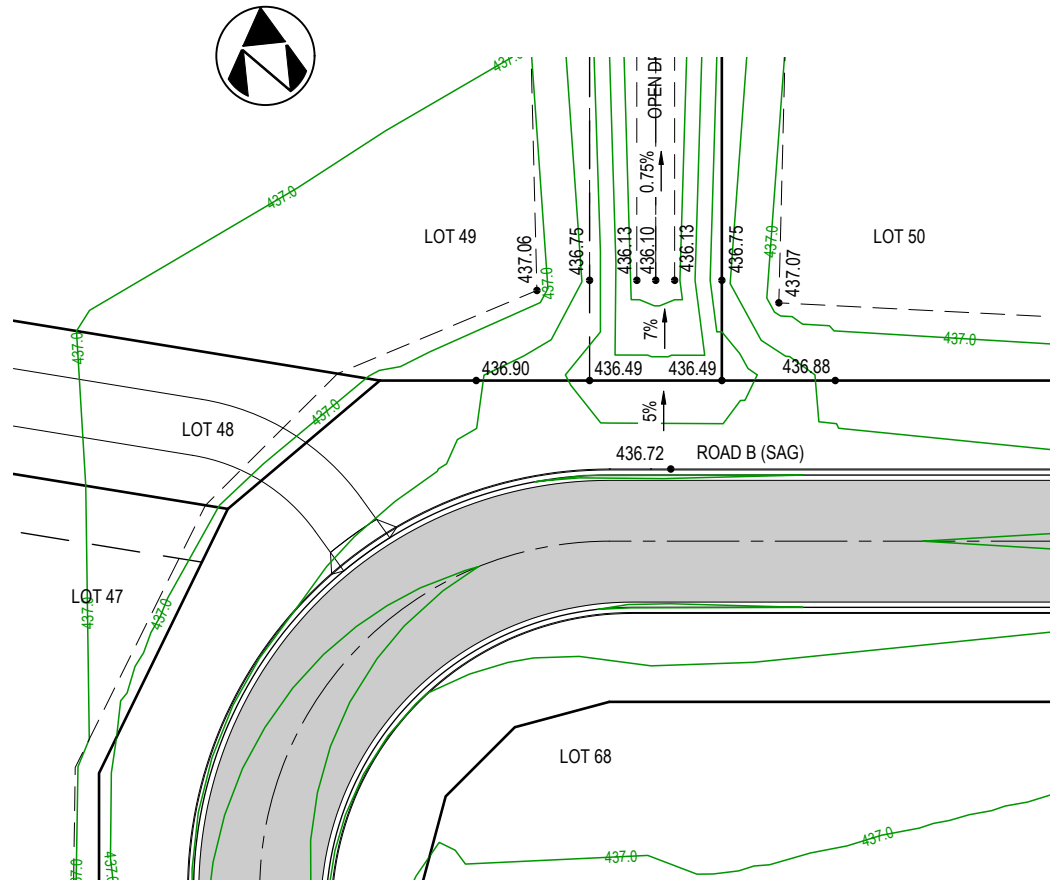


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RURAL RESIDENTIAL SUBDIVISION  
 189 RAY ROAD, MAREEBA  
 EARTHWORKS PLAN  
 SHEET 2 OF 2

**LEGEND**

- 18.70 FINISHED SURFACE LEVEL
- 57.0 — DESIGN SURFACE CONTOURS (0.2m INTERVAL)



ROAD B - EARTHWORKS LEVELS AT ROAD SAG



**CONTROL LINE ROAD B SETOUT**

CHAINAGE	COORDINATES		BEARING DEG MIN SEC	RADIUS OF CURVATURE	TANGENT LENGTH	ARC LENGTH
	EASTING	NORTHING				
476.662	5051.892	9794.307	4° 40' 30"	STRAIGHT	18.500	29.059
558.761	5058.583	9876.133	4° 40' 30"	18.500		
IP 573.291	5060.091	9894.571	-	18.500		
587.821	5078.529	9893.063	94° 40' 30"	STRAIGHT		
960.366	5449.835	9862.699	94° 40' 30"	STRAIGHT		

**CONTROL LINE OED-1 SETOUT**

CHAINAGE	COORDINATES		BEARING DEG MIN SEC	RADIUS OF CURVATURE	TANGENT LENGTH	ARC LENGTH
	EASTING	NORTHING				
0.000	4988.333	9979.910	59° 59' 59"	STRAIGHT	4.684	9.080
16.016	5002.203	9987.918	59° 59' 59"	15.000		
IP 20.556	5006.259	9990.260	-	15.000		
25.096	5010.928	9989.878	94° 40' 60"	STRAIGHT		
102.819	5088.391	9983.532	89° 55' 10"	STRAIGHT		
114.861	5100.433	9983.549	94° 40' 60"	STRAIGHT		
200.094	5185.381	9976.590	94° 4' 19"	STRAIGHT		
246.963	5232.132	9973.262	94° 40' 60"	STRAIGHT		
293.829	5278.842	9969.435	94° 4' 19"	STRAIGHT		
387.568	5372.344	9962.779	94° 40' 60"	STRAIGHT		
526.251	5510.564	9951.456	94° 40' 60"	10.000	8.196	13.732
IP 533.117	5518.733	9950.787	-	10.000		
539.983	5519.681	9942.646	173° 21' 34"	STRAIGHT		
599.898	5526.610	9883.132	182° 10' 53"	STRAIGHT		
620.551	5525.824	9862.494	184° 40' 44"	STRAIGHT		
716.016	5518.037	9767.347	184° 40' 44"	STRAIGHT		
893.992	5503.519	9589.965	184° 40' 44"	STRAIGHT		

**CONTROL LINE OED-2 SETOUT**

CHAINAGE	COORDINATES		BEARING DEG MIN SEC	RADIUS OF CURVATURE	TANGENT LENGTH	ARC LENGTH
	EASTING	NORTHING				
0.000	5082.102	9906.619	4° 40' 30"	STRAIGHT		
77.170	5088.391	9983.532	4° 40' 30"	STRAIGHT		

**TABLE OF WIDTHS**

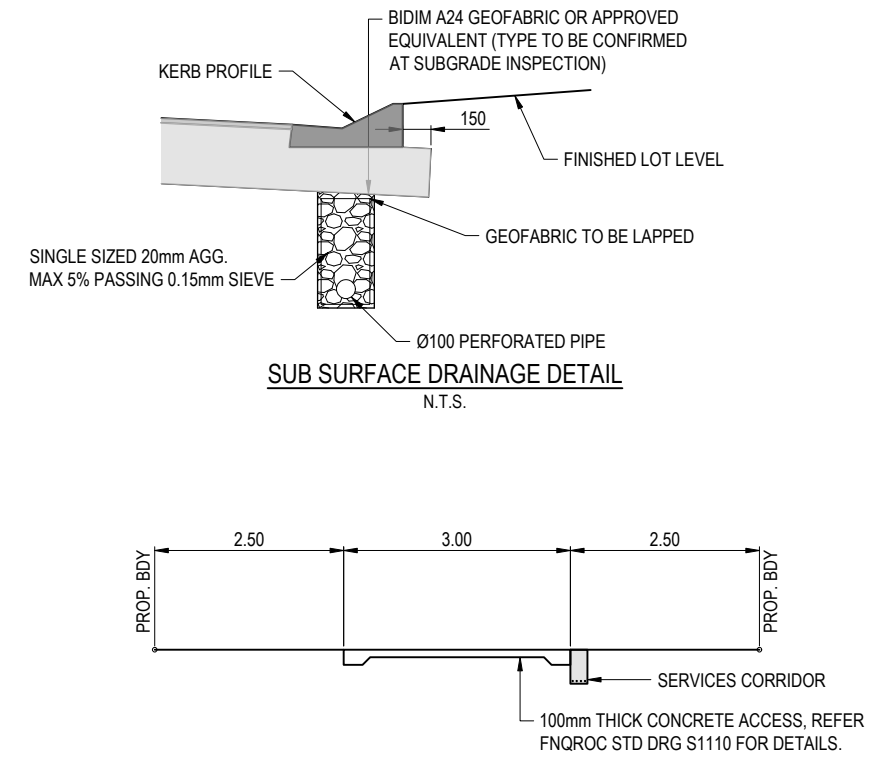
ROAD	CARRIAGEWAY WIDTH (m)	VERGE WIDTH (m)		RESERVE WIDTH (m)
		LHS	RHS	
ROAD B	7.00	5.00	5.00	17.00

**PROVISIONAL PAVEMENT DETAILS**

LOCATION	SURFACING	BASE COURSE	SUBBASE COURSE
ROAD B	30mm ASPHALT	100mm THICK CBR 60 MIN	100mm THICK CBR 45 MIN

NOTES  
PROVISIONAL PAVEMENT DESIGN IS BASED ON AN ASSUMED SUBGRADE SOAKED CBR OF 10. THE CONTRACTOR IS TO CONFIRM SUBGRADE CBR DURING CONSTRUCTION AND THE PAVEMENT DESIGN MAY BE AMENDED ACCORDINGLY BY THE COUNCIL.

ASPHALT SURFACING TO BE INCREASED TO 50mm AT CUL-DE-SAC. REFER DRG. DRG-0303 FOR LOCATIONS.

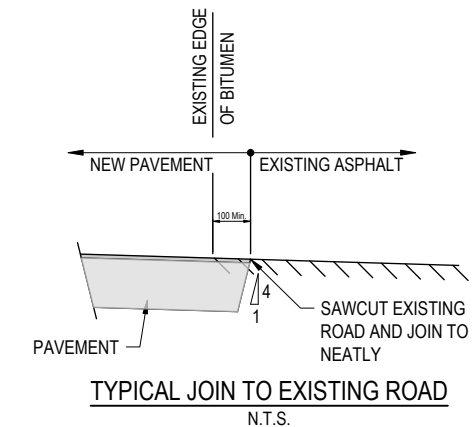
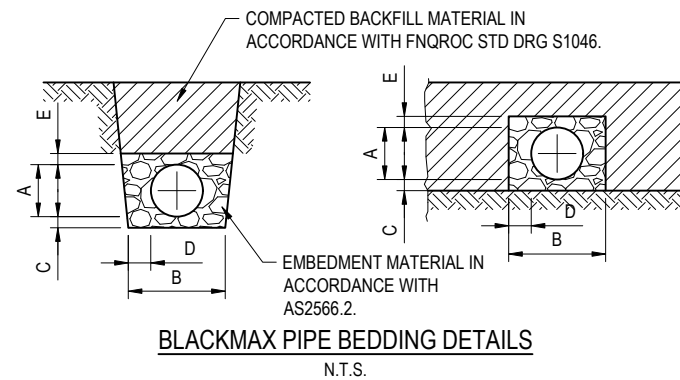


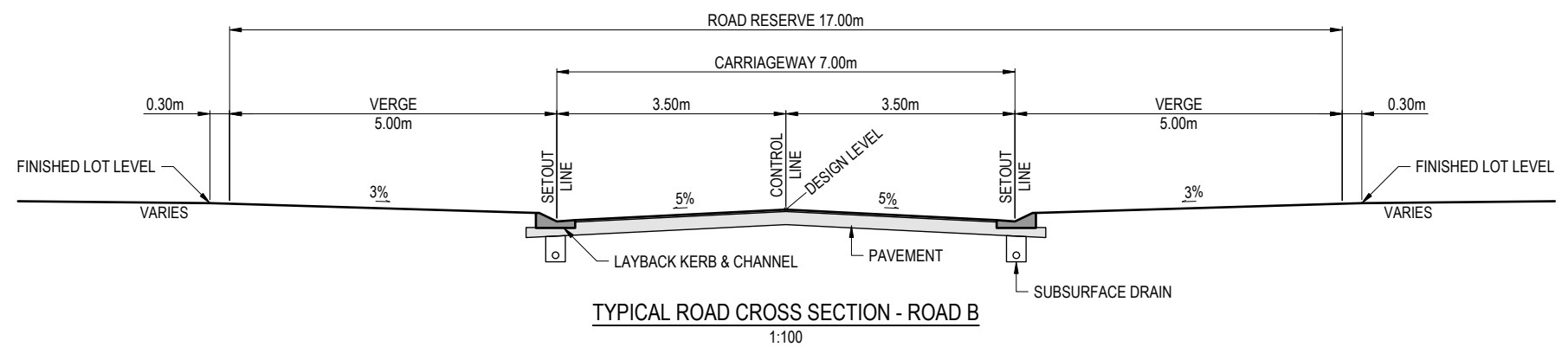
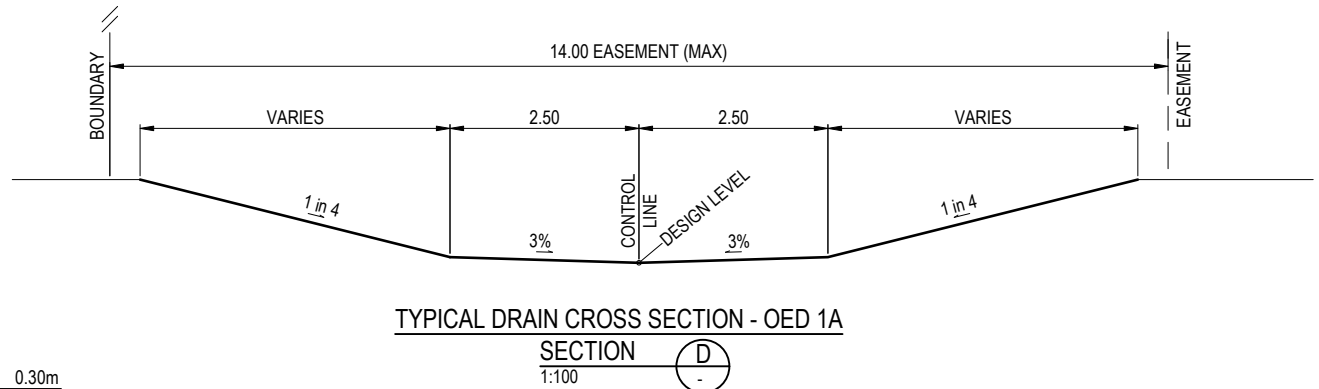
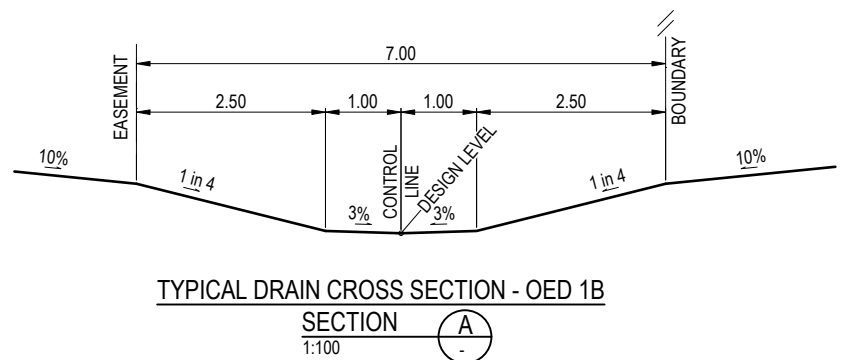
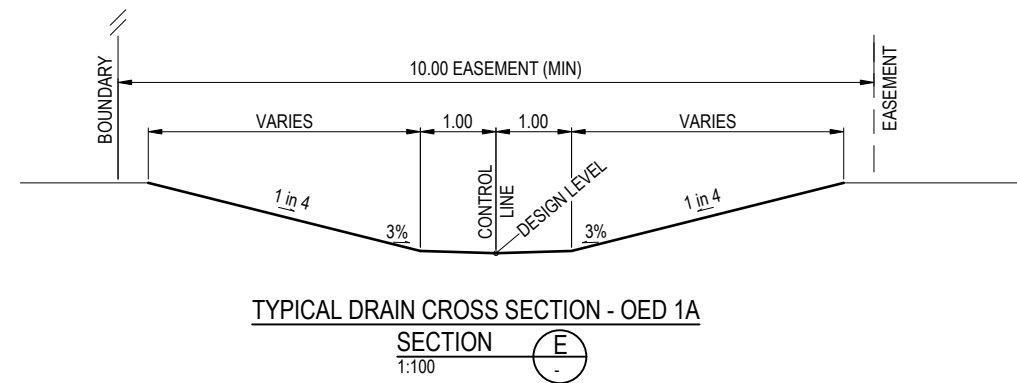
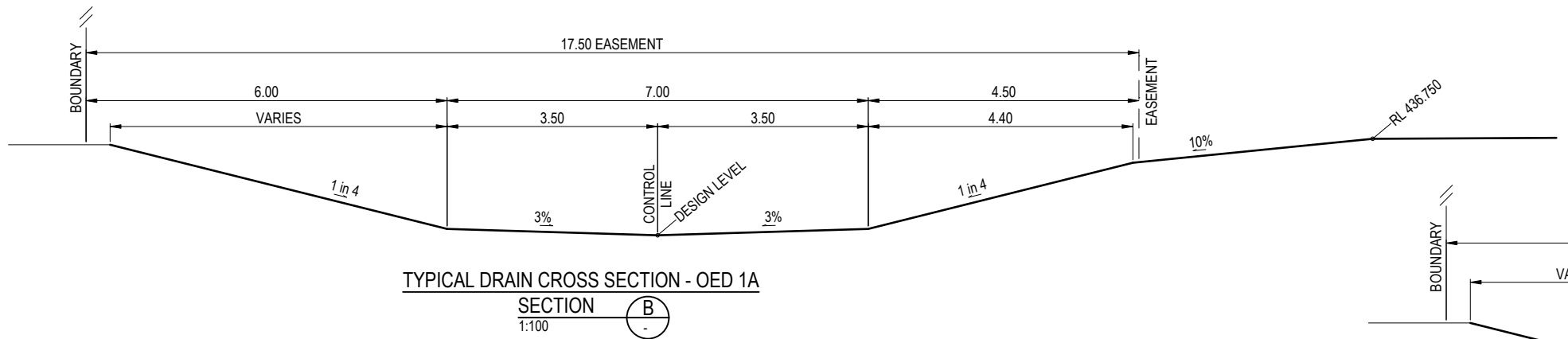
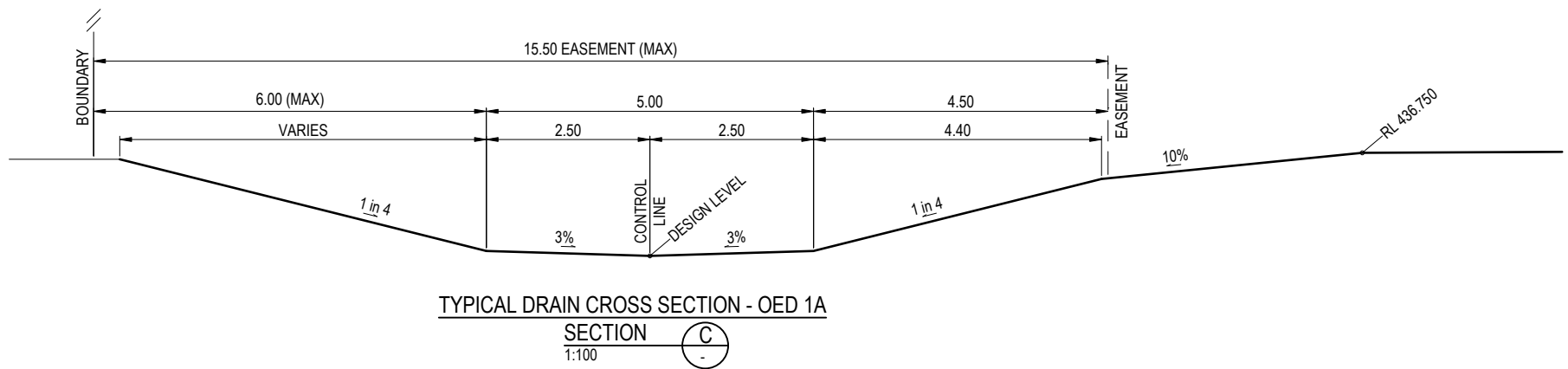
**TYPICAL ACCESS CROSS SECTION**  
N.T.S.

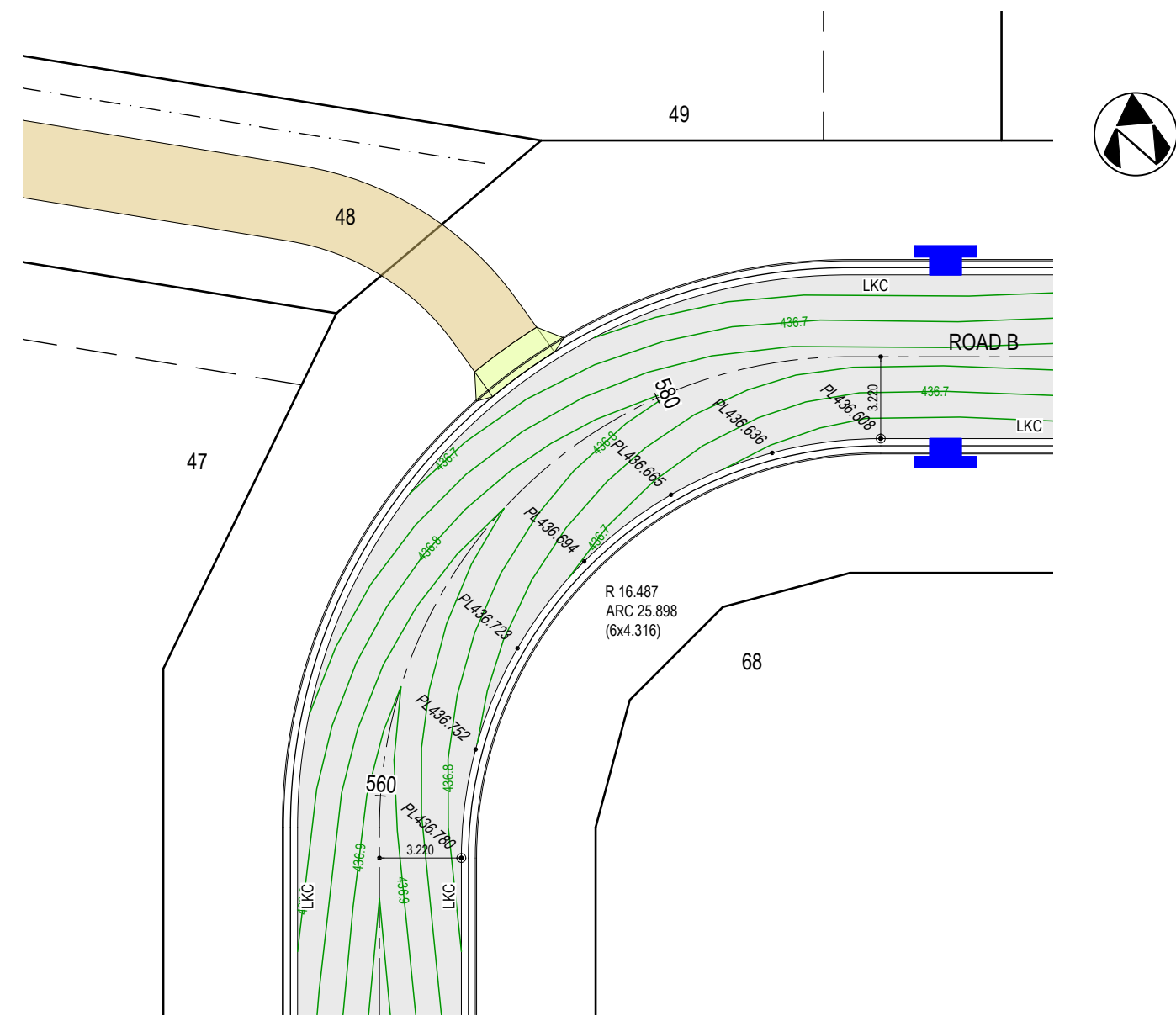
- PROVIDE THE FOLLOWING 4 CONDUITS PER LOT:
- 80mm DIA. uPVC CONDUIT FOR ERGON (ORANGE)
  - 50mm DIA. uPVC FOR TELSTRA (WHITE)
  - 20mm DIA. HDPE FOR WATER SERVICE

**POLYPROPYLENE PIPE BEDDING DIMENSIONS**

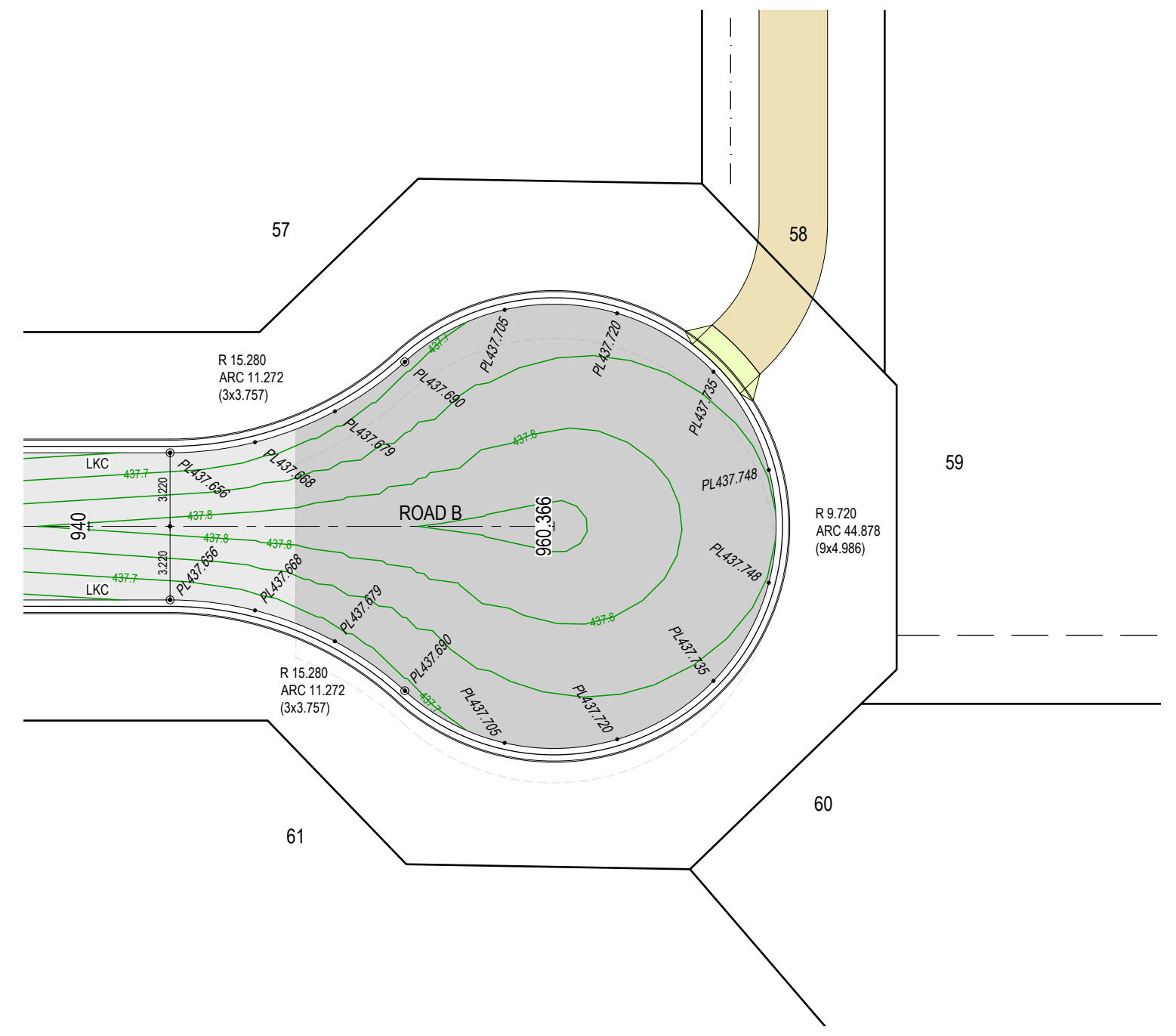
DN	DIMENSIONS (mm)				
	A	B	C	D	E
225	259	560	100	150	150
300	344	645	100	150	150
375	428	830	100	200	150
450	514	915	100	200	150
525	600	1200	150	300	150
600	682	1285	150	300	150
750	835	1435	150	300	150
900	999	1700	150	300	200







ROAD B - CURVE WIDENING

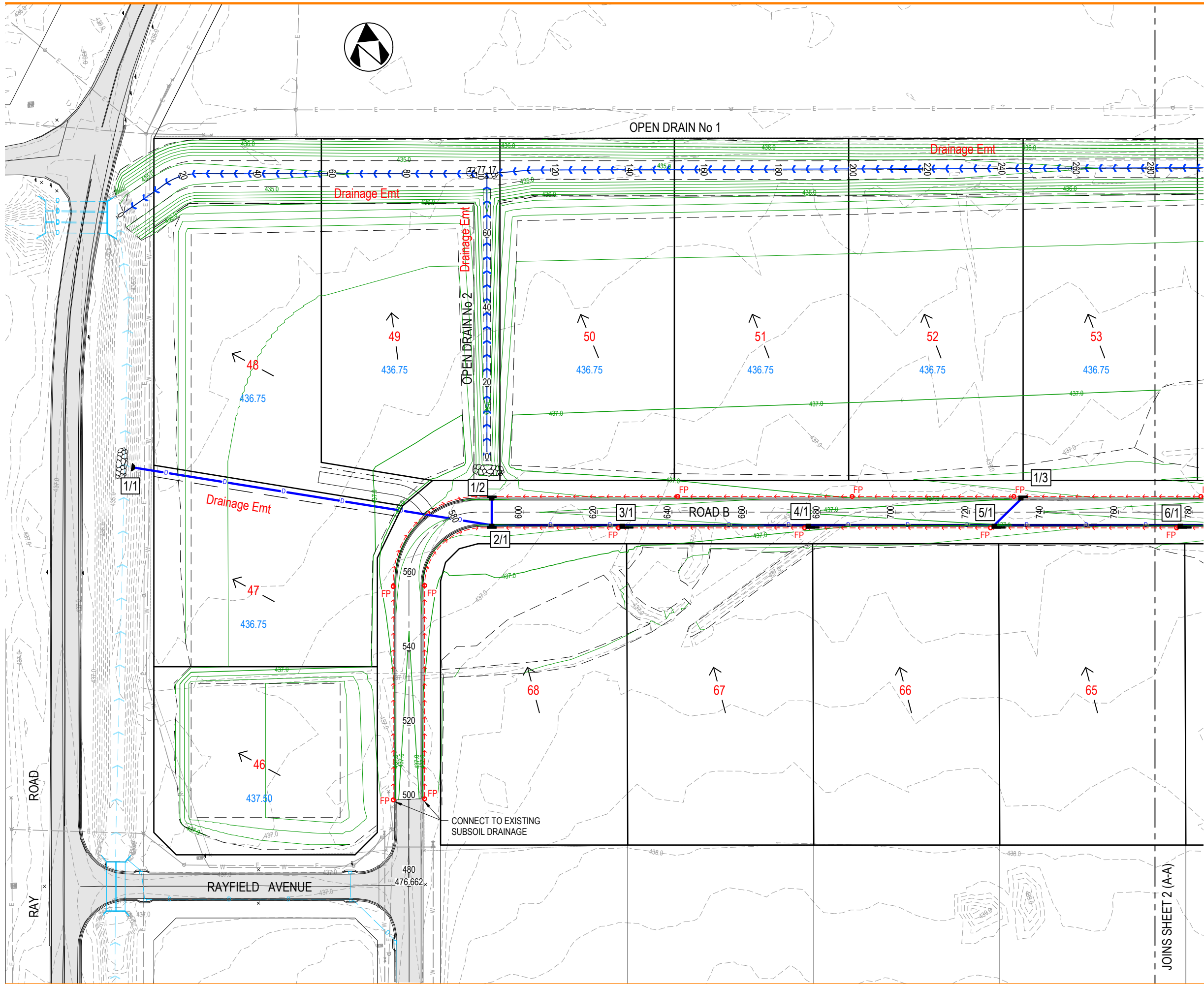


ROAD B - ROAD B CULE-DE-SAC

**LEGEND**

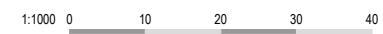
- PL44.956 PAVEMENT LEVEL OF KERB & TRAY
- ⊙ TANGENT POINT
- LKC LAYBACK KERB AND CHANNEL
- ▭ KERB INLET PIT
- 57.0 — DESIGN SURFACE CONTOURS (0.05m INTERVAL)
- ▭ ACCESS CROSSOVER
- ▭ 50mm ASPHALT SURFACE





- LEGEND**
- 2/1 LINE NUMBER / STRUCTURE No.
  - STORMWATER DRAINAGE PIPE & MANHOLE
  - - - ● - - - SUBSURFACE DRAINAGE & FLUSHING POINT
  - ┌ KERB INLET PIT
  - ▲ HEADWALL
  - ← FALL OF LOTS
  - 57.0 DESIGN SURFACE CONTOURS (0.2m INTERVAL)
  - - - 57.0 EXISTING SURFACE CONTOURS (0.2m INTERVAL)
  - D EXISTING STORMWATER
  - W EXISTING WATER
  - GROUTED STONE PITCHING SCOUR PROTECTION (10m<sup>2</sup> NOMINAL)
  - EASEMENT BOUNDARY
  - - - EXISTING DRAIN
  - 436.75 MINIMUM FLOOR LEVEL TO BE NOTED ON COUNCIL RATES NOTICE  
1%AEP WATER SURFACE  
ELEVATION + 500mm FREEBOARD

**NOTE**  
1. FOR NOTES REFER TO DRG-0102.



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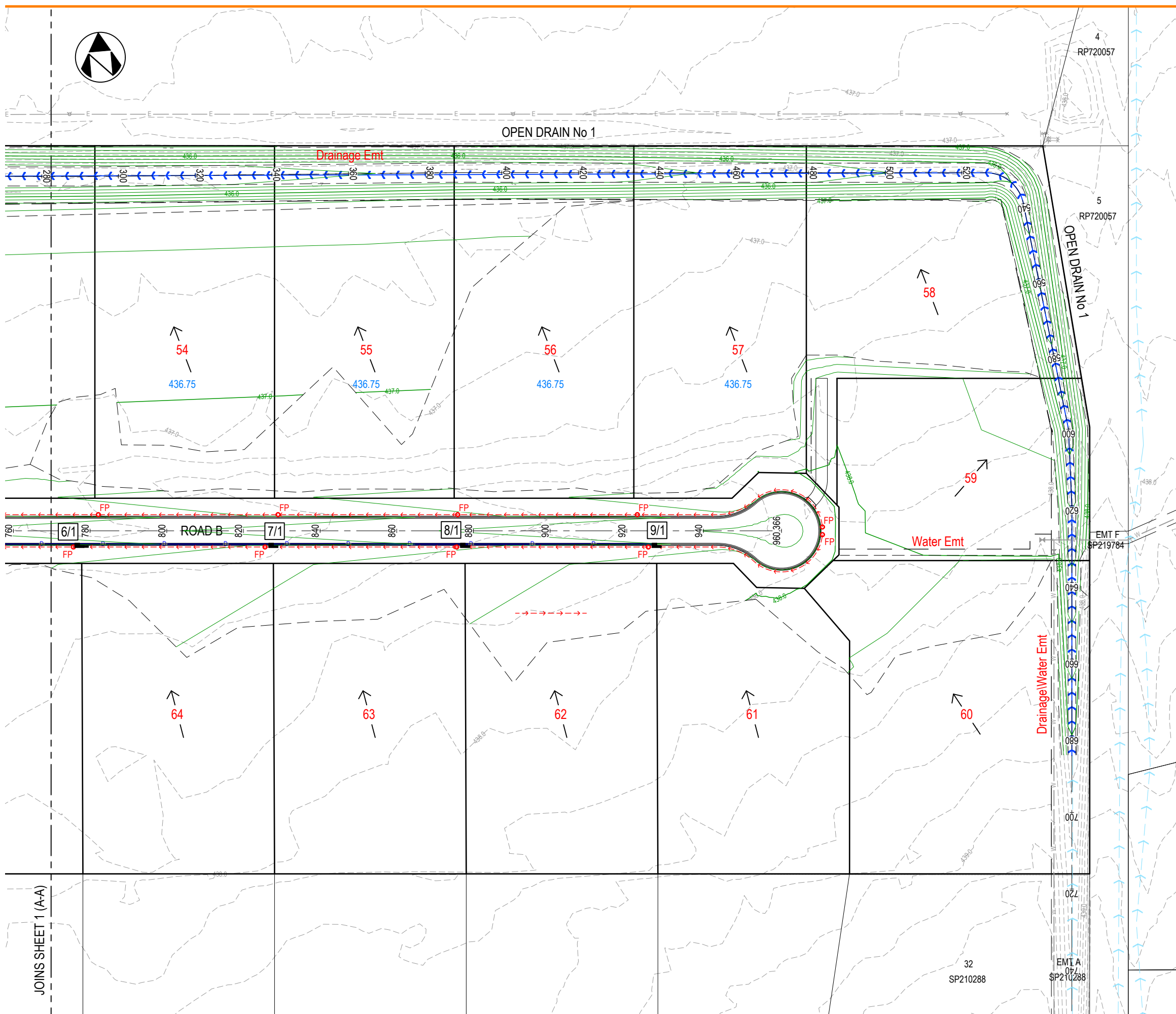
RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
STORMWATER DRAINAGE PLAN  
SHEET 1 OF 2

**A 28.10.24 INITIAL ISSUE**

Rev	Date	Revision Notes

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JOINS SHEET 1 (A-A)

- NOTE**
1. FOR LEGEND REFER SHEET 1.
  2. FOR NOTES REFER TO DRG-0102.



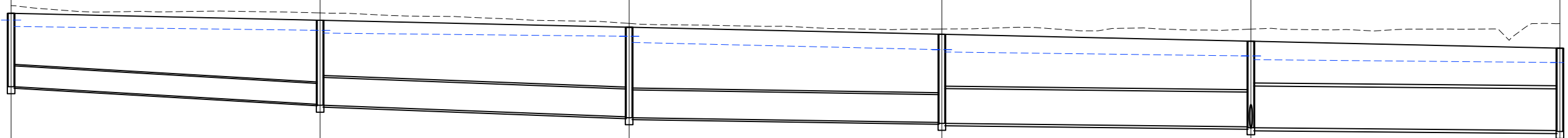
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RURAL RESIDENTIAL SUBDIVISION  
 189 RAY ROAD, MAREEBA  
 STORMWATER DRAINAGE PLAN  
 SHEET 2 OF 2

Rev	Date	Revision Notes
A	28.10.24	INITIAL ISSUE

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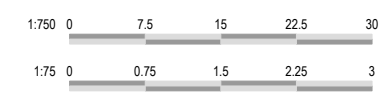
STRUCTURE NAME	9/1	8/1	7/1	6/1	5/1	4/1
STRUCTURE DESCRIPTION	ON-GRADE KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE M	ON-GRADE KERB INLET PIT; LINTEL TYPE M	ON-GRADE KERB INLET PIT; LINTEL TYPE M



PIPE SIZE (mm)	450	600	600	750	900
PIPE CLASS	BlackMAX	BlackMAX	BlackMAX	RCP	RCP
PIPE GRADE (%)	0.76%	0.50%	0.20%	0.15%	0.12%
PIPE SLOPE (1 in X)	1 in 132.1	1 in 200.0	1 in 500.0	1 in 666.7	1 in 833.3

DATUM RL	429.0					
FINISHED SURFACE LEVEL	437.588	437.438	437.288	437.136	436.986	436.836
DEPTH TO INVERT	1.583	1.812 1.832	1.932 1.952	1.901 1.921	1.846 1.866	1.776
INVERT LEVEL OF DRAIN	436.004	435.626 435.606	435.356 435.336	435.234 435.214	435.139 435.119	435.059
CHAINAGE	0.000	50.000	100.000	150.000	200.000	250.000
SETOUT COORDINATES	E 5416.530 N 9861.911	E 5366.696 N 9865.986	E 5316.862 N 9870.062	E 5266.431 N 9874.186	E 5216.597 N 9878.261	E 5166.763 N 9882.336
HGL IN PIPE / WSE IN STRUCTURE	437.441 437.303	437.221 437.221	437.092 437.092	436.804 436.804	436.668 436.668	436.527 436.527
FULL PIPE VELOCITY (m/s)	0.95	1.05	1.56	1.35	1.29	
PART FULL VELOCITY (m/s)	1.99	2.02	1.56	1.43	1.46	
PIPE FLOW (m³/s)	0.150	0.297	0.441	0.597	0.822	
CAPACITY AT GRADE (m³/s)	0.323	0.565	0.357	0.561	0.816	

LINE 1

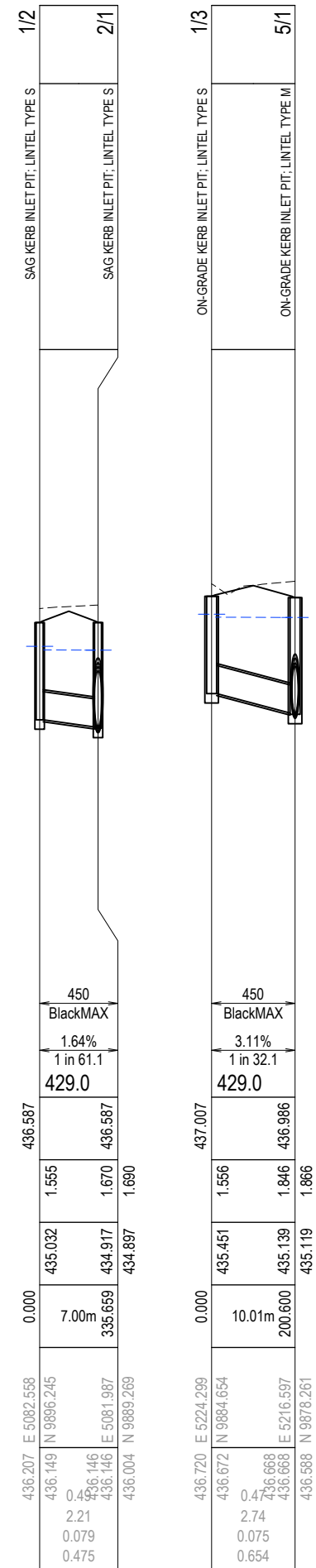


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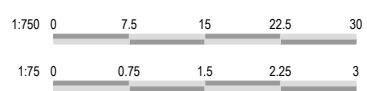
RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
STORMWATER LONGITUDINAL SECTIONS  
SHEET 1 OF 2

STRUCTURE NAME	4/1	3/1	2/1	1/1
STRUCTURE DESCRIPTION	ON-GRADE KERB INLET PIT; LINTEL TYPE M	ON-GRADE KERB INLET PIT; LINTEL TYPE M	SAG KERB INLET PIT; LINTEL TYPE S	HEADWALL
PIPE SIZE (mm)		900	900	1050
PIPE CLASS		RCP	RCP	RCP
PIPE GRADE (%)		0.12%	0.12%	0.10%
PIPE SLOPE (1 in X)		1 in 833.3	1 in 833.3	1 in 1000.0
DATUM RL	429.0			
FINISHED SURFACE LEVEL	436.836	436.686	436.587	435.624
DEPTH TO INVERT	1.776 1.796	1.706 1.726	1.670 1.690	0.824 0.824
INVERT LEVEL OF DRAIN	435.059 435.039	434.979 434.959	434.917 434.897	434.800 434.800
CHAINAGE	250.600	50.00m 300.600	35.06m 335.659	97.25m 432.913
SETOUT COORDINATES	E 5166.763 N 9882.336	E 5116.930 N 9886.411	E 5081.987 N 9889.269	E 4987.549 N 9912.498
HGL IN PIPE / WSE IN STRUCTURE	436.527 436.527 436.424	436.340 436.340 436.221	436.146 436.146 436.004	435.850 435.850 435.850
FULL PIPE VELOCITY (m/s)		1.52	1.72	1.63
PART FULL VELOCITY (m/s)		1.52	1.72	1.63
PIPE FLOW (m³/s)		0.964	1.094	1.415
CAPACITY AT GRADE (m³/s)		0.816	0.816	1.123

LINE 1

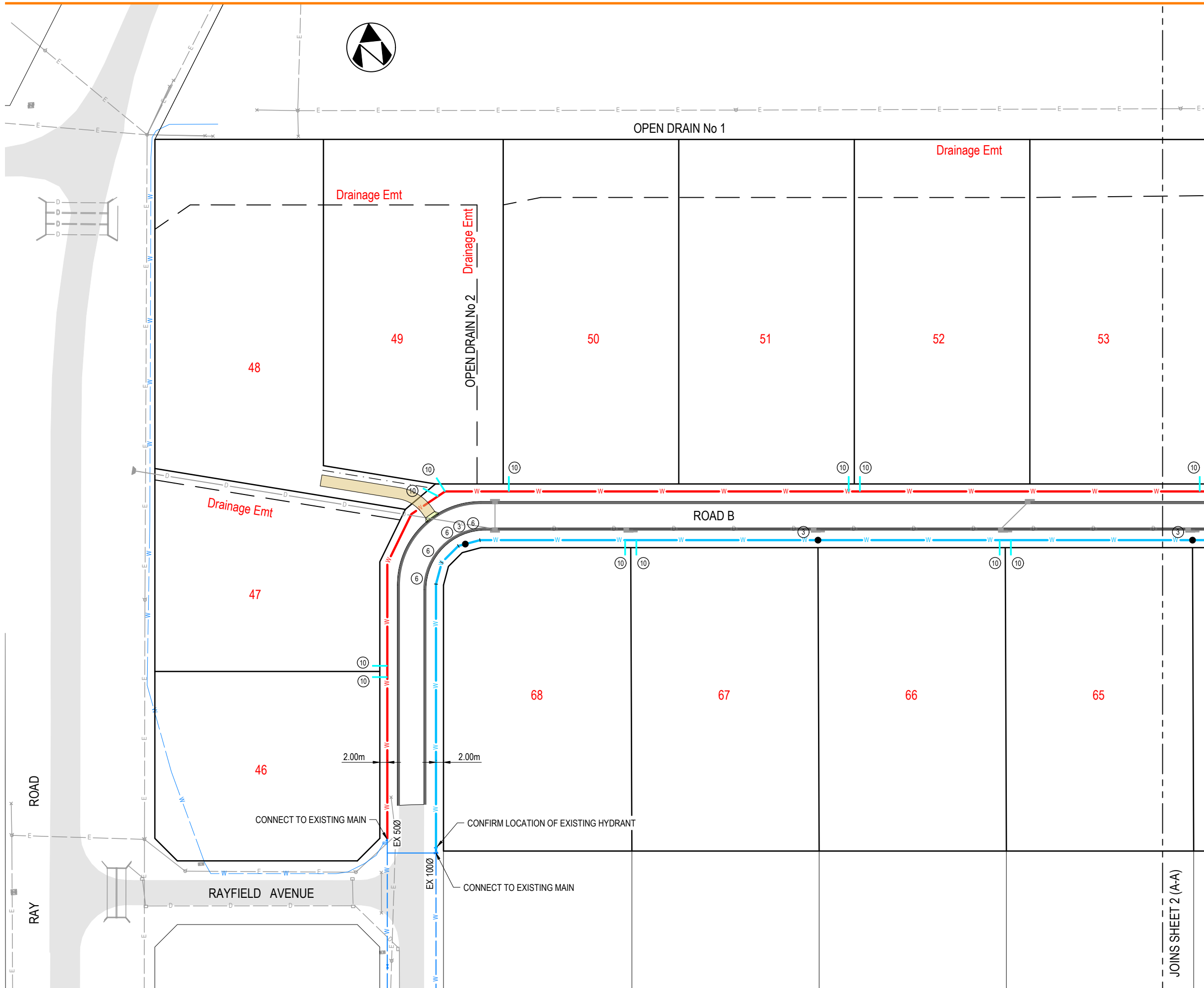


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189 RAY ROAD, MAREEBA  
STORMWATER LONGITUDINAL SECTIONS  
SHEET 2 OF 2



**LEGEND**

- STAGE BOUNDARY
- EXISTING WATER
- EASEMENT BOUNDARY
- PROPOSED STORMWATER

**WATER SUPPLY PIPE AND FITTINGS LIST**

REF.	CODE	DESCRIPTION
①		SLUICE VALVE CLASS '14' COMPLETE WITH C.I. COVER BOX, CONCRETE MARGIN AND MARKER
②		50 BRONZE GATE VALVE COMPLETE WITH C.I. COVER BOX, CONCRETE MARGIN AND MARKER
③		80 SPRING HYDRANT COMPLETE WITH RISER, TEE, C.I. COVER BOX, CONCRETE MARGIN AND MARKER
⑥		BEND TO SUIT WITH CONCRETE THRUST BLOCK
⑦		SERVICE MAIN CONNECTION
⑩		SINGLE ALLOTMENT SERVICE (SEE MSC STD DRG S2060 FOR DETAILS)
<span style="color: blue;">—</span> W		100Ø uPVC WATER MAIN CLASS '16' RUBBER RING JOINTED
<span style="color: red;">—</span> W		63 OD PE 100 PN 16

**NOTE**

1. FOR NOTES REFER TO DRG-0102.



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RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
WATER RETICULATION  
SHEET 1 OF 2



4  
RP720057

OPEN DRAIN No 1

Drainage Emt

5  
RP720057

OPEN DRAIN No 1

54

55

56

57

58

59

ROAD B

Water Emt

EX 1000

EMT F  
SP219784

CONNECT TO EXISTING 1000 STUB

EX 1500

64

63

62

61

60

Drainage Water Emt

JOINS SHEET 1 (A-A)

32  
SP210288

EMT A  
SP210288

**NOTE**

- 1. FOR LEGEND REFER SHEET 1.
- 2. FOR NOTES REFER TO DRG-0102.

RURAL RESIDENTIAL SUBDIVISION  
 189 RAY ROAD, MAREEBA  
 WATER RETICULATION  
 SHEET 2 OF 2



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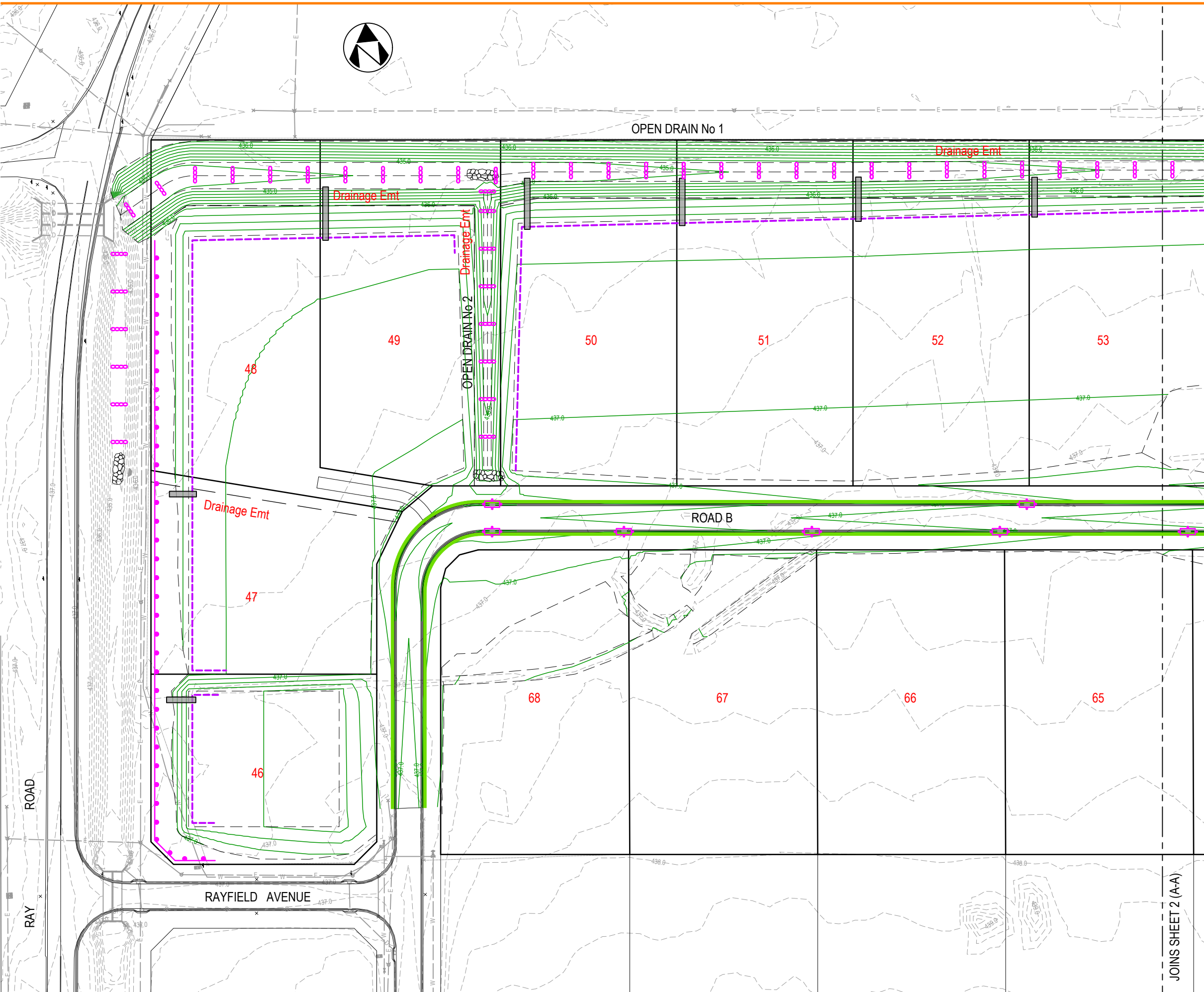
A 28.10.24 INITIAL ISSUE

Rev	Date	Revision Notes

Drawn	Design	Check'd	Appr'd	RPEQ: 25102
PAM	PAM	CJC	CJC	

A3 Full Size (Scale as shown)  
28.10.24

004-2403-01-DRG-0602 A



**LEGEND**

	SILT FENCE
	PIT PROTECTION MEASURES
	ROCK CHECK DAM
	BATTER BUND
	TURF STRIPS
	VISQUEEN LINED BATTER CHUTE
	STORMWATER DRAINAGE PIPE
	KERB INLET PIT
	FALL OF LOTS
	DESIGN SURFACE CONTOURS (0.2m INTERVAL)
	EXISTING SURFACE CONTOURS (0.5m INTERVAL)
	EXISTING STORMWATER
	EXISTING WATER
	GROUTED STONE PITCHING SCOUR PROTECTION (10m <sup>2</sup> NOMINAL)

**NOTE**  
1. FOR NOTES REFER TO DRG-0102.



TW HEDLEY PTY LTD

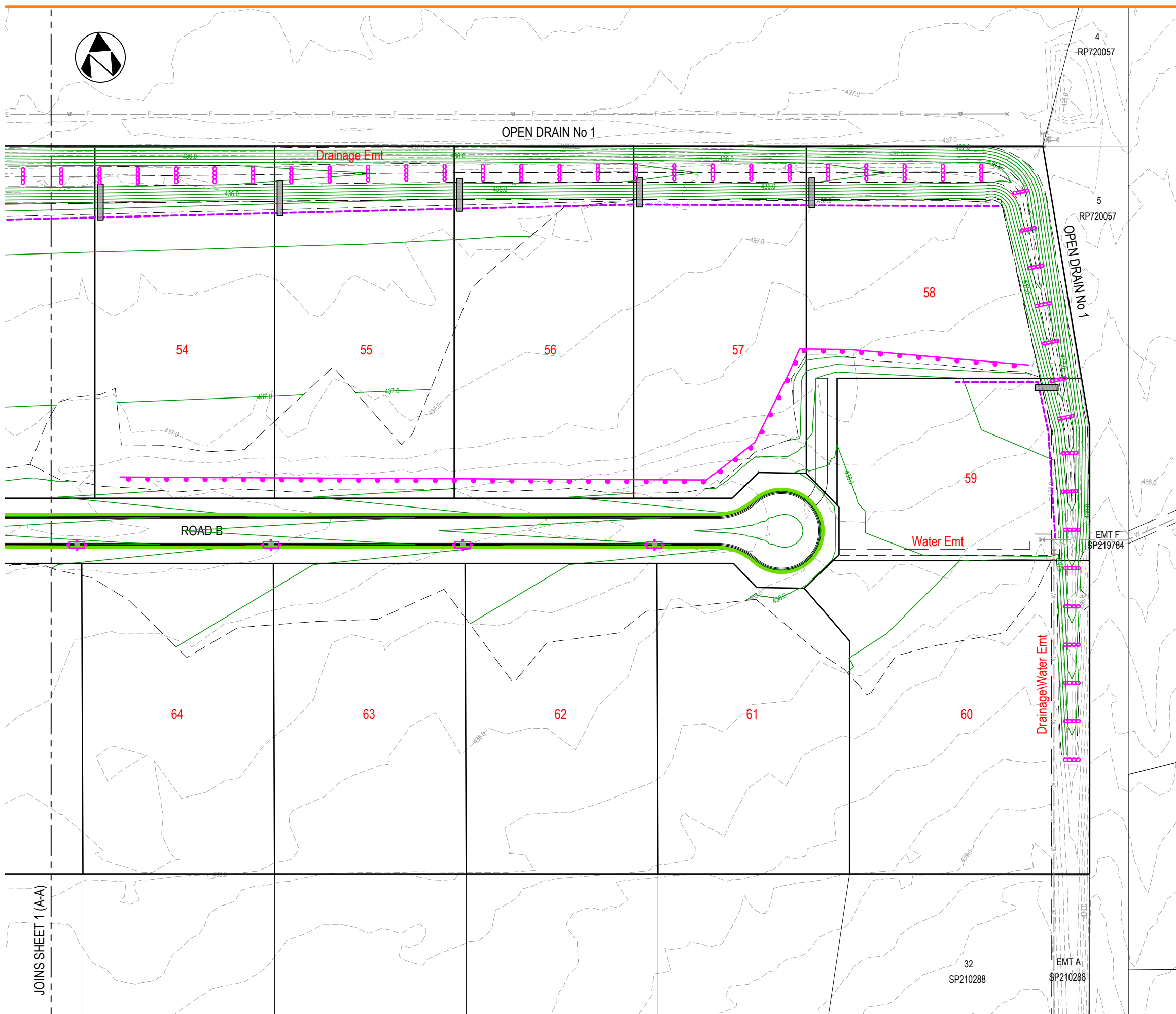
RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
SITE BASED STORMWATER MANAGEMENT PLAN  
SHEET 1 OF 2

**A 28.10.24 INITIAL ISSUE**

Rev	Date	Revision Notes

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Drawn	Design	Check'd	Appr'd	RPEQ: 25102	A3 Full Size (Scale as shown)	004-2403-01-DRG-0701	A
PAM	PAM	CJC	CJC		28.10.24		



JOINS SHEET 1 (A-A)

**NOTE**

1. FOR LEGEND REFER SHEET 1.
2. FOR NOTES REFER TO DRG-0102.



**NEON**  
CONSULTING

TW HEDLEY PTY LTD

RURAL RESIDENTIAL SUBDIVISION  
189 RAY ROAD, MAREEBA  
SITE BASED STORMWATER MANAGEMENT PLAN  
SHEET 2 OF 2

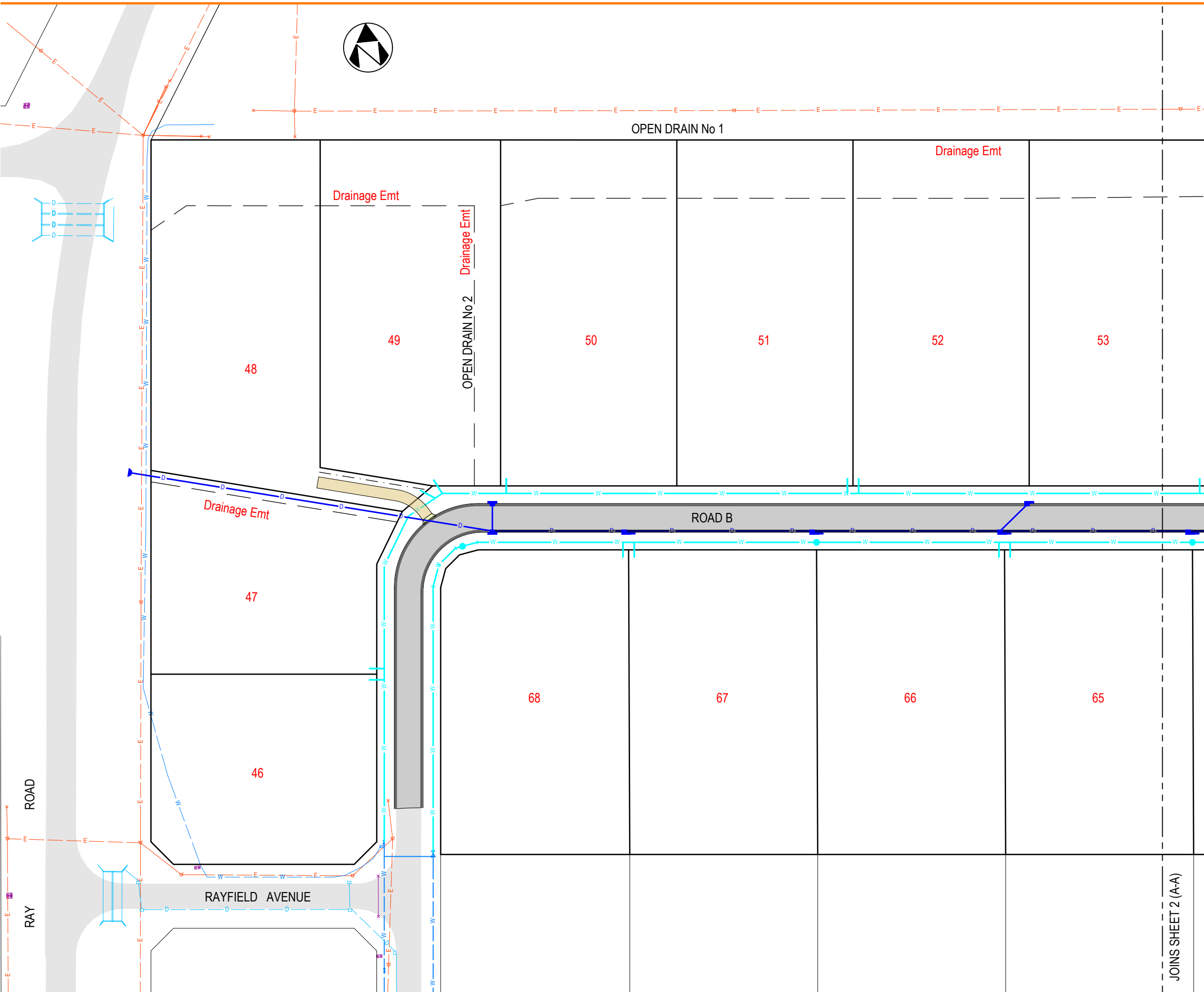
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Rev Date Revision Notes  
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PAM	PAM	CJC	CJC	

A3 Full Size (Scale as shown)  
28.10.24

004-2403-01-DRG-0702 A



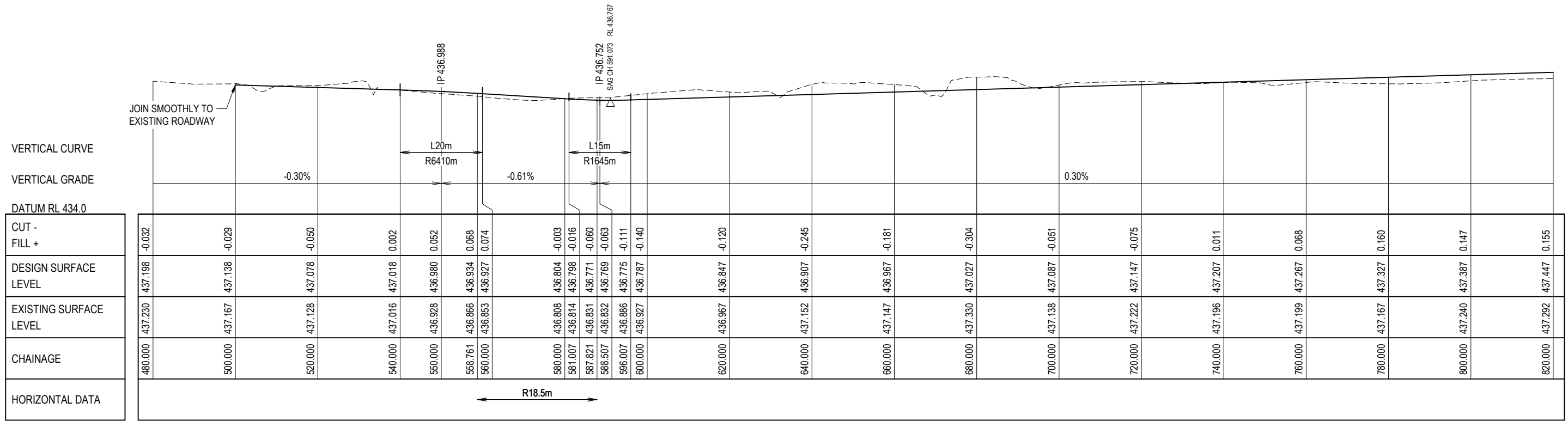
**LEGEND**

	PROPOSED STORMWATER DRAINAGE
	PROPOSED WATER MAIN
	PROPOSED ELECTRICAL
	EXISTING WATER
	EXISTING STORMWATER
	EXISTING COMMS
	EXISTING ELECTRICAL

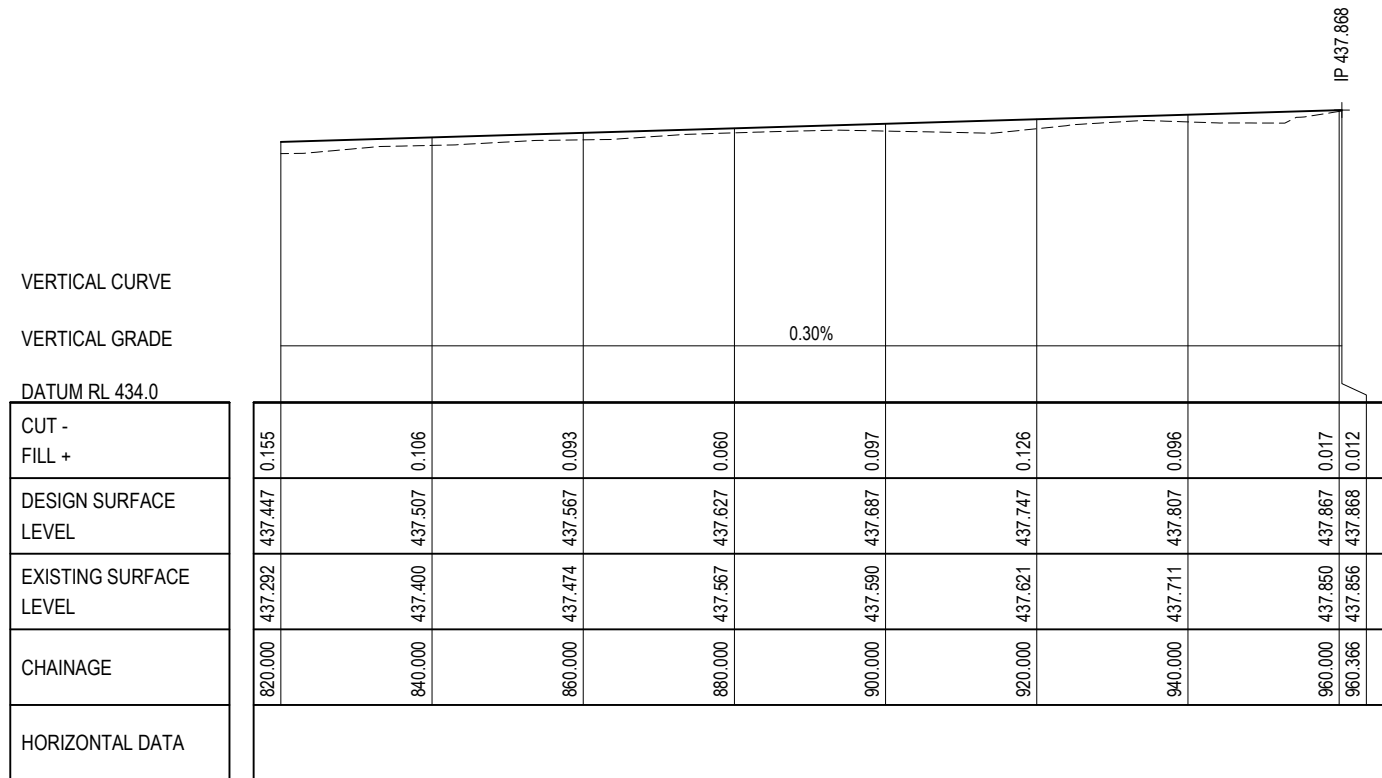
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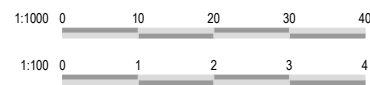


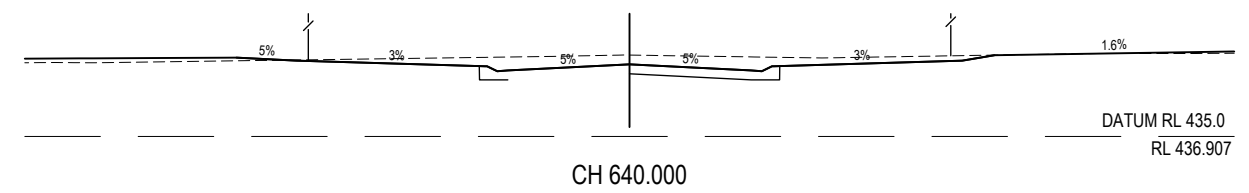
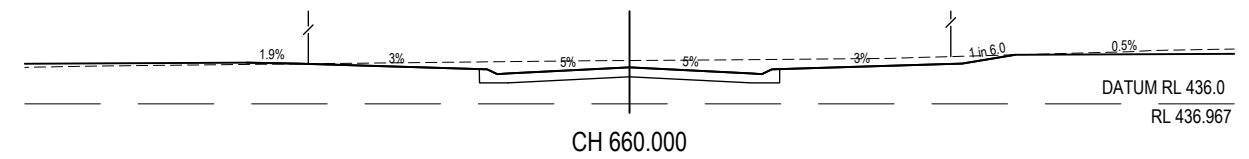
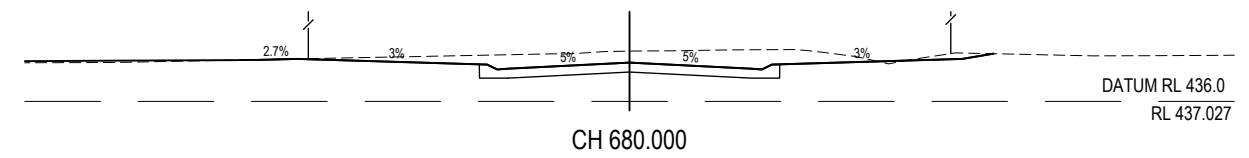
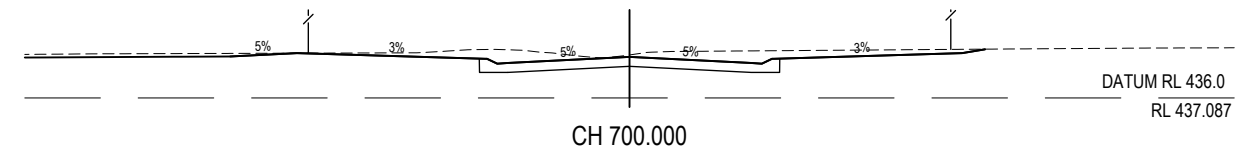
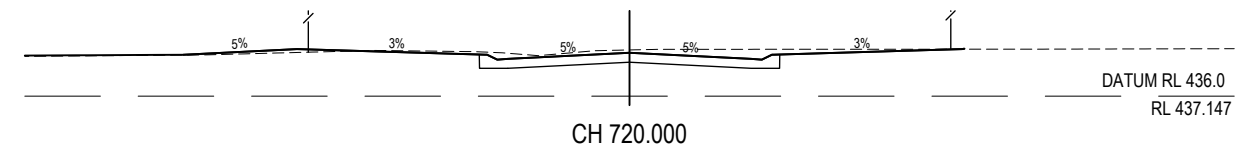
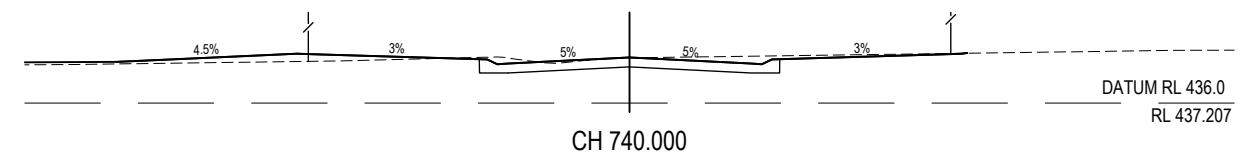
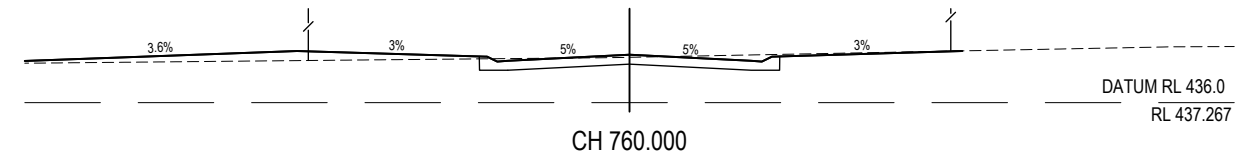
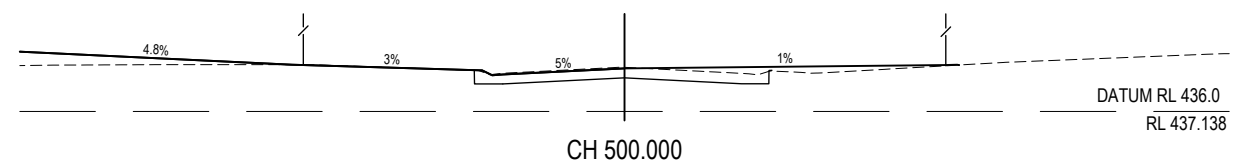
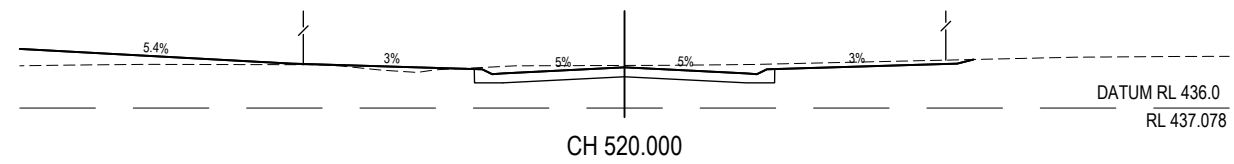
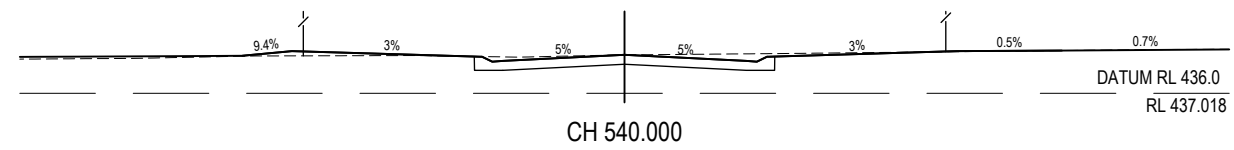
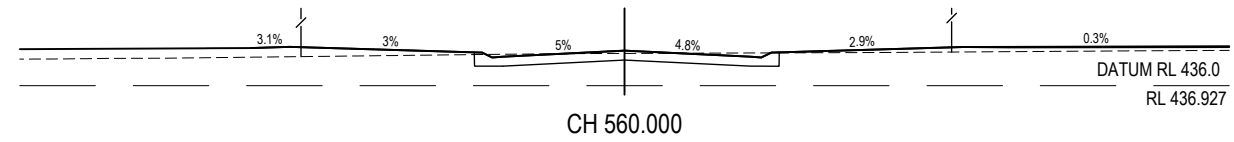
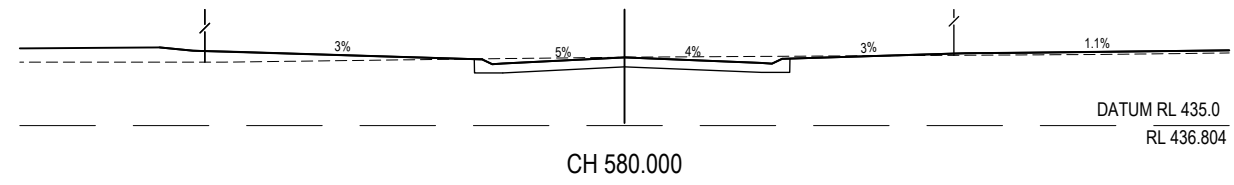
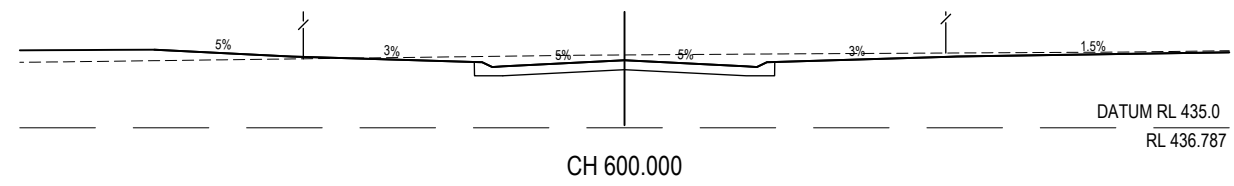
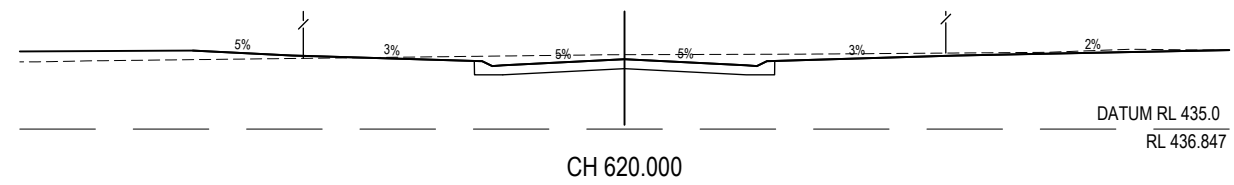


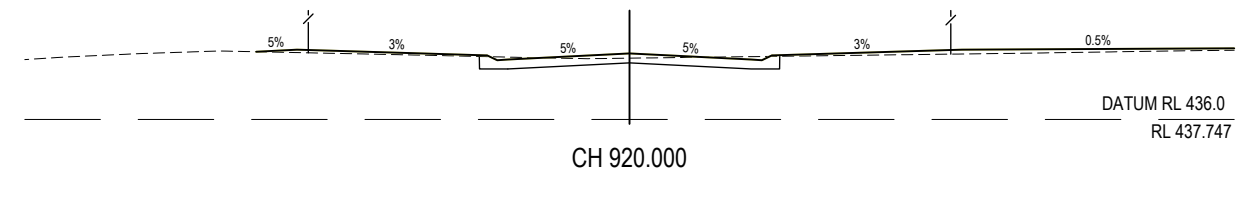
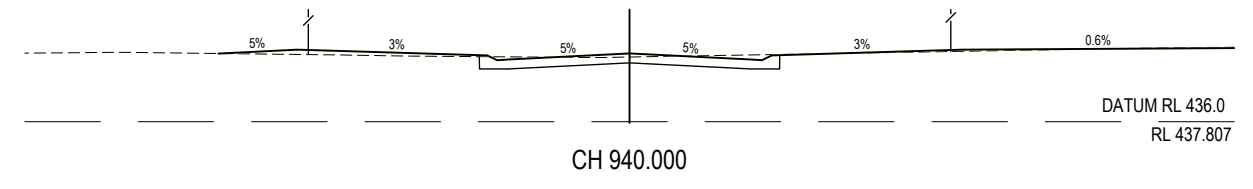
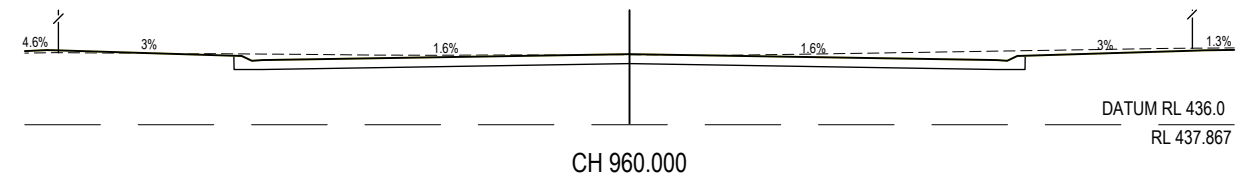
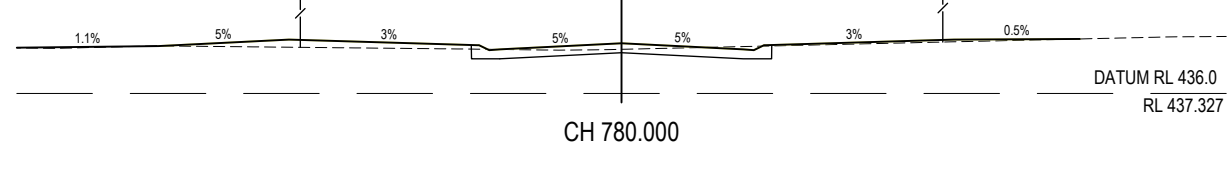
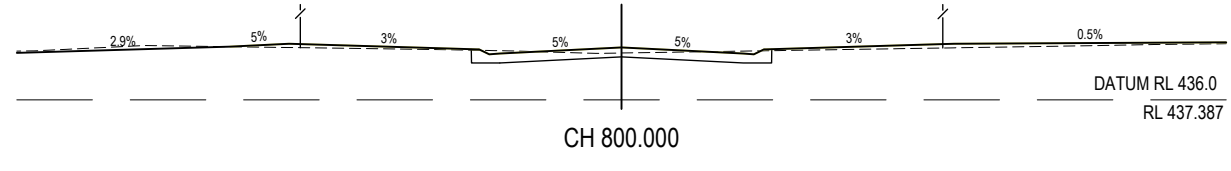
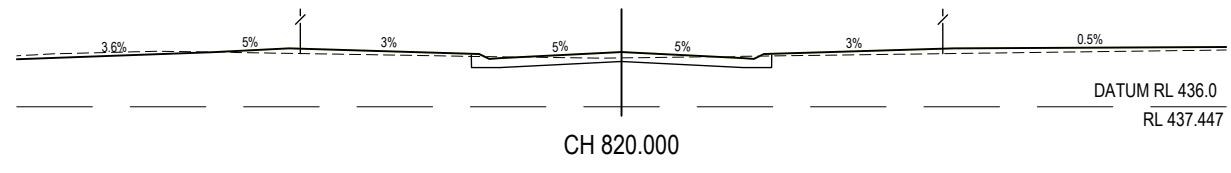
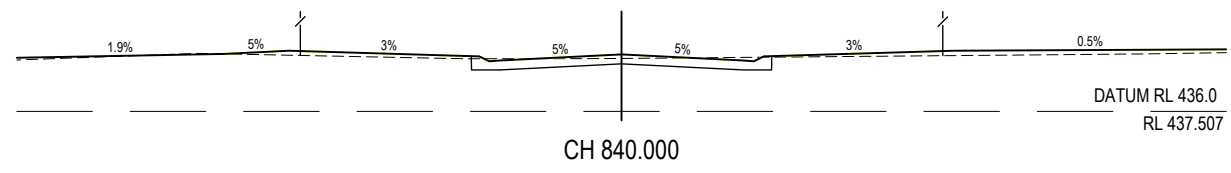
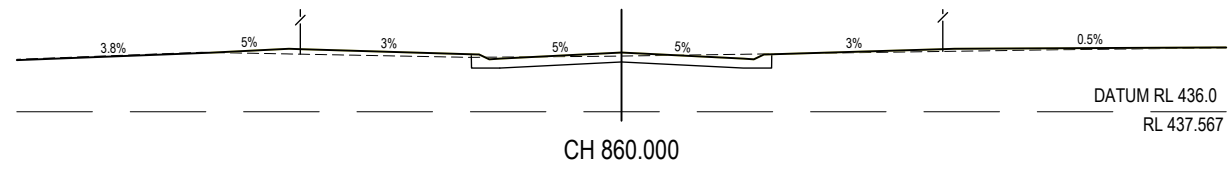
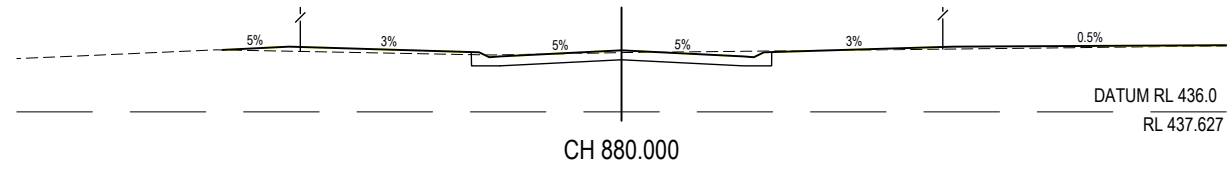
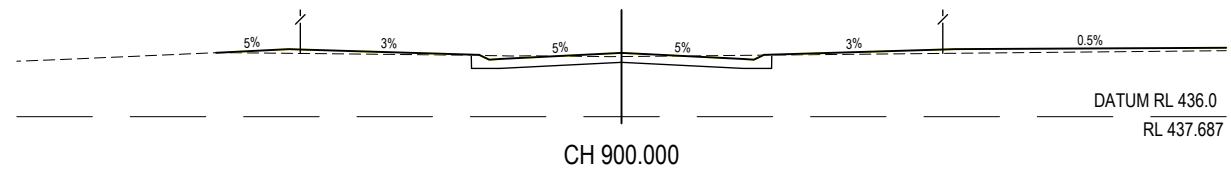
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1:100V

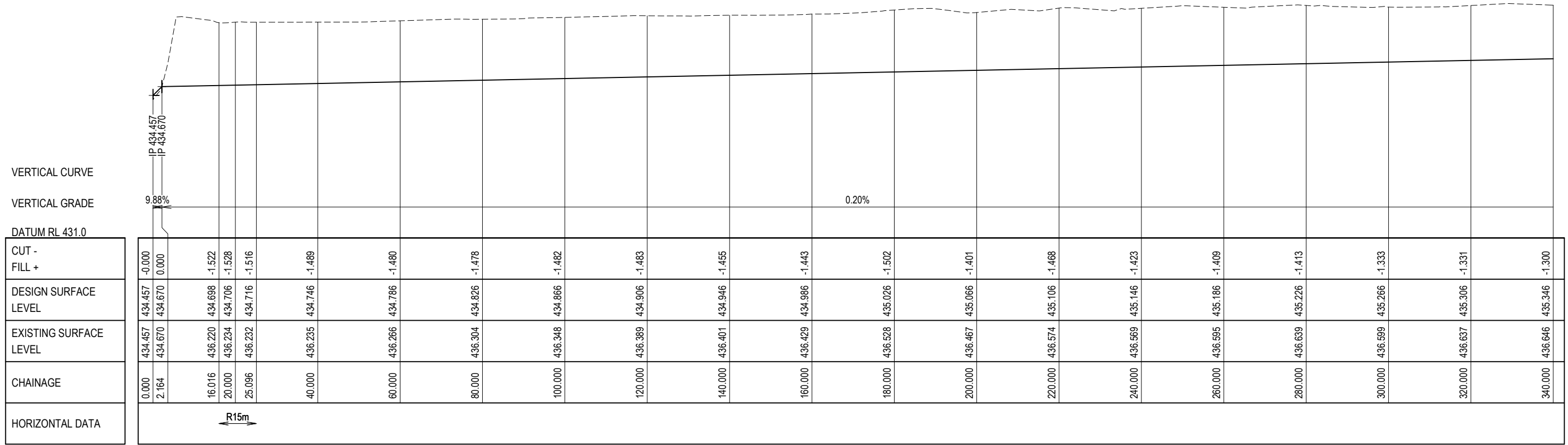


LONGITUDINAL SECTION ROAD B  
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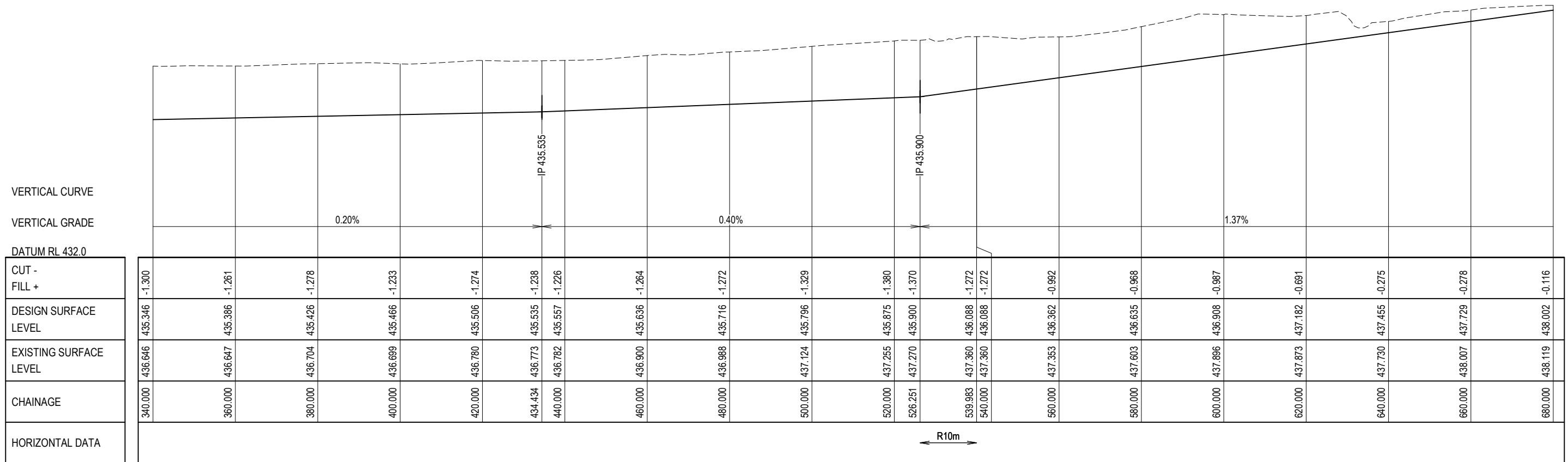




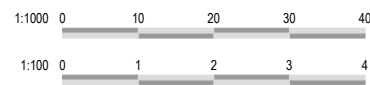




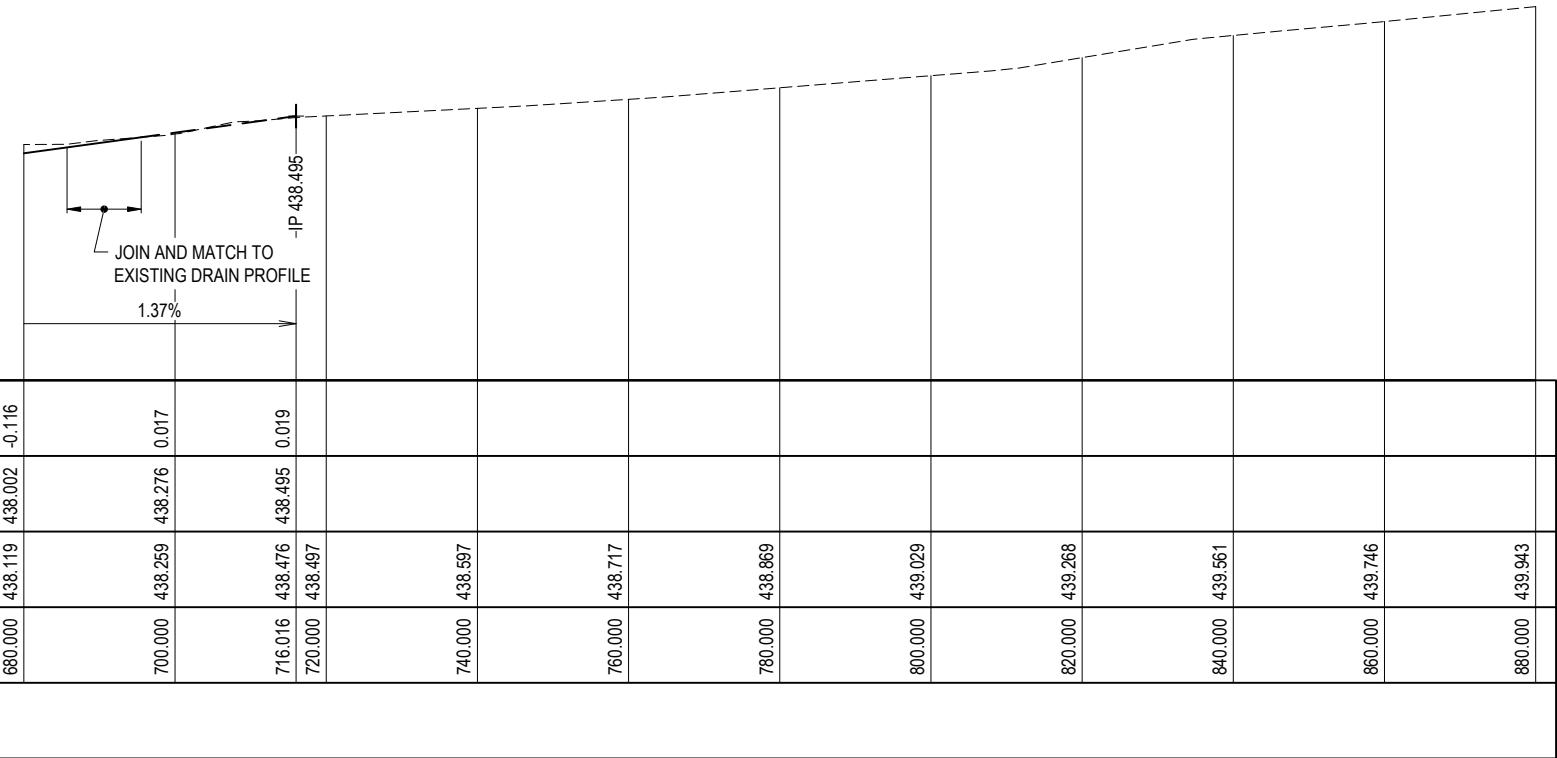
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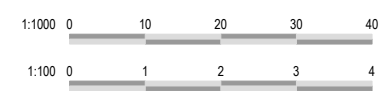
LONGITUDINAL SECTION OED-1  
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VERTICAL CURVE  
 VERTICAL GRADE  
 DATUM RL 435.0

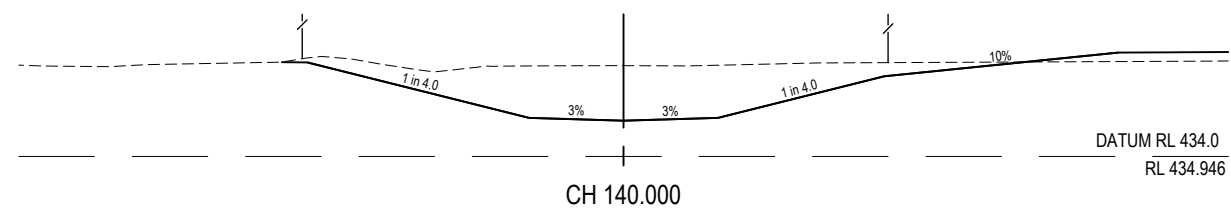
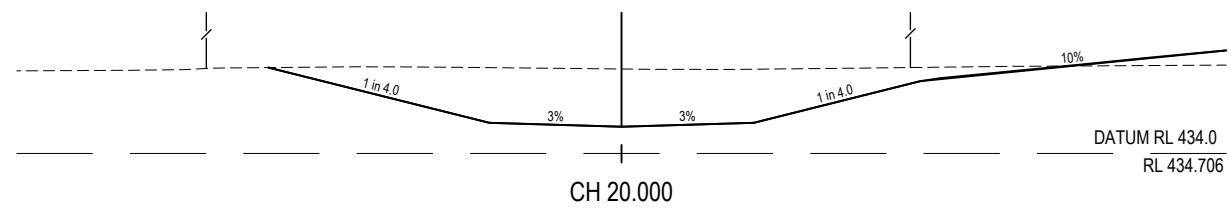
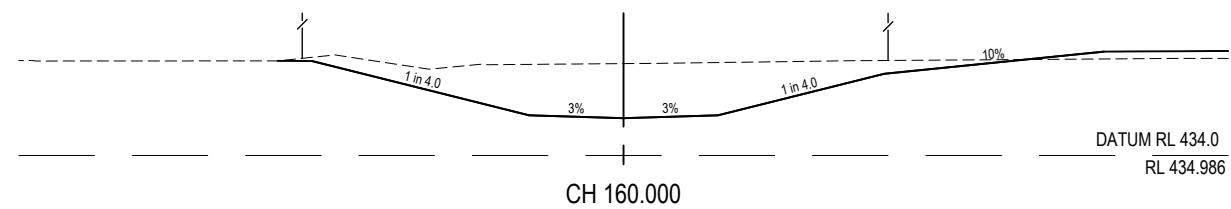
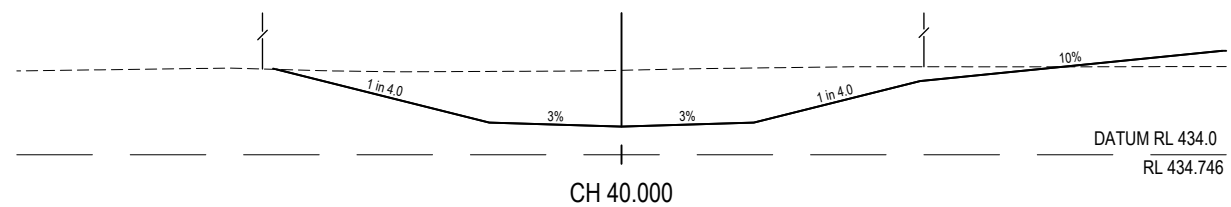
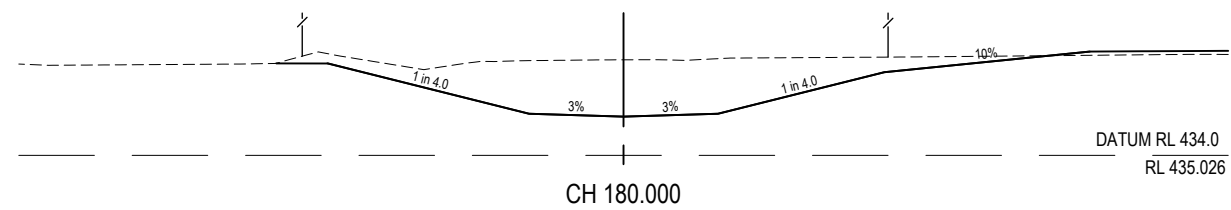
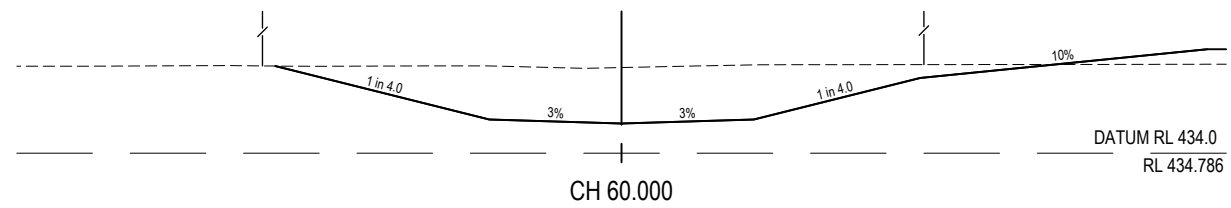
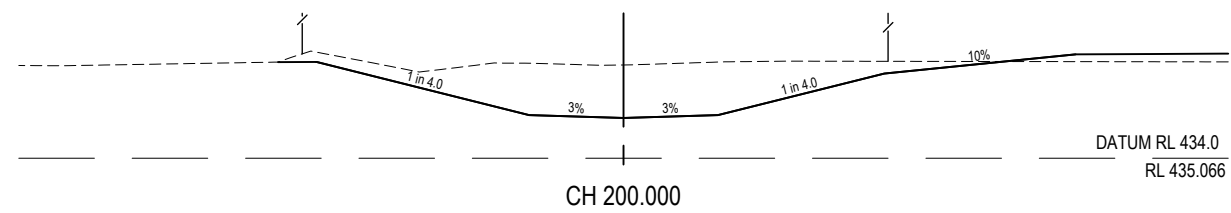
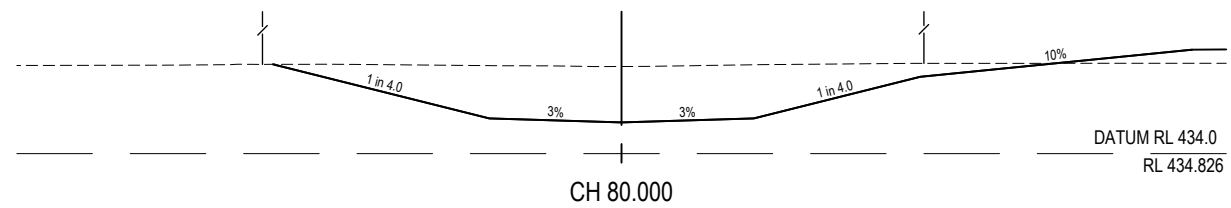
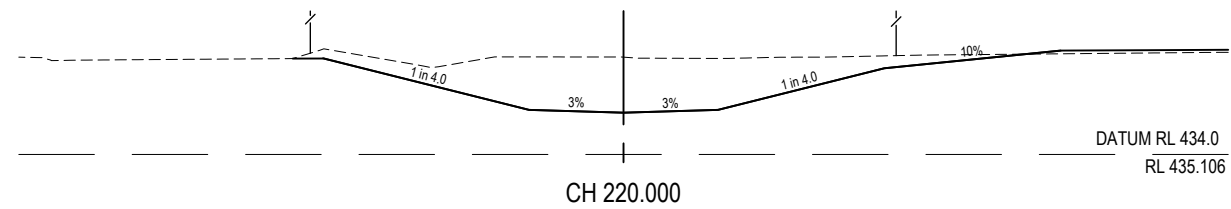
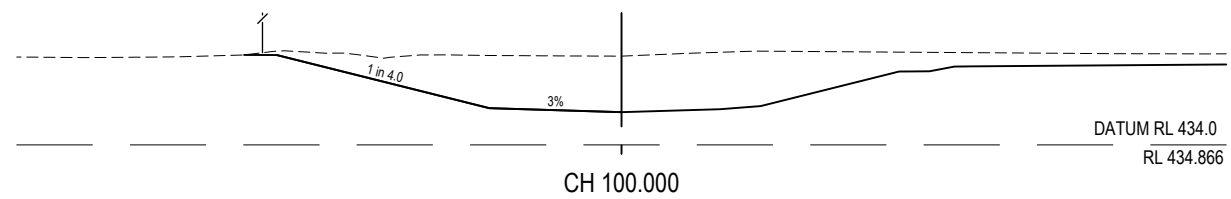
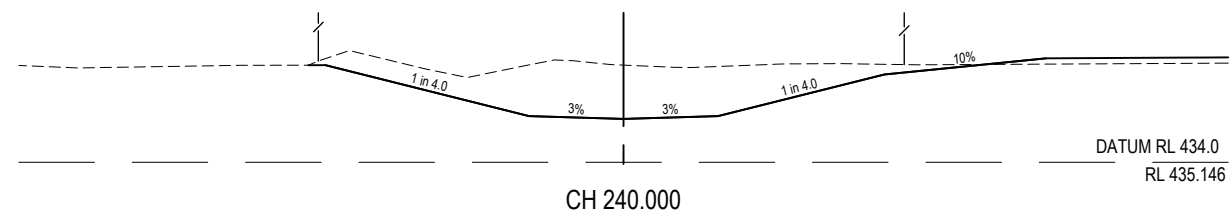
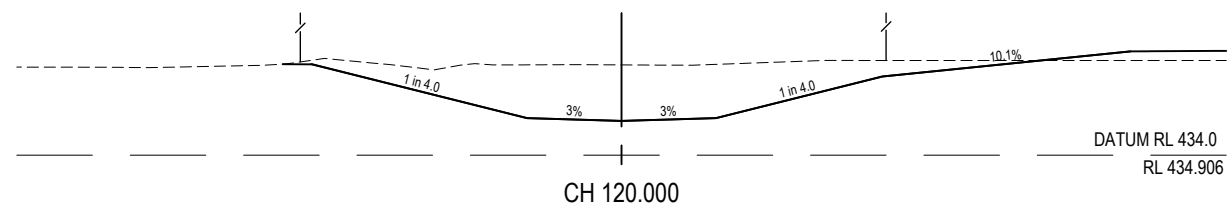


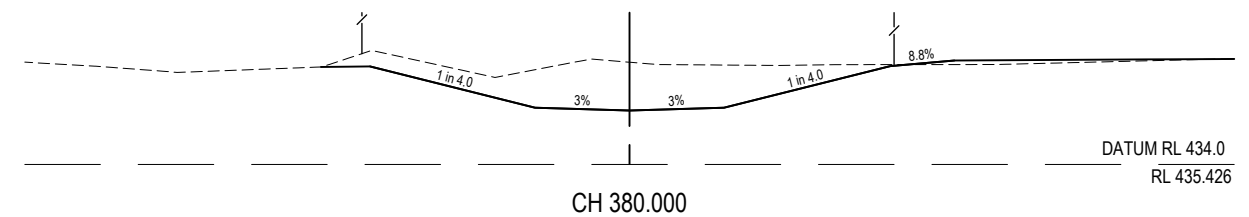
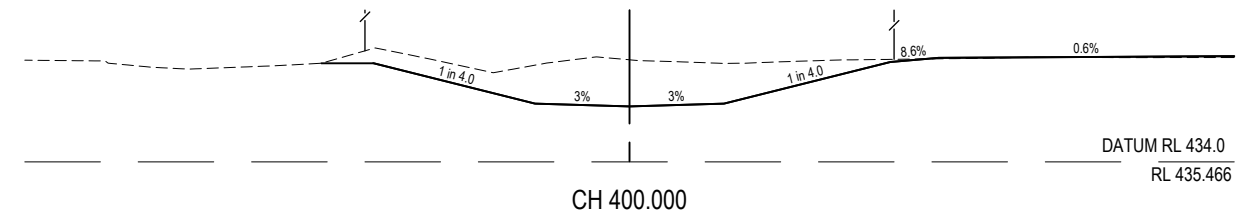
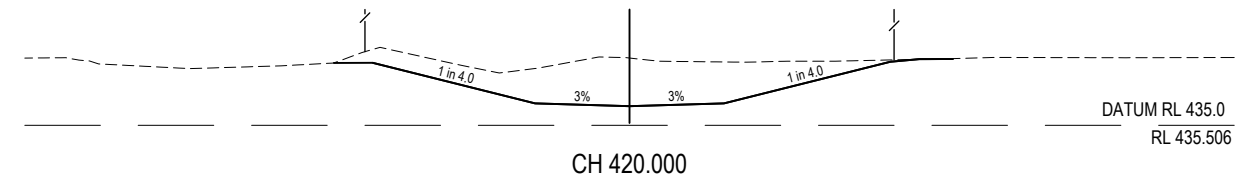
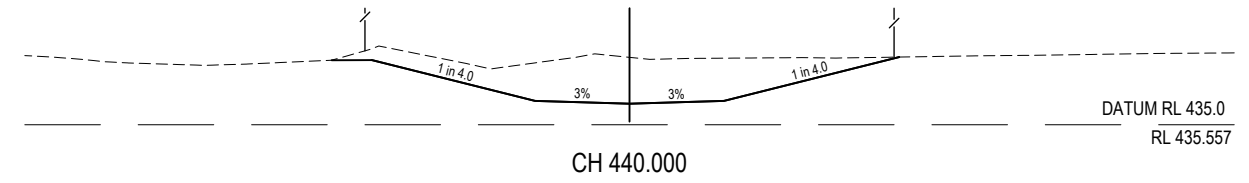
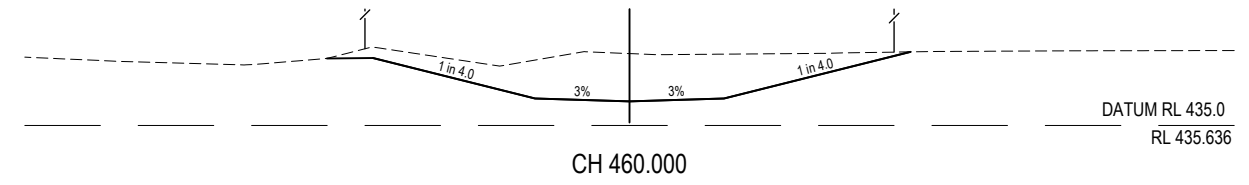
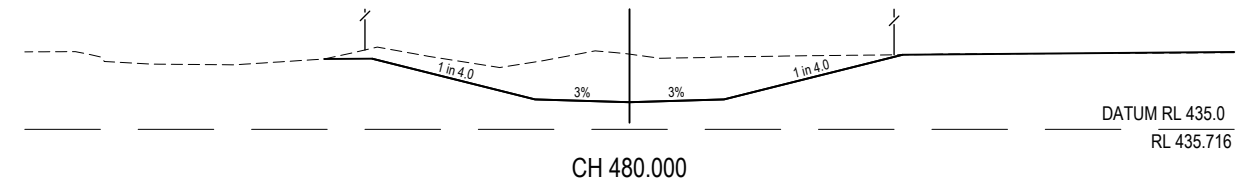
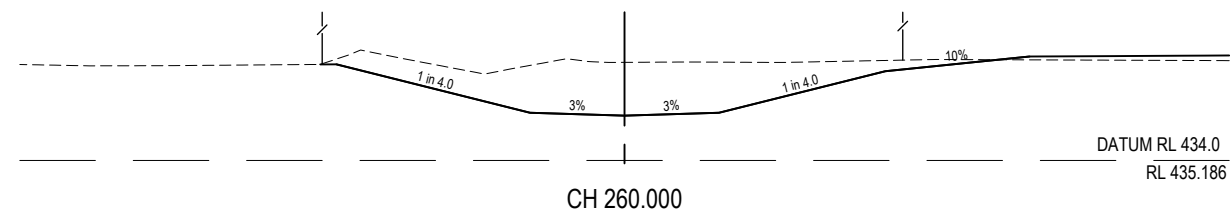
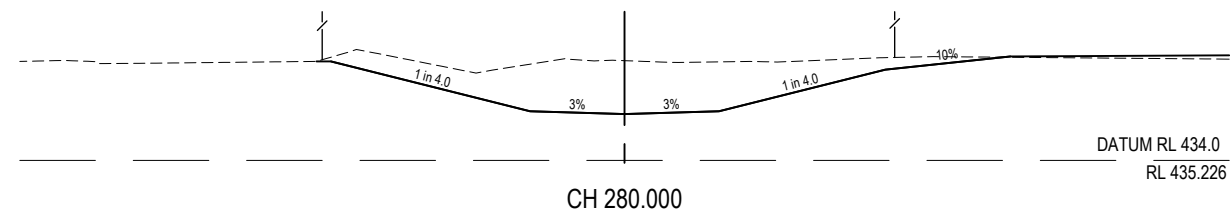
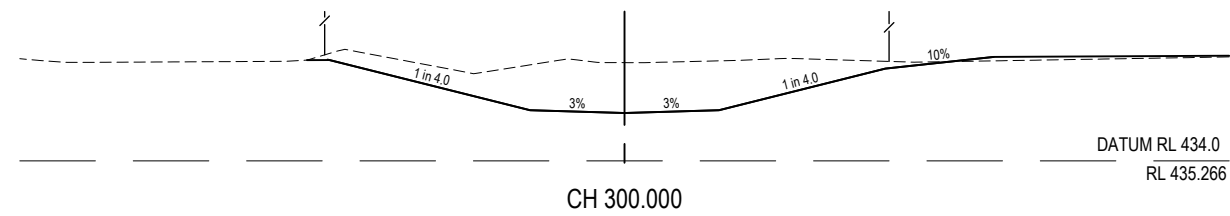
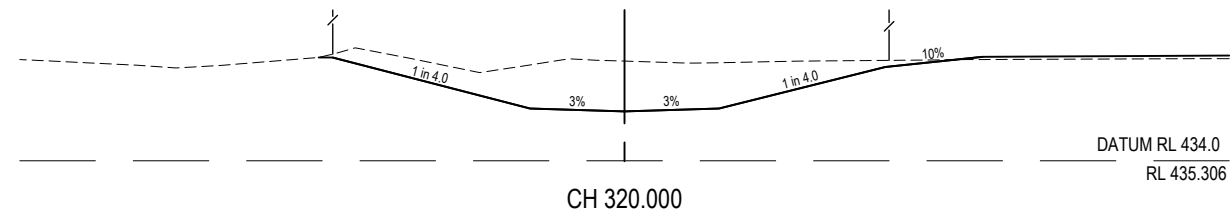
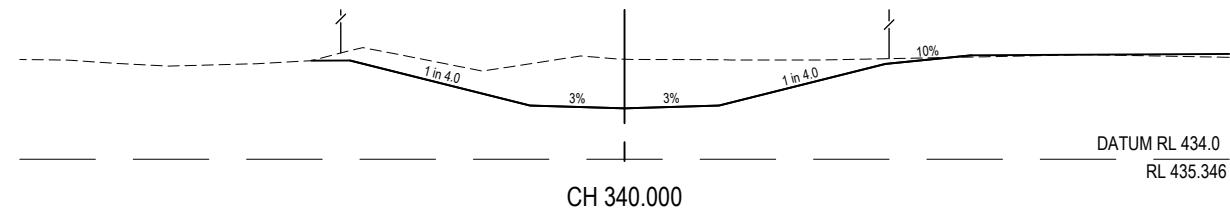
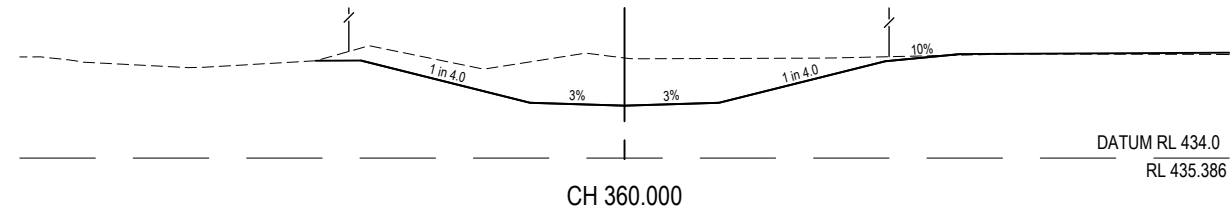
LONGITUDINAL SECTION OED-1  
 SCALE 1:1000H  
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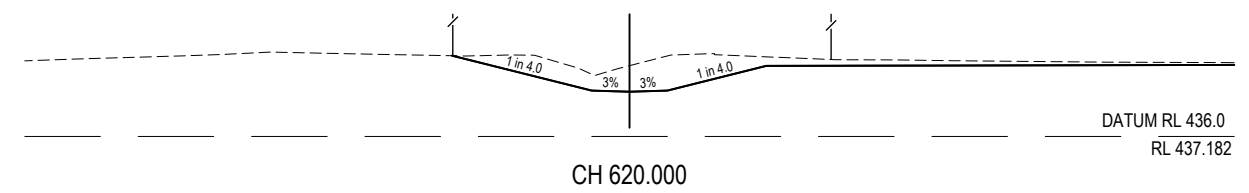
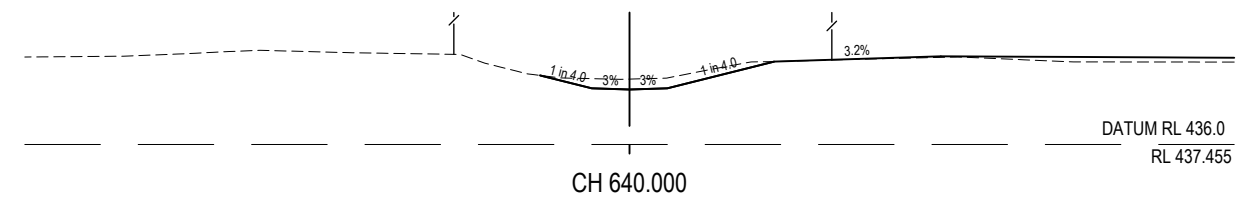
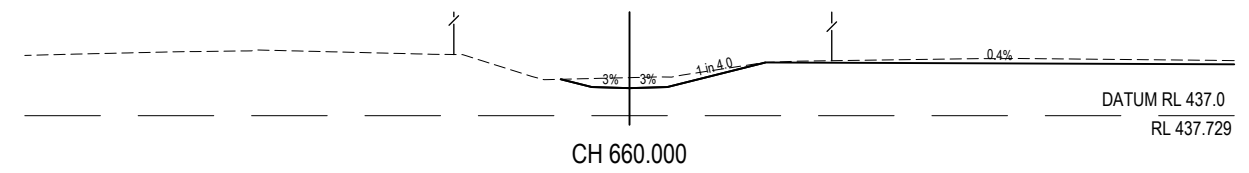
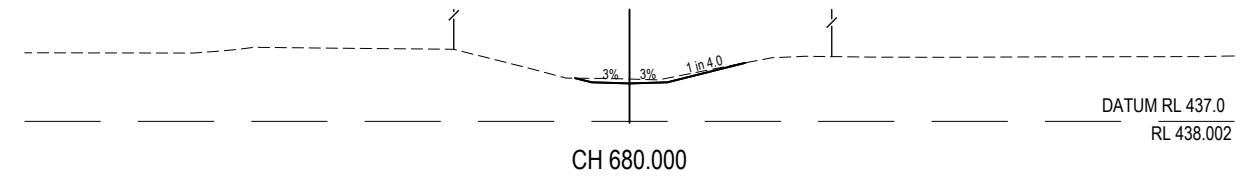
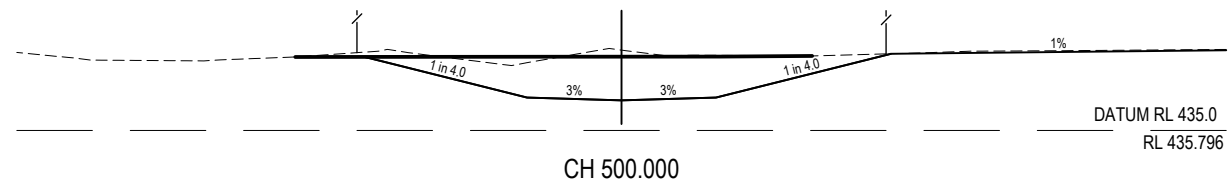
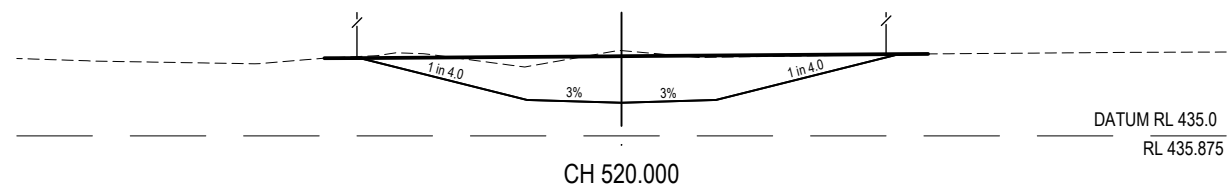
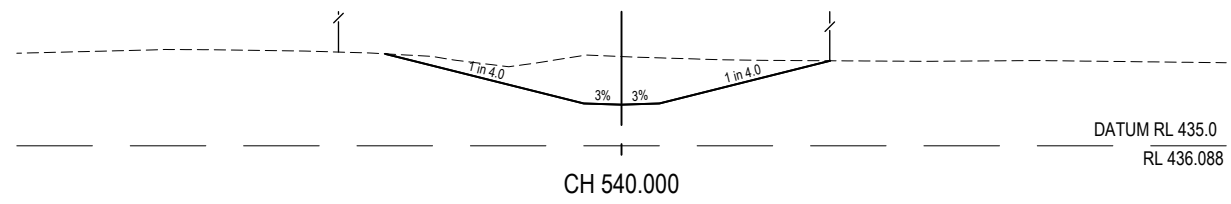
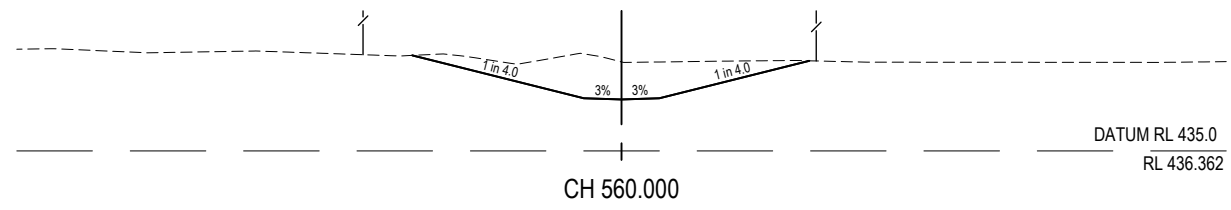
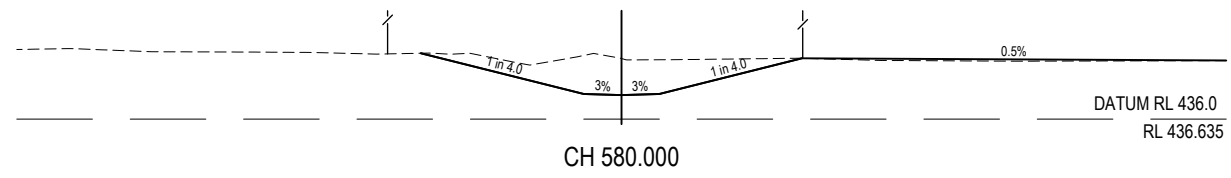
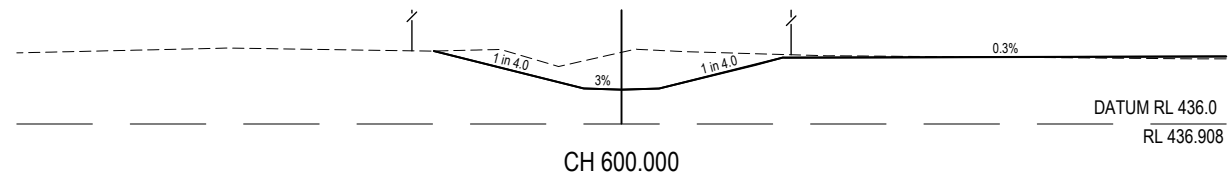
TW HEDLEY PTY LTD

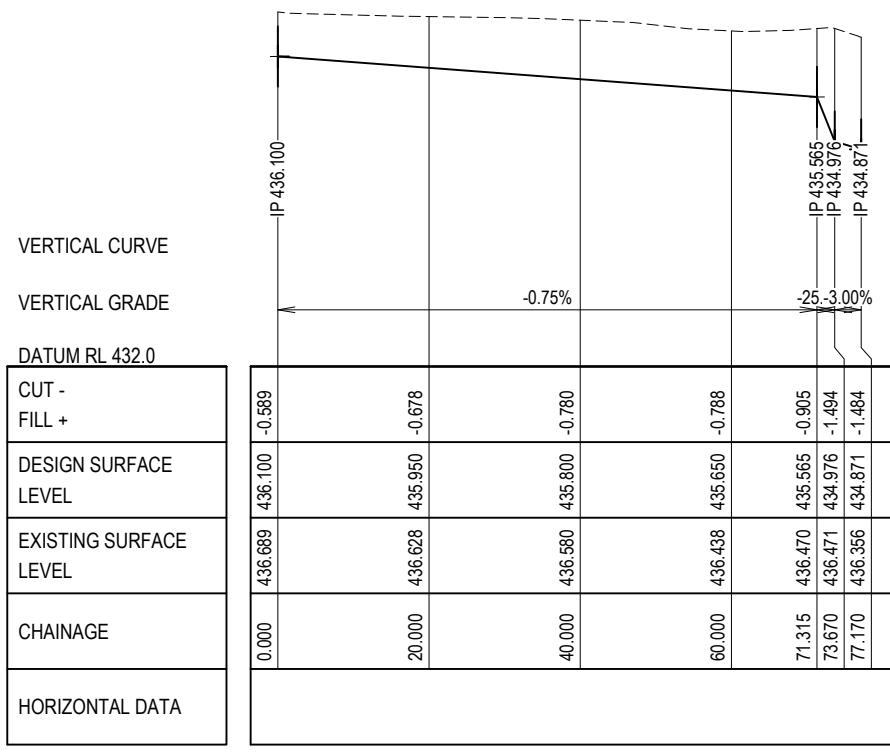
RURAL RESIDENTIAL SUBDIVISION  
 189 RAY ROAD, MAREEBA  
 OED 1 LONGITUDINAL SECTION  
 SHEET 2 OF 2











DATUM RL 432.0	
CUT - FILL +	-0.589 -0.678 -0.780 -0.788 -0.905 -1.494 -1.484
DESIGN SURFACE LEVEL	436.100 435.950 435.800 435.650 435.565 434.976 434.871
EXISTING SURFACE LEVEL	436.689 436.628 436.580 436.438 436.470 436.471 436.356
CHAINAGE	0.000 20.000 40.000 60.000 71.315 73.670 77.170
HORIZONTAL DATA	

LONGITUDINAL SECTION OED-2  
SCALE 1:1000H  
1:100V

