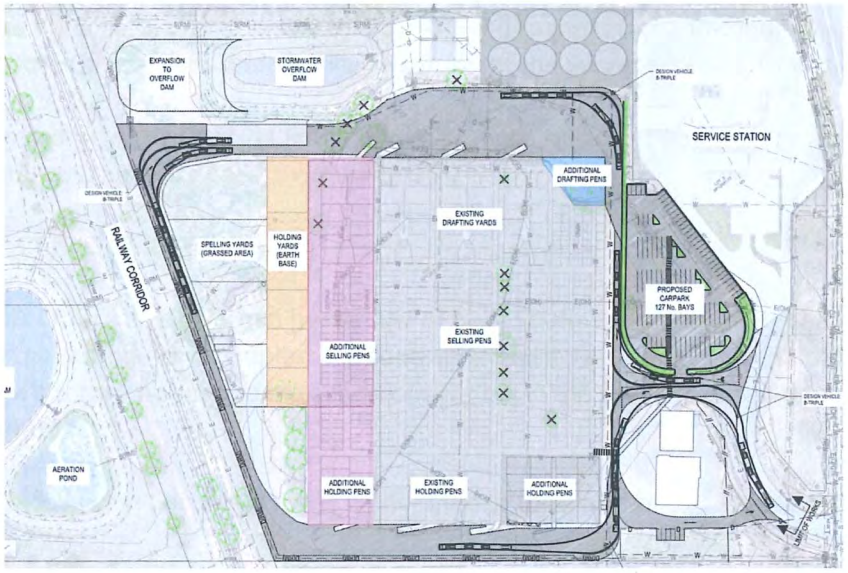
FEDERATION COUNCIL

COROWA SALEYARDS REDEVELOPMENT

CONTRACT 2021-162

STAGE 4 – SALEYARDS ROOF & STRUCTURE



PROJECT LOCATION:

437 HONOUR AVE, COROWA, NSW 2646

SECTION:A – INSTRUMENT OF AGREEMENT

For the undertaking of the works of:

Contract No 2021-162 – Corowa Saleyards Redevelopment

STAGE 4 – Saleyards Roof & Structure

1. AGREEMENT:

NOW IT IS THEREFORE EXPRESSLY AGREED between the Principal and the Contractor: -

2. RECITALS

2.1. The Principal has sought tenders for the undertaking/provision of the Services/Works/Goods.

2.2. The Principal has accepted the Contractor's tender for undertaking/provision of the Services/Works/Goods (or such parts of it as are referred to in the attached schedule).

2.3. The Principal and the Contractor have agreed to the terms and conditions set out below for the Contractor's undertaking/provision of the Services/Works/Goods.

2.4. The contract value is $4,868,050 +GST (Four million, Eight Hundred and sixty eight thousand and fifty dollars excluding GST)

3. CONTRACT PROVISIONS

3.1. This Contract is governed by the law of New South Wales, including the Interpretation of Legislation Act and, unless the contrary intention appears, is subject to the definitions and interpretations and the conditions set out in the Specification and the Conditions of Contract.

3.2. The following documents shall be deemed to form part of this Contract Agreement:

- Specifications (Including drawings, plans, maps)(refer to attached schedule);
- Tender Form (Including any Drawings, Brochures, Plans & clarifications)
- Contract Agreement; and
- General Conditions of Contract – based on AS4300.

3.3. The Principal agrees to pay the Contractor at the rates set out in the attached Schedule and to otherwise perform and observe all its requirements and obligations set out in all documents forming or deemed to form part of this Contract.

3.4. The Contractor agrees to undertake/provide the Services/Works/Goods described in the Specification and to otherwise fully perform and observe all its obligations expressed or implied in this Contract.

This AGREEMENT made the 3rd **day of** November **2021**

BETWEEN: Federation Council of 100 Edwards Street Corowa NSW 2646 ("Principal")

The Principal's signatory for and on behalf of the Principal, Federation Council, 100 Edward Street Corowa NSW 2646, but not so as to incur any personal liability

Signature of Principal's Signatory: ..... Name ADRIAN BUTLER

In the presence of:

Witness (signature) ..... Name Rachelle Henson

AND MKM Building Group Pty Ltd, ("Contractor")

If the Contractor is two or more persons then they are to be jointly and severally bound.

State of Registration **VICTORIA** ABN: **24 634 085 779**

Registered office/business address: **16B Endeavour Way, Alfredton, Victoria, 3350**

If a firm, the names and addresses of the individual members are:

1. .....
2. .....
3. .....

I confirm that I have read the contract documents and the specifications and can provide the services.

Name and position of person for and on behalf and with the Authority of the Contractor:

Name: **Marcus McMillan**

Position: **Director**

Signature of person with the Authority of the Contractor: .....

Witness ..... Name: Dione Kay

(Signature)

FEDERATION COUNCIL

100 Edward Street Corowa NSW 2646
PO Box 77, Corowa NSW 2646
(02) 6033 8999
council@federationcouncil.nsw.gov.au

Reference: 21/55363
Contact: Angela Reidy/Robert Bon

4 November 2021

Karl McMillan
MKM Constructions Pty Ltd
16B Endeavour Way,
ALFREDTON VIC 3350

Dear Mr McMillan,

Subject: Tender 2021/162 –Corowa Saleyards Redevelopment – Stage 4 Saleyards Roof & Structure

I am pleased to inform you that Council has resolved to accept your revised tender offer dated 28 October 2021 in the amount of $ 4,868,050 + GST, for design & construction of the roof and associated stormwater system, modifications to pens and solar system as described in the invitation to tender 2021/162 issued on 7 September 2021.

Prior to the commencement of works, you are required to lodge the necessary WHS and Environmental documentation and insurance details as set out in the RFT.

Council's Authorised Person for the Contract will be Angela Reidy, Manager Environment, Facilities & Regulations and Council's contact for the operational aspects of the Contract will be Robert Bon, Consultant Project Manager and Contract Superintendent.

The Contract documents will be forwarded shortly for execution.

Yours sincerely

Adrian Butler
General Manager

From: **Karl McMillan** karl@mkmcon.com.au
Subject: Federation Council - RFT 2021-162 Corowa Saleyards Redevelopment Stage 4 - Roof & Structure
Date: 28 October 2021 at 10:00
To: Reidy Angela angela.reidy@federationcouncil.nsw.gov.au
Cc: Robert Bon robert@bon-consulting.com.au, Marcus McMillan marcus@mkmcon.com.au, Jordan Carreras jordan@mkmcon.com.au, Admin - MKM Constructions admin@mkmcon.com.au

Hello Angela

As requested please find attached tender schedule with cost saving options included.

I have also provided a more formal markup of the proposed reduction in roof areas for your consideration

Please don't hesitate to contact me if you have any further questions or require clarification on any aspect of our submission

Look forward to hearing from you

Kind Regards,

Karl McMillan | Sales Manager

mkm CONSTRUCTIONS
"Your building is our business"
REGISTERED Building Practitioner
mkmcon.com.au

T 03 5331 6694 M 0439 404 033 W www.mkmcon.com.au E karl@mkmcon.com.au

LEGAL DISCLAIMER: this email may contain confidential information. If you are not the intended recipient, you must not disclose or
use the information provided in it. If you have received this email in error please notify us immediately by return email and delete the document.

PDF
RFT D Tender Sched...ed.pdf

TENDER FORM

Tender Closing Office

Name: Federation Council

Address: www.tenderlink.com

Electronic submission: Tenders are to be submitted by Electronic means via Tenderlink

Tenderers Offer:

Name of Tenderer and address of registered office (Block Letters):	OTWAY SECURITIES PTY LTD TRADING AS MKM CONSTRUCTIONS
Australian Company Number:	121 259 685
Australian Business Number:	59 064 686 913
Telephone Numbers:	03 5331 6694
Email:	karl@mkmcon.com.au

Hereby tenders to perform the work for:

Contract name:	COROWA SALEYARDS REDEVELOPMENT STAGE 4 – SALEYARDS ROOF & STRUCTURE
Contract number:	2021/162
In accordance with the following documents:	A – Conditions of Tendering B – Scope of Works and Specification (including design and technical specification attachments) C – Proposed Contract D – Tender Schedules and Tenderers Response
And Addenda Numbers:	

Tenderers' Offer

For the Contract Price, being the lump sum (including Provisional Allowances, and Cost Saving Options 1 & 4 as per tender schedule provided) of: ($AUD)	Written number format Four Million Eight Hundred and Sixty Eight Thousand And Fifty Dollars. (plus GST) $ 4,868,050.00 plus GST. $ 486,805.00 GST $ 5,354,855.00 Including GST.

Tenderer is required to complete Tender Offer cost breakdown attached

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

TENDER COST BREAKDOWN

Tenderer is required to complete Tender Offer cost breakdown.

Item No.	Description of Work		Amount (excl. GST) $AUD
1	**Preliminaries** Site establishment, insurances, set out, supervision, clean-up, testing, mobilisation and demobilisation		$ 73,000.00
2	**Project Design and Documentation** Provide concept design, final design plans with certification. Documentation (eg workshop drawings as required) to enable completion of the project as described in the specification.		$ 45,000.00
3	**Project Management Systems, Environmental, WHS & Traffic Management** Provide and implement management systems including Construction Environmental Management Plan, WHS system and program management, traffic management and reporting		$ 10,000.00
4	**Demolition Works** Demolition and removal of all materials, components of the existing low level roof structure above walkways, existing trees, redundant drainage and electrical services and dispose off-site to approved locations.		$ 30,000.00
5	**Concrete Works** Supply & construct concrete foundations for roof structure, including alterations to existing concrete as required.		$ 71,700.00
6	**Steel Works** Supply and construct steelwork for roof structure, including alterations to existing steelwork as required.		$ 2,896,000.00
	Columns	$ 1,357,500.00	
	Trusses & roof framing	$ 1538,500.00	
7	**Roof Works (including all associated plumbing works)**		$ 1,854,600.00
	Colour bond roof sheeting	$ 905,000.00	
	Translucent roof sheeting	$ 452,500.00	
	Guttering	$ 226,240.00	
	Downpipes	$ 23,000.00	
	Drainage works to connect to in-ground stormwater collection points	$ 247,860.00	
8	**Roof Access System** Supply, installation, and certification of roof access system		$ 15,500.00
9	**Electrical Works (including all associated works)** Construct lighting, alterations to existing external lighting to facilitate new works, distribution boards and supply upgrades, alterations and controls.		$ 55,000.00
10	**Other items as specified in Tender** All other works required to complete the works and activities described in tender documents, please list. Electrical Switchboard Upgrades if Required Provisional Sum		$11,000.00
		Schedule items subtotal (exclusive of GST)	$ 5,061,800.00
		GST Value	$ 506,180.00
		Schedule items subtotal (inclusive of GST)	$ 5,567,980.00

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

	PROVISIONAL ITEMS	
11	**Certification and Approvals - provisional** Contractor to provide allowance for providing assistance and documentation to Council to obtain: •Development consent (Planning Approval) •Construction certificate (Building Approval) •Building inspections throughout construction •all necessary authority approvals including service providers.	$ 10,000.00
12	**Modifications to pens – provisional item** Contractor to price modifications (reconfiguration) of selling pens to facilitate mechanical sweeping of yards	$ 36,000.00
13	**100 kW Solar PV System – provisional** Design, supply and installation of 100 kW solar PV system.	$ 110,000.00
14	**Project signage – provisional** Design, supply and installation of project signage.	3,500
15	**Provisional sum** Allowance for related unspecified works – to be expended only with express written approval of Superintendent	125,000
	Provisional items subtotal (exclusive of GST)	$ 284,500.00
	GST Value	$ 28,450.00
	Provisional items subtotal (inclusive of GST)	$ 312,950.00

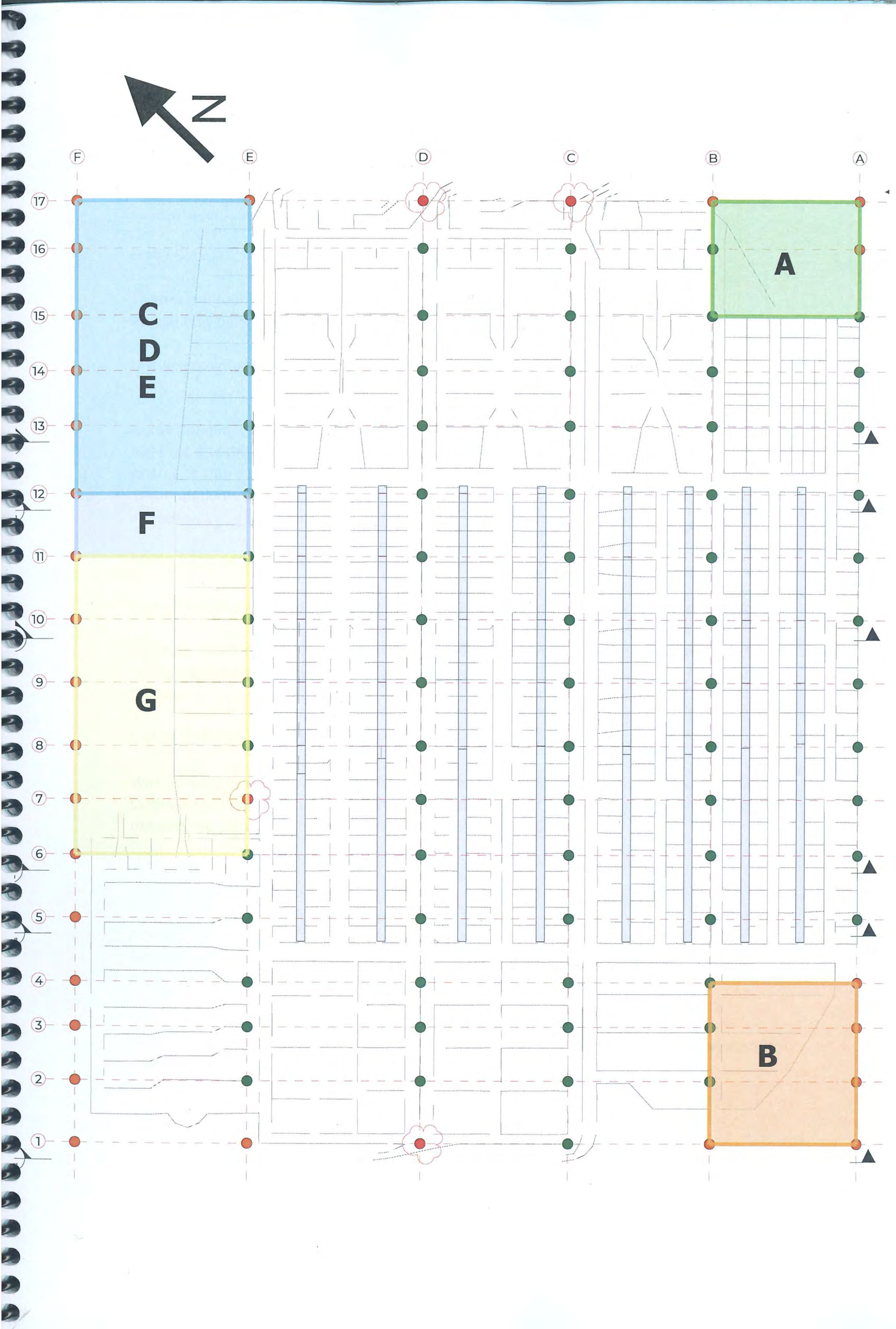
Total Lump Sum (schedule + provisional) (exclusive of GST)	$ 5,346,300.00
GST Value	$ 534,630.00
Total Lump Sum (schedule + provisional) (inclusive of GST)	$ 5,880,930.00

COST SAVING OPTIONS	Deduction $ Cost Saving
Option 1. Alternative Roof Finish To Have Zincalume Roof Cladding & Rainwater products in Lieu of Colorbond .	$ 50,250.00
~~Option 2. To Take out Section A Roof Area as per Markup Provided approx.617 sqm~~	~~$ 75,300.00~~
~~Option 3. To Take out Section A& B as per Markup Provided approx.1487 sqm~~	~~$ 181,670.00~~
Option 4. To Take out Section A-E as per Markup Provided approx. 3,338 sqm	$ 428,000.00
~~Option 5. To take out Section A to F as per Markup Provided approx.3734 sqm~~	~~$ 462,900.00~~
~~Option 6. To take out Section A to G as per Markup Provided approx.5612 sqm~~	~~$ 699,000.00~~
Total With Proposed Option 4 Roof Reduction & Option 1 Zinc Finish Roof Cladding	$ 4,868,050.00
Total EX GST	$ 486,805.00
Total Including GST	$ 5,354,855.00

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021


N
F
E
D
C
B
A
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
C
D
E
F
G
A
B

From: **Karl McMillan** karl@mkmcon.com.au
Subject: RE: Company Details MKM Constructions for Contract
Date: 8 November 2021 at 14:37
To: Robert Bon robert@bon-consulting.com.au
Cc: Reidy Angela angela.reidy@federationcouncil.nsw.gov.au, Marcus McMillan marcus@mkmcon.com.au, Robert McMillan robert@rjmco.com.au, Admin - MKM Constructions admin@mkmcon.com.au, Nick Gooding nick@mkmcon.com.au, Justin Prewett justin@mkmcon.com.au

Hello Robert

Thanks for your time on the phone
Please find below the company details that need to be reflected on the contract.

I have also attached the ASIC ABN ACN details

MKM Building Group Pty Ltd
ABN: 24 634 085 779
ACN: 634 085 779
16B Endeavour Way
Alfredton VIC 3350

PH 03 5331 6694

Correspondence regarding review into NSW Building registration for Commercial Works.

I wish to confirm that I have contacted the relevant Government Departments in N.S.W to verify any requirements to undertake Commercial Building Projects, the response was as follows:-

" FAIR TRADING New south Wales "

Was advised that there is no provision for Commercial Building licences in NSW , only for Domestic Home Building. Therefore our registrations in Victoria would cover any building outside the state. Suggested to contact Safe Working NSW.

" SAFE WORKING NSW "

Advised that all High Risk Licences etc., we have in Victoria can be used in NSW.
Necessary to make sure all employees or sub-contractors have the necessary current Licences either in Victoria or NSW.

Trust this makes the position clear, and if you have any further queries do not hesitate to contact me.

Kind Regards
Robert

Robert J McMillan & Co.
PH: (03) 5331 6941
Email robert@rjmco.com.au

Please don't hesitate to contact me if you require any further information

Many thanks

Kind Regards,

Karl McMillan | Sales Manager

mkm CONSTRUCTIONS "Your building is our business"

REGISTERED Building Practitioner



mkmcon.com.au

T 03 5331 6694 M 0439 404 033 W www.mkmcon.com.au E karl@mkmcon.com.au

LEGAL DISCLAIMER: this email may contain confidential information. If you are not the intended recipient, you must not disclose or
use the information provided in it. If you have received this email in error please notify us immediately by return email and delete the document.

ASIC

Australian Company

MKM BUILDING GROUP PTY LTD
ACN 634 085 779

Extracted from ASIC's database at AEST 14:10:33 on 08/11/2021

ASIC
Australian Securities & Investments Commission

Australian Company

MKM BUILDING GROUP PTY LTD
ACN 634 085 779

Extracted from ASIC's database at AEST 14:10:33 on 08/11/2021

Company Summary

Name:	MKM BUILDING GROUP PTY LTD
ACN:	634 085 779
ABN:	24 634 085 779
Registration Date:	13/06/2019
Next Review Date:	13/06/2022
Status:	Registered
Type:	Australian Proprietary Company, Limited By Shares
Locality of Registered Office:	ALFREDTON VIC 3350
Regulator:	Australian Securities & Investments Commission

Further information relating to this organisation may be purchased from ASIC.

Allianz Australia Insurance Limited
ACN 000 122 850 ABN 15 000 122 850

16 April, 2021

Certificate of Currency

This is to certify that the following policy reference is current, as at the date stated above.

This Certificate provides a summary of the policy cover and is not intended to amend, extend, replace or override the policy terms and conditions contained in the actual policy document.

Insurance Class:	Professional Indemnity
Insured Name:	Otway Securities Pty Ltd ATF The McMillan Family Trust Trading as MKM Constructions MKM Building Group Pty Ltd
Professional Business:	Builders (Design and Construct) as described in Part 7 (p) "professional services' of the policy wording
Policy Inception Date:	19 April 2021
Policy Expiry Date:	19 April 2022
Limit of Indemnity:	$ 10,000,000 any one claim $ 20,000,000 in the aggregate
Policy Number:	132R005316PLP

This Certificate is issued as a matter of information only and confers no rights upon the Certificate holder.

Ian Williams
Financial Lines Underwriter

ALLIANZ AUSTRALIA INSURANCE LIMITED

Level 13, 2 Market St
Sydney NSW 2000
GPO Box 4049
Sydney NSW 2001

Telephone 02 9390 6229
DX 10154 SSE
www.allianz.com.au

CLASSIFICATION: CONFIDENTIAL

MASTER BUILDERS
INSURANCE BROKERS

Your Industry Specialists

Date: Wednesday, 17 February 2021

CERTIFICATE OF INSURANCE

CONTRACT WORKS & PUBLIC LIABILITY

This certificate of insurance is issued for information purposes only. In all instances insurance coverage is strictly in accordance with the Policy Document executed by Insurers.

POLICY CLASS:	Contract Works & Public Liability
POLICY NO:	01D2087353
INSURER:	Insurance Australia Limited trading as CGU Insurance ABN 11 000 016 722 AFS Licence 227681
INSURED NAME:	Otway Securities Pty Ltd ATF McMillan Family Trust T/As MKM Constructions; MKM Building Group Pty Ltd
ABN:	57 064 686 913
SITUATION:	Construction Site anywhere in Australia and elsewhere as provided in the Policies.
ACTIVITIES:	All activities of construction in connection with commercial, industrial and institutional building works.
PERIOD OF INSURANCE:	20/02/2021 to 20/02/2022 at 4:00pm
CONSTRUCTION PERIOD:	24 Months
SUMS INSURED:	Material Damage $6,600,000 Any one Insured Project or Stage
	Public Liability $20,000,000 Any one claim or number of claims arising out of the one Occurrence

Subject always to the terms, conditions and exclusions of the policy.

Yours faithfully,

For and on behalf of Master Builders Insurance Brokers Pty Ltd

protecsure
keeping businesses on the move

Certificate of Currency

Public & Products Liability Insurance

This is to certify that in accordance with the authorisation granted under Contract No. P1L120672335 to the undersigned by Berkley Insurance Company (ABN 53 126 559 706) trading as Berkley Insurance Australia, the said Insurer is hereby bound to insure in accordance with the terms and conditions contained herein or endorsed hereon.

Insurance Certificate No.	CC1112799L
Business	Plumbing Service / Drain Cleaning or Repair / Gas Plumbing | Cover of Sub-Contractor: No
Insured	Otway Securities Pty Ltd T/As MKM Constructions
Period of Insurance	From 20/02/2021 to 4pm EST 20/02/2022 inclusive
Insurer	Berkley Insurance Company (ABN 53 126 559 706) trading as Berkley Insurance Australia
Limit of Indemnity	**Section 1 (Public Liability)** $20,000,000 any one occurrence or series of occurrences arising out of any one cause **Section 2 (Products Liability)** $20,000,000 any one occurrence or series of occurrences arising out of any one cause and in all during the Period of Insurance
Excess	**Section 1 (Public Liability)** The Insured shall be responsible for the first $1,000 any one occurrence or series of occurrences arising out of any one original source or cause. **Section 2 (Products Liability)** The Insured shall be responsible for the first $1,000 any one occurrence or series of occurrences arising out of any one original source or cause.
Geographical Limit	Anywhere in the World except the United States of America, Canada and their respective protectorates and territories where this insurance will only apply in respect of the Insured's Product exported into such countries without the Insured's knowledge or non manual work carried out in the USA & Canada by Australian based directors, partners, office executives or employees.
Conditions	The following endorsements will apply

CTR002	Hazardous Premises Exclusion
CTR009	Depth Limit Exclusion
CTR018	Underground Services Condition
LBY084	Victorian Plumbing Work
CTR017	Heal Conditions (Including Welding)

Special Terms & Conditions	Licence number - 45261 Licence holder - Marcus McMillan Meets all requirements of the Ministerial Order Licensed Plumbers General Insurance Order dated 20th June 2002 Insured full name - Otway Securities Pty Ltd ATF McMillan Family Trust T/as MKM Constructions

Gabriele McDonald
Managing Director
17/02/2021

For the Attention of: Olivia Lewis

Fleetsure Pty Ltd ABN: 78 078 661 220 AFSL: 238151

PO Box R1940 Royal Exchange NSW 1225
Level 11, 49 York Street, Sydney NSW 2000
Ph: (02) 9299 5777

Fleetsure Pty Limited as agent of the Insurer

Certificate of Currency

Policy Number: 18A709258MVA

Date Issued: 9/02/2021

Insured: Otway Securities Pty Ltd ATF McMillian Family Trust T/as MKM Contructions

Interested Party: To be advised

Broker: MBA Insurance Services Pty Ltd

Period of insurance from: 3-Feb-21
Period of insurance to: 20-Feb-22

Excess each unit: $5000, $500 Trailers & unregistered Plant items valued under $20,000

Radius klms from Home base: Australia Wide

Schedule of Vehicles	Sum Insured Ex-GST
2010 Bills Box 8x5 Tandem Trailer Reg: T80547	$1,500
2014 Bullant Scissor Trailer Reg: W02581	$3,500
2013 Bills Box 8x5 Tandem Trailer Reg: V69258	$2,000
2019 IFOR Williams Box Trailer Reg: B26947	$6,930
2020 Organge Tip N Go Water Cart Trailer Reg: B33118	$10,274
2017 MT1335 Manitou Telescopic Forklift (3.5t) Reg: UNREG	$88,000
2016 Manitou Forklift MLT-X 625-H Reg: XV55QC	$47,800
2006 Hino Truck 500 GHIJ Reg: XV90GL	$92,715
2019 Kubota U55-4R3 Excavator Reg: UNREG	$85,800
2020 ASV RT40 Track Loader Bobcat Reg: UNREG	$95,070
XXXX JLG 52ft Knuckle Boom Lift Reg: UNREG	$115,500
2017 Toyota Hilux 4x2 Workmate 2.7L 5SPD Man Reg: 1LD1XZ	Market Value
2018 Toyota Hilux 4x2 Workmate 2.7L Petrol Manual Single cab Reg: 1LX1QE	Market Value
2018 Toyota Hilux 4x4 SR 2.8L T Diesel Auto Double cab Reg: 1MS2WE	Market Value
2018 Toyota Hilux 4x4 SR 2.8L T Diesel Auto Double cab Reg: 1MS2WD	Market Value
2018 Volvo XC90 DF Momentum Reg: AUH115	Market Value
2018 Toyota Hilux 4x4 SR5 Reg: 1NE2RB	Market Value
2018 Volvo XC60 D4 Momentum Reg: AVH351	Market Value
2018 Mitsubishi Triton GLX 2.4L Reg: 1OH1JA	Market Value
2018 Mitsubishi Triton GLX 2.4L Reg: 1OK2JU	Market Value
2018 Mitsubishi Triton GLX 2.4L Reg: 1OK2JV	Market Value
2018 Mitsubishi Triton GLX 2.4L Reg: 1OP3HW	Market Value
2018 Volkswagen Amarok TDI550 4Motion Dual cab Ute 3.0L Reg: 1NA4TO	Market Value
2019 Volkswagen Amarok TDI550 4Motion Dual cab Ute 3.0L Reg: 1NA4TR	Market Value
2019 Mitsubishi MR Triton GLX 2.4L Reg: 1QR5LV	Market Value
2019 Toyota Landcruiser Wagon Sahara 4.SL Reg: BEA884	Market Value
2019 Toyota Hilux 4x4 SR5 Reg: 1RF7BL	Market Value
2018 Toyota Hilux 4x4 SR5 Reg: AXB110	Market Value
2020 Toyota Hilux 4x4 SR Dual C/C Reg: 1RY6BZ	Market Value
2020 Toyota Hilux 4x4 SR Double Cab Reg: 1RY6DP	Market Value
2020 Toyota Corola Hatch Hybrid Ascent Sport 1.8L Reg: 1SH5HI	Market Value
2020 Mitsubishi MR Triton GLX 2.4L Reg: 1SV6QT	Market Value
2019 Volkswagen Amarok TDI550 Reg: 1QA2ON	Market Value
2019 Volkswagen Amarok TDI550 Highline Reg: 1QA2OO	Market Value
2020 Lexus ES300h Sports Luxury Reg: BKH729	Market Value
2021 Range Rover 21.5MY P525 Fifty 5.0L Reg: BKV143; VIN: SALGA2AE0MA429021 (Exclude Drivers under 30 years of age)	Market Value

Conditions

Basis of settlement: Market value or sum insured whichever is the lesser.

TPPD Limit $32,500,000, TPPD Only applies to Registered Vehicles

TPPD for Dangerous Goods is limited to $1,000,000

Insurer: QBE Insurance (Australia) Limited

Fleet & Heavy Haulage - QM1954-0719

This certificate of currency is valid for 30 days from Period of insurance from date and full payment of premium must be made within this time for cover to continue.

Signed on behalf of Fleetsure Pty Ltd on 9/02/2021

FEDERATION COUNCIL

CONTRACT

SECTION:

B – SCOPE AND SPECIFICATION

PROJECT/CONTRACT NAME:

COROWA SALEYARDS REDEVELOPMENT

STAGE 4 – SALEYARDS ROOF & STRUCTURE

Including, but not limited to the following:

New roof over drafting, selling and holding pens;

Modifications to pens

Storm Water;

100 kW solar system

PROJECT LOCATION:

437 HONOUR AVENUE, COROWA, NSW 2646

PROJECT/CONTRACT NUMBER:

2021/162

BLANK PAGE

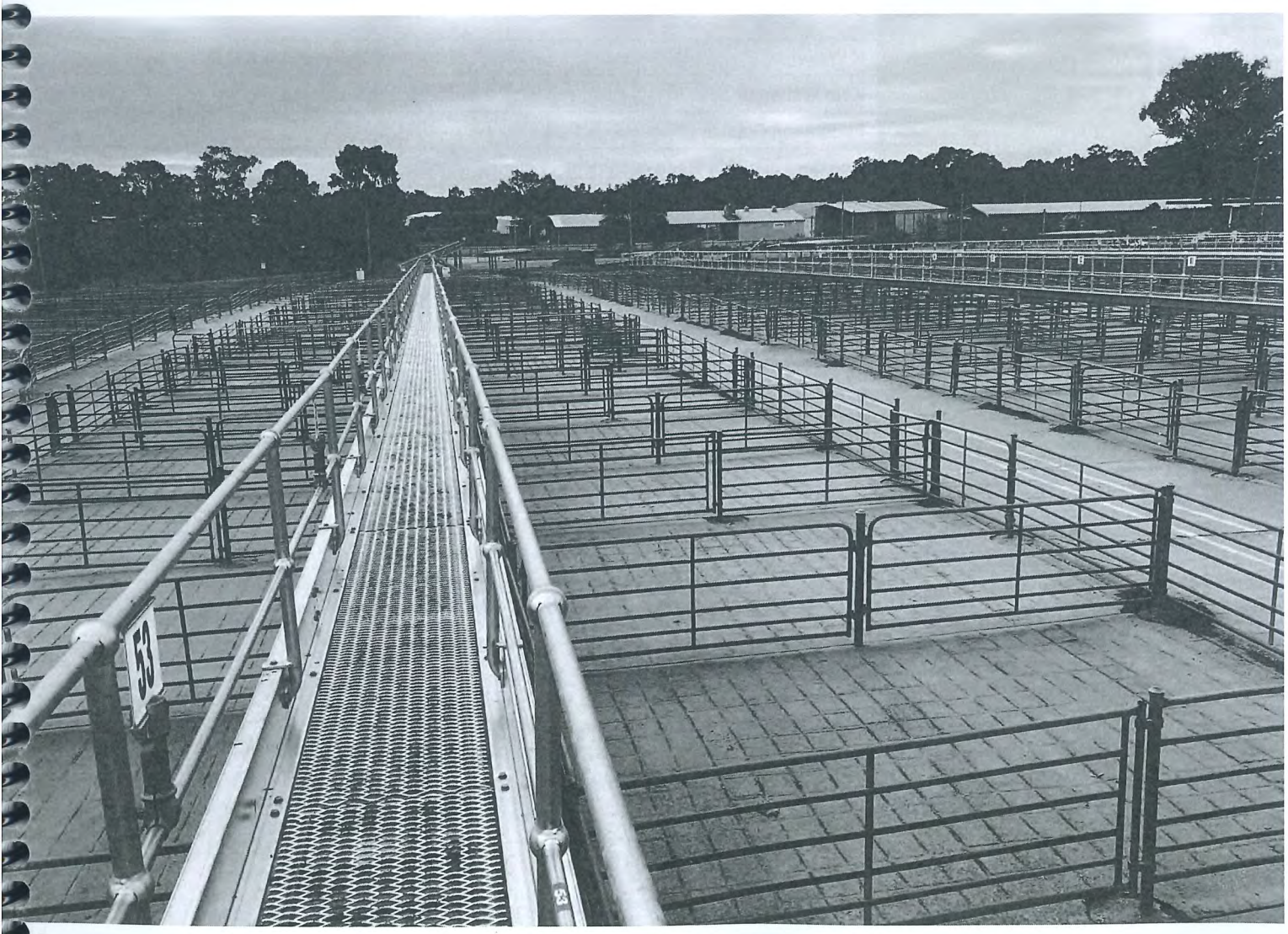
Corowa Saleyards

Technical specification

Federation Council

6 August 2021

→ The Power of Commitment



GHD Pty Ltd | ABN 39 008 488 373
105 Hume Street, Suite 5
Wodonga, Victoria 3690, Australia
T +61 2 6043 8700 | **F** +61 2 6043 8711 | **E** abxmail@ghd.com | **ghd.com**

Printed date	6/08/2021 5:08:00 PM
Last saved date	06 August 2021
File name	https://projectsportal.ghd.com/sites/pp17_03/corowasaleyardsredev/ProjectDocs/12550589-SPC-Corowa Saleyards Roof Structure Specification .docx
Author	K Witherow
Project manager	Kate Witherow
Client name	Federation Council
Project name	Corowa Saleyards Redevelopment
Document title	Corowa Saleyards | Technical specification
Revision version	Rev 0
Project number	12550589

Document status

Revision	Author	Reviewer		Approved for issue		
		Name	Signature	Name	Signature	Date
0	K Witherow	D Wearne	D Wearne*	S Rasmussen	S Rasmussen*	06/08/2021

© GHD 2021

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

Contents

1. Roof structure design and construct requirements 1
- 1.1 Introduction 1
- 1.2 Background 1
- 1.3 General description of work 2
  - 1.3.1 Purpose of this Roof Structure Specification 2
  - 1.3.2 Scope of works 3
- 1.4 Drawings by the Principal 3
- 1.5 Design life 3
- 1.6 Codes and standards 3
- 1.7 Design parameters 4
- 1.8 Design and operational philosophy 5
- 1.9 Design input 5
- 1.10 Design, computations and drawings by Contractor 5
- 1.11 Supply of documents 7
- 1.12 Supplementary construction specification 8
- 1.13 Geotechnical investigation and report 8
- 1.14 Survey and set-out 8
- 1.15 Warranty 8

2. Contractor requirements 9
- 2.1 General 9
- 2.2 Site requirements 10
  - 2.2.1 Location of the site & work times 10
  - 2.2.2 Site operation 10
  - 2.2.3 Site meetings 10
  - 2.2.4 Works area 11
  - 2.2.5 Project signboard 11
  - 2.2.6 Use of the site 11
  - 2.2.7 Archaeological and Cultural Areas 11
  - 2.2.8 Contractor's area 11
  - 2.2.9 Sanitary facilities 12
  - 2.2.10 Other contractors 12
  - 2.2.11 Site deliveries 12
  - 2.2.12 Climatic conditions at the site 12
  - 2.2.13 Parking 12
  - 2.2.14 Cleaning up and site reinstatement 13
  - 2.2.15 Damage 13
  - 2.2.16 Site agreements 13
  - 2.2.17 Site security 13
  - 2.2.18 Prohibited activities 14
- 2.3 Site services 14
  - 2.3.1 Proving of services 14
  - 2.3.2 Damage to services 14
  - 2.3.3 Reinstatement of services 14
  - 2.3.4 Interruption of services 14
  - 2.3.5 No claim for loss 14
  - 2.3.6 Water supply 14

2.3.7 Electricity supply 14
2.3.8 Telecommunications 15
2.4 Protection of people and property 15
2.4.1 General 15
2.4.1.1 General site requirements: 15
2.4.1.2 Site drainage: 15
2.4.1.3 Vermin control: 15
2.4.1.4 Noise & dust: 15
2.4.1.5 Pollution of adjacent areas: 15
2.4.1.6 Site reinstatement: 15
2.4.1.7 WH&S 16
2.5 Health and safety 16
2.5.1 Responsibilities for work, health and safety 16
2.5.2 Work, health and safety 17
2.5.3 Risk assessment 17
2.5.4 Work method statements 18
2.5.5 Job safety analysis 18
2.5.6 Contractors safety guidelines 20
2.5.7 Care of the work and reinstatement of damage 21
2.6 Construction environmental management plan 21
2.6.1 General 21
2.6.2 Environmental management plan system 21
2.6.3 Reporting of Environmental Incidents 21
2.6.4 Fire precautions 21
2.6.5 Control of Noise 22
2.7 Contractor traffic management plan 22
2.7.1 Submission of traffic management plan 22
2.7.2 Storage of plant 22
2.7.3 Care of areas used by traffic 22
2.7.4 Operations affecting traffic 22
2.8 Contractor's construction program 23
2.9 Contractor's drawings/as-constructed drawings 23
2.9.1 Fabrication and working drawings 23
2.9.2 As-constructed drawings 24
2.9.3 Record of services 24
2.10 Guarantees 24
2.11 Proprietary items 24
2.12 Setting out 24
2.12.1 Set out 24
2.12.2 Accuracy 25
2.12.3 Survey marks and levels 25
2.13 Supervision of works 25
2.13.1 Rejection of work 25
2.13.2 Approval prior to proceeding 25
2.14 Quality 25
2.14.1 Quality systems 25
2.14.2 Quality plan 25
2.14.3 Certification 25
2.14.4 Surveillance and audit 26
2.15 Property clearances 26
2.15.1 Permission to use property 26
2.15.2 Clearances

2.16 Progress of works 26
2.16.1 Rate of delivery 26
2.16.2 Failure to provide 26
2.17 Defects liability period 26
2.17.1 Defects liability period 26
2.17.2 Failure to repair 26
2.18 Operation and maintenance manuals 26
3. Demolition works 28
3.1 Scope of works 28
3.2 Standards and permits 28
3.3 Demolition method statement 28
3.4 Hazardous materials 28
3.5 Execution 29
3.6 Off site disposal 29
3.7 Completion 29
4. Roof structure 30
4.1 Section content 30
4.2 General requirements 30
4.3 Inspection 30
4.4 Identification 30
4.5 Contractor's documents 30
4.6 Roof dimensional requirements and columns 31
4.7 Roof access safety system 33
4.7.1 Aims 33
4.7.2 Design of roof access by contractor 33
4.7.3 Submissions for roof access system 33
4.7.4 Execution of roof access system 34
4.7.5 Maintenance of roof access system 34
4.8 Steelwork protective coating 34
4.9 Scaffolding 34
4.10 Protection of structure against wind 34
4.11 Erection of roof structure 35
4.12 Steel type and grade 35
4.13 Structural steel fabrication 35
4.14 Structural steel welding 36
4.15 Structural steel bolting 36
4.16 Structural steel erection 36
4.17 Materials, workmanship and testing 36
4.18 Roof purlins and cladding general requirements 37
4.19 Roof cladding and purlins 37
4.20 Roof flashing 39
4.21 Roof ventilation 39
4.21.1 Roof Overlap 39
4.22 Erection 39
5. Concrete and foundations 40
5.1 Scope 40
5.2 Standards 40

5.3 Design requirements 40
5.4 Inspection 40
5.5 Quality control 41
5.6 Testing (general) 41
5.7 Surface repair 41
5.8 Formwork generally 42
5.9 Concrete materials generally 42
5.10 Grout 42
5.11 Reinforcement generally 43
5.12 Fixing reinforcement 43
5.13 Reinforcement supports 43
5.14 Concrete placement and compaction 43
5.15 Curing and protection 44
5.16 Fixings and embedded items 45
5.17 Piers 45

6. Protective coatings 47
6.1 Technical requirements 47
6.1.1 Scope 47
6.1.2 Requirements 47
6.1.3 Galvanising 47
6.1.4 Handling of coated items 48

7. Stormwater services 49
7.1 General 49
7.1.1 Description and extent of works 49
7.1.2 Required submissions 49
7.1.3 Quality assurance 50
7.1.4 Authorities 50
7.1.5 Authority applications, permits and fees 50
7.1.6 Design 50
7.1.7 Standards 51
7.1.8 Labelling 51
7.1.9 Inspection 51
7.1.10 Submissions 51
7.2 Execution 51
7.2.1 Installation 51
7.2.2 Painting, finishes and marking 53
7.3 Completion 53
7.3.1 Testing 53
7.3.2 Operation and maintenance manuals 53
7.3.3 Record drawings 54
7.3.4 Training 54
7.4 Selections 54
7.4.1 Submissions 54

Table index

Table 1 Proposed roof coverage approximate 2
Table 2 Steel grade schedule 35

Table 3	Elapsed delivery time	42
Table 4	Concrete placing	44
Table 5	Concrete placing	44
Table 6	Piping system schedule	54

Figure index

Figure 1	Column located within barrier line with protection rails around – cut and reweld existing rails to new column. Install protection rails if UB/UC column section adopted. No protection required if CHS/SHS section.	32
Figure 2	Column located alongside barrier with protection rails. Provide protection rails to perimeter.	32
Figure 3	Column located to corner of pen. Provide protection rails around.	33

Appendices

Appendix A	Geotechnical report
Appendix B	Concept design drawings
Appendix C	Safety in Design Risk Assessment
Appendix D	Existing site services plan

1. Roof structure design and construct requirements

1.1 Introduction

The Corowa Saleyard facility is owned and managed by Federation Council and has been operating for the site on Honour Avenue Corowa for more than sixty years.

Currently the facility operates with a weekly sale occurring on Mondays, a number of special sales are also held throughout the year.

The Corowa Saleyards has experience market growth in the last 20 years at a time when industry has faced a large number of impacts including drought, recent years has seen the growth of the facility with the installation of additional pens, ramps and other improvement work having been undertaken.

In addressing the future of the saleyards Federation Council commissioned business review and masterplan for the Corowa Saleyards Site, which was adopted by Federation Council in November 2020. Subsequent to the masterplan being adopted, Federation Council was awarded $9.2 M in NSW Government Stimulus funding for the Corowa Saleyards to upgrade existing facilities, ensure compliance with regulations and meet the demands of the saleyards into the future.

The Scope of the proposed stimulus-funded project comprises of 4 key components of the masterplan adopted, namely:

- Roof - Construction of a roof over the existing yards, including provision for lighting, solar PV system and management of stormwater
- Effluent system - Upgrade to site effluent management system to meet NSW EPA requirements, including expansion of effluent treatment and storage, and an expansion of the truck wash
- Civil Works – Civil upgrades including reconfiguration of site entrance road, internal access and circulation, car park and pedestrian crossings
- Buildings – New public administration building and multi-purpose learning centre

Please refer to the site layout plan in Appendix B outlining the approximate works areas.

In order to continue to provide a modern facility Federation Council has made the commitment to construct a roof over the existing centre and the implementation of further development of the facility which will assist with more effective animal management and improved conditions for buyers and sellers.

This specification addressed the construction of the roof and associated works over the existing saleyards. The other three project components will be subject of separate works to be undertaken in parallel with planning, design and construction of the new roof.

1.2 Background

The existing Corowa Saleyards covers an area of approximately 23,000 square metres comprising of pens, yards and associated loading races, walkways, and other facilities.

Council proposes to construct a roof over the existing yards and sections intended to be upgraded to a concrete base in the future. It is recognised that this project provides Federation Council with the opportunity to cover the existing yards and provided protection from the weather to ensure a competitive and viable business is continued into the future.

The saleyards facility consists of lamb and sheep yards, the following table outlines the proposed areas to be covered by the roof.

Table 1 ***Proposed roof coverage approximate***

Yard type	Existing concrete based m²	Existing earthen base m²	Proposed concrete base m²	Total
Drafting pens	5,940		490	6,430
Selling pens	10,090			10,090
Holding pens	2,595		5,200	7,795
Holding yards	1,690	2,555		1,690
			Total	26,005

The proposed roof is planned to cover a maximum area of 27,000 square metres. This may be undertaken in modular construction if appropriate. It is prosed to maximise the roof coverage over the existing and future yards, Federation Council reserves the right to review the extent of roof coverage based on budget constraints.

Effluent and run off is currently collected by a mixture of over land and underground drainage and flows to a treatment facility and overflow storage to the north east of the site.

Current operations see a weekly sale on Monday, removal of the sheep from the site in generally done within 24 hours of the sale with some sheep held in the spelling yards until buyers have arranged for collection.

1.3 General description of work

This component of the Corowa Saleyards Redevelopment project is a design and construct tender for the roof structure incorporating the latest operational and management systems integrating renewable energy (energy efficient lighting and PV Solar system) and rainwater harvesting solution to develop a leading edge facility.

Federation Council is seeking creative options for this project and will consider innovation in design and timeline outcomes when assessing the tenders. Federation Council will consider modular and staged construction; however, the design will be required to fit to the existing and proposed future footprint of the saleyard pens and achieve the requirement for **no loss of sale days**.

Works to be performed will include the design and construction of a roof structure to cover the existing saleyards and proposed future yards for the purpose of providing an "all weather" facility; which is able to operate successfully during inclement weather and to minimise rainwater infiltration into the wastewater treatment system. The project will also include additional works associated with the roof as outlined, such as electrical works including lighting, and stormwater drainage.

Lighting of the saleyards is to be undertaken to provide undercover lighting to the new roof structure and modifications to existing external lighting beyond the roof structure (works to be undertaken by others).

It is recognised that the saleyards will still need to continue operating on normal selling days during the construction. Works need to be undertaken without any major disruption to the ongoing operation of the saleyards and scheduled to occur at a time of least impact.

The construction of the roof is to desirably be undertaken in accordance with the proposed layout plan (concept as included within the specification document, which shows minimum dimensions of the roof. In general, support columns are to be in locations along lines of barriers so pens and lane ways remain unobstructed.

It is recognised that sections of the saleyards will still need to continue operating on normal selling days during construction. Works need to be undertaken without any major disruption to the ongoing operation of the saleyards and scheduled to occur at a time of least impact.

This specification outlines the "Design and Construct" (D&C) requirements for the Corowa Saleyards Redevelopment – roof structure. The D&C requirements are generally described in this section below.

1.3.1 Purpose of this Roof Structure Specification

This specification applies to all works associated with the design and construction of a steel roof structure over the existing Corowa Saleyards as designated on the concept drawings, associated footing works and associated roof stormwater collection system, as outlined within this specification.

This specification does not address Building services, such as electrical, fire and potable water services or any aspect of the project other than the roof structure and associated footings. Separate documentation is to be referred to for other elements of the project that are not included herein.

1.3.2 Scope of works

This specification applies to all works associated with the design and construction of a steel roof structure over the existing Corowa Saleyards as designated on the concept drawings, associated footing works and associated roof stormwater collection system, as outlined within this specification.

REQUIREMENT: Detailed design and construction of the roof structure to the general arrangement and minimum performance requirements as outlined in the Contract Documents.

EXTENT: Complete the design, building approvals, preparation of detail design and shop fabrication drawings, supplementary technical specification, supply of materials, labour and all items necessary to construct the roof structure, associated footings and roof stormwater collection system, including coordination with all stakeholders, Council, authorities and service providers as required to completed the works.

The tenderer is to fully satisfy themselves during the tender phase of the site conditions and project requirements to meet the minimum performance requirements outlined within the tender documents. All tenderers must complete a compulsory tender phase site inspection. Upon award of the design and construct contract, no variations will be entertained due to the Contractor not making full allowance for the existing site conditions and the minimum performance requirements outlined within the tender documents.

1.4 Drawings by the Principal

DRAWINGS: The drawings included within the tender documents and prepared by the Principal are for information only to the Contractor. They show general dimensions and locations of features that the Contractor shall adhere to. These are concept drawings only and are part of Federation Council tender documents. The Contractor shall be responsible for completing the design and drawings to a suitable level as required for construction.

CHANGES: Any changes that the Contractor may find necessary in its design or detail work must be approved by the Superintendent.

1.5 Design life

Minimum design service life required is as follows

- Roof support structure and footings: 50 years
- Roofing, guttering and flashings: 20 years
- Above ground stormwater drainage pipework: 20 years
- Underground stormwater drainage pipework: 50 years

1.6 Codes and standards

The following codes and standards shall be adopted unless noted otherwise.

GENERAL CONDITIONS OF CONTRACT:

- AS 4300-1995 General conditions of contract for design and construction

DESIGN ACTIONS:

- AS/NZS 1170.0:2002 Structural design actions Part 0: General principles
- AS/NZS 1170.1:2002(R2016) Structural design actions Part 1: Permanent, imposed and other actions
- AS/NZS 1170.2:2021 Structural design actions Part 2: Wind actions
- AS/NZS 1170.4:2007(R2018) Structural design actions Part 4: Earthquake actions

STEEL ROOF STRUCTURE DESIGN:

- AS 4100:2020 Steel Structures
- AS/NZS 4600:2018 Cold Formed Steel
- AS/NZS 5131:2016 Structural steelwork - fabrication and erection

REINFORCED CONCRETE PIERS DESIGN:

- AS 3600:2018 Concrete structures

SAFE ROOF ACCESS:

- AS/NZS 1891 Industrial fall-arrest systems and devices

1.7 Design parameters

The following design parameters shall be adopted unless noted otherwise.

ANNUAL PROBABILITIES OF EXCEEDANCE:

- Annual Probabilities of Exceedance — Per AS/NZS 1170.0 & Table B1.2 of Building Code of Australia
- Importance Level — 2
- Nominal Design Working Life — 50 years (for main structural frame)
- Annual Probability of Exceedance (Wind) (ULS) — 1/500
- Annual Probability of Exceedance (Wind) (SLS) — 1/25

LOAD COMBINATIONS:

Design for the most severe combination of dead loads, live loads, imposed loads including loads from connected services, wind loads, construction loads and seismic loads.

- Load combinations for Stability — Per AS/NZS 1170.0 Section 4
- Load combinations for Serviceability — Per AS/NZS 1170.0 Section 4
- Load combinations for Strength — Per AS/NZS 1170.0 Section 4

ROOF LOADS:

Minimum roof loads — Wind loads according to AS/NZS 1170.2, and also to be capable of supporting dead and live loads complying with AS 1170.1 with a minimum live load 0.25 kPa or greater as required by the standard or greater as required by the standard.

ROOF DEAD LOAD:

Roof dead load — Total weight of roofing and structural framing, plus any instrumentation, piping, access walkways, handrails, etc.

Service dead load — Allow for the provision of services including lighting over walkways, fire services (to be advised by Principal in conjunction with the appointed building surveyor), electrical supply, etc.

Additional dead load — Allow for additional load of a minimum of 0.25 kPa and as required in AS 1170.2 for potential future installation of PV systems

ROOF DEFLECTIONS:

SLS Deflection Limits: Per AS/NZS 1170.0:2002 Table C1, including:

Roof Beams	Span/300 (mid-span)
Roof Purlins	Span/250 (mid-span)
Columns	Height/250

WIND LOADS:

Regional Wind Speed — Per AS/NZS 1170.2:2021

Terrain Category	2
Site Multipliers	Per AS/NZS 1170.2:2011 Sections 3 & 5
Wall and roof wind aerodynamic shape factors	Per AS/NZS 1170.2:2011 Section D3

1.8 Design and operational philosophy

Within 2 weeks of contract award and prior to commencing the design process, the Contractor shall arrange a meeting between their design team and Federation Council's project team to understand the operational philosophy for the site. Outcomes from this discussion are to include:

- Understanding of existing operational philosophy of the livestock saleyard facility
- Understanding of Federation Council's operational requirements during the construction phase
- Understanding of design basis and operational philosophy following completion of the works
- Understanding of approval requirements including building approval, service providers and any other regulatory authorities

1.9 Design input

The Contractor shall use the following design inputs in carrying out the design and documentation of the works but not necessarily limited to:

- This specification
- The Council's saleyards operations requirements
- All design work shall be carried out in accordance with relevant Australian Standards and other codes and requirements as set out in this specification
- The findings of any geotechnical investigations carried out to aid in the design of the foundations
- Indicative drawings provided for the roof structure and roof stormwater collection system, appended to this specification
- Any other drawings, specifications and documents relevant to the Contract

The Contractor shall use the above inputs as information only and shall satisfy themselves as to the accuracy and relevance of the information when carrying out any aspects of the design and shall be fully responsible for the final design.

A draft Safety in Design Risk assessment has been undertaken of the concept design and should be considered as part of the design and construction process, this is a draft only and should be developed further throughout the design development process. Refer to Appendix C.

1.10 Design, computations and drawings by Contractor

DESIGN RESPONSIBILITY: The Contractor shall be responsible for the design computations, drawings and certification and for the submission of design to the Superintendent for approval prior to construction. The deliverables shall also be to the satisfaction of the project Building Surveyor.

BUILDING SURVEYOR: Building surveyor is to be appointed by Federation Council. The contractor shall supply all relevant information for permit and liaise with the building surveyor for all permits, inspections and final certificate as required.

INDEPENDENT VERIFICATION: Contractor shall allow in their submission for all design computations and drawings are to be checked independently of the designer at the Contractor's expense. The Contractor shall arrange for all designs to be verified and checked by an independent and appropriately qualified professional engineer for the type of structure or building services and shall provide the Superintendent with such evidence. An appropriately qualified professional engineer is deemed to be one registered with the National Engineers Register (where applicable), or otherwise holding chartered status and meeting relevant qualification and accreditation within the state of New South Wales. Independent verification certification shall also be to the satisfaction of the project Building Surveyor.

Note that GHD is excluded from acting as independent design checker for this project due to its previous ongoing involvement with this project.

HOLD POINT: Do not commence construction until the design calculations, drawings and independent verification has been accepted by the Superintendent and appointed project Building Surveyor.

DESIGN PERSONNEL: All design work undertaken on behalf of the Contractor shall be completed by fully qualified and experienced engineers and registered with National Engineers Register (NER) of Engineer's Australia and relevant qualification and accreditation required within the state of New South Wales.

DESIGN COMPUTATIONS AND DRAWINGS: Submit to the Superintendent one (1) hard copy and 1 (one) soft copy of design computations and drawings for the roof including foundations, and drainage.

The Superintendent shall have fourteen (14) days to review the computations and drawings provide any comments or seek further clarification on the computations. The Contractor shall be responsible for ensuring that sufficient support documentation and preliminary drawings are provided to the Superintendent to enable adequate review. Incomplete or inadequate submissions from the Contractor will not be reviewed and will be returned to the Contractor within seven (7) days of receipt. Once the computations and drawings are to the Superintendent's satisfaction, the computations and drawings shall be approved in principle. One copy of the computations and drawings signed "approved in principle" will be returned to the Contractor.

DRAWING REQUIREMENTS: The following requirements shall apply for any drawings prepared by the Contractor:

DRAWINGS, SIZE AND TITLE BLOCK: All drawings associated with this Contract shall be the same size as the full size Contract Drawings. Title blocks may be arranged to suit the requirements of the particular Contractor, but each title block shall carry the following information:

- Name of Principal – FEDERATION COUNCIL
- Name of Project - Corowa Saleyard Roof Structure
- Description of work to which drawing refers.
- Drawing Number.
- Contractors Name.

DRAWING NUMBERS: The Contractor shall allocate drawing numbers for use on its own and Contractor's drawings. While other drawing numbers may be shown in the title block the number allocated by the Contractor shall be the prime and prominent drawing number and shall be located in the bottom right hand corner of the title block. This drawing number shall be the reference used in all communications.

DESIGN DRAWINGS: All drawings shall be clearly drawn on AutoCAD (or be AutoCAD compatible via DXF file)(or approved modelling software including Revit) to scale by competent drafters, for the particular application of this project. Drawings of a generalised nature applicable to a number of models or equipment types will not be accepted.

Drawings which include details that are direct copies of manufacturer's literature and are not to the scales recommended in Table 5.1 of AS 1100.101 will not be accepted. All drawings shall be prepared in accordance with AS 1100 and shall comply with the Principal's Drafting Standards.

The Contractor shall provide a drawing schedule of all drawings associated with the project.

SHOP DRAWINGS: Upon receipt of the approved detail drawings and prior to fabrication prepare shop drawings for all structural items. Prepare these drawings to scale and show marking plans, dimensions, materials and other relevant data. Show also weld sizes and the sequences of welding floor and wall plates (where applicable). Submit to the Superintendent for approval.

Checking by the Superintendent will be limited to compliance with the Principal's Project Requirements. The design shall remain the responsibility of the Contractor. Once the drawings are to the Superintendent's satisfaction, the drawings shall be approved in principle. One copy of each drawing signed "approved in principle" will be returned to the Contractor.

Do not commence fabrication before the Contractor has received "approved in principle" signed shop drawings returned by the Superintendent.

ACCEPTANCE OF CONTRACTOR'S DOCUMENTATION: Acceptance by the Superintendent of any drawing, design calculations, method of work or any other information regarding materials and equipment the Contractor proposes to supply shall not relieve the Contractor of their responsibility for any errors or omissions therein, and shall not be regarded as an assumption of risks or liability by the Superintendent. The Contractor shall have no claim under the Contract on account of the failure or partial failure or inefficiency of any drawing, calculation, plan or method of work or material and equipment so accepted by the Superintendent.

Such acceptance shall be considered to mean that the Superintendent has no objection to the Contract using, upon its own full responsibility, the drawing, calculation, plan or methods of work proposed or supplying the materials and equipment proposed.

Acceptance of the Contractor's submitted documentation shall not relieve the Contractor of their full responsibility to comply with the requirements of the Contract Drawings and Specification.

WORKS AS EXECUTED DRAWINGS: All drawings submitted by the Contractor for the approval of the Superintendent pursuant to the requirements of this Contract shall, after completion of construction, be amended to show in detail the Works-as-Executed. Such amendments as are necessary to depict in detail the as-built condition shall be carefully and accurately prepared by competent drafters. Where an as-built condition requires a drawing to be amended then all related drawings influenced by this amendment shall similarly be amended.

Upon completion of all amendments a digital copy in a form approved by the Superintendent together with one (1) copy of each drawing prepared pursuant to the requirements of this Contract, each clearly marked adjacent to the title block "Work-as-Executed drawing", shall be delivered to the Superintendent prior to the issue of the Certificate of Practical Completion.

At completion of all Construction Works the Contractor shall supply to the Superintendent a final, fully amended copy of all Contract Drawings detailing the "Works As Executed" details. Variations from the design details shall be clearly indicated.

The Certificate of Practical Completion will not be issued until these Work-as-Executed drawings are submitted and accepted.

The cost of preparing and printing the above Work-as-Executed drawings, notwithstanding that some amendments may have been required as the result of instructions issued by the Superintendent, shall be deemed to be included in the Contract Sum.

Should it be found subsequent to the issue of the Certificate of Practical Completion that the Contractor has failed to amend all or some of the drawings as required above then the Superintendent at their discretion may proceed to have the necessary amendments carried out without further reference to the Contractor.

All costs associated with obtaining information and carrying out these amendments will be deducted from any moneys otherwise owing to the Contractor under the terms of this Contract, provided that the reason for such amendment was not as a result of an instruction given by the Superintendent ordering additional works after the issue of the Certificate of Practical Completion.

1.11 Supply of documents

SUPPLY: The Contractor shall prepare and supply the following to the satisfaction of the Superintendent.

- Complete set of calculations (in the form of 1 hard copy and 1 soft copy) – preliminary, for final review and construction issue.
- Fully detailed working drawings (in the form of 1 hard copy and 1 soft copy) – preliminary, for final review and construction issue.
- Shop fabrication drawings for structural steel – review and construction issue.
- A Supplementary Technical Specification for the construction of the steel roof structure and associated works including stormwater works – preliminary, for final review and construction issue.
- All approvals, agreements and permissions relating to the design including independent verification, building approval and Certificate of Occupancy/Final Inspection, noting that the relevant Building Surveyor will be engaged separately by Federation Council

- An outline of the design and construction methodology sufficient to demonstrate a full understanding of the issues to be addressed shall also be submitted.
- Works as Executed Drawings.

1.12 Supplementary construction specification

SUPPLY: The Contractor shall be responsible for preparing a Supplementary Construction Specification for Contractor's design and in particular covering items that are not covered by this Specification. The Supplementary Specification shall not contradict this Specification unless express approval is requested and granted by the Superintendent. Subject to approval by the Superintendent the Supplementary Construction Specification will form part of the contract documents for the works.

1.13 Geotechnical investigation and report

A geotechnical investigation and report for the site has been carried out and is included in Appendix A. This information is available to Tenderers for information only and use at their own discretion. The geotechnical information does not form part of the Contract Documents. The Principal does not warrant that information provided is a true and accurate representation of ground conditions. The Contractor shall determine if further geotechnical investigation is warranted and make their own interpretation on geotechnical matters.

If the Contractor considers the geotechnical information provided to be insufficient to adequately warrant the design and performance of the roof structures footings, it shall be the Contractor's obligation to advise the Superintendent of such and allow for undertaking an independent geotechnical investigation and interpretation on geotechnical matters at the Contractor's own expense.

RESPONSIBILITY: The responsibility for appropriate design of the steel roof structure, foundations and ground movement-structure interaction lies solely with the Contractor.

1.14 Survey and set-out

A survey of the site has been carried out and this information is available to Tenderers for information only and use at their own discretion. The survey information does not form part of the Contract Documents, The Principal does not warrant that the information provided is a true and accurate representation of the site conditions.

The Contractor shall arrange and meet the cost of survey and set-out to meet the contract requirements. All column set outs, foundations, roof location and other critical work elements where applicable shall be surveyed by a suitably qualified and registered surveyor.

Survey Datum for levels is to be AHD (Australian Height Datum) and co-ordinates are to be MGA2020 (Map Grid of Australia) unless otherwise approved.

1.15 Warranty

PROVIDE: Written guarantees against defective materials fabrication and installation as follows:

- Coatings – In accordance with Section 6 Protective coatings
- Roof Sheeting Material – Roof sheeting material shall have a manufacturer's certified twenty (20) year pro rata weathering warranty
- All guarantees shall be assigned to the Principal upon issue of the Practical Completion certificate
- All warranty periods shall commence at the end of the Defects Liability period
- Any defects which are detected during the commissioning, testing and defects liability period shall be remedied by the Contractor at the Contractor's expense.

2. Contractor requirements

2.1 General

PRECEDENCE

General: Requirements of subsequent work sections of the specification override conflicting requirements in this work section.

REFERENCED DOCUMENTS

Contractual Relationships

General: Responsibilities and duties of the principal, contractor and Superintendent are not altered by requirements in the documents referenced in this specification.

Current Editions

General: Use referenced documents which are the editions, with amendments, current 3 months before the closing date for tenders, except where other editions or amendments are required by statutory authorities.

Site copies: To AS 4300-1995 incorporating amendments

GENERAL CONDITIONS OF CONTRACT

To AS 4300-1995 – General conditions of contract for design and construct

THE SITE

The Works are located at the Corowa Saleyard, Corowa. The designated Works Area is shown on the Drawings.

WORK NOT SPECIFICALLY MENTIONED

All or any work not specifically referred to in this specification, and which is required in order to complete this Contract, shall be carried out to the direction and satisfaction of the Superintendent.

DISCREPANCIES OR OMISSIONS

The Contractor shall check all the Contract and Tender Documents carefully and advise the Superintendent of any discrepancies, error or omissions. Full instructions will be furnished to the Contractor should any discrepancies, errors or omissions be found.

The Drawing(s) and specification indicatively show the components of the works to be designed and constructed under the Contract. The Superintendent may furnish to the Contractor, or may request the Contractor to furnish, new or revised drawings, during the currency of the Contract, as may be deemed necessary for greater clarity or as a result of any variation to the Works directed or approved by the Superintendent

No variation shall be allowed for additional work caused by the Contractor's failure to bring to the attention of the Superintendent any error or omission prior to the award of Contract. The Contract is to request clarification of any error, discrepancy or omission prior to close of tenders.

REQUIREMENTS OF RESPONSIBLE AUTHORITIES

Prior to tendering, the Contractor shall fully inform itself of the requirements of all Authorities regarding design requirements, workmanship, materials and testing. Allowance for any such requirements shall be made in the Contractor's prices and rates.

STANDARD SPECIFICATIONS, STANDARDS AND CODES

All materials and workmanship shall comply with the requirements of such Standards, Codes and other related documents issued by the Standards Association of Australia and current at the date of invitation to tender, except as is otherwise stated in this Technical Specification. Should there be any conflict between this Technical Specification, the Drawings and any Standard or Code forming part of this Contract, this Technical Specification shall take precedence over the Drawings and they shall take precedence over any conflicting current Standards

Codes issued by the Standards Association of Australia. If any conflict still remains, the Superintendent shall direct the Contractor on the requirements to be followed.

EFFECT OF APPROVAL OR ACCEPTANCE OF PROPOSALS

Approval or acceptance of any proposal submitted by the Contractor for executing the works by the Superintendent shall not relieve the Contractor of its responsibility for any errors therein. This applies to any proposals submitted by the Contractor in addition to the Drawings, Specifications of the Principal or resources to be employed by the Contractor under the Contract. Approval by the Superintendent of such proposals shall not be regarded as an assumption of responsibility for risks or liability by the Principal and shall be considered to mean only the Superintendent has no objection to these proposals. The contractor shall have no claim under the Contract on account of any failure or partial failure or insufficiency of any plan, or method of work, or material, or equipment so approved or accepted.

The Contractor shall remain fully responsible for delivering the Works complete and correct in every detail.

CONTRACTOR REQUIREMENTS

The Contractor is to carry out work in a safe manner in accordance with applicable legislation, statutory regulations, by-laws or rules. The Contractor is responsible for Work, health and safety of site personnel and general public in accordance with all current work health and safety acts, legislative requirements, associated regulations and codes of practice, industrial agreements and accepted industry practice.

2.2 Site requirements

2.2.1 Location of the site & work times

Contract works shall be conducted at Corowa Saleyards, Corowa. The designated Works Area is shown on the Drawings. Unless specifically approved otherwise by the Superintendent, work periods shall be limited to:

- Tuesday to Friday: 7:30 am – 5:00 pm
- Saturday 7:30 am – 5:00 pm, with written approval from Council only
- Sunday and Monday – no construction activity on site – priority must be given to all operations associated with sale, including loading and unloading of livestock and access to parking areas for livestock transportation vehicles and vehicles for buyers/sellers and stock agents
    - Deliveries and other preparatory works for construction may be considered, subject to Council approval

2.2.2 Site operation

The Contractor shall endeavour to ensure that all of the drafting, selling, and holding pens and yards are operational on sale days and that the loading and unloading ramp areas are operational, any loss of pens and yards will be subject to Council agreement and approval prior to sale days. Federation Council will not allow a closure of the saleyards unless specific approval is requested and obtained; approval is subject to endorsement by the Principal.

The Contractor shall undertake all necessary works to ensure that the site is maintained clear and safe for operation of the saleyards throughout the contract and that safety barriers and signage is provided as required.

2.2.3 Site meetings

REQUIRED MEETINGS: Throughout the duration of the Contract, attend meetings with the Superintendent on dates agreed with the Superintendent during the course of the works. As a minimum, the Contractor shall allow for weekly site meetings with the Superintendent.

CONTACTS: At the first meeting submit to the Superintendent the names and telephone numbers of the Contractor's Representative and all responsible persons who may be contacted after hours during the course of the Contract.

2.2.4 Works area

Contract works shall occur within the designated Works Area as shown on the Drawings and shall not adversely affect the use of areas outside of the "Work Site". The Contractor's working area shall be kept in a neat and tidy condition, to the satisfaction of the Superintendent.

2.2.5 Project signboard

Contractor is to allow for $3,500.00 (excl GST) as a provisional item in tender submission for a project information sign board.

Provide project-specific signboards if instructed by the Superintendent:

- Design, information to be displayed and installation location to be directed by Superintendent.
- Maintain in good condition for duration of the work.
- Obtain written permission for removal.
- Remove on completion.

2.2.6 Use of the site

The Contractor shall confine its operations associated with work under the Contract to within the area shown on the Drawings or as determined by the Superintendent ("Works Site").

Should the Contractor require additional land outside the Works Site the Contractor shall, before or at the time of receiving possession of the Site, arrange with the relevant authorities and obtain such permits as required for the additional area of land to be incorporated into the Works Site.

Plant and equipment when left unattended on the Site shall be securely locked to prevent their operation or removal by unauthorised persons. All plant and equipment operated by hydraulic mechanisms must be lowered to the ground or lowered to their normal resting positions when not in use. Materials shall also be secured by the Contractor to prevent their removal by unauthorised persons.

The Contractor shall comply with all site requirements imposed by the relevant authorities or bodies including the Federation Council planning department and other special conditions as outlined within this Specification.

2.2.7 Archaeological and Cultural Areas

It is not known whether the Site contains areas of aboriginal archaeological significance.

The Contractor shall not wilfully deface, damage, otherwise interfere with or do any act likely to endanger an Aboriginal object or Aboriginal place.

Should the Contractor expose or identify any items of significance they are to notify the Superintendent immediately. In this instance the Principal may employ the services of an archaeological consultant to monitor the works and undertake a survey of the Site.

2.2.8 Contractor's area

Within one month of Contract award, the Contractor is to nominate and seek Council approval for part of site required for construction compound, laydown area and for parking of construction plant, equipment and vehicles.

The Principal will make available to the Contractor areas of land nominated by the Superintendent as the Contractor's Area. This area will be available for use by the Contractor during the execution of the work under the Contract.

The Principal will make no charge for the land provided by the Principal for use by the Contractor.

The Contractor shall erect security fencing and lockable gates as required around the Contractor's Area. The Contractor shall be responsible for the security of the Works Site including the Contractor's Area.

The Contractor may erect construction facilities within the Contractor's Area subject to approval by the Superintendent. These construction facilities may include such buildings as are necessary for the purposes of the Contract but shall not include living accommodation.

The design, erection, operation and maintenance of the construction facilities described in paragraphs (c) and (d) above shall be in accordance with the regulations of the appropriate statutory authorities and the Contractor shall ensure that, where necessary, all drawings and specifications prepared in connection with the facilities are endorsed by those authorities before they are submitted to the Superintendent for approval.

Where the Contractor provides its own on-site construction facilities, the Contractor shall keep them in good repair and remove them on completion of the Works.

The Contractor shall ensure that on-site personnel have access to telephone services and can be contacted at all times.

If required the Contractor shall make its' own arrangements for electric power. Details of proposed installation shall meet the relevant Occupational Health and Safety Code of Practice and be approved by the Superintendent prior to implementation.

2.2.9 Sanitary facilities

The Contractor shall supply toilet facilities to the site. The facilities shall be kept in accordance with the requirements of the Health Inspector of Federation Council. If the Superintendent considers that toilet facilities are being kept in an unsanitary condition, the Superintendent may direct the Contractor to comply with health requirements within twenty-four (24) hours written notice to do so.

2.2.10 Other contractors

- The Principal and other contractors may also be carrying out maintenance or other works on the Site
- Other construction contractors will be undertaking works on parts of the Site associated with:
  - Civil works for drainage, roads, hardstands, carparking and other associated work
  - Effluent management system upgrades and truck wash
  - New building works (public administration and training facility) and associated demolition of existing facilities
- The Contractor will be required to address all issues related to these interfaces between respective contracts to the Superintendent

2.2.11 Site deliveries

Deliveries of the Contractor's materials and equipment to the Site shall be made only during the approved hours and days of working. Unless otherwise approved by the Superintendent.

2.2.12 Climatic conditions at the site

The Contractor shall be deemed to have informed itself fully at the time of tendering in regard to the climatic conditions likely to be experienced at the Site, and shall be deemed to have made its own assessment of the effect that such conditions may have on the work under the Contract.

2.2.13 Parking

Parking for all construction related activity on-site is to be contained within the Contractors Compound.

The Contractor is to ensure priority is given for all access, parking and deliveries required for saleyard operation activities.

2.2.14 Cleaning up and site reinstatement

The Contractor shall keep the Site free of litter and rubbish during the progress of the Works. The Contractor shall maintain all public and private roads used during the works free of earth, rock or other materials which may fall from plant. All such material dropped on to public roads shall be promptly removed and the roads cleaned to the satisfaction of the Superintendent and without additional charge.

At the conclusion of the works, the Contractor shall reinstate the Site as directed by the Superintendent. The Contractor shall remove from the Site and all areas utilised by it for the purposes of the Contract, all plant, buildings, rubbish, unused materials, construction facilities, and other materials belonging to it or used under its direction. The Contractor shall leave the Site and such other areas clean and tidy to the satisfaction of the Superintendent.

All areas disturbed by the Contractor at the Site shall be restored to original levels, surfaces and landform.

FINAL CLEANING

General: Before practical completion, clean throughout, including interior and exterior surfaces exposed to view. Clean debris from site, roofs, gutters, downpipes and drainage systems. Remove waste, surplus materials and rubbish.

Samples: Remove non-incorporated samples, prototypes and sample panels.

2.2.15 Damage

The Contractor shall execute and maintain the whole of the works in such a manner that injury or damage shall not be caused to any persons, or any private or public property including all roads used for transport of materials or plant, buildings, fencing, public utility services or other structures.

In the event of damage to any structure, service or property, the party controlling it must be immediately informed of the damage. The Contractor shall, at their own expense, arrange to repair and restore any structure, service or property damaged in any way, to the order and condition in which it was before the damage occurred. The repairs may be made by the party controlling the structure, service or property, and the cost of such repairs shall be at the expense of the Contractor.

The Contractor shall be liable for any loss or damage, which may result from such an injury or interference to any structure, service or property, and for any claim arising from delay in repairing and restoring it.

The Contractor shall be held responsible for any vehicle engaged in the Contract works depositing material or rubbish on road pavements, road reserves or other improvements. The Contractor, at their own expense, shall ensure that all material or rubbish deposited is promptly and effectively removed and the area cleaned off.

2.2.16 Site agreements

The Contractor shall be deemed to have investigated and allowed for in its tender for complying with any existing or new Site industrial agreements. The Contract Sum will not be adjusted for any Site allowances for labour determined for the Site or for other costs associated with the employment of labour arising from compliance by the Contractor with any Site industrial agreement.

2.2.17 Site security

The Contractor shall ensure that Contract works do not impact on the health and safety of Corowa Saleyards site users and that all gates to the site are kept locked outside normal working hours and are kept closed within working hours.

All equipment shall be stored such that it does not present a safety hazard. Plant, equipment and materials on site shall be secured to prevent their operation or removal by unauthorised persons.

2.2.18 Prohibited activities

The Contractor shall not allow rubbish and other materials, including pollutants and waste water, to be deposited in the site or blown from the site. No dumping of any material shall be permitted at the site. Surplus material is to be removed from site by the Contractor as part of the Lump Sum contract works. All rubbish shall be collected, stored in an approved manner and disposed off-site, in accordance with the requirements of the NSW Environment Protection Authority (EPA).

2.3 Site services

2.3.1 Proving of services

Determination of the location of all services and service improvements, both existing and under construction in the works area is to be made by the Contractor before the commencement of works.

2.3.2 Damage to services

The Contractor shall take all precautions necessary to prevent damage to existing power cables fencing, drainage structures, telephone & communication infrastructure, water mains and other services except where otherwise indicated in the specification. Any damage caused by the Contractor shall be repaired by the Contractor at its' own expense to the satisfaction of the Superintendent. Alternatively, the Superintendent may arrange for such damage to be repaired by others and for the costs involved to be deducted from payments due to the Contractor.

The Superintendent and the authorities or persons concerned shall be notified immediately of any damage caused by the Contractor services and service improvement at the works site.

2.3.3 Reinstatement of services

The Contractor shall reinstate all services removed or damaged due to the Contract works being carried out.

2.3.4 Interruption of services

The Contractor shall ensure that existing services are kept available for use as required by all occupants or users of the areas on or adjacent the site. If interruption to any service is unavoidable, at least 48 hours notice of such interruption shall be given to the Superintendent and the necessary work carried out rapidly so that the affected service is restored as soon as possible. The Superintendent reserves the right to direct the Contractor as to suitable timeframes for disconnection.

2.3.5 No claim for loss

No claim for damages or loss will be entertained on account of the operations of any Public Authority.

2.3.6 Water supply

The Contractor may ask the Superintendent for access to the potable water supply and shall pay all costs associated with the connection of or transportation of the water supply to site.

Water from site will be supplied to the contractor at the Water Authorities standard charge rate inclusive of fees and charges.

2.3.7 Electricity supply

- The Contractor shall make its own arrangements for the supply of electric power to the Site for its own use and shall pay all charges for the installation and use of electric power.
- All costs associated with the supply and use of electric power for construction purposes shall be deemed to be included in the Contract Sum.

- All electrical installations carried out by the Contractor shall comply in all respects with AS/NZS 3000, the Code of Practice for Temporary Electrical Installations for Building and Construction Sites and the requirement of the local electricity supply retailer.

2.3.8 Telecommunications

- The Contractor shall make its own arrangements for the provision of its telecommunication requirements

2.4 Protection of people and property

2.4.1 General

2.4.1.1 General site requirements:

- The General site requirement set out below shall apply to all on-site works and the Contractor shall be responsible for ensuring the provisions are fulfilled
- The provisions of the relevant legislation shall apply to all employees working on the work site
- Amenities On site amenities shall comply with the standard of amenities in accordance with the Work Health and Safety Act 2011 and the relevant Codes of Practice issued by SafeWork NSW
- First Aid On-site first aid facilities shall be provided in accordance with the Work Health and Safety Act 2011 and the relevant Codes of Practice issued by SafeWork NSW
- Safety. On-site safety shall be maintained in accordance with the Work Health and Safety Act 2011, other relevant legislation and the best practices within the Industry.
- Hearing Protection. All reasonable measures shall be taken by the contractor to reduce noise. Personal hearing protection devices (complying with Australian Standard AS 1270) must be used in all "Designated Noise Areas"

2.4.1.2 Site drainage:

- Ensure that the roof construction activities on the site do not impede or otherwise interfere with existing site drainage arrangements.

2.4.1.3 Vermin control:

- The site shall be kept clean and suitable provision made for disposal of food scraps, etc. Take all precautions necessary to prevent infestation by vermin and insects.

2.4.1.4 Noise & dust:

- Restrict noise generated during the progress of the works so that it will not be offensive to persons on or adjacent to the site. Machinery shall be located in suitable positions and enclosed with appropriate insulating screens.
- Make every effort to reduce dust to a minimum.

2.4.1.5 Pollution of adjacent areas:

- Take all precautions necessary to prevent the discharge of mud, dust, water, fumes, smoke, rubbish, and other pollutants from the site to any adjacent areas.

2.4.1.6 Site reinstatement:

- Reinstate, to a condition compatible with its original state, all parts of the site or improvements that have been distributed or damaged as a result of the execution of the work.

2.4.1.7 WH&S

Contractor to comply with current WH&S and SafeWork NSW requirements.

Safety

Accidents: Promptly notify the superintendent of the occurrence, of the following:

- Accidents involving death or personal injury.
- Accidents involving loss of time.
- Incidents with accident potential such as equipment failure, slides and cave-ins.

Accident reports: Submit reports of accidents.

- Purpose of submission: Information only.

Protective clothing

Safety helmets: Make available safety helmets for the use of visitors.

- Standards: To AS/NZS 1801, Type 1 – Industrial
- Standards Mark: Required

2.5 Health and safety

2.5.1 Responsibilities for work, health and safety

For the purposes of undertaking the activities required by this contract, the Contractor is comply with and implement the requirement of the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2017.

The Contractor is to submit relevant Work, Health and Safety Documentation to the Superintendent to demonstrate the Contractor's ability and expertise to undertake the works in accordance with Work Health and Safety Regulation 2017

2.5.2 Work, health and safety

The Contractor shall, at all times during the works, take the appropriate precautions for the safety of the public and personnel engaged on the works, and comply with the requirements of the Work Health and Safety Act 2011 and with such directions as the Superintendent may from time to time give to the Contractor. A site-specific safety plan shall be submitted at the tendering stage for the works.

The Contractor shall, as far as practicable, ensure the health and safety of the Contractor's employees, subcontractors and agents and third parties.

In the execution of the work under the Contract, the Contractor shall comply with:

- All applicable Acts, Regulations and other laws
- All applicable local, state and national standards or codes of practice, whichever are the most stringent, unless specified otherwise
- Specific work, health and safety requirements set out in this specification in respect of health and safety

Should the Contractor fail to comply with any requirement of this clause, such failure shall constitute a substantial breach of Contract.

The Contractor shall perform all work under the Contract with due regard and attention to work, health and safety issues which may affect the Contractor, its employees, subcontractors or agents and any third parties.

The Contractor shall:

- Comply with all directions of the Superintendent to rectify, correct, repair or make good any matters relating to work, health and safety
- Upon request by the Superintendent, within two working days produce for inspection its work, health and safety risk management policy, procedures, programs, training records, safety checklists, safety manuals or other records

- Provide accident investigation reports to the Superintendent for all injuries, illness and property damage arising out of or in connection with the work under the Contract
- Provide as far as practicable all necessary safety equipment and training for employees and subcontractors during the execution of the work under the Contract
- Immediately inform the Superintendent of any spill of chemical substance or any unauthorised atmospheric release for which the Contractor is responsible or which arises out of or in connection with the work under the Contract
- Be responsible for cleaning up work areas and leaving the work site clean and safe whenever the Contractor leaves the site and at least on a daily basis

The Contractor shall carry out an appropriate site induction program to ensure that all employees and subcontractors receive appropriate instruction in relation to site health and safety and the Contractor's safety program. Within 10 working days after acceptance of tender or before the Contractor commences to carry out the work under the Contract, whichever is the sooner, the Contractor shall submit to the Superintendent a site induction plan.

Without limiting the generality of the foregoing, the site induction plan shall include:

- Contractor safety policy
- General site safety instructions
- Site amenities
- Details of site safety plan
- Protective clothing and equipment
- Injury and accident procedures
- Evacuation/emergency procedures
- Alcohol and drug policy
- Details of the site safety committee
- Specific work methods
- Documentation which is designed to confirm induction program attendance

The contractor is to maintain a daily site safety checklist using construction industry organisation WH&S checklist proformas. These checklists are to be appended to the contractor's regular site meeting status report.

2.5.3 Risk assessment

- The Contractor shall inspect the Site and analyse the potential risks and hazards that may be encountered during the execution of the work under the Contract
- The potential risks and hazards shall be evaluated by the Contractor and the Contractor shall adopt such methods of executing the work under the Contract that will eliminate the potential risks and hazards or minimise the risks and hazards which could lead to accident, injury or occupational illness
- The evaluation of the potential risks and hazards and the adoption of safe methods of executing the work under the Contract shall be part of the Contractor's Site Health and Safety Plan
- The Contractor, as part of the risk assessment shall take into account the safety of the public

2.5.4 Work method statements

- The Contractor shall submit Work Method Statements for all construction activities to the Superintendent 14 days prior to the commencement of the activity. Work Method Statements shall encompass all quality, safety and environmental issues associated with the activity
- The Works Method Statements submitted in accordance with this Clause shall:
  - Be formulated, set up and implemented by a person experienced in the type of construction activity covered by the Works Method Statement
  - Set out the specific practices, resources and sequence of activities relevant to the work activity

- If the Superintendent considers that the submitted Works Method Statement does not show sufficient details, or is impracticable, or does not conform with the requirements of the Contract, the Superintendent shall notify the Contractor in writing to this effect. The Contractor shall, within 7 days of such notification resubmit the Works Method Statement to the Superintendent ensuring the issues identified have been adequately addressed.
- The Contractor shall not commence any key construction activity until the Superintendent is satisfied that all outstanding issues relating to the Works Method Statement have been adequately addressed.

2.5.5 Job safety analysis

- The Contractor shall submit a Job Safety Analysis with each Work Method Statement. The Job Safety Analysis shall encompass all safety issues associated with the activities defined within the associated Work Method Statement and be submitted to the Superintendent 14 days prior to the commencement of the activity.
- The Job Safety Analysis submitted in accordance with this Clause shall:
  - Be developed and implemented by the person or persons who will be undertaking the activity
  - Consider the risks identified in the Contractor's Site Health and Safety Plan
  - Identify and assess the potential safety risks associated with the activity to be performed
  - Identify the control measures that will be implements to ensure that the activity is conducted safely
- If the Superintendent considers that the submitted Job Safety Analysis does not show sufficient details, or is impracticable, or does not conform with the requirements of the Contract, the Superintendent shall notify the Contractor in writing to this effect. The Contractor shall, within 7 days of such notification resubmit the Job Safety Analysis to the Superintendent ensuring the issues identified have been adequately addressed.
- The Contractor shall not commence any key construction activity until the Superintendent is satisfied that all outstanding issues relating to the Job Safety Analysis have been adequately addressed. If any key construction activity changes during the term of the Contract a new Job Safety Analysis shall be conducted and submitted to the Superintendent for acceptance.

2.5.6 Contractors safety guidelines

Site boundaries

Site boundaries shall be delineated according to circumstances and the nature of work being carried out. Such delineation may include fences, barricades, warning signs and/or lights, locked doors/gates, safety cones, total enclosure of the work site or other agreed methods.

Work areas which are designated as restricted shall display notices in accordance with the applicable Australian Standards for warning signs.

Site security

When the site is left unattended the Contractor shall ensure that:

- All points of entry to the site are locked and any other access prevented
- All cranes, earthmoving machinery and plant are locked to prevent unauthorised use
- Oxy cutting gear and power tools are stored in a locked room or container
- All structures are left in a safe and stable condition
- Any loose demolition material such as roof sheets are firmly secured
- The site has been checked to ensure that no smouldering material remains

Electrical, gas and water services

All electrical, gas, water, sewer, steam and other service lines not required in the demolition and construction process shall be shut off, capped or otherwise controlled, prior to commencement of the work under the Contract. In each case any utility agency which is involved shall be notified in advance and its approval or services, as necessary, shall be obtained.

First aid

Prior to the commencement of the work under the Contract, the Contractor shall make provisions for prompt medical attention in case of serious injury.

The telephone numbers of the hospital, physician, fire brigade or ambulances shall be prominently posted on site. A first aider should be present at the site in accordance with the *First Aid in the Workplace Code of Practice* and a first aid facility and first aid kits complying with that Code shall be available and accessible.

Housekeeping

Temporary electrical leads, hoses or pipes shall be suitably supported and adequately protected in order to prevent injury to pedestrians and damage to vehicles.

Unless otherwise agreed, the Contractor shall be responsible for ensuring the restoration of the site to a condition that is free from risks to health and safety at the completion of the work under the Contract.

The Contractor shall be responsible for cleanliness, order and hygiene on site. All materials required on site shall be stored safely within the site boundaries.

Use of work platforms and lifting equipment

The Contractor shall ensure that:

- Safe work platforms are used where work cannot be performed safely from the ground or from solid construction
- Scaffolding (if required) is based on solid foundations
- Care is taken to prevent damage to scaffolding planks and components from falling debris
- Damaged planks and components are removed and replaced by qualified scaffolders
- Working platforms are kept clear of debris
- Damage to scaffolding from on site vehicles and earthmoving machinery is prevented
- All scaffolding conforms to the relevant Codes of Practice
- All scaffolding work, platforms, powered mobile plant, lifting plant, lift trucks and lifts conform to the current regulations and are the subject of risk assessment and risk control measures pursuant to those Regulations
- So far as is practicable, no load is simultaneously lifted by more than one piece of plant, e.g. dual crane lift
- So far as is practicable, no load be suspended over or travel over any person

Ladders

The Contractor shall:

- Inspect ladders prior to use to ensure that they are in good condition for safe operation
- Use ladders only for works of a minor nature
- Secure all ladders top and bottom
- Ensure that only one person works from a ladder
- Not over reach when using a ladder
- Not carry out any cutting or work involving the use of power tools from a ladder

Fragile roofs

Where not specifically identified as in sound condition, roofs shall:

- Be assumed to be brittle
- Be covered and appropriate precautions adopted to prevent injury

The Contractor shall carry out all work on roofs in accordance with the *Code of Practice – Managing the risk of falls at workplaces.*

Fire protection

The Contractor shall be responsible for fire protection at the site.

Fire prevention shall be taken into consideration when determining work methods and selecting tools and equipment for use at the site.

Fire alarms, fixed installations and ancillary equipment such as pumps and water supplies shall not be shut down or altered without the appropriate authorisation.

Electrical safety

All electrical power tools, leads, site lighting and power supply shall be operated or connected in accordance with the relevant Codes of Practise and regulations.

Personal protection equipment

Personal protection equipment appropriate for the hazards associated with the work being carried out by the Contractor and subcontractor shall be provided by the Contractor. The personal protection equipment shall comply with statutory or Australian Standard specifications.

The Contractor is responsible for ensuring that the personal protection equipment provided to employees is used where required.

The Contractor shall provide suitable storage facilities for personal protection equipment.

Excavation and trenching

Any excavation and trenching work shall be carried out in accordance with the provisions of the *Code of Practice – Excavation Work.*

Containers that have held combustibles

Welding and cutting work on containers that have held combustible solids, liquids, gases or dust shall be rigorously cleaned by the Contractor to ensure that the containers are free of such material.

Contractor's vehicles

Contractor's vehicles shall not obstruct roads, driveways, escape routes from buildings or fire protection equipment and all speed limits must be defined, clearly displayed and observed.

Confined spaces

When work is to be performed inside a container, vessel or other confined space, work shall be carried out in accordance with all applicable Codes of Practice and Australian Standards.

2.5.7 Care of the work and reinstatement of damage

General

Damage to services: Do not obstruct or damage roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Determine the location of such services. Rectify immediately any obstruction or damage to such services and provide temporary services whilst repairs are carried out.

Damage to property: Do not interfere with or damage property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees. Rectify immediately any interference or damage to such property.

Existing services

General: Attend to existing services as follows:

- If the service is to be continued, repair, divert or relocate as required. If such a service crosses the line of a required trench, or will lose support when the trench is excavated, provide permanent support for the existing service.
- If the service is to be abandoned, cut and seal or disconnect, and make safe.

Proposals: Submit proposals for action to be taken with respect to existing services before starting this work. Minimise the number and duration of interruptions.

Purpose of submission: For review.

Adjoining property

Notice: At least 14 days before commencing work, submit to owners and occupants of adjoining property written notice of intention to commence work and an outline description of the type and extent of work.

Conditions for work on adjoining property: Not applicable.

2.6 Construction environmental management plan

2.6.1 General

The Contractor is responsible for preparing a Construction Environmental Management Plan (CEMP) to the satisfaction of the Superintendent.

The CEMP is to be submitted to the Superintendent a minimum of seven (7) working days prior to commencement of works. The Superintendent shall review and respond to the CEMP within seven (7) working days. Should any aspects of the CEMP be found to not be satisfactory the Contractor shall amend and resubmit the CEMP to the Superintendent and allow a further seven (7) working days for review.

Where additional information is required or sought by the Superintendent or other authority as may be required during the course of construction, the Contractor shall provide construction details and associated Construction Environmental Management Plan to the satisfaction of the Superintendent or relevant authority.

The Contractor shall make allowance for site geotechnical and environmental conditions. Refer to Section 3, Specific Contractor Requirements.

2.6.2 Environmental management plan system

The Contractor shall plan, establish, implement and maintain an environmental management system for the duration of the works.

The Contractor shall provide an EMP system covering all aspects of the of the works, for approval by the Superintendent within 2 weeks of the Letter of Acceptance of tender being issued or as otherwise directed.

Works shall not commence on site until the EMP has been submitted and approved. The EMP is to demonstrate that the Contractor will implement appropriate ongoing environmental audits and protection measures throughout the course of the project to ensure full compliance with the CEMP.

2.6.3 Reporting of Environmental Incidents

In the event of a spill of any environmentally hazardous material to a water-course or stormwater drain the Contractor shall immediately implement pollution control measures, contact the Principal and notify the Superintendent.

The Contractor shall provide to the Superintendent a monthly report of all environmental incidents or non-conformances with the Contractor Construction Environmental Management Plan together with a statement detailing preventative actions taken by the Contractor to prevent re-occurrence of those incidents or non-conformances.

2.6.4 Fire precautions

During the execution of the Contract, the Contractor shall take all necessary measures to prevent fire and damage by fire to the vegetation, in and around the surrounding area of the Works, arising from their operations. The Contractor shall provide, operate and maintain adequate fire fighting equipment for the protection of the Works and their plant and equipment.

2.6.5 Control of Noise

The operation of all plant and construction equipment shall be such that it does not cause undue noise, and that it minimises atmospheric pollution. This may require the use of sound insulated compressors and air tools or such

other measures as approved by the Superintendent. In all regards the Contractor shall comply with the requirements of the SafeWork NSW Codes of Practice relating to Noise.

2.7 Contractor traffic management plan

2.7.1 Submission of traffic management plan

The Contractor shall submit at least fourteen (14) days prior to commencement a Construction Traffic Management Plan (CTMP) for approval or rejection by the Superintendent, The Superintendent is to approve in writing the CTMP prior to commencement of works.

2.7.2 Storage of plant

When not in use, the Contractor shall be responsible for the safe storage of plant and equipment clear of the travelled path. Wherever possible, plant and equipment shall be stored not less than 3 metres from the edge of the traffic path. If it is not possible to provide such a clearance, the plant and equipment shall be moved from the works area to a suitable storage site or to be protected by suitable signs, lights and devices.

2.7.3 Care of areas used by traffic

Both during and at the end of each days works, the Contractor shall be responsible for ensuring that the pavement being used by traffic within the works area and all other areas within the works zone where the contractor has undertaken work are in a safe and trafficable condition.

Any material which has fallen on any travelled path as a result of the Contractor's transporting or other operations and any material stored near the travelled path which could constitute a hazard to traffic shall be removed by contractor immediately.

2.7.4 Operations affecting traffic

General

Unless otherwise specified, the Contractor shall so conduct the operations to minimise obstruction and inconvenience to the public, and shall not have under construction any greater length or amount of work than can be managed properly with due regard to the convenience of the public.

If the intermingling of construction machinery with traffic is unavoidable, the intermingling shall be minimised at all times.

Earthworks

Unless otherwise approved by the Superintendent, earthworks shall proceed only in areas clear of travelled paths and footpaths.

2.8 Contractor's construction program

The Contactor is to allow for a workshop at project commencement within one (1) week of award of the Contract.

The Contractor's program is to include the proposed construction sequence including the following at a minimum:

- Design
- Procurement
- Fabrication
- Construction and construction staging of:
  - Foundations
  - Columns installation

- Truss installation
- Installation of services – lighting and power
- Roofing installation
- These items are subject to the Contractor's design methodology

– Roof access system
– Solar PV system

The Contractor shall submit one copy of a construction program to the Superintendent within fourteen (14) days of the Date of Acceptance of Tender. The construction program and any subsequent amendments shall set out in detail the proposed order of works, and the planned dates for completion of the various parts of the works, which must comply with the Date for Practical Completion.

If the Superintendent considers that the Contractor's submitted construction program does not show sufficient detail, or is impracticable or does not conform with the requirements of the Contract, the Contractor may be directed to amend the program to the satisfaction of the Superintendent within seven (7) days of a written notice to do so.

Following the commencement of the construction program, construction work can take place seven (7) days per week, subject to the requirements set out in section 2.2.1 of the specification. Prior to the commencement of works, the intended work hours\days are to be approved by the Superintendent. The construction program should be in an electronic format, such as Microsoft Project or approved equivalent, and as a hard copy. Include in the program in diagrammatic or other time schedule form the following:

– Sequence of work
– Critical paths of activities related to the work
– Allowance for holidays
– Activity inter-relationships
– External dependencies including provision of access, document approvals and work by others
– Periods within which various stages or parts of the work are to be executed

REVISIONS: Revise the construction program as required by the progress of the work. Submit revisions with each progress claim. Identify changes since the previous version, and show the estimated percentage of completion for each item of work.

2.9 Contractor's drawings/as-constructed drawings

2.9.1 Fabrication and working drawings

The Contractor shall, at least two weeks prior to commencing work, submit any Fabrication and Working Drawings to the Superintendent. The Superintendent shall advise the Contractor in writing of acceptance or rejection of such Drawings. Construction of the works shall not commence prior to acceptance of such Contractor's Working Drawings by the Superintendent.

2.9.2 As-constructed drawings

– Should the 'As-constructed' works vary from the tender documentation, the Contractor shall supply 'As-constructed' drawing for all works to the Superintendent for acceptance
– The 'As-constructed' drawing shall be in the form of digital and paper form covering the entire works area
– The 'As-constructed' drawings shall include clearly show all amendments to the Drawings
– The Certificate of Practical Completion will not be issued until the Superintendent receives copy of each of the 'As Constructed' drawings if the construction varies from the Drawings

2.9.3 Record of services

Throughout the current of the Contract, the Contractor shall employ a competent person to keep and maintain one set of drawings exclusively for the accurate recording of existing services found and new services constructed including positions and routes of all services, piping, conduits etc. Drawings are to show co-ordinates or distances from fixed points and levels.

The Certificate of Practical Completion will not be issued until the Superintendent receives copy of each of the 'As Constructed' services drawings.

2.10 Guarantees

The Contractor shall obtain and shall ensure that the Principal shall have the benefit of, warranties or guarantees as specified in the Contract, including warranties or guarantees as specified in the Contract, including warranties or guarantees that are obtained by the Sub-contractors of the Contractor.

Unless otherwise specified or agreed, warranties or guarantees specified in the Contractor shall name the Principal as warranted and shall be furnished by the Warrantor direct to the Principal.

2.11 Proprietary items

A proprietary item shall be any item specified by naming one or more of the following: manufacture, supplier, installer, trade name, catalogue or reference number, and the like.

The specification of a proprietary item shall not necessarily indicate exclusive preference for the item so identified, but shall be deemed to indicate the required properties of the item, such as type, quality, appearance, finish, method of construction, performance and the like.

A similar alternative item having the required properties may be presented for approval. The Superintendent may at their absolute discretion adopt or reject the alternative. No claim shall arise from any rejection.

Unless otherwise agreed, rejection or approval shall not be grounds for any claim for variation to cost or time. When offering an alternative for approval, the Contractor shall provide all available technical information, and any other relevant information requested by the Superintendent. If so requested the Contractor shall, obtain submit reports on relevant tests by an independent testing authority.

The Contractor shall state whether the use of the alternative will require alteration to another part of the Works. If the alternative is adopted the Contractor shall, carry out any such alteration without extra charge.

2.12 Setting out

2.12.1 Set out

The Contractor shall be solely responsible for the correct setting out of the works and, if the works require it, shall employ an experienced and registered surveyor acceptable to the Superintendent. The Contractor shall furnish all materials, labour and equipment including stakes, templates, patterns, platforms and special labour that may be required by the Contractor in setting out any part of the Works.

Surveys

Refer to the requirements of AS 4300-1992, Clause 28.

2.12.2 Accuracy

The Contractor shall accept full responsibility for the accuracy of the work and shall rectify immediately and deviation from the location levels, grades, profiles, or cross-sections shown upon receipt of notification from the Superintendent or the Superintendents representative that any particular amendment is required.

2.12.3 Survey marks and levels

The Contractor should avoid disturbing survey and/or bench marks wherever possible. The Contractor is to replace any disturbed survey marks and is to notify the Superintendent of the survey or bench marks requiring reinstating.

2.13 Supervision of works

2.13.1 Rejection of work

Notwithstanding anything to the contrary in this Specification and/or the General, Supplementary or Special Conditions of Contract, the Superintendent or is representatives may at any time prior to the completion of the works, reject any work or material which in their opinion is not in accordance with the plans and specifications, and may direct its replacement or correction. All such removals, replacements and correction shall be at the Contractors expense.

2.13.2 Approval prior to proceeding

Any works undertaken by the Contractor without supervision by the Superintendent or their representative shall be removed and replaced by the Contractor at their own expense.

Notwithstanding the above, the Superintendent may, if it I deemed expedient, give consent for those works to be carried out outside the above mentioned hours.

2.14 Quality

2.14.1 Quality systems

As a minimum the Contractor shall plan, develop and maintain a documented quality plan in accordance with this Specification and which consistent with an industry applicable Australian Standard for Quality Systems and is acceptable to the Superintendent. The Quality Plan shall cover all work under the Contract.

2.14.2 Quality plan

The contractor shall manage and control the quality of work under the Contract in accordance with Quality Plan.

- A policy statement for quality applicable to the Contract
- Management responsibilities specific to the Contract
- An outline of procedures for the relevant quality system elements applicable to the Contract
- Organisational responsibilities for quality
- Procedures for control of inspection and testing, control of non conformance, corrective action and control of others

2.14.3 Certification

If the Contractors Quality Plan is accredited to the requirements of an Australian Standard or gains such certification during the Contract a controlled copy of the Plan shall be provided to the Superintendent.

2.14.4 Surveillance and audit

The Superintendent will arrange surveillance and audits to ensure that the Contractor is complying with the Quality Plan.

The Contractor shall upon being given reasonable notice by the Superintendent make or arrange to be available all facilities, documentation, records and personnel, including those of any subcontractors, that are reasonably required for audits to be undertaken.

2.15 Property clearances

2.15.1 Permission to use property

Unless designated otherwise within this Contract Documentation, the Contractor shall be wholly responsible for gaining permission from the principal, various Statutory Authorities and Government Departments or private property owners to use property controlled by or belonging to these bodies or people for any cause whatsoever during the execution of the works.

2.15.2 Clearances

Before final payment will be made, the Contractor shall produce written clearances from all landowners whose properties have been trespassed

2.16 Progress of works

2.16.1 Rate of delivery

The Contract shall engage sufficient employees, plant, tools and material to maintain a rate of progress or delivery that is to the satisfaction of the Superintendent and clearly indicates that works will be completed within the Contract Timeframes.

2.16.2 Failure to provide

If, in the opinion of the Superintendent, the Contractor fails to meet the above requirement, then the Principal may withhold all progress payments wholly or in part until the Superintendent's requirements have been complied with.

2.17 Defects liability period

2.17.1 Defects liability period

The Defects Liability Period shall be as outlined in the General Conditions of Contract. The Contractor shall maintain the materials and/or work of this Contract during the progress of the Contract and the defects liability period.

The Principal shall have the right to take over and/or make such use of completed or incomplete work as it may think fit and such use will not relieve the Contractor of the obligation to maintain the work until the end of the defects liability period.

2.17.2 Failure to repair

If the Contractor fails to make satisfactory repairs or reinstatement arising from defective materials and/or workmanship in the Contract, when required or otherwise defaults during the defect liability period, the Principal reserves the right to carry out any necessary maintenance works, materials and/or repairs will be carried out by the Principal at the Contractors expense including any professional supervision and travelling expenses.

2.18 Operation and maintenance manuals

Maintenance Manuals

All documents supplied by or available from Manufacturers of items used in the Works relating to warranty, technical specification, performance and maintenance requirements shall be obtained by the Contractor and forwarded to the Superintendent prior to Practical Completion of the works.

General

General: Submit operation and maintenance manuals for installations.

Format: Digital submission and A4 size loose leaf, in commercial quality, 2 ring binders with hard covers, each indexed, divided and titled. Include the following features:

- Cover: Identify each binder with typed or printed title "*OPERATION AND MAINTENANCE MANUAL*", to spine. Identify title of project, volume number, volume subject matter, and date of issue.
- Text: Manufacturers' printed data, including associated diagrams, or typewritten, single-sided on bond paper, in clear concise English.
- Dividers: Durable divider for each separate element, with typed description of system and major equipment components. Clearly print short titles under laminated plastic tabs.
- Drawings: Fold drawings to A4 size and accommodate them in the binders so that they may be unfolded without being detached from the rings. Provide with reinforced punched binder tabs.

Contents – general: Include the following:

- Drawings and technical data: As necessary for the efficient operation and maintenance of the installation.
- Table of contents: For each volume. Title to match cover.
- Directory: Names, addresses, and telephone numbers and email addresses of principal consultant, sub consultants, contractor, subcontractors and names of responsible parties.
- Equipment descriptions:
  - Name, address and telephone numbers and email addresses of the manufacturer and supplier of items of equipment installed, together with catalogue list numbers.
  - Schedules (system by system) of equipment, stating locations, duties, performance figures and dates of manufacture. Provide a unique code number cross-referenced to the record and diagrammatic drawings and schedules, including spare parts schedule, for each item of equipment installed.
- Operation procedures:
  - Manufacturers' technical literature as appropriate.
- Maintenance procedures:
  - Manufacturer's technical literature as appropriate. Register with manufacturer as necessary. Retain copies delivered with equipment.
  - Detailed recommendations for preventative maintenance frequency and procedures.
  - Safe trouble-shooting, disassembly, repair and reassembly, cleaning, alignment and adjustment, balancing and checking procedures. Provide logical step-by-step sequence of instructions for each procedure.
  - Schedule of spares recommended to be held on site, being those items subject to wear or deterioration and which may involve the principal in extended deliveries when replacements are required. Include complete nomenclature and model numbers, and local sources of supply.
- Certificates:
  - Copies of manufacturers' warranties.
  - Certificates from authorities.
  - Product certification.
- Drawings:
  - Work as executed drawings, full size.

3. Demolition works

3.1 Scope of works

The scope of works includes the following:

- Demolition of existing low level roof structures over drafting pens, including removal of cladding, roof purlins, roof beams and cutting columns back at the top rail level and providing new galvanised cap plate to the top of the cut column where tied into existing yarding and ground level and capped or filled at ground level
- Demolition of redundant light poles and footings
- Demolition of concrete work or other ancillary demolition works that may be required to facilitate the new construction works
- Removal of all trees within the proposed new roof extent

3.2 Standards and permits

STANDARD: Undertake demolition work to AS 2601. Take precautions necessary for protection of persons and property. Prevent damage to concrete or reinforcement to remain when cutting and removing.

PERMITS: Obtain necessary permits and approvals from relevant authorities before commencing work on site. Do not commence demolition work before a demolition permit/scaffold permit is obtained.

3.3 Demolition method statement

METHOD STATEMENT: Submit three copies of the proposed demolition method statement at least 14 days prior to demolition work. Do not proceed with demolition until written approval is issued. The method statement shall include:

- The requirements of AS 2601 Section 2 Planning and Execution.
- The proposed sequence of works.
- The method of and times for disconnection, deviation and reconnection of services.
- Details of protection and support of adjacent property.
- Proposals for the safe use of mobile plant on suspended structural members including
- Details of wheel loads of tipping or loading vehicles.

METHODS: Use demolition methods that minimise interference with occupants and their activities, and that protect those occupants and activities from hazards including from noise, noxious effects of dust, fumes, liquids, gases, infection, fire, explosion or radiation.

EXPLOSIVES: Do not use explosives.

3.4 Hazardous materials

NOTIFICATION: Advise the Principal's Representative immediately if hazardous materials are found on site including asbestos, flammable or explosive liquids or gases, toxic, infected or contaminated materials, radiation or radioactive materials, noxious or explosive chemicals, tanks or other containers that have been used for storage of hazardous materials.

AUDIT: Prepare a Hazardous substances management plan to AS 2601 clause 1.6 Hazardous substances. Include the following:

- Asbestos or material containing asbestos
- Flammable or explosive liquids or gases
- Toxic, infective or contaminated materials
- Radiation or radioactive materials

– Noxious or explosive chemicals

REGISTER: Review the Hazardous materials register where Hazardous materials have been identified as present on site and a Hazardous materials register has been prepared.

REMOVAL: Standard: To AS 2601 clause 1.6.2.

3.5 Execution

TEMPORARY SUPPORT: If temporary support is required, certification for its design and installation is required from a professional engineer engaged by the Sub-Contractor.

GROUND SUPPORT: Support excavations for demolition of underground structures.

ADJACENT STRUCTURES: Provide supports to adjacent structures where necessary, sufficient to prevent damage resulting from the works.

EXISTING FOOTING: Do not undermine existing footings.

LATERAL SUPPORTS: Provide lateral support equal to that given by the structure to be demolished.

VERTICAL SUPPORTS: Provide vertical support equal to that given by the structure to be demolished.

PERMANENT SUPPORTS: If permanent supports for adjacent structures are necessary and are not documented, give notice and obtain instructions.

PROTECTION: Prevent the encroachment of demolished materials onto adjoining property, including public places.

EXISTING SERVICES: Do not excavate by machine within one metre of existing underground services.

LOCATION: DIAL 1100 BEFORE YOU DIG is a free service, from anywhere in Australia, of identifying underground pipes and cables (possible within two working days). See www.1100.com.au.

RECOVERED ITEMS: Recover all components associated with the listed items that are essential for their re-use. Minimise damage during removal. Associated components should include those that are essential for the reuse of the salvaged item like proprietary brackets, and matching connections for services items.

CONCRETE SLABS: Using a diamond saw, neatly cut back or trim to new alignment with a clean true face existing concrete slabs to be partially demolished or penetrated.

REMAINING VOIDS: Stabilise and provide barriers.

3.6 Off site disposal

REQUIREMENT: Remove from site all demolished materials not required in the final works.

DISPOSAL LOCATION: Submit the locations and evidence of compliance with the relevant authorities for the disposal of material required to be removed from the site.

3.7 Completion

NOTICE: Give at least 7 working days' notice of completion of demolition so that adjacent structures may be inspected following completion of demolition.

MAKING GOOD: Make good any damage arising out of demolition work. Obtain written acceptance from the owner of each adjoining property of completeness and standard of making good.

TEMPORARY SUPPORT: Clear away at completion of demolition.

4. Roof structure

4.1 Section content

SCOPE OF THIS SECTION: The design, fabrication, erection, connections (welding/bolting), grouting, and galvanising.

The steelwork requirements in this section are applicable to the roof and other steelwork associated with the structure.

4.2 General requirements

METHOD: Fabricate and erect the roof structure in a safe manner, without interfering with or damaging adjacent structures, using methods complying with the requirements of AS 4100, AS/NZS 4600, AS/NZS 1554 and AS/NZS 5131 for materials, construction, fabrication and erection.

4.3 Inspection

NOTICE: Give sufficient notice so that inspection may be made by the Superintendent at the following stages:

- Testing of welding procedures and welder qualification tests
- Commencement of fabrication
- Completion of erection
- Surface preparation prior to any onsite painting
- Prior to proposed modification of existing pens/fencing/barriers/gates required to accommodate excavations for installation of footings and installation of columns to support roof structure

Minimum notice required: 48 hours.

4.4 Identification

MARKS: Provide suitable and sufficient marks or other means for identifying each member, and for the correct setting out, location, erection and connection of the steelwork. Mark bolted connections to show the bolting category.

4.5 Contractor's documents

SHOP DRAWINGS: Supply shop drawings to the Superintendent of the structural steelwork prepared in accordance with AS 1100 and AS 1101.3, showing the relevant details of each assembly, component and connection, together with information relative to fabrication, surface treatment and erection, including the following:

- Identification
- Steel type and grade
- Dimensions of items
- Fabrication methods including, where applicable, hot or cold forming and post weld heat treatment
- Location, type and size of welds or bolts
- Weld categories and bolting categories
- Orientation of members
- Location of temporary connections
- Surface preparation methods and coating system
- Procedures necessary for shop and site assembly, including trial/prototype assemblies for modifications to pens/gates required to accommodate columns
- Lifting and support points for handling and transport

- Temporary bracing, if required for handling and transport
- Required fixings for adjoining building elements
- Procedures for erection including temporary bracing

Number of copies: For each drawing, supply not less than one (1) hard copy and one (1) soft copy.

4.6 Roof dimensional requirements and columns

The following minimum roof requirements shall be met.

PLAN SIZE: 27,000 square metres (maximum)

HEIGHT: 5 metres clear height from floor to underside of roof purlins, minimum 2.7 metres of headroom to all existing platforms

COLUMNS: Columns shall ideally be CHS (circular hollow steel sections) or SHS (square hollow steel sections). However, where other mild steel hot rolled section are proposed, railing shall be placed to the perimeter. Cold formed rolled sections for use in column and roof beam elements will not be approved.

MINIMUM THICKNESS: Minimum thickness for column, beam and bracing sections (wall thickness, flange thickness, web thickness, or otherwise) shall be 5mm. Cold rolled roof purlins and girts (if any) are excluded from this requirement.

COLUMN LOCATIONS: Column locations to be a spaced to minimise columns numbers while achieving construction program and minimising impact on saleyards. Column gird is to be generally in accordance with the provided concept drawings in a 10 by 30 metre grid in each direction and finalised column locations are subject to Superintendent approval. In general, support columns are to be in located along lines of barriers so pens and lane ways remain unobstructed, or alternatively, within corners of pens or directly alongside barriers with protection rails around the new columns installed. Changes to locations of columns and/or column spacings are subject to Superintendent approval.

Column location should take into consideration line of sight from the elevated auctioneer walkways to the buyer lanes and avoid blocking this line of sight.

Gutter systems for roof drainage are not to be placed over auctioneer walkways to reduce the risk of rainwater overflow onto the auctioneer walkways.

Figures 1 to 3 below outline potentially suitable column locations, subject to the Superintendent's approval.

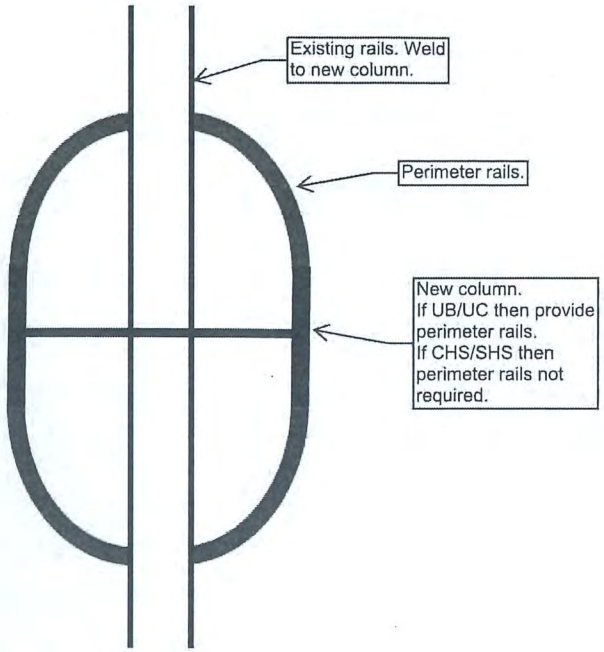


Figure 1 ***Column located within barrier line with protection rails around – cut and reweld existing rails to new column. Install protection rails if UB/UC column section adopted. No protection required if CHS/SHS section.***

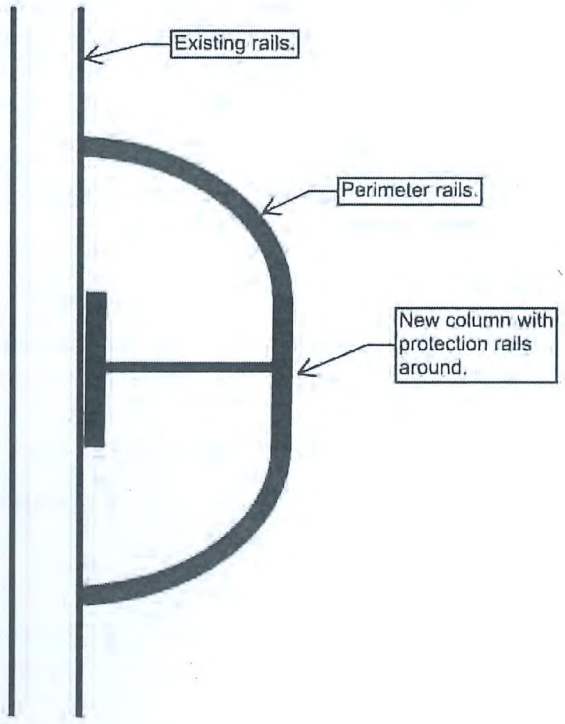


Figure 2 ***Column located alongside barrier with protection rails. Provide protection rails to perimeter.***

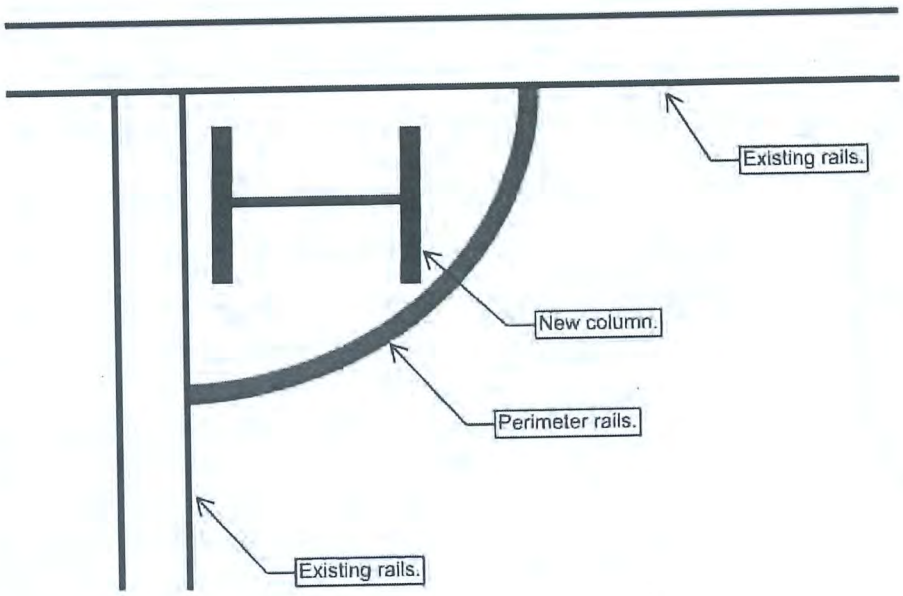


Figure 3 ***Column located to corner of pen. Provide protection rails around.***

COLUMN FOOTINGS: Reinforced concrete bored piers (unless approved otherwise)

PLINTH FOR COLUMNS SUPPORTING ROOF STRUCTURE: Plinths and hold down bolts for any columns supporting the roof structure must not protrude above the floor level. Allowance shall be made in the foundation design to cater for the column loads through means other than upstand plinths. A clean and level finished floor level is to be maintained unless approved otherwise by the Superintendent.

4.7 Roof access safety system

4.7.1 Aims

SAFE ACCESS: Provision of safe access points and safety system to the roof shall be made in accordance with the SafeWork NSW guidelines and relevant Australian Standards including AS/NZS 1891. This shall include a fall protection system where warranted. The safety system shall be developed in collaboration with the Contact Administrator.

4.7.2 Design of roof access by contractor

GENERAL:

Designer: Nominated by the Contractor.

REQUIREMENTS:

Responsibility: Contractor.

PERFORMANCE REQUIREMENTS: To AS/NZS 1891.2 Section 4 System acceptance criteria

4.7.3 Submissions for roof access system

DESIGN DOCUMENTATION: Submit design documentation Shop Drawings noting the following:

- Evidence of compliance with the relevant SafeWork NSW requirements
- Certification from a professional engineer to confirm the proposed structural assembly will be stable and safe.
- Roof plan and layout of all elements of the system.

PRODUCT DATA SHEETS:

Installation: Submit the manufacturer's Installation Data Sheets/Specification Manual.

4.7.4 Execution of roof access system

STANDARD:

Installation: To AS/NZS 1891.2.

CONTRACTOR:

Installer: Registered Installer approved by the manufacturer.

4.7.5 Maintenance of roof access system

GENERAL:

Check list for all inspections: To AS/NZS 1891.4 Table 9.1.

The installer/competent person; To AS/NZS 1891.2 clause 1.3.1.

COMPLETION CERTIFICATE:

- Provide inspection, testing and certification by the registered installer:
  - Upon completion of the installation; and
  - Upon the expiry of the defects liability period or 12 months after completion of the installation whichever is the lesser, and valid for a further 12 months period.
- Note the date of the next test and period of validity and display the certificate at the access points of the system.

INSPECTION AFTER A FALL OR OTHER EVENT:

Standard: To AS/NZS 1891.4 clause 9.4.

PROOF TESTING OF DRILLED-IN ANCHORAGES:

Standard: To AS/NZS 1891.4 clause 3.1.2(g).

ON-GOING MAINTENANCE:

Certificate: Submit the completion certificates and notify the proprietor of the requirement for continued interval testing.

4.8 Steelwork protective coating

REQUIREMENT: All steelwork shall be coated in accordance with the section "Protective coatings" section.

4.9 Scaffolding

PROVIDE: Supply all scaffolding and/or walkways required for the works on the roof structure. Scaffolds and walkways shall comply with the requirement of applicable Specifications, Codes and Regulations including AS/NZS 1576 and AS/NZS 4576. Obtain a Scaffolding Permit if required from the relevant Authority and pay any dues before construction commences.

4.10 Protection of structure against wind

PROTECT: During erection adequately protect the tank and roof components against damage or displacement by high winds and keep them firmly secured.

4.11 Erection of roof structure

REQUIREMENT: The roof-supporting columns (where applicable) and framework shall be erected and accurately located in the positions shown on the Contractor's Drawings. Care shall be taken to ensure that the column heights are correct and that the beams forming the main roof framework are temporarily braced and held in position until after the erection and fixing of all purlins.

All structural steelwork shall be hot dip galvanised prior to transport to site.

Galvanised and coated roof members shall be handled in such a way as to avoid damage to the galvanising or coatings and shall be touched up on site by the Contractor if any damage occurs to the galvanising or coatings.

4.12 Steel type and grade

GENERAL: All steelwork shall strictly meet with Australian Standards and have accredited certification of such. Use of steelwork that is not proven and certified to comply with Australian Standards will not be entertained.

STANDARDS: Materials generally: To AS 4100 Section 2, unless otherwise specified.

Cold formed sections: To AS 4600 Section 1.5.

STEEL GRADE: If the grade of steel is not shown on the drawings, comply with the Steel Grade Schedule presented below unless otherwise specified.

STEEL GRADE SCHEDULE

Table 2 Steel grade schedule

Type of steel	Grade
Universal beams and columns, parallel flange channels, large angles to AS/NZS 3679	300 or BHP 300 PLUS or approved equivalent
Other hot rolled structural bars and sections to AS/NZS 3679.1	300 or BHP 300 PLUS
Hot rolled plates, floor plates and slabs to AS/NZS 3678	300
Rectangular and square hollow sections to AS/NZS 1163	C350 or C450
Circular hollow sections to AS/NZS 1163: – Circular sections less than 265 mm outside diameter – Sections other than the above	 C250 C350
Purlins to AS 1397	G450
Welded beams and columns sections to AS 3679.2	300
Hot-rolled plate, sheet and strip to AS/NZS 1594	300
Cold-rolled sheet and strip to AS/NZS 1595	
Hot-dipped zinc-coated to HDG900 AS/NZS 2312.2 Clause 5	
Hot-dipped zinc-coated or aluminium/zinc-coated sheet and strip to AS 1397	

4.13 Structural steel fabrication

STANDARD: To AS 4100 Section 14 and AS/NZS 4600

SPLICING: Provide structural members in single lengths unless otherwise required or approved.

AVAILABILITY: If steel members are not available in the section, grade or length specified, obtain approval before substituting other sections or grades.

SITE WORK: Other than work shown on the shop drawings as site work do not fabricate structural steel on site without prior approval.

4.14 Structural steel welding

WELDING PROCEDURES: Before commencing fabrication submit details of proposed welding procedures, using the form in Appendix E of AS 1554.1.

APPROVAL: Do not commence fabrication until welding procedures have been certified and a copy has been sighted by the Superintendent.

SITE WELDS: Other than site welds, if any, shown on the shop drawings, do not weld on site without prior approval. Wherever possible locate site welds in positions for down hand welding.

NON DESTRUCTIVE EXAMINATION: Have any examination referred to in Clause 7.4 performed by an independent testing authority and furnish the authority's report.

REPAIRS: After repairing a faulty weld revealed by non-destructive examination repeat the examination and furnish the testing authority's report.

4.15 Structural steel bolting

CONNECTION BOLTS: If the connection bolts are not shown on the drawings, use hot-dipped galvanised high strength bolts, nuts and washers to AS 1252 and bolting category 8.8/S.

4.16 Structural steel erection

STANDARD: To AS 4100 Section 15, AS/NZS 4600 and AS/NZS 5131

TEMPORARY CONNECTIONS: Do not attach cleats without prior approval except as shown on shop drawings. Remove temporary connections on completion and restore the surface.

MOVEMENTS: Provide for thermal movements during erection.

ANCHOR BOLTS: For each group of anchor bolts provide a template with setting out lines clearly marked for positioning the bolts when casting in.

HAND FLAME CUTTING: Do not hand flame cut bolt holes without prior approval.

GROUTING AT SUPPORTS: Do not grout if the temperature of the base plate or the footing surface exceeds 38°C.

4.17 Materials, workmanship and testing

Workmanship and materials to comply with requirements of Australian standards, National Construction Code (NCC) and by-laws and ordinances of relevant building authorities. All standards referred to are those current (as amended) at commencement of contract.

MATERIALS: All materials to be supplied under this Contract shall be new and of the best quality and shall comply with the current Australian Standards.

- Show plate/member lengths, widths and arrangements on the Contractor's drawings.
- Structural steel plates and sections shall comply with AS/NZS 3678 and AS/NZS 3679.
- Use prequalified weld procedures to AS/NZS 1554.1 Clause 4.3 or develop qualification of weld procedures by testing to AS/NZS 1554.1 Clause 4.2.
- If necessary, the Superintendent may require the Contractor to produce test specimens and test pieces of electrodes for testing as set out in AS/NZS 3678 and AS/NZS 3679.

WORKMANSHIP:

- The welds will be tested in accordance with the requirements of AS/NZS 1554, Structural Steel Welding Code Part 1 - Welding of Steel Structures, (Weld Category SP). The Superintendent shall have the power to insist on the removal, from the work, of any welder whose work is not, in the Superintendent's opinion, of the required standard.

- Provide plate of appropriate quality and thickness for the purpose of making weld test plates and arrange for, and bear the cost of, testing the test pieces.
- Such welding tests may be ordered by the Superintendent at any stage during the construction of the roof structure if it is thought that the work performed by a welder is not up to the required standard.

TESTING:

- Inspection, testing and correction to AS/NZS 5131. Prepare inspection and test (ITP) plans for materials and components, preparation and assembly, welding, mechanical fastening, surface treatment, protective coatings, galvanising and erection

4.18 Roof purlins and cladding general requirements

GENERAL REQUIREMENTS: Roof to consist of Lysaght (or approved equivalent) roof decking connected to cold form steel Z profile purlins and hot dip galvanised mild steel rafters, beams and columns and painted in accordance with the "Protective coatings" section (where painting is specified).

INSPECTION: Give sufficient notice so that inspection may be made of roof supports.

FABRICATION: When fabricating individual members, due allowance to be made for dimensional changes during welding and galvanising, so that the completed work is free from distortions and true to dimensions.

Cut edges shall be sawn or machine flame cut. All steel members to be orientated and located in a way that water due to condensation can run off the member. All tubes and other elements to be either sealed, or alternatively, provided with drainage holes at low points to prevent ponding.

METAL SEPARATION: Prevent direct contact between incompatible metals, and between aluminium or coated steel, by either:

- Applying an anti-corrosion, low moisture transmission coating to contact surfaces; or
- Inserting a separation layer of 1 mm thick neoprene rubber having a Durometer hardness of 55-60 shore. Overlap the edges of the contact layer by at least 10 mm, and where necessary hold the rubber in position with suitable adhesive.

CLEAN UP: Clean up drill turnings daily or more frequently as required by the Superintendent.

4.19 Roof cladding and purlins

FASTENERS: Self-drilling screws: To AS 3566.1, corrosion resistance Class 3.

FINISH: Pre-finish exposed fasteners with an oven baked polymer coating to match the roofing material, or provide matching purpose-made plastic caps.

COLD FORMED STEEL (CLADDING):

DESCRIPTION: Use a proprietary system of preformed sheet and purpose-made accessories.

DESIGN AND INSTALLATION:	To AS 1562.1
CLADDING MATERIAL:	Lysaght (or approved equivalent)
CLADDING PROFILE:	Trimdek (or approved equivalent)
CLADDING INSTALLATION:	Install roofing in accordance with Lysaght Roofing Solutions "Design and Construction Solutions" manual.
CLADDING PROPRIETARY ITEM:	Lysaght (or approved equivalent)
CLADDING THICKNESS (BASE METAL):	0.42 mm
CLADDING FINISH:	Colorbond finish to top and bottom faces (both sides)
CLADDING COLOUR:	To Superintendent's requirements

CLADDING FIXING:

- Type:
- Size:
- Spacing:

} To manufacturer's specifications.

ENDS: Treat ends of sheets as follows:

– Project cladding sheets 50 mm from purlin

CLADDING ORIENTATION:	Lay sheeting laps in opposing direction to the prevailing wind direction.
CLADDING END LAPS:	The length of roofing sheets used shall be such that a minimum number of end laps are required for the entire roof. Where required, end laps shall be not less than 200 mm long and the centre of the overlap shall be at a purlin centreline. In addition a double row of approved sealing tape or other approved sealant shall be placed between the overlapped sheets.
CLADDING SIDE LAPS:	Side laps shall be as per manufacturers recommendations but shall not be less than one corrugation.
SHEET TERMINATION:	Stop end and hip the ends of sheets terminating at a ridge, with the sheeting manufacturer's standard form capping shear notched to fit snugly over the decking ribs and fixed to every third rib by means of approved fasteners.
ALTERNATIVES:	Alternative roof systems may be submitted as an alternative proposal for consideration at the tender stage only and shall be subject to approval by the Superintendent.

TRANSLUCENT ROOF SHEETING

AIM:	Provide a proprietary system of preformed sheet and purpose made accessories including safety mesh under to NCC requirements.
LOCATION:	Translucent roof sheet to be provided, at 5 m maximum centres
MATERIALS:	Gel coated heavy gauge woven glass mat sheeting
PRODUCT TYPE:	Webglass GC (or approved equivalent)
PROFILE:	LT7
COLOUR:	Opal
GRADE:	Industrial grade, 3660 grams/sq.m
FIRE PERFORMANCE:	To comply with NCC requirements and taking into account AS 1530.3., AS 1170.2, AS 4256.3, AS 1562.3 and AS 4040.1

COLD FORMED STEEL (PURLINS):

DESIGN AND INSTALLATION:	To AS/NZS 4600
PURLINS MATERIAL:	Purlins to be cold formed steel
PURLIN PROFILE:	Z purlins with top lip facing upslope towards ridgeline
PURLIN INSTALLATION:	Purlin to be installed in accordance with manufacturers recommendations
PURLIN FIXINGS:	All fixings shall be hot dip galvanised bolts with grades and sizes in accordance with purlin manufacturers recommendations.
PURLIN PROPRIETARY ITEM:	Lysaght (or approved equivalent)
PURLIN ACCESSORIES:	Use material with the same finish as roofing sheets.
PURLIN FINISH/ COATINGS:	Purlins to be coated in accordance with the “Protective coatings” section of this specification.

ALTERNATIVES: Alternative roof purlin systems may be submitted as an alternative proposal for consideration at the tender stage only and shall be subject to approval by the Superintendent.

4.20 Roof flashing

FLASHINGS AND CAPPINGS: Flash roof junctions, upstands, abutments and projections through the roof. Preform to required shapes to suit the roof profile. Notch, scribe, flute or dress down as necessary to follow the profile of adjacent surfaces. Mitre angles and lap joints 230 mm in running lengths. Provide matching expansion joints at 6 m maximum intervals. Suitably flash and seal all openings against the ingress of water or birds.

UPSTANDS: Flash projections above or through the roof with two part flashings, consisting of a base flashing and a cover flashing, with not less than 100 mm vertical overlap. Provide for independent movement between the roof and the projection.

RIDGE AND BARGE CAPPING: Finish off along all ridge, verge and barge lines with purpose-made capping or barge rolls, shaped to suit adopted sheeting profiles. End lap the ridging by at least 230 mm and secure by means of approved fasteners. Make provision in ridging joints for expansion and contraction of the capping. Seal open ends of ridge capping.

FORM CLOSURE: All formed closure strips shall be fabricated to suit the existing sheeting profiles.

4.21 Roof ventilation

The design shall incorporate passive ventilation along the ridge line to the approval of the Superintendent. It is envisaged that this may be achieved through a saw-tooth roof with a clear vertical opening in the order of a minimum of 1 m high. If a saw tooth roof is not adopted then passive ventilation shall be incorporated into the design and construction by other means to the satisfaction of the Superintendent.

4.21.1 Roof Overlap

Each saw tooth overlap is to extend a minimum of 1 m into the next bay to minimise potential weather ingress in the roof structure and on to the below walkways.

4.22 Erection

PROTECTIVE COATING: Complete the protective coating of any steel surfaces before attaching any roof sheeting or purlin item to that surface.

HANDLING: Handle galvanised roof members in such a way as to avoid damage to the galvanising.

TOUCH-UP OF GALVANISING AND COATINGS: Where mechanical damage has occurred due to impact, etc., galvanising and coatings shall be repaired in accordance with the "Protective coatings" section of this specification.

5. Concrete and foundations

5.1 Scope

SCOPE: This section contains clauses applicable to all concrete works involved with this contract.

OUTLINE DESCRIPTION: Design and construct concrete works including the following:

- All elements of the concrete piers
- Remedial works to existing concrete slabs, where existing requires demolition for placement of underground drainage or other services
- Other miscellaneous items such as drainage pits etc

Concrete work includes all associated formwork, reinforcement, joints, underlays, membranes and surface finishes.

5.2 Standards

Workmanship and materials to comply with requirements of Australian standards, National Construction Code (NCC) and by-laws and ordinances of relevant building authorities. All standards referred to are those current (as amended) at commencement of contract.

Workmanship and materials shall comply with AS 3600, AS 2159, AS 2870, AS 3600, AS 3798, AS 3610, AS 1379, AS 1478, AS 3582, and AS 3972.

5.3 Design requirements

REQUIREMENT: The following section of the specification outlines minimum requirements. The Contractor is responsible for the design and certification of all concrete elements.

MINIMUM REQUIREMENTS: The minimum requirement of quality of concrete for the pier foundations are as follows.

Exposure classification:	To AS 3600
Minimum concrete grade:	32 MPa
Minimum concrete cover for reinforcement:	50 mm, or to AS 3600 if greater than 50 mm

It is noted that the above are minimum requirements and the Contractor may wish to adopt for stringent criteria in order to adequately construct and warrant the works.

CONCRETE MIX DESIGN: Notwithstanding other sections of this specification, the Contractor shall submit the concrete mix design and associated performance tests to the Superintendent for review at least seven (7) days prior to pouring concrete. The Superintendent may review and comment on the concrete mix design, however, the obligation and responsibility for the performance of the concrete remains with the Contractor.

The water quality and exposure conditions shall be taken into account when selecting the concrete mix design. Aggregate for concrete shall comply with AS 3600.

5.4 Inspection

NOTICE: Give sufficient notice (minimum of 24 hours) so that inspection may be made of the following:

- Base or subgrade prior to covering
- Reinforcement fixed in place
- Completed foundation works excavation and/or formwork prior to concrete placing
- Placing of concrete
- Surfaces or elements to be concealed in the final work prior to covering

The Superintendent is to be notified if ground water is encountered.

5.5 Quality control

REQUIREMENT: Submit to Superintendent proposals for placing, finishing and curing concrete including the following:

- Ready mixed concrete supplier
- Concrete mix design
- Concrete mix design test results including 7, 14 and 28 day compressive tests, adiabatic temperature rise and drying shrinkage tests
- Alternative source of supply in the event of breakdown of ready mixed or site mixed supply
- Handling, placing, compaction and finishing methods and equipment
- Curing and protection methods

CURING COMPOUNDS: If it is proposed to use a liquid membrane-forming curing compound submit the following information:

- Certified test results for water retention to AS 3799
- Evidence that an acceptable final surface colour will be obtained
- Evidence of compatibility with applied finishes, if any
- Methods of obtaining the required adhesion for toppings, render and the like

5.6 Testing (general)

TESTING AUTHORITY: Testing and assessment of concrete and concrete materials shall be carried out by an authority registered with the National Association of Testing Authorities Australia (NATA) to perform the specified testing.

CONCRETE TESTING METHODS: Use the appropriate sampling and testing method specified in AS 1012.

TEST RECORDS: Complete production assessment records to AS 3600. Register the project for dissemination of information in accordance with AS 3600. For each required test maintain the records and reports of test results required by AS 1012, or similar information tests not covered by AS 1012. Submit a copy of each test report.

PERFORMANCE TESTS: Test for the properties on the Contractors accepted Drawings. Sample, test and assess concrete for compliance with specified requirements to AS 3600 and AS 3735 (where applicable).

TEST SPECIMENS: Test specimens shall be to AS 3600.

REJECTION: Should the concrete testing or concrete placing not meet requirements of this specification, the Contractors design documentation or the Superintendent quality expectations the rejected concrete shall be removed from site at the expense of the Contractor and at the discretion of the Superintendent.

RETENTION: At the discretion of the Superintendent, approval may be given for the retention of hardened concrete liable to rejection on the basis of:

- The criteria in AS 3600 and the Contractors design documentation.
- An appraisal of the statistical information related to the concrete, with any statistical information to be gathered and provided at the expense of the Contractor.
- A remedial works plan being submitted by the Contractor that meets approval by the Superintendent

5.7 Surface repair

REPAIR CONDITIONS: Concrete liable to rejection due to concrete surface defects or poor placement and compaction may in some cases be accepted subject to the exposure classification of the respective surfaces and the successful repair of defects. Repair may only be attempted only if prior approval is given by the

Superintendent. If approval is given to a repair procedure, the concrete may nevertheless be rejected if the repair is unsuccessful or of inadequate quality for the durability specified within this specification.

5.8 Formwork generally

REQUIREMENT: Design and construct formwork so that the concrete, when cast in the forms, will have the dimensions, shape, profile, location and surface finish required.

STANDARD: To AS 3610.

CLEANING: Remove free water, dust, debris, stains and the like from the forms and the formed space prior to placing concrete.

STRIPPING OF FORMWORK: To AS 3600 where these requirements are more stringent than the relevant requirements of AS 3610.

RESHORING: Do not reshore without approval.

RELEASE AGENT: Before placing reinforcement, apply a release agent compatible with the contact surfaces, to the interior of the formwork, except where the concrete is to receive an applied finish for which there is no compatible release agent. Where necessary clean the reinforcement to remove all traces of release agent.

RESPONSIBILITY: The Contractor shall be responsible for the sufficiency of the formwork.

DEFECTIVE FORMWORK: If formwork fails to meet the requirements of the Contract, any concrete that has been cast in it may be rejected. In that case, remove the rejected concrete, form construction joints, reconstruct the formwork and recast the concrete.

PERMANENT LOADING: Do not place permanent loads, on the concrete structure while it is still supported by formwork.

DIMENSIONAL TOLERANCES

STANDARD: To AS 3610 as applicable for formed surfaces and otherwise to AS 3600.

5.9 Concrete materials generally

STANDARD: To AS 3600 and AS 3735 (where applicable).

RESTRICTIONS ON CHEMICAL CONTENT: To AS 3600

BAGGED CEMENT: Do not use bagged cement more than 6 months old.

READY MIXED SUPPLY

The below are minimum requirements. The Contractor may elect to adopt more stringent criteria.

STANDARD: To AS 1379. Deliver in agitating trucks.

ADDITION OF WATER: Obtain approval before adding water at the site.

ELAPSED DELIVERY TIME: Concrete is liable to be rejected if the elapsed time between the wetting of the mix and the discharge of the mix at the site exceeds the following:

Table 3 Elapsed delivery time

Concrete temperature at time of discharge (°C):	Maximum elapsed time (hours):
10 – 32	1.50
>32	Not Acceptable

5.10 Grout

STANDARD: To AS 3600.

Maximum shrinkage: 1 % by volume after 24 hours.

Maximum water cement ratio: 0.5 (by weight).

Minimum compressive strength: (75 mm cube): 32 MPa at twenty-eight days.

5.11 Reinforcement generally

REQUIREMENT: Supply and fix reinforcement, including the necessary tie wires, support chairs, spacers and the like.

IDENTIFICATION: Reinforcement shall be readily identifiable as to grade and origin.

CERTIFICATE OF COMPLIANCE: Obtain from the manufacturer and furnish a certificate of compliance with the relevant standard AS/NZS 4671. Alternatively furnish test certificates from an independent testing authority.

WELDING REINFORCEMENT: Obtain permission before welding. Do not weld reinforcement that does not comply with AS 4671. Do not weld reinforcement within 75 mm of a section that has been affected by bending or re-bending.

5.12 Fixing reinforcement

FIXING REQUIREMENTS: Secure the reinforcement against displacement by tying at intersections with annealed iron wire ties not smaller than 1.25 mm diameter, or by approved clips. Bend the ends of wire ties away from nearby faces of forms so that the ties do not project into the concrete cover.

MATS: For bar reinforcement in the form of a mat, secure each bar at alternate intersections, and at other points as required.

5.13 Reinforcement supports

SUPPORT TYPES: Use purpose made concrete, metal or plastic supports. For exposure classification A1, provide a protective coating to ferrous metal that extends to the surface of the concrete. For exposure classifications more severe than A1 use plastic supports of adequate strength and of a shape appropriate to the location, or concrete supports of the same concrete quality as the concrete element.

SUPPORTS OVER MEMBRANES: Prevent damage to waterproofing membranes or vapour barriers. Place a metal or plastic plate under each support to prevent puncturing.

SUPPORT SPACING: Not more than 60 diameters for bars and 750 mm for fabric.

5.14 Concrete placement and compaction

STANDARD: To AS 3600.

HORIZONTAL MOVEMENT: Movement may be by means of suitable conveyors, clean chutes, troughs or pipes. Do not use water to facilitate the movement.

VERTICAL MOVEMENT: In vertical elements, limit the free fall of concrete to 1500 mm per 100 mm element thickness, up to a maximum free fall of 3000 mm, by means such as enclosed chutes, access hatches in forms, and the like. As far as practicable keep chutes vertical and full of concrete during placement, with ends immersed in the placed concrete.

LAYERS: Place concrete in layers such that each succeeding layer is blended into the preceding one by the compaction process.

RAIN: Concrete exposed to rain before it has set, including during mixing, transport or placing, shall be liable to rejection.

SEQUENCE OF POURS: Minimise shrinkage effect by pouring the sections of the work between construction joints in a sequence such that there will be suitable time delays between adjacent pours.

COMPACTION: Use immersion and screed vibrators accompanied by hand methods as appropriate to remove air bubbles and compact the mix. Provide not less than one reserve vibrator in working order. Use form vibrators

where use of immersed vibrators is impracticable. Ensure concrete is fully compacted and entrapped air removed, but avoid over vibration that may cause segregation. Do not allow vibrators to come into contact with partially hardened concrete, or reinforcement embedded in it. Do not use vibrators to move concrete along the forms.

PLACING RECORDS: Keep on site and make available for inspection a logbook recording each placement of concrete including:

- Date
- The portion of work
- Specified grade and source of concrete
- Slump measurements
- Volume placed

COLD WEATHER PLACING

The below requirements are minimum requirements. The Contractor may elect to adopt more stringent criteria.

REQUIREMENT: Maintain the temperature of the freshly mixed concrete within the limits shown in the following table. ("Outdoor" air temperature shall apply to the air temperature at the time of mixing and to the predicted or likely air temperature at any time during the subsequent 48 hours):

Table 4 Concrete placing

Outdoor air temperature	Temperature of concrete	
	Minimum	Maximum
Not less than 5°C	10 °C	32 °C
Less than 5°C	18 °C	32 °C

ADDITIVES: Do not use calcium chloride, salts, chemicals or other material in the mix to lower the freezing point of the concrete.

HOT WEATHER PLACING

The below requirements are minimum requirements. The Contractor may elect to adopt more stringent criteria.

REQUIREMENT: The provisions of this clause shall apply to concreting when the surrounding shade outdoor temperature is greater than 32°C.

HANDLING: Take precautions to prevent premature stiffening of the fresh mix and to reduce water absorption and evaporation losses. Mix, transport, place and compact the concrete as rapidly as possible.

PLACING: Before and during placing maintain the formwork and reinforcement at a temperature not greater than 32°C by protection, cold water spraying, or other effective means. When placed in the forms, the temperature of the concrete shall not exceed the following:

Table 5 Concrete placing

Concrete element:	Temperature limit:
Normal concrete in footings and slabs:	32 °C

5.15 Curing and protection

STANDARD: To AS 3600

GENERALLY: Protect fresh concrete from premature drying and from excessively hot or cold temperatures. Maintain the concrete at a reasonably constant temperature with minimum moisture loss for the curing period.

CURING PERIOD: (from time of placing): Commence curing immediately after finishing, and cure continuously until the cumulative number of days or fractions thereof, not necessarily consecutive, during which the air temperature in contact with the concrete is above 10°C, totals not less than the minimum recommended curing period as per AS 3600.

CURING METHODS: Acceptable methods of curing include the following:

- Ponding or continuous sprinkling with water (moist curing)
- An impermeable membrane
- An absorptive cover kept continuously wet
- An approved curing compound

CURING COMPOUNDS: To AS 3799. Do not use wax-based or chlorinated rubber-based curing compounds on surfaces to be subsequently finished with concrete toppings, cement-based render and the like.

HOT WEATHER CURING: Cure concrete placed as specified in HOT WEATHER PLACING - CONCRETE by one of the methods (but not curing compounds) specified in this clause under CURING METHODS. Immediately after placement cover the concrete with an impervious membrane, or hessian kept wet, until curing begins. As an alternative to immediate covering, where the temperature exceeds 25°C or where not protected against drying winds, protect the concrete with a fog spray application of aliphatic alcohol evaporation retardant.

VISUALLY IMPORTANT SURFACES: Produce uniform colour on adjacent surfaces by uniform curing methods.

SURFACE PROTECTION: Protect finished concrete surfaces from damage from any cause, including mortar splashes and stains, timber stains, rust stains, chemical attack, additives, curing compounds, protective coatings, rain, running water, and the like.

5.16 Fixings and embedded items

STANDARD: To AS 3600.

SHOP DRAWINGS: If the locations of embedded items are not shown on the design Drawings, or are shown diagrammatically, or if it is proposed to vary the locations shown, submit for approval shop drawings showing the proposed locations, clearances, cover and the like.

STRUCTURAL INTEGRITY: In locating embedded items, do not cut or displace reinforcement, or cut hardened concrete, unless prior approval has been obtained.

TOLERANCES ON PLACEMENT: Maximum deviations from correct positions:

- Embedded items generally: Plus or minus 10 mm.
- Fixings, anchor bolts and like: Plus or minus 3 mm.

PROTECTION OF FIXINGS: For all embedded and inserted ferrous fixings (other than stainless steel) provide galvanised surface coating passivated by dipping in 0.2 % sodium dichromate solution.

Threaded fastenings:	To AS 1214
Structural sections:	To AS/NZS 4680

INSERTED FIXINGS: Use fixings inserted by drilling (including masonry anchors and the like).

THICKNESS: Minimum 50 mm unless otherwise specified.

SURFACE TOLERANCE: Plus or minus 5 mm from the correct plane, plus or minus 5 mm from a 2 m straight edge.

5.17 Piers

PIER DESIGN: All piers to be designed and constructed by the Contractor

APPROVAL: Obtain approval of foundation material for the design pressures from the Principle's representation or Building Authority before placing concrete in piers.

REQUIREMENT: Arrange for piers to be designed and installed by an approved specialist Sub-Contractor in accordance with the drawings, specification and AS 5100 as appropriate for the nominated design loads within the required settlement limits/acceptance criteria.

Piers to be designed to be capable of resisting additional relevant temporary construction and permeant loads, including forces due to eccentricity of pier, lateral soil load and drag forces.

SUBMISSIONS: Submit the name and contact details of the proposed specialist contractor, proposed boring methods and equipment, proposed splices and load test reports.

DESIGN: Submit calculations demonstrating the piers will meet the performance requirements and can be safely installed to the specified levels by the proposed methods prior to commencing work on site. Submit the sources of geotechnical information and design parameters used in the calculations.

BORED PIERS: For bored piers, use temporary casing to support loose or weak material as required.

EXCAVATION: Excavate pier sockets to leave surfaces that are free of debris and smeared material. Use cleaning buckets and side cleaning tools suitable for the pier diameter.

SIDE WALLS: Provide side walls of pier sockets that are free of soil and crushed rock over at least 80 % of side wall area. Side wall roughness shall be class R2 (grooves of depth to 4 mm, width greater than 2 mm, spacing between 50 and 200 mm).

SOCKET BASE: Make sure the base of pier sockets is free of debris, soft material etc. Expose natural rock over at least 80 % of the socket base. Prevent loose material falling into hole.

INSPECTIONS: Arrange for socket inspections to be undertaken by a qualified geotechnical engineer to verify the socket is founded wholly within the class of rock specified, the material underlying the socket base is equivalent or better than assumed by design, the socket dimensions are as specified, and side wall and base cleanliness is as specified.

LENGTH / DEPTH: Pier socket length / depth is measured from the base of the excavation. No over-excavation of socketed piers is permitted.

DAMAGE: If damage is caused to adjoining property, stop piling operations and notify Principle's representation.

6. Protective coatings

6.1 Technical requirements

6.1.1 Scope

SCOPE OF SECTION: This section of the Specification defines the minimum requirements for protective coating systems for the roof structure.

6.1.2 Requirements

MILD STEELWORK: Hot dip galvanising is required for all mild steel elements of the roof structure.

HOLD DOWN BOLTS AND BOLTS: Hot dip galvanising is required for hold down bolts and structural steel bolts.

COLD FORMED PURLINS: A zinc coating of Z350 (350 g/m2 minimum coating mass) is required for all cold formed structural steelwork

ROOFING/CLADDING: Colorbond (or approved equivalent)

6.1.3 Galvanising

STANDARD: Galvanize the steelwork in accordance with the requirements of AS/NZS 4680 and AS/NZS 1214.

PREPARATION FOR GALVANIZING: Prepare welds, edges and other areas with surface imperfections in accordance with ISO 8501, Part 3, to preparation grade P3. Apply the galvanized coating to AS/NZS 2312.2, Table 6.2 System HDG900, with a nominal thickness of 125 µm or the equivalent mass of 900 g/m^2.

APPLICATION: Steelwork to be hot dipped galvanized to AS/NZS 4680 and AS/NZS 1214. Thickness of galvanized coatings to AS/NZS 4680. Zinc in the galvanising bath is to be not less than 98 % pure. Bath temperature, time of immersion and withdrawal and speed to be as required to achieve specified coating thickness and finish. Zinc coating is to be continuous, adherent, free from lumps, spikes, dags, runs, blisters, roughness, gritty areas, uncoated spots, acid and black spots, dross, flux and other imperfections. Straighten members distorted during fabrication and/or galvanising process using an approved method. Anneal cold worked items to 650°C prior to galvanising. Passivate galvanized steel to be in contact with concrete by dipping in 0.2% sodium dichromate solution.

INSPECTION: After the galvanizing process is complete, test for coating thickness and inspect the work for imperfections including grey-coating, drip pimples, lumps, bare spots and deformation.

DEFECTS: Repair any defects in accordance with AS/NZS 4680, Section 8, or re-galvanized the item if the galvanising does not conform to this specification.

TOUCH UP: Where mechanical damage has occurred due to impact, etc., file or ground smooth, and remove any rust formation from the affected area. Remove all grease, oil, corrosion by-products, dirt, and other surface contaminants from the areas with imperfections, and from the existing intact coating within a minimum of 50 mm of these areas, by solvent cleaning or detergent washing, or other approved method. Remove by scraping or chipping all areas damaged by welding, slag and traces of weld spatter, then abrasive blast clean exposed steel to a standard of not less than AS 1627. 4 Class Sa 2½. Repair in accordance with AS/NZS 4680, Section 8, by applying a zinc-rich coating to a DFT of 150 µm, (within 4 hours) to the prepared surface, by brush or spray, in accordance with the coating Manufacturer's recommendations. Extend the patch of organic zinc-rich coating a minimum of 50 mm over the undamaged zinc coated surface.

APPEARANCE: The appearance of galvanizing and its freedom of defects shall be in accordance with the requirements of AS/NZS 4680 Clause 7.

6.1.4 Handling of coated items

REQUIREMENT: Handle all steelwork that has been coated with care to prevent and minimise damage to the coating. Only handle steelwork when the coating has dried hard. Determine drying times in accordance with the relevant standards or manufacturers recommendations.

LIFTING EQUIPMENT: Deliver, unload, and store shop-coated items so that they remain free of damage or deformation. Use web slings or slings covered with a rubber hose or similar soft material for the handling of finish coated items.

CONTACT AREAS: Protected finish coated items by use of soft material such as cloth, carpet or rubber sheeting on areas of contact (e.g. wooden supports and holding down chains or slings) during transport and storage. Where wire rope or chains are used, adequate padding shall be used at points of contact with the coating. Care must be taken to prevent any chafing of items against each other or against the metal structures of the vehicle during transportation. Skids and dunnage must be used between items in transit as well as in the storage of the coated item. Products must not be loaded on top of each other unless this can be done without damaging the items. Items must be positioned in the transport vehicle in such a manner that unloading will not damage the items.

FORKLIFTS: Forklifts used for transfers of coated items should be furnished with rubber-padded arms. The fork must not slide against the surface of the item. Position the forklift arms under the item so that the load remains in balance.

DAMAGE REPAIR: Repair and made good any damage to finish coated items in accordance with this specification.

EXCESSIVE DAMAGE: Items with excessive damage caused by insufficient care shall have the entire coating removed and be recoated in accordance with this specification. The extent of repair, if the damage is extensive, is at the discretion of the Superintendent.

7. Stormwater services

7.1 General

This section covers the Design and Construction of the Stormwater services for the roof drainage system at the Corowa Saleyards.

All information herein has been based on the information available at the time of publication.

Contractors must exercise their own initiative and experience in respect to the design capacity and the use of various industry standard calculation methods. Other services and trades are to be taken into account such that a co-ordinated design is achieved.

The provided drawing has limited co-ordination, other than where obvious; however this should not be relied on as the basis of the tender.

7.1.1 Description and extent of works

- Design and construct stormwater services system
- Provide stormwater collection from all gutters of the roof structure and connect to location nominated by the Principal.
- Make submissions and applications (including notices) to all relevant authorities, relating to the works. These submissions shall be including though not be limited to:
  - Federation Council
- Liaise with Federation Council to ensure stormwater installation does not cause any interruption to the saleyard operations
- Interface to in-ground drainage system

7.1.2 Required submissions

The Contractor shall provide a program, in good time to allow review without impediment:

- Copies of correspondence with Authorities
- Certified schedule of compliance for all equipment, prior to placing orders
- Certified schedule of competency for all tradespeople intended to work on the project
- Factory test results where applicable
- All product data, performance test and commissioning results required by this specification
- Shop drawings for fabrication and installation of all equipment and items supplied
- Inspection and test plans for every section of the works
- Detail the procedure of how to complete the task, the skill or competency of the person undertaking the works, the review or testing procedure to assure satisfactory completion of the task, the person within the installer's organisation authorised to sign-off the task as accepted
- Client handover/training proposals
- Record and installation drawings: Record all changes to equipment and services layouts, wiring and any other items during the construction period, which may have been incorporated into these works
- One (1) hard copy and one (1) soft copy of Operating and Maintenance manuals
- Certifications for compliance with project specific Code/Design requirements of the completed works
- Maintenance and servicing during the defects liability period

7.1.3 Quality assurance

A Quality Assurance plan shall be provided in order to propose, establish, maintain, monitor and document a quality assurance system covering all aspects of the design, purchase, fabrication, installation and completion of the works. The plan shall be in accordance with ISO 9001/2 (as appropriate).

A designated Project Quality Inspector shall be appointed to execute the quality plan, which must include the following minimum:

- Check all shop drawings for conformance to requirements prior to submission
- Check equipment compliance schedule against the particular specification requirements and equipment schedules prior to submission
    i. Check all samples for conformance to requirements prior to submission
    ii. Check all tests required for proper manufacturing of the equipment
    iii. Check all manufactured items for compliance prior to dispatch to site
    iv. Check installation of all items fixed under this specification
    v. Check all materials, welding, joining, terminations, fixing and finishes
    vi. Check all on-site tests required to commission the works
- Check operating and maintenance manuals to ensure they contain adequate information to permit systems to be operated by the Client at the end of defects liability period (Including adequate training and tuition of the client's representative.)
- Submit the following documentation:
    i. Quality System third party certification, if any, to the Standards specified by the Joint Accreditation System of Australia and New Zealand
    ii. Quality manual detailing, corporate QA policy statement, system element description and register of procedures

7.1.4 Authorities

The Hydraulic services installation shall comply with the requirements of the following authorities.

- Federation Council
- Relevant Building Surveyor

Any other authority having jurisdiction over all or part of the installation.

7.1.5 Authority applications, permits and fees

The Stormwater Contractor is responsible for:

- Applying for and obtaining all authority required permits and applications
- Applying for and lodging all authority applications for plumbing works
- Paying all fees and charges in connection with the works including fees applicable to applications and connections to existing authority assets

7.1.6 Design

Provide all design work necessary to complete the stormwater services documentation to work shop fabrication level.

Use only appropriately experienced and qualified persons to undertake stormwater design work. If requested, provide documents verifying the qualification and experience.

7.1.7 Standards

Plumbing and drainage: To AS/NZS 3500.0, AS/NZS 3500.3, the Plumbing Code of Australia and the National Construction Code (NCC incorporating the BCA)

Authorised products: Listed in the WaterMark Product Database

7.1.8 Labelling

All Services shall be labelled to AS 1345

7.1.9 Inspection

Notice

Sufficient notice shall be given so that inspection may be made of the following:

- Excavated surfaces.
- Concealed or underground services.

7.1.10 Submissions

Drawings

Minimum drawing size shall be at least A1.

Standard: To AS 1100 Parts 101, 201, 301, 401 and 501 as applicable.

The following drawings shall be submitted:

- Building work drawings showing all building work required to complete the stormwater service
- Detailed drawings, at 1:50 scale or larger, showing:
  - Pipework and equipment layout and sections showing the work to be installed in strata, that is, shown at the level that the services are installed. Do not submit 'glass floor' drawings
  - Location, type, grade and finish of piping, fittings, valves, meters, pipe supports, access openings, cover plates, valve boxes and access pits
  - Long sections of below ground drainage
  - Piping schematic drawings
  - Copy of submission drawings required by authorities and copies of approvals
- The following shall be included on the drawings:
  - Relevant survey levels and site set out points.

Execution details

Before starting the respective portions of the installation the following shall be submitted:

- Details for pipe bedding and backfill
- Typical details of locations, types and methods of fixing of services to structure
- Proposals for location of exposed piping

7.2 Execution

7.2.1 Installation

Accessories

The accessories and fittings necessary for the proper functioning of the systems shall be provided, including taps, valves, outlets, pressure control devices, strainers, and gauges.

In addition to valves required to meet statutory requirements, provide valves so that isolation of parts of the system for safe isolation of the system in the event of leaks or maintenance causes a minimum of inconvenience to the site operation.

Allowance shall be made to isolate clusters of fixtures and fittings for easy maintenance.

Arrangement

Locate and arrange so that:

- Failure of plant and equipment (including leaks) does not create a hazard for the site operation and causes a minimum or no damage
- Inspection and maintenance operations can be carried out in a safe and efficient manner, with a minimum of inconvenience and disruption to site operation and without damaging adjacent structures, fixtures or finishes

Embedded pipes

Do not embed pipes that operate under pressure in concrete or surfacing material.

Penetrations and fixing

If non-structural building elements are not suitable for fixing equipment and services to, fix directly to structure and trim around holes or penetrations in non-structural elements.

If it is proposed to penetrate or fix to the following, submit details of the methods proposed to maintain the required structural, fire and other properties:

- Membrane elements including damp-proof courses, waterproofing membranes and roof coverings. If penetrating membranes, provide a waterproof seal between the membrane and the penetrating component.

Seal penetrations with a system shall conform to AS 4072.1 and tested to AS 1530.4.

The integrity of any penetrated building element shall be maintained at all time. If the building element is weatherproof, acoustic rated or subject to pressure, maintain the rating.

Seal penetrations around conduits and sleeves. Seal around cables within sleeves. If the building element is acoustically rated, maintain the rating.

If piping or conduit penetrates building elements, provide metal or PVC-U sleeves formed from oversize pipe sections.

Do not penetrate, or chase the following without approval:

- Structural elements including beams or columns.
- Other building services
- Membrane elements, including damp-proof courses, waterproofing membranes and roof coverings

If approval is given to penetrate membranes, provide a waterproof seal between the membrane and the penetrating compound.

Piping

Piping shall be installed in straight lines, plumb and to uniform grades. Arrange and support the piping so that it remains free from vibration and water hammer, while permitting movement in both structure and services. Keep the number of joints to a minimum. Prevent direct contact between incompatible metals.

Provide at least 25 mm clearance between adjacent pipelines (measured from the piping insulation where applicable).

Where exposed piping emerges from wall, floor or ceiling finishes, cover plates of stainless steel or non-ferrous metal finished shall be provided to match the piping.

Provide movement control joints in the pipes, as required.

Pipe support materials shall be the same as the piping or galvanized or non-ferrous metals, with bonded PVC or glass fibre woven tape sleeves where needed to separate dissimilar metals.

Install pipe work strictly to the manufacturer's guidelines and recommendations.

Valve boxes

Underground isolating valves shall be installed in valve boxes with removable covers. Sluice valve covers shall be provided for access to sluice valves.

Box covers shall be marked with the name of the service and shall be appropriately rated to a loading class matching the surrounding surface.

7.2.2 Painting, finishes and marking

Exceptions

Do not paint chromium or nickel plating, anodised aluminium, glass reinforced plastic, stainless steel, non-metallic flexible materials and normally lubricated machined surfaces.

Finishes

Exposed piping, including fittings and supports shall be finished as follows:

- Externally and steel piping and iron fittings internally: Paint
- Valves shall receive finish to match connected piping

Marking and labelling

Mark services and equipment to provide a ready means of identification.

- Locations exposed to weather: Provide durable materials.
- Pipes, conduits and ducts: Identify and label to AS 1345.

Label and mark equipment shall be a consistent scheme across all services elements of the project.

Pipeline identification

Lay detectable plastic warning tape printed with the name of the service, 300 mm above buried piping, for the full length of the piping.

If pipes have grade or class identification markings install so that the markings are visible for inspection.

7.3 Completion

7.3.1 Testing

- Carry out verification tests and measurements to demonstrate compliance with the documents.
- Submit reports indicating observations and results of tests and compliance or non-compliance with requirements.

7.3.2 Operation and maintenance manuals

General: Provide written operating and maintenance instructions containing:

- Contractor's contact details for service calls
- Manufacturer's maintenance and operation literature
- Manufacturer's warranty certificates if the manufacturer's warranty period is greater than the defects liability period
- Description of day-to-day operation
- Schedule of recommended maintenance
- Recommendations for the operation, care and maintenance of appliances, storage tanks, valves, regulators and their associated fittings

7.3.3 Record drawings

- Provide a drawing of the system as installed. Include all shop drawings. Show dimensions, types and location of the services in relation to permanent site features and other underground services. Show the spatial relationship to building structure and other services. Include all changes made during commissioning and the maintenance period.
- Diagrams shall be included
- Where pipes and fittings are below ground show the depth and dimensioned references that will allow the future location of the service for maintenance or expansion.

7.3.4 Training

Explain and demonstrate to the principal's staff the purpose, function and operation of the installations.

7.4 Selections

7.4.1 Submissions

Table 6 ***Piping system schedule***

System	Pipe material and nominal size	Grade or class	Jointing method
Downpipes / rainwater system	PVC-U	SN6	Solvent welded
Rainwater system Below ground	PVC-U	SN8	Rubber Ring Joints

Appendices

Appendix A

Geotechnical report

CIVIL TEST PTY LTD
ABN 91 006 855 689 SOIL TESTING & GEOTECHNICAL CONSULTANTS ACN 006 855 689

REPORT NO	:	4210249-1
CLIENT	:	Federation Council 100 Edward Street COROWA NSW 2646
PROJECT	:	437 Honour Avenue COROWA
PROPOSAL	:	It is proposed to construct a roof over the selected uncovered areas at this site.

1. COMMISSION:

Carry out relevant insitu soil tests, log test bores and recommend suitable bearing pressures and founding depths and suitable foundation options for the proposed structure.

All testing and observations carried out are to follow the relevant provisions of AS 1726:2017 (Geotechnical Site Investigations).

2. SITE GEOLOGY:

Geological maps of the area suggest that the site is in an area of Tertiary Sediments. The natural soils encountered during the site investigation confirmed this.

3. SITE TOPOGRAPHY:

The site has slight slope down towards the east. The ground cover comprises of concrete, native trees and introduced trees.

4. INVESTIGATION:

Six boreholes were drilled by mechanical auger at the approximate locations shown on the attached plan.

Standard Penetration Testing (SPT) was conducted in the boreholes at regular 1.5m intervals. SPT testing was discontinued beyond 3.0m and 1.5m depth in boreholes 2 and 4 respectively due to the presence of distinctly weathered ROCK (MUDSTONE).

The logs of the bores are attached showing the soil descriptions and depths along with any cohesive strengths measured and observed densities of non-cohesive soils.

5. FINDINGS:

The boreholes revealed that, except for the upper sandy CLAY FILL encountered in borehole 1 and near surface GRAVEL FILL found in boreholes 5 and 6 the underlying natural soil profile consisted of silty CLAY and sandy CLAY overlying distinctly weathered ROCK (MUDSTONE).

Free groundwater was not encountered in the boreholes at the date of investigation.

6. SITE CLASSIFICATION:

After considering the area geology, the soil profile encountered in the bores, the proposed superstructure and the climatic zone of the area, this site has been classified as CLASS P with respect to foundation construction (Australian Standard 2870 - 2011 Residential Slabs and Footings) due to close proximity of currently growing and/or to be removed trees. However, this classification is technically not correct for the proposed type of structure, therefore is given as a guide only.

It is anticipated that the seasonal surface movement at this site, without the effect of abnormal moisture conditions, will not exceed 60 mm.

It must be emphasised that the heave mentioned, and recommendations referred to in this report are based solely on the observed soil profile at the time of the investigation for this report without taking into account the effects of any abnormal moisture conditions that may develop after construction as defined in Clause 1.3.3 (A) (B) (C) (D) (E).

7. RECOMMENDATIONS:

7.1 Pad Footings:

Pad footings founded at a minimum depth of 1000mm below the finished surface level surrounding the structure are recommended. However, the founding depth must be at least 100mm into any of the naturally occurring silty/sandy CLAY as described in the logs of boring, which from the site investigation can be assumed to have an allowable bearing pressure of 180kPa at this depth.

As a guide to the founding depths with regard to the above along with information obtained from the bores, the founding depth at this site will be approximately up to 1000mm in relationship to the existing surface where this surface is to be the finished surface level surrounding the structure.

However, greater allowable bearing pressures will exist at the following depths.

These allowable bearing pressures can be assumed to be:

Depth from the existing surface (mm)*	Allowable Bearing Pressure (kPa)
1000	180
1200	200
1500	220

*Depth below the surface at the date of investigation

7.2 Bored Piers:

A bored pier foundation system is also a suitable foundation option for the light towers. Design of bored piers may be based on the parameters provided below:

Site location at Borehole 1 and 3:

Material	Depth (m)	Skin Friction (kPa)	End Bearing (kPa)
Sandy CLAY - Hard	2.0	25	260
Sandy CLAY- Hard	3.0	35	340
Silty CLAY- Hard	4.0	40	420

Site location at Borehole 2:

Material	Depth (m)	Skin Friction (kPa)	End Bearing (kPa)
Sandy CLAY - Hard	2.0	25	260
Silty CLAY- Hard	3.0	35	340
Distinctly weathered MUDSTONE – Low strength	4.0	45	450

Site location at Borehole 4:

Material	Depth (m)	Skin Friction (kPa)	End Bearing (kPa)
Distinctly weathered MUDSTONE – Low strength	2.0	30	280
Distinctly weathered MUDSTONE – Low strength	3.0	40	380
Distinctly weathered MUDSTONE– Medium strength	4.0	60	600

Settlement of single piles/piers under above loads would be less than 50mm.

Design for uplift restraint may adopt 1.25 times the allowable skin friction given in the tables above.

In accordance with Appendix D of AS2870 – 2011 the soil profile and site conditions should be inspected at footing excavation stage by CIVILTEST PTY LTD to confirm the soil profile and site classification.

7.3 Material Properties:

Material	γ (kN/m^3)	ϕ_u (deg)	ϕ' (deg)	C_u (kPa)	C' (kPa)	E (MPa)	ν	k_h
Sandy CLAY FILL	19.0	18	22	25	10	30	0.42	25
Silty/ Sandy CLAY	20.0	22	26	150	50	35	0.4	35
Distinctly weathered MUDSTONE	21.5	35	40	-	-	600	0.25	400

Where γ = Unit weight of the soil
ϕ_u = Undrained angle of shearing resistance
ϕ' = Effective angle of shearing resistance
C_u = Undrained cohesion
C' = Effective cohesion
E = Elastic (Young's) modulus
ν = Poisson's ratio
k_h = Horizontal subgrade modulus

The potential for liquefaction in the encountered soil profile is negligible.

7.4 Foundations Adjacent to Easements:

It is recommended that where any footings are to be constructed next to existing underground services (sewers, etc.), then these footings or edge beams should be founded at a depth below the invert of the service at an angle of 45° for CLAYS and 30° for SANDS, unless special consideration has been given to the founding material.

In accordance with Appendix D of AS2870 – 2011 the soil profile and site conditions should be inspected at footing excavation stage by CIVILTEST PTY LTD to confirm the soil profile and site classification.

8. CONDITIONS OF THE RECOMMENDATIONS:

8.1 The recommendations made in this report may need to be reviewed should any site works disturb any soil 300mm below the founding depth of the structure.

8.2 Since the soil horizons and layers can vary in depth and thickness over the site, the depths and bearing capacities given above are given as a guide only. If the footings are founded at the minimum depth, as stated and are in the soil as described in the logs of boring for this site, then the requirements of this report have been met.

8.3 The descriptions of the soils found in the boreholes closely follow those outlined in AS 1726:2017 (Geotechnical Site Investigations). Colour descriptions can vary with soil moisture content. It should be noted therefore, colour and shade descriptions mentioned in this report are made when the soil is in a moist condition.

8.4 In accordance with Appendix D of AS2870 – 2011 the soil profile and site conditions should be inspected at footing excavation stage by CIVILTEST PTY LTD to confirm the soil profile and site classification.

8.5 This report has been compiled and recommendations made based on information supplied in the brief to Civiltest Pty Ltd and from the field investigation and observations made including the extent of, if any, site filling. Every care has been taken within the terms of the brief to ensure that the field investigation is representative of the site. Therefore, if it is found that for any reason information received by Civiltest Pty Ltd is incorrect or conditions on site vary considerably during construction to those described in this report then the comments and recommendations made in this report may need to be amended.

8.6 To ensure acceptable long term performance of the footing systems recommended in this report, care should be taken that the fundamental building, landscaping and long term maintenance procedures are adhered to as set out in the CSIRO Building Technology File 18-2011 http://www.publish.csiro.au/pid/7076.htm, "Foundation Maintenance and Footing Performance: A homeowners guide". This information sheet forms an integral part of this report.

8.7 Abnormal moisture conditions:
The recommendations made in this report are based on current findings and investigations. Civiltest Pty Ltd cannot be held responsible for any financial loss and / or hardship in relation to the construction of the structure and future performance of the footing system if relevant historical information has not been supplied in writing by the client to Civiltest Pty Ltd. (For example, the recent removal of trees or buildings or any other activity that is likely to have created abnormal moisture conditions as defined in AS2870.)

8.8 Whilst CIVILTEST PTY LTD has accepted the commission for the work reported herein, the ownership of the report and any liabilities associated with it, remain with CIVILTEST PTY LTD until all relevant accounts have been paid.

Finally, no responsibility will be taken for this report if it is altered in any way or is not reproduced in full.

This report consists of seven pages including one site plan. Appendix A (Engineering Logs) is attached.



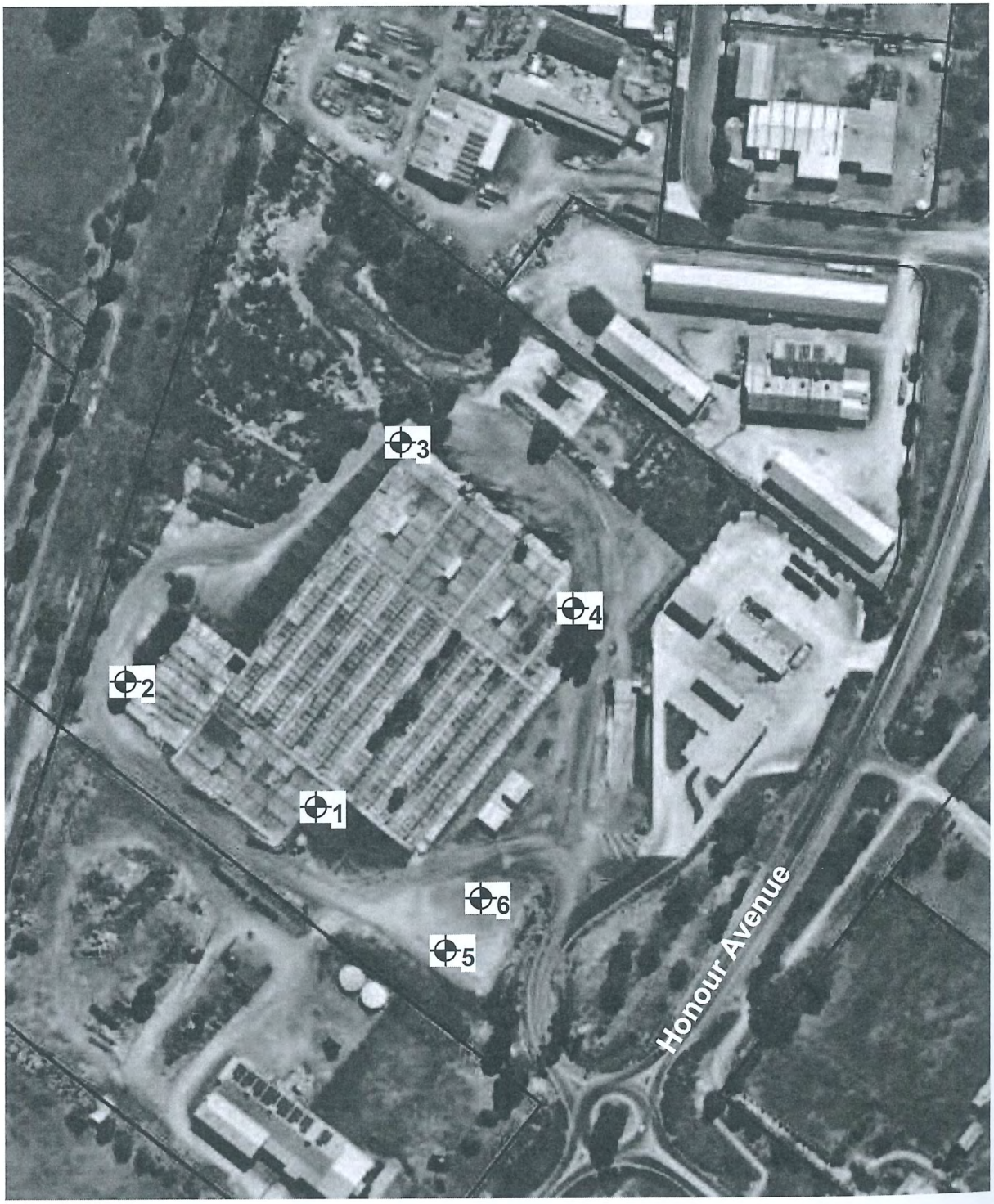
PATRICK OAI
SENIOR GEOTECHNICAL ENGINEER
CIVILTEST PTY LTD

REF: TP/JK/XC/PO/bg

27 July 2021

LOCATION OF TEST SITES

437 HONOUR AVENUE COROWA



⊕ Denotes Test Holes

NOT TO SCALE

THIS SKETCH IS NOT INTENDED TO BE AN ACCURATE DEPICTION OF THE NUMBER, SIZE OR LOCATION OF TREES AND/OR SHRUBS

APPENDIX A

ENGINEERING LOGS

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 1
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
0	**FILL**, CLAY, sandy, trace gravel								
	0.100 Orange; Dry to moist; Hard								
	FILL, CLAY, sandy								
	0.300 Orange; Moist; Hard								
	CL CLAY, silty, with sand								
	Brown; Moist; Hard								
	Sand is fine grained								
	0.700 CL CLAY, sandy, trace silt								
	Brown; Moist; Hard								
	Sand is angular, medium to fine grained								
1									
	Becoming dry at 1.4m								
				1.5			3, 10/100mm, bouncing		
2									
	2.500 CL CLAY, sandy, trace gravel								
	Red mottled brown; Moist; Hard								
	Sand is angular, coarse to medium grained								
	Gravel is sub-angular								
3				3.0			1, 10/90mm, bouncing		
	3.800 CL CLAY, silty, trace sand and gravel								
	Brown mottled grey; Moist; Hard								
4	**Continued on next page**								

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 1
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
4	Sand is fine grained Gravel is sub-angular			4.5			3, 3/20mm, bouncing		
5									
6	6.000 END OF BORE (09-Jul-2021)								
7									
8									

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 2
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
0	CL CLAY, silty, with sand Brown; Moist; Very stiff Sand is fine grained								
	0.300 CL CLAY, sandy, trace silt Brown; Moist; Hard Sand is angular, medium to fine grained								
1									
	1.100 CL CLAY, sandy, trace gravel Red; Moist; Hard Sand is angular, coarse to medium grained Gravel is sub-angular			1.5			7/120mm, bouncing		
2									
	2.400 CL CLAY, silty, trace sand and gravel Brown mottled grey; Moist; Hard Sand is fine grained Gravel is sub-angular			3.0			3, 5/30mm, bouncing		
3									
	3.400 Distinctly Weathered ROCK, MUDSTONE, Excavating as clay silty with gravel Red; Moist; Low strength								
4	Continued on next page								

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 2
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
4									
5									
6	6.000 END OF BORE (09-Jul-2021)								
7									
8									

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 3
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
0	CL CLAY, silty, with sand Brown; Moist; Very stiff								
0.200	Sand is fine grained								
	CL CLAY, sandy, trace gravel Red; Moist to wet; Firm Sand is angular, coarse to medium grained Gravel is sub-angular Becoming moist and hard at 0.7m								
1									
1.200	CL CLAY, sandy, trace gravel Orange mottled brown; Moist; Hard Sand is coarse to medium grained Gravel is sub-angular			1.5			3, 4, 5		
2									
	Becoming brown mottled pale brown at 2.3m								
3				3.0			3, 4, 7		
	Becoming stiff at 3.6m								
4	Continued on next page								

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 3
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
4	4.000 CL CLAY, silty, trace sand								
	4.100 Brown mottled orange grey; Moist to wet; Firm								
	Sand is fine grained								
	SC SAND, clayey								
	Orange mottled brown; Moist; Very dense								
	Sand is angular, coarse to medium grained			4.5			4, 5, 9		
5	5.000 CL CLAY, sandy								
	Red mottled brown; Moist; Hard								
	Sand is angular, coarse to medium grained								
6	6.000 END OF BORE (09-Jul-2021)								
7									
8									

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 4
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
0	CL CLAY, sandy, trace gravel Brown; Moist; Hard Sand is angular, coarse to medium grained Gravel is sub-angular Becoming brown mottled orange and hard at 0.5m								
0.800	CL CLAY, sandy, with gravel Brown; Dry; Hard Sand is angular, coarse to medium grained Gravel is sub-angular								
1									
1.400	CL CLAY, sandy, trace gravel Brown mottled orange; Dry; Hard Sand is coarse to medium grained Gravel is sub-angular			1.5			2, 7/100mm, bouncing		
1.900	Distinctly Weathered ROCK, MUDSTONE, Excavating as clay silty trace gravel Red; Dry; Low strength								
2									
3									
4	Continued on next page								

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 4
DATE: 09-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
4	Becoming MS at 4.0m								
4.800	REFUSAL (09-Jul-2021)								
5									
6									
7									
8									

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 5
DATE: 13-JUL-2021

CIVIL TEST PTY. LTD.

DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
0	0.030 **FILL**, GRAVEL, sandy, trace clay Pale brown; Dry; Medium dense CL CLAY, sandy, trace gravel and silt Brown; Dry; Hard Sand is angular, fine grained Gravel is angular, fine grained								
1	0.900 CL CLAY, silty, trace gravel and sand Brown mottled grey; Moist; Hard Sand is angular, fine grained Gravel is angular, fine grained								
2	2.200 CL CLAY, sandy, with gravel Pale brown white; Moist; Hard Sand is angular, medium to fine grained Gravel is angular, medium to fine grained								
3	3.000 END OF BORE (13-Jul-2021)								
4									

ENGINEERING LOG

REPORT NO. 4210249-1
FIELD TECHNICIAN: TP/JK

BOREHOLE NO. 6
DATE: 13-JUL-2021

CIVIL TEST PTY. LTD.

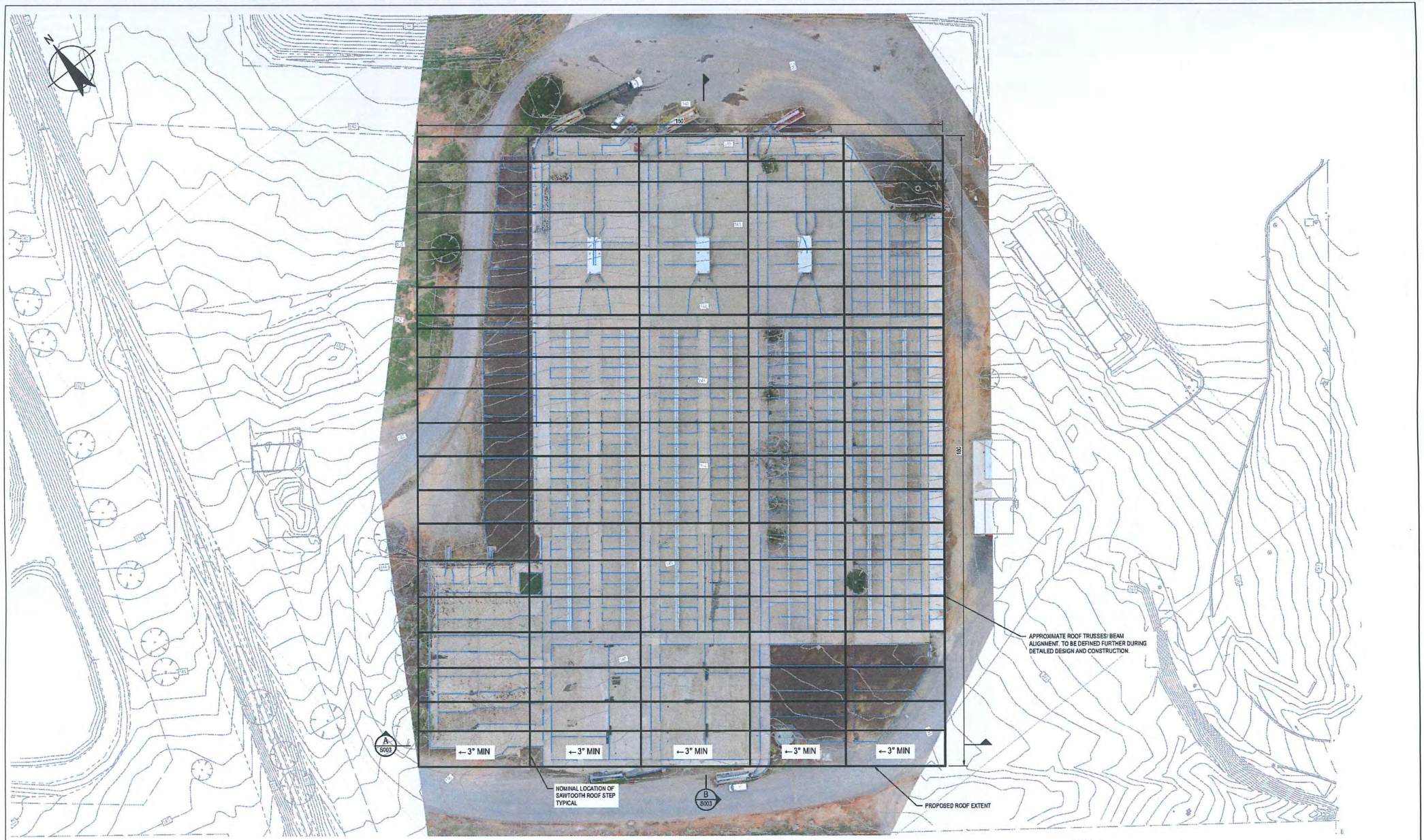
DEPTH (m)	STRATA DESCRIPTION	NOTES	GRAPHIC LOG	TESTING					
				DEPTH (m)	RESULTS				
					DCP Blows/100mm	FIELD CBR (%)	SPT	MC (%)	PP (kg/cm²)
0	**FILL**, GRAVEL, sandy, trace clay Pale brown; Dry; Medium dense								
0.030	CL CLAY, sandy, trace silt and gravel Brown; Dry; Hard Sand is angular, fine grained Gravel is angular, fine grained								
1									
1.500	CL CLAY, silty, trace sand and gravel Brown mottled grey; Moist; Hard Sand is angular, fine grained Gravel is angular, fine grained								
2									
2.600	CL CLAY, sandy, with gravel Pale brown white; Moist; Hard Sand is angular, medium to fine grained Gravel is angular, medium to fine grained								
3									
3.000	END OF BORE (13-Jul-2021)								
4									

Appendix B

Concept design drawings

Included Drawings

- 1250589-S001 – Covered roof structure floor plan
- 1250589-S002 – Covered roof structure roof layout
- 1250589-S003 – Covered roof structure section and details
- 1250589-S004 – Covered roof structure demolition plan
- 1250589-H001 – Roof stormwater system layout
- 1250589-S010 – Proposed site layout



FLOOR PLAN - COVERED ROOF STRUCTURE

SCALE 1:500

NOTE:
- MINIMUM ROOF AREA TO BE 27,000m²
- ROOF BEAMS AND TRUSSES ARE SHOWN INDICATIVELY ONLY
- DIMENSIONS ARE SHOWN IN METERS
- REFER TO SPECIFICATION FOR DESIGN AND CONSTRUCTION REQUIREMENTS

Rev	Description			Date
B	CONCEPT DESIGN FOR TENDER ISSUE	KW	SR	06.08.21
A	ISSUED FOR REVIEW	KW	SR	12.07.21

Author K WITHEROW Drafting Check S RASMUSSEN
Designer K WITHEROW Design Check

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

GHD
Suite 5, 105 Hume Street Wodonga VIC 3690 Australia
T 61 2 6043 8700 F 61 2 6043 8711
E abxmail@ghd.com.au W www.ghd.com.au
www.ghd.com

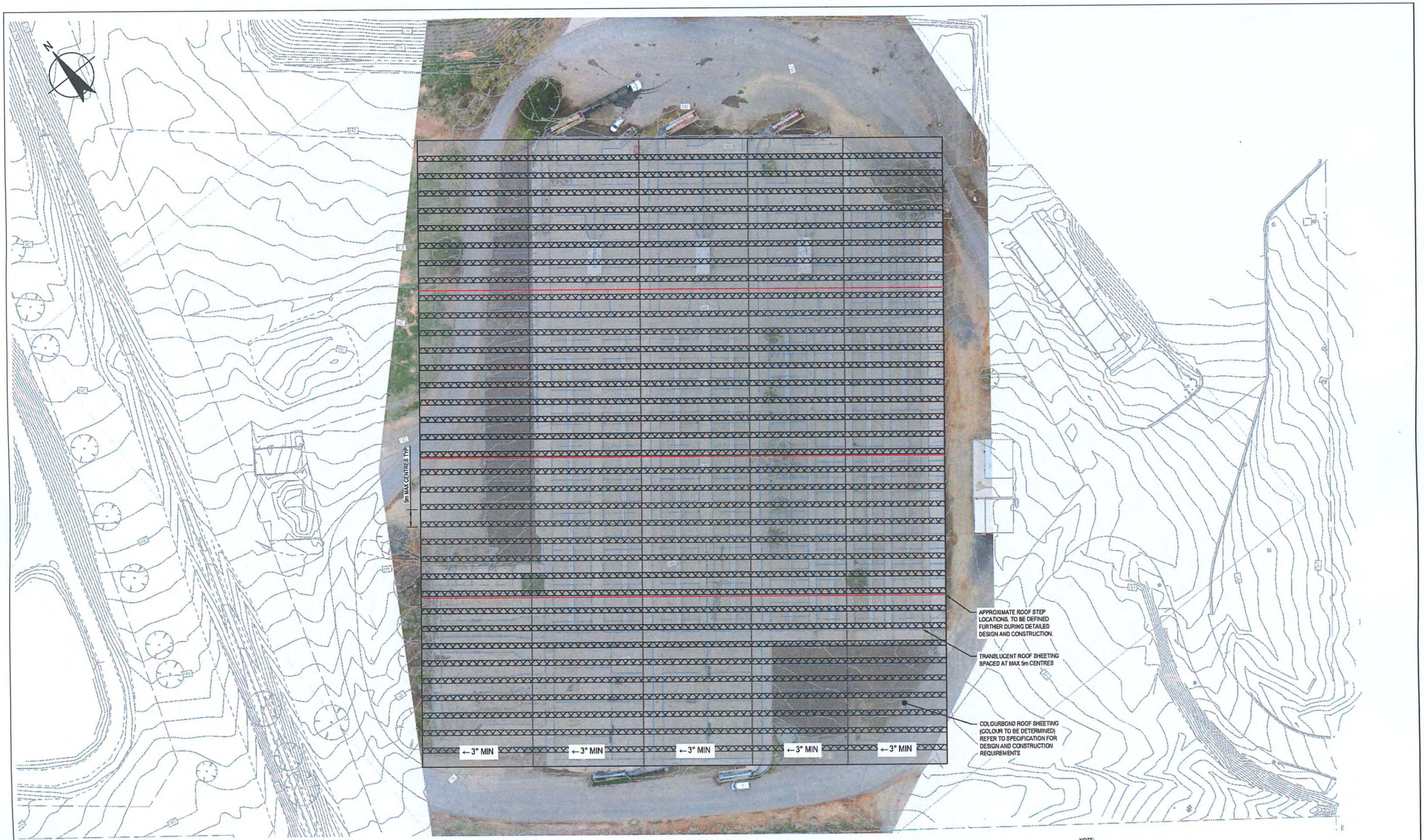
Conditions of Use. This document may only be used by GHD's client (or any other person or GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Project No. 12550589

Client FEDERATION COUNCIL
Project COROWA SALEYARDS REDEVELOPMENT
Status CONCEPT Status Code

Drawing Title COVERED ROOF STRUCTURE FLOOR PLAN
Size A1
Drawing No. 12550589-S001
Rev B

Plot Date: 6 August 2021 - 3:04 PM Plotted by: Kate Witherow
File Name: N:\AU\Albury Wodonga\Projects\31\12550589\CADD\Drawings\Structural\12550589-S001-S004-I001.dwg



ROOF LAYOUT

SCALE 1:500

NOTE:
- MINIMUM ROOF AREA TO BE 27,000m²
- ROOF BEAMS AND TRUSSES ARE SHOWN INDICATIVELY ONLY
- DIMENSIONS ARE SHOWN IN METERS
- REFER TO SPECIFICATION FOR DESIGN AND CONSTRUCTION REQUIREMENTS

Rev	Description	Checked	Approved	Date
B	CONCEPT DESIGN FOR TENDER ISSUE	KW	SR	05.08.21
A	ISSUED FOR REVIEW	KW	SR	12.07.21

Author K WITHEROW Drafting Check S RASMUSSEN
Designer K WITHEROW Design Check

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

GHD
Suite 5, 105 Hume Street Wodonga VIC 3690 Australia
T 61 2 6043 8700 F 61 2 6043 8711
E abxmail@ghd.com.au W www.ghd.com.au
www.ghd.com

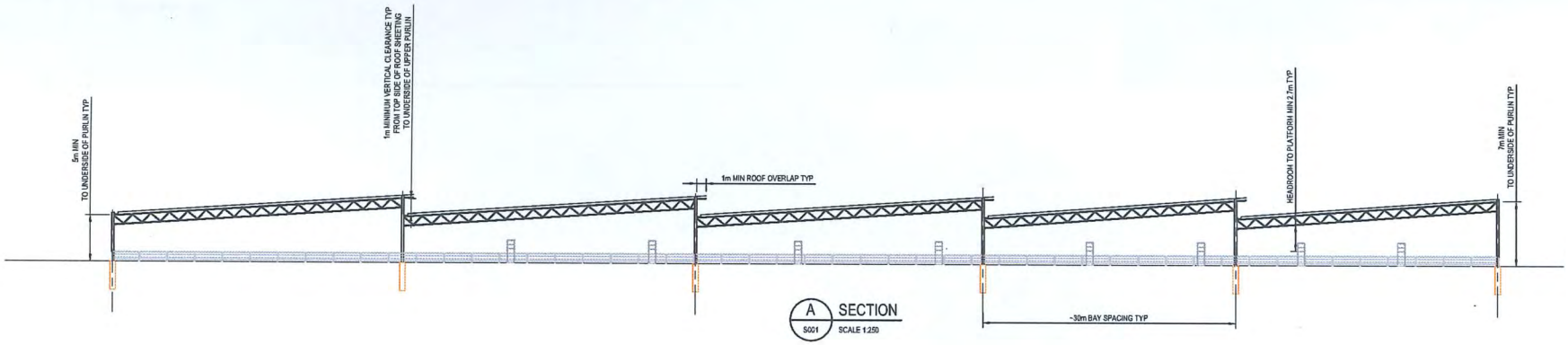
Conditions of Use. This document may only be used by GHD's client (or any other person or entity GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Project No. 12550589

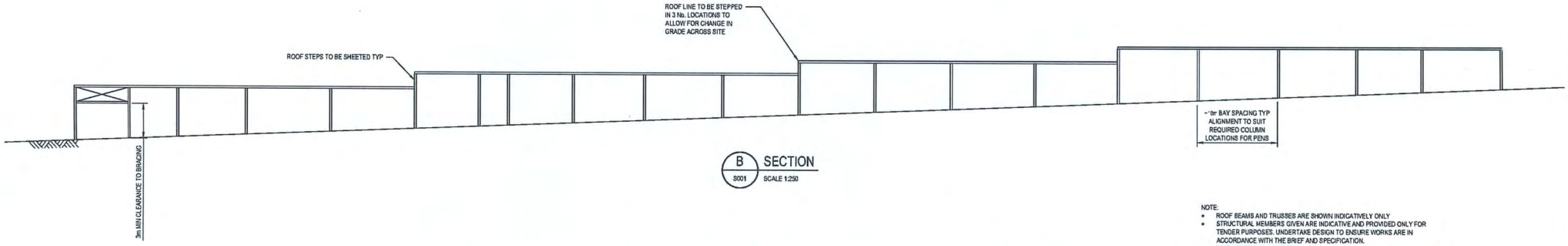
Client FEDERATION COUNCIL
Project COROWA SALEYARDS REDEVELOPMENT
Status CONCEPT Status Code

Drawing Title COVERED ROOF STRUCTURE ROOF LAYOUT
Size A1
Drawing No. 12550589-S002
Rev B

Plot Date: 3 August 2021 - 3:57 PM Plotted by: Kate Witherow
File Name: N:\AU\Albury Wodonga\Projects\31\12550589\CADD\Drawings\Structural\12550589-S001-S004-100h.dwg



A SECTION
S001 SCALE 1:250



B SECTION
S001 SCALE 1:250

NOTE:
- ROOF BEAMS AND TRUSSES ARE SHOWN INDICATIVELY ONLY
- STRUCTURAL MEMBERS GIVEN ARE INDICATIVE AND PROVIDED ONLY FOR TENDER PURPOSES. UNDERTAKE DESIGN TO ENSURE WORKS ARE IN ACCORDANCE WITH THE BRIEF AND SPECIFICATION.
- DIMENSIONS ARE IN METERS
- REFER TO SPECIFICATION FOR DESIGN AND CONSTRUCTION REQUIREMENTS

Rev	Description	Checked	Approved	Date
B	CONCEPT DESIGN FOR TENDER ISSUE	KW	SR	06.08.21
A	ISSUED FOR REVIEW	KW	SR	12.07.21

Author K WITHEROW Drafting Check S RASMUSSEN
Designer K WITHEROW Design Check

0 2.5 5 7.5 10 12.5m
SCALE 1:250 AT ORIGINAL SIZE

GHD
Suite 5, 105 Hume Street Wodonga VIC 3690 Australia
T 61 2 6043 8700 F 61 2 6043 8711
E abxmail@ghd.com.au W www.ghd.com.au
www.ghd.com

Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Project No. 12550589

Client FEDERATION COUNCIL
Project COROWA SALEYARDS REDEVELOPMENT
Status CONCEPT Status Code

Drawing Title COVERED ROOF STRUCTURE SECTION AND DETAILS
Size A1
Drawing No. 12550589-S003
Rev B

Plot Date: 3 August 2021 - 3:58 PM Plotted by: Kate Witherow
File Name: N:\AUAlbury Wodonga\Projects\31\12550589\CADD\Drawings\Structural\12550589-S001-S004-I001.dwg



DEMOLITION PLAN

SCALE 1:500

Rev	Description	Checked	Approved	Date
B	CONCEPT DESIGN FOR TENDER ISSUE	KW	SR	06.08.21
A	ISSUED FOR REVIEW	KW	SR	12.07.21

Author K.WITHEROW Drafting Check S.RASMUSSEN
Designer K.WITHEROW Design Check

Plot Date: 6 August 2021 - 2:51 PM Plotted by: Katie Witherow

File Name: N:\AU\Albury-Wodonga\Projects\31\12550589\CADD\Drawings\Structural\12550589-S001-S004-I001.dwg

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

GHD
Suite 5, 105 Hume Street Wodonga VIC 3690 Australia
T 61 2 6043 8700 F 61 2 6043 8711
E abxmail@ghd.com.au W www.ghd.com.au
www.ghd.com

Conditions of Use: This document may only be used by GHD's client (or any other person who GHD has agreed can rely on this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Project No. 12550589

Client FEDERATION COUNCIL

Project COROWA SALEYARDS REDEVELOPMENT

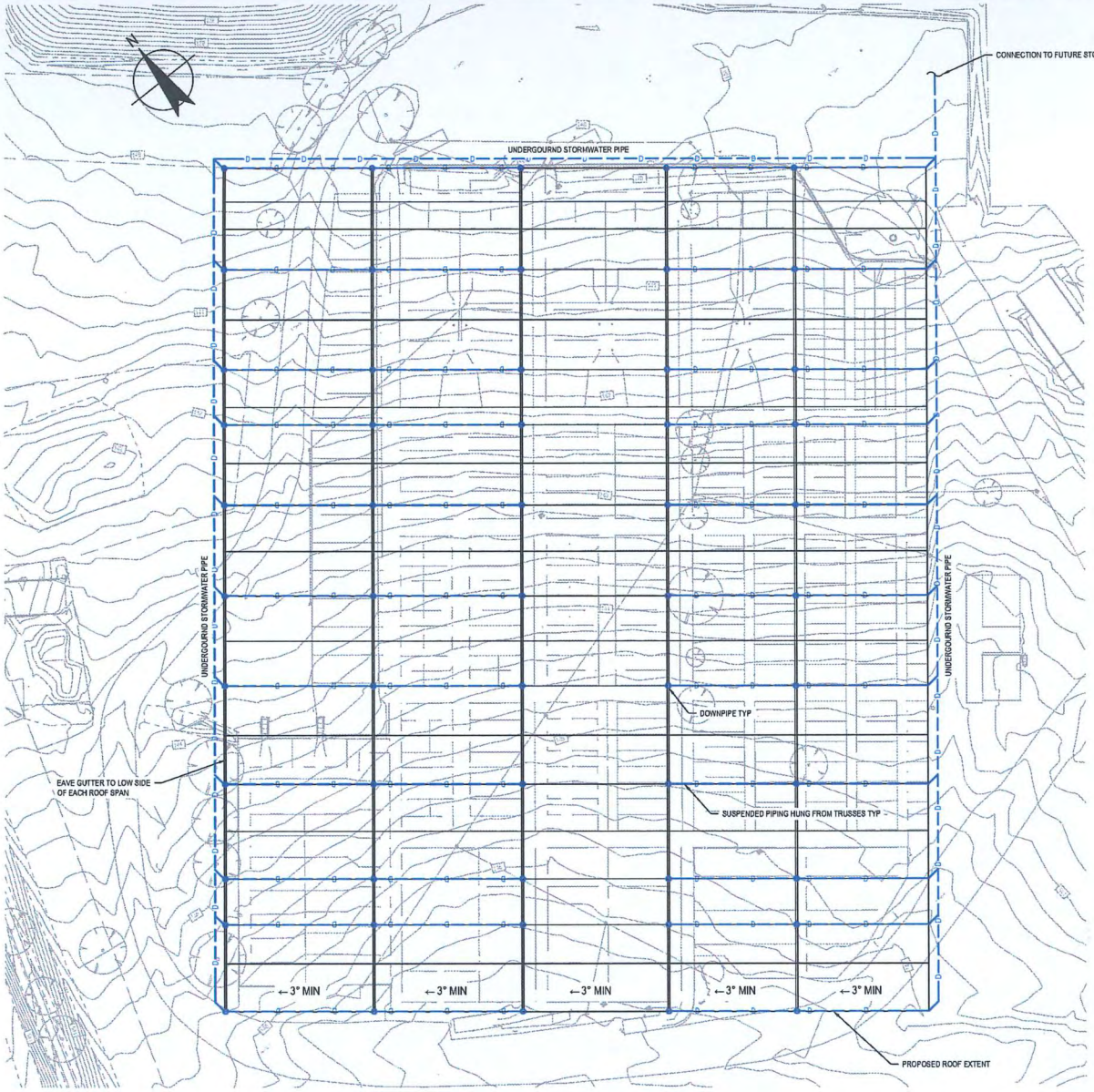
Status CONCEPT Status Code

Drawing Title COVERED ROOF STUCTURE DEMOLITION PLAN

Size A1

Drawing No. 12550589-S004

Rev B



ROOF STORMWATER SYSTEM LAYOUT

SCALE 1:500

STORMWATER DRAINAGE

STANDARDS

- STORMWATER INSTALLATION SHALL COMPLY WITH AS/NZS 3500.0, AS/NZS 3500.3

GENERAL NOTES

DRAWINGS

- THE DRAWINGS ARE A GUIDE ONLY FOR THE LOCATION AND LAYOUT OF THE SERVICES PIPES.
- DO NOT SCALE FROM THESE DRAWINGS.
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS, SPECIFICATION AND DRAWINGS.

LEVELS

- VERIFY THAT ALL INVERT LEVELS, SURFACE LEVELS AND CLEARANCES ARE CORRECT AND OBTAINABLE PRIOR TO COMMENCING WORKS.

STRUCTURAL

- PIPE WORK BRACKETS AND SUPPORT SYSTEM TO BE DESIGNED AND IN LINE WITH THE STRUCTURAL TECHNICAL SPECIFICATION.

Rev	Description	Checked	Approved	Date
B	CONCEPT DESIGN FOR TENDER ISSUE	KW	SR	06.08.21
A	ISSUED FOR REVIEW	KW	SR	12.07.21

Author K WITHEROW Drafting Check S RASMUSSEN
Designer K WITHEROW Design Check

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

GHD
Suite 5, 105 Hume Street Wodonga VIC 3690 Australia
T 61 2 6043 8700 F 61 2 6043 8711
E abxmail@ghd.com.au W www.ghd.com.au
www.ghd.com

Conditions of Use. This document may only be used by GHD's client (or any other person who GHD has agreed can rely on this document) for the purpose for which it was prepared and must not be relied by any other person or for any other purpose.

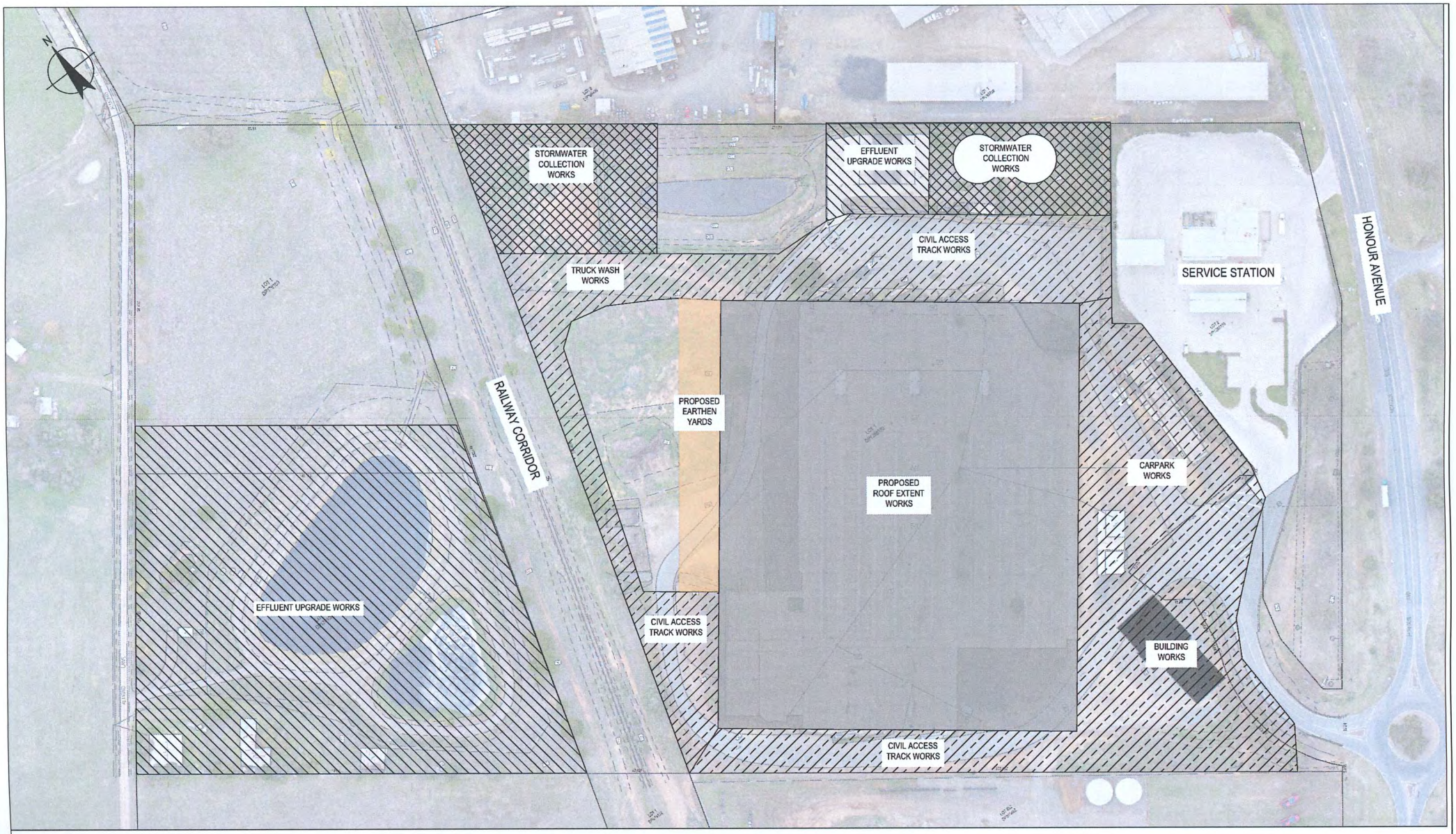
Project No. 12550589

Client FEDERATION COUNCIL
Project COROWA SALEYARDS REDEVELOPMENT
Status CONCEPT Status Code

Drawing Title ROOF STORMWATER SYSTEM LAYOUT
Size A1
Drawing No. 12550589-H001
Rev B

Plot Date: 3 August 2021 - 3:56 PM Plotted by: Kala Witherow

File Name: N:\AU\Albury Wodonga\Projects\31\12550589\CADD\Drawings\Structural\12550589-S001-S004-H001.dwg



NOTE:
- THE AREAS SHOWN ARE INDICATIVE ONLY AND ARE SUBJECT TO DEVELOPMENT

Rev	Description	Checked	Approved	Date
A	CONCEPT LAYOUT FOR TENDER ISSUE	KW	SR	05.08.21

Author K WITHEROW | Drafting Check S RASMUSSEN
Designer K WITHEROW | Design Check

0 5 10 15 20 25m
SCALE 1:750 AT ORIGINAL SIZE

Plot Date: 5 August 2021 - 1:40 PM | Plotted by: Kate Witherow | File Name: C:\Users\kjwitherow\Desktop\12550589-3005-SITE PLAN.dwg

GHD
Suite 5, 105 Hume Street Wodonga VIC 3690
Australia
T 61 2 6043 8700 F 61 2 6043 8711
E abxmail@ghd.com.au W www.ghd.com.au
www.ghd.com

Disclaimer: This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other parties or for any other purpose.

Project No. 12550589

Client: FEDERATION COUNCIL
Project: COROWA SALEYARDS REDEVELOPMENT
Status: CONCEPT | Status Code

Drawing Title: PROPOSED SITE LAYOUT
Size: A1
Drawing No.: 12550589-S010
Rev: A

Appendix C

Safety in Design Risk Assessment

HSE040 Safety in Design Risk Assessment - Roof Structure - SiDRA for Structural Services

Notes: *Designs with significant quantities of dangerous goods may require detailed risk assessments under Dangerous Goods or Major Hazard legislation
* Most industrial processes will require an industry specific assessment, e.g. HAZOP and/or Quantitative Risk Assessment for facilities that have chemical or high-pressure processes under Dangerous Goods or Major Hazard legislation.

Design Life Cycle:	Investigation and Design	Setup, Construction and Commissioning	Operation	Maintenance	Disposal		**Date:**	12/07/2021
Job Name:	Corowa Saleyards Redevelopment		**Job No:**	12550589	**Client**	Federation Council	**Design:**	Structural design of roof structure (concept stage input for D&C tender)
People involved in Risk Assessment:	Kate Witherow, Dean Wearne, Simon Rasmussen							

					Initial Risk Rating							Residual Risk Rating			
Design Ref	**Design Life Cycle Stage**	**Hazards** What could cause injury or ill health, damage to property or damage to the environment	**Risk** What could go wrong and what might happen as a result	**Existing Control Measures**	**C**	**L**	**RR**	**Potential Control Measures** (Consider Hierarchy of Control - Elimination, Substitution, Isolation, Engineering Controls, Administrative Controls, PPE)	**Responsibility**	**By When**	**Decision / Status**	**C**	**L**	**fe**	**Comments**
Access/egress, access ways, entrances/gates	Maintenance	Safe roof access for ongoing maintenance.	Worker failing from height when accessing roof for maintenance.	Specify access and fall from heights prevention systems	E- Catastrophic	4 - Likely	Extreme	Specification to specify limitations on minimum clearance from existing platforms to roof structure. Specification to include requirements for safe access provisions to be made and safe access points.	Detailed designer and Contractor	Detailed design and construction	Included in concept drawing and specification for D&C Contractor.	E- Catastrophic	2 - Unlikely	Significant	
Access/egress, access ways, entrances/gates	Operation	Clearance for walkways to roof structure.	Injury to sellers and staff accessing walkway structures.	Allow for suitable clearance from walkways to underside of structure	C- Severe	4 - Likely	Moderate	Specification to specify limitations on minimum clearance from existing platforms to roof structure.	Detailed designer and Contractor	Detailed design and construction	Included in concept drawing and specification for D&C Contractor.	B - Major	2 - Unlikely	Negligible	
Access/egress, access ways, entrances/gates	Setup, Construction and Commissioning	Interaction with traffic on site with saleyard operation, and other works on site i.e. civil works.	Worksite interaction with existing traffic and other works on site resulting in collision and injury.	Locate roof structure columns outside of designated road and access way areas. Nominate barriers where required.	E- Catastrophic	4 - Likely	Extreme	Consider column locations and construction sequencing and develop traffic management plan, traffic control and partial road closures. Rediversion of traffic and termporary roadways to be considered.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Access/egress, access ways, entrances/gates	Setup, Construction and Commissioning	Access to sale yard site is reduced during construction.	Large number of vehicles entering site during construction resulting in a collision between stock transporter and construction vehicle.	Designate road and access way areas. Nominate barriers where required.	E- Catastrophic	4 - Likely	Extreme	Contractor to establish safe site access procedure and suitable traffic management including for sale days.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Adjacent structures	Investigation and Design	Roof structure reduces movement of existing gates, causing potential for injury.	Roof construction impacts use of yards and movement causing crushing safety risk.	Design to ensure that gate with reduced functionality due to building columns are made redundant, and that suitable operable gates are maintained to pens.	B - Major	4 - Likely	Low	Designer to be aware of operational requirements of site during the work and during ongoing operation. Design to include requirements for amendments to gates and pens due to column locations.	Designer	Detailed Design	Included in detailed design.	B - Major	2 - Unlikely	Negligible	
Adjacent structures	Setup, Construction and Commissioning	Potential damage to existing pens, concrete flooring during construction of roof.	Existing yards to remain in operation during construction and, damage to existing infrastructure would potentially impact to sales.	Design to minimise number of columns and footings to reasonable extent.	C- Severe	3 - Possible	Moderate	Detailed design to minimise number of footings so far as is reasonable. Contractor work method statements. Contractors to be aware of operational requirements of site during the work.	Detailed designer and Contractor	Detailed design and construction	Review of Contractors documents to be undertaken.	C- Severe	2 - Unlikely	Low	
Community/public interaction/access	Setup, Construction and Commissioning	Unauthorised public assess to site.	Public getting access to saleyard site and risk of injury.	-	E- Catastrophic	4 - Likely	Extreme	Security gates/fence. Secure enclosure to store materials/equipment.	Detailed designer and Contractor	Detailed design and construction	Included in specification for D&C contractor.	E- Catastrophic	2 - Unlikely	Significant	
Construction method	Setup, Construction and Commissioning	Construction of roof structure i.e. fixing roof sheeting	Failing from roof during construction.	Construction methodology open to D&C Contractor to allow for risk mitigation.	E- Catastrophic	4 - Likely	Extreme	Suitable temporary safety equipmemnt or access, PPE. Work method statements and JSEAs etc.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	3 - Possible	Extreme	

					Initial Risk Rating								Residual Risk Rating			
Design Ref	Design Life Cycle Stage	Hazards What could cause injury or ill health, damage to property or damage to the environment	Risk What could go wrong and what might happen as a result	Existing Control Measures	C	L	RR	Potential Control Measures (Consider Hierarchy of Control - Elimination, Substitution, Isolation, Engineering Controls, Administrative Controls, PPE)	Responsibility	By When	Decision / Status	C	L	fe	Comments
Construction method	Setup, Construction and Commissioning	Staged construction of roof structure to allow for sale days to be undertaken during construction.	Construction process requires large amounts of the saleyards to not be accessed resulting in loss of sale days.	Outline construction staging requirement and leave methodology to D&C Contractor to allow for risk mitigation	C- Severe	4 - Likely	Moderate	Contractor work method statements. Contractors to be aware of operational requirements of site during the work.	Contractor	Construction	Review of Contractors documents to be undertaken.	C- Severe	2 - Unlikely	Low	
Corrosion	Investigation and Design	Roof structure including columns and interaction of effluent from yards.	Roof structure does not meet required design life due to corrosion of elements.	Specify material requirements for durability.	D - Critical	4 - Likely	Significant	Specification states minimum requirement for protective coatings. Contractor to provide design certifications.	Detailed designer and Contractor	Detailed design, contractors and operations	Review of Contractors documents to be undertaken.	D - Critical	2 - Unlikely	Moderate	
Emergency Response	Investigation and Design	Insufficient number of exits for safe exit	In emergency situation persons can not exit facility safely.	Currently a number of exits. Fire services for covered roof structure yet to be assessed.	D - Critical	3 - Possible	Significant	Current number of exits to be maintained and assess egress distances and fire services provisions with NCC.	Fire engineer	Detailed Design	Fire Engineer/ Council Building Surveyor	D - Critical	2 - Unlikely	Moderate	
Emergency Response	Investigation and Design	Fire services on site insufficient.	Injury to persons during an emergency situation due to insufficient fire service.	-	E- Catastrophic	4 - Likely	Extreme	Designer to address requirements for provision of fire services.	Fire engineer	Detailed Design	Fire Engineer/ Council Building Surveyor	E- Catastrophic	2 - Unlikely	Significant	
External / 3rd party activities	Investigation and Design	Roof components partially constructed due to staged construction during a weather event.	Roof structure is not designed for partial construction resulting in injury to persons or infrastructure.	Outline construction staging requirement and leave methodology to D&C Contractor to allow for risk mitigation.	E- Catastrophic	4 - Likely	Extreme	Specification outlines requirement for design of each construction stage of construction process. Contractor to design for all construction stages.	Detailed designer and Contractor	Detailed design and construction	Included in specification for D&C contractor.	E- Catastrophic	2 - Unlikely	Significant	
Falling Objects	Setup, Construction and Commissioning	Tree lopping causes failing trees and branches.	Tree lopping damage to existing services, structures and people.	-	E- Catastrophic	3 - Possible	Extreme	Contractor to establish appropriate exclusion zones and follow tree lopping SWMS. Arborist to be present.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Falling Objects	Setup, Construction and Commissioning	Dropping of tools, equipment or materials from roof.	Tools or equipment striking worker below.	-	E- Catastrophic	4 - Likely	Extreme	Design to allow for staged construction with no access below construction works areas. Contractor to develop work method statements, hardhats and PPE etc. Barricading of no access area.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Flow	Investigation and Design	Roof drainage is not sufficient for stormwater.	Overflow of gutters onto persons causing slips and trips safety risks.	Design allows for provision of suitable gutter sizing, stormwater runs and support of structure.	C- Severe	3 - Possible	Moderate	Specification outlines requirement for design of stormwater system. Contractor to design for all construction stages.	Detailed designer and Contractor	Detailed design and construction	Included in concept design drawing and specification for D&C contractor.	C- Severe	1 - Very Unlikely	Low	
Slips/Trips/Falls	Investigation and Design	Slips/trips and falls associated with existing access ways and risk of gutter overflow or rain ingress onto accessways	Slips and trips safety risks due to potential for majority of accessway area to be dry, with potential for some wet areas with heavy rain or sleet ingress onto accessways.	-	C- Severe	3 - Possible	Moderate	Council to assess existing accessways for compliance and trips and slips risks.	Council	Detailed design	Review existing compliance and risk of slips and trips.	C- Severe	1 - Very Unlikely	Low	
Ground conditions	Investigation and Design	Unknown levels on site.	Design doesn't account for change in levels across roof structure resulting in insufficient clearances for head height or cross ventilation.	Specify minimum roof clearance levels and designated allowable roof step locations.	C- Severe	3 - Possible	Moderate	Site survey of site to be completed to inform design. Specification outlines minimum requirements for clearance.	Detailed designer and Contractor	Detailed design and construction	Included in detailed design drawing and specification for D&C contractor.	C- Severe	1 - Very Unlikely	Low	

Design Ref	Design Life Cycle Stage	Hazards What could cause injury or ill health, damage to property or damage to the environment	Risk What could go wrong and what might happen as a result	Existing Control Measures	Initial Risk Rating C	L	RR	Potential Control Measures (Consider Hierarchy of Control - Elimination, Substitution, Isolation, Engineering Controls, Administrative Controls, PPE)	Responsibility	By When	Decision / Status	Residual Risk Rating C	L	fe	Comments
Hazardous substances/ Dangerous goods	Setup, Construction and Commissioning	Cutting into existing concrete flooring for new footings.	Exposure to potentially hazadous substances/materials and causing illness.	Minimise number of columns and footings to reasonable extent.	D - Critical	3 - Possible	Significant	Council to provide Contractor with hazmat register for the site if available. Contractor to develop suitable work method statements, masks hardhats and PPE etc. Barricading of no access area.	Council for hazmat register Contractor for SWMS	Detailed design and Construction	Review of Contractors documents to be undertaken.	D - Critical	2 - Unlikely	Moderate	
Heavy lifts/cranage	Setup, Construction and Commissioning	Lifting will likely be required for roof construction.	Lifting of materials for roof structure.	Leave methodology open so that D&C Contractor can minimise risk.	E- Catastrophic	4 - Likely	Extreme	Work method statements, hardhats and PPE etc. Barricading of no access area.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Instability	Investigation and Design	Ground conditions result in unstable structure.	Structure has partial collapse resulting in damaged to infrastructure or persons.	Minimise requirement for deep excavation as part of design and specification (so far as is reasonably possible)	D - Critical	3 - Possible	Significant	Geotechnical investigations are undertaken at the site to inform the design.	Detailed designer and Contractor	Detailed design and construction	Review of Contractors documents to be undertaken.	D - Critical	2 - Unlikely	Moderate	
Lighting	Operation	Lighting of site during reduced natural light situations.	Injury to operators or persons due to reduced visibility.	Specify that structure is to allow for services loads, including lighting.	C- Severe	3 - Possible	Moderate	Specification states minimum requirement. Contractor to provide design certifications.	Detailed designer and Contractor	Detailed design, contractors and operations	Review of Contractors documents to be undertaken.	C- Severe	2 - Unlikely	Low	
Live services	Setup, Construction and Commissioning	Removal/relocation of existing electrical lighting.	Risk of removal/relocation of live electrical lines require for roof structure.	Outline existing service information in tender documentation and require detailed Contractor services investigations prior to works.	E- Catastrophic	3 - Possible	Extreme	Contractor work method statements. All works to be in accordance with relevant regulations for removal of electrical lines.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Live services	Setup, Construction and Commissioning	Hitting a buried live service.	Loss of life via electrocution or injury from services.	Outline existing service information in tender documentation and require detailed Contractor services investigations prior to works. Minimise number of columns and footings to reasonable extent.	E- Catastrophic	3 - Possible	Extreme	Service locating at commencement of construction. Licensed electricals. Contractor SWMS. Excavation to be completed with care for services potentially not located.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Manual handling	Setup, Construction and Commissioning	Manual handling during construction.	Injury to workers construction structure.	Allow option for segmential construction or methodology to be developed by D&C Contractor to allow for risk mitigation.	D - Critical	3 - Possible	Significant	Contractor work method statements.	Contractor	Construction	Review of Contractors documents to be undertaken.	D - Critical	2 - Unlikely	Moderate	
Materials of construction	Setup, Construction and Commissioning	Roof structure materials.	Roof structure does not meet required design life.	Specify minimum standards and requirements.	C- Severe	4 - Likely	Moderate	Specification states minimum requirement. Contractor to provide design certifications.	Detailed designer and Contractor	Detailed design, contractors and operations	Review of Contractors documents to be undertaken.	C- Severe	2 - Unlikely	Low	
Odour & natural ventilation	Investigation and Design	Ventilation to facility is reduced due to roof structure.	Facility does not adequately ventilate resulting in potential injury to persons.	Minimum clearance to underside of roof structure of 5m.	C- Severe	4 - Likely	Moderate	Ventilation of facility to be assessed during design process. Concept design to consider airflow.	Designer	Detailed Design	Included in detailed design.	C- Severe	2 - Unlikely	Low	
Operations/Interactions	Setup, Construction and Commissioning	Interaction between sellers/buyers and constructors.	Damage to constructor property or injury to person entering construction site.	-	E- Catastrophic	3 - Possible	Extreme	Contractor to establish safe site access procedure and suitable traffic management including for sale days.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	1 - Very Unlikely	Moderate	
Overhead/Underground Services	Setup, Construction and Commissioning	Strike of existing overhead power.	Loss of life via electrocution.	-	E- Catastrophic	3 - Possible	Extreme	Contractor work method statements. Contractors to be aware of operational requirements of site during the work.	Contractor	Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	

Design Ref	Design Life Cycle Stage	Hazards What could cause injury or ill health, damage to property or damage to the environment	Risk What could go wrong and what might happen as a result	Existing Control Measures	Initial Risk Rating C	L	RR	Potential Control Measures (Consider Hierarchy of Control - Elimination, Substitution, Isolation, Engineering Controls, Administrative Controls, PPE)	Responsibility	By When	Decision / Status	Residual Risk Rating C	L	fe	Comments
Safety factor	Investigation and Design	Safety factors of structure is insufficient.	Loading on building greater than design resulting in failure of structure resulting in injury to persons.	Specify minimum standards and requirements.	E- Catastrophic	4 - Likely	Extreme	Specification states minimum requirement. Contractor to provide design certifications.	Detailed designer and Contractor	Detailed design and Construction	Review of Contractors documents to be undertaken.	E- Catastrophic	2 - Unlikely	Significant	
Slips/Trips/Falls	Operation	Potential slips trips and falls during ongoing operation of the site.	Injuries to persons resulting from falling at the same level.	Ongoing maintenance of the site for raised concrete sections.	C- Severe	4 - Likely	Moderate	Operators to continue maintenance of the facility and address any potential trip hazards such as trip hazards caused by differences in height between adjoining surfaces.	Operator	Ongoing	Operator to maintain facility.	C- Severe	2 - Unlikely	Low	
Slips/Trips/Falls	Setup, Construction and Commissioning	Potential slips trips and falls during construction.	Injuries to persons resulting from falling at the same level.	Methodology to be developed by D&C Contractor to allow for risk mitigation.	C- Severe	4 - Likely	Moderate	Detailed design to consider suitable erection methods to minimise fall risks. Contractor to practise housekeeping practises e.g. implementing waste management practises to prevent rubbish build up, keeping walkways clear or items etc.	Detailed designer and Contractor	Design and Construction	Review of Contractors documents to be undertaken.	C- Severe	2 - Unlikely	Low	
Structures	Investigation and Design	Vehicle colliding with roof structure due to construction height.	Injury to persons as a result if collision and/or damage to structure.	Nominate allowable column locations and where additional protection is required.	E- Catastrophic	4 - Likely	Extreme	Specification outlines requirement for minimum height clearances between ground surface and underside of structure.	Detailed designer and Contractor	Detailed design and construction	Included in concept drawing and specification for D&C Contractor.	E- Catastrophic	2 - Unlikely	Significant	

GHD RISK ASSESSMENT MATRIX

Risk Assessment Matrix		CONSEQUENCE				
LIKELIHOOD		MINOR	MAJOR	SEVERE	CRITICAL	CATASTROPHIC
		A	B	C	D	E
ALMOST CERTAIN	5	Low	Moderate	Significant	Extreme	Extreme
LIKELY	4	Low	Low	Moderate	Significant	Extreme
POSSIBLE	3	Negligible	Low	Moderate	Significant	Extreme
UNLIKELY	2	Negligible	Negligible	Low	Moderate	Significant
VERY UNLIKELY	1	Negligible	Negligible	Low	Moderate	Moderate

GHD SAFETY IN DESIGN RISK ASSESSMENT CONSEQUENCE & LIKELIHOOD DESCRIPTORS

GHD CONSEQUENCE DESCRIPTORS

Select the **MOST LIKELY/PROBABLE** consequence descriptor for the information available).

Risk Consequence	Design Consequence Descriptors
E- Catastrophic	Could result in fatality.
D – Critical	Could result in permanent total disability.
C- Severe	Could result in permanent partial disability, injuries or illness that may result in hospitalisation of persons.
B - Major	Could result in injury or illness resulting in one or more lost work days(s)
A – Minor	Could result in injury or illness not resulting in a lost work day.

GHD LIKELIHOOD DESCRIPTORS

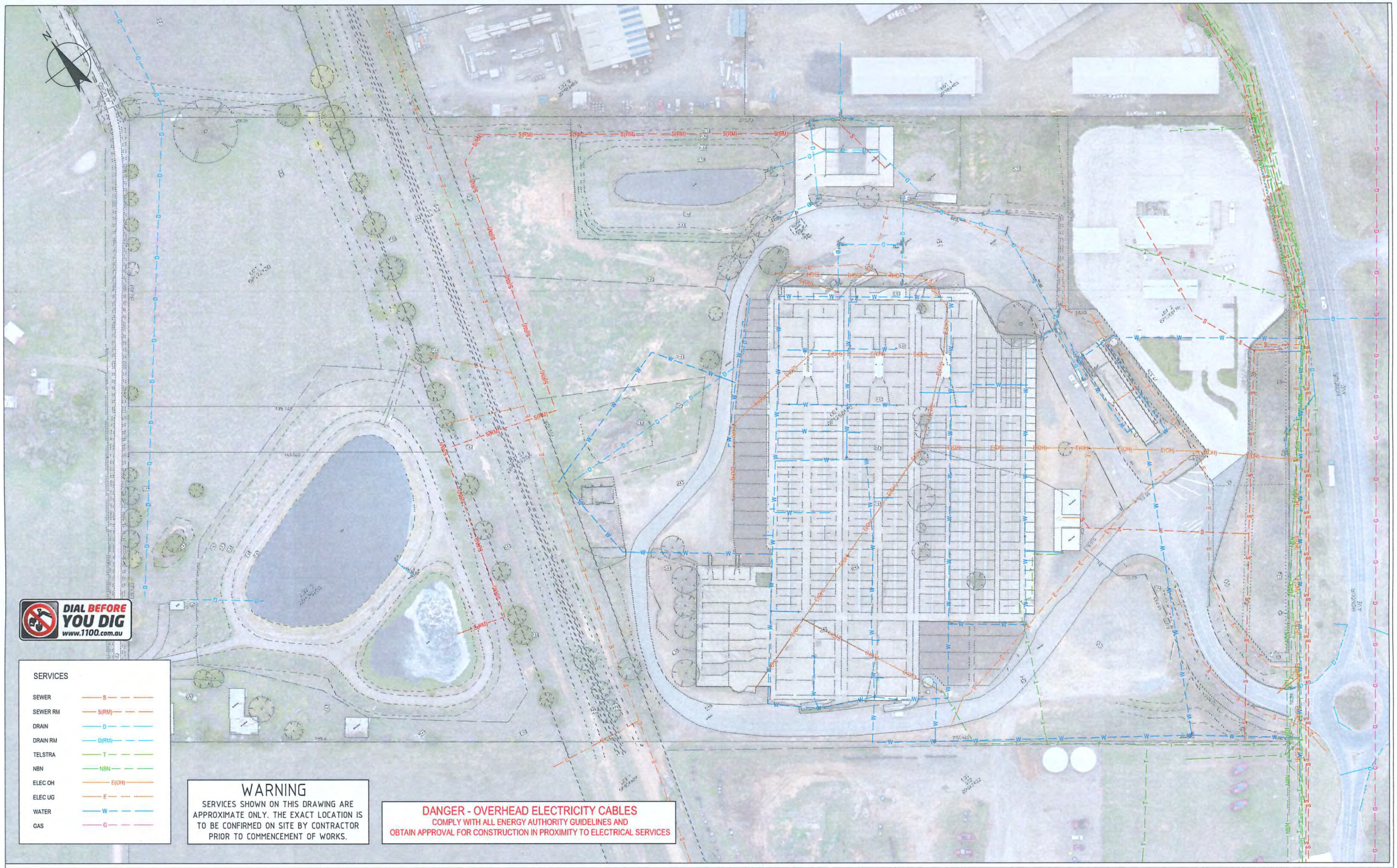
Select the best likelihood descriptor for the information available).

Likelihood Descriptor	Design Likelihood Descriptors
5 – Almost Certain	Industry experience suggests design failure is almost certain to occur during the life of the product.
4 – Likely	Industry experience suggests design failure is likely to occur during the life of the product.
3 – Possible	Industry experience suggests design failure is possible some time during the life of the design.
2 – Unlikely	Industry experience suggests design failure is unlikely to occur in the life of design.
1 – Very Unlikely	Industry experience suggests design failure is very unlikely. It can be assumed failure occurrence may not be experienced,

Appendix D

Existing site services plan

Services shown on this drawing are in approximate locations only. Services other than those shown may exist. The accuracy and completeness of the data is not guaranteed and it is the contractor's responsibility to confirm the location and levels of all existing services prior to commencing work.



Rev	Description	Checked	Approved	Date
A	INITIAL ISSUE	KW	SR	25/06/21

Author S. HALL Drafting Check L. SIMPSON
Designer S. HALL Design Check R. RASSMUSSEN

0 5 10 15 20 25m
SCALE 1:750 AT ORIGINAL SIZE

FEDERATION COUNCIL

GHD
Suite 5, 105 Hume St Wodonga VIC 3690 Australia
PO Box 992 Wodonga VIC 3689
T 61 2 6043 8700 F 61 2 6043 8711
E abxmail@ghd.com.au W www.ghd.com.au
www.ghd.com

Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Project No. 12550589

Client FEDERATION COUNCIL
Project COROWA SALEYARDS REDEVELOPMENT
Status DRAFT Status Code

Drawing Title SERVICES LAYOUT PLAN
EXISTING SERVICES PLAN

Size A1
Drawing No. 12550589-SK001
Rev. A

Plot Date: 25 June 2021 - 2:38 PM Plotted by: Sam Hall
File Name: N:\AU\Albury Wodonga\Projects\31\12550589\CADD\Drawings\12550589-SK001.dwg

FEDERATION COUNCIL

Appendix E

Modifications to selling pens

(Provisional item)

FEDERATION COUNCIL

Modifications to Selling Pens (Provisional item)

Contractor is requested to price modifications to selling pens to facilitate cleaning of pens after sale by means of mechanical sweeping (eg wheeled skid steer fitted with broom).

Modifications to entail (per Figure 1):

- removal of fixed posts and panels and replacement with swing-gate type separating panels between selling pens.
- Make good and make safe after removal of fixed posts.
- Provide means of securing swing gates to provide separation between selling pens (eg chains as per existing)
- Arrangement of swing gates to allow opening to form continuous laneway through selling pens, parallel to overhead auctioneer walkways.
- Re-use of existing panels is encouraged.

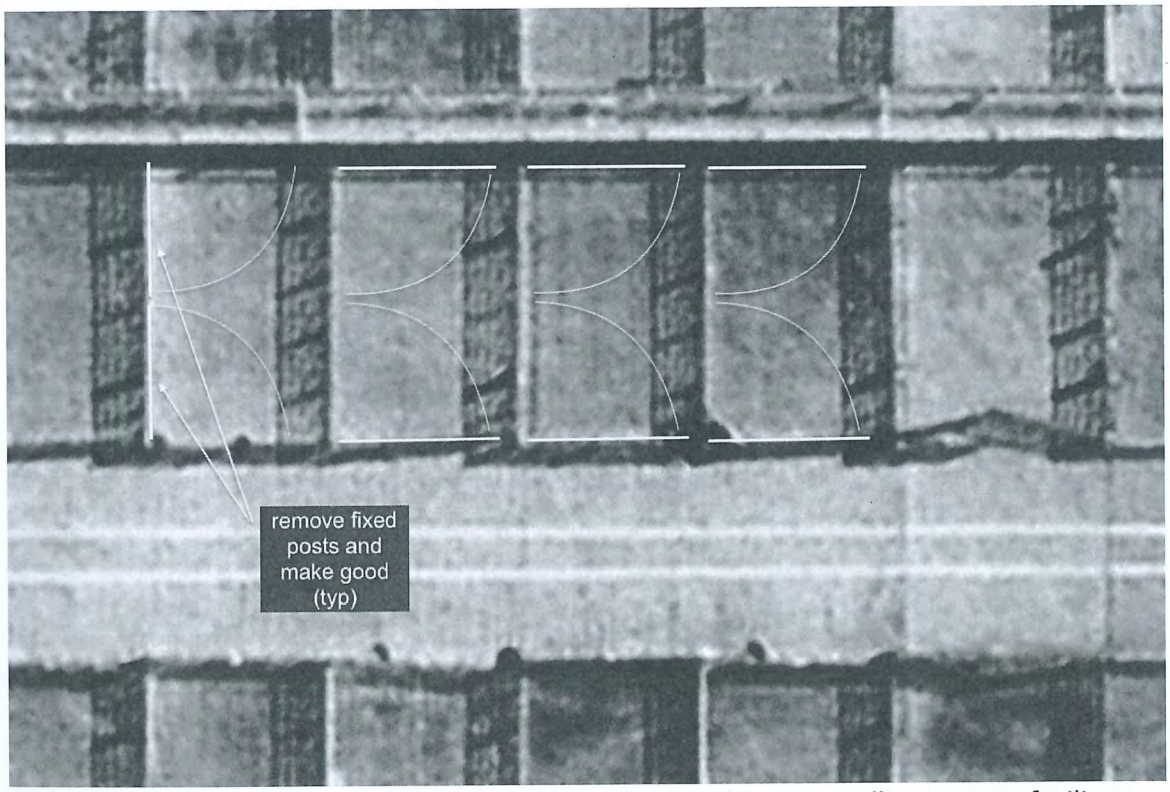


Figure 1 – sample proposed arrangement for swing gates between selling pens to facilitate mechanical sweeping after sheep sale

Modifications to be priced as provisional items, subject to Council acceptance and written approval, prior to proceeding.

FEDERATION COUNCIL

Appendix F

100 kW Solar PV System

(Provisional item)

FEDERATION COUNCIL

100 kW Solar PV System (Provisional item)

Contractor is requested to provide provisional sum pricing for the supply & installation of nominal 100kW solar PV system to comply with Australian Standard AS 5033 incorporating the following minimum requirements:

- The design of the PV system must meet requirements as set out by the Clean Energy Council Grid Connected Solar PV systems;
- Design, supply, installation & commissioning of PV system and all ancillary work;
- Designer to be accredited by Clean Energy Council (CEC) of Australia
- Batteries required for power storage;
- The system must be sized to minimise export to the electricity grid and to maximise the amount of onsite energy offset and economic benefit of the system.
- The following information will be provided by Council following award of roof construction contract:
    - Electricity usage and load profile;
    - Cost of electricity during the hours of generation
- Contractor to provide single line diagrams, including electrical ratings of all isolators and switches etc.
- Contractor to apply for, and obtain, the approval for connection of the proposed system by Essential Energy - the relevant electricity distribution network service provider (DNSP) prior to installation of the PV system
- Contractor must ensure that the integrity of the roof structure is not adversely affected by the installation of the PV system, including support, fixings and penetrations required;
- All PV system components must be installed to ensure that the manufacturers' product warranties are not compromised.
- All cables must be installed to AS5033 and AS3000 requirements
- Solar PV system panels to be roof mounted, with permanent means of access provided, including provision for safe access for maintenance;
- System monitoring is required, including facility to report to on-site Administration building;

Solar PV system to be priced as a provisional item, subject to Council acceptance and written approval, prior to proceeding.

ghd.com

→ The Power of Commitment

FEDERATION COUNCIL

CONTRACT

SECTION:

C – CONDITIONS OF CONTRACT

BASED ON AS4300-1995

PROJECT/CONTRACT NAME:

COROWA SALEYARDS REDEVELOPMENT

STAGE 4 – SALEYARDS ROOF & STRUCTURE

Including, but not limited to the following:

New roof over drafting, selling and holding pens;

Modifications to pens

Storm Water;

100 kW solar system

PROJECT LOCATION:

437 HONOUR AVENUE, COROWA, NSW 2646

PROJECT/CONTRACT NUMBER:

2021/162

BLANK PAGE

CONTENTS PART C - TERMS AND CONDITIONS OF THE REQUEST FOR TENDER

THE CONTRACT 4

PART C1: GENERAL CONDITIONS OF CONTRACT 5

PART C2: ANNEXURE TO THE AUSTRALIAN STANDARD GENERAL CONDITIONS OF CONTRACT PART A 6

PART C3: ANNEXURE TO THE AUSTRALIAN STANDARD GENERAL CONDITIONS OF CONTRACT PART B 10

THE CONTRACT

SECTIONS

The Contract (Section C) is formed up as parts and the following sections:

Part C1 – AS4300-1995 General Conditions of Contract for design and construct;

Part C2 – Annexure A; and

Part C3 – Annexure B.

The above sections, together with Section A Instrument of Agreement, Section B Specification (including drawings), Section D Tender Schedules shall together form The Contract.

AS4300-1995 CONTRACT

For the purpose of the CONTRACT the AS4300-1995 is available for viewing at Federation Council offices. Alternatively a Reference copy is available to purchase for under $300 from SAI Global.

The Contract AS4300 will be provided as part of The Contract in full and provided by Federation Council upon award of The Contract (providing a Contract is awarded).

PART C1: GENERAL CONDITD N S O FCO NTRACT

This shall be issued as part of the tender documents.

During the RFT phase the AS4300 General Conditions of Contract are available for viewing at Federation Council office and/or available for purchase from SAI Global.

PART C2: ANNEXURE TO THE AUSTRALIAN STANDARD GENERAL CONDITIONS OF CONTRACT PART A

This Annexure shall be issued as part of the tender documents and is to be attached to the General Conditions of Contract and shall be read as part of the Contract.

The law applicable is that of the State or Territory of: (Clause 1)	New South Wales
Payments under the Contract shall be made at: (Clause 1)	Federation Council
The Principal: (Clause 2)	Federation Council
The address of the Principal:	101 Edward Street (PO Box 77), Corowa NSW 2646
The Superintendent: (Clause 2)	Steven Carmichael on behalf of Federation Council or Delegate
The address of the Superintendent:	101 Edward Street (PO Box 77), Corowa NSW 2646
The Contractor and address:	TBA
Limits of accuracy applying to quantities for which the Principal accepted a rate or rates: (Clause 3.3(b))	Upper and lower are per the schedule of rates
Bill of Quantities—the alternative applying: (Clause 4.1)	Alternative 2
The time for lodgement of the priced copy of the Bill of Quantities: (Clause 4.2)	....
# Contractor shall provide security in the amount of: (Clause 5.2)	Five (5) percent (5%) Security in the form of Bank Guarantee or cash retention deducted from progress claims

Where there are Separable Portions, these items shall be deleted

# Principal shall provide security in the amount of: (Clause 5.2)	Nil
# The period of notice required of a party's intention to have recourse to retention moneys and/or to convert security: (Clause 5.5)	28 Days .....
The percentage to which the entitlement to security and retention moneys is reduced: (Clause 5.7)	(50%) Upon Practical Completion and the balance (50%) Upon successful completion of the Defects Period or a lessor amount depending on the defect and/or Contractor providing warranty
Interest on retention moneys and security—the alternative applying: (Clause 5.9)	Alternative 2
The number of copies to be supplied by the Principal: (Clause 8.3)	one electronic
The number of copies to be supplied by the Contractor: (Clause 8.4)	.....
The time within which the Superintendent must give a direction as to the suitability and return the Contractor's copies: (Clause 8.4)	.....
Work which cannot be subcontracted without approval: (Clause 9.2)	Any
The percentage for profit and attendance: (Clause 11(b))	Ni
The amount or percentage for profit and attendance: (Clause 11(c))	Nil
Insurance of the Works—the alternative applying: (Clause 18)	Alternative 1
The assessment for insurance purposes of the costs of demolition and removal of debris: (Clause 18(ii))	Nil
The assessment for insurance purposes of consultants' fees: (Clause 18(iii))	Nil

Where there are Separable Portions, these items shall be deleted

The value of materials to be supplied by the Principal: (Clause 18 (iv))	Nil
The additional amount or percentage: (Clause 18(v))	Nil
Public Liability Insurance—the alternative applying: (Clause 19)	Alternative 1 Twenty Million Dollars ($20,000,000)
The amount of Public Liability Insurance shall be not less than: (Clause 19)	Twenty Million Dollars ($20,000,000)
The time for giving possession of the Site: (Clause 27.1)	Ten (10) Business days
# The Date for Practical Completion: (Clause 35.2)	~~Twenty (20) Weeks~~ 30 November 2022 AB DH Mean
# Liquidated Damages per day: (Clause 35.6)	$500
# Limit of Liquidated Damages: (Clause 35.7)	Contract Sum
# Bonus per day for early Practical Completion: (Clause 35.8)	Nil
# Limit of bonus: (Clause 35.8)	Nil
# Extra costs for Delay or Disruption: (Clause 36)	Event Nil ....
# The Defects Liability Period: (Clause 37)	12 Months
The Charge for overheads, profit, etc. for Daywork: (Clause 41(f))	Nil
Times for Payment Claims: (Clause 42.1)	Twenty Eight (28) days
Unfixed Plant and Materials for which payment claims may be made notwithstanding that they are not incorporated in the Works: (Clause 42.1(ii))	Nil
Retention Moneys on: (Clause 42.3)	10% of each progress claim until 5% of contract sum is reached

Where there are Separable Portions, these items shall be deleted

(a) ~~work incorporated in the Works and any work or items for which a different amount of retention is not provided, 10% of the value until 5% of the Contract Sum is held;~~
~~(b) items on Site but not yet incorporated in the Works, ...%;~~
~~(c) items off Site but in Australia .....%;~~
~~(d) items not in Australia .....%;~~
~~(e) disbursements incurred by the Contractor for customs duties, freight, marine insurance, primage, landing and transport in respect of the work under the Contract .....%;~~

Unfixed Plant or Materials—the alternative applying: (Clause 42.4)	Alternative 3
The rate of interest on overdue payments: (Clause 42.9)	Nil
The delay in giving possession of the Site which shall be a substantial breach: (Clause 44.7)	Nil
The alternative required in proceeding with dispute resolution: (Clause 47.2)	Alternative 1
The person to nominate an arbitrator: (Clause 47.3)	.....
Location of arbitration: (Clause 47.3)	.....

PART C3: ANNEXURE TO THE AUSTRALIAN STANDARD GENERAL CONDITIONS OF CONTRACT PART B

NOTE: This table is intended for easy reference to clauses that may have been deleted, amended or added to Australian Standard 4300—1995

1. The following Clauses have been deleted from the General Conditions in AS 4300—1995:

. .....

.....

.....

.....

.....

.....

2. The following Clauses have been amended and differ from the corresponding Clauses in AS 4300—1995:

.....

.....

.....

.....

.....

3. The following Clauses have been added to those of AS 4300—1995:

Upon written notice from The Principal to The Contractor to cancel The Contract, the Contractor must cease works immediately and make every effort to not incur any expenses further to the date and time of the termination. The Contractor may be entitled to claim for the amount of works completed and materials delivered to site and installed. No further claim is allowable.

[END OF DOCUMENT]

FEDERATION COUNCIL

CONTRACT

SECTION:

D – SCHEDULES

PROJECT/CONTRACT NAME:

COROWA SALEYARDS REDEVELOPMENT

STAGE 4 – SALEYARDS ROOF & STRUCTURE

Including, but not limited to the following:

- New roof over drafting, selling and holding pens;
- Modifications to pens
- Storm Water;
- 100 kW solar system

PROJECT LOCATION:

437 HONOUR AVENUE, COROWA, NSW 2646

PROJECT/CONTRACT NUMBER:

2021/162

Name (in block letters): ..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..... / ..... / 2021

BLANK PAGE

Name (in block letters): ..... (organisati on tendering)

In the O ffice Bearer capacit y of (name in block letters): ..... (Authorised O fficer)

Signed for the Tenderer:..... (Authorised O fficer) Date : ..... / ..... / 2021

CONTENTS PART D – TENDERERS RESPONSE

TENDER OFFER 4

TENDER FORM 5
TENDER COST BREAKDOWN 6
SCHEDULE OF RATES (DAY RATES) 8
NOMINATED TENDERERS STAFF CONTACT 8
CAPABILITY AND PERFORMANCE 9

PROJECT PROGRAMME 15

PROJECT PROGRAMME 15
CONSTRUCTION METHODOLOGY 16

ADDITIONAL TENDER SCHEDULES 17

CONFLICT OF INTEREST 17
COMPLIANCE WITH THE CONTRACT 18
COMPLIANCE WITH THE SPECIFICATION 19
ACKNOWLEDGEMENT OF FEDERATION COUNCILS WH&S COMMITMENT 20
ACKNOWLEDGEMENT OF FEDERATION COUNCILS ENVIRONMENTAL COMMITMENT 21
ENVIRONMENTAL SYSTEMS 22
OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT AND SYSTEMS 23
QUALITY SYSTEMS AND MANAGEMENT 24
FINANCIAL VIABILITY 25
RISK AND INSURANCES 26

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

TENDER OFFER

Tenderers must ensure that:

1. Their Tender is presented in the required format as set out in Part D (provided to Tenderers in electronic format).
2. All the information fields in Part D are completed and contain the information requested. (this will allow evaluation)
3. Tenderers must provide a single electronic copy and submitted in accordance with the Conditions of Tendering.
4. All responses must be provided within the specified boxes and must respond to the Specification (Part B) and Proposed Contract (Part C) in accordance with the Conditions of Tendering (Part A).
5. Do not include graphics or data in responses. Where necessary, any graphics or data should be placed at the end of the documents and referred to in the response as an attachment (please label and reference attachments); and
6. include the name of the Tenderer (Company Name) in the footer of the Tenderers Response templates provided and in any additional documents included by the Tenderers
7. Include a covering letter clearly stating the Tenderers Company Details and Lump Sum Price offered for the Proposed Contract.
8. Federation Council may in its absolute discretion reject a Tender that does not include the information requested or is not in the format required (Tenders either comply or do not comply)

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

TENDER FORM

Tender Closing Office

Name:	Federation Council
Address:	www.tenderlink.com
Electronic submission:	Tenders are to be submitted by Electronic means via Tenderlink

Tenderers Offer:

Name of Tenderer and address of registered office (Block Letters):	OTWAY SECURITIES PTY LTD TRADING AS MKM CONSTRUCTIONS
Australian Company Number:	121 259 685
Australian Business Number:	59 064 686 913
Telephone Numbers:	03 5331 6694
Email:	karl@mkmcon.com.au

Hereby tenders to perform the work for:

Contract name:	COROWA SALEYARDS REDEVELOPMENT STAGE 4 – SALEYARDS ROOF & STRUCTURE
Contract number:	2021/162
In accordance with the following documents:	A – Conditions of Tendering B – Scope of Works and Specification (including design and technical specification attachments) C – Proposed Contract D – Tender Schedules and Tenderers Response
And Addenda Numbers:	

Tenderers' Offer

For the Contract Price, being the lump sum (including Provisional Allowances, and Cost Saving Options 1 & 4 as per tender schedule provided) of: ($AUD)	Written number format Four Million Eight Hundred and Sixty Eight Thousand And Fifty Dollars. (plus GST) $ 4,868,050.00 plus GST. $ 486,805.00 GST $ 5,354,855.00 Including GST.

Tenderer is required to complete Tender Offer cost breakdown attached

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

TENDER COST BREAKDOWN

Tenderer is required to complete Tender Offer cost breakdown.

Item No.	Description of Work		Amount (excl. GST) $AUD
1	**Preliminaries** Site establishment, insurances, set out, supervision, clean-up, testing, mobilisation and demobilisation		$ 73,000.00
2	**Project Design and Documentation** Provide concept design, final design plans with certification. Documentation (eg workshop drawings as required) to enable completion of the project as described in the specification.		$ 45,000.00
3	**Project Management Systems, Environmental, WHS & Traffic Management** Provide and implement management systems including Construction Environmental Management Plan, WHS system and program management, traffic management and reporting		$ 10,000.00
4	**Demolition Works** Demolition and removal of all materials, components of the existing low level roof structure above walkways, existing trees, redundant drainage and electrical services and dispose off-site to approved locations.		$ 30,000.00
5	**Concrete Works** Supply & construct concrete foundations for roof structure, including alterations to existing concrete as required.		$ 71,700.00
6	**Steel Works** Supply and construct steelwork for roof structure, including alterations to existing steelwork as required.		$ 2,896,000.00
	Columns	$ 1,357,500.00	
	Trusses & roof framing	$ 1538,500.00	
7	**Roof Works (including all associated plumbing works)**		$ 1,854,600.00
	Colour bond roof sheeting	$ 905,000.00	
	Translucent roof sheeting	$ 452,500.00	
	Guttering	$ 226,240.00	
	Downpipes	$ 23,000.00	
	Drainage works to connect to in-ground stormwater collection points	$ 247,860.00	
8	**Roof Access System** Supply, installation, and certification of roof access system		$ 15,500.00
9	**Electrical Works (including all associated works)** Construct lighting, alterations to existing external lighting to facilitate new works, distribution boards and supply upgrades, alterations and controls.		$ 55,000.00
10	**Other items as specified in Tender** All other works required to complete the works and activities described in tender documents, please list. Electrical Switchboard Upgrades if Required Provisional Sum		$11,000.00
		Schedule items subtotal (exclusive of GST)	$ 5,061,800.00
		GST Value	$ 506,180.00
		Schedule items subtotal (inclusive of GST)	$ 5,567,980.00

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

	PROVISIONAL ITEMS	
11	**Certification and Approvals - provisional** Contractor to provide allowance for providing assistance and documentation to Council to obtain: •Development consent (Planning Approval) •Construction certificate (Building Approval) •Building inspections throughout construction •all necessary authority approvals including service providers.	$ 10,000.00
12	**Modifications to pens – provisional item** Contractor to price modifications (reconfiguration) of selling pens to facilitate mechanical sweeping of yards	$ 36,000.00
13	**100 kW Solar PV System – provisional** Design, supply and installation of 100 kW solar PV system.	$ 110,000.00
14	**Project signage – provisional** Design, supply and installation of project signage.	3,500
15	**Provisional sum** Allowance for related unspecified works – to be expended only with express written approval of Superintendent	125,000
	Provisional items subtotal (exclusive of GST)	$ 284,500.00
	GST Value	$ 28,450.00
	Provisional items subtotal (inclusive of GST)	$ 312,950.00

Total Lump Sum (schedule + provisional) (exclusive of GST)	$ 5,346,300.00
GST Value	$ 534,630.00
Total Lump Sum (schedule + provisional) (inclusive of GST)	$ 5,880,930.00

AGREED COST SAVING OPTIONS	Deduction $ Cost Saving
Option 1. Alternative Roof Finish To Have Zincalume Roof Cladding & Rainwater products in Lieu of Colorbond .	$ 50,250.00
~~Option 2. To Take out Section A Roof Area as per Markup Provided approx.617 sqm~~	~~$ 75,300.00~~
~~Option 3. To Take out Section A& B as per Markup Provided approx.1487 sqm~~	~~$ 181,670.00~~
Option 4. To Take out Section A-E as per Markup Provided approx. 3,338 sqm	$ 428,000.00
~~Option 5. To take out Section A to F as per Markup Provided approx.3734 sqm~~	~~$ 462,900.00~~
~~Option 6. To take out Section A to G as per Markup Provided approx.5612 sqm~~	~~$ 699,000.00~~
Total With Proposed Option 4 Roof Reduction & Option 1 Zinc Finish Roof Cladding	$ 4,868,050.00
Total EX GST	$ 486,805.00
Total Including GST	$ 5,354,855.00

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

SCHEDULE OF RATES (DAY RATES)

Item No.	Description of Work	Amount (excl. GST)$
1	Additional roof construction including concrete works, steelworks, hydraulic and electrical works ($/sq.m)	$ 190.00
2	General Labour ($/hr)	$ 60.00
3	Electrical labour ($/hr)	$ 120.00
4	Plumber labour ($/hr)	$ 130.00
5	Concreter labour ($/hr)	$ 85.00
6	Concreter labour ($/hr)	$ 85.00
7	Steelwork labour ($/hr)	$ 90.00
8	Elevated Work Platform for overhead steelwork ($/hr)	$ 120.00
9	Cranage for overhead steelwork ($/hr)	$ 380.00
	Other – contractor to specify	

NOMINATED TENDERERS STAFF CONTACT

TENDERERS CONTACT FOR THE RFT SUBMISSION	
Please provide the contact details for the person responsible for this RFT submission. The person nominated must be able to discuss the tender offer, answer questions regarding the technical details and provide clarifications as required.	
Contact name:	KARL MC MILLAN
Position/title:	SALES MANAGER
Phone number:	Mob 0439 404033 PH 03 5331 6694
Email:	karl@mkmcom.com.au
Address:	16B Endeavour Way, Alfredton VIC 3350
Comments:	
Contact name:	Zamon Moniruzzaman
Position/title:	Engineer MIE Aust NER
Phone number:	Mob 0449 503 924 PH 03 5331 6694
Email:	engineering@mkmcon.com.au
Address:	16B Endeavour Way Alfredton VIC 3350
Comments:	

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

CAPABILITY AND PERFORMANCE

TENDERERS CAPABILITY AND KEY PERSONEL	
Knowledge of and experience in the industry: Provide details of your organisation's knowledge and experience in the industry, as it applies to the required Goods and Services. Word limit – [250] words	MKM Constructions have extensive experience in the industry as can be demonstrated by our impressive track record. Horsham Saleyards, Hamilton Saleyards Two Stages, Ballarat Saleyards, Yea Saleyards and Colac Saleyards. All these projects are of similar scale and size and have all included the core elements of this project. I understand that the council representatives have visited the Horsham Saleyards and we would encourage you to discuss with them our approach and how we were able to accommodate the continuation of sales and operation of the facility during construction. MKM Constructions have the industry knowledge and experience to deliver the best value engineered solution that also addresses the requirements outlined in the tender documents.
Infrastructure and other support: Provide details of your organisation (and location) and tools/machinery/support which will be used to provide the requirement. Word limit – [250] words	MKM Constructions have established ourselves as a superior provider of commercial and industrial building solutions. This has involved establishing a large equipment and personal resource that are tailored to the construction of large steel structures. MKM Constructions have a team of highly qualified and experienced steel riggers, dogmen, roofing plumbers and professional construction personnel that have extensive experience in this type of construction. MKM Constructions has a large range of access and lifting equipment including scissor lifts, boom lifts, earthmoving equipment, telehandler/ manitous for ensuring that our operations are as efficient and as safe as possible. MKM Constructions also have an in house engineer who is highly qualified in finding unique solutions to streamline and prioritise the safety of our staff and contractors working on the site.
Key Personnel: Provide information for each member of staff you are proposing for the work.	
Name: Position: Discipline: Qualifications: Experience: Proposed function/work:	Marcus McMillan Director/Construction Manager Commercial Builder Registered Roof Plumber 15 years Registered Commercial Builder Project Management and General Co-ordination
Name: Position: Discipline: Qualifications: Experience: Proposed function/work:	Justin Prewett Construction Co-ordinator Project Management Diploma of Building and Construction 19 year Construction administration Experience Project Management/Contract Administration
Name: Position: Discipline: Qualifications: Experience: Proposed function/work:	Laurie Elford Site Foreman Structural Steel Erection Qualified Rigging & Dogging for Structural Steel Erection 3 years Large scale structural steel/shed erection Site Foreman & Structural Steel Erector

Name (in block letters): ..... MKM CONSTRUCTIONS ..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

Name: Position: Discipline: Qualifications: Experience: Proposed function/work:	Mark Brundell Roof Plumber Roof Plumber/Steel Erection Certified Roof Plumber Involved in Hamilton Ballarat and Horsham Saleyards projects Roof & Cladding Installation
Name: Position: Discipline: Qualifications: Experience: Proposed function/work:	Zamon Moniruzzaman Structural Engineer Engineer MIE Aust NER Engineer MIE Aust NER Member of Engineers Australia BSC Honours in Civil Engineering. Highly Competent Structural engineer Structural Engineering
Include an organisational Chart showing roles and responsibilities for this RTF, Please find attached	

NOMINATED SUB-CONTRACTORS AND CAPABILITY	
Provide information for each Sub-Contractor that you are proposing for the work. We will be making final Sub-Contractor selection upon completion of design and documentation. We will prioritise the use of local service providers and suppliers where practical. Below are two proposed contractors / suppliers subject to final design and engineering.	
Organisation Name: Discipline: Qualifications: Experience: Proposed function/work:	Central Steel Build Structural Steel Cladding & Roofing Large Scale Shed Engineering, Fabrication & Supply 30 years Structural Engineering, Structural Steel, Roofing & Cladding Materials Supplier
Organisation Name: Discipline: Qualifications: Experience: Proposed function/work:	Thompson Electrical and Solar Electrical Full Accredited Level 2 Underground and Over Head Service Provider Over 50 years Experience Design and Construction of Electrical and Lighting and Solar System
Describe how the (if any) Sub-Contractors will be engaged and managed. How will the tenderer/your company manage the end product? State whether it is intended that the tenderer intends on deviating from responsibility and any guarantees of delivery and quality. Word limit – [250] words	MKM Constructions have developed a detailed sub contractor selection and management process. Contractors will participate in a formal RFQ process following the finalisation of the design documentation stage to satisfactory stage where we believe we can determine a clear scope of works for each relevant sub trade. We will then go through a careful vetting process whereby we will determine there capacity local content value, knowlege and experience to ensure we find the best candidates. MKM Constructions have a Sub Contractor Management Procedure to ensure the ongoing management and compliance of contractors including relevant Inspection Test Plans, SWMS, JSA and Pre Start Checks to ensure all works are carried out to the highest safety and quality standard. We will ensure that the contractors we select are accountable to the safe standards of responsibility, delivery and quality as we are and that they will not deviate from this.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

PREVIOUS WORKS AND PERFORMANCE AND REFERENCES	
Previous and current work (similar to this RFT): Detail previous work related to the requirements detailed in the Specification. References: Provide a minimum of three referees that Federation Council could contact regarding your ability to provide to the Goods and/or Services required under the Specification. Note: Federation Council reserves the right to contact any of the Tenderer's previous customers. Client and contract details:	
Project name: Project value: Description: Completion date: Organisation referee name and number:	Horsham Saleyards $3.5 mil Supply & Installation of 25150m2 Roof area over Sheep Saleyards & Misc Works Nov 2020 Horsham Rural City Council Sue Newall 5382 9751/0407 611 299
Project name: Project value: Description: Completion date: Organisation referee name and number:	Hamilton Saleyards $1.2 mil Supply & Installation of 6300m2 Roof area over Saleyards & Misc Works 2015 Southern Grampians Shire Council Rodney VanDeHoef
Project name: Project value: Description: Completion date: Organisation referee name and number:	Ballarat Saleyards $3.2mil Supply & Installation of 31,300m2 Roof area over Saleyards & Misc Works Jun 2018 RLX Investments Company Pty Ltd
Project name: Project value: Description: Completion date: Organisation referee name and number:	Colac Saleyards $1.45 mil Supply & Installation of 7,500m2 Roof area over Saleyards & Misc Works 2015 Colac Otway Shire
(c) Briefly detail all previous public sector experience in the past three years as it relates to the industry and the requirements detailed in the Specification. Word limit – [250] word	Design and Construction of various sporting facilities including Angelsea Bowling Club, Charlton Park Multipurpose Sports Pavilion, Mt Moriac Equestrian Facility, Creswick Bowling Club. Construction of various Wind Farm facilities including Murra Warra, Dundonnell, Cherry Tree, Lal Lal, Ararat & Crowlands.
Provide details of any other Tenderer that is a related body corporate of the Tenderer.	Nil.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

CURRENT WORKS AND COMMITEMENTS			
Complete the section below by listing current commitments (projects, works and contracts), dates and risks.			
PROJECT/CONTRACT/WORKS COMMITEMENT	**DATE (START OR DUE TO START)**	**DUE DATE FOR COMPLETION**	**NOTE IF ANY RISK EXISITS NOW/FUTURE TO FEDERATION COUNCILS PROJECT START, COMPLETION AND HANDOVER**
Lara Recreation Reserve	Jan 2022	Aug 2022	
HD Graham Reserve	Nov 2021	May 2022	
JT Gray Reserve Sporting Facility	Dec 2022	Sept 2022	
Gorst Rural Warehouse	Oct 2021	Feb 2022	
Pumpa Manufacturing	February 2022	Aug 2022	

Please nominate how this project will be completed given your organisations other commitments. If other tenders and works are being quoted on and should your organisation win these how will this project/contract be honoured and committed to:

MKM Constructions are confident we have adequate resources available for all these projects especially given our commitment to using local trades and suppliers. We have the resources and experience to deliver this project along with our other commitments.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

LOCAL CONTENT AND COMMUNITY BENEFIT

Federation Council is committed to community and business growth and will seek to incorporate social benefit into all council procurement within the context of purchasing on a value for money basis. Council will seek to consider all opportunities for local contractors and suppliers to sell to Council and consider local considerations providing best value provided other evaluation criteria are met.

Local Supply

Is your organisations head office located in Federation Council region? Please provide details:

Our organisations head office is located in Ballarat which is not in the Federation Council region. However should we be successful we could look at establishing a base if it was felt necessary to meet our contract obligations.

Does your business have a permanent presence in the Federation Council region? Please provide details:

Our business does not have a permanent presence in the Federation Council region however we will be sourcing local trades and suppliers if we are successful and prioritise the use of local services.

What percentage of labour and subcontractors will be sourced in the Federation Council region for this procurement activity?

We expect that 35% of outsourced labour and subcontractors will be sourced from the Federation Council Region.

What percentage of materials, plant and equipment will be sourced or manufactured in the Federation Council region for this procurement activity?

We expect that 15% of the materials, plant and equipment will be sourced from suppliers and contractors in the Federation Council region.

Will this procurement activity result in an increase in employment in the Federation Council region? Please provide details:

Yes we will be looking for suitable skilled labourers and experienced welders to assist with the construction and also any yard modifications required

Is there any other local supply benefit for the procurement activity that you would like to highlight your business would bring to the Federation Council region? If so, Please provide details:

MKM Constructions will require accommodation for our staff and some specialist contractors for the duration of the project. This will be sourced from the Federation Council region and during there stay these staff will be utilising local service providers and contributing to the economy in the region.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

Community Benefit

What benefit could your organisation provide to the local community because of this procurement activity? Please provide details:

MKM Constructions will provide an opportunity for local businesses and individuals in the construction industry to provide services and supply materials. We have already engaged with a number of local providers who advertise in the local papers to reach and request pricing. We understand the need for a community involvement and ownership in the project and we will seek to involve as many local experienced contractors and suppliers we can to facilitate an efficient construction.

Does or will your organisation provide sponsorships to sporting groups, community organisations or the like within the local region? Please provide details:

MKM Constructions are happy to consider this should be successful however we will need to provided with more information before we can make an informed decision.

Does or will your organisation provide employment and training opportunities for minority groups, the disadvantaged or the long term unemployed within the local region? Please provide details:

MKKM Constructions already work with a number of training organisations to provide opportunities where we can for disadvantaged or minority group to gain experience or employment. As this is considered a more complicated site with additional risk factors to consider we also need to ensure a safe work environment for these opportunities we generally provide opportunities in a lower risk environment. We currently work with a company called WDEA who work with us to identify opportunities.

Are you a social enterprise, indigenous business, minority owned business, volunteer organisation or a disability firm? Please explain:

No we are not however we do work with WDEA to provide opportunities for indigenous and minority groups.

Does or will your organisation undertake any innovation, research and development of technology within the local region? Please provide details:

Yes MKM Constructions are always looking at ways to improve innovate and develop with new technologies or products that are available. Firstly we would welcome any input for innovation from the local region and we are currently researching some more efficient building options on this project. We have carried out some preliminaries designs but will need to develop it further if we are successful to present it as a viable option for the council to consider this includes using a combination of building methods that will reducing the material demand and thus providing a greater efficiency for the structure and the environment. Further details are in the attached information on what we are currently researching.

Is there any other community benefit for the procurement activity that you would like to highlight your business would bring to the Federation Council region? If so, Please provide details:

MKM Constructions offers a in house design and engineering team. This provides the council and the Federation council with a great opportunity to explore other business opportunities for the region. MKM Constructions have facilitated the construction of multiple community and sporting design and construction facilities and have the experience to consult with local key stake holders and user groups to ensure a collaborative and consultative approach to the D&C process. We would appreciate an opportunity to be involved in the masterplan for the site and the proposed community / amenity facilities to ensure we have a holistic approach to the development that considers the overall site and its connectivity.

*The local region for the purpose of procurement, tendering and contract management is to be interpreted as the **Federation Council** region.*

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

PROJECT PROGRAMME

PROJECT PROGRAMME

Tenderers are required to demonstrate understanding of the scope of works that shall be delivered under the proposed contract. Tenderers are required to provide separately a schedule of works in the form of a Gantt Chart depicting all key activities to be undertaken. The following tasks shall be included along with all other activities that are relevant to deliver the scope of works.

Permitted working hours on site are to be taken as:

Tuesday to Friday: 7:30 am – 5:00 pm

Saturday 7:30 am – 5:00 pm – with written approval of Council only

Sunday and Monday – **no construction activity on site.**

Monday is sale day. Preparation for sale commences with stock deliveries to site on Sunday. Priority must be given to all operations associated with sale, including loading & unloading of livestock and access to parking areas for livestock transportation vehicles and vehicles for buyers/sellers and stock agents. Deliveries and other preparatory works for construction may be considered, subject to Council approval

Tenderer is to develop contract and construction program and methodology that will allow sale days to continue unhindered by construction activity. The Contractor shall use best endeavours to ensure that all of the drafting, selling and holding pens and yards are operational on sale days and that the loading and unloading ramp areas are operational. Federation Council will not allow a closure of the saleyards unless specific approval is requested and obtained; approval is subject to endorsement by the Principal.

Construction program to include consideration of the following:

Target date for completion of installation of roof sheeting : no later than **30 Nov 2022**

- Detail Design review activities & Hold Points
- External dependencies including provision of access, document approvals, permits.
- Sequence of construction work.
- Significant milestones
- Consideration of allowable work times and allowance for holidays
- Critical paths of activities *and* their relation to progress payment milestones
- Activity inter-relationships, including those activities to be undertaken by subcontractors and suppliers, both on and off site
- Periods at which risk of interruption to existing operations may occur, if any.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

CONSTRUCTION METHODOLOGY

Construction methodology
Tenderers are requested to provide a construction methodology statement (supplement to construction program) to include the following: Overview of proposed construction method, including Drawings and design management through to As Constructed drawings confirmation structural design, and proposed grid layout. Lighting and Electrical, solar and stormwater, management and delivery Warranties for materials and products NB: The Tenderer may include other relevant information in the report that the Tenderer considers may be of importance to allow assessment against the specified evaluation criteria. Such information must fall within the Conditions of Tendering.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

ADDITIONAL TENDER SCHEDULES

CONFLICT OF INTEREST	
Provide details of any interests, relationships or clients which may or do give rise to a conflict of interest and the area of expertise in which that conflict or potential conflict does or may arise and details of any strategy for preventing conflicts of interest.	**NO CONFLICT INTEREST**
Outline the processes you have in place to handle any future conflict of interest (actual or perceived).	**MKM CONSTRUCTIONS HAVE A CONFLICT RESOLUTION PROCESS TO IDENTIFY AND CONSULT WITH RELEVANT KEY STAKEHOLDERS SHOULD A CONFILIT OF INTEREST ACTURAL OR PERCEIVED BE IDENTIFIED**

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

COMPLIANCE WITH THE CONTRACT

A Tenderer must provide a tabulated statement showing clearly, and in order of the relevant sections, its level of compliance with Part C (Contract). Refer section 6, Part A (Conditions of Tender) for further instructions.

Note: No response is required in respect of a particular section of the Specification where a Tenderer will comply with that section.

SECTION	COMPLIANCE STATEMENT *WILL NOT COMPLY WITH.*	EXPLANATION / COMMENT
Price Validity	Partially Comply	Due to the current market instability and recent material fluctuations pricing can only be held for 30 days from date of tender any cost increases will be clearly documented and evidence of associated material cost increases will be provided to ensure fair justification.
Alternative Tender *Where a Tenderer also submits an* Alternative Tender, it must include any supplementary material, together with associated prices, which demonstrates in detail that such an alternative will fully achieve and/or exceed all the specified outputs or functional and performance requirements together with references as to why the additional features may be advantageous. The details should be cross referenced to the appropriate clause number in the Specification. Word limit – [250] words		

Name (in block letters): .....-MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

COMPLIANCE WITH THE SPECIFICATION

A Tenderer must provide a tabulated statement showing clearly, and in order of the relevant sections, its level of compliance with Part B (Specification). Refer section, Part A (Conditions of Tender) for further instructions.

Note: No response is required in respect of a particular section of the Specification where a Tenderer will comply with that section.

Section	Compliance Statement *Will not comply with.*	Explanation / Comment
Concreting Scope of Works	Partially comply	As identified in the site inspection concreting works are limited to the bored pier footings for the structure and associated remedial works around the columns we have not allowed for any additional concrete paving or repairs not associated with the structure.
Electrical Supply Arrangements & Upgrades.	Partially comply	We have nominated a provisional sum of $ 11,000.00 for any upgrades to the electrical main switchboard or supply arrangements until we can establish a maximum demand and gain a better understanding of any supply charges via a supply offer from Powercor it is not possible to provide a fixed cost for these works.
Yard Modifications and Upgrades	Partially comply	We have nominated a provisional sum for these works as the full extent of modifications is not yet defined.
Alternative Tender *Where a Tenderer also submits an* Alternative Tender, it must include any supplementary material, together with associated prices, which demonstrates in detail that such an alternative will fully achieve and/or exceed all the specified outputs or functional and performance requirements together with references as to why the additional features may be advantageous. The details should be cross referenced to the appropriate clause number in the Specification. Word limit – [250] words		

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

ACKNOWLEDGEMENT OF FEDERATION COUNCILS WH&S COMMITMENT

Federation Council provides Asset delivery and management across a broad area of asset delivery in roads, bridges, recreation centres, parks, gardens, crown land developments, water, sewerage and trade waste services to a population of approximately 12,602 people, across 16 localities, over an area of approximately 5,685 square kilometres in New South Wales.

Federation Council is committed to the effective management of Contractors, Subcontractors and their respective employees to ensure a safe working environment is maintained at all times. Uncontrolled Contractor actions may result in significant risks to health, safety and welfare of the Contractor, Subcontractors, their respective employees, Federation Council employees, visitors and members of the public.

Effective Contractor management and control will be achieved through the application of Contractor Procedures consisting of:

Federation Council *WH&S Inductions for Contractors* to be provided to all Contractors, Subcontractors and their respective employees and signing of *"Contractor Agreements"* prior to individual personnel being permitted to work on Federation Council sites;

Administrative procedures completed prior to any works including:

- Provisions of certificates of competencies, licenses and accreditations;
- For existing Federation Council assets, Federation Council will provide a site induction to the Head Contractor to provide an effective understanding of existing site safety issues and procedures;
- Contractor to undertake site and project specific WH&S and Environmental risk /hazard identifications and assessments and develop and implement effective control measures/procedures to deal with risks/hazards;
- Contractor to develop and implement WH&S and Environmental project inductions for all Subcontractors, their respective employees and other personnel visiting site;
- Contractor performance will be monitored;
- All Contractor records will be retained by Federation Council for a minimum of 7 years;
- The Contractor shall ensure that proper steps are taken to identify and assess all reasonable foreseeable hazards resulting from the work they are performing, which may affect the health and safety of all persons on the site and control these hazards through using appropriate measures.

The contractor is responsible for supervision to ensure that safe work practices are followed.

Where a work practice is observed to be in breach of WH&S legislation, Federation Council employees may assist in helping the contractor to rectify the problem. The contractor must then apply corrective action prior to recommencement of the work.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

ACKNOWLEDGEMENT OF FEDERATION COUNCILS ENVIRONMENTAL COMMITMENT

Federation Council provides Asset delivery and management across a broad area including but not limited to roads, bridges, recreation centres, parks, gardens, crown land and developments, water, sewerage and waste services to a population of approximately 12,602 people, across 16 localities, over an area of approximately 5,685 square kilometres in New South Wales.

Federation Council is committed to providing these services in an environmentally responsible manner, and to a standard that exceeds government and customer expectations.

To achieve this aim Federation Council will:

- Establish an Environmental Management System in accordance with the International Standard ISO 14001: 2015.
- Seek qualified contractors to carry out works that are externally certified (or have a system and or are working toward a system) Environmental Management System in accordance with the International Standard ISO 14001: 2015.
- Proactively manage the significant environmental impacts of Federation Council's operations and activities by preventing and reducing pollution.
- Regularly set and review environmental objectives and targets to achieve continuous improvement in our environmental performance.
- Communicate progress on environmental performance to the community, the Environment Protection Authority (EPA), industry and other stakeholders via an annual Environmental Report.
- Comply with relevant environmental laws and regulations and other requirements to which Federation Council subscribes.
- Provide adequate training to all employees to ensure that they are aware of, and committed Federation Council's Environmental Policy and the requirements of the Environmental Management System.
- Require contractors to demonstrate awareness of Environmental Policy, and the requirements of the Environmental Management System.
- Integrate consideration of environmental factors into Federation Councils' operations and activities.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

ENVIRONMENTAL SYSTEMS

The Tenderer is required to demonstrate their commitment to environmental management. Tenderers will be required to verify the information and provide copies of their standard Environmental Management Systems (EMS)/documents before being awarded the contract.

ENVIRONMENTAL SYSTEMS QUESTIONS	NO	YES
Does your company have a written environmental policy?		X
Does your company have an Environmental Management System?		X
Has the system been externally audited and accredited?		X
Does your Company have documented procedures relating to environmental impacts? (Impacts may include Noise, Litter, Access, Excavation (disposal of excess material, soil stability), Site Runoff/Siltation, Site Amenities, Site Work Times, Roads/Muddying of Roads, Dust, Clearing of Vegetation, Flora and Fauna, Environmental Contamination, Archaeological Aspects, Left Over Construction Materials, Delivery of plant, equipment and materials)		X
Is there a documented environmental incident investigation procedure?		X
Are there documented procedures for inspecting, assessing and managing the environment?		X
Does your company have a procedure to report incidents to the relevant Authority in the case of an environmental incident?		X
Does your company keep records of environmental incidents?		X
Does your company set and review targets to ensure continual improvement in environmental performance?		X
Can your company provide a sample copy of the Tenderers Environmental Management systems when requested?		X
Has the tenderer incurred or threatened with a prosecution or fine for a breach of any Environmental legislation during the last two (2) years? (if yes, list details of every prosecution and fine below)	X	
When asked, can your company provide evidence to the above. Will this be provided as part of the Project Management Plan?		X

Please nominate any prosecution or fine for a breach details including Environmental prosecution or fine and Action taken by or to the tenderer: NIL MKM Constructions have had no fines nor been prosecuted or investigated for any environmental misconduct.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT AND SYSTEMS

The Tenderer is required to demonstrate their commitment to occupational health and safety management in the undertaking of the scope of works. Tenderers will be required to verify the above information and provide copies of their standard WH&S and EMS documents before being awarded the contract.

WORK HEALTH AND SAFETY QUESTIONS	NO	YES
Does your company have a written health and safety policy and Management system?		X
Does your company have a Health and Safety Management System externally audited and certified? If Yes, who audited the System and what standard is used as the basis of the system? .....Equal Assurance .....ISO45001:2018.....		X
Does your company have Safe Work Practices and written Procedures/instructions relevant to its operations? Does this cover all aspects including but limited to Hazardous materials and demolition works and Asbestos)		X
Is there a documented incident investigation procedure?		X
Are there documented procedures for inspecting, assessing and managing the hazards encountered by your Company?		X
Does your company have WH&S Training and Is a record maintained of all training and induction programs undertaken for employees in your Company?		X
Does your company have Health and Safety Workplace Inspections/Are regular health and safety inspections at worksites undertaken?		X
Are standard workplace inspection checklists used to conduct health and safety inspections?		X
Is there a procedure by which employees can report hazards at workplaces?		X
Is there a workplace health and safety committee and are there employees elected health and safety representatives?		X
Are employees involved in decision making over WH&S matters?		X
Is there a system for recording and analysing health and safety performance statistics?		X
Does your company employees have a white card or Construction Induction Card?		X
Does your company ensure any sub-contractors (that provide service to your company) comply with the above through training, induction and management?		X
Can your company provide a sample copy of the Tenderers WH&S Management systems when requested?		X
Has the tenderer incurred or threatened with a prosecution or fine for a breach of any Australian Health and Safety legislation during the last two (2) years? (if yes, list details of every prosecution and fine below)	X	
When asked, can your company provide evidence to the above. Will this be provided as part of the Project Management Plan?		X

Please nominate any prosecution or fine for a breach details including WHS prosecution or fine and Action taken by or to the tenderer: NIL MKM Constructions have had no fines nor been prosecuted or investigated for any OH&S misconduct.

Name (in block letters): ..... -MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

QUALITY SYSTEMS AND MANAGEMENT

The Tenderer is required to demonstrate their commitment to Quality management in the undertaking of the scope of works. Tenderers may be required to verify the information and provide copies of their standard Quality Systems/documents before being awarded the contract.

QUALITY SYSTEMS QUESTIONS	NO	YES
Does your company have a written Quality Management policy?		X
Does your company have a Quality Management System?		X
Has the system been externally audited and accredited?		X
If you are not currently certified, are you in the process of achieving certification?		
Does your Company have documented procedures relating to quality?		X
Are there documented procedures for inspecting, assessing and managing the quality?		X
Does your company set and review targets to ensure continual improvement in quality performance?		X
Can your company provide a sample copy of the Tenderers Quality Management systems when requested?		X
Has the tenderer incurred or threatened with a prosecution or fine for a breach or had to address/fix any quality issues during the last two (2) years? (if yes, list details of every prosecution and fine below)	X	

Prosecution or fine or address/fix details:

NIL

If your company has or is working toward accreditation further details: To which standard? When did you complete/commence? Targeted date for completion? Accreditation body used/being used?	MKM Constructions have developed an Integrated Management System which has been certified to the relevant standards for Environmental, Quality and Health and Safety. This system is regularly audited and we have a policy of continual improvement to refine and streamline our processes to ensure better record keeping and management of our practices. Please find attached our certificates of accreditation and supporting documentation.
If you are not in the process of achieving certification, provide details of how you intend to ensure that the Goods or Services meet the client's requirements and industry standards for quality.	We have achieved certification and will following our Gold standard ISO9001:2015 Quality System.

Name (in block letters): ..... MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

FINANCIAL VIABILITY

Tenderers are required to demonstrate that they have the financial capacity to provide, over the term of the contract, all the requirements specified in this RFT. Accordingly, you are required to provide the following information. If the answer to any of the following questions is "yes", provide an explanation.

FINANCIAL VIABILITY QUESTIONS	NO	YES
(a) Are there any significant events, matters or circumstances which have arisen since the end of the last financial year which may significantly affect the operations of the Tenderer?	X	
(b) Are there any mergers/acquisitions either recent (within the past 12 months) or which are imminent?	X	
(c) Are there any proceedings, either actual or threatened, against the Tenderer, its parent or associated entities or any director of the Tenderer, its parent or associated entities or have there been any such proceedings within the past five years? If so, what (if any) remedial action has been taken in respect of such proceedings?	X	
(d) Are there any bankruptcy actions against a director of the Tenderer, its parent or associated entities, or has there been within the past five years?	X	
(e) Are there any de-registration actions against the Tenderer, its parent or associated entities on foot, or have there been any within the past five years?	X	
(f) Are there any insolvency proceedings, actual or threatened (including voluntary administration, application to wind up, or other like action) against the Tenderer, its parent or associated entities on foot, or have there been any within the past five years?	X	
(g) Is the Tenderer, its parent or associated entities currently in default of any agreement, contract, order or award that would or would be likely to adversely affect the financial capacity of the Tenderer to provide the Goods and/or Services contemplated by this RFT?	X	
(h) Are there any other factors which could adversely impact on the financial ability of the Tenderer to successfully perform the obligations contemplated by this RFT?	X	
(i) Is the Tenderer solvent and able to meet its debts as and when they fall due in the normal course of business?		X

In addition to the information required above, Tenderers may be required to undertake to provide to Federation Council, upon request, all such information as Federation Council reasonably requires to satisfy itself that Tenderers are financially viable and have the financial capability to provide the Goods and/or Services for which they are tendering and to otherwise meet their obligations under the Proposed Contract. This may include (but not be limited to):

Financial Statements for the last three years, including: Balance Sheets; Detailed Profit and Loss Statement, including a Trading Statement; Statement of Cash Flows; Notes to and Forming Part of the Accounts; An Accountant's Report; and Where existing, Auditor's Reports. The ABN/ACN on the financial statements must match the ABN/ACN of the tenderer. Consolidation accounts of a parent organisation or group to which the tenderer belongs are not acceptable. Where the tenderer's latest financial statement is more than 6 months old, the latest management report showing: Balance Sheet; a Detailed Profit and Loss Statement including a Trading Statement. A letter from the tenderer's banker providing details of overdraft and guarantee facilities, including: Bank, Branch, and Account Names; Current bank overdraft balance and available limit; Number and amount of bank guarantees outstanding and available limit; and Details of other bank funding facilities available to the tenderer, such as term loans, lines of credit, commercial bills and other debt instruments. Where any financial statement supplied is not audited, copies of the tenderer's taxation returns may be requested.

Provide your undertaking to comply with this request.	Signed:

Name (in block letters): ..... MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021

RISK AND INSURANCES	
Schedule of insurance information: Provide details of all relevant insurances maintained by the Tenderer.	
Name of insurance companies: Policy type (e.g. public liability, professional indemnity, etc.): Policy number(s): Expiry dates: Limit of liability:	Allianz Australia Insurance Limited Professional Indemnity Insurance 132R005316PLP 19/4/2022 $20,000,000
Name of insurance companies: Policy type (e.g. public liability, professional indemnity, etc.): Policy number(s): Expiry dates: Limit of liability:	Master Builders Insurance Brokers Contract Works & Public Liability 01D2087353 20/2/2022 $ 20,000,000
Name of insurance companies: Policy type (e.g. public liability, professional indemnity, etc.): Policy number(s): Expiry dates: Limit of liability:	Xchanging WorkCover Insurance 12187364 30/6/2022
Risk management strategies Provide details of all risk management strategies and practices of the Tenderer that would be applicable or relevant in the context of the supply of the Goods or Services.	MKM Constructions have developed a Risk Management procedure which will be specifically tailored to the site. MKM Constructions understand the complexities of working on a operating saleyards site and have a proven track record of navigating the process to ensure the safety or our construction personal and the users of the site and animal welfare. MKM Constructions have developed a specific safe operating procedure for staff to ensure that all aspects of a an operational saleyard site are considered.

[END OF PART D, TENDERERS RESPONSE]

Name (in block letters): .....-MKM CONSTRUCTIONS..... (organisation tendering)

In the Office Bearer capacity of (name in block letters): ..... KARL MCMILLAN ..... (Authorised Officer)

Signed for the Tenderer:..... (Authorised Officer) Date: ..6... / 10..... / 2021