

File: 22/47W
Date: 03 February 2023

Osborn Consulting Engineers
PO Box 495
WARWICK QLD 4370

Attention: Arkadius Feininger

Dear Mr Feininger

Works Application Approval (with conditions)

22/47W - Pavement Design for Stage 1 of Rural Subdivision Stanthorpe – Inglewood Road, Oman Ama – ref: 18/04I ROL Lots 53 & 54 BNT 290 and Lot 176 BNT349

We wish to advise that on 01 February 2023, a decision was made to approve the works application for bulk earthworks, roadworks, stormwater and landscaping. These works relate to stage 1 of approved Reconfiguring of Lot Application (Application Number 18/04I - Three (3) into thirty-four (34) lot subdivision) at Lots 53 & 54 on BNT290 and Lot 176 on BNT349, Stanthorpe-Inglewood Road, Oman Ama. Please find attached Council's approval (with conditions) for the application.

Please note **Condition 18**, which requires a letter to be submitted to Council at the completion of the works for each stage, outlining and demonstrating compliance with each condition.

If you require any further information, please contact Council's Manager of Planning Services, Mrs Ronnie McMahon, on (07) 4671 7400 or rmcmahon@grc.qld.gov.au, who will be pleased to assist.

Yours faithfully



Ronnie McMahon
Manager of Planning Services
Goondiwindi Regional Council

Works Application Approval

Council File Reference: 22/47W
Council Contact: Mrs Ronnie McMahon
Council Contact Phone: (07) 4671 7400

03 February 2023

Applicant Details: Osborn Consulting Engineers
PO Box 495
WARWICK QLD 4370

Attention: Arkadius Feininger

The development application described below was properly made to Goondiwindi Regional Council on 20 January 2023.

Applicant details

Applicant name: Osborn Consulting Engineers
Applicant contact details: Mr Arkadius Feininger
PO Box 495, Warwick, Qld 4370
Arkadius.f@osbornconsulting.com.au
(07) 4660 3300

Application details

Application number: 22/47W
Approval sought: Works Permit
Details of proposed works: Construction for 2 lots in stage 1 from chainage 20m to 920m including (Bulk earthworks, roadworks, stormwater, and landscaping)

Location details

Street address: Stanthorpe - Inglewood Road, Oman Ama
Real property description: Lots 53 & 54 BNT 290 and Lot 176 BNT349

Decision

Date of decision: 01 February 2023
Decision details: Approved in full with conditions. These conditions are set out in Attachment 1

Details of the approval

Permit Works

Conditions

This approval is subject to the conditions in Attachment 1.

Approved plans and specifications

Copies of the following plans, specifications and/or drawings are enclosed.

Drawing/report title	Prepared by	Date	Reference no.	Version/issue
Aspect of works				
Pavement Design for Stage 1	Osborn Consulting Engineers	January 2023	WK19-0239-Rev-B	Revision B
Control Line Setout Tables, Notes and Details	Osborn Consulting Engineers	August 2022	WK 19-0239/C1	Revision C
Overall Site Layout Plan	Osborn Consulting Engineers	August 2022	WK 19-0239/C2	Revision B
Roadworks Layout Plan – Sheet 1	Osborn Consulting Engineers	August 2022	WK 19-0239/C3	Revision C
Roadworks Layout Plan – Sheet 2	Osborn Consulting Engineers	August 2022	WK 19-0239/C4	Revision B
Roadworks Layout Plan – Sheet 3	Osborn Consulting Engineers	August 2022	WK 19-0239/C5	Revision C
Road 1 Cross Sections – Sheet 1 of 17	Osborn Consulting Engineers	August 2022	WK 19-0239/C100	Revision B
Road 1 Cross Sections – Sheet 2 of 17	Osborn Consulting Engineers	August 2022	WK 19-0239/C101	Revision B
Road 1 Cross Sections – Sheet 3 of 17	Osborn Consulting Engineers	August 2022	WK 19-0239/C102	Revision B
Intersection Detail Layout – Sheet 1	Osborn Consulting Engineers	August 2022	WK 19-0239/C200	Revision E
Stanthorpe-Inglewood Road Intersection Cross Sections	Osborn Consulting Engineers	August 2022	WK 19-0239/C201	Revision D
Intersection Linemarking Layout – Sheet 1	Osborn Consulting Engineers	August 2022	WK 19-0239/C202	Revision D
Intersection Linemarking Layout – Sheet 2	Osborn Consulting Engineers	August 2022	WK 19-0239/C203	Revision D
Drainage Catchment Plan	Osborn Consulting Engineers	August 2022	WK 19-0239/D1	Revision B
Drainage Culvert Details	Osborn Consulting Engineers	August 2022	WK 19-0239/D2	Revision D
Erosion and Sediment Control Details	Osborn Consulting Engineers	August 2022	WK 19-0239/E1	Revision B

If you wish to discuss this matter further, please contact Council's Manager of Planning Services, Mrs Ronnie McMahon, on 07 4671 7400.

Yours Sincerely

A handwritten signature in dark ink, appearing to read 'RM McMahon', with a long horizontal flourish extending to the right.

Ronnie McMahon
Manager of Planning Services
Goondiwindi Regional Council

enc Attachment 1—Conditions
 Attachment 2—Approved Plans



ATTACHMENTS

Attachment 1 – Conditions

Attachment 2 – Approved Plans



Attachment 1 – Conditions



Conditions

Proposed Use:	Construction for 2 lots in stage 1 from chainage 20m to 920m including (Bulk earthworks, roadworks, stormwater, and landscaping)
Development:	Works – Permit
Applicant:	Osborn Consulting Engineers
Address:	Stanthorpe - Inglewood Road, Oman Ama
Real Property Description:	Lots 53 & 54 BNT 290 and Lot 176 BNT349
Council File Reference:	22/47W

GENERAL CONDITIONS																																			
1.	Approval is granted for the purpose of Construction for 2 lots in stage 1 from chainage 20m to 920m including (Bulk earthworks, roadworks, stormwater, and landscaping) This approval in no way authorises any building work to occur on the relevant site.																																		
2.	All conditions must be complied with or bonded, unless specified in an individual condition.																																		
3.	<p>The development shall be constructed generally in accordance with supporting information supplied by the applicant with the development application including the following:</p> <table> <tr> <th>Document Number</th><th>Title</th><th>Date</th></tr> <tr> <td>WK19-0239-Rev-B</td><td>Pavement Design for Stage 1</td><td>January 2023</td></tr> <tr> <td>WK 19-0239/C1</td><td>Control Line Setout Tables, Notes and Details</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C2</td><td>Overall Site Layout Plan</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C3</td><td>Roadworks Layout Plan – Sheet 1</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C4</td><td>Roadworks Layout Plan – Sheet 2</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C5</td><td>Roadworks Layout Plan – Sheet 3</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C100</td><td>Road 1 Cross Sections – Sheet 1 of 17</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C101</td><td>Road 1 Cross Sections – Sheet 2 of 17</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C102</td><td>Road 1 Cross Sections – Sheet 3 of 17</td><td>August 2022</td></tr> <tr> <td>WK 19-0239/C200</td><td>Intersection Detail Layout – Sheet 1</td><td>August 2022</td></tr> </table>		Document Number	Title	Date	WK19-0239-Rev-B	Pavement Design for Stage 1	January 2023	WK 19-0239/C1	Control Line Setout Tables, Notes and Details	August 2022	WK 19-0239/C2	Overall Site Layout Plan	August 2022	WK 19-0239/C3	Roadworks Layout Plan – Sheet 1	August 2022	WK 19-0239/C4	Roadworks Layout Plan – Sheet 2	August 2022	WK 19-0239/C5	Roadworks Layout Plan – Sheet 3	August 2022	WK 19-0239/C100	Road 1 Cross Sections – Sheet 1 of 17	August 2022	WK 19-0239/C101	Road 1 Cross Sections – Sheet 2 of 17	August 2022	WK 19-0239/C102	Road 1 Cross Sections – Sheet 3 of 17	August 2022	WK 19-0239/C200	Intersection Detail Layout – Sheet 1	August 2022
Document Number	Title	Date																																	
WK19-0239-Rev-B	Pavement Design for Stage 1	January 2023																																	
WK 19-0239/C1	Control Line Setout Tables, Notes and Details	August 2022																																	
WK 19-0239/C2	Overall Site Layout Plan	August 2022																																	
WK 19-0239/C3	Roadworks Layout Plan – Sheet 1	August 2022																																	
WK 19-0239/C4	Roadworks Layout Plan – Sheet 2	August 2022																																	
WK 19-0239/C5	Roadworks Layout Plan – Sheet 3	August 2022																																	
WK 19-0239/C100	Road 1 Cross Sections – Sheet 1 of 17	August 2022																																	
WK 19-0239/C101	Road 1 Cross Sections – Sheet 2 of 17	August 2022																																	
WK 19-0239/C102	Road 1 Cross Sections – Sheet 3 of 17	August 2022																																	
WK 19-0239/C200	Intersection Detail Layout – Sheet 1	August 2022																																	

	WK 19-0239/C201	Stanthorpe-Inglewood Road Intersection Cross Sections	August 2022
	WK 19-0239/C202	Intersection Linemarking Layout – Sheet 1	August 2022
	WK 19-0239/C203	Intersection Linemarking Layout – Sheet 2	August 2022
	WK 19-0239/D1	Drainage Catchment Plan	August 2022
	WK 19-0239/D2	Drainage Culvert Details	August 2022
	WK 19-0239/E1	Erosion and Sediment Control Layout Plan	August 2022
Please note these documents are not approved Building Plans.			
4.	<p>Complete and maintain the approved development as follows:</p> <ul style="list-style-type: none"> (i) Generally in accordance with works approval documents; and (ii) Strictly in accordance with those parts of the approved development which have been specified in detail by Council, unless Council agrees in writing that those parts will be adequately complied with by amended specifications. <p>All works must comply with Council's standard designs for applicable work and any relevant Australian Standard, Austroads Standards, Industry standards and codes of practice that applies to that type of work.</p> <p>The approval documents are the material contained in the application, approved plans and supporting documentation including any written and electronic correspondence between the applicant and Council during all stages of the application assessment processes.</p>		
5.	The developer shall contact Council's Engineering Department to ensure the correct specifications are obtained for all civil works prior to commencement of any works onsite.		
6.	<p>Works do not detract from the amenity of the local area through unacceptable impacts relating to:</p> <ul style="list-style-type: none"> (a) Noise; (b) Hours of operation; (c) Traffic; (d) Advertising devices; (e) Lighting; (f) Visual amenity; (g) Privacy; (h) Odour; or (i) Emissions. 		

	ENGINEERING CONDITIONS
7.	Prior to the commencement of work on site, a project management plan addressing Quality, Safety, Traffic and Environmental Management shall be submitted to Council for approval by the Director of Engineering Services. The Quality management plan shall include inspection and test plans nominating proposed testing frequencies.
8.	At the completion of each stage of the development, the developer shall provide to the satisfaction of the Director of Engineering Services, 'As Constructed' drawings, construction details, quality assurance documentation and test results.
9.	Each stage of the development shall be subject to a 12-month defects liability period, commencing from the date of confirmation by Council of the developers letter of compliance (required by Condition 22).
10.	Following approval of the project plan and at least one week prior to the commencement of construction, representatives of the nominated contractor must attend a pre-start meeting to confirm appropriate contact details and inspection requirements.
	ROADS
11.	<p>All new roads shall be constructed:</p> <ul style="list-style-type: none"> (a) Generally in accordance with the approved plans. (b) In accordance with DTMR technical specifications relevant to each item of work unless noted otherwise in the approved drawings or agreed with Council in writing. (c) To the satisfaction of the Director Engineering Services.
12.	Seal designs the proposed surfacing shall be submitted to Council for approval a minimum of one (1) week prior to application.
	STORMWATER
13.	<p>All Stormwater works shall be constructed:</p> <ul style="list-style-type: none"> (a) Generally in accordance with the approved plans. (b) In accordance with DTMR technical specifications relevant to each item of work unless noted otherwise in the approved drawings or agreed with Council in writing. (c) To the satisfaction of the Director Engineering Services.

	EXCAVATING AND FILLING WORKS
14.	Excavating and filling must not negatively impact on the character and amenity of neighbourhoods, increase flood or drainage impacts on neighbouring properties and cause pollution or contamination of nearby land or watercourses.
15.	Excavating or filling must not result on works or structures that extract or retain overland water flows.
16.	Excavating and filling works are to be designed using appropriate engineering standards.
17.	Appropriate erosion control and silt collection measures are to be provided to ensure that environmental values are protected during construction activities.
	DEVELOPER'S RESPONSIBILITIES:
18.	<i>It is the Developer's responsibility to comply with all conditions of this works approval and Decision Notice – approval (with conditions) Reconfiguring a Lot 18/04I dated 2 December 2021.</i>
	COMPLETION OF WORKS
19.	At its discretion, Council may accept bonds or other securities to ensure completion of specified development approval conditions. It may be necessary for Council to use such bonds for the completion of outstanding works without a specific timeframe agreed.
20.	A letter outlining and demonstrating that conditions have been, or will be, complied with shall be submitted to Council and approved by a relevant Officer of Council at the completion of the works for each stage. Council Officers may require a physical inspection to confirm that all conditions have been satisfied to relevant standards.
	PLEASE READ CAREFULLY - NOTES AND ADVICE
	All development shall be conducted in accordance with the provisions of the <i>Environmental Protection Act 1994</i> and all relevant regulations and standards under that Act. All necessary licences under the Act shall be obtained and shall be maintained at all times.
	It is the applicant's responsibility to obtain all statutory approvals prior to commencement of any works onsite.

	<p>This approval in no way removes the duty of care responsibility of the applicant under the <i>Aboriginal Cultural Heritage Act 2003</i>. Pursuant to Section 23(1) of the <i>Aboriginal Cultural Heritage Act 2003</i>, a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage (the "cultural heritage duty of care").</p>
	<p>This approval in no way authorises the clearing of native vegetation protected under the <i>Vegetation Management Act 1999</i>.</p>
	<p>The approved development does not authorise any deviation from the applicable Australian Standards nor from the application of any laws, including laws covering work place health and safety.</p>



Attachment 2 – Approved Plans





Osborn

CONSULTING ENGINEERS Pty Ltd

A.C.N 602 572 967
A.B.N. 83 602 572 967

GRC Ref.: 18/041
OCE Ref.: WK19-0239-Rev-B:af

Friday, 20 January 2023

Goondiwindi Regional Council
LMB 7,
INGLEWOOD, QLD 4387

Attention Luke Tanner,
Dear Sir,

GOONDIWINDI REGIONAL COUNCIL	
Approved Plan referred to in Council's Decision Notice	
Council Reference:	22/47
Dated:	03/02/23
Signed:	<i>Rm M-C</i>
Print Name:	Ronnie McMahon
(Under Delegation) ASSESSMENT MANAGER	

**PAVEMENT DESIGN FOR STAGE 1 OF RURAL SUBDIVISION STANTHORPE-
INGLEWOOD ROAD, OMANAMA, Ref 08/041 ROL Lots 53 & 54 BNT 290 and Lot 179
BNT 349**

Rural Land Group proposes construction of a 34 lots rural subdivision connecting to Stanthorpe – Inglewood Road, Chainage 49.54km near the township of Omanama.
This pavement design has been prepared for Stage 1 of the development from Chainage 20m to 920m. The chainage 0 to 20m is located within the TMR road corridor and the pavement design for this section has been submitted to TMR for approval.
The Stage 1 works are shown on drawings WK19-0239/C1, Rev C, C2, Rev B, C3, Rev C, C4 Rev B, C5 Rev. C, WK19-0239/C100-102, Rev. B.

The design has been undertaken in accordance with TMR-Supplement to “Part 2: Pavement Structural Design” of the Austroads Guide to Pavement Technology-July 2018 and is based on Road Location and traffic estimates provided by traffic engineers (TTM).

The average growth factor for the new road of 2% per annum has been applied for this design. The recorded percentage for heavy vehicles on Stanthorpe Inglewood Road is 29.12%, according to TMR counts, a figure of 30% has been adopted for the design of the new road.

The ESA calculations have been based on the following data:

- AADT = **60vpd; increased as per discussion with GRC.**
- Heavy Vehicles H.V. = 30%
- Growth Rate = 2%
- Design Period = 20 years;
- Load Distribution Factor LDF = 1.0
- Direction Factor = 0.5
- Cumulative Growth Factor CGF as per AUSTROADS 2017, Guide to Pavement Technology Part 2: Pavement Structural Design, Table 7.4. CGF = 24.30
- NHVAG = 2.8 as per Table 7.6 AUSTROADS 2017

HEAD OFFICE
BRISBANE OFFICE
MT ISA OFFICE
IPSWICH OFFICE

PO Box 495, Warwick Qld 4370 P: 07 4660 3300 F: 07 4660 3310
PO Box 147, Red Hill Qld 4059 P: 07 3510 8510 F: 07 3876 3045
PO Box 1314, Mount Isa Qld 4825 P: 4749 0830 F: 4743 5106
25 Warwick Road, Ipswich Qld 4305 P: 3282 7770 F: 3281 7237

E: warwick@osbornconsulting.com.au
E: brisbane@osbornconsulting.com.au
E: mtisa@osbornconsulting.com.au
E: ipswich@osbornconsulting.com.au

- $N_i=9.0$ as per Equation 30 Austroads
- $CGF=24.3\%$
- $N_{HV}=365*9.0*24.3 = 79826 = 7.9*10^4$ (Equation 32 Austroads)
- N_{DT} (as per Equation 35 AUSTROADS 2017) $= 7.9*10^4 \times 2.8 = 223513 = 2.23 \times 10^5$
- $ESA/HVAG$ (Table I4) $= 0.8$
- $DESA = ESA/HVAG \times N_{DT} = 0.8 \times 2.23 \times 10^5 = 178810 = 1.79 \times 10^5$, refer to Figure 8.4
- Design CBR = 3, refer CBR Test Report Numbers 16, 17, 18 and 19, with CBR values between 3 and 7. Testing undertaken by SOILTECH Testing Services, Project No. P22407 dated 17.11.2022.

Based on Figure 8.4 the pavement depth for CBR = 3% has been estimated as 410 mm; adding the tolerance we recommend total pavement depth of 430mm.
 Considering that majority of the Stage 1 road section is raised with fill depth between 0.5m and 1.4 meters and the fill material (sourced locally) is expected to be minimum CBR 15 (to be confirmed by Soiltech prior commencement of construction; testing anticipated to be undertaken on 08.12.2022)
 According to Figure 8.4 (attached) for CBR values above 15%, the required thickness is 160mm plus 20mm tolerance.

The following pavement is therefore proposed:

- Double / Double seal as per DTMR Technical Note 175 – Selection and Design of Sprayed Bituminous Treatments, October 2017 and Austroads publications “Review of Primes and Primerseal Design” and AP-T236 for little or no-trafficking between applications. Primerseal application rate as per Table 4.1 “Review of Prime and Primerseal publication. 14mm aggregate first coat at $1.9l/m^2$ and $95m^2/m^3$ spread plus 10mm second coat at $1.3l/m^2$ and spread rate of $175m^2/m^3$. Seal design to be confirmed by the contractor prior construction and approved by GRC.
- Base layer, Type 2.1 (CBR80) = 180mm
- Lower Subbase layer, Type 2.5 (CBR15) or equivalent locally sourced fill material tested by a NATA accredited laboratory.

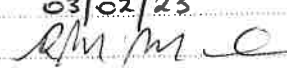
The total pavement depth is therefore 430 mm plus seal.
 Refer to drawing WK19-0239/C1 for pavement details.

If you have any questions regarding this matter, please contact me on 46603300 or 0412323394.

Yours faithfully
Osborn Consulting Engineers



Arkadius Feininger, MIEAust. CPEng
RPEQ 13740

GOONDIWINDI REGIONAL COUNCIL	
Approved Plan referred to in Council's Decision Notice	
Council Reference:	22/47
Dated:	03/02/23
Signed:	
Print Name:	Ronnie McMahon
(Under Delegation) ASSESSMENT MANAGER	

HEAD OFFICE
 BRISBANE OFFICE
 MT ISA OFFICE
 IPSWICH OFFICE

PO Box 495, Warwick Qld 4370 P: 07 4660 3300 F: 07 4660 3310
 PO Box 147, Red Hill Qld 4059 P: 07 3510 8510 F: 07 3876 3045
 PO Box 1314, Mount Isa Qld 4825 P: 4749 0830 F: 4743 5106
 25 Warwick Road, Ipswich Qld 4305 P: 3282 7770 F: 3281 7237

E: warwick@osbornconsulting.com.au
 E: brisbane@osbornconsulting.com.au
 E: mtisa@osbornconsulting.com.au
 E: ipswich@osbornconsulting.com.au



Osborn
CONSULTING ENGINEERS

IPSWICH OFFICE
25 Warwick Road
IPSWICH QLD 4305
Ph: (07) 3282 7770
Fax: (07) 3281 7237
ipswich@osbornconsulting.com.au

WARWICK OFFICE
PO Box 495
148A Palmerin Street
WARWICK QLD 4370
Ph: (07) 4660 3300
Fax: (07) 4660 3310
warwick@osbornconsulting.com.au

BRISBANE OFFICE
PO Box 147
Unit 14, 99 Musgrave Road
RED HILL QLD 4059
Ph: (07) 3510 8510
Fax: (07) 3876 3045
brisbane@osbornconsulting.com.au

MT ISA OFFICE
PO Box 1314
22 Gray Street
MT ISA QLD 4825
Ph: (07) 4749 0830
Fax: (07) 4743 5106
mtisa@osbornconsulting.com.au



COOLMUNDA VIEWS STAGE 1 2 LOT RURAL SUDIVISION STANTHORPE - INGLEWOOD RD , OMAN AMA FOR RURAL LAND GROUP



LOCALITY PLAN.

SAFETY IN DESIGN AND CONSTRUCTION

NOT TO SCALE

1. Notice to all persons who commissioned the design work depicted in these documents and to all those involved in the construction of the works, it's operation and it's demolition.
2. The construction of these works involves activities which involve some risk to the health and safety of those involved directly in the construction and any person entering the work site.
3. All construction work must comply with the requirements of the Local Authority Workplace Health and Safety legislation.
4. It is essential that prior to the commencement of the construction, an adequate safety plan is prepared by the Principal Contractor for the proposed work in accordance with statutory requirements. The safety plan shall include appropriate work method statements for all activities. A risk analysis is to be carried out by the Contractor of all work practices and where possible all risks eliminated. Where this is not possible, the safety plan must address these risk issues with appropriate documentation for strict adherence to during construction.
5. The operation of these works involves activities that have some risk to the health and safety of those using the facility. The facility requires maintenance to maintain its initial level of safety at commencement of use. Note that maintenance activities also carry health and safety risks.
6. The eventual demolition of these works will involve activities which have some risk to health and safety.
7. Please contact Osborn Consulting Engineers for information and assistance with minimising these risks.

GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice
Council Reference: 22/47
Dated: 03/02/23
Signed: *RM McMahon*
Print Name: Ronnie McMahon
(Under Delegation) ASSESSMENT MANAGER

SCHEDULE OF DRAWINGS.

CIVIL WORKS DRAWINGS

Drawing No.	Revision	Drawing Description
WK19-0239/C1	C	CONTROL LINE SETOUT TABLES, NOTES AND DETAILS
WK19-0239/C2	B	OVERALL SITE LAYOUT PLAN
WK19-0239/C3	C	ROADWORKS LAYOUT PLAN - SHEET 1
WK19-0239/C4	B	ROADWORKS LAYOUT PLAN - SHEET 2
WK19-0239/C5	C	ROADWORKS LAYOUT PLAN - SHEET 3
WK19-0239/C100	B	ROAD 1 CROSS SECTIONS - SHEET 1 OF 17
WK19-0239/C101	B	ROAD 1 CROSS SECTIONS - SHEET 2 OF 17
WK19-0239/C102	B	ROAD 1 CROSS SECTIONS - SHEET 3 OF 17
WK19-0239/C200	E	INTERSECTION DETAIL LAYOUT - SHEET 1
WK19-0239/C201	D	STANTHORPE-INGLEWOOD ROAD INTERSECTION CROSS SECTIONS
WK19-0239/C202	D	INTERSECTION LINEMARKING LAYOUT - SHEET 1
WK19-0239/C203	D	INTERSECTION LINEMARKING LAYOUT - SHEET 2
WK19-0239/D1	B	DRAINAGE CATCHMENT PLAN
WK19-0239/D2	D	DRAINAGE CULVERT DETAILS
WK19-0239/E1	B	EROSION AND SEDIMENT CONTROL DETAILS

WK19-0239

LEGEND :

EXISTING 0.25m CONTOURS

FINISHED LEVEL 0.25m CONTOURS

EXISTING EDGE OF BITUMEN

EXISTING OH ELECTRICAL

EXISTING UG TELECOMMUNICATIONS

PROPOSED EDGE OF BITUMEN

PROPOSED STORMWATER

PROPOSED SWALE

PROPOSED BATTER

PROPOSED NEW PAVEMENT

EXISTING TREE TO BE REMOVED

EXISTING TREE TO REMAIN

GUIDE POST SPACINGS ON CURVES

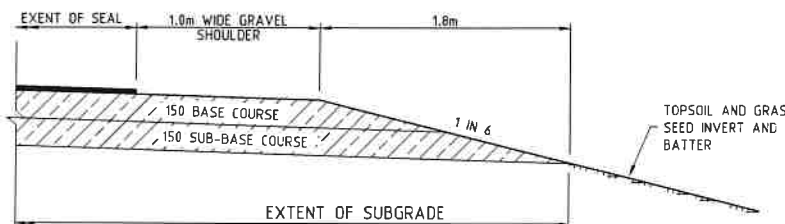
CURVE RADIUS	SPACINGS (m)	
	ON OUTSIDE OF CURVE	ON INSIDE OF CURVE
< 100	6	12
100-199	10	20
200-299	15	30
300-399	20	40
400-599	30	60

GUIDE POST NOTE:

- NOMINAL SPACING OF GUIDE POSTS ON STRAIGHT SECTIONS OF ROAD SHALL BE 150m WITH POSTS IN PAIRS, ONE EACH SIDE OF THE FORMATION UNO.

NOTE:

INVERT & BATTERS OF TABLE DRAINS TO BE TOPSOILED AND GRASS SEED



TYPICAL VERGE TREATMENT
N.T.S

CAUTION !! UNDERGROUND TELECOMMS CABLES

UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

DANGER!! OVERHEAD ELECTRICAL CABLES

OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

ROAD 1 - HORIZONTAL SETOUT POINTS - STAGE 1

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	0.000	330156.451	6853057.588	337.625	97°34'42.31"			
TC	58.453	330214.393	6853049.879	338.038	97°34'42.31"			
IP 2	30.625	330236.740	6853046.906	338.245		R = 163.000	44.345	25°24'28.54"
CT	102.799	330255.649	6853034.632	338.430	122°59'10.85"			
TC	211.625	330346.733	6852975.382	339.211	122°59'10.85"			
IP 3	240.862	330371.501	6852959.436	339.421		R = -400.000	58.473	8°22'32.42"
CT	270.098	330398.129	6852947.239	339.593	114°35'38.44"			
TC	476.222	330585.528	6852861.399	338.746	114°35'38.44"			
IP 4	519.006	330625.516	6852843.082	339.417		R = -150.000	85.568	32°41'04.36"
CT	561.799	330669.063	6852849.259	338.038	81°55'34.08"			
TC	748.384	330853.807	6852875.466	336.751	81°55'34.08"			
IP 5	787.592	330893.440	6852881.089	336.795		R = -150.000	78.237	29°53'03.57"
CT	826.621	330925.002	6852905.711	337.036	52°02'30.46"			
TC	1266.124	331266.879	6853165.575	356.669	52°02'30.46"			
IP 6	1314.360	331310.561	6853206.489	358.158		R = 71.000	52.477	47°26'38.17"

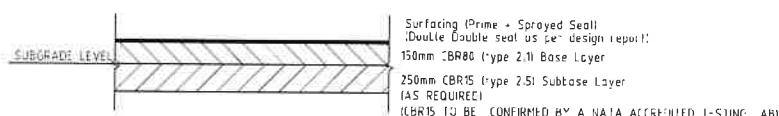
THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.

WARNING

NOT ALL EXISTING SERVICES SHOWN ARE AS LOCATED BY THE DETAIL SURVEY AND MAY NOT BE EXHAUSTIVE. THE CONTRACTOR IS TO LOCATE AND CONFIRM THE LOCATION OF ALL EXISTING SERVICES PRIOR TO CONSTRUCTION, AND IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES.

TO BE REMOVED FROM SITE (UNLESS NOTED TO BE RETAINED):

- BARBED WIRE & BUILDING MATERIAL
- DANGEROUS TREES & DEAD LIMBS
- RUBBISH, DEBRIS AND OBSTACLES
- NOXIOUS WEEDS/PLANTS
- EXISTING DRIVEWAYS, STRUCTURES & SERVICES THAT ARE NO LONGER REQUIRED.



PAVEMENT DETAIL

NOTE:- REFER TO PAVEMENT DESIGN REPORT

PAVEMENT DESIGN NOTES:

- PAVEMENT DEPTHS ARE BASED ON CBR TESTING BY SOILTEC.
- ASSUMED TOPSOIL DEPTH 150mm
- DESIGN BASED ON A SUBGRADE OF CBR3.

GOONDIWINDI REGIONAL COUNCIL

Approved Plan referred to in Council's Decision Notice

Council Reference: 22/47

Dated: 03/02/23

Signed: Ron M. Mahan

Print Name: Ron M. Mahan

(Under Delegation) ASSESSMENT MANAGER

EARTHWORKS VOLUMES

CUT = 2,740m³
FILL = 8,054m³
BORROW = 5,314m³

EARTHWORKS BASED ON THE FOLLOWING:

- STRIP SURFACE OF 150mm
- 250 THICK GRAVEL LAYER MAX.

GENERAL NOTES

- Levels & gradients at junctions to existing works as shown are indicative only & shall be varied as required to achieve a satisfactory transition.
- The contractor shall obtain the locations of all existing services prior to any excavation. The contractor shall co-ordinate the works with the relevant authorities & shall be responsible for reinstating any existing services which become uncovered or damaged during the construction period.
- Any alterations required to existing services to be carried out as directed by the Goondiwindi Regional Council Engineer or the Supervising Engineer.
- The contractor shall allow to reinstates all existing batters to their original state as required.
- All design levels on roadworks are finished surface levels on proposed road centerline, or adjacent to the edge of bitumen.
- All levels are shown in Metres to A.H.D.
- All dimensions on the plans are in metres unless noted otherwise.
- All work shall be in accordance with the requirements of the Goondiwindi Regional Council.
- The contractor shall check all information & dimensions shown on these drawings, on site, prior to commencement of construction.
- The contractor shall obtain a copy of the current Goondiwindi Regional Council "Standard Drawings" and ensure construction is in accordance with this document.
- The contractor shall ensure "As Constructed" information in accordance with Goondiwindi Regional Council requirements is collected during construction, compiled and submitted to Goondiwindi Regional Council as requested.
- The contractor shall verify "As Constructed" information from existing infrastructure where it is relevant to the proposed works and verify that the proposed works will not be adversely affected by the "As Constructed".
- The contractor is to erect traffic control devices in accordance with the relevant authority specifications.

ROAD SUBGRADE AND GRAVEL PAVEMENT NOTES

- Subgrade is to be trimmed to an even surface, free from loose material, organic matter and graded to be free-draining.
- Compact subgrade to 97% Characteristic Standard Density Ratio as defined by Queensland Main Roads Test Method J020, based on test methods AS 1289.5.1.1, AS 1289.5.7.1, and AS 1289.5.4.1.
- Proof roll subgrade to detect any soft spots. Soft spots shall be removed & backfilled with approved sub-base material.
- Subgrade affected by rainfall after final trimming is not to be accepted until appropriate drying out treatment has been effected.
- Each pavement course is not to be commenced until the previous course has been inspected and approved by the supervising engineer.
- Select fill to be minimum CBR15 material, placed in maximum 150mm layers and placed at optimum moisture content & compacted to 97% Characteristic Standard Density Ratio as defined by Queensland Main Roads Test Method J020, based on test methods AS 1289.5.1.1, AS 1289.5.7.1, and AS 1289.5.4.1.
- Pavement courses to be placed at optimum moisture content in 100mm (minimum) - 150mm (maximum) thick layers and compacted to 100% Characteristic Standard Dry Density Ratio as defined by Queensland Main Roads Test Method J020, based on test methods AS 1289.5.1.1, and AS 1289.5.4.1.
- Construction and preparation is to be carried out in accordance with Goondiwindi Regional Council Planning Scheme and the contractor shall ensure construction is in accordance with this document.
- Inspection & Testing of compacted material is to be carried out in accordance with Goondiwindi Regional Council Planning Scheme and the contractor shall ensure results are provided in accordance with this document.

SPRAY SEAL SURFACING NOTES

- Spray Seal surfacing of the road pavement is to be carried out in accordance with DTMR Specification MR511.
- Inspection & Testing of Spray Seal Surfacing is to be carried out in accordance with DTMR requirements.

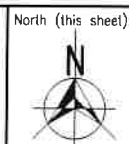
EARTHWORKS & ALLOTMENT FILLING NOTES

- Remove all topsoil, vegetation & deleterious material.
- Proof roll subgrade to detect any soft spots. Soft spots shall be removed & backfilled with approved material.
- Maximum batter slope to be 1:4 (V:H) u.n.c.
- All fill over 400mm deep is to be certified by an RPEQ that the filling has been undertaken in accordance with AS 3798.
- Allotment filling and testing of allotment filling shall be carried out in accordance with AS 3798 and Goondiwindi Regional Council requirements.
- Test results are to be made available to the Superintendent upon request.
- All material to be used as fill must be inspected by a competent person and written approval by a RPEQ obtained prior to use as fill in earthworks.
- No contaminated material, organic soils, deleterious soils or silt are to be used as fill.
- A topsoil depth of 150mm has been used to determine the earthworks quantities. The contractor is to satisfy himself of the accuracy of these quantities and make any necessary allowance if he disagrees with them.
- All topsoil is to be stripped and stockpiled prior to the commencement of any earthworks.

SIGNAGE AND LINEMARKING NOTES

- All signage and linemarking is to be supplied and installed in accordance with Transport and Main Road Manual of Uniform Traffic Control Devices.
- All sign plates must be compliant with MUTCD Part 1.
- The location & height of all signs must comply with Part 1 section 1.12.
- Signs installed in concrete islands are to be installed with a "Lcc Socket" base or approved equivalent.
- All Pavement Marking must be installed with RRP's in accordance with Aust Std 1742 Part 1-1975, AS 1743-1975 MUTCD Part 2 Section 5.6.
- All longitudinal and transverse lines must comply with MUTCD Part 2 figure 5.1.
- All works within existing trafficked areas must be undertaken with approved traffic management.
- Removal of all existing linemarking must be done by an approved means (eg high pressure water blasting or grinding).

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



North (this sheet):

NOTES :-

- Builder to verify all information & dimensions on site prior to commencement of construction
- DO NOT SCALE DRAWINGS
- This drawing and the copyright thereof remains the property of - Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION

ORIGINAL ISSUE	ISSUED	REV	DRAWN
ISSUED FOR COUNCIL APPROVAL	31/08/2022	A	SE
PAVEMENT DESIGN AMENDED	25/10/2022	B	SE
	07/11/2022	C	SE

NOTES

ISSUED	REV	DRAWN
31/08/2022	A	SE
25/10/2022	B	SE
07/11/2022	C	SE

REVISION

ISSUED	REV	DRAWN
31/08/2022	A	SE
25/10/2022	B	SE
07/11/2022	C	SE

REVISION

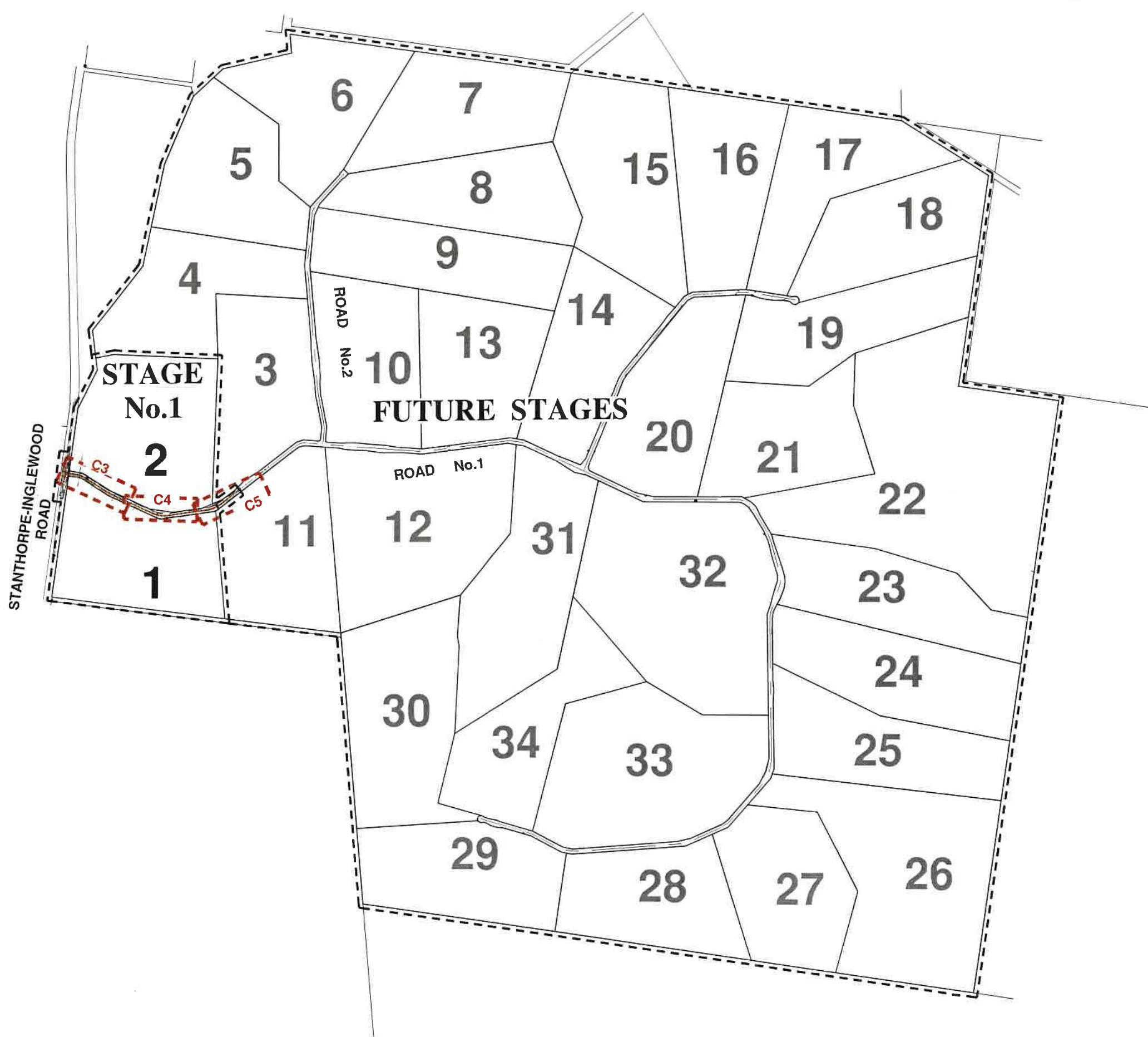
ISSUED	REV	DRAWN
31/08/2022	A	SE
25/10/2022	B	SE
07/11/2022	C	SE

Osborn
CONSULTING ENGINEERS
148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310
25 ROWAN ROAD
LEAKIN QLD 4305
Ph 07 2882 7270 Fax 07 3281 7227
Office 2, Floor 1 42-44 Simpson Street,
Mt Isa Qld 4825
Ph 07 4746 0633 Fax 07 4746 0109

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

CONTROL LINE SETOUT TABLES, NOTES AND DETAILS

checked AF	date AUGUST 2022
approved [Signature]	RPEQ 13740 rev C
scale 1:500	Sheet 1
	WK19-0239/ C1

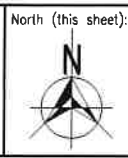
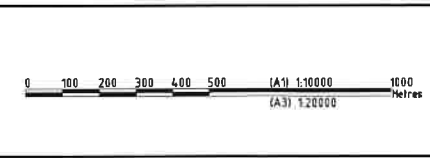


LEGEND

PROPOSED BATTERS	
PROPOSED TABLE DRAIN	
PROPOSED BITUMEN SEAL RD	
EXISTING FENCE	
EXISTING OH ELECTRICAL	
EXISTING TELSTRA	

GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice
Council Reference: 22/47
Dated: 03/02/23
Signed: *Rm*
Print Name: **Ronnie McMahon**
(Under Delegation) ASSESSMENT MANAGER

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



NOTES :-

1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of :- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION		ISSUED	REV	DRAWN
ORIGINAL ISSUE		31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL		25/10/2022	B	SE

Osborn
CONSULTING ENGINEERS

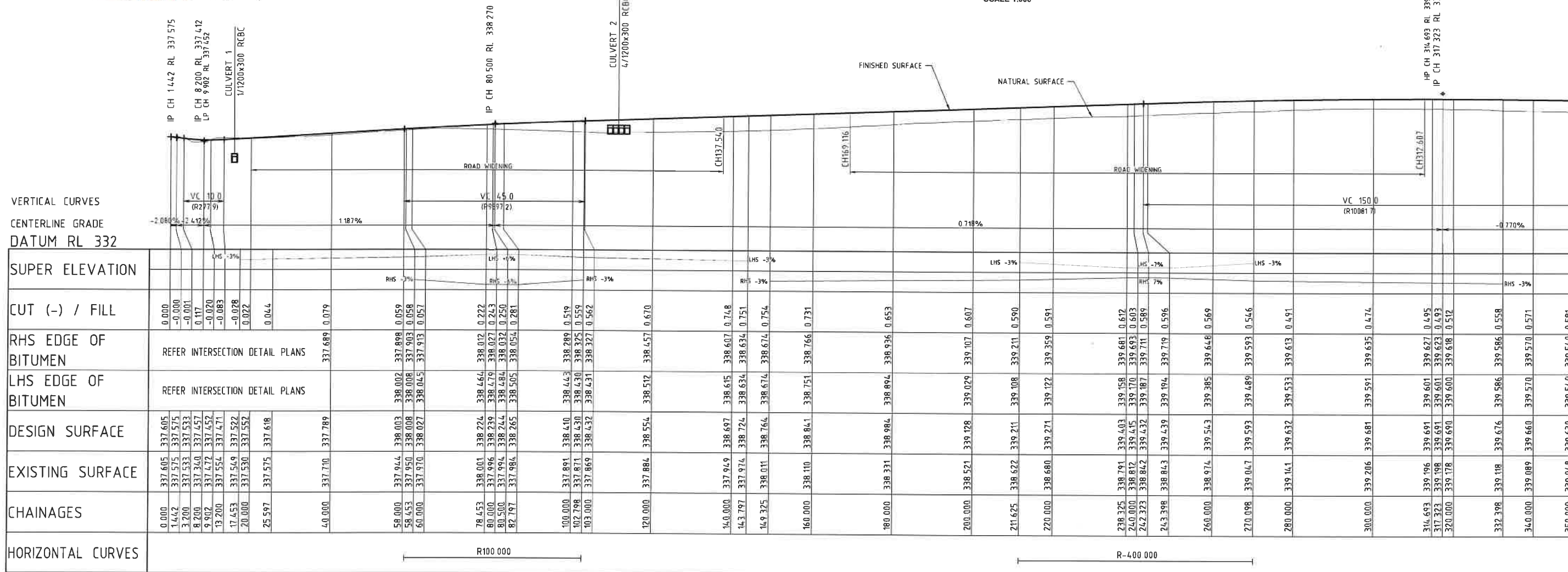
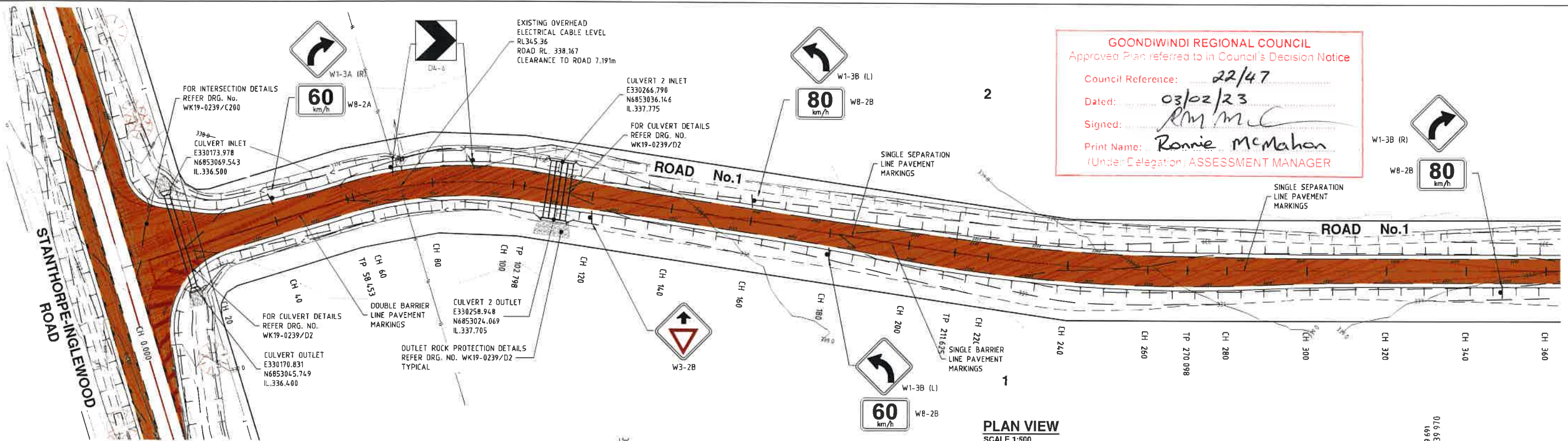
148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

25 Warwick Road,
Swansea Qld. 4320
Ph 07 3182 7270 Fax 07 3181 7237

Office 2, Floor 1 42-44 Simpson Street
Mt Isa Qld. 4825
Ph 07 4766 0835 Fax 07 4763 6156

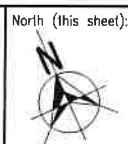
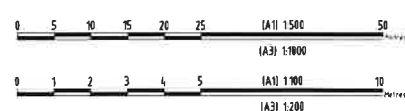
COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

OVERALL SITE LAYOUT PLAN			
checked	AF	date	AUGUST 2022
approved:	<i>AF</i>	RPEQ:	13740 rev-B
scale	1:10000		
Sheet	2		
			WK19-0239/ C2



LONGITUDINAL SECTION

SCALE HORIZ 1:500
VERT 1:100



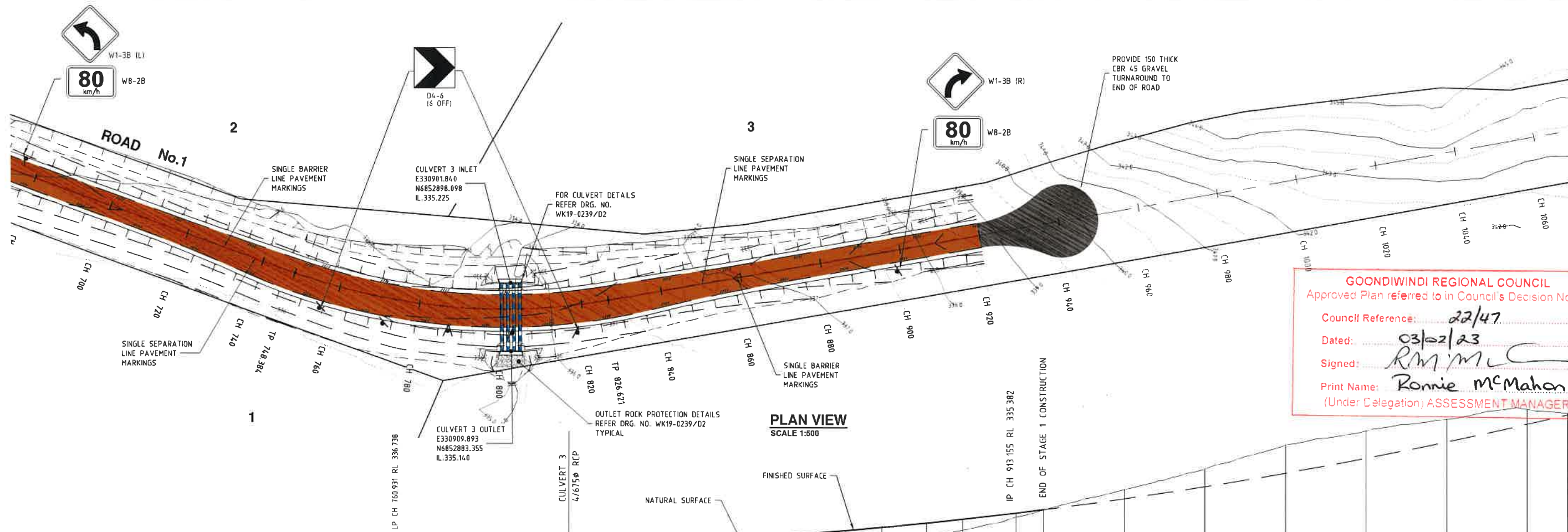
- NOTES**
- Builder to verify all information & dimensions on site prior to commencement of construction. DO NOT SCALE DRAWINGS.
 - This drawing and the copyright thereof remains the property of: Osborn Consulting Engineers Pty Ltd. A.B.N. 83 602 572 967 A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV.	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE
CULVERT 1 DETAILS AMENDED	31/10/2022	C	SE

Osborn
CONSULTING ENGINEERS
148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310
25 Warwick Road, Ipswich Qld. 4705 Ph 07 5382 7370 Fax 07 5381 7237
Office 2, Floor 1, 42-44 Simpson Street, W. 100 Cde 4825 Ph 07 4348 6843 Fax 07 4343 4154

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

ROADWORKS LAYOUT PLAN - SHEET 1			
checked AF	date: AUGUST 2022	approved: <i>[Signature]</i>	REQ: 13740 rev: C
scale: AS SHOWN	Sheet 3	WK19-0239/ C3	



GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice

Council Reference: 22/47

Dated: 03/02/23

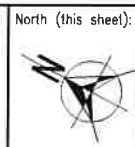
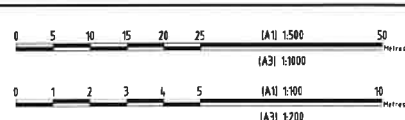
Signed: *Rm Mc*

Print Name: *Ronnie McMahon*
(Under Delegation) ASSESSMENT MANAGER

VERTICAL CURVES		CENTERLINE GRADE		DATUM RL 330	
SUPER ELEVATION		LHS -3%		RHS +7%	
CUT (-) / FILL		LHS -3%		RHS +7%	
RHS EDGE OF BITUMEN		LHS -3%		RHS +7%	
LHS EDGE OF BITUMEN		LHS -3%		RHS +7%	
DESIGN SURFACE		LHS -3%		RHS +7%	
EXISTING SURFACE		LHS -3%		RHS +7%	
CHAINAGES		LHS -3%		RHS +7%	
HORIZONTAL CURVES		LHS -3%		RHS +7%	
700.000		719.155		720.000	
740.000		748.384		750.448	
760.000		760.931		777.148	
780.000		801.985		820.000	
840.000		860.000		880.000	
900.000		913.155		920.000	
940.000		960.000		980.000	
1000.000		1020.000		1040.000	
1060.000		1080.000		1100.000	

LONGITUDINAL SECTION
SCALE HORIZ 1:500
VERT 1:100

This drawing has been prepared by Osborn Consulting Engineers Pty Ltd and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



- NOTES:-
- Builder to verify all information & dimensions on site prior to commencement of construction. DO NOT SCALE DRAWINGS.
 - This drawing and the copyright thereof remains the property of:- Osborn Consulting Engineers Pty Ltd. A.B.N. 83 602 572 967. A.C.N. 602 572 967.

DRAWING REVISION		ISSUED	REV	DRAWN
ORIGINAL ISSUE		31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL		25/10/2022	B	SE
CULVERT 3 AMENDED		25/10/2022	C	SE

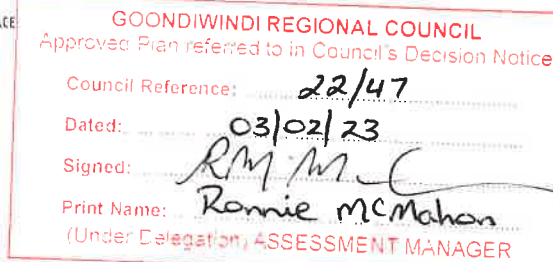
Osborn
CONSULTING ENGINEERS

148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

25 Warwick Road,
Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

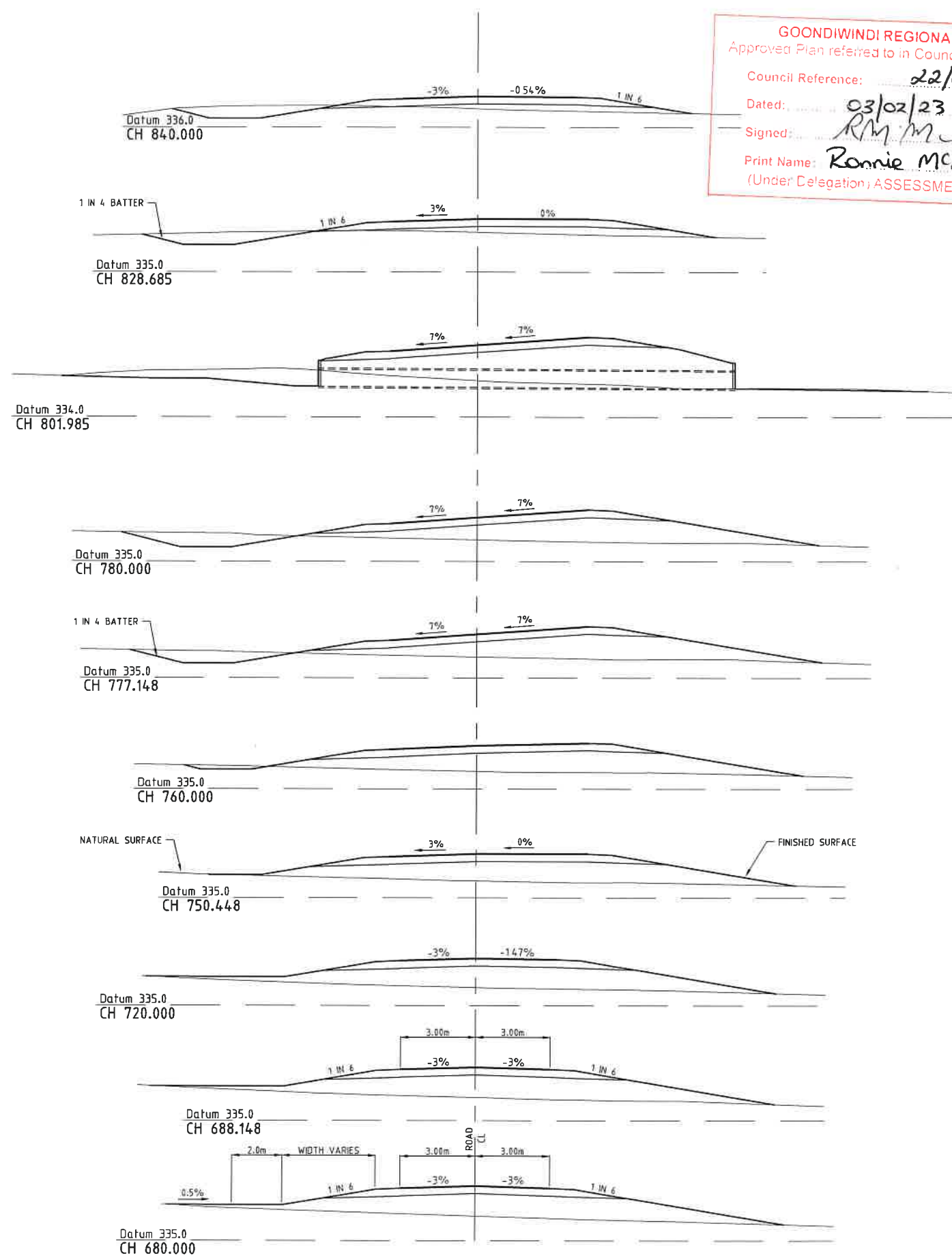
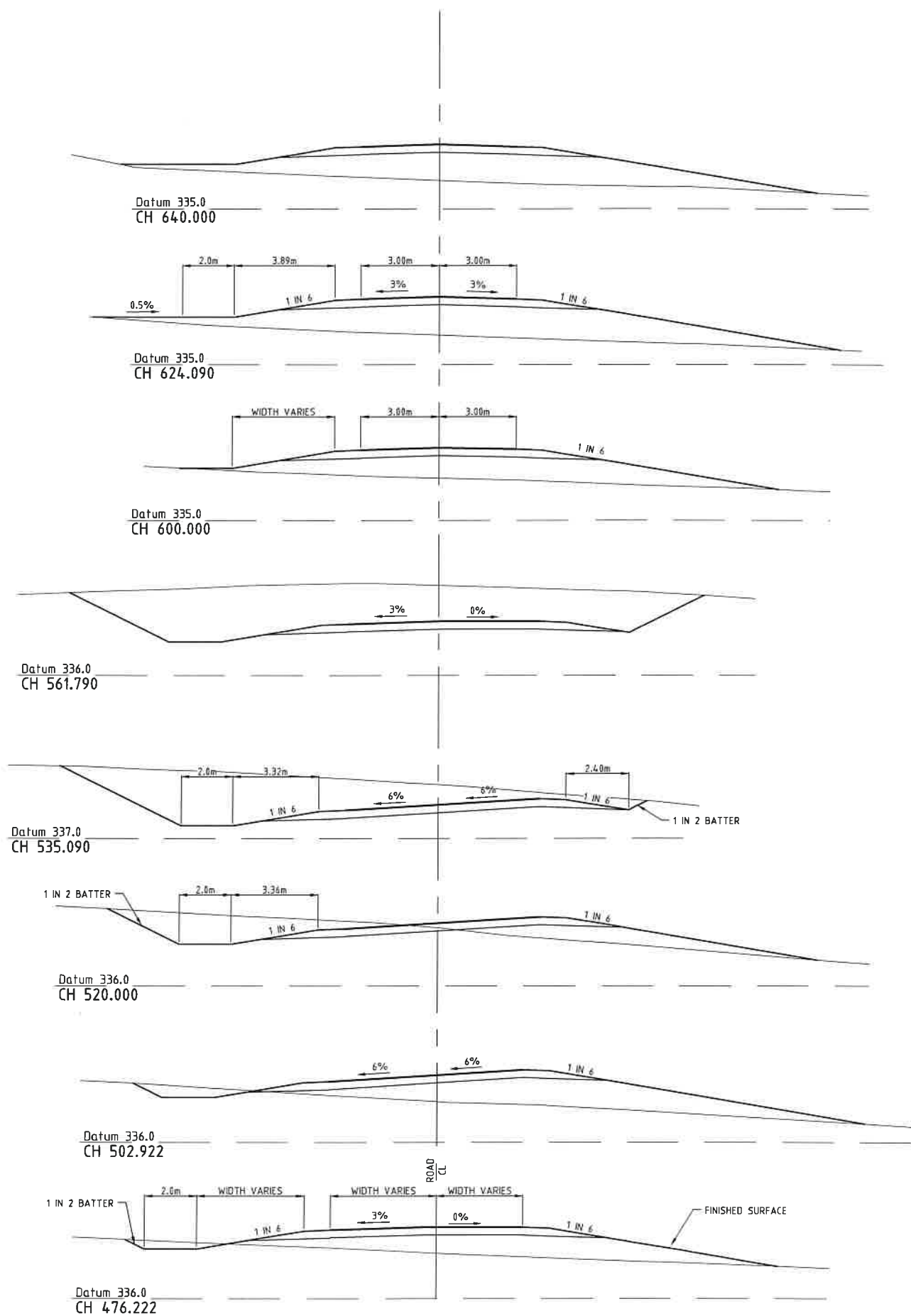
COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

ROADWORKS LAYOUT PLAN - SHEET 3	
checked AF	date: AUGUST 2022
approved: <i>[Signature]</i>	REQ: 13740 rev: C
scale AS SHOWN	Sheet 5
WK19-0239/ C5	

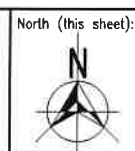


ROAD 1 CROSS SECTIONS - SHEET 1 OF 3		
checked: <i>AF</i>	date: <i>AUGUST 2022</i>	
approved: <i>[Signature]</i>	RPEQ: <i>13740</i>	rev: <i>B</i>
scale: <i>1:100</i>	WK19-0239/C100	
<i>Sheet 31</i>		

GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice
Council Reference: 22/47
Dated: 03/02/23
Signed: RM m c
Print Name: Ronnie McMahon
(Under Delegation) ASSESSMENT MANAGER



This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



NOTES :-

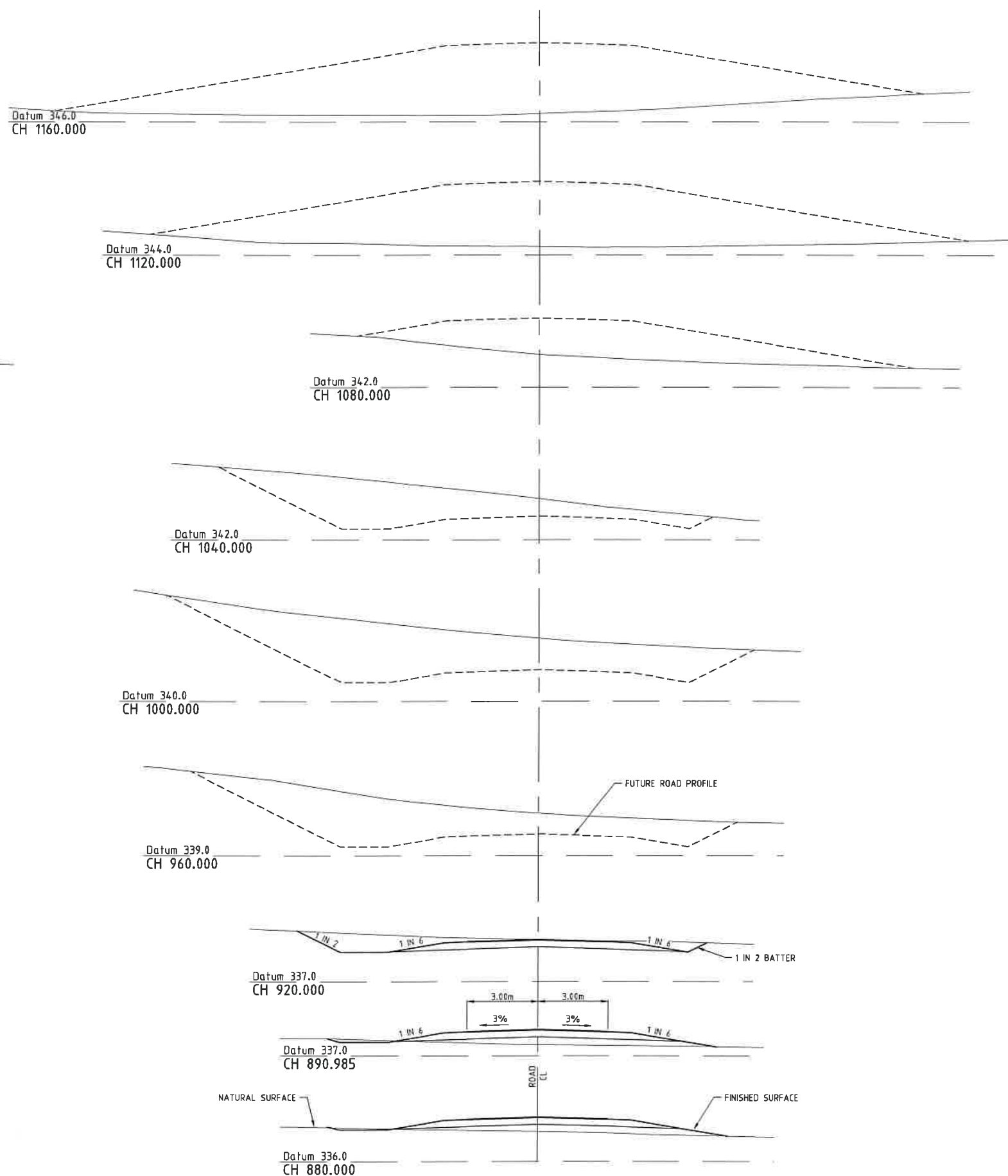
1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of :- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV.	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE

Osborn
CONSULTING ENGINEERS
148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310
25 Warwick Road, Ipswich Qld. 4305 Office 2, Floor 1, 42-44 Simpson Street, Mt Isa Qld. 4825 Ph 07 3282 7270 Fax 07 3281 7237 Ph 07 4748 0830 Fax 07 4741 5106

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

ROAD 1 CROSS SECTIONS			
- SHEET 2 OF 3			
checked: AF	date: AUGUST 2022		
approved: [Signature]	RPEQ: 13740	rev: B	
scale: 1:100			
Sheet 32			
			WK19-0239/C101



GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice

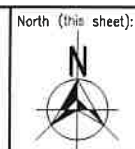
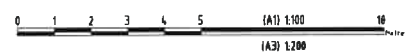
Council Reference: 22/47

Dated: 03/02/23

Signed: RM M C

Print Name: Ronnie McMahon
(Under Delegation, ASSESSMENT MANAGER)

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



NOTES:-

1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of :- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV.	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE

Osborn
CONSULTING ENGINEERS

148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

25 Warwick Road,
Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

Office 2, Floor 1 42-44 Simpson Street,
Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

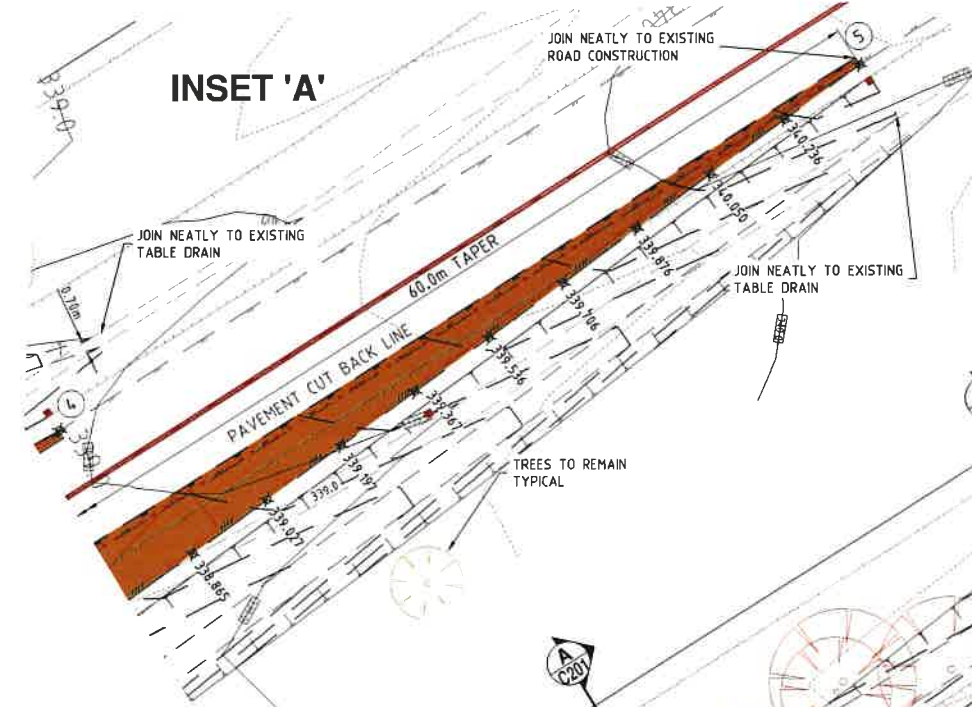
ROAD 1 CROSS SECTIONS - SHEET 3 OF 3			
checked: AF	date: AUGUST 2022		
approved: <i>[Signature]</i>	RPEQ: 13740	rev: B	
scale: 1:100			
Sheet 33			
			WK19-0239/C102

LEGEND

EXISTING CONTOURS	---	32.0	---	SETOUT POINT	⊗ (120)
PROPOSED CONTOURS	---	32.1	---	PROPOSED BATTERS	---
EXISTING FENCE	---		---	PROPOSED TABLE DRAIN	---
EXISTING OH ELECTRICAL	---		---	ADVISORY SIGN	⊗
EXISTING TELSTRA	---		---	PROPOSED BITUMEN SEAL ROAD	---
EXISTING OPTIC FIBRE	---		---	EXISTING LINE MARKING TO BE REMOVED	---

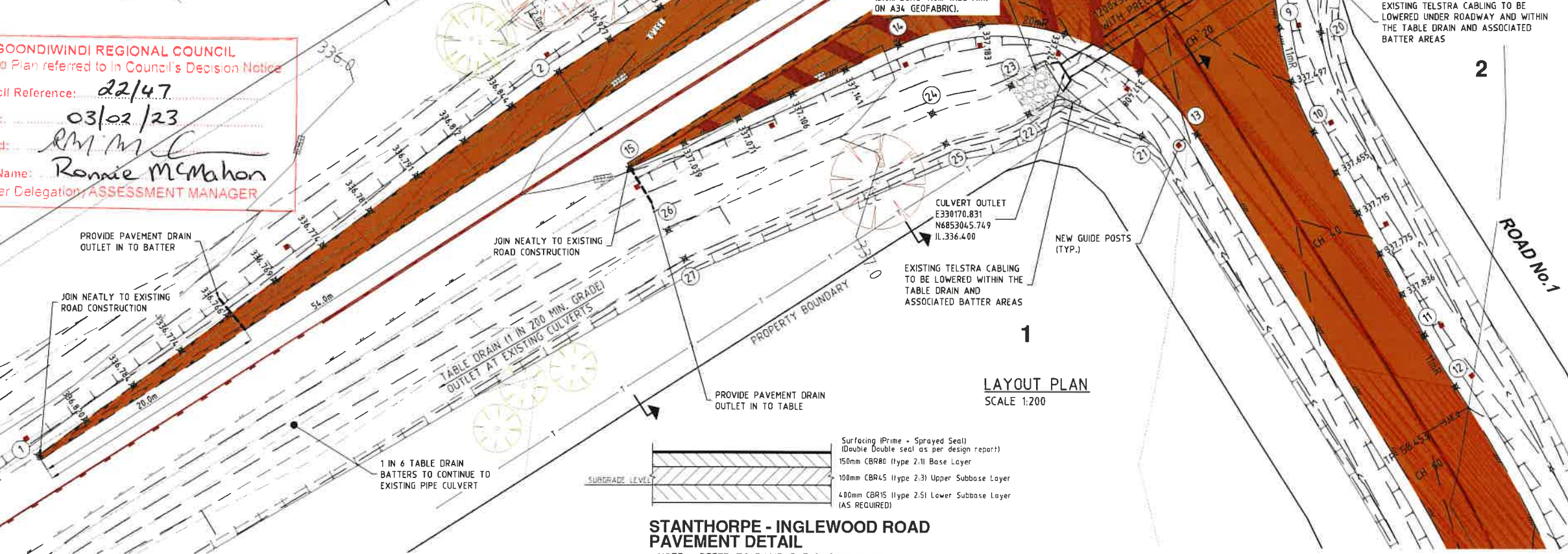
POINT No.	EASTING	NORTHING	ELEVATION	POINT No.	EASTING	NORTHING	ELEVATION
01	330139.992	6852958.887	336.820	15	330153.538	6853012.383	337.012
02	330143.421	6853012.896	336.884	16	330170.315	6853078.750	337.274
03	330151.463	6853073.364	337.636	17	330173.789	6853079.324	337.291
04	330162.249	6853126.395	338.935	18	330171.533	6853074.771	336.887
05	330175.101	6853172.665	340.430	19	330174.657	6853075.055	336.914
06	330171.095	6853112.670	338.476	20	330182.211	6853064.481	336.968
07	330166.479	6853077.975	337.743	21	330178.746	6853047.046	336.800
08	330171.491	6853067.236	337.398	22	330171.640	6853041.102	336.383
09	330179.668	6853062.048	337.384	23	330168.865	6853041.472	336.383
10	330188.286	6853058.619	337.591	24	330166.386	6853034.898	336.347
11	330207.356	6853054.908	337.895	25	330169.073	6853034.111	336.345
12	330212.372	6853054.151	337.970	26	330159.607	6853011.481	336.227
13	330182.075	6853050.900	337.529	27	330162.371	6853011.036	336.226
14	330160.156	6853036.390	337.176				

INSET 'A'



124
BNT 1336

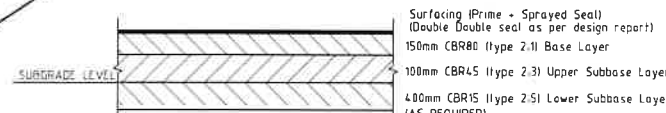
GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice
Council Reference: 22/47
Dated: 03/02/23
Signed: RM McMahon
Print Name: Ronnie McMahon
(Under Delegation) ASSESSMENT MANAGER



LAYOUT PLAN
SCALE 1:200

STANTHORPE - INGLEWOOD ROAD PAVEMENT DETAIL

NOTE:- REFER TO PAVEMENT DESIGN REPORT

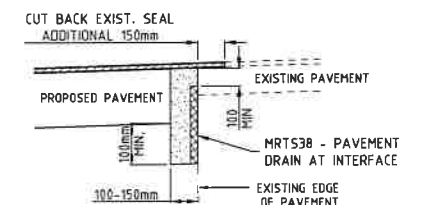


DANGER!! OVERHEAD ELECTRICAL CABLES

OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

CAUTION !! UNDERGROUND TELECOMMS CABLES

UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS AND CONDITION FOR WORKS IN THE VICINITY OF SERVICE. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.



PAVEMENT CUT BACK DETAIL
NTS

PAVEMENT DESIGN NOTES:

1. PAVEMENT DEPTHS ARE TO BE VERIFIED BY GEOTECHNICAL TESTING DURING CONSTRUCTION
2. ASSUMED TOPSOIL DEPTH 100mm
3. PRELIMINARY DESIGN BASED ON A SUBGRADE OF CBR17.
4. ULTIMATE PAVEMENT DEPTHS ARE DETERMINED BY SOIL TESTS TAKEN AT FORMATION LEVEL.
5. EARTHWORKS QUANTITIES SHOWN IN LONG SECTION ARE BASED ON THE NOMINAL PAVEMENT DEPTH OF 250mm.

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



North (this sheet):



NOTES:-

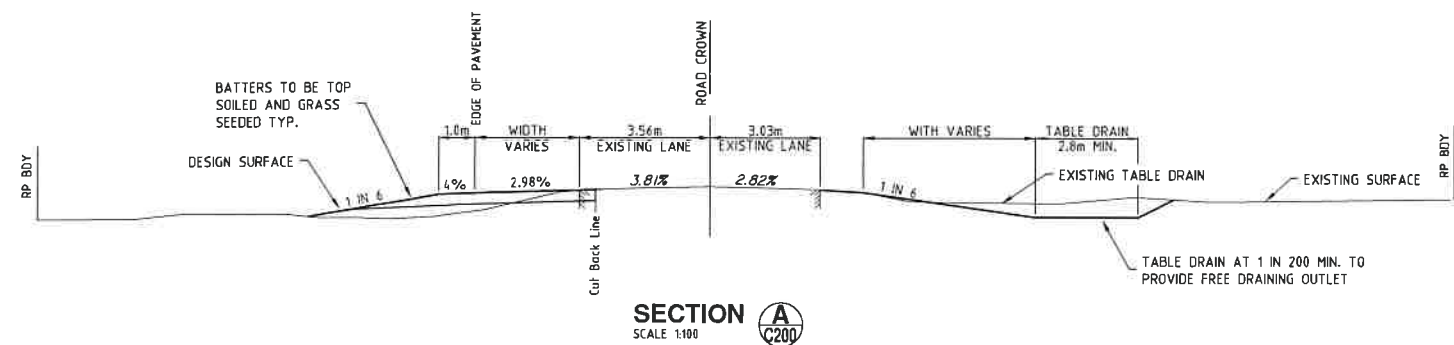
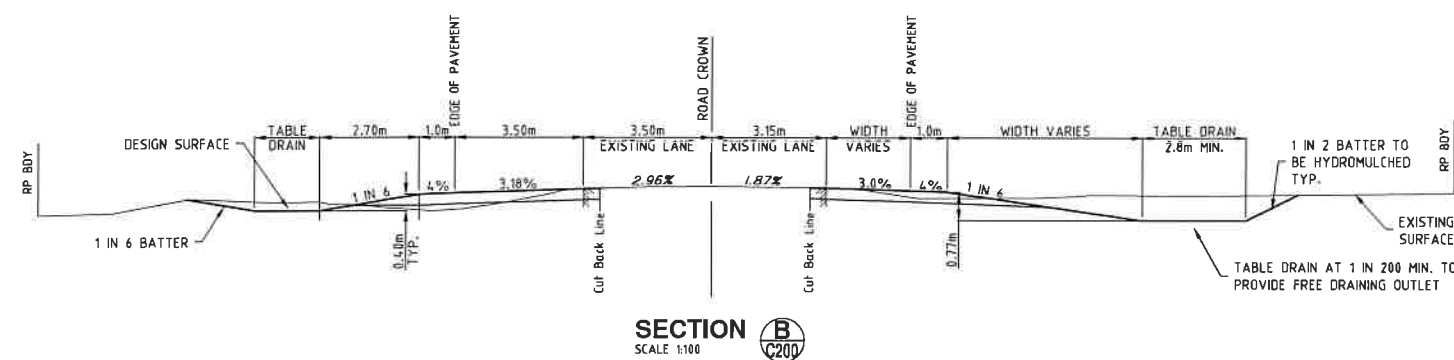
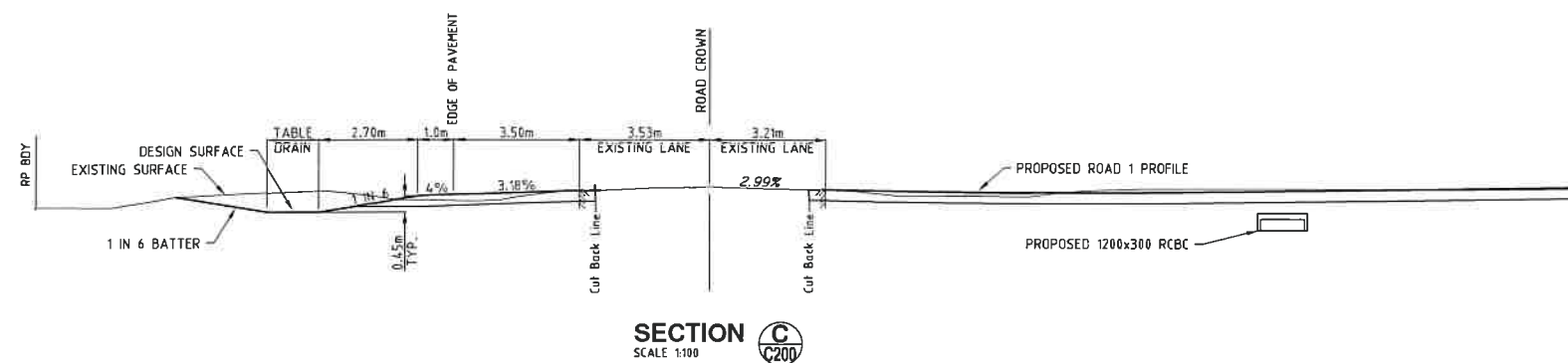
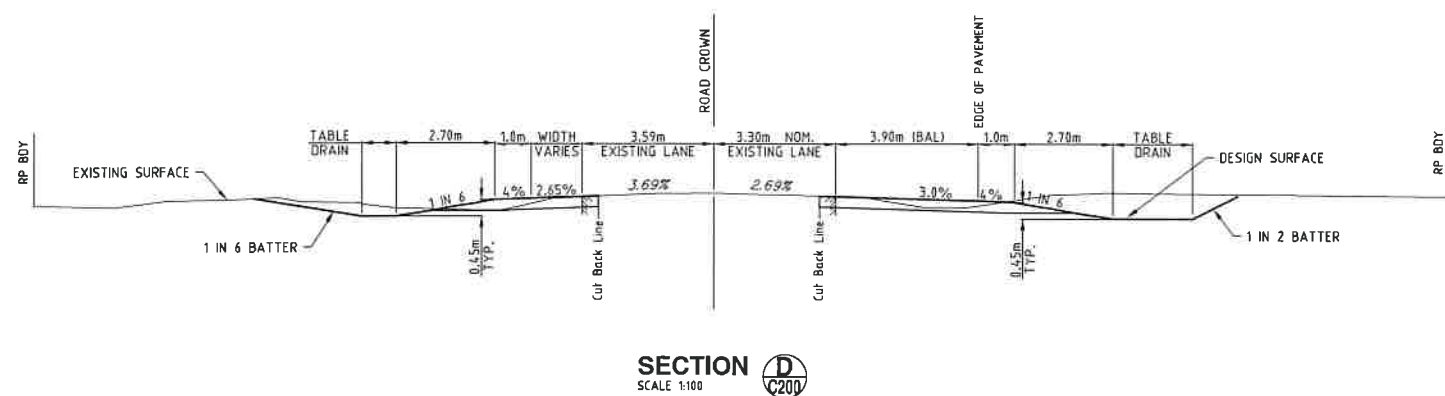
1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of:- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE
AMENDED TO THR REVIEW	31/10/2022	C	SE
AMENDED TO THR REVIEW 21/11/2022	22/11/2022	D	SE
PAVEMENT DETAIL AMENDED TO REPORT	29/11/2022	E	SE

Osborn
CONSULTING ENGINEERS
148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310
25 Warwick Road, Ipswich Qld. 4305 Ph 07 3285 7730 Fax 07 3281 7237
Office 2, Floor 1, 42-44 Simpson Street, Mt Isa Qld. 4825 Ph 07 4346 0830 Fax 07 4343 6106

**COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP**

INTERSECTION DETAIL LAYOUT - SHEET 1			
checked: AF	date: AUGUST 2022		
approved: [Signature]	RPEQ: 13740	rev: E	
scale: 1:200	Sheet 54		
WK19-0239/ C200			



GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice

Council Reference: **22/47**

Dated: **03/02/23**

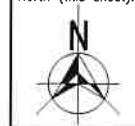
Signed: **R.M.M.**

Print Name: **Ronnie McMahon**
(Under Delegation) ASSESSMENT MANAGER

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



North (this sheet):



NOTES :-

1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of :- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE
AMENDED TO THR REVIEW	31/10/2022	C	SE
AMENDED TO THR REVIEW 21/11/2022	22/11/2022	D	SE

Osborn
CONSULTING ENGINEERS

148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

25 Warwick Road,
Warwick Qld. 4370
Ph 07 3285 7770 Fax 07 3281 2232

Office 2, Floor 1 42-44 Simpson Street,
Mt Isa Qld. 4825
Ph 07 4340 0830 Fax 07 4343 5106

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

STANTHORPE-INGLEWOOD ROAD INTERSECTION CROSS SECTIONS			
checked: AF	date: AUGUST 2022		
approved: <i>[Signature]</i>	RPEQ: 13740	rev: D	
scale: 1:100	Sheet 55		
WK19-0239/ C201			

LEGEND

EXISTING LINEMARKING	.....	ROAD CONTROL LINE	---
EXISTING LINE MARKING TO BE REMOVED	.....	EXISTING OH ELECTRICAL	---
PROPOSED LINEMARKING	.....	EXISTING TELSTRA	---
EXISTING EDGE OF BITUMEN	---	ADVISORY SIGN	---
PROPOSED EDGE OF BITUMEN	---	PROPOSED BITUMEN SEAL ROAD	---

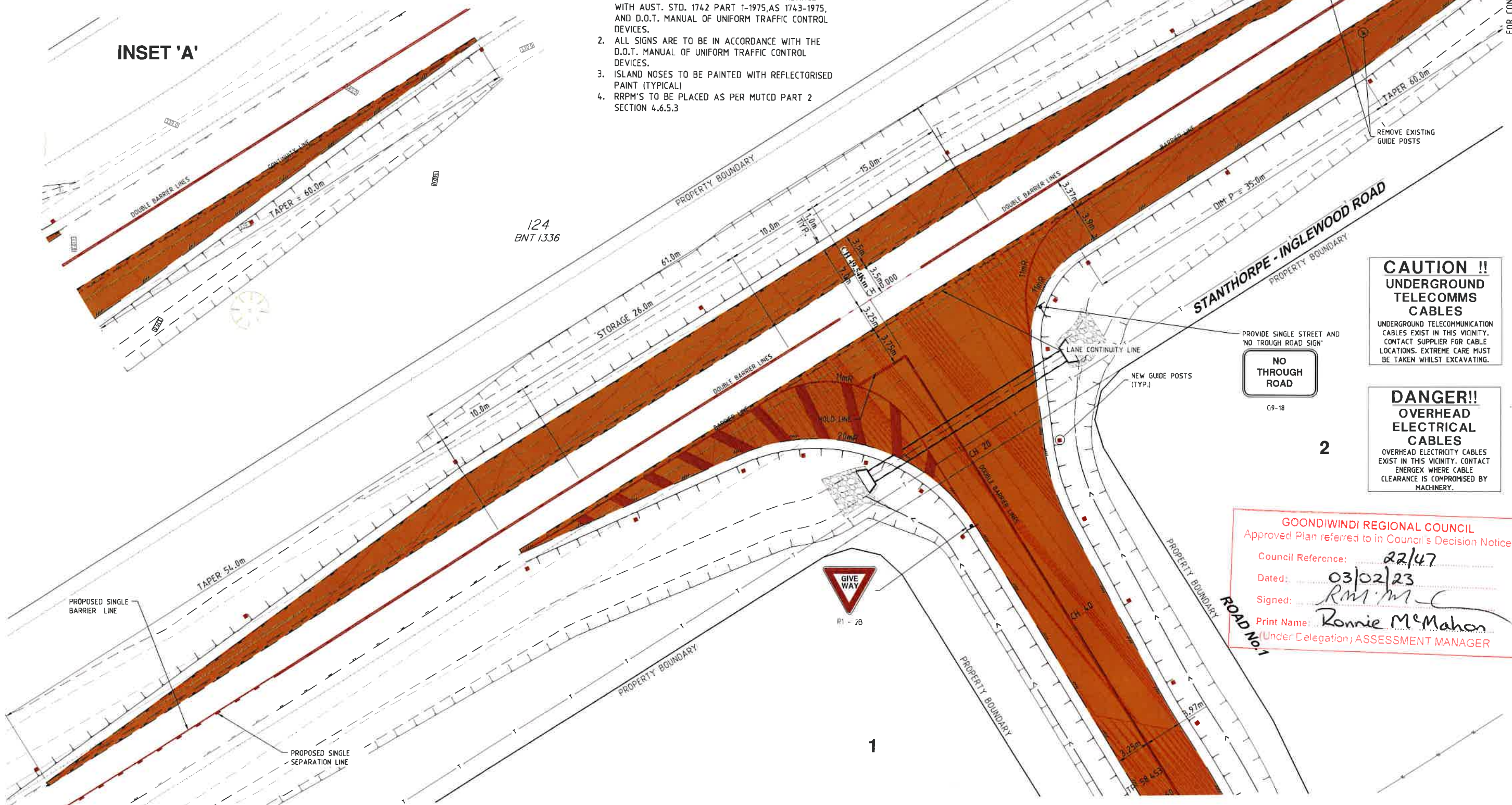
SIGNAGE AND LINEMARKING NOTES

- All signage and linemarking is to be supplied and installed in accordance with Transport and Main Road Manual of Uniform Traffic Control Devices and AS1742.2.
- All sign plates must be compliant with MUTCD Part 1.
- The location & height of all signs must comply with Part 1 section 1.12.
- Signs installed in concrete islands are to be installed with a "Loc-Socket" base or approved equivalent.
- All linemarking must be installed with RRPM's in accordance with MUTCD Part 2 Section 5.6.
- All longitudinal and transverse lines must comply with MUTCD Part 2 figure 5.1.
- All island noses are to be painted in white reflectorised paint UNO.
- All works within existing trafficked areas must be undertaken with approved traffic management.
- Removal of all existing linemarking must be done by an approved means (eg. high pressure water blasting or grinding).

NOTES

- PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH AUST. STD. 1742 PART 1-1975, AS 1743-1975, AND D.O.T. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL SIGNS ARE TO BE IN ACCORDANCE WITH THE D.O.T. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ISLAND NOSES TO BE PAINTED WITH REFLECTORISED PAINT (TYPICAL)
- RRPM'S TO BE PLACED AS PER MUTCD PART 2 SECTION 4.6.5.3

INSET 'A'



CAUTION !!
UNDERGROUND
TELECOMMS
CABLES

UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

DANGER!!
OVERHEAD
ELECTRICAL
CABLES

OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice

Council Reference: 22/47

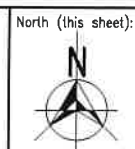
Dated: 03/02/23

Signed: *R.M.M.*

Print Name: *Ronnie McMahon*

(Under Delegation) ASSESSMENT MANAGER

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



NOTES :-
1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of :- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 402 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE
AMENDED TO THR REVIEW	31/10/2022	C	SE
AMENDED TO THR REVIEW 21/11/2022	22/11/2022	D	SE

Osborn
CONSULTING ENGINEERS
148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310
75 Warwick Road, Ipswich Qld. 4305 Ph 07 3282 7770 Fax 07 3281 7237
Office 2, Floor 1 42-44 Simpson Street, Mt Isa Qld. 4825 Ph 07 4745 0830 Fax 07 4743 5106

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

INTERSECTION LINEMARKING
LAYOUT - SHEET 1
checked: AF date: AUGUST 2022
approved: *AF* RPEQ: 13740 rev: D
scale: 1:200
Sheet 56 **WK19-0239/ C202**

LEGEND

EXISTING LINEMARKING	.....	ROAD CONTROL LINE	—
EXISTING LINE MARKING TO BE REMOVED	.....	EXISTING OH ELECTRICAL	—
PROPOSED LINEMARKING	.....	EXISTING TELSTRA	—
EXISTING EDGE OF BITUMEN	—	ADVISORY SIGN	—
PROPOSED EDGE OF BITUMEN	—	PROPOSED BITUMEN SEAL ROAD	—

CAUTION !! UNDERGROUND TELECOMMS CABLES

UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

DANGER!! OVERHEAD ELECTRICAL CABLES

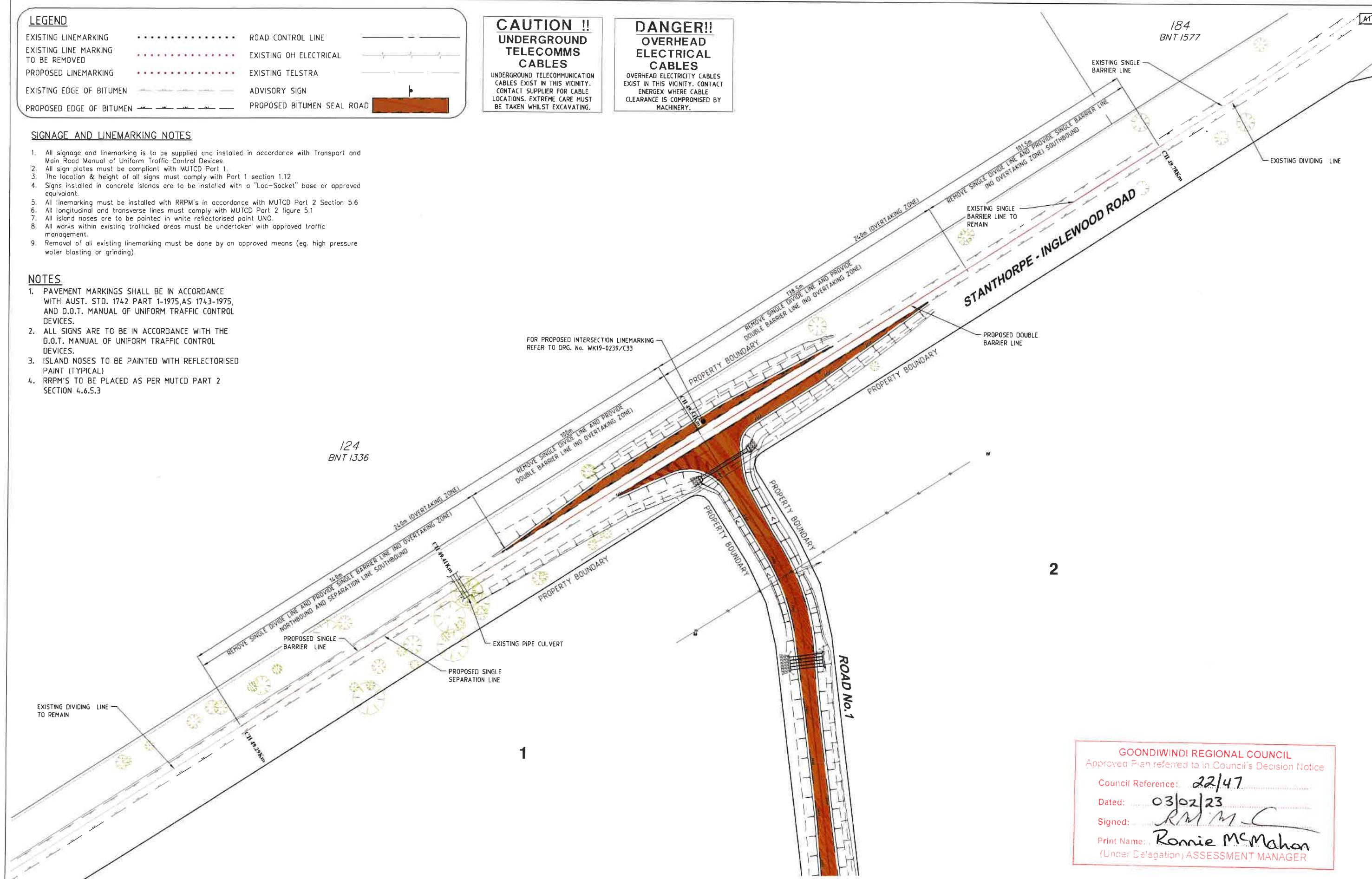
OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

SIGNAGE AND LINEMARKING NOTES

- All signage and linemarking is to be supplied and installed in accordance with Transport and Main Road Manual of Uniform Traffic Control Devices.
- All sign plates must be compliant with MUTCD Part 1.
- The location & height of all signs must comply with Part 1 section 1.12.
- Signs installed in concrete islands are to be installed with a "Loc-socket" base or approved equivalent.
- All linemarking must be installed with RRPM's in accordance with MUTCD Part 2 Section 5.6.
- All longitudinal and transverse lines must comply with MUTCD Part 2 figure 5.1.
- All island noses are to be painted in white reflectorised paint UNO.
- All works within existing trafficked areas must be undertaken with approved traffic management.
- Removal of all existing linemarking must be done by an approved means (eg. high pressure water blasting or grinding).

NOTES

- PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH AUST. STD. 1742 PART 1-1975, AS 1743-1975, AND D.O.T. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL SIGNS ARE TO BE IN ACCORDANCE WITH THE D.O.T. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ISLAND NOSES TO BE PAINTED WITH REFLECTORISED PAINT (TYPICAL)
- RRPM'S TO BE PLACED AS PER MUTCD PART 2 SECTION 4.6.5.3



GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice

Council Reference: 22/47

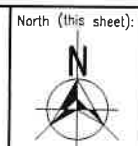
Dated: 03/02/23

Signed: *Ronnie McMahon*

Print Name: Ronnie McMahon
(Under Delegation) ASSESSMENT MANAGER

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.

0 7.5 15 22.5 30 37.5 45 1:1500
1:1500



NOTES :-

- Builder to verify all information & dimensions on site prior to commencement of construction
- DO NOT SCALE DRAWINGS
- This drawing and the copyright thereof remains the property of - Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE
AMENDED TO TMR REVIEW	31/10/2022	C	SE
AMENDED TO TMR REVIEW 21/11/2022	22/11/2022	D	SE

Osborn
CONSULTING ENGINEERS

148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310

25 Warwick Road, Ipswich Qld. 4305
Ph 07 3782 7770 Fax 07 3781 7237

Office 2, Floor 1 42-44 Simpson Street, Mt Isa Qld. 4825
Ph 07 4348 0930 Fax 07 4343 6106

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

INTERSECTION LINEMARKING LAYOUT - SHEET 2			
checked AF	date AUGUST 2022	RPEQ: 13740	rev.D
approved <i>AF</i>			
scale: 1:750			
Sheet 57			WK19-0239/ C203

LEGEND:

FINISHED CONTOURS	(0.5m INTERVALS)
EXISTING CREEKS	→ → →
PROPOSED STORMWATER CULVERT CROSSINGS	—
PROPOSED CATCHMENT BOUNDARIES	- - -
CATCHMENT NUMBERS	1

CATCHMENT TABLE

CATCHMENT NO.	AREA (Ha)
1	4.77
2	19.32
3	27.32
4	1.69
5	22.02
6	2.12
7	8.31
8	1.02
9	138.63
10	28.81
11	34.20
12	32.89
13	15.37
14	5.50
15	1.31
16	7.59
17	2.72
18	1.26

GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice

Council Reference: 22/47

Dated: 03/02/23

Signed: RM M C

Print Name: Ronnie McMahon

(Under Delegation) ASSESSMENT MANAGER

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified. Use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.

0 100 200 300 400 500 1000
(A1) 1:10000
(A3) 1:20000

North (this sheet):



NOTES :-

1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of :- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE

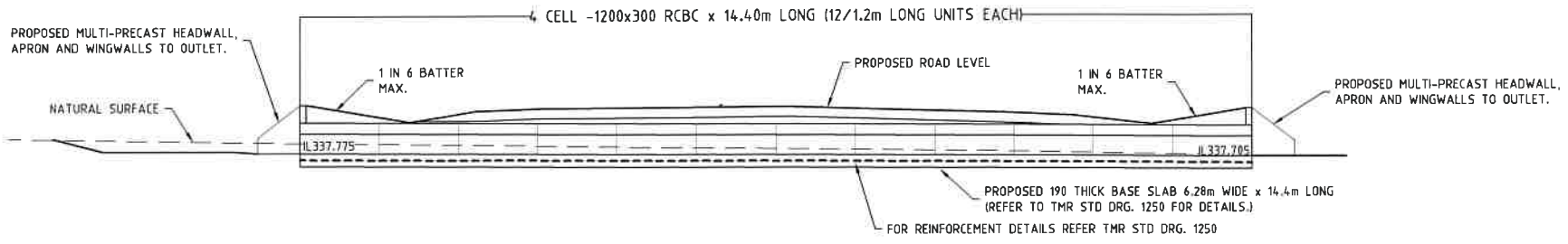
Osborn
CONSULTING ENGINEERS
148A Palmerin Street, (PO BOX 495) Warwick Qld: 4370
Ph 07 4660 3300 Fax 07 4660 3310
25 Warwick Road
Warwick Qld: 4370
Ph 07 3182 7770 Fax 07 3182 7227
Office 2, Floor 1, 42-44 Simpson Street,
Mt Isa Qld: 4825
Ph 07 4345 0930 Fax 07 4345 3106

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

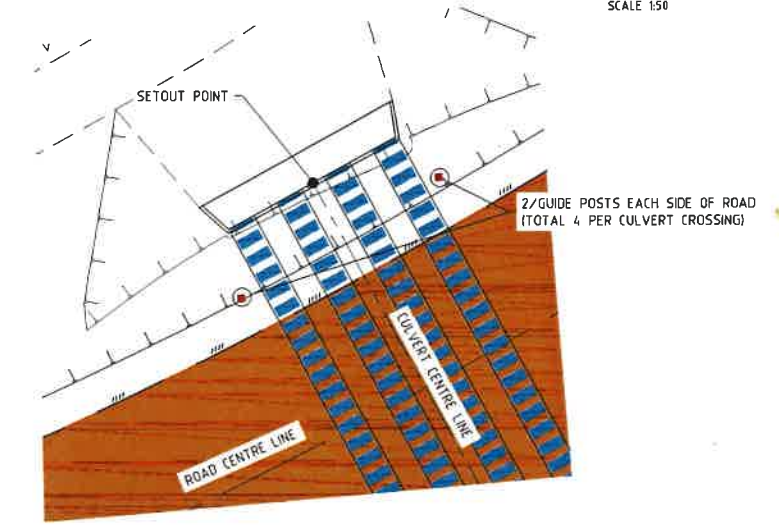
DRAINAGE CATCHMENT PLAN
checked: AF date: AUGUST 2022
approved: RPEG 13740 rev: B
scale: 1:10000
Sheet 61 WK19-0239/ D1

CROSS ROAD CULVERT DATA

CULVERT No.	LOCATION	CENTRE CHAINAGE	CELL SIZE	No. CELLS	LENGTH	GRADE	US IL	DS IL	HEADWALL TYPE
1	ROAD 1	CH 15.783	1200x300 RCBC	1	24.00m	0.51%	336.500	336.400	PRECAST STD
2	ROAD 1	CH 111.318	1200x300 RCBC	4	14.40m	0.49%	337.775	337.705	PRECAST STD (MULTI)
3	ROAD 1	CH802.5	675Ø RCP CL 3	4	16.80m	0.51%	335.225	335.140	PRECAST STD (MULTI)



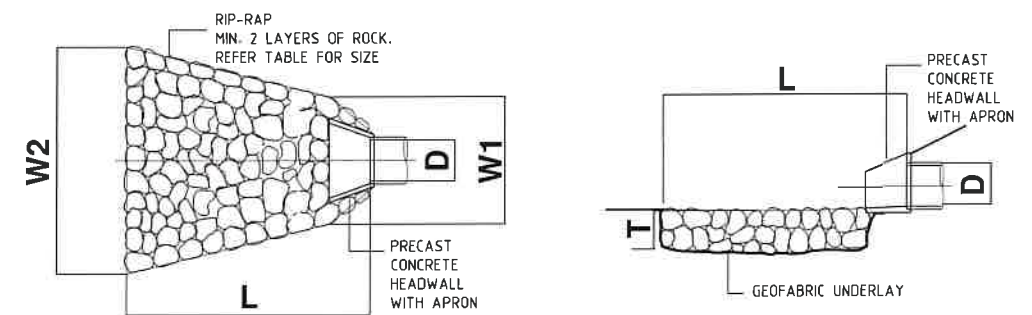
TYPICAL SECTION OF CULVERT 2
SCALE 1:50



TYPICAL SETOUT DETAIL FOR
MULTIPLE CULVERTS CROSSINGS

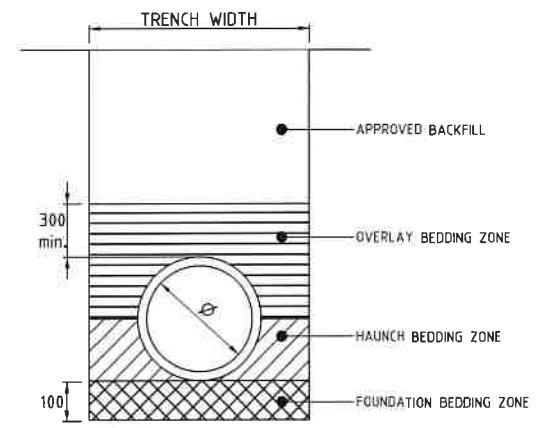
TABLE OF DIMENSIONS FOR RIP-RAP AT OUTLETS.

OUTLET	PIPE Ø (mm)	VELOCITY (m/Sec.)	ROCK SIZE (mm)		L (m)	W1 (m)	W2 (m)	T (m)	Area (m2)
			Min.	Max.					
Inlet 1	1x1200x300 RCBC	1.89	100	200	3.5	3.9	4.3	0.300	15.8
Outlet 1	1x1200x300 RCBC	1.89	100	200	3.6	3.4	4.6	0.300	16.8
Outlet 2	4x1200x300 RCBC	1.66	100	200	3.6	7.6	9.1	0.300	30.66
Outlet 3	4x675Ø RCP	2.76	100	300	3.0	7.0	8.3	0.420	24.1



TYPICAL OUTLET PROTECTION DETAIL
SCALE 1 : 20

CONSTRUCTION EQUIPMENT	PIPE CLASS	MINIMUM COMPACTION COVER TO PIPE OBVERT								
		Ø 375	Ø 450	Ø 525	Ø 600	Ø 675	Ø 750	Ø 825	Ø 900	Ø 1050
VIBRATORY RAMMER (UP TO 75kg)	2	0.450	0.400	0.400	0.350	0.350	0.300	0.300	0.250	0.250
	3	0.300	0.300	0.300	0.250	0.250	0.200	0.200	0.200	0.200
VIBRATORY TRENCH ROLLER (UP TO 2t)	2	0.400	0.400	0.350	0.250	0.250	0.200	0.200	0.200	0.200
	3	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM ROLLER (7t)	2	0.700	0.700	0.650	0.650	0.650	0.600	0.600	0.400	0.400
	3	0.450	0.450	0.450	0.350	0.350	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM ROLLER (10t)	2	0.850	0.850	0.800	0.800	0.800	0.750	0.750	0.750	0.750
	3	0.550	0.550	0.500	0.500	0.500	0.200	0.200	0.200	0.200
EXCAVATOR AND COMPACTION WHEEL (15t)	2	0.700	0.650	0.650	0.650	0.650	0.600	0.600	0.550	0.550
	3	0.450	0.450	0.450	0.450	0.450	0.350	0.350	0.250	0.250
EXCAVATOR AND COMPACTION WHEEL (25t)	2	1.050	1.000	0.950	0.900	0.900	0.850	0.850	0.750	0.750
	3	0.650	0.650	0.650	0.650	0.650	0.600	0.600	0.500	0.500
GRADER (CAT120H) (14.5t)	2	0.600	0.600	0.450	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.450	0.450	0.200	0.200	0.200	0.200	0.200	0.200
GRADER (CAT140H) (17.0t)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
SCRAPER (CAT613C11) (27.2t)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
SCRAPER (CAT621F) (53.8t)	2	0.700	0.700	0.650	0.650	0.600	0.600	0.600	0.600	0.600
	3	0.650	0.650	0.600	0.600	0.600	0.600	0.600	0.600	0.600
DOZER (CATD7 G)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
DOZER (CATD9 R)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
EXCAVATOR (CAT315B) (15.8t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR (CAT317) (17.3t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR (CAT325B) (25.9t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200



INSTALLATION TYPE HS2

NOTE:
CRACKED PIPES WILL NOT BE ACCEPTED AT 'ON MAINTENANCE' AND IT IS TO BE DEMONSTRATED IN ACCORDANCE WITH COUNCIL STANDARDS THAT THE STORMWATER SYSTEM IS ACCEPTABLE TO COUNCIL WITH REGARD TO CRACKED PIPES. (THE CONTRACTOR IS TO REFER TO "IPSWICH PLANNING SCHEME POLICY 3 - GENERAL WORKS" FOR FURTHER INFORMATION.)

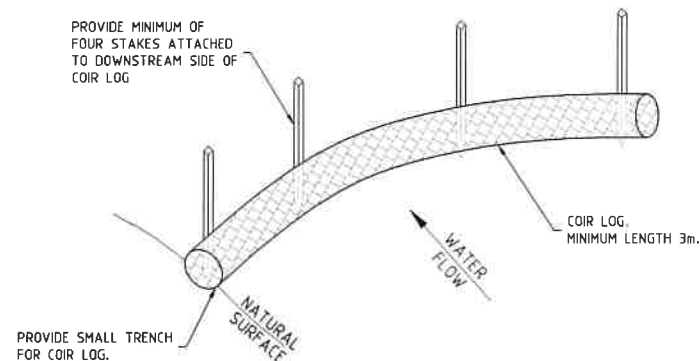
TYPE HS2 SUPPORT:

- The haunch zone goes from the base of the pipe to a height of 0.3m times the diameter of the pipe (ie to 3/10 of the diameter of the pipe).
- The haunch zone is compacted to a minimum dry density ratio of 90% (d=60).
- The side zone goes from the top of the haunch zone to a height of 0.7 times the diameter of the pipe (ie to 7/10 of the diameter of the pipe).
- The side zone is compacted to a minimum dry density ratio of 90% (d=60).
- There is a 300mm overlay zone of compacted ordinary fill.

NOTES:

- Soil type used for this table is clayey sand, all other soil types must be referred immediately to the supervising engineer so minimum covers can be calculated.
- Installation type for this table is HS2. (refer detail)
- Any construction equipment, installation type, pipe class or pipe diameter not covered in this table should be referred onto the supervising engineer before any construction commences.
- Distances shown are the absolute minimum compaction cover to the obvert of the stormwater pipe for the nominated machinery, the contractor is to ensure that machines that require higher compaction cover are kept clear of stormwater pipes and trenches until their necessary compaction cover is achieved.
- Construction equipment listed in this table are examples only and equivalent machinery may be used.

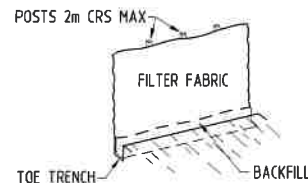
GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice
Council Reference: 22/47
Dated: 03/02/23
Signed: RM M.C.
Print Name: Ronnie McMahon
(Under Delegation) ASSESSMENT MANAGER



COIR LOG SEDIMENT TRAP
TYPICAL TABLE DRAIN PROTECTION (50m MAX.)

MAINTENANCE PROGRAM FOR COIR LOG SEDIMENT TRAP

1. INSPECT THE COIR LOG AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT AND MAKE REPAIRS AS NEEDED.
2. REMOVE COLLECTED SEDIMENT AND DISPOSE OF IN A SUITABLE MANNER THAT WILL NOT CAUSE AN EROSION OR POLLUTION HAZARD.
3. REPLACE THE COIR LOG IF IT IS TORN OR DAMAGED.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED IMMEDIATELY IF THEY REPRESENT A SAFETY RISK.



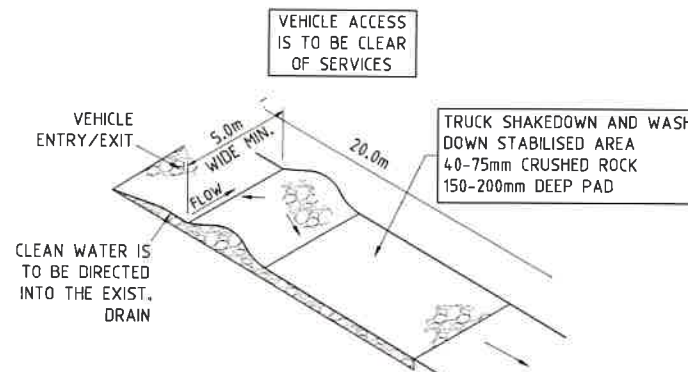
SEDIMENT FENCE
TYPICAL BOTTOM OF BATTER TREATMENT

MAINTENANCE PROGRAM FOR SILT FENCES

1. REGULAR INSPECTIONS WILL BE REQUIRED TO CONTROL DAMAGE CAUSED BY ON SITE VEHICLES OR MOVEMENT OF STOCKPILES.
2. INSPECT WEEKLY OR AFTER EACH RAIN EVENT.
3. REMOVE EXCESS SEDIMENT DEPOSITS.
4. REPAIR ANY TORN SECTIONS WITH A CONTINUOUS PIECE OF FABRIC FROM POST TO POST.

NOTE : SILT MANAGEMENT

SEDIMENT FENCES ARE TO BE EMPLOYED WHERE CONDITIONS DURING CONSTRUCTION REQUIRE THE CONTROL OF ANY POSSIBLE SEDIMENT MOVEMENT ON THE SITE, AS DIRECTED BY THE SUPERVISOR.



TRUCK SHAKEDOWN DETAIL

MAINTENANCE PROGRAM FOR TRUCK SHAKEDOWN

1. THE CONTRACTOR IS TO INSPECT THE ENTRY/EXIT AND WASH DOWN AREA TO ENSURE THAT IT IS NOT SILTED UP OR DAMAGED. ALL WATER USED DURING WASHING AND MAINTAINING THE AREA IS TO BE DIRECTED TO THE BUND.

NOTE
ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL IDENTIFY POTENTIAL PROBLEM AREAS AND TREAT THEM IN ACCORDANCE WITH THE IECA (Aust.) AND SDRC REQUIREMENTS.

ALL DISTURBED AREAS OF SITE INCLUDING ALLOTMENT FILL AREAS TO BE TOPSOILED AND GRASS SEED

SILT CONTROL PHASES DURING CONSTRUCTION

THE VARIOUS SILT CONTROL METHODS DURING CONSTRUCTION SHALL COMPLY WITH THE APPROVED PLANS. THE FOLLOWING PROGRAM SHALL BE USED AS A GENERAL GUIDE.

PHASE 1- PRELIMINARIES

- a. TRUCK SHAKEDOWN AREA TO BE CONSTRUCTED AS PER DETAILS ON THIS DRAWING.
 - b. COIR LOGS & SILT FENCES ARE TO BE INSTALLED AS SHOWN.
 - c. AFTER RAINFALL EVENTS THE CONTRACTOR IS TO INSPECT THE SILT CONTROL DEVICES, ANY DAMAGE IS TO BE RECTIFIED IMMEDIATELY.
- ALL MEASURES ARE TO BE REGULARLY MAINTAINED.

PHASE 2- ROAD CONSTRUCTION

- a. MAINTAIN THE USE OF 1a, 1b AND 1c ABOVE.
 - b. ONCE THE BULK FILLING IS 100% COMPLETE SITE STABILISATION SHALL COMMENCE.
- ALL MEASURES ARE TO BE REGULARLY MAINTAINED.

PHASE 3- FINAL WORKS AND RE-ESTABLISHMENT OF GROUND COVER

- a. ALL EXPOSED AREAS ARE TO BE STABILISED AS SOON AS PRACTICAL WITH A MINIMUM OF 80% OF THE NOMINATED GRASS COVER TO BE ACHIEVED WITHIN 30 DAYS OF COMPLETION OF WORKS.
- b. MAINTAIN ALL SILT FENCES. ERECT ADDITIONAL SILT FENCES IF REQUIRED.
- c. COIR LOGS & SILT FENCES, TABLE DRAIN AND CULVERT PROTECTION MEASURES ARE TO REMAIN UNTIL 80% OF GRASS COVER IS ACHIEVED TO ALLOTMENTS.
- d. ONCE 80% GRASS COVER HAS BEEN ACHIEVED (AND CONFIRMED WITH SUPERVISING ENGINEER). ANY REMAINING TEMPORARY BUND WALLS, SILT FENCES & GULLY PROTECTION ARE TO BE REMOVED.

EROSION AND SEDIMENT CONTROL NOTES

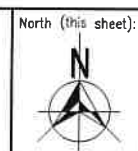
1. Avoid stripping & excavation of all crees until necessary.
2. Minimize stripping & excavation where possible to leave the least amount of exposed/disturbed soil at any one time.
3. Protect all stormwater pits & inlets from sediment by erecting sediment barriers or sand bags as required.
4. The contractor shall monitor the installed erosion & sediment control system during construction & repair/modify it as required to maintain it in good working order during all stages of construction until the site has been stabilised/revegetated.
5. All service trenches to be backfilled & compacted as required & left raised 100mm above the surrounding surface level to prevent depressions forming.
6. Stockpiled materials shall be kept within the stockpile area above the straw bales/silt fence as shown on the plans.
7. All hard waste stored on site shall be confined within a 3-sided silt fence barrier constructed to prevent material from being removed from site by wind or flowing water.
8. Grassed filter strips & biodegradable erosion control mats should be used during construction to stabilise high risk areas.
9. Cutting of silt producing materials (brick, tiles etc.) & washing of tools & painting equipment shall be confined to the area shown on the erosion & sediment control layout.
10. Prepare areas of dispersible soil by covering with minimum 100mm layer of non-dispersible soil & turf / mulch as required to prevent erosion.
11. Revegetate disturbed areas as soon as possible after excavation.
12. All erosion & Sediment control measures to be installed and maintained in accordance with Goondiwindi Regional Council Erosion and Sediment Control requirements and the IECA standards.
13. A vehicle wash-down pad shall be provided at the site exit in accordance with Goondiwindi Regional Council requirements.
14. All vehicles must be cleaned down before leaving the site.
15. During construction, all material tracked onto the road surface by vehicles leaving the site, shall be broomed up and removed, or relocated on to the site. - No material shall be washed into the stormwater system.
16. The contractor shall be responsible for the installation and maintenance of silt management facilities from the time of commencement of construction until the subdivision has been released "Off Maintenance" by Council.

SITWORKS NOTES

1. Any fill required to underside of slab to be CBR 15, compacted in 150mm layers to 98% standard density as defined by AS 1289.5.1.1
2. Strip back top soil and organic matter before placing fill, proof roll for soft spots and fill soft spots as above.
3. Footings to bear on stable soil with minimum bearing capacity = 100 kPa.

GOONDIWINDI REGIONAL COUNCIL
Approved Plan referred to in Council's Decision Notice
Council Reference: 22/47
Dated: 03/02/23
Signed: *Ronnie McMahon*
Print Name: **Ronnie McMahon**
(Under Delegation, ASSESSMENT MANAGER)

This drawing has been prepared by Osborn Consulting Engineers Pty. Ltd. and must not be modified, use of this information for any purpose must be done in conjunction with the hard copy approved drawings. Hard copy approved drawings take precedence over the electronic version and any discrepancies must be verified with Osborn Consulting Engineers Pty. Ltd. Do not rely on electronic drawing files for accurate set-out. All set-out information must be verified on site prior to commencement of fabrication and construction. The builder shall obtain and use the latest revision of all drawings associated with this drawing by this office and any relevant drawings / documents prepared by other consultants.



NOTES :-
1. Builder to verify all information & dimensions on site prior to commencement of construction
2. DO NOT SCALE DRAWINGS
3. This drawing and the copyright thereof remains the property of :- Osborn Consulting Engineers Pty. Ltd.
A.B.N. 83 602 572 967
A.C.N. 602 572 967

DRAWING REVISION	ISSUED	REV.	DRAWN
ORIGINAL ISSUE	31/08/2022	A	SE
ISSUED FOR COUNCIL APPROVAL	25/10/2022	B	SE

Osborn
CONSULTING ENGINEERS
148A Palmerin Street, (PO BOX 495) Warwick Qld. 4370
Ph 07 4660 3300 Fax 07 4660 3310
25 Murray Road, Ipswich Qld. 4305
Ph 07 3282 7170 Fax 07 3181 7237
Office 2, Floor 15, 42-44 Simpson Street, Mt Isa Qld. 4825
Ph 07 4748 0800 Fax 07 4743 6106

COOLMUNDA VIEWS
STAGE 1
STANTHORPE-INGLEWOOD ROAD,
OMAN AMA
RURAL LAND GROUP

EROSION AND SEDIMENT CONTROL DETAILS			
checked: AF	date: AUGUST 2022		
approved: <i>R</i>	RPEQ: 13740	rev: B	
scale: AS SHOWN			
Sheet 64			WK19-0239/ E1