

# NOTICE OF MEETING

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Dear Committee Members

You are requested to attend the following meeting of Council.

ENGINEERING AND INFRASTRUCTURE STANDING COMMITTEE  
MEETING OF  
**ISAAC REGIONAL COUNCIL**

TO BE HELD ON  
**WEDNESDAY, 12 MAY 2021**  
**COMMENCING AT 9.00AM**  
**COUNCIL CHAMBERS - MORANBAH**

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**JEFF STEWART-HARRIS**

Chief Executive Officer

**ROBERT PERNA**

Committee Officer

Director Engineering and Infrastructure

**Committee Members:**

Cr Jane Pickels (Chair)

Mayor Anne Baker

Cr Greg Austen

Cr Sandy Moffat

Cr Gina Lacey

Cr Simon West

## LOCAL GOVERNMENT ACT 2009

### Local Government Regulation 2012

#### Chapter 8, Part 2 Local Government Meetings and Committees

#### Division 1A, Requirements for Local Government Meetings Generally

##### Section 254J Closed meetings

- (1) A local government may resolve that all or part of a meeting of the local government be closed to the public.
- (2) A committee of a local government may resolve that all or part of a meeting of the committee be closed to the public.
- (3) However, a local government or a committee of a local government may make a resolution about a local government meeting under subsection (1) or (2) only if its councillors or members consider it necessary to close the meeting to discuss one or more of the following matters—
  - (a) the appointment, discipline or dismissal of the chief executive officer;
  - (b) industrial matters affecting employees;
  - (c) the local government's budget;
  - (d) rating concessions;
  - (e) legal advice obtained by the local government or legal proceedings involving the local government including, for example, legal proceedings that may be taken by or against the local government;
  - (f) matters that may directly affect the health and safety of an individual or a group of individuals;
  - (g) negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government;
  - (h) negotiations relating to the taking of land by the local government under the [Acquisition of Land Act 1967](#);
  - (i) a matter the local government is required to keep confidential under a law of, or formal arrangement with, the Commonwealth or a State.
- (4) However, a local government or a committee of a local government must not resolve that a part of a local government meeting at which a decision mentioned in [section 150ER](#)(2), [150ES](#)(3) or [150EU](#)(2) of the [Act](#) will be considered, discussed, voted on or made be closed.
- (5) A resolution that a local government meeting be closed must—
  - (a) state the matter mentioned in subsection (3) that is to be discussed; and
  - (b) include an overview of what is to be discussed while the meeting is closed.
- (6) A local government or a committee of a local government must not make a resolution (other than a procedural resolution) in a local government meeting, or a part of a local government meeting, that is closed.

##### Conflict of Interest Obligations

Reference is made to Section 150EL of the Local Government Act 2009. Specifically, the obligation of Councillors when they first become aware they have a conflict of interest to make the Chief Executive Officer aware in writing or if in a meeting, ensure they declare immediately.

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## **ENGINEERING AND INFRASTRUCTURE**

### **STANDING COMMITTEE MEETING**

#### **OF ISAAC REGIONAL COUNCIL**

#### **TO BE HELD ON**

**WEDNESDAY 12 MAY 2021**

**COUNCIL CHAMBERS, MORANBAH**

1. OPENING OF THE MEETING
2. APOLOGIES
3. DECLARATION OF CONFLICTS OF INTEREST
4. CONFIRMATION OF MINUTES
5. OFFICER REPORTS
6. INFORMATION BULLETIN REPORT
7. GENERAL BUSINESS
8. CONCLUSION

# TABLE OF CONTENTS

## 1. OPENING OF MEETING

## 2. APOLOGIES

## 3. DECLARATION OF CONFLICTS OF INTEREST

## 4. CONFIRMATION OF MINUTES

Engineering and Infrastructure Standing Committee Meeting of Isaac Regional Council held in Council Chambers, Moranbah, commencing at 9.00am on Wednesday 14 April 2021.

## 5. OFFICER REPORTS

### 5.1 ENGINEERING AND INFRASTRUCTURE 2020/2021 CAPITAL PROJECTS PROGRESS REPORT

#### EXECUTIVE SUMMARY

This report is to provide an update to the Engineering and Infrastructure Standing Committee and Council of the progress in delivery of the Engineering and Infrastructure 2020/2021 Capital Works Program.

### 5.2 SOCIAL AND AFFORDABLE HOUSING TENANCY MANAGEMENT POLICIES

#### EXECUTIVE SUMMARY

This report seeks endorsement from Council to consider policies relating to Social and Affordable Housing Tenancy Management. These policies do not relate to employee housing, but simply seek to split the original Social and Affordable Tenancy Management Policy (CGFS-063) into two separate policies (EI-POL-010 & EI-POL-011) under council's requirement as a registered provider of these services.

# TABLE OF CONTENTS

## **5.3 AMENITY OF RESIDENTIAL PROPERTIES IN CLOSE PROXIMITY TO UNSEALED ROADS**

### **EXECUTIVE SUMMARY**

The intent of this report is to obtain Council approval for the proposed actions to address the amenity of residential properties in close proximity to unsealed roads including a specific policy to address dust suppression setting out the principles and guidelines to minimise public concerns related from dust nuisance.

## **5.4 GROSVENOR CREEK BRIDGE SAFETY AND STRUCTURAL INTEGRITY REPORT**

### **EXECUTIVE SUMMARY**

This report aims to advise Council of the findings of the investigations carried out by the Australian Road Research Board (ARRB) to extend the life of Grosvenor Creek Bridge without the need for significant asset refurbishment or replacement.

## **5.5 ROAD NETWORK DEFECTS STATUS UPDATE**

### **EXECUTIVE SUMMARY**

This report seeks to provide an update on the current status of defects data as logged in the Reflect software system of the road infrastructure network for both Isaac local roads and the Department of Transport and Main Roads (DTMR) which Council maintain as part of annual Routine Maintenance Performance Contracts.

## **6. INFORMATION BULLETINS**

## **6.1 ENGINEERING AND INFRASTRUCTURE INFORMATION BULLETIN – MAY 2021**

### **EXECUTIVE SUMMARY**

The Engineering and Infrastructure Directorate Information Bulletin for May 2021 is provided for Committee review.



# TABLE OF CONTENTS

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<b>7. GENERAL BUSINESS</b>
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<b>8. CONCLUSION</b>
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# UNCONFIRMED MINUTES

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ENGINEERING AND INFRASTRUCTURE STANDING COMMITTEE MEETING  
OF  
**ISAAC REGIONAL COUNCIL**

HELD ON  
**WEDNESDAY, 14 APRIL 2021**  
**COMMENCING AT 9.00AM**

**ISAAC REGIONAL COUNCIL**  
**UNCONFIRMED MINUTES OF THE**  
**ENGINEERING AND INFRASTRUCTURE**  
**STANDING COMMITTEE MEETING**  
**HELD IN COUNCIL CHAMBERS, MORANBAH**  
**ON WEDNESDAY 14 APRIL 2021**

Table of Contents	Page
1. Opening	3
2. Apologies	3
3. Declaration of Conflicts of Interest	4
4. Confirmation of Minutes	4
5. Officer Reports	4
6. Information Bulletin Reports	9
7. General Business	10
8. Conclusion	10



**ISAAC REGIONAL COUNCIL**  
**UNCONFIRMED MINUTES OF THE**  
**ENGINEERING AND INFRASTRUCTURE**  
**STANDING COMMITTEE MEETING**

**HELD IN COUNCIL CHAMBERS, MORANBAH**

**ON WEDNESDAY 14 APRIL 2021 COMMENCING AT 9.00AM**

**ATTENDANCE**

Cr Jane Pickels, Division Seven (Chair) *(via video conference)*  
Mayor Anne Baker  
Cr Greg Austen, Division One  
Cr Sandy Moffat, Division Two  
Cr Gina Lacey, Division Three  
Cr Simon West, Division Four

**OFFICERS PRESENT**

Mr Robert Perna, Director Engineering and Infrastructure  
Mr Sean Robinson, Manager Galilee and Bowen Basin Services  
Mr Richard Madden, Manager Infrastructure Planning and Technical Services  
Mr Gordon Robertson, Manager Corporate Properties and Fleet  
Mr Nic Crous, Acting Manager Parks and Recreation  
Mr Niall Tierney, Acting Manager Infrastructure  
Mr Michael Erickson, Coordinator Infrastructure West  
Mrs Tricia Hughes, Coordinator Executive Support  
Mrs Kylie Dowd, Executive Assistant  
Ms Brooke Maisey, Senior Communications Officer *(via video conference)*

**1. OPENING**

The Chair declared the meeting open at 9.00am and acknowledged the traditional custodians of the land on which we meet today and paid her respects to their Elders past, present and emerging.

**Resolution No.:** E&I0490

**Moved:** Cr Simon West

**Seconded:** Cr Gina Lacey

**That the Engineering and Infrastructure Standing Committee accept Cr Jane Pickels participation in the meeting by video conference.**

**Carried**

# MEETING MINUTES

## 2. APOLOGIES

No apologies received for this meeting.

## 3. DECLARATION OF CONFLICTS OF INTEREST

No conflict of interest declared this meeting.

### NOTE:

*Council acknowledges that Chapter 5B Councillors' Conflicts of Interest of the Local Government Act 2009 does not apply to a Councillor if the matter to be resolved relates to a corporation or association that arises solely because of a nomination or appointment of the councillor by the local government to be a member of the board of the corporation or association.*

## 4. CONFIRMATION OF MINUTES

Engineering and Infrastructure Standing Committee Meeting of Isaac Regional Council held in Council Chambers, Moranbah commencing at 9.00am on Wednesday 10 March 2021.

**Resolution No.: E&I0491**

**Moved: Cr Gina Lacey**

**Seconded: Cr Greg Austen**

**That the minutes from the Engineering and Infrastructure Standing Committee meeting held in Council Chambers, Moranbah on Wednesday 10 March 2021 are confirmed.**

**Carried**

## 5. OFFICERS REPORTS

### **5.1 Engineering and Infrastructure 2020/2021 Capital Projects Progress Report EXECUTIVE SUMMARY**

This report is to provide an update to the Engineering and Infrastructure Standing Committee and Council of the progress in delivery of the Engineering and Infrastructure 2020/2021 Capital Works Program.

## OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

1. *Receive and notes the monthly Engineering and Infrastructure 2020/2021 Capital Projects Progress Report.*
2. *Receive and notes works awarded under the 2020/2021 Engineering and Infrastructure Procurement Plan.*
3. *Receive and notes the 2020/2021 Engineering and Infrastructure Procurement Plan Report (detailing local contractor content).*

Resolution No.: E&I0492

Moved: Cr Sandy Moffat

Seconded: Cr Gina Lacey

That the Committee recommends that Council:

1. **Receive and notes the monthly Engineering and Infrastructure 2020/2021 Capital Projects Progress Report.**
2. **Receive and notes works awarded under the 2020/2021 Engineering and Infrastructure Procurement Plan.**
3. **Receive and notes the 2020/2021 Engineering and Infrastructure Procurement Plan Report (detailing local contractor content).**

**Carried**

## **5.2 Award of Tender IRCT2024-1120-211 – Stabilisation Works (Isaac Region) Separable Portion B – Saraji Road**

### EXECUTIVE SUMMARY

This report examines the responses received for the Request for Tender (RFT) Stabilisation Works – Isaac Region for Separable Portion B – Saraji Road and recommends awarding the works package to the contractor providing the best tender submission in terms of value for money outcome and evaluation criteria as set out within the RFT for council.

## OFFICER'S RECOMMENDATION

*That the Committee:*

# MEETING MINUTES

- 1. Under delegated authority (Resolution 7035) award Contract IRCT2024-1120-211 Stabilisation Works – Isaac Region (Separable Portion B – Saraji Road) to McCullough Construction and Consulting for the sum of \$1,363,530.36 including GST.***
- 2. Notes that the Chief Executive Officer was provided delegated authority (Resolution 7035) to negotiate, execute and vary contracts determined under delegation by the Engineering and Infrastructure Standing Committee.***

**Resolution No.: E&I0493**

**Moved: Cr Gina Lacey**

**Seconded: Cr Simon West**

**That the Committee:**

- 1. Under delegated authority (Resolution 7035) award Contract IRCT2024-1120-211 Stabilisation Works – Isaac Region (Separable Portion B – Saraji Road) to McCullough Construction and Consulting for the sum of \$1,363,530.36 including GST.***
- 2. Notes that the Chief Executive Officer was provided delegated authority (Resolution 7035) to negotiate, execute and vary contracts determined under delegation by the Engineering and Infrastructure Standing Committee.***

**Carried**

## 6. INFORMATION BULLETIN REPORTS

### 6.1 Engineering and Infrastructure Information Bulletin – April 2021

#### EXECUTIVE SUMMARY

The Engineering and Infrastructure Directorate Information Bulletin for April 2021 is provided for Committee Review.

#### OFFICER'S RECOMMENDATION

***That the Committee recommends to Council to:***

- 1. Note the Engineering and Infrastructure Directorate Information Bulletin for April 2021.***

# MEETING MINUTES

Resolution No.: E&I0494

Moved: Cr Simon West

Seconded: Cr Gina Lacey

That the Committee:

1. Note the Engineering and Infrastructure Directorate Information Bulletin for April 2021.

Carried

## 7. GENERAL BUSINESS

### 7.1 Clements Street Traffic Issues

Cr Lacey and Cr West have requested a report be presented to the next Engineering and Infrastructure Standing Committee Meeting on the outcomes of traffic movement on Clements Street Moranbah in response to the community complaints received regarding speeding vehicles on this street.

**ACTION: MANAGER INFRASTRUCTURE PLANNING AND TECHNICAL SERVICES**

## 8. CONCLUSION

There being no further business, the Chair declared the meeting closed at 10.58am.

These minutes were confirmed by the Committee at the Engineering and Infrastructure Standing Committee Meeting held in Moranbah on Wednesday 12 May 2021.

.....  
CHAIR

..... / ..... / .....  
DATE



## MEETING DETAILS

**Engineering and Infrastructure Standing Committee**  
Wednesday 12 May 2021

## AUTHOR

Robert Perna

## AUTHOR POSITION

Director Engineering and Infrastructure

## 5.1 ENGINEERING AND INFRASTRUCTURE 2020/2021 CAPITAL PROJECTS PROGRESS REPORT

## EXECUTIVE SUMMARY

This report is to provide an update to the Engineering and Infrastructure Standing Committee and Council of the progress in delivery of the Engineering and Infrastructure 2020/2021 Capital Works Program.

## OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

1. ***Receive and notes the monthly Engineering and Infrastructure 2020/2021 Capital Projects Progress Report.***
2. ***Receive and notes works awarded under the 2020/2021 Engineering and Infrastructure Procurement Plan.***
3. ***Receive and notes the 2020/2021 Engineering and Infrastructure Procurement Plan Report (detailing local contractor content).***

## BACKGROUND

Progressive updates of the financial and physical position of projects in the 2020/2021 Engineering and Infrastructure Capital Works program are required to ensure that Council is aware of the progress of and risk to the delivery of the program.

Engineering and Infrastructure has undertaken to report local content in contracts awarded through the Procurement plan.

## IMPLICATIONS

The attached Engineering and Infrastructure 2020/2021 Capital Projects Progress Summary spreadsheet identifies the financial and physical position of all projects. A red flag indicates either a time or budget issue, yellow indicates the projects is of concern and green indicates no issues. Commentary is provided to briefly explain the position of projects. Where the risk is considered low or of insignificant impact to council or community no additional commentary is provided. Where risks are significant separate commentary is provided in the Engineering and Infrastructure Issues Report.

## Compliance

To ensure that the Engineering and Infrastructure 2020/2021 Capital Works Program is achieved within the identified timeframes of the 2020/2021 financial year.

Per Resolution number 6763 (2020/2021 Engineering and Infrastructure Strategic Procurement Plan), the activities of the previous month's Procurement Plan under the Chief Executive Officer's delegation will be noted in this report.

## Benefits

Council can see a monthly progress report detailing progress of projects in the Engineering and Infrastructure 2020/2021 Capital Program. This report communicates risks/failure/delays that have been identified within the Engineering and Infrastructure 2020/2021 Capital Works program.

## CONSULTATION

- Director Engineering and Infrastructure
- Manager Infrastructure Planning and Technical Services
- Manager Corporate Properties and Fleet
- Manager Infrastructure, Parks and Recreation
- Manager Galilee and Bowen Basin Operations
- Department Coordinators

## BASIS FOR RECOMMENDATION

To improve business within Engineering and Infrastructure Directorate by providing more appropriate and relevant reporting, transparency and a clear monitoring tool for Council. This report will help identify and communicate any project delays or possible project failures.

## ACTION ACCOUNTABILITY

That the Managers and the Director of Engineering and Infrastructure oversee the scoping, procurement and the completion of the projects identified within the 2020/2021 Capital Projects Progress Summary spreadsheet. Furthermore, that the appropriate Managers and the Director of Engineering and Infrastructure are held accountable for the delivery of these project stages are completed within the identified timeframes.

## KEY MESSAGES

That Council has open communication, oversight and transparency of the Engineering and Infrastructure 2020/2021 Capital Works Program, to ensure Isaac will have effective and sustainable infrastructure that supports the needs of the region's communities and economic sectors.

### Report prepared by:

ROBERT PERNA  
**Engineering and Infrastructure**

Date: 5 May 2021

### Report authorised by:

JEFF STEWART-HARRIS  
**Chief Executive Officer**

Date: 6 May 2021

## **ATTACHMENTS**

- CONFIDENTIAL Attachment 1 – 2020/2021 Capital Project Progress Summary Spreadsheet
- CONFIDENTIAL Attachment 2 – Subcontractor Utilisation Report

## **REFERENCE DOCUMENT**

- Nil

PAGES 17 TO 19 HAVE INTENTIONALLY BEEN REMOVED DUE TO CONFIDENTIAL REASONS

## MEETING DETAILS

**Engineering and Infrastructure Standing Committee**  
Wednesday 12 May 2021

## AUTHOR

Gordon Robertson

## AUTHOR POSITION

Manager Corporate Properties and Fleet

## 5.2 SOCIAL AND AFFORDABLE HOUSING TENANCY MANAGEMENT POLICIES

### EXECUTIVE SUMMARY

This report seeks endorsement from Council to consider policies relating to Social and Affordable Housing Tenancy Management. These policies do not relate to employee housing, but simply seek to split the original Social and Affordable Tenancy Management Policy (CGFS-063) into two separate policies (EI-POL-010 & EI-POL-011) under council's requirement as a registered provider of these services.

### OFFICER'S RECOMMENDATION

*That the Committee recommends that Council:*

1. ***Repeals the "Social and Affordable Housing Tenancy Management Policy" (CGFS-063)***
2. ***Adopts the "Affordable Housing Tenancy Management Policy" (EI-POL-010)***
3. ***Adopts the "Social Housing Tenancy Management Policy" (EI-POL-011)***

### BACKGROUND

The Corporate Properties Leasing team identified the need to separate "Social Housing" and "Affordable Housing" from the existing Policy CGFS-063 "Social and Affordable Housing Tenancy Management in late 2019.

Isaac Regional Council is a registered provider of Social Housing and this was a requirement to meet our obligations in line with the Queensland State Regulatory System for Community Housing (QSRSC) for registration as a provider. The two policy documents were created (EI-POL-00 and EI-POL-011 above) to differentiate their purposes and specifically remove reference to affordable housing" which was of no relevance to the governing body of Social Housing (EI-POL-011).

The Manager at the time approved the draft policies with the intent to have them endorsed, however, due to internal movements the updated Policies were not progressed.

There is no significant change to the original policy content or intent, only to create two separate policy documents to meet the requirements of both Social Housing Tenancy Management (as a registered provider) and Affordable Housing Tenancy Management on behalf of Isaac Affordable Housing Trust.

### IMPLICATIONS

The policy has no financial implications to Council.



## CONSULTATION

- Internal
- Director Engineering and Infrastructure
- Corporate Properties Tenancy Officers
- Governance and Corporate Services

## BASIS FOR RECOMMENDATION

The proposed policies set out the guidelines for individual tenancy management of Social Housing and Affordable Housing in two separate policies which is in line with the requirements under the Queensland State Regulatory System for Community Housing (QSRSC) for registration as a social housing provider and the need to have a specific "Social Housing Tenancy Management Policy.

## ACTION ACCOUNTABILITY

Managers and Co-ordinators in the Engineering and Infrastructure Directorate are responsible for ensuring the policy is implemented.

Manager Corporate Properties and Fleet to liaise with the Manager Governance and Corporate Services to update the Corporate Policy Register, website and IRIS.

## KEY MESSAGES

Council is committed to providing transparent and quality decision making and efficient and cost-effective service delivery.

### Report prepared by:

GORDON ROBERTSON

**Manager Corporate Properties and Fleet**

Date: 5 May 2021

### Report authorised by:

ROBERT PERNA

**Director Engineering and Infrastructure**

Date: 5 May 2021

## ATTACHMENTS

- Attachment 1 – Social and Affordable Housing Tenancy Management Policy – (CGFS-063)
- Attachment 2 – Affordable Housing Tenancy Management Policy – (EI-POL-010)
- Attachment 3 – Social Housing Tenancy Management Policy – (EI-POL-011)

## REFERENCE DOCUMENT

- Nil

**POLICY TITLE:** SOCIAL AND AFFORDABLE HOUSING  
TENANCY MANAGEMENT

**POLICY NUMBER:** CGFS-063

**CATEGORY:** Council Policy

**CLASSIFICATION:** Statutory

Approved by Council		Meeting number and date	
16 December 2014		16 December 2014	
		Resolution number	
		3917	
Approved by CEO		16 December 2014	
Effective date		Review date	
6 November 2014		6 November 2016	
Policy Author			
Manager Governance and Corporate Services			
Endorsed by			
Director Corporate Governance and Financial Services			
Responsible Position			
Manager Governance and Corporate Services			
Current Incumbent	Contact number	Email address	
Aaron Johansson	4846 3549	aaron.johansson@isaac.qld.gov.au	

Version 1  
Policy No: CGFS-063  
Authorised by: Director Corporate Governance and Financial Services  
Document Maintained by: Corporate Service  
Next Review Date: 6 November 2016

## 1. Purpose

This policy coordinates the tenancy management for social and affordable housing across Isaac Regional Council (IRC).

## 2. Scope

This policy applies to tenant/s who rent social and/or affordable housing across IRC. This policy does not apply to internal IRC managed housing.

## 3. Definitions

Term	Meaning
Affordable Housing	Affordable Housing, are premises constructed and managed by IRC, in accordance with guidelines nominated by the Isaac Affordable Housing Fund, NRAS and guidelines of Council. IRC manages the tenancy of these premises, collecting rent and maintaining the buildings to a suitable standard.
IRC	Isaac Regional Council
Isaac Views Affordable Housing	Isaac Views Affordable Housing, are premises constructed and managed by IRC, in an effort to equitably provide and support affordable housing to the township of Moranbah. IRC manages the tenancy of these premises, collecting rent and maintaining the buildings to a suitable standard.
Residential Tenancies Authority (RTA)	Self-funded statutory authority that administers the Residential Tenancies and Rooming Accommodation Act 2008.
Social Housing	Social Housing, are premises constructed under caveat using funding from State or Federal Government on freehold/leasehold land by IRC. Once constructed, IRC then manages the tenancy of these premises, collecting rent and maintaining the buildings to a suitable standard.

## 4. Policy Statement

### 4.1 Policy

IRC understands that in the management of its social and affordable housing residential property portfolio, that housing utilised as social and affordable housing is a community benefit. This policy will ensure fair and equitable allocation of all housing in accordance with set qualification criteria.

### 4.2 Tenancy Arrangements

- All tenant/s residing in Social and Affordable Housing must comply with provisions of the Residential Tenancies and Rooming Accommodation Act 2008 and Residential Tenancies and Rooming Accommodation Regulation 2009.
- The document 'Managing general tenancies in Queensland', available from the Residential Tenancies Authority or online from the RTA website, outlines all

requirements for people residing in Social and Affordable Housing (Tenant/s) and for IRC (Lessor).

- It is the responsibility of both the tenant/s and the lessor that all legislative requirements are met when entering into an agreement to rent a social and affordable housing property.
- Effective from the date of adoption, all pre-existing rental arrangements shall be superseded by the requirements of this policy.

## 4.3 Eligibility and Applying for Affordable and Social Housing

To be eligible or to apply for social and affordable housing, a prospective tenant must meet the eligibility criteria and apply in accordance with the relevant industry body/organisation:

### 1. Social Housing

All information relating to eligibility and the application process is displayed on [www.isaac.qld.gov.au](http://www.isaac.qld.gov.au) and [www.hpw.qld.gov.au](http://www.hpw.qld.gov.au)

### 2. Affordable Housing

All information relating to eligibility and the application process is displayed on [www.isaac.qld.gov.au](http://www.isaac.qld.gov.au) and [www.qld.gov.au/housing/renting/nras/](http://www.qld.gov.au/housing/renting/nras/)

### 3. Isaac Views – Affordable Housing

All information relating to eligibility and the application process is displayed on [www.isaac.qld.gov.au](http://www.isaac.qld.gov.au) and [www.qld.gov.au/housing/renting/nras/](http://www.qld.gov.au/housing/renting/nras/)

For further information please contact the IRC Tenancy and Leasing Team on 1300 ISAACS.

## 4.4 Ineligibility

Should a prospective tenant not meet requirements as set out within the eligibility criteria, they will be deemed ineligible to rent social and affordable housing.

## 4.5 Demographic Allocation of Housing

To ensure social and affordable housing equitably aligns with family demographic need, the following is used as a guide:

Allocation	Bedroom Allocation			
	1BR	2BR	3BR	4BR
Single, no children	1			
Single and one (1) Child		2		
Couple, no Children	1	2		
Couple and one (1) Child		2	3	
Single and two (2) Children		2	3	
Couple and two (2) Children			3	
Single and three (3) Children			3	4
Couple and three (3) Children			3	4
Single and four (4) Children			3	4

When the housing portfolio does not align with the fit for purpose model, or a request has been made which is deemed not fit for purpose, approval is at the sole discretion of IRC.

## 4.6 Appeal against Decision

Prospective tenants for Social and Affordable Housing have, through the IRC complaints management process, the right to seek a review of any decision of the tenancy management and allocation of IRC tenancy process.

## 4.7 Calculation of Rental Rates

As median rental rates fluctuate greatly throughout the IRC area, an independent assessment of such rates shall be carried out on a yearly basis by local real estate agents for all affordable housing; to determine a market value rental rate.

The rental charged for affordable housing will be based on the benchmark for affordable housing rents being 30% below market value rent.

Social housing rent is nominated by Department of Housing and Public Works and is based on income criteria.

## 4.8 Tenancy Agreement Periods

Version 1  
 Policy No: CGFS-063  
 Authorised by: Director Corporate Governance and Financial Services  
 Document Maintained by: Corporate Service  
 Next Review Date: 6 November 2016



In order to provide a more consistent approach, all tenant/s will be offered a periodic General Tenancy Agreement.

## **4.9 Ending Tenancy Agreements**

IRC may choose to end a tenancy agreement for any of the reasons as set out in Section 277 of the Residential Tenancies and Rooming Accommodation Act 2008.

IRC reserves the right to end a tenancy agreement should eligibility criteria no longer be met. The tenant will be required to vacate the premises within four (4) weeks.

## **4.10 Rental Bonds**

All new tenants must pay a rental bond as financial protection over the property. The bond amount is to be the equivalent of four (4) weeks rent and is payable to the RTA on the commencement of a tenancy. Consideration of hardship will be dealt with on a case by case basis.

## **4.11 Payment of Rent**

Rent is payable by the tenant two weeks in advance by one of the following methods:

- Direct debit
- Cash or Eftpos (at one of IRC offices)

## **4.12 Payment of Water Charges, Utilities and Landscaping**

- Where dwellings are metered, (meeting the Wells 3 Star rating or better) tenants will be responsible for all water usage charges at the premises
- For situations where dwellings are not metered, IRC will be responsible for all water charges at the premises
- All other utilities (power, gas, and phone) are required to be installed and paid by the tenant
- Tenants are responsible for all landscaping and garden maintenance

## **4.13 Pets**

IRC supports tenants keeping pets where the style of housing is suitable for that type of pet. The keeping of pets in social and affordable housing must comply with IRC local laws.

Tenants may keep a pet if:

- The premises is suitable for keeping a pet e.g. approved for pet ownership, appropriate fencing, suitable area for housing
- The pet does not interfere with the reasonable peace, comfort and privacy of neighbours
- Compliance with the Local Laws

A tenant may keep a small pet inside a dwelling (if approved) on the agreed condition that they have the premises professionally treated for fleas and ticks on vacating the dwelling.

## 4.14 Inspections

IRC as the lessor, reserves the right to inspect its properties on a three (3) monthly basis. The lessor must give sufficient notice to the tenant of the property to be inspected as set out in the Residential Tenancies and Rooming Accommodation Act 2008.

## 5. Communication Channels

This policy will be communicated throughout IRC via:

- IRIS
- Online policy library

## 6. References and Related Documents

- Residential Tenancies and Rooming Accommodation Act 2008
- Residential Tenancies and Rooming Accommodation Regulation 2009
- Queensland Government Benchmark for Affordable Housing Rents

## AFFORDABLE HOUSING TENANCY MANAGEMENT

### APPROVALS

<b>POLICY NUMBER</b>	El-POL-010	<b>DOC.ID</b>	4774909
<b>CATEGORY</b>	Statutory		
<b>POLICY OWNER</b>	Corporate Properties		
<b>APPROVAL DATE</b>	Insert	<b>RESOLUTION NUMBER</b>	Insert

DRAFT

## OBJECTIVE

This policy coordinates the tenancy management for affordable housing across Isaac Regional Council.

## SCOPE

This policy applies to tenant/s who rent affordable housing across Isaac Regional Council. This policy does not apply to employee housing.

## DEFINITIONS

### TERM / ACRONYM

### MEANING

IRC	Isaac Regional Council – local government organisation.
National Rental Affordability Scheme (NRAS)	NRAS or the Scheme, aims to increase the supply of new and affordable rental dwellings. This incentive is issued to housing providers to provide affordable rental dwellings at least 20 per cent below market rates.
Isaac Affordable Housing Trust (IAHT)	IAHT was established to provide affordable housing in the Isaac Region. Comprises of a board of Directors and Management Committee.
Affordable Housing	Premises constructed and managed by IRC, in accordance with guidelines nominated by IAHT, NRAS and IRC. IRC manages the buildings to a suitable standard.
Residential Tenancies Authority (RTA)	Self-funded statutory authority that administers the <i>Residential Tenancies and Rooming Accommodation Act 2008</i> .

## POLICY STATEMENT

The management of IRC's affordable housing property portfolio, is utilised as affordable housing and is a community benefit. Such benefit is discretionary in nature and in conjunction with the State Government, IRC reserves the right to withdraw or otherwise change such benefit should a tenant act in a manner inconsistent with or in breach of this policy. This policy aims to ensure fair and equitable allocation of housing in accordance with the set qualification criteria.

## TENANCY ARRANGEMENTS

Tenant/s residing in affordable housing must comply with provisions of the *Residential Tenancies and Rooming Accommodation Act 2008* and *Residential Tenancies and Rooming Accommodation Regulation 2009*. It is the responsibility of both tenant/s and lessor (IRC) that all legislative requirements are met when

entering into an agreement to rent an affordable housing property. Effective from the date of adoption, all pre-existing rental arrangements shall be superseded by the requirements of this policy.

## ELIGIBILITY AND APPLYING FOR AFFORDABLE HOUSING

A prospective tenant must meet the eligibility criteria and apply in accordance with the relevant industry body/organisation.

For information relating to eligibility/criteria and the application process:

1. Affordable Housing – [www.isaac.qld.gov.au](http://www.isaac.qld.gov.au) and [www.qld.gov.au/housing/renting/nras/](http://www.qld.gov.au/housing/renting/nras/)
2. Isaac Views Affordable Housing – [www.isaac.qld.gov.au](http://www.isaac.qld.gov.au) and [www.qld.gov.au/housing/renting/nras/](http://www.qld.gov.au/housing/renting/nras/)

## INELIGIBILITY

Should a prospective tenant not meet requirements as set out within the eligibility criteria, they will be deemed ineligible for affordable housing.

## APPEAL AGAINST A DECISION

Prospective tenants have, through the IRC complaints management process, the right to seek a review of any decision of tenancy management and allocation of the IRC tenancy process.

## CALCULATION OF RENTAL RATES

The rent charged for housing will be based on the benchmark for affordable housing rents being 30% below market value rent.

## RENTAL BONDS

All tenants must pay a rental bond as financial protection over the property. The bond amount is equivalent to four (4) weeks rent and is payable to the RTA on the commencement of a tenancy. Bond loans are available through the Queensland Government and are assessed on a case by case basis.

## PAYMENT OF RENT

Before tenancy, rent is payable by the tenant/s two (2) weeks in advance and weekly thereafter using either Direct Debit, Cash or EFTPOS.

## PAYMENT OF WATER CHARGES, UTILITIES AND LANDSCAPING

Where dwellings are metered, (wells 3 compliant or better) tenants will be responsible for all water usage charges at the premises. Where dwellings are not metered, IRC will be responsible for all water charges at the premises. All other utilities such as power, gas, and phone are to be installed and paid by the tenant. Tenant/s are responsible for all landscaping and garden maintenance at the rear of the property.

## INSPECTIONS

The lessor (IRC), reserves the right to inspect its properties on a three (3) monthly basis. Sufficient notice will be given to the tenant of the property as per *Residential Tenancies and Rooming Accommodation Act 2008*.

## PETS

IRC supports tenant/s keeping pets where the style of housing is suitable and complies with Local Laws.

Tenants must get written permission in their tenancy agreement to have a pet in their rental property and if approved the following will apply:

- The Tenant will be responsible for any damage to the property caused by their pets” and any associated cost to rectify.

IRC has sole discretion on granting permission of pets with individual tenancy agreements.

## ENDING TENANCY AGREEMENTS

IRC reserves the right to end an agreement where eligibility criteria is no longer met and for any reason as per s277 *Residential Tenancies and Rooming Accommodation Act 2008*. The tenant will be required to vacate the premises within four (4) weeks.

## ADDITIONAL INFORMATION

Managing general tenancies in Queensland, refer to <https://www.rta.qld.gov.au/>

## LEGISLATIONS AND RELATED GUIDELINES

- *Residential Tenancies and Rooming Accommodation Act 2008*
- *Housing Act 2003*
- *Residential Tenancies and Rooming Accommodation Regulation 2009*
- Queensland Government Benchmark for Affordable Housing Rents

## REFERENCES

### ID

### NAME

CP-018

Affordable Housing Rental Application



## SOCIAL HOUSING TENANCY MANAGEMENT

### APPROVALS

<b>POLICY NUMBER</b>	El-POL-011	<b>DOC.ID</b>	4774908
<b>CATEGORY</b>	Statutory		
<b>POLICY OWNER</b>	Corporate Properties		
<b>APPROVAL DATE</b>	Insert	<b>RESOLUTION NUMBER</b>	Insert

DRAFT

## OBJECTIVE

This policy coordinates the tenancy management for social housing across Isaac Regional Council as a registered Queensland State Based Community Housing Provider.

## SCOPE

This policy applies to tenant/s who rent social housing across Isaac Regional Council. This policy does not apply to employee housing.

## DEFINITIONS

### TERM / ACRONYM

### MEANING

IRC	Isaac Regional Council – local government organisation.
Social Housing	Premises constructed under caveat using funding from State or Federal Government on freehold/leasehold land by IRC. Once constructed, IRC manages the tenancy of these premises, collecting rent and maintaining the buildings to a suitable standard.
Queensland State Regulatory System for Community Housing (QSR SCH)	Regulatory Services, Department of Housing and Public Works – Queensland Registrar for registered local governments, to report notifiable events.
Residential Tenancies Authority (RTA)	Self-funded statutory authority that administers the <i>Residential Tenancies and Rooming Accommodation Act 2008</i> .

## POLICY STATEMENT

The management of IRC's social housing residential property portfolio is utilised as social housing is a community benefit. This policy ensures fair and equitable allocation of all housing in accordance with the set qualification criteria.

## TENANCY ARRANGEMENT

Tenant/s residing in social housing must comply with provisions of the *Residential Tenancies and Rooming Accommodation Act 2008* and *Residential Tenancies and Rooming Accommodation Regulation 2009*. It is the responsibility of both tenant/s and lessor (IRC) that all legislative requirements are met when entering into an agreement to rent a social housing property. Effective from the date of adoption, all pre-existing rental arrangements shall be superseded by the requirements of this policy.

## ELIGIBILITY AND APPLYING FOR SOCIAL HOUSING

A prospective tenant must meet the eligibility criteria and apply in accordance with Department of Housing and Public Works.

For information relating to eligibility/criteria and the application process:

1. Social Housing – [www.hpw.qld.gov.au](http://www.hpw.qld.gov.au)

## ALLOCATION OF HOUSING

IRC acknowledges and understands the requirements when assisting clients into and through the housing system, as appropriate to their needs. Council adheres and refers to, Department of Housing and Public Works, Allocations Policy for Funded Social Housing Providers when allocating housing -

<http://www.hpw.qld.gov.au/SiteCollectionDocuments/AllocationsPolicyFundedSocialHousingProviders.pdf>

## RENT

Rent is nominated by Department of Housing and Public Works and is based on income criteria, ensuring rents set for tenants on low to moderate incomes in properties are affordable. Payment of rent is payable by the tenant/s two (2) weeks in advance and weekly thereafter using either Direct Debit, Cash or EFTPOS.

Rental bonds are required by all tenant/s as financial protection over the property. The bond amount is equivalent to four (4) weeks rent and is payable to the RTA on commencement of a tenancy. Financial hardship will be considered on a case by case basis.

Council adheres and refers to, Department of Housing and Public Works – Community Housing Rent Policy <http://www.hpw.qld.gov.au/SiteCollectionDocuments/CommunityHousingRentPolicy2013.pdf>

## PAYMENT OF WATER CHARGES, UTILITIES AND LANDSCAPING

Where dwellings are metered, (wells 3 compliant or better) tenants will be responsible for all water usage charges at the premises. Where dwellings are not metered, IRC will be responsible for all water charges at the premises. All other utilities such as power, gas, and phone are to be installed and paid by the tenant. Tenant/s are responsible for all landscaping and garden maintenance.

## INSPECTIONS

The lessor (IRC), reserves the right to inspect its properties on a three (3) monthly basis. Sufficient notice will be given to the tenant of the property as per *Residential Tenancies and Rooming Accommodation Act 2008*.

## PETS

IRC supports tenant/s keeping pets where the style of housing is suitable and complies with Local Laws.

Tenants must get written permission in their tenancy agreement to have a pet in their rental property and if approved the following will apply:

- The Tenant will be responsible for any damage to the property caused by their pets” and any associated cost to rectify.

IRC has sole discretion on granting permission of pets with individual tenancy agreements.

## ENDING TENANCY AGREEMENTS

IRC reserves the right to end an agreement where eligibility criteria is no longer met and for any reason as per s277 Residential Tenancies and Rooming Accommodation Act 2008. Matters relating to ongoing remedy breeches, illegal activity etc. the tenant will be required to vacate the premises within four (4) weeks.

Tenant/s who become ineligible for social housing as set out by the Department of Housing and Public Works – Social Housing Tenancy Management Policy, will be required to vacate the premises within four (4) months unless mitigating circumstances apply.

## NOTIFICATION OBLIGATIONS

IRC acknowledges (QSRSC) Notification Guidelines for reporting events or incidents that damages, or has potential to damage the reputation of the community housing sector. RC will advise (QSRSC) of such events as outlined in the Guidelines for Local Government Notifications to the Queensland Registrar. All information relating to types of notifiable events and timeframes refer to [www.hpw.qld.gov.au](http://www.hpw.qld.gov.au).

## ADDITIONAL INFORMATION

Managing general tenancies in Queensland. refer to <https://www.rta.qld.gov.au/>

**This document, must NOT contain procedural information**

## LEGISLATIONS AND RELATED GUIDELINES

- *Residential Tenancies and Rooming Accommodation Act 2008*
- *Housing Act 2003*
- *Residential Tenancies and Rooming Accommodation Regulation 2009*
- Queensland State Regulatory System for Community Housing Notification Guidelines

## REFERENCES

Nil

## MEETING DETAILS

**Engineering and Infrastructure Standing Committee**  
Wednesday 12 May 2021

## AUTHOR

Richard Madden

## AUTHOR POSITION

Manager Infrastructure Planning and Technical Services

## 5.3 AMENITY OF RESIDENTIAL PROPERTIES IN CLOSE PROXIMITY TO UNSEALED ROADS

### EXECUTIVE SUMMARY

The intent of this report is to obtain Council approval for the proposed actions to address the amenity of residential properties in close proximity to unsealed roads including a specific policy to address dust suppression setting out the principles and guidelines to minimise public concerns related from dust nuisance.

### OFFICER'S RECOMMENDATION

*That the Committee recommends that Council:*

1. ***Adopts the Amenity of Residential Properties in Close Proximity to Unsealed Roads Policy (EI-POL-117).***

### BACKGROUND

There are numerous residents living in houses located along unsealed roads within Isaac Regional Council area resulting in frequent requests for Council to assist in alleviating the dust nuisance. Council currently has no policy to ensure requests raised are dealt in a consistent manner.

An assessment of the number of homesteads close to unsealed roads was carried out and it was found that at least 35 homesteads were identified in proximity to unsealed roads in the rural areas. This desktop analysis showed the closest homestead is within 15 metres of the road, 27 homesteads are less than 150 metres and 8 are in excess of 150 metres from the road.

Addressing the amenity/impact of dust nuisance for these residents would need to be addressed on a case by case base and is dependent on a variety of factors such as road geometry, speed limits and existing pavement material.

To respond to the issue, it is proposed to develop an Amenity for Residential Properties in close proximity to Unsealed Roads Policy to guide decision making to respond to enquiries.

The attached draft Policy sets the standards for sealing parameters, responsibilities and a process/criterion for managing the Policy. In time as this Policy is implemented, the Policy and related processes may be altered/further expanded to ensure transparency and clarity.

The Policy identifies a staged process to address issues and ranges from installation of signage through to re alignment. Examples of signage that could be installed to influence road user behaviour include additional warning and regulatory signage approaching the homestead area and/or additional hazards signage for the area.



Should these items prove ineffective in addressing the resident's amenity concerns consideration can be given to sealing of the unsealed road or realigning the road in accordance with the Amenity of Residential Properties in Close Proximity to Unsealed Roads Policy.

## Key considerations

If low cost signage options are not suitable the policy provides for a paved and bitumen seal to be constructed to Councils current road design standards in front of the property funded by the applicant (noting where public infrastructure is also affected, it is proposed that Council may contribute as described in the policy). Applications for sealing works will be subject to Council approval. Construction of the works are to be carried out by Council, or a Council approved contractor. Construction by Council would be based on availability of resources. All expenses will be at full cost recovery by the applicant unless determined otherwise by Council or negotiated with the applicant.

Based on a desk top investigation the extent of Dust suppression works would be in the order of:

1. 300 metres length and 6 metres wide, which makes provision for 100 metres length pave and seal past each end and 100 metres in front of the homestead, when not closer than 150 metres from the road. Estimated cost per location is \$225,000 (8 homesteads) or
2. 500 metres length and 6 metres wide, which makes provision for 200 metres length pave and seal past each end and 100 metres in front of each homestead if closer than 150 metres from the road. Estimated cost per location is \$375,000 (27 homesteads).

27 Homesteads @ \$375,000	\$10,125,000
8 Homesteads @ \$225,000	\$1,800,000
Total estimated costs	<b>\$11,925,000</b>

In some situations, simple sealing may not address the problem and re alignment of the road may be required. These situations will need to be considered on a case by case base with cost apportionment as per road sealing. Note that no analysis has been undertaken of potential site where realignment may be required.

Random checks with other local authorities on their dust suppression policies provided the following result:

- Central Highland Regional Council - applicant required to fund full cost of works
- Livingston Shire Council - Council may authorise applicant to undertake works at their own cost, subject to investigation
- Moree Plains Shire Council - Full cost by owner
- Narrandera NSW - Voluntary payment by applicant, no contribution by Council
- Southern Midlands Council - Only provided if budget available (undertaken on a "first in" basis)
- Barcaldine Shire Council – No formal policy
- Mackay Regional Council – No specific or formal Dust Suppression Policy, however, any seal requests, all costs to be borne by applicant
- Whitsunday Regional Council – No formal Policy.

## IMPLICATIONS

Addressing nuisance dust complaints, relating to unsealed roads council maintains, will now be able to be addressed consistently across the council area in accordance with a defined policy.

## CONSULTATION

- Director of Engineering and Infrastructure
- Councillor Briefing session
- Executive Leadership Team
- Manager of Governance and Corporate Services

## BASIS FOR RECOMMENDATION

The Policy provides a consistent guideline for addressing community concerns surrounding nuisance dust issues.

## ACTION ACCOUNTABILITY

The Manager Infrastructure Planning and Technical Services will implement and manage the requests for dust suppression work.

Manager Infrastructure will execute the work, if applicable, upon approval by Council and funding allocated.

## KEY MESSAGES

Council now has a policy to engage with landowners to consistently manage nuisance dust complaints based on request from landowners.



---

**Report prepared by:**

RICHARD MADDEN

**Manager Infrastructure Planning and Technical  
Services**

Date: 5 May 2021

**Report authorised by:**

ROBERT PERNA

**Director Engineering and Infrastructure**

Date: 5 May 2021

## ATTACHMENTS

- Attachment 1 – Amenity of Residential Properties in Close Proximity to Unsealed Roads Policy (EI-POL-117)

## REFERENCE DOCUMENT

- Nil

## AMENITY OF RESIDENTIAL PROPERTIES IN CLOSE PROXIMITY TO UNSEALED ROADS POLICY

### APPROVALS

<b>POLICY NUMBER</b>	EI-POL-117	<b>DOC.ID</b>	4717070
<b>CATEGORY</b>	Community		
<b>POLICY OWNER</b>	Director E&I		
<b>APPROVAL DATE</b>	Insert	<b>RESOLUTION NUMBER</b>	Insert

DRAFT

## OBJECTIVE

This policy provides Council and its administration, with the principles and guidelines to carry out works on Council maintained unsealed roads, to minimise public concerns related from dust nuisance. The policy also permits Council to accept monetary contributions from residents to allow self-funding of dust mitigation of unsealed gravel roads, subject to conditions outlined within this policy.

This Policy does not apply to a road opening or upgrade that is subject to a development application and is only limited to requests that relate to specific benefits for the applicant.

## SCOPE

This policy applies to all unsealed roads owned or controlled by Council. Council has responsibility for approximately 2,200 kilometres of unsealed roads. Therefore, an assessment criteria / process is essential in order to determine whether a seal treatment or other mitigation measures can be applied. Despite such criteria, it must still be acknowledged that dust mitigation measures can only be applied subject to funding.

## DEFINITIONS

### TERM / ACRONYM

### MEANING

CEO	refers to Chief Executive Officer.
Council	refers to Isaac Regional Council.
The Act	shall mean the <i>Local Government Act 2009</i> (as amended).
The Regulation	shall mean the <i>Local Government Regulation 2012</i> (as amended).
Dust Mitigation Measures	means the sealing of an unsealed road as agreed between Council and the property owner.

## POLICY STATEMENT

Isaac Regional Council recognises that residents living in houses located along unsealed roads in the district may request dust mitigation measures be undertaken to the section of roadway within the immediate vicinity of their houses to reduce dust blowing onto their property.

To enable the service to be provided, Council is committed to ensuring a fair and transparent process in considering requests for dust mitigation works of unsealed council roads.

Requests for mitigation of dust impacts will be assessed in accordance with this Policy.

## GUIDING PRINCIPLES

The decision to approve dust mitigation works on an unsealed gravel road will be made by Council based on the following factors:

- Situation 1 – Residential property only
  - Where the dust suppression works are for the sole benefit of the applicant and the project is not included in Council's long-term capital works program the applicant is required to fund the full costs of the works.
- Situation 2 – Residential and Community/Council Properties
  - Where the dust suppression works are for the benefit of an applicant and the surrounding/immediate community and the project is not included in Council's long-term capital works program, Council may consider contributing for the works proportionally to the benefit of the community.

## Minimum Sealing parameters

The minimum dimensions for sealing works that will be considered for construction are:

The policy provides for a paved and bitumen seal to be constructed to Councils current road design standards in front of the property funded by the applicant (noting where public infrastructure is also affected, it is proposed that Council may contribute as described in the policy).

- For properties not closer than 150 metres from the road - 300 metres length by 6 metres wide, which include 100 metres past each end and 100 metres in front of each homestead, or
- For properties closer than 150 metres from the road - 500 metres length by 6 metres wide, which include 200 metres past each end and 100 metres in front of the homestead.

## ROLES, RESPONSIBILITIES, ACCOUNTABILITIES AND CONSEQUENCES RELATED TO DELIVERY OF THE POLICY

- Dust mitigation works will include all costs associated with design and construction to Councils current road design standards.
- All applications for sealing works will be subject to Council approval. Construction of the works will only be carried out by Council approved contractors.
- Council may assist with construction, based on availability of resources and on agreement of full cost recovery. If Council construct the seal works, a cost estimate will be calculated using all appropriate overhead costs (i.e. on-costs) however, Council will not seek a profit from the delivery of the dust suppression seal.
- Payment for cost of the works by Council will be made prior to commencement of works and will be based on the cost estimate provided and agreed to by all parties. Final costs shall be reconciled at completion of the works. Either party, as necessary, will adjust payment within 30 days of notification of final costs.
- Prior to Council undertaking the work, it will be necessary for the landholder to sign and execute an agreement prepared by Council confirming the conditions and obligations of this policy.

- All future maintenance work will be at Council's expense except where damage can be attributed to the property owner/applicant,
- This policy does not relate to the sealing of driveways.

## PROCEDURE

1. Applicant/property owner makes a request to remedy a dust nuisance/amenity issues and/or Council identifies a dust nuisance/amenity issue
2. Council officer in consultation with the affected resident undertakes an investigation to identify possible causes of the amenity issue
3. Council in conjunction with the property owner work through solutions to address the amenity issue, which may include, but not limited to:

Solution	Funded by
Installation of additional signage (Signage and or traffic calming and or other low-cost solutions)	Funded by Council as budget permits <i>Applicant has option to fund should they wish for resolution sooner than Council can budget</i>
Installation of traffic calming devices (speed humps) or other low-cost solutions	Funded by Council as budget permits <i>Applicant has option to fund should they wish for resolution sooner than Council can budget</i>
Dust suppression / sealing	Managed as per the guiding principles
Realignment of Road (where required due to proximity of road, where all of the above not delivering favourable outcome)	Managed as per the guiding principles

4. Council to confirm/negotiate funding and finalise relevant agreement

## LEGISLATIONS AND RELATED GUIDELINES

- Local Government Act 2002
- Local Government Regulation 2012
- Land Act 1994
- Environmental Protection Act 1994
- Sustainable Planning Act 2009
- ARRB Unsealed Roads Manual – Guidelines to Good Practice
- AUSTRROADS – Guide to Road Design

## REFERENCES

ID	NAME

DRAFT

## MEETING DETAILS

**Engineering and Infrastructure Standing Committee**  
Wednesday 12 May 2021

## AUTHOR

Richard Madden

## AUTHOR POSITION

Manager Infrastructure Planning and Technical Services

## 5.4 GROSVENOR CREEK BRIDGE SAFETY AND STRUCTURAL INTEGRITY REPORT

### EXECUTIVE SUMMARY

This report aims to advise Council of the findings of the investigations carried out by the Australian Road Research Board (ARRB) to extend the life of Grosvenor Creek Bridge without the need for significant asset refurbishment or replacement.

### OFFICER'S RECOMMENDATION

*That the Committee recommends that Council:*

1. ***Receives and notes the report presented by the Australian Road Research Board on the findings of the investigations to extend the life of Grosvenor Creek Bridge.***

### BACKGROUND

The Grosvenor Creek Bridge structure is one of the most utilised on the road network receiving the most oversize and over mass (OSOM) permit requests. IRC has collaborated with ARRB to exercise due diligence by undertaking this project to quantify both safety and structural integrity risk.

Grosvenor Creek Bridge (ID BR10) is a critical access link between Moranbah and key economic and commercial activity centres for the township and region. The structure was deemed to have a 'zero level of tolerance to level of service interruption'. Multiple significant defects with potential structural implications have been observed on the structure, namely:

- Severe longitudinal cracking to the soffit of multiple interior deck units.
- Severe longitudinal cracking to the external faces of multiple kerb units.
- Observed cracking may be the result of Alkali-Silica Reactivity (ASR), also known as concrete cancer is a swelling reaction that occurs over time in concrete between the highly alkaline cement paste and the reactive amorphous silica found in aggregate, given sufficient moisture.
- Missing/failed transverse stressing bar on span 3, left hand side.

This is not considered to be an immediate cause for concern; however, it is strongly recommended that the bridge continue to be monitored on a regular basis such that any further changes in behaviour may be detected and acted upon appropriately.



Based on results so far, there are no immediate safety concerns for the bridge, although it is “working much harder” than a similar bridge designed to current standards.

Subsequent to the appointment of ARRB in 2019 Isaac Regional Council, ARRB had commissioned the installation of a long-term fibre-optic strain monitoring system on the Grosvenor Creek Bridge (BR10) in July 2019. This involved the installation of a long-term monitoring system with the intent of monitoring parameters through an IRC based Operational Dashboard, for which a change in value would be indicative of a potential loss of service level.

The development of the operational dashboard has been restricted due to several factors, including the impact of the Coronavirus upon working conditions in the UK and New Zealand where some project team members are based. As the operational dashboard forms the basis for ongoing risk assurance for the bridge, ARRB, however, remains committed to the development and delivery of the operational dashboard and associated post-processing/ongoing monitoring capability.

While the long-term fibre-optic system is providing a means of remotely monitoring the structural behaviour of the bridge, it is important that this is supplemented with regular visual inspection to detect any physical defects, changes or deterioration in bridge condition from previous analysis. The project objective is to develop and install a long-term monitoring system on Grosvenor Creek bridge with the intent of monitoring parameters for which a change in value would be indicative of a potential loss of service level.

The ongoing results of the project will provide the significant insight into the performance of Grosvenor Creek Bridge and provide IRC with a sound basis to continue its operation from both a technical and risk due diligence standpoint. Furthermore, the monitoring will identify at which point intervention may be necessary and assist IRC in planning accordingly.

This is the final progress report from ARRB which discussed:

- Outcomes of the data analysis for the whole data set, focussing on the first 6 months of data (with camera in effect)
- Implications in terms of bridge performance under heavy vehicle traffic
- Projections of heavy vehicle effects for different heavy vehicle types (general freight, OSOM, cranes) on the whole service life of the bridge
- Recommendations for ongoing monitoring and further works.

## IMPLICATIONS

There are some concerns regarding asset integrity under the heaviest OSOM events.

The characterisation by sensor for the given heavy vehicle data set will allow future comparisons with data from similar time periods, providing an indication (or otherwise) of deterioration of the Bridge.

## CONSULTATION

Ideally, broad ranging discussion on the OSOM/SPV operation of the bridge including stakeholders could assist with understanding the level of service requirements, and operational options to protect both asset integrity and safety.

Amongst the OSOM vehicles, a distinction was made between low loaders and load platforms. Load platforms have generated the highest strain events on the bridge and are projected to generate the highest 2000-year

strain value based on extrapolation. Load platforms can be controlled based on permit restrictions, and it is recommended that IRC seek to tightly control any load platform events which may generate strains higher than the maximum observed to date. This might include actions such as limiting the speed of the vehicle crossing the bridge or ensuring that the vehicle travels down the centreline of the bridge.

## **BASIS FOR RECOMMENDATION**

There are sufficient concerns based on the discussion that asset damage may be occurring under very heavy loads. The data benchmarking and underpinning this project should be able to better inform and quantify such concerns.

## **ACTION ACCOUNTABILITY**

That the Managers and the Director of Engineering and Infrastructure oversee the scoping, procurement and the completion of the recommendations identified within the ARRB report.

## **KEY MESSAGES**

That Council has open communication, oversight and transparency of the Engineering and Infrastructure 2020/2021 Bridge Maintenance Program, to ensure Isaac will have effective, safe and sustainable infrastructure that supports the needs of the region's communities and economic sectors.

<b>Report prepared by:</b>	<b>Report authorised by:</b>
RICHARD MADDEN	ROBERT PERNA
<b>Manager Infrastructure Planning and Technical Services</b>	<b>Director Engineering and Infrastructure</b>
Date: 28 April 2021	Date: 29 April 2021

## **ATTACHMENTS**

- Attachment 1 – ARRB Grosvenor Bridge Risk Management and Instrumentation – Quarterly Report Rev B, Dated 8.3.2021

## **REFERENCE DOCUMENT**

- Nil





SHAPING OUR  
TRANSPORT  
FUTURE

## **Grosvenor Bridge Risk Management & Instrumentation – Quarterly Report**

ARRB Project No.: 014262

Author: Darby Johannessen,  
Hanson Ngo, Tim Heldt

Prepared for: Isaac Regional Council

08/03/2021

Version RevB



# CONTENTS

1	BACKGROUND .....	1
2	PROJECT PROGRESS .....	3
2.1	PROJECT TIMELINE .....	3
2.2	SITE SYSTEM MAINTENANCE .....	3
2.3	OPERATIONAL DASHBOARD .....	3
3	PROCESSING AND ANALYSIS OF MONITORING DATA .....	4
3.1	SCATTER PLOTS .....	5
3.2	WAVEFORMS AND IMAGES ASSOCIATED WITH A HEAVY VEHICLE EVENT .....	5
3.3	LATERAL DISTRIBUTION OF LIVE LOADS .....	8
3.4	DATA FILTERING BY EVENT TYPE .....	10
3.5	INVERSE NORMAL ANALYSIS .....	10
3.5.1	BACKGROUND .....	10
3.5.2	CHARACTERISING GROSVENOR CK BRIDGE BEHAVIOUR .....	11
3.5.3	STATISTICAL EXTRAPOLATION OF HEAVY VEHICLE EVENTS .....	12
3.5.4	FREIGHT VEHICLE ANALYSIS .....	12
3.5.5	OSOM VEHICLE ANALYSIS .....	15
3.5.6	ALL-TERRAIN CRANES .....	17
4	DISCUSSION .....	18
4.1	BASELINE BRIDGE BEHAVIOUR .....	18
4.2	HEAVY VEHICLE TRAFFIC ON THE BRIDGE .....	18
4.2.1	GENERAL FREIGHT .....	18
4.2.2	CRANES .....	18
4.2.3	OVERSIZE OVERMASS (OSOM) .....	19
4.2.4	MULTIPLE PRESENCE .....	19
4.3	BRIDGE PERFORMANCE .....	20
5	CONCLUSIONS AND RECOMMENDATIONS .....	22
5.1	WORK TO DATE .....	22
5.1.1	SPAN VS. SPAN .....	22
5.1.2	INVERSE NORMALS .....	22
5.2	OVERALL CONCLUSION TO DATE .....	23
5.3	ONGOING WORKS .....	23
5.4	RECOMMENDATIONS .....	23
	REFERENCES .....	25
	STANDARDS AUSTRALIA .....	25
	INTERNATIONAL STANDARDS .....	25
	CONTACT US .....	38

# EXECUTIVE SUMMARY

Grosvenor Creek Bridge (ID10) is a critical access link between Moranbah and key economic and commercial activity centres for the township and region. The structure was deemed to have 'zero level of tolerance to level of service interruption'. Multiple significant defects with potential structural implications have been observed on the structure, and the structure is one of the most utilised on the network receiving the most oversize and overmass (OSOM) permit requests. IRC has collaborated with ARRB to exercise due diligence by undertaking this project to quantify both safety and structural integrity risk.

The overarching aim for this project is to extend the life of Grosvenor Creek Bridge by better understanding its current and future level of service and by extension, Philips Creek and Hughes Creek Bridge, without the need for significant asset refurbishment or replacement. This involved the installation of a long-term monitoring system on Grosvenor Creek bridge with the intent of monitoring parameters for which a change in value would be indicative of a potential loss of service level.

Based on results so far, there are no immediate safety concerns for the bridge, although it is "working much harder" than a similar bridge designed to current standards. There are some concerns regarding asset integrity under the heaviest OSOM events given that the largest expected OSOM event is approximately 75% of that required to crack the soffit of the girder which is experiencing the highest strains (sensor CD17). There are sufficient concerns based on the discussion in Section 3.3 that asset damage may be occurring under very heavy loads, but the data benchmarking underpinning this project should be able to better inform and quantify such concerns.

Based on the data analysis and discussion presented in this report, the following recommendations can be made to IRC regarding the short- and long-term operation of the Grosvenor Creek Bridge:

1. Undertake a Tier 3 bridge assessment consistent with Austroads (2018). This assessment should be undertaken in two parts under the auspices of ISO 13822 and ISO 13824 as follows:
  - a. Part 1 – Formally establish the asset objectives and scenarios (ISO 13822) and confirm that the data already gathered, and the conclusions derived to date and presented in this report are consistent with IRC requirements, and establish appropriate intervention (trigger) thresholds.
  - b. Part 2 – an extension of Part 1 which takes place when a trigger threshold is exceeded using the full data set at that time to inform asset and access decisions.
2. Continue to undertake Level 2 inspections on the Grosvenor Creek bridge at 1-year intervals, with the following specific focus:
  - a. Mid-span transverse soffit cracking of DU14 on Span 2 and Span 4, and to a lesser extent, all kerb units on all spans.
  - b. Damage or differential movement between units at mid-span of Span 2 and Span 4.
  - c. Progress of ASR cracking of all deck units.
3. Continue to monitor peak strain event values and predicted 2000-year strain values for all sensors.

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# 1 BACKGROUND

Grosvenor Creek Bridge (ID10) is a critical access link between Moranbah and key economic and commercial activity centres for the township and region. The structure was deemed to have 'zero level of tolerance to level of service interruption', a metric developed by ARRB and agreed by IRC to denote a structure for which any interruption (load limiting, partial closure etc.) to service would have significant economic and community impact and to be actively avoided.

Additionally, the structure is one of the most utilised on the network receiving the most oversize and overmass (OSOM) permit requests. It is widely recognised in the bridge engineering fraternity that OSOM movement are typically those which utilise available structure capacity to maximum levels and their actual impact on infrastructure the least well understood. Thus this has the most demanding combination of load and condition issues in the asset portfolio.

Multiple significant defects with potential structural implications have been observed on the structure as outlined below:

- Severe longitudinal cracking to the soffit of multiple interior deck units.
- Severe longitudinal cracking to the external faces of multiple kerb units.
- Observed cracking may be the result of alkali-silica reactivity.
- Missing/failed transverse stressing bar on span 3, left hand side.

The overarching aim for this project is extend the life of Grosvenor Creek Bridge by better understanding its current and future level of service and by extension, Philips Creek (BR29) and Hughes Creek Bridge (BR30), without the need for significant asset refurbishment or replacement.

The aims for the project include:

- Extend the operational life of BR10 for as long as practicable and safe to do so.
- Extend the learnings from BR10 to BR29 and BR30 to extend the operational life of those structures for as long as practicable and safe to do so.
- Monitor the ambient behaviour and response behaviour of the structure to provide premature notice of behaviour which warrants intervention or further investigation of the assets.
- Measure asset response parameters to OSOM permit movements to inform functional level of service limits to be applied during the structures remaining life.
- Provide a basis for decision making of BR10, BR29, and BR30 from the learnings of the project.
- Report on the measured parameters to assist IRC in its decision making around the asset.

The project objective is to develop and install a long-term monitoring system on Grosvenor Creek bridge with the intent of monitoring parameters for which a change in value would be indicative of a potential loss of service level. These parameters would be collected alongside normal and supplementary activities (i.e. visual inspection, physical survey) and any correlations will be utilised to assist in the management of Philips Creek and Hughes Creek bridges.

The ongoing results of the project will provide the significant insight into the performance of Grosvenor Creek bridge and provide IRC with a sound basis to continue its operation from both a technical and risk due diligence standpoint. Furthermore, the monitoring will identify at which point intervention may be necessary and assist IRC in planning accordingly.

The last progress report was submitted in October 2020 which covers the following:

- Insights into the outcomes of the sample data analysis for a period of 4 weeks
- Interim discussion on the implications in terms of the bridge performance under heavy vehicle traffic
- Primary findings on the heavy vehicle patterns that travel the bridge.

This is the final progress report which discusses:

- Outcomes of the data analysis for the whole data set, focussing on the first 6 months of data (with camera in effect)
- Implications in terms of the bridge performance under heavy vehicle traffic
- Projections of heavy vehicle effects for different heavy vehicle types (general freight, OSOM, cranes) on the whole service life of the bridge
- Recommendations for ongoing monitoring and further works.



## 2 PROJECT PROGRESS

### 2.1 PROJECT TIMELINE

The project timeline is as follows:

- 1<sup>st</sup> March – 2<sup>nd</sup> April 2019: Instrumentation planning.
- 25<sup>th</sup> June – 5<sup>th</sup> July 2019: Site installation of opto-electronic system.
- 5<sup>th</sup> July 2019: Behavioural load test.
- 5<sup>th</sup> July 2019 onward: Commissioning of opto-electronic system & development of the opto-electronic system dashboard.
- March 2020 – July 2020: on hold, except the ongoing data acquisition.
- August 2020: Restarting finalisation of opto-electronic system dashboard.
- October 2020: replacement of the damaged camera due to vandalism.

### 2.2 SITE SYSTEM MAINTENANCE

Camera: it has been identified that the camera was shot as an act of vandalism. IRC is progressing an insurance claim and has approved a PO for a like-for-like camera replacement. The replacement camera has been installed by ARRB on 14 November 2020 and is fully functional.

The opto-electronic system was observed to be continuing to operate as intended, capturing heavy vehicle events which produce tensile strains above the set threshold. No adverse impact on the strain trigger and capture system was detected following the vandalism of the camera unit. It is recommended that the general condition of the system including the camera, control box, conduits and strain sensor arrays is monitored through the programmed structure inspection process, with any evidence of damage reported for investigation by ARRB.

### 2.3 OPERATIONAL DASHBOARD

The finalisation of the operational dashboard is pending a detailed analysis of the data, which this report initiates. Key features of the dashboard include:

- Comparison of all strain gauges across a span for a heavy vehicle event (a sample event is reported in Section 3.2)
- Automated post-processing of long-term monitoring data (on-going)
- Inverse normal plots of monthly peak data (on-going)
- Data exporting functionality (on-going)
- Live imaging of events (images associated with events have been captured, see Section 3.2 for an example)
- Alerts to notify Council structure managers if a certain strain threshold is passed.

The development of the operational dashboard has been restricted due to several factors, including the impact of the coronavirus upon working conditions in the UK and New Zealand where some project team members are based. Hard lockdowns in the UK (including the current one) have limited the ability of a key team member to work on this project. Considering these factors, ARRB remains committed to the development and delivery of the operational dashboard and associated post-processing/ongoing monitoring capability. The operational dashboard forms the basis for ongoing risk assurance for the Grosvenor Creek Bridge and will contribute to the realisation of the full value potential of the opto-electronic system and the bridge itself through supporting on-going use.

### 3 PROCESSING AND ANALYSIS OF MONITORING DATA

The full data set from the fibre optic sensors continues to be captured and stored including:

- Peak strains
- Waveforms
- Temperature data
- Variation of strain during unloaded conditions
- Hourly ambient strain data.

Summary records quantify peak events, with the largest events since monitoring began being recorded in September 2019. The waveform data for this month was extracted and processed in preliminary analysis and forms the basis for the October 2020 progress report. While over 100,000 heavy vehicle events have been recorded, about 28,000 events were above the waveform recording threshold and therefore recorded since commissioning in July 2019.

A 12-month period of monitoring and data capture (September 2019 to September 2020) was considered for the analyses presented in this report, consisting of roughly 22,000 events which were above the recording threshold. A six-month period of data (roughly 14,000 events) was used for the analysis of different vehicle types and extrapolation of expected maximum strains over set return periods, which corresponds to the period of time that the original camera was operational for prior to it ceasing operation due to vandalism.

Typically, both waveforms and associated vehicle images are stored. Storage for smaller events is limited to peak values. The full data set will be important for statistical processing, but the waveform data provides key structural response insights.

Consistent with the project aim, the approach to data processing is primarily focussed on characterising (fingerprinting) the behaviour of the bridge to allow comparison with future behaviour. The rationale is that a change in characteristic behaviour will be caused by:

### 3.1 SCATTER PLOTS

Figure 3.1 Peak tensile strains recorded with estimated live load cracking strain limits

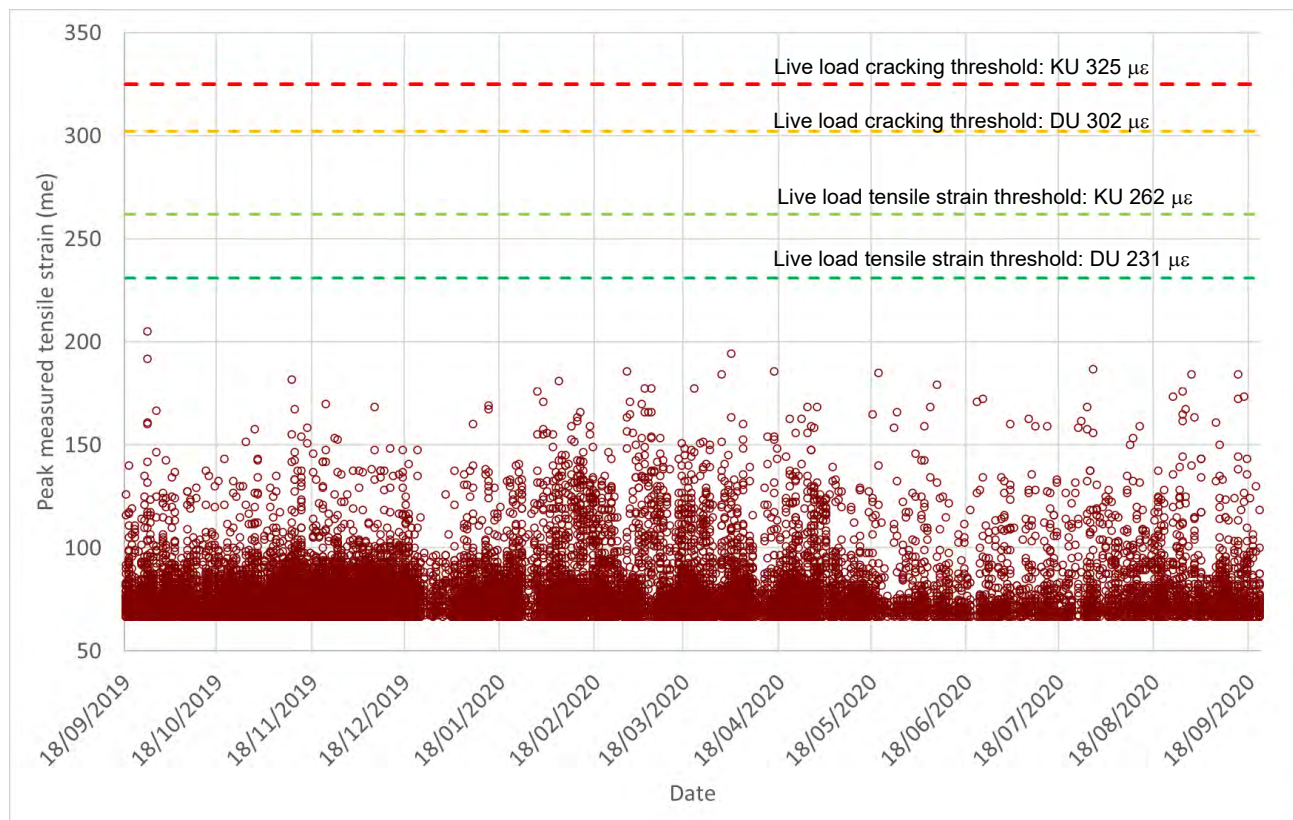


Figure 3.1 presents a scatter plot of the highest strains measured by all fibre optic sensors during all heavy vehicle load events that have occurred over 12 months of monitoring from September 2019 to September 2020, together with theoretical live load tensile strain and cracking strain thresholds (Appendix A). The following observations were made:

- 21,920 events were recorded which caused a strain of more than  $\sim 66 \mu\epsilon$  (triggering waveform capture).
- Freight vehicles (road trains and B doubles) constitute the bulk of these events, and based on images, there are numerous examples of multiple presence events (two freight vehicles on the bridge simultaneously). As expected, the large events are generated by OSOM or Special Purpose Vehicles (SPV) such as large all-terrain cranes.
- The highest strain recorded is  $205 \mu\epsilon$  (event occurred on 25 September 19 at 2:35 am).
- The second highest strain recorded is  $195 \mu\epsilon$  which occurred on 4 April 20 (at 12:38 am).
- One event occurred during the 12-month monitoring period which induced a strain higher than  $200 \mu\epsilon$ .
- The highest strains measured have not exceeded the estimated theoretical tensile strain thresholds of either deck or kerb units. The underlying rationale for OSOM vehicles is that they will cause elevated levels of strain, and that while there is some risk of structural damage, the events are rare and it is unclear whether events with higher magnitudes than have been recorded to date will occur. The frequency of OSOM events, and the acceptable level of “extreme” events is not well understood by the bridge engineering community, but is an area of active interest and investigation.

### 3.2 WAVEFORMS AND IMAGES ASSOCIATED WITH A HEAVY VEHICLE EVENT

The heaviest vehicle events (recorded on 25 September 2019) have been presented as waveforms with images in this Section. For any event, the current monitoring data allows extraction of the similar waveforms of all 34 sensors and the associated heavy vehicle images. The following figures present waveforms for all

strain sensors on the bridge for the selected event. The events are split into plots for each span. The temperature sensor has been omitted from these summaries. Images of these particular heavy vehicle passing the bridge were also extracted as shown in Figure 3.6.

Figure 3.2 Span A strain waveforms

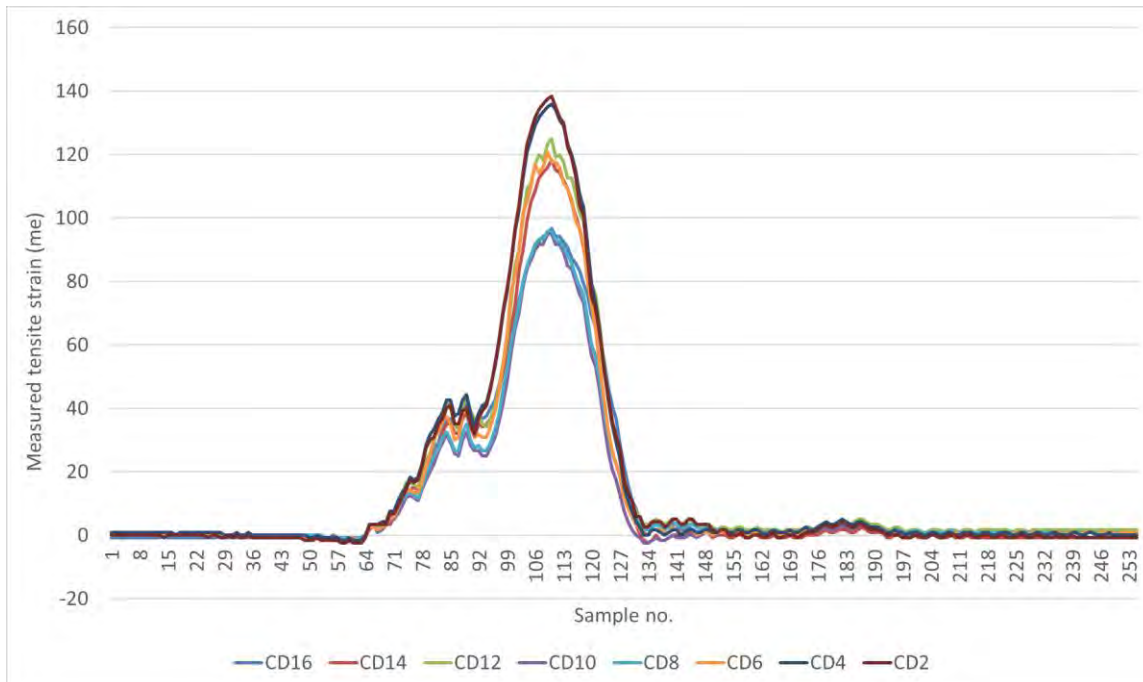


Figure 3.3 Span B strain waveforms

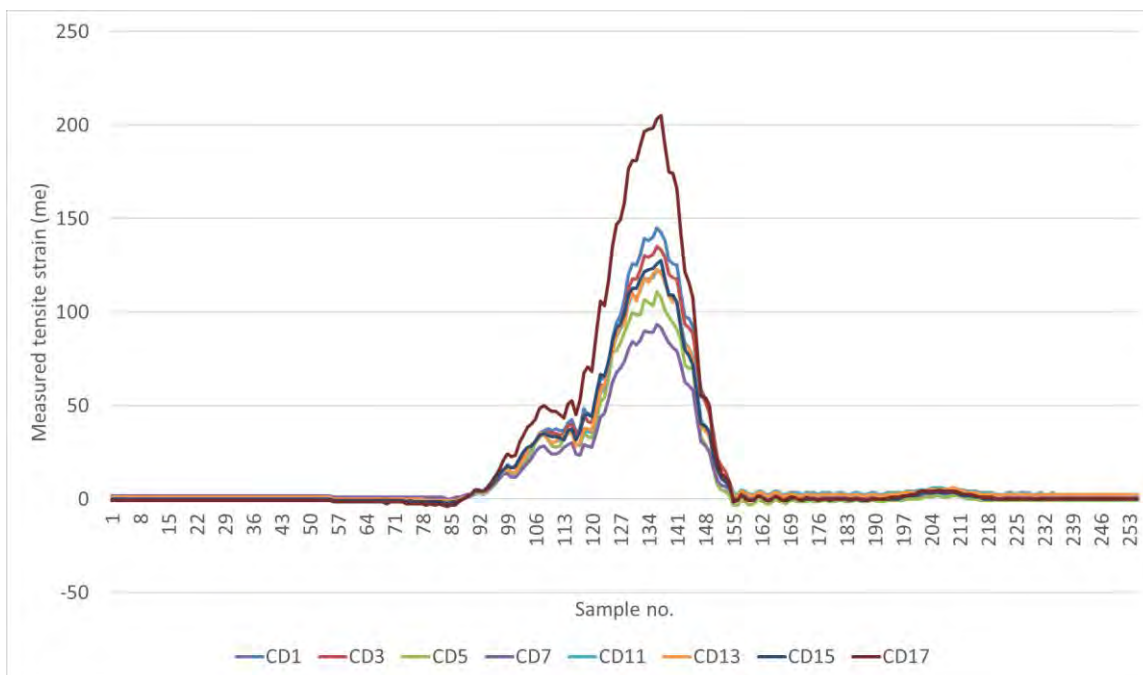


Figure 3.4 Span C strain waveforms

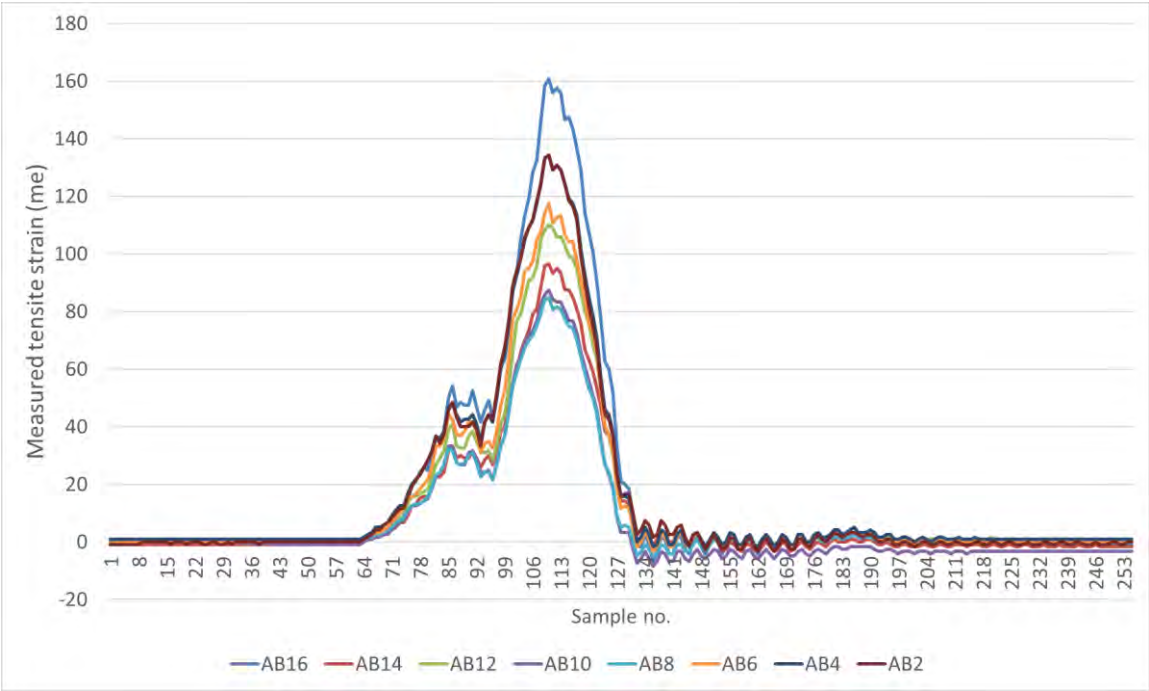


Figure 3.5 Span D strain waveforms

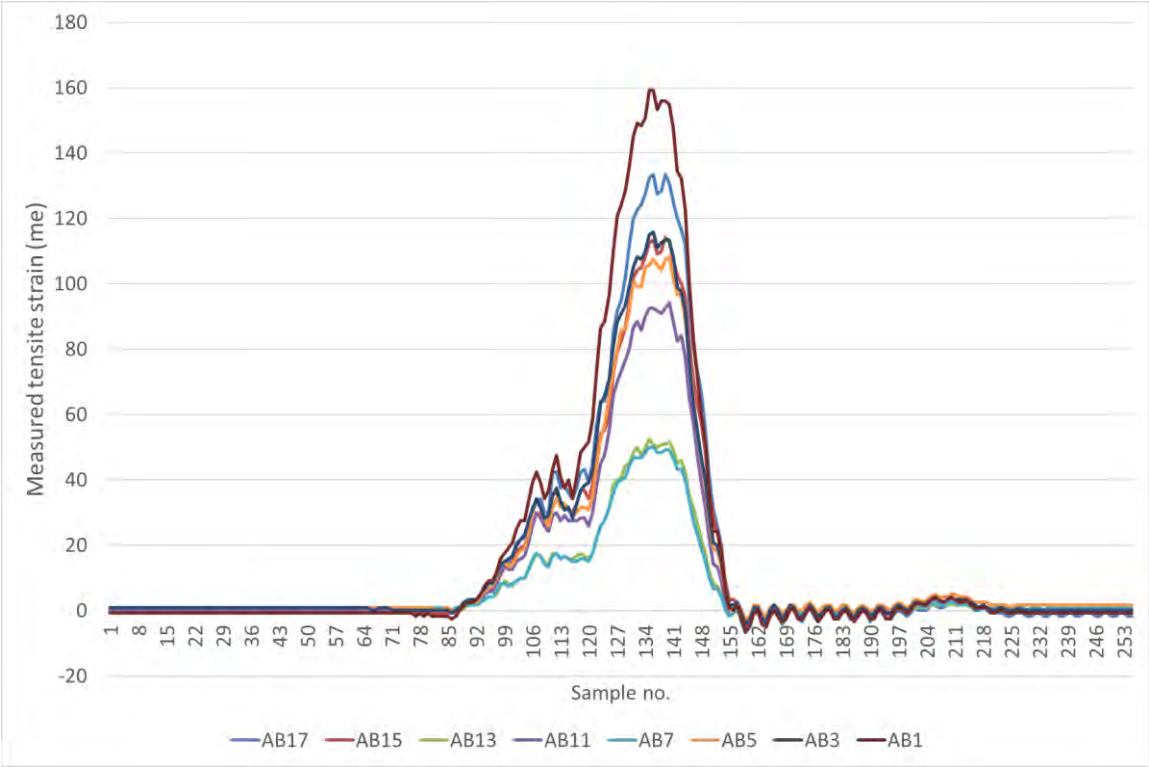




Figure 3.6 Images of the 25 September 19 at 2:35 am event



Based on the photos, the vehicle generating this event was part of a 2 vehicle OSOM “convoy” transporting a large piece of earthmoving/mining equipment on 25 September 2019, carrying the machinery deck, and undercarriage separately.

While data processing continues, it is clear from the above Figures that the response of each span to the same vehicle varies. While the response of each span compared with the others is generally similar, Sensor CD17 (Figure 3.3) is clearly an outlier (significantly larger than its equivalent sensors) on other spans (Sensors CD2, AB2, AB1). The reason for this is unclear. While the lateral position of the vehicle will not necessarily be identical on each span, it is likely to be very similar, so these variances may be indicative of differences in structural behaviour between spans. There are a range of potential explanations for these observations, and further investigation will take place as part of the TMR/ARRB NACoE S59 project. Given that this sensor output is approximately 25% above equivalent sensors in other spans, it should be a key focus over time because it may provide early indication of deterioration.

### 3.3 LATERAL DISTRIBUTION OF LIVE LOADS

The lateral distribution of live loads is investigated to assess how the strain captured across a span for an event is being distributed between the deck units and kerb units. Comparisons of the lateral distribution of live loads is a key tool that may be used to monitor whether the behaviour of the bridge is changing over time. Various factors may contribute to variance in load distribution for a single event such as dynamic effects and changes in vehicle positioning but changing trends in the average load distributions between spans over time may indicate a change in bridge behaviour. The configuration of each span is structurally similar, and the driveline of any vehicle should be similar for each event on each span, facilitating a span by span comparison of behaviour.

Transversely stressed deck unit bridges should behave as a flat slab with stiffened edges. The following plots (Figure 3.7 and Figure 3.8) show the strain distribution between units for two different heavy vehicle crossing events. The behaviour of Spans 1, 2 and 3 on Figure 3.7 is the result of a single freight vehicle in-lane, and are reasonably similar in form, with the exception of the strain at DU14. DU14 was noted (sensor CD17 as per Figure 3.3, Section 3.2) as outlier, so appears to be attracting load disproportionately throughout the load range (freight and OSOM vehicles). The response of Span 4 is quite different to the

other spans, and is atypical of deck unit bridge expectations. Given that, this data results from in-lane freight traffic, the deviation for DU6 in particular is unexpected.

Figure 3.7 Live load distribution – event 1 (southbound general freight – close to DU14)

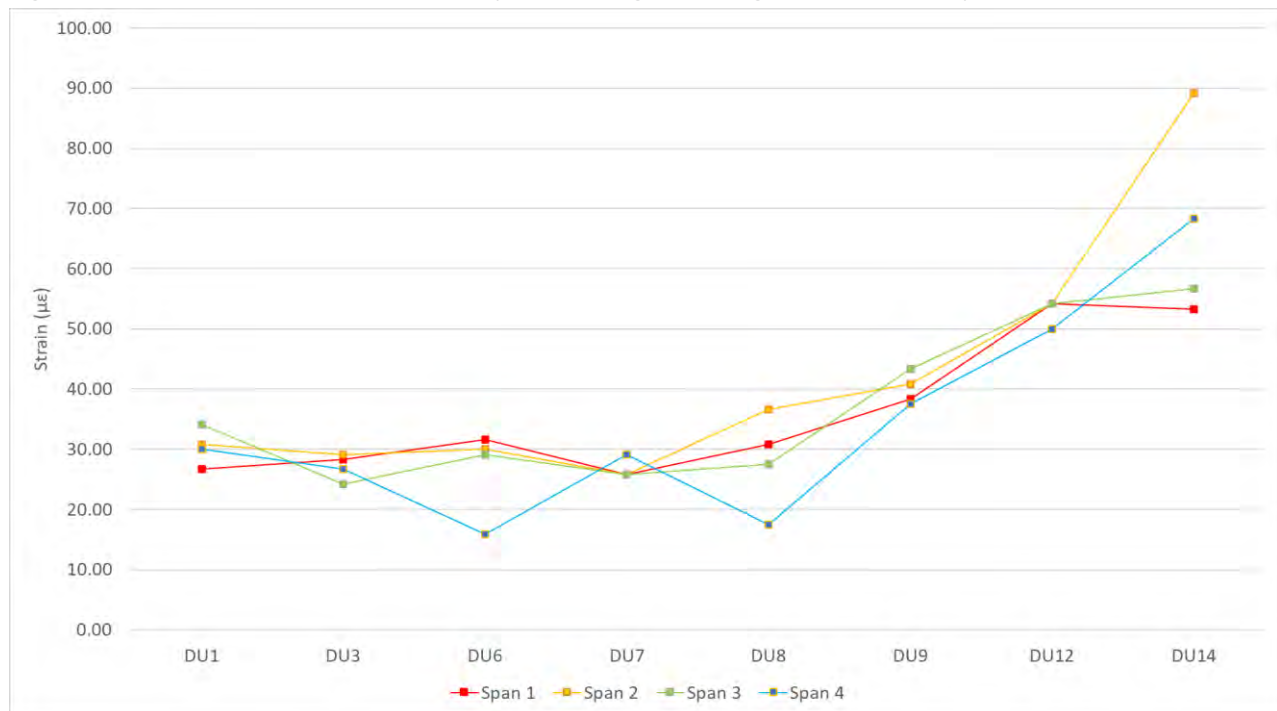
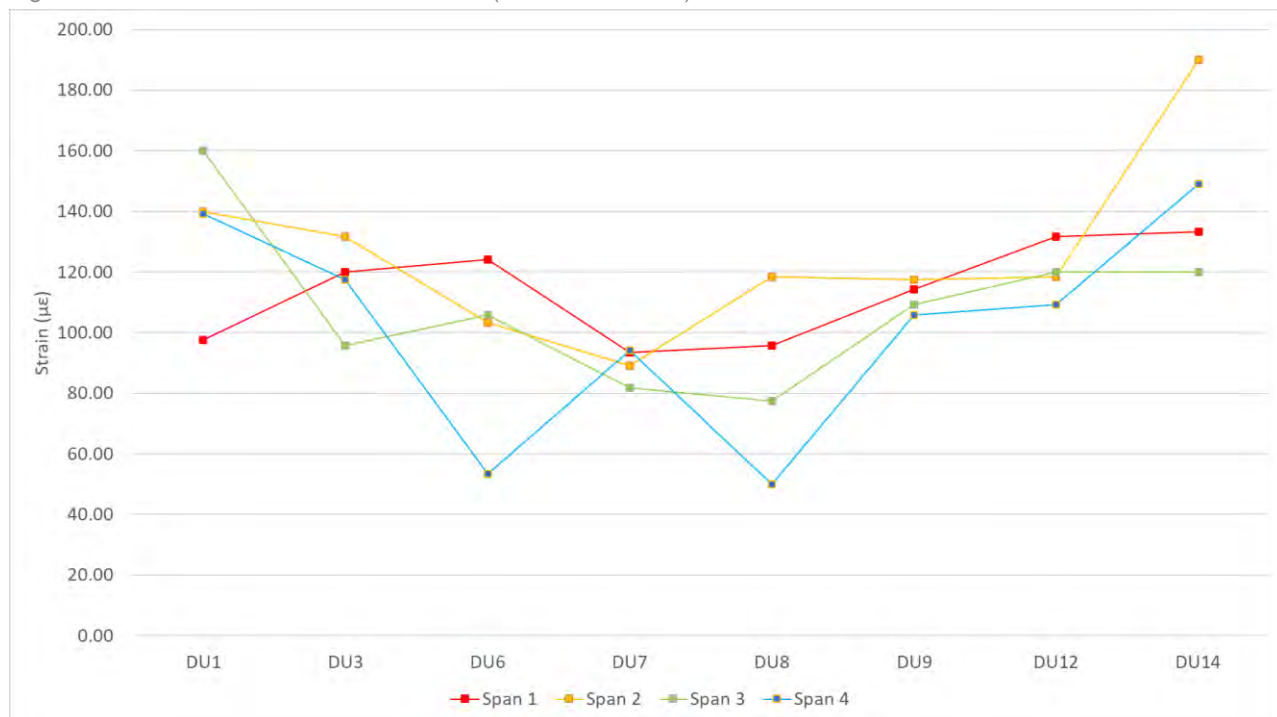


Figure 3.8 Live load distribution – event 2 (centreline OSOM)



The results shown on Figure 3.8 are for a nominally centreline OSOM event, and the following should be noted:

1. The relative variance between spans 1 to 3 have become more pronounced (compared with Figure 3.7). This is not surprising from a structural behaviour perspective but somewhat concerning from an asset integrity perspective, in that it suggests inelastic behaviour. This raises concerns that over time, repeated large OSOM events may cause incremental damage.
2. DU14 on Span 2 is an outlier consistent with previous observations.



3. The span 4 response observed on Figure 3.8 has been amplified on Figure 3.7.

Based on these observations, the key parameters that may provide early indications of deterioration relate to items (2) and (3) above, and these are likely to be most prevalent in OSOM data.

## 3.4 DATA FILTERING BY EVENT TYPE

A classification exercise was undertaken to determine the type of heavy vehicle crossing events that have been captured within the top 10% of strain events for the six months that the first camera was operational (2,846 events). This may lead to a conservative estimate of the expected maximum strains for the general freight vehicles, but it is likely that the majority of noteworthy oversize/over mass (OSOM) events were captured within the top 10% of events. This was done by manually matching strain events to associated photos captured by the camera.

The heavy vehicle traffic population for the Grosvenor Creek Bridge can be split into four categories, including:

- General freight traffic
- Cranes (all-terrain Special Purpose Vehicles)
- OSOM low loaders
- OSOM load platforms.

Multiple presence events where two heavy vehicles are simultaneously present on the bridge are also considered as a separate category as these events have the potential to induce high load effects and stress the bridge in different ways compared to single presence events.

The following proportions of vehicle types within the top 10% were determined (Table 3.1).

Table 3.1: Proportions of each vehicle type in top 10%

Vehicle type	Proportion
General freight	42.5%
Crane (SPV)	25.3%
OSOM low loader	9.8%
OSOM load platform	17.5%
Multiple presence <sup>1</sup>	4.3%
Other/unidentifiable	0.7%

1. The majority of multiple presence events consisted of two freight vehicles, but at least two examples of a crane and freight vehicle meeting have been observed.

Filtering of vehicle types provides valuable insight into the heavy vehicle population which is using the bridge and the classifications used here will be applied to the inverse normal analysis discussed in the following Section 3.5.

## 3.5 INVERSE NORMAL ANALYSIS

### 3.5.1 BACKGROUND

The central limit theorem states that when independent random variables are collected, their sum will tend towards a normal distribution as the number of variables collected increases (Suhir 1997 quoted by Lake 2001). Since recording under ambient traffic leads to a dataset of randomly collected strains of varying magnitudes due to heavy vehicle events, it follows that these strain magnitudes should tend to become normally distributed.

In addition, work by Lake (2001) showed that events recorded under ambient traffic will generally form a complex empirical distribution which cannot be explained by fitting a single statistical distribution. This is due to the mix of vehicle types and loading conditions which exist in a typical mix of ambient heavy vehicle traffic.

It is generally found that the distributions can be described by a number of normal distributions which are defined by different vehicle types and loading conditions.

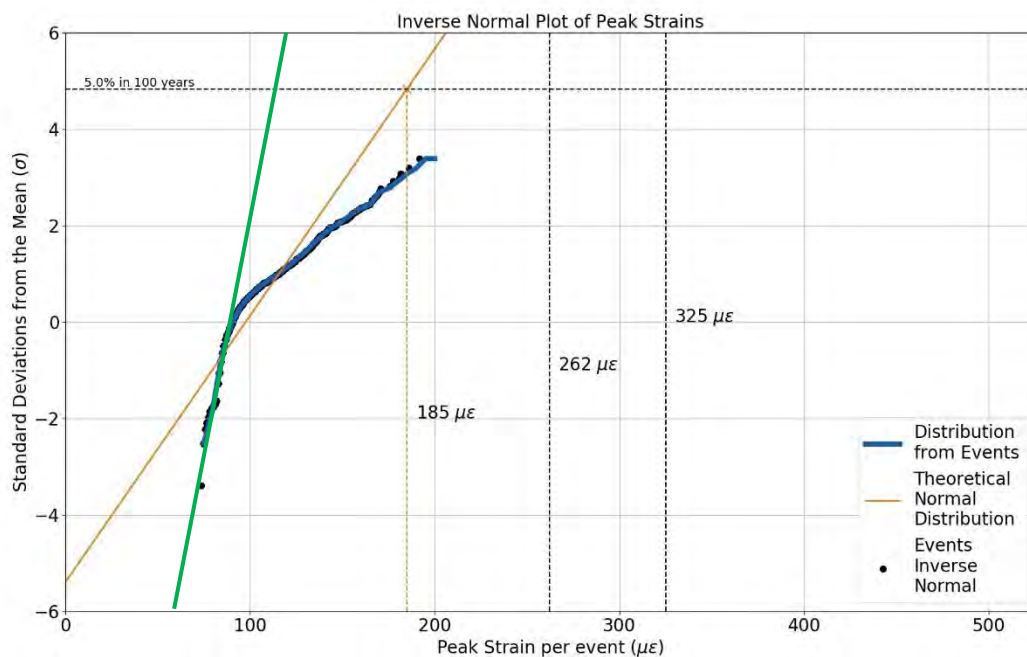
The normality of a distribution of randomly collected variables can be investigated by plotting the events against the inverse of the standard normal variable (Lake 2001, Nowak 1993). A linear line on the inverse of the standard normal plot represents a normal distribution, with the mean at the intersection with the x-axis and standard deviation equal to the slope of the line. This line can then be extended out to a certain point on the inverse of the standard normal plot which represents the probability of an event occurring which has a 2000-year return period. The strain magnitude associated with this event can then be read from the x-axis of the plot.

### 3.5.2 CHARACTERISING GROSVENOR CK BRIDGE BEHAVIOUR

For the Grosvenor Bridge, a normal distribution can be derived for the strains recorded due to each heavy vehicle type traveling the bridge in a period of time. Based on this distribution, the probability for a heavy vehicle event – which causes a strain of a pre-defined magnitude on a bridge component – to occur can be found. Inversely, if the probability of occurrence of a heavy vehicle event is known, the strain induced on the bridge component due to this event can be derived using an “inverse normal analysis”. In other words, the inverse normal analysis can be used to find the magnitude of strain induced on a bridge component due to a vehicle event which may occur in the service life of the bridge with a pre-defined probability.

The characterisation by sensor for the given heavy vehicle data set will allow future comparisons with data from similar time periods, providing an indication (or otherwise) of deterioration. To facilitate comparison between spans, inverse normal analyses for Grosvenor Creek have been conducted for individual sensors, as well as maximum events across the whole bridge. Figure 3.9 shows the results of plotting all events across all sensors on the one plot. It can be seen that a single normal distribution (shown by the yellow line) does not provide a good fit to the data which means that the 2000-year strain magnitude extrapolated from the dataset based on a single distribution for all events is not representative of the full dataset and it is necessary to break up the dataset into its component distributions (as suggested in Section 3.5.4).

Figure 3.9 Inverse normal plot of peak strains for all events and all sensors



The green line in Figure 3.9 represents the population of "normal" freight vehicles. This vehicle population is likely to be more consistent, so the slope and intercept of this population should form the primary basis for comparison in future deterioration investigations.

### 3.5.3 STATISTICAL EXTRAPOLATION OF HEAVY VEHICLE EVENTS

The current bridge design code (AS 5100: 2017) specifies that “an ultimate design action is an action that has a 5% probability of being exceeded during the design life, which (for a design life of 100 years) represents an average return interval of 2000 years”. This design action is considered an ultimate event (for example, heavy vehicle event), beyond which the bridge may be unsafe.

A secondary aim of the inverse normal analysis conducted in this section was to extrapolate the strains incurred on the bridge components due to the above ultimate heavy vehicle event, based on the strain data recorded on the Grosvenor Bridge for different types of heavy vehicles. This resulting strain will be used to compare with the theoretical strain limits to assess the safety of the bridge.

In this report, a comparison was made between:

- the magnitude of the tensile strain event with a return period of 2000 years based on statistical extrapolation from strain events captured over the six-month period considered
- the magnitude of the tensile strain event associated with the theoretical cracking threshold of the Grosvenor Creek kerb units and deck units, described in Appendix A. Durability may be compromised once this threshold is passed.

Given that the cracking threshold lies below the ultimate design threshold, it can be contended that if the extrapolation of the expected 2000-year strain event magnitude falls below the cracking threshold, there is an acceptably low probability that either cracking or ultimate failure of the unit will occur due to the current heavy vehicle traffic task on the bridge. This is the basis of the extrapolation analyses presented in this report.

This assessment does not consider shear capacity of units, or capacity of piers and foundations, and these load actions may have different expected maximums and assessed limits which cannot be directly related to the strain data captured through monitoring. No consideration of load factors is included in the comparisons presented.

On each of the plots presented in the following sections, the predicted strain of an event with a return period of 2000 years is shown as a yellow dashed line. The tensile strain threshold and cracking threshold for the kerb units (described in Appendix A) are shown as black dashed lines.

The dataset was split into the categories of heavy vehicles described in Section 3.4 in order to facilitate distribution fitting and extrapolation of expected strain magnitudes for the 2000-year return period (5% chance of exceedance in 100-year period). The analysis for each vehicle type is discussed further in the following subsections.

Due to uncertainty regarding the locations of the strain sensors, analyses are presented by span rather than by specific units. Differences between the maximum strains experienced in each span could be due to a range of factors, including but not limited to lateral positioning of the vehicle, dynamic effects, sensor positioning, or deterioration through ASR or other means. This will be further investigated through the NACoE S59 project which is focused on investigating the effects of ASR on deck unit bridges.

### 3.5.4 FREIGHT VEHICLE ANALYSIS

Freight vehicles consist of rigid vehicles, semi-trailers, B-doubles and road train configurations. These vehicles generally enjoy as-of-right access based on Heavy Vehicle National Law, National Notices or PBS. These vehicles make up the bulk of the heavy vehicle population for Grosvenor Creek Bridge meaning that it is highly desirable to maintain current levels of access.

#### Single Presence

The inverse normal plot for the span that experiences the highest strains for single presence of general freight vehicles is presented below in Figure 3.10. The bulk of freight vehicle events fit into the theoretical normal distribution. It can be seen that some of the top events do not fit into the plotted distribution, but

investigation of these events has found that several of the top events are likely to be multiple presence events which were not identified by the camera due to the location of the point of simultaneous presence on the bridge. Figure 3.11 shows the histogram of actual recorded events and the associated theoretical normal distribution. This shows a reasonable fit to the bulk of the data, with the peak events falling outside the theoretical distribution.

Figure 3.10 Inverse normal plot for kerb unit with maximum strains: general freight

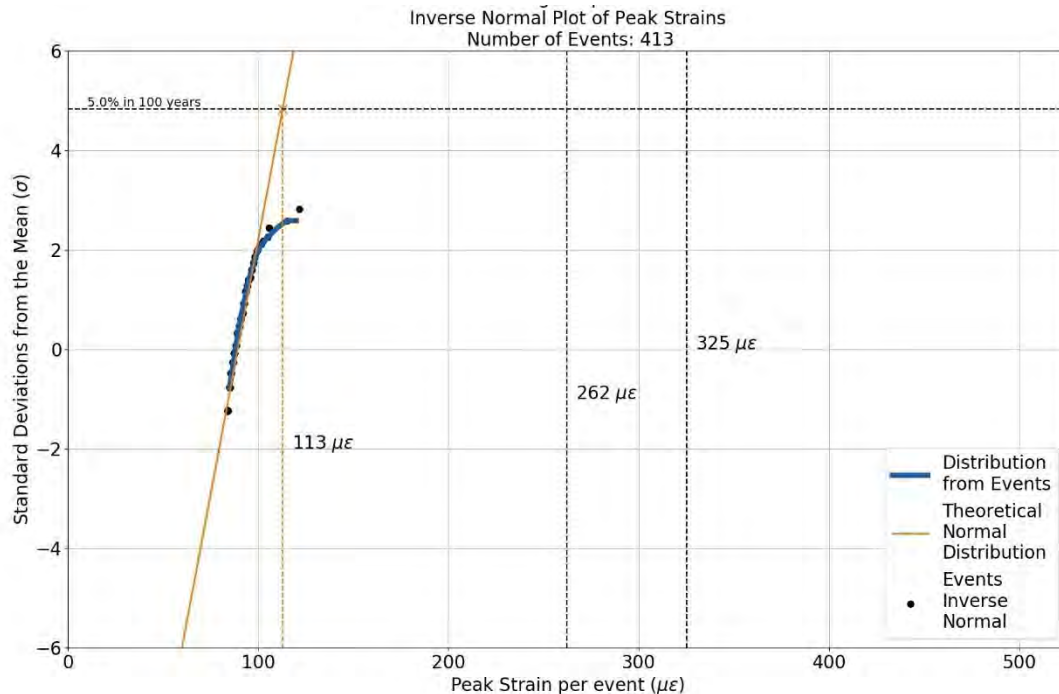
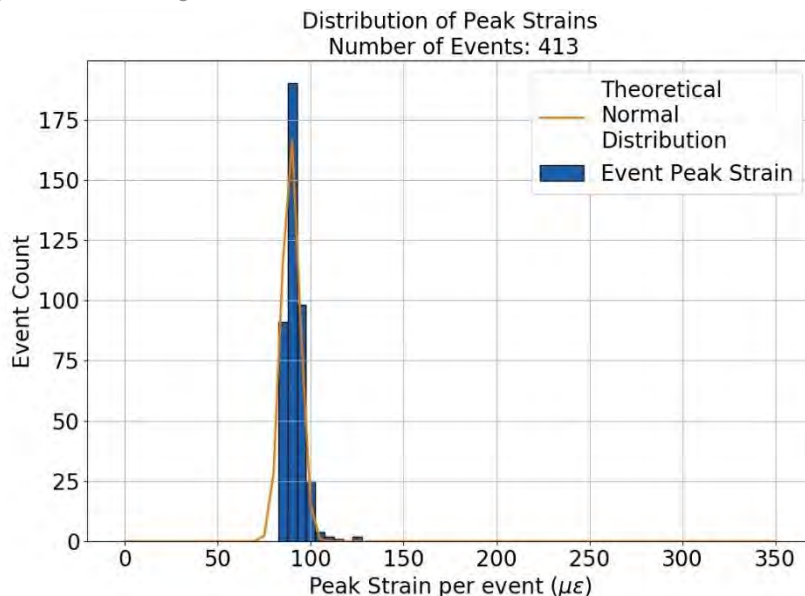


Figure 3.11 Histogram and fitted distribution for kerb unit with maximum strains: general freight



### Multiple Presence

Multiple presence of freight vehicles generates higher loading events compared to single presence since the load effects from the two vehicles superimpose upon each other. The multiple presence distribution of events for the kerb unit that experienced maximum strains is shown in Figure 3.12. Figure 3.13 shows the histogram

of actual recorded events and the associated theoretical normal distribution. This shows that the relatively high number of multiple presence events with lower magnitudes do not fit the theoretical distribution, but this is not of great concern for this analysis which is focused on peak values.

The mix of vehicles that factor in multiple presence events and the different ways in which the vehicles may meet and interact are potential reasons for relatively poor fit of the theoretical normal distribution. The top event, which is shown in Figure 3.12 by the horizontal line in the plot across to 175 micro strain consisted of a freight vehicle and all-terrain crane meeting on the bridge. It can be seen that the predicted 2000-year event magnitude is significantly higher than the single presence magnitude, but still below the theoretical tensile strain and cracking thresholds.

Note that there are insufficient data points to plot an expected distribution of multiple presence events which involve all-terrain cranes. It is likely that higher strains could be possible from freight vehicle and crane multiple presence, and it is likely that a high strain event could be caused by two cranes meeting, although the magnitude of this event will be limited by the load configuration of the cranes which are likely to be highly controlled.

Figure 3.12 Inverse normal plot for kerb unit with maximum strains: multiple presence

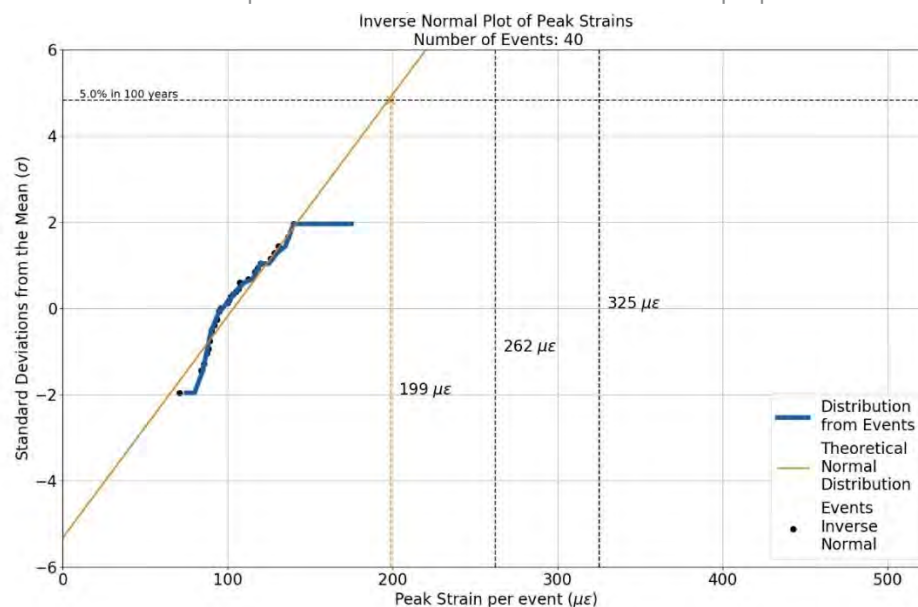
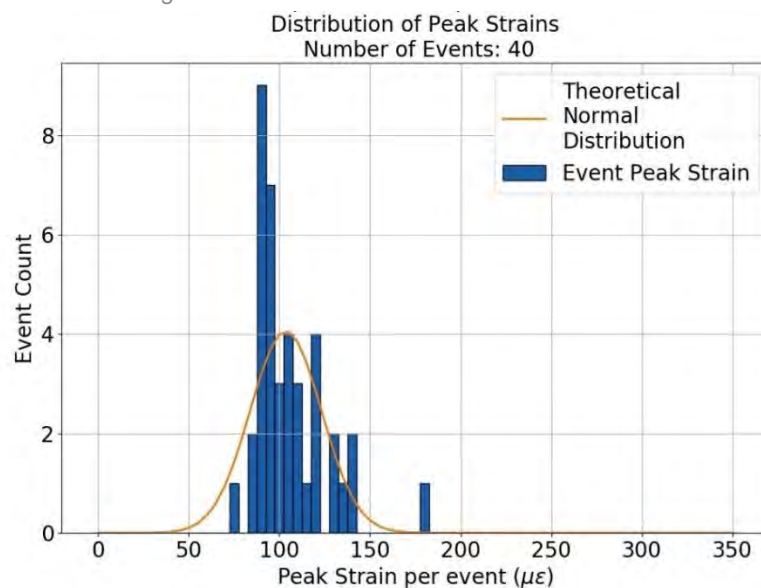


Figure 3.13 Histogram and fitted distribution for kerb unit with maximum strains: multiple presence





### 3.5.5 OSOM VEHICLE ANALYSIS

The OSOM vehicle analysis was split into low loaders and load platforms. Low loaders will generally have up to four axles on the trailer and may include a dolly with up to two axles. Conversely, load platforms will have 8-10 axles on the trailer and again may include a dolly with up to two axles. Consequently, the two OSOM vehicle types have different loading patterns and have been treated separately for extrapolation of maximum load. Figure 3.14 shows the empirical data and extrapolation for OSOM low loaders. A single theoretical normal distribution does not completely describe the dataset, with a shift to the right occurring for the peak events. This means that the predicted 2000-year strain shown on the plot may be non-conservative for low loaders, but given that the shift to the right is small for the peak events, the 2000-year strain value would still fall well below the tensile strain and cracking thresholds based on events captured during the six month period. This effect is demonstrated by the second yellow line on the plot, extending from the peak events. Figure 3.15 shows the histogram of actual events and the theoretical normal distribution, showing the poor fit to the lower magnitude and peak magnitude events.

Figure 3.14 Inverse normal plot for kerb unit with maximum strains: OSOM low loaders

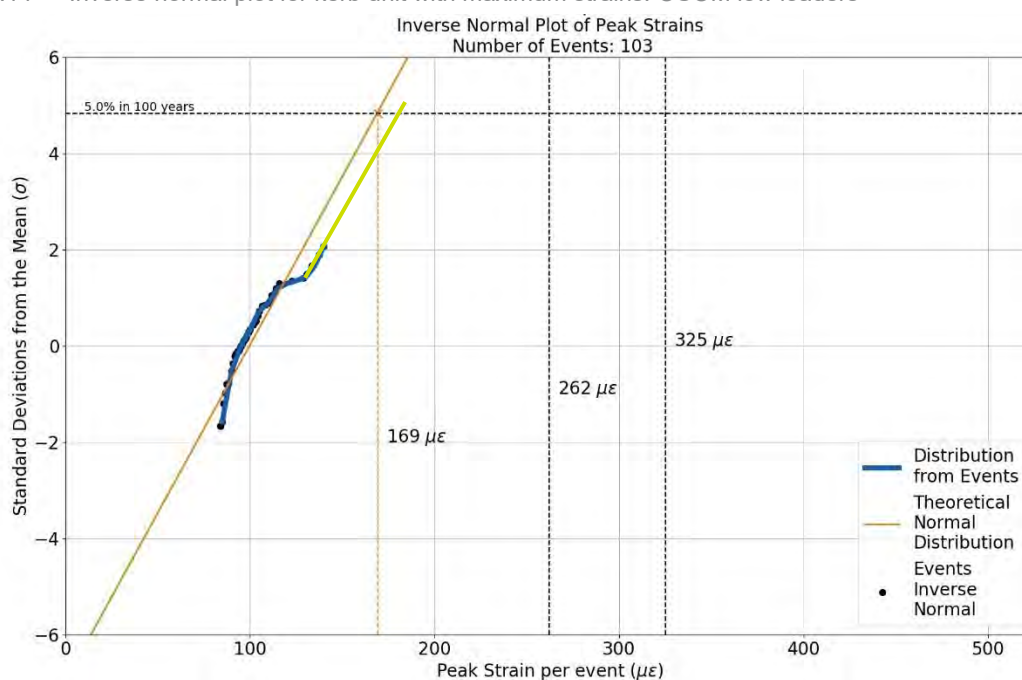
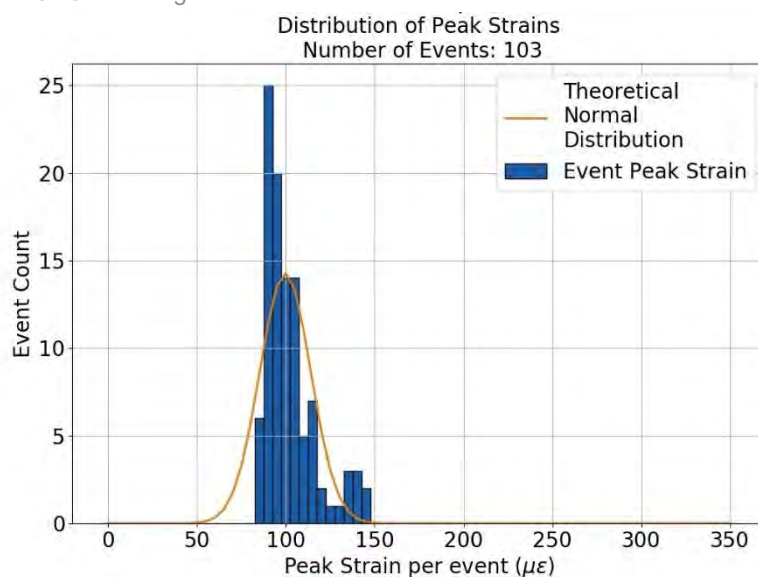


Figure 3.15 Histogram and fitted distribution for kerb unit with maximum strains: OSOM low loaders



The largest strain events recorded have been induced by OSOM load platforms which is not unexpected since load platforms are generally used for the largest indivisible loads that need to travel on the network. The theoretical normal distribution (Figure 3.16 and Figure 3.17) provides a good fit to the captured data and while the predicted 2000-year strain magnitude is close to the tensile strain threshold, it is still below the predicted cracking threshold for the kerb units. This indicates that the load platforms captured to date are working the bridge hard but are unlikely to cause cracking of the units and impact upon durability or structural integrity based on current trends. It must be recognised however that there is some uncertainty associated with statistical projection and probability. Given the key project objective of detecting deterioration, it will be important to continue monitoring the strain events captured by the bridge to determine whether peak strains are increasing and whether the predicted maximum strains are increasing.

Figure 3.16 Inverse normal plot for kerb unit with maximum strains: OSOM load platforms

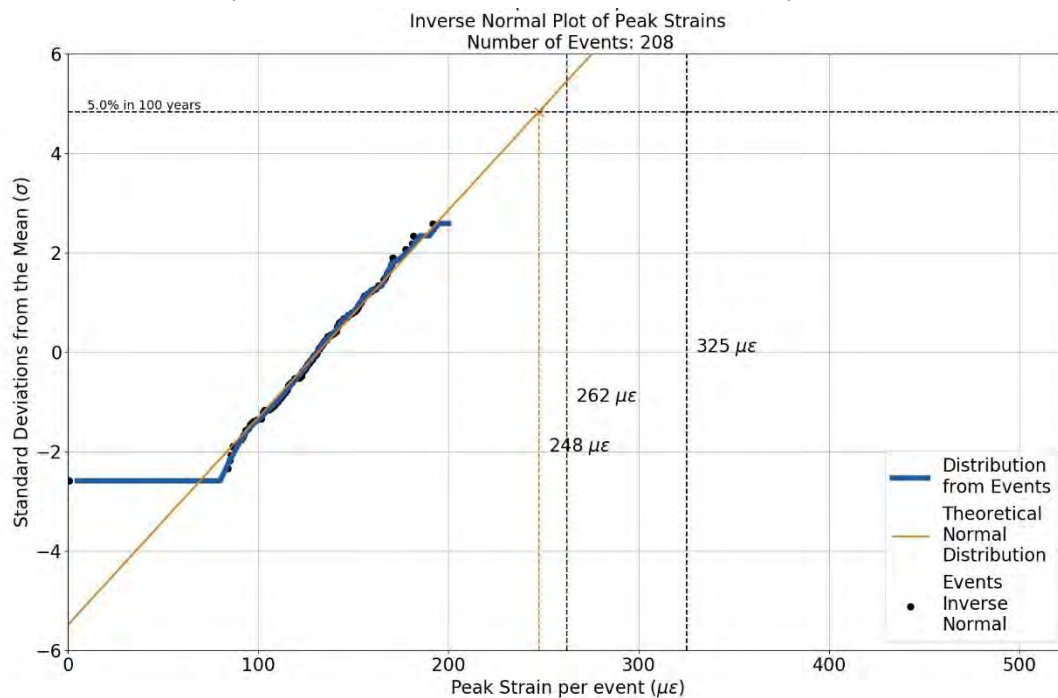
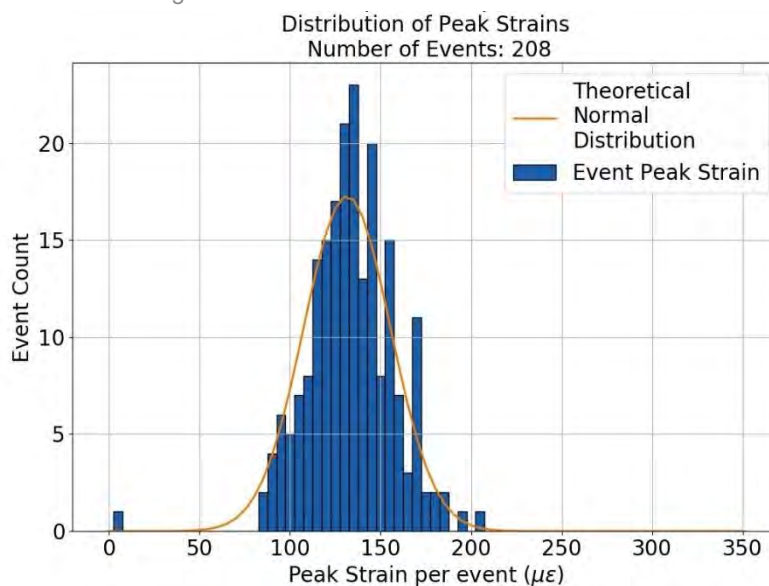


Figure 3.17 Histogram and fitted distribution for kerb unit with maximum strains: OSOM load platforms





### 3.5.6 ALL-TERRAIN CRANES

The loads allowable on cranes are generally tightly controlled, and the strain event magnitudes induced by cranes are largely determined by the axle configuration of the crane (e.g., 4-axle, 5-axle, boom dolly configurations). This means that the prediction of maximum event magnitudes through extrapolation may be unrealistic, as increasing strain magnitudes should not occur due to heavier loads. The inverse normal plot and histogram are included below.

Figure 3.18 Inverse normal plot for kerb unit with maximum strains: all-terrain cranes

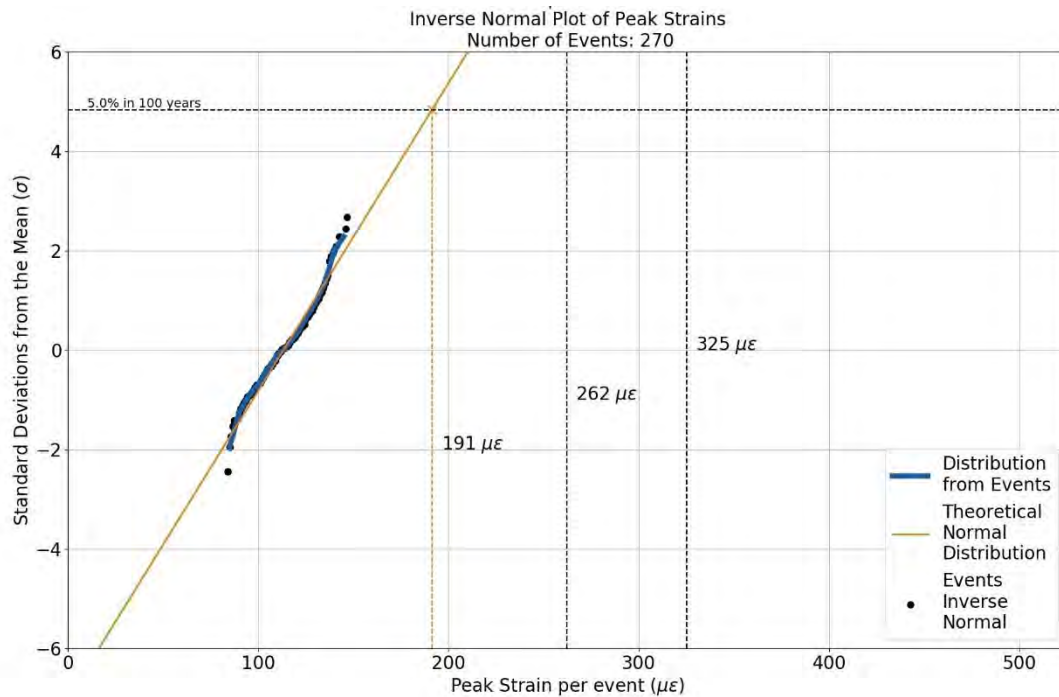
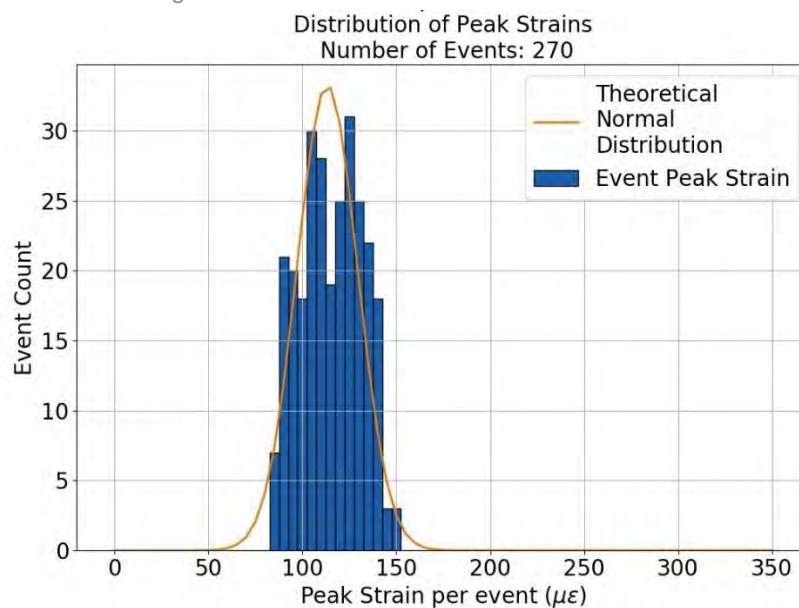


Figure 3.19 Histogram and fitted distribution for kerb unit with maximum strains: all-terrain cranes



## 4 DISCUSSION

### 4.1 BASELINE BRIDGE BEHAVIOUR

The results summarised in this report provide the basis to characterise the response for each sensor (Section 3.5.2). This statistical characterisation should be used as the basis for future deterioration assessments.

### 4.2 HEAVY VEHICLE TRAFFIC ON THE BRIDGE

The heavy vehicle traffic population for the Grosvenor Creek bridge can be split into four categories, including:

- General freight traffic
- Cranes
- OSOM low loaders
- OSOM load platforms

Refer to Section 3.4 for details of the proportions of each heavy vehicle which were found in the top 10% of events.

#### 4.2.1 GENERAL FREIGHT





General freight traffic includes rigid trucks, semi-trailers, B-doubles and road train vehicles. These vehicles will generally be operating under GML/HML or according to PBS notices as appropriate. For Grosvenor Bridge, the route is approved for 36.5 m road trains and PBS Level 3A vehicles. The majority of freight vehicles travelling over the bridge are volumetrically loaded (gravel/rock or bulk liquid) which reduces the likelihood of gross overloading for freight vehicles. Freight vehicles form the largest portion of the overall heavy vehicle population for the bridge but based on the data collected so far do not produce the highest strain magnitudes by a significant margin. Notwithstanding that the freight vehicles traversing the bridge have significantly larger action effects than the nominal (MS18) design vehicle, this data suggests that they do not pose a safety risk to the bridge.

#### 4.2.2 CRANES

Cranes form a notable portion of the higher strain events recorded for the bridge, but do not produce the maximum strains. Most larger strain events for cranes are generated by all-terrain cranes with 4 or 5 axles, or with a boom dolly (see Figure 4.1 for common configurations). These cranes are likely to have a constant load magnitude over time, and generally operate under a scheme which limits the total mass of the vehicle and the mass distribution to each axle. Considering these factors, all-terrain cranes are an appropriate vehicle type for monitoring the response of the structure over time. If changes are consistently observed over time in the structure's response to all-terrain crane crossing events this may be indicative of a change in structural behaviour.

The majority of all-terrain crane crossing events are single presence, but since the cranes are capable of travelling in a single lane, multiple presence is possible and has been observed on at least two occasions during camera operation. On both these occasions the crane was simultaneously present with a general freight vehicle, and one of these occasions was captured within the first six month dataset and is the eighth highest strain event overall within the six month dataset. It is unlikely that two cranes would meet side-by-side on the bridge, but since the vehicles can travel in a lane it cannot be ruled out. If two cranes were to meet this could produce strains beyond what have been seen to date on the bridge, and it may be worthwhile to investigate the travel patterns of the cranes to determine whether multiple presence is likely, or advise crane operators to avoid simultaneous travel on the bridge.

Figure 4.1 All-terrain crane configurations

Vehicle configuration		Max. mass
	3-axle all terrain crane	36t
	4-axle all terrain crane	48t
	5-axle all terrain crane	50t
	crane with boom dolly	70t

Source: NHVR (2020)

### 4.2.3 OVERSIZE OVERMASS (OSOM)

OSOM vehicles generate the highest strain responses, and form 58 of the top 60 strain events by magnitude (with the two other events in the top 60 consisting of a crane event and a crane/freight vehicle multiple presence event). OSOM events are split into low loaders and load platforms, with the latter generating the highest recorded strain event magnitudes. Low loaders will generally travel at the speed limit and may or may not fit into a single lane depending on the width of the trailer being used. Load platforms are usually wider than a single lane and will often travel down the centreline of the bridge, though this is not guaranteed. Load platforms may be required to travel below the speed limit but are likely to be capable of travelling at the speed limit, with higher speed potentially being preferred by the vehicle operator.

### 4.2.4 MULTIPLE PRESENCE

Multiple presence refers to the occurrence of two (or more) heavy vehicles meeting simultaneously on a bridge such that the load effects generated exceed the load effect that would be generated by either of the vehicle crossing the structure on its own. For structures with long spans or structures which are designed with continuous support conditions, events involving trailing vehicles may become a concern, but for the Grosvenor Creek bridge (simply supported, 15 m span length), the most concerning multiple presence events involve two heavy vehicles travelling in opposite directions meeting over one or more bridge spans.

Review of event photos show that the majority of multiple presence events recorded so far have occurred between two general freight vehicles. At least two events consisting of a freight vehicle and an all-terrain crane meeting have been observed in roughly 6 months of camera operation (one of the two events was observed after the new camera was installed).

The width of the bridge limits the ability of OSOM vehicles to travel across in a single lane, and evidence from the camera shows that OSOM vehicles which are wider than the standard traffic lane will often travel in the middle of the bridge roadway, either to prevent other vehicles from entering the bridge or based on travel instructions. This reduces the likelihood of an OSOM vehicle being involved in a multiple presence event. Certain OSOM vehicles may be capable of travelling in a single lane depending on the width of the trailer, so it is important to continue to monitor induced strains and event photos to determine the nature of peak events.

Given the relative rarity of multiple presence events, periods over which it is feasible to monitor a bridge for are generally insufficient to generate an accurate representation of expected multiple presence event magnitudes (Lake 2001). Since six months of data is available, this is a less of a concern than it would be if

only weeks of data was available, but six months is a short period of time relative to a 100-year design life or 2000-year return period as specified by AS 5100-2017.

### 4.3 BRIDGE PERFORMANCE

As discussed in Section 3.5, a statistical exercise was performed to determine the strain event which would have a return period of 2000 years based on current strain event trends. This was compared to the magnitude of strain which would theoretically induce cracking in the deck units/kerb units. It was found that the tensile strain cracking threshold was unlikely to be exceeded during the remaining operational life of the bridge (up to 100 years) based on current general freight and OSOM usage of the bridge. Ongoing monitoring of strain events may lead to changes in projected maximum strains, particularly if events larger than what has been recorded so far occur.

While the data does not provide evidence of an immediate safety risk, it is suggested that events larger than that recorded on 25 September 2019 be closely monitored. Ideally, broad ranging discussion on the OSOM/SPV operation of the bridge including stakeholders could assist with understanding the level of service requirements, and operational options to protect both asset integrity and safety.

The inverse normal analysis presented in Section 3.5 has focused on estimating the 2000-year return period strain values for each vehicle type based on the kerb unit which reports the highest strain values (Sensor CD17 as per Figure 3.3, Section 3.2). As discussed in Section 3.2, this unit is an outlier compared to the kerb units which are in the same position on the other three spans. While the inverse normal analysis based on this unit is valuable in terms of determining the highest strains that can be expected to occur on the bridge, it is also worthwhile to review the behaviour of the other kerb units which appear to be behaving in a relatively similar manner to each other. The behaviour of these 'similar' units could be considered as more typical of the strain behaviour expected for the bridge. The kerb unit (sensor CD2) which is an equivalent unit located on the span adjacent to kerb unit with highest strains (sensor CD17) has been considered in this comparison.

A comparison between the maximum observed and predicted 2000-year strain values calculated for Sensor CD17 and Sensor CD2 is shown in Table 4.1. This comparison demonstrates that while there are relatively high strain values being generated for one kerb unit, lower strains are being recorded for the other nominally identical kerb units on the structure (which show similar behaviour to CD2). This is a trend observed for all vehicle types. Considering OSOM load platform vehicles which generate the highest strain values, the predicted 2000-year strain is beginning to approach the cracking threshold for CD17 but is significantly lower for CD2. This indicates that most structural elements are performing well below the cracking threshold.

Table 4.1: Maximum strains per vehicle type

Vehicle type	Peak strain kerb unit ( $\mu\epsilon$ )		Typical kerb unit ( $\mu\epsilon$ )	
	Max strain observed – CD17	Predicted 2000-year strain – CD17	Max strain observed – CD2	Predicted 2000-year strain – CD2
General freight (single presence)	106	113	80	86
Crane	148	191	105	131
OSOM low loader	142	180	102	129
OSOM load platform	205	248	165	182
Multiple presence	175	199	104	137
Cracking threshold	325	325	325	325

It is recommended to continue to closely monitor the strains recorded by CD17 and compare to typical strains being recorded for other kerb units, as this will provide an indication as to whether the strain behaviour of the structure is changing, which could be linked to deterioration if a change was to be observed.

While the comparisons in Table 4.1 are not presented as a formal bridge assessment, they could be used to inform such an assessment. They do suggest however that for the bridge in its current condition under ambient traffic:

1. While the strains resulting from single vehicle general freight are probably about twice those that would be expected from a similar bridge design to current standards, they are unlikely to represent a significant safety or asset integrity risk.
2. The margin between multiple presence events and kerb unit cracking is substantially less than for single vehicle events, but is broadly consistent with expectations based on (1).
3. The strains resulting from OSOM vehicle, particularly the load platforms are the most concerning both from asset safety and asset integrity perspectives.

Transversely stressed deck unit bridges of this type are known to be a very robust concept with the failure sequence being:

1. Cracking of the midspan kerb unit soffit
2. Ultimate failure of the "stiffened slab" at a load magnitude approximately twice that required to achieve (1).

This failure scenario relies on continued integrity of the transverse stressing bars. On that basis, and given the discussion in Section 3, there are no immediate safety concerns for the bridge, although it is "working much harder" than a similar bridge designed to current standards. There are some concerns regarding asset integrity under the heaviest OSOM events given that the largest OSOM expected event is approximately 75% of that required to crack the CD17 girder soffit. This magnitude is broadly consistent with what would have been allowed under permissible stress design approaches used when asset integrity issues were considered as part of OSOM access decisions (approximately 30 years ago). There are sufficient concerns based on the discussion in Section 3.3 that asset damage may be occurring under very heavy loads, but the data benchmarking underpinning this project should be able to better inform and quantify such concerns in time.

As a minimum, it is suggested that future Level 2 bridge inspections should specifically focus on the following in addition to the standard Level 2 inspection processes:

1. Mid-span transverse soffit cracking of DU14 on Span 2 and Span 4, and to a lesser extent, all kerb units on all spans
2. Damage or differential movement between units at mid-span of Span 2 and Span 4
3. Progress of ASR cracking of all deck units.

Similarly, items (1) and (2) should be a particular focus for review of monitoring data.

Given the above discussion, there is also a case to use the available data to undertake a Tier 3 bridge assessment consistent with the principles outlined by Austroads (2018). Such an assessment should be undertaken in two parts under the auspices of ISO 13822 and ISO 13824 as follows:

1. Part 1 – Formally establish the asset objectives and scenarios (ISO13822) and confirm that the data already gathered and the conclusions already derived above are consistent with IRC requirements, and establish intervention (trigger) thresholds.
2. Part 2 – an extension of Part 1 which takes place when a trigger threshold is exceeded using the full data set at that time to inform asset and access decisions.

## 5 CONCLUSIONS AND RECOMMENDATIONS

### 5.1 WORK TO DATE

The dataset available from the initial year of monitoring and six months of data with accompanying camera images provides a robust dataset for the benchmarking of current bridge behaviour. Ongoing monitoring over the remaining operational lifespan of the bridge will refer back to this benchmark as a means of detecting changes in structural behaviour and any subsequent impacts on performance.

Data processing continues, starting with production of a similar scatter plot (to Figure 3.1) for the available time periods. This data will then be subject to statistical processing which will better facilitate understanding and decision making. In summary:

1. The fibre optic monitoring system continues to operate consistently.
2. As a general guide, the freight vehicles (road trains, B doubles etc) exceed the nominal design intent for the bridge (MS18), but based on inverse normal analysis and the predicted deck unit cracking threshold are not a significant concern.
3. The biggest events recorded are Over Size/Over Mass (OSOM) events with data from the largest presented in Section 3.2. These events are larger than what has been captured from general freight, but projected event magnitudes for a 2000-year return period are still below the theoretical cracking threshold for the kerb units based on the inverse normal analysis.

The above observations are consistent with original expectations and were central to the rationale for the instrument system.

#### 5.1.1 SPAN VS. SPAN

The analysis of data from each span of the bridge has shown that the strain response varies from span to span, with some spans showing higher maximum strains in kerb units, and some variance in the distribution of loads across the deck from span to span for single events. This may be indicative of variances in structural behaviour, and it will be key to monitor any change in the comparative distribution of loads as this may be indicative of a change in structural behaviour.

#### 5.1.2 INVERSE NORMALS

The inverse normal analysis and extrapolation has shown that based on the trends of strain magnitudes captured to date, there is a low probability that the magnitude of strain required to cause cracking of the kerb units or deck units will be exceeded during a 100 year period (nominal bridge design life). This is based on the extrapolation of the expected strain magnitude associated with a 2000-year return period based on events captured to date.

Analysis of heavy vehicle categories showed that single presence of general freight vehicles generates strains well below the tensile strain limit or cracking limit for the units. This may indicate that there is a low precedence of overloading, which makes sense given the largely volumetric nature of general freight using the bridge (rock/gravel, bulk liquid etc.). Multiple presence of general freight vehicles has the potential to generate higher strains, though was not observed to generate strains higher than the OSOM load platforms. The relative rarity of multiple presence events makes it hard to make definitive conclusions as to expected maximum event magnitudes based on events captured from a short time period (relative to 100 or 2000 years), so ongoing monitoring of strain event magnitudes and event types is recommended.

Amongst the OSOM vehicles, a distinction was made between low loaders and load platforms. Load platforms have generated the highest strain events on the bridge and are projected to generate the highest 2000-year strain value based on extrapolation. Load platforms can be controlled based on permit restrictions, and it is recommended that IRC seek to tightly control any load platform events which may generate strains higher than the maximum observed to date. This might include actions such as limiting the



speed of the vehicle crossing the bridge or ensuring that the vehicle travels down the centreline of the bridge.

While not projected to generate higher 2000-year strain values compared to load platforms, low loaders have potential to generate high strain events if overloading takes place. Low loaders are subject to a permit system but are generally not as tightly controlled as load platforms. It is recommended that the strain events generated by low loaders are closely monitored as part of ongoing monitoring, with IRC maintaining an option to request tighter controls on these vehicles if any evidence of overloading or a trend of increasing loads is detected.

## 5.2 OVERALL CONCLUSION TO DATE

There are no immediate safety concerns for the bridge, although it is "working much harder" than a similar bridge designed to current standards. There are some concerns regarding asset integrity under the heaviest OSOM events given that the largest OSOM expected event is approximately 75% of that required to crack the CD17 girder soffit. There are sufficient concerns based on the discussion in Section 3.3 that asset damage may be occurring under very heavy loads, but the data benchmarking underpinning this project should be able to better inform and quantify such concerns.

## 5.3 ONGOING WORKS

The coronavirus has had a huge impact on the lives of many people worldwide, with especially large impacts occurring upon work practices and staff availability. Unfortunately, the IRC Grosvenor Creek project has not escaped these impacts, with key staff members from the team who designed and installed the opto-electronic strain monitoring system being based in New Zealand and the United Kingdom. The UK has been heavily impacted by the coronavirus and ongoing restrictions there continue to limit the ability of the team to finalise key portions of the work, such as finalisation of the dashboard. ARRB will continue to finalise these works and will provide updates to IRC as they come to hand.

ARRB is committed to finalising all project tasks as were originally agreed to with IRC, including provision of the online dashboard to facilitate ongoing monitoring of the bridge. This dashboard will facilitate monitoring of bridge behavioural trends over time and will alert IRC to any events which exceed a certain strain magnitude. Since the inverse normal extrapolation analyses presented in this report have been developed based on a relatively short period compared to the design life of a bridge (or the return period for ultimate load effects), it is possible that estimates of expected maximum strain magnitudes will change over time as more events are recorded, particularly events which produce strains similar to or larger than the top strains recorded to date.

To be most effective as a risk control, the opto-electronic system and online dashboard will require ongoing attention over the remaining operational lifespan of the bridge. This should include review of projected maximum strains based on inverse normals and comparison between spans to identify any changes in structural stiffness of the bridge/deck units or load distribution between units which may be linked to deterioration or damage (linked to ASR or otherwise). It is also recommended that all events which produce a strain greater than 200 micro strain are reviewed to determine the heavy vehicle type and investigate any changes in structural behaviour which may result from the event.

The data captured through ongoing monitoring and post-processing will be available to review together with outputs from ongoing Level 1 and 2 inspections. Provided that significant and potentially detrimental changes in structural behaviour are not observed from the ongoing strain monitoring, and excessive physical deterioration is not detected through inspections, there is a case for continued operation of the bridge under current maintenance management practices.

## 5.4 RECOMMENDATIONS

Based on the data analysis and discussion presented in this report, the following recommendations can be made to IRC regarding the short- and long-term operation of the Grosvenor Creek Bridge:



4. Use the current available data to undertake a Tier 3 bridge assessment consistent with Austroads (2018). This assessment should be undertaken in two parts under the auspices of ISO 13822 and ISO 13824 as follows:
  - a. Part 1 – Formally establish the asset objectives and scenarios (ISO13822) and confirm that the data already gathered, and the conclusions derived to date and presented in this report are consistent with IRC requirements, and establish appropriate intervention (trigger) thresholds.
  - b. Part 2 – an extension of Part 1 which takes place when a trigger threshold is exceeded using the full data set at that time to inform asset and access decisions.
5. Continue to undertake Level 2 inspections on the Grosvenor Creek bridge at 1-year intervals, with the following specific focus:
  - a. Mid-span transverse soffit cracking of DU14 on Span 2 and Span 4, and to a lesser extent, all kerb units on all spans
  - b. Damage or differential movement between units at mid-span of Span 2 and Span 4
  - c. Progress of ASR cracking of all deck units.
6. Continue to monitor peak strain event values and predicted 2000-year strain values for all sensors.
  - a. The units identified in (2) should form a particular focus of ongoing monitoring with aim of detecting any changes in behaviour.
  - b. The methodology for data monitoring should be consistent with the trigger thresholds identified through (1a). Initially, a comprehensive review of bridge response behaviour is recommended if an event with a magnitude of 200 microstrain or greater is detected.
  - c. As a minimum, undertake 6-monthly review of predicted 2000-year strain values and load distribution between units. This will assist with the identification of long-term behavioural trends which may be linked to ASR deterioration.

# REFERENCES

Austroads 2018, *Higher order bridge assessment in Australia*, AP-R582-18, Austroads, Sydney, NSW.

Lake, NJ 2001, 'Evaluating the health of bridge structures', PhD thesis, Queensland University of Technology, Brisbane, Qld.

NHVR, 2020, *Queensland Class 1 Crane Permit Scheme –Industry Information Sheet*, National Heavy Vehicle Regulator, Brisbane, Qld, viewed 2 December 2020, < <https://www.nhvr.gov.au/files/fscp0010-queensland-class-1-all-terrain-crane-permit-scheme-industry-info-sheet.pdf>>

Nowak, AS 1993, 'Live load model for highway bridges', *Structural Safety*, vol. 13, no. 1-2, pp. 53-66.

## STANDARDS AUSTRALIA

AS 5100-2017 series, *Bridge design*

AS 5100.5-2017, *Bridge design: part 5: concrete*.

AS ISO 13822-2005, *Basis for design of structures: assessment of existing structures*.

## INTERNATIONAL STANDARDS

ISO 13824-2020, *Bases for design of structures — General principles on risk assessment of systems involving structures*

## Appendix A LIVE LOAD CRACKING ANALYSIS

This analysis determines the tensile strain and cracking strain thresholds for live load of the deck and kerb units. The former threshold limits the tensile strain at the soffit of the units, while the latter ensure that the soffit of the units will not crack due to the superimposed live load effects. The calculations were based on the following assumptions:

- As no as-built drawings are available, the detailed cross sections and prestressing layouts of the DUs and KUs were based on a TMR standard design of the same span length and design era. As such the standard design no. S 1052/C was used, with 15 m deck and kerb units, designed in 1974 for MS 18 loading.
- Design material properties are used in the calculations as shown in Table A-1
- An average thickness of the DSW of 80 mm
- 30% prestress loss.

Table A-1 Design material properties

	Deck unit	Kerb unit
Minimum concrete strength at 28 days (MPa)	45	35
Prestressing strands	20 no. 12.5 d straight strands (regular)	20 no. 12.5 d straight strands (regular)
Pretensioning prestressing force (kN)	130	130

Table A-2 presents the outcomes of the analysis, as follows:

- Live load tensile strain threshold for kerb units: 262  $\mu\epsilon$
- Live load tensile strain threshold for deck units: 231  $\mu\epsilon$
- Live load cracking strain threshold for kerb units: 325  $\mu\epsilon$
- Live load cracking strain threshold for deck units: 302  $\mu\epsilon$ .

Table A-2 Tensile strain and cracking thresholds for live loads

Deck and kerb unit	Strain at soffit of deck and kerb units ( $\mu\epsilon$ )			Tensile strain and cracking thresholds for live loads based on AS 5100.5 (2017)	
	Dead load + Superimposed dead load	Prestress	Total	With design tensile stress limit ( $0.25f_c^{0.5}$ )	With characteristic flexural tensile strength ( $0.6f_c^{0.5}$ )
KU1	143	-360	-217	262	325
DU2	213	-393	-179	231	302
DU3	213	-393	-179	231	302
DU4	213	-393	-179	231	302
DU5	213	-393	-179	231	302
DU6	213	-393	-179	231	302
DU7	213	-393	-179	231	302
DU8	213	-393	-179	231	302
DU9	213	-393	-179	231	302
DU10	213	-393	-179	231	302
DU11	213	-393	-179	231	302
DU12	213	-393	-179	231	302
DU13	213	-393	-179	231	302
U14	143	-360	-217	262	325

# Appendix B DATA ANALYSIS

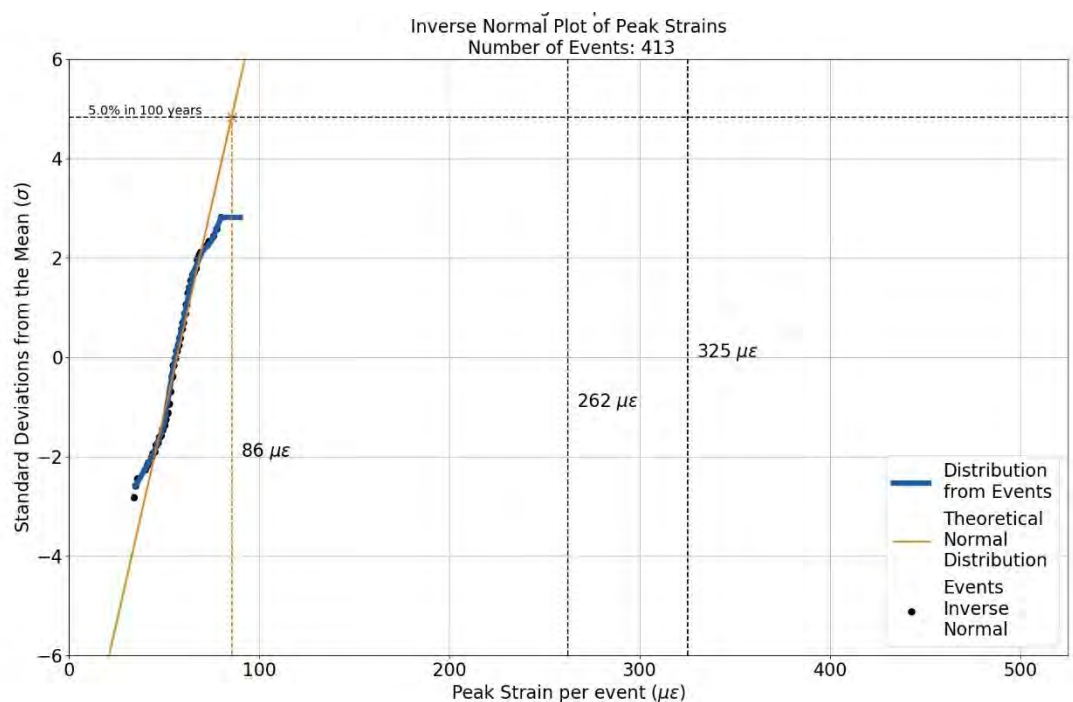
## B.1 INVERSE NORMALS BY ARRAY

As discussed in the body of the report, inverse normal analysis and extrapolation through distribution fitting was carried out for kerb units on both sides of the bridge on each of the four bridge spans. As there is still some uncertainty around the locations of the fibre optic sensors the spans have been designated as A, B, C, D which have no association with actual span locations. The span by span analysis will be updated once accurate sensor positions are known. The plots below are presented for relative comparison only.

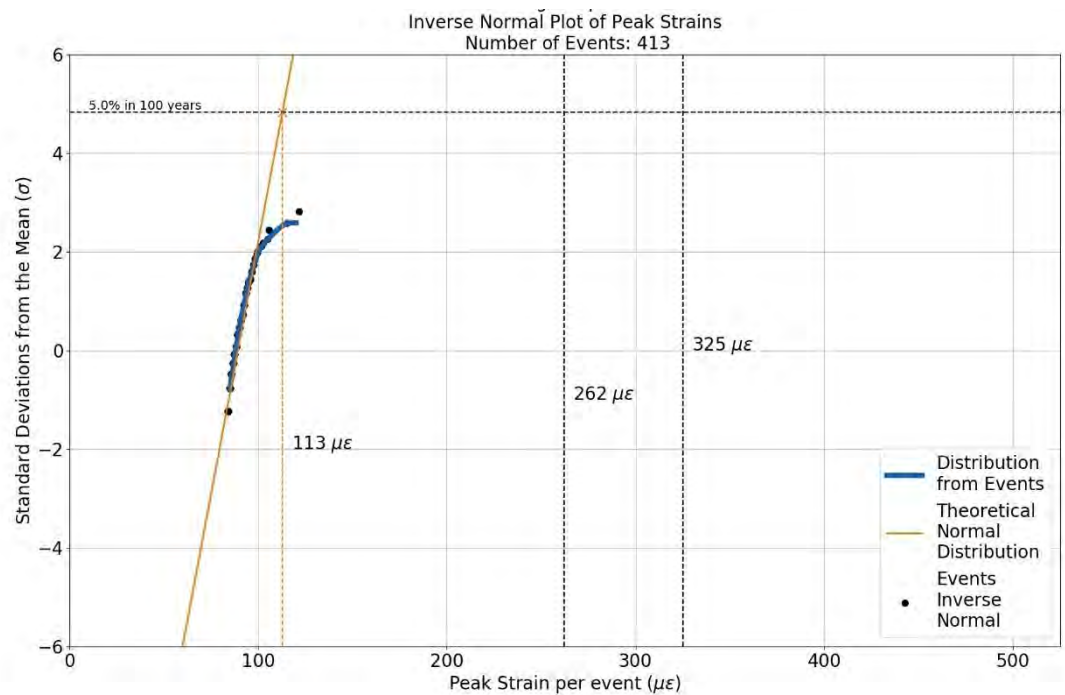
The predicted 2000-year return period strain is shown on each plot as a yellow line, while the tensile strain and cracking thresholds for kerb units are shown as black lines at 262 and 325 microstrain respectively.

### B.1.1 GENERAL FREIGHT

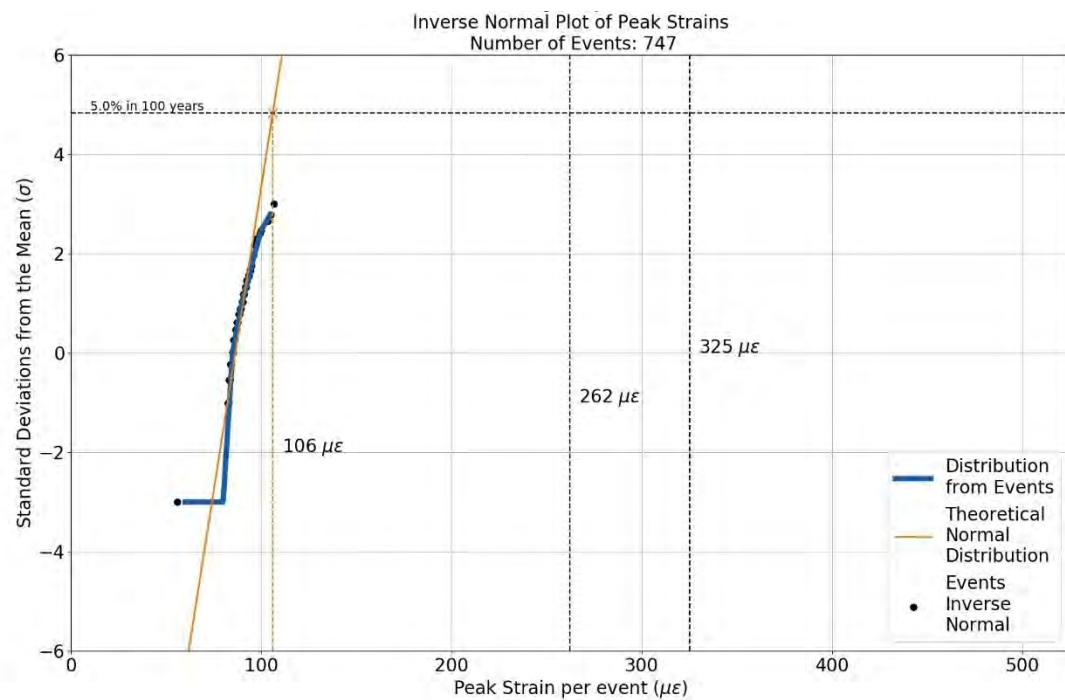
#### Span A



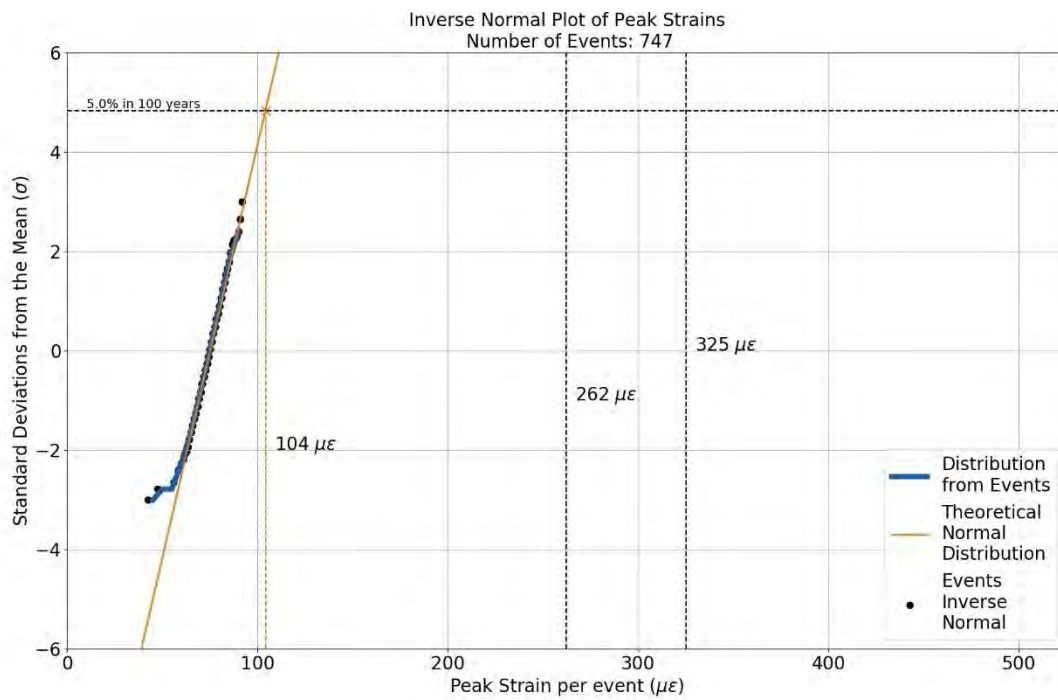
Span B



Span C

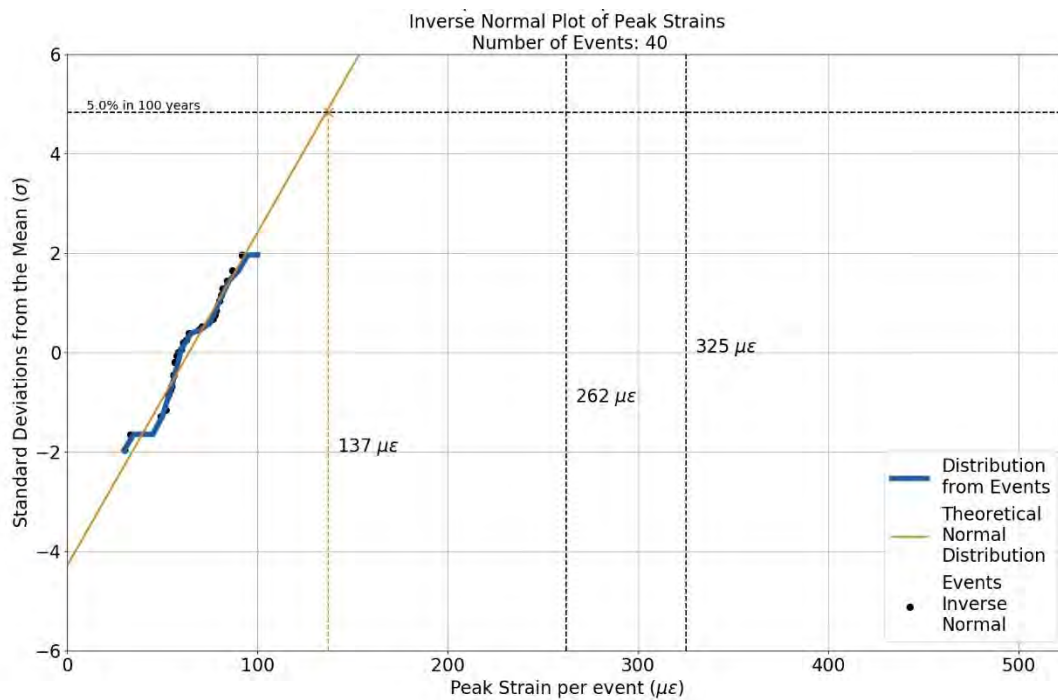


## Span D



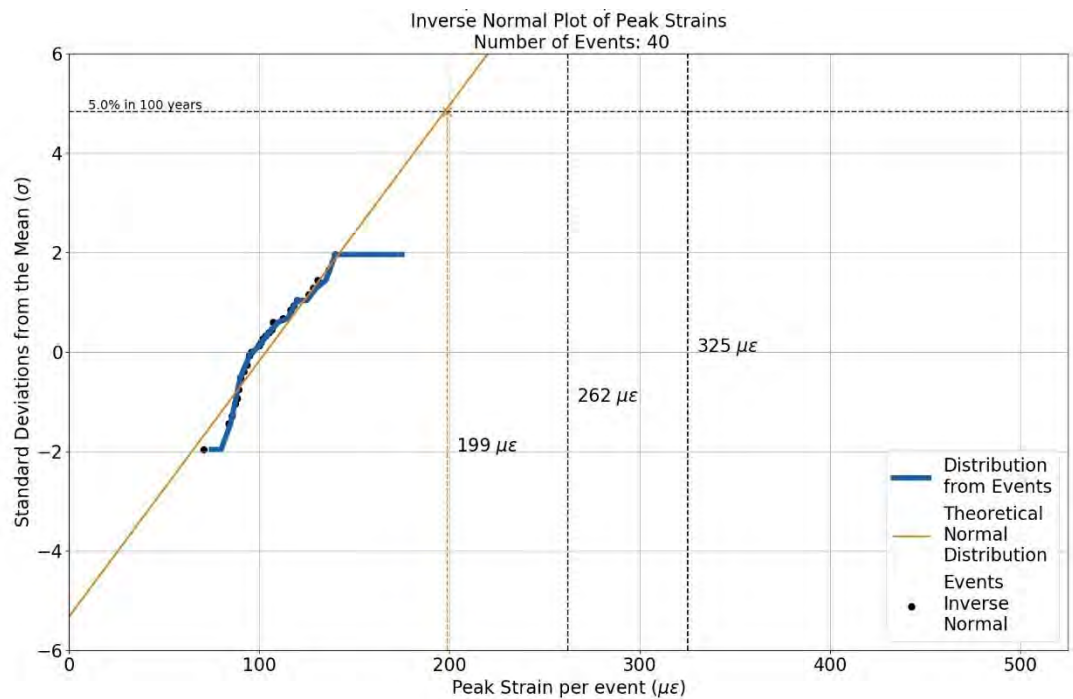
## B.1.2 MULTIPLE PRESENCE

### Span A

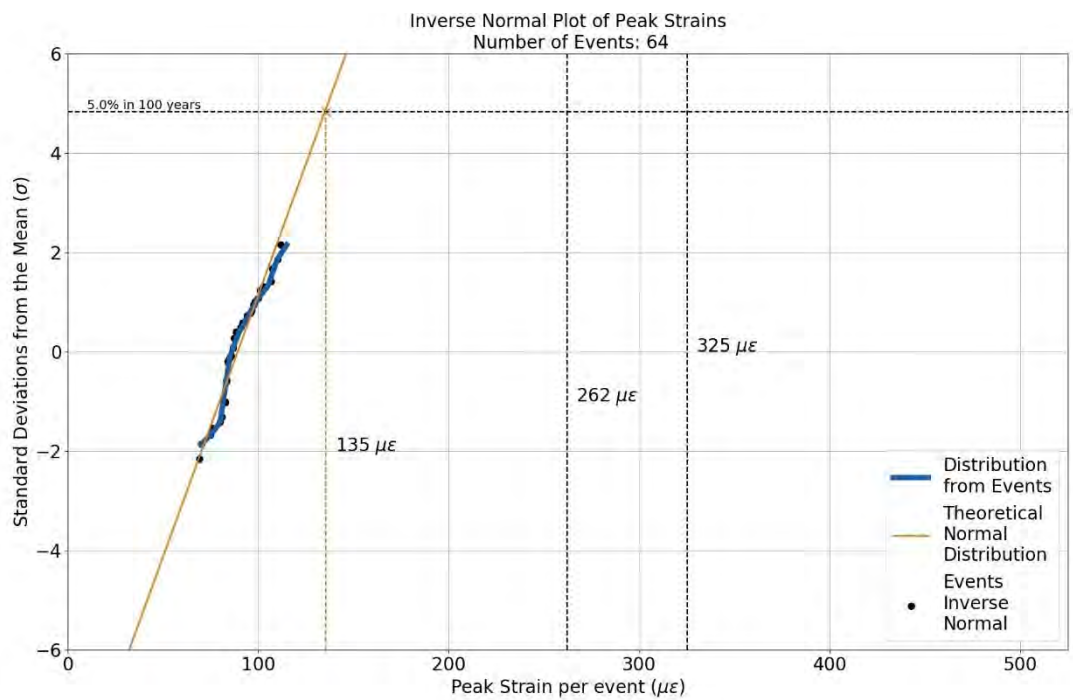




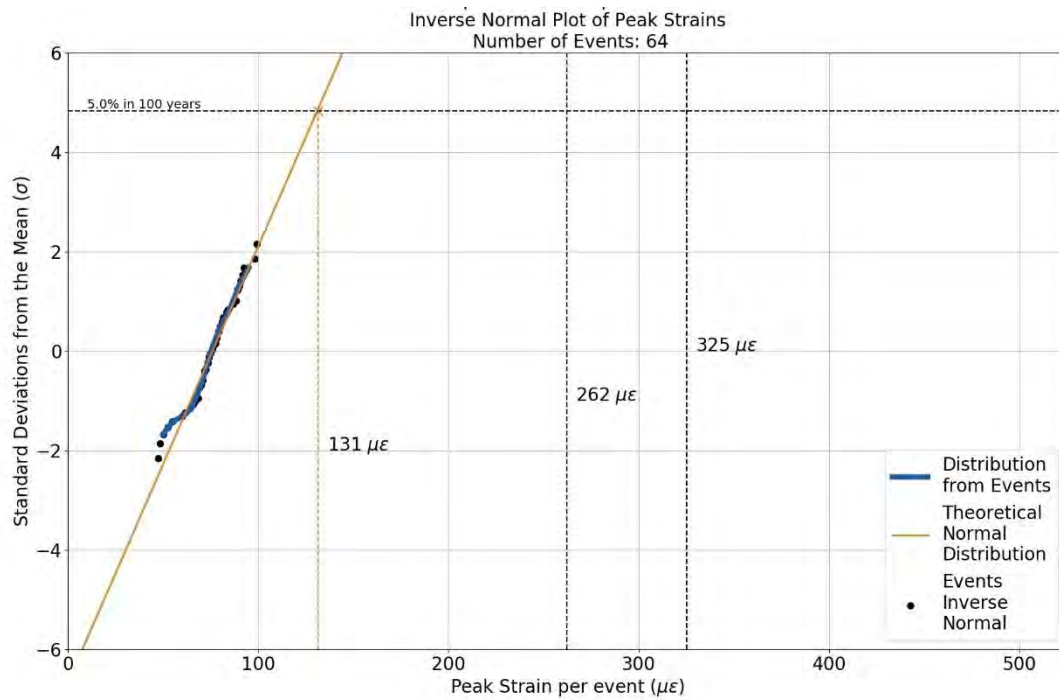
Span B



Span C

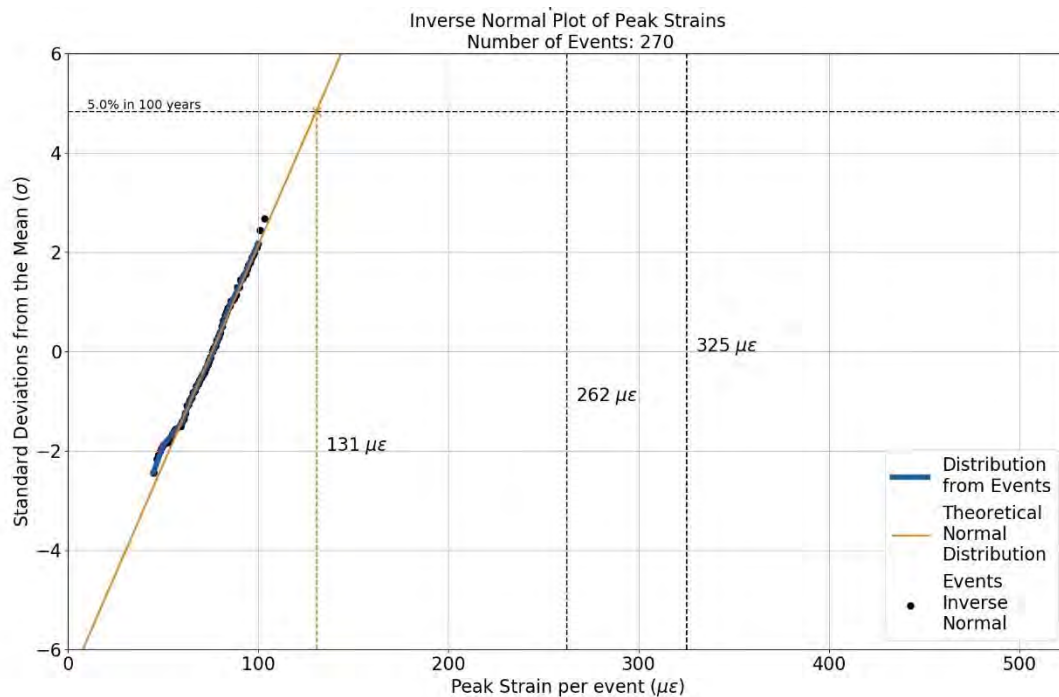


## Span D

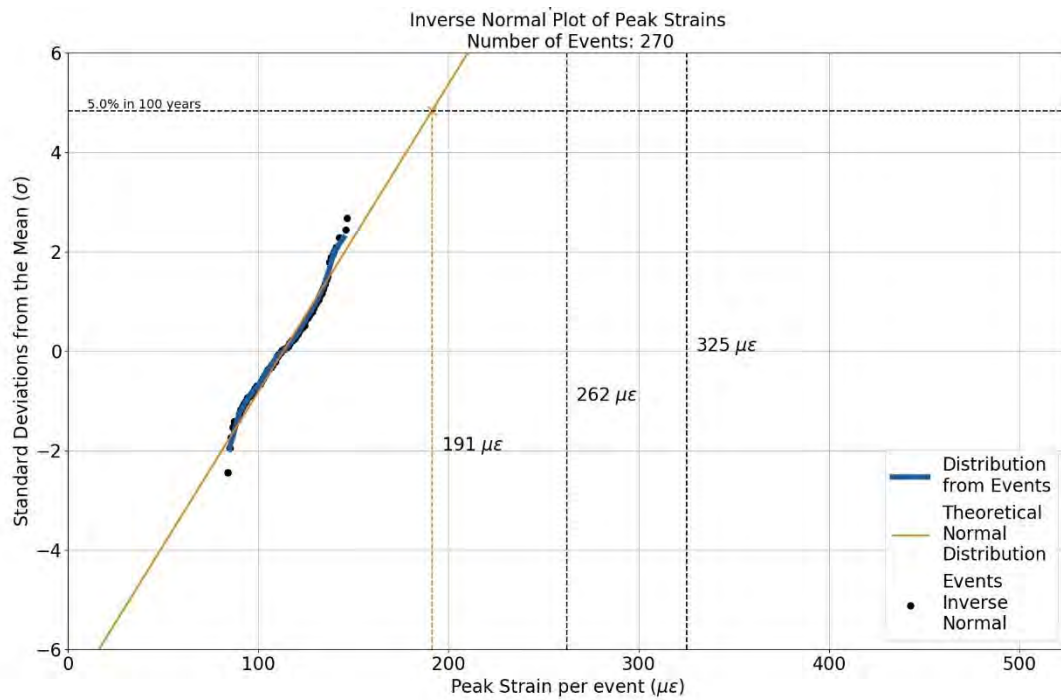


## B.1.3 CRANES

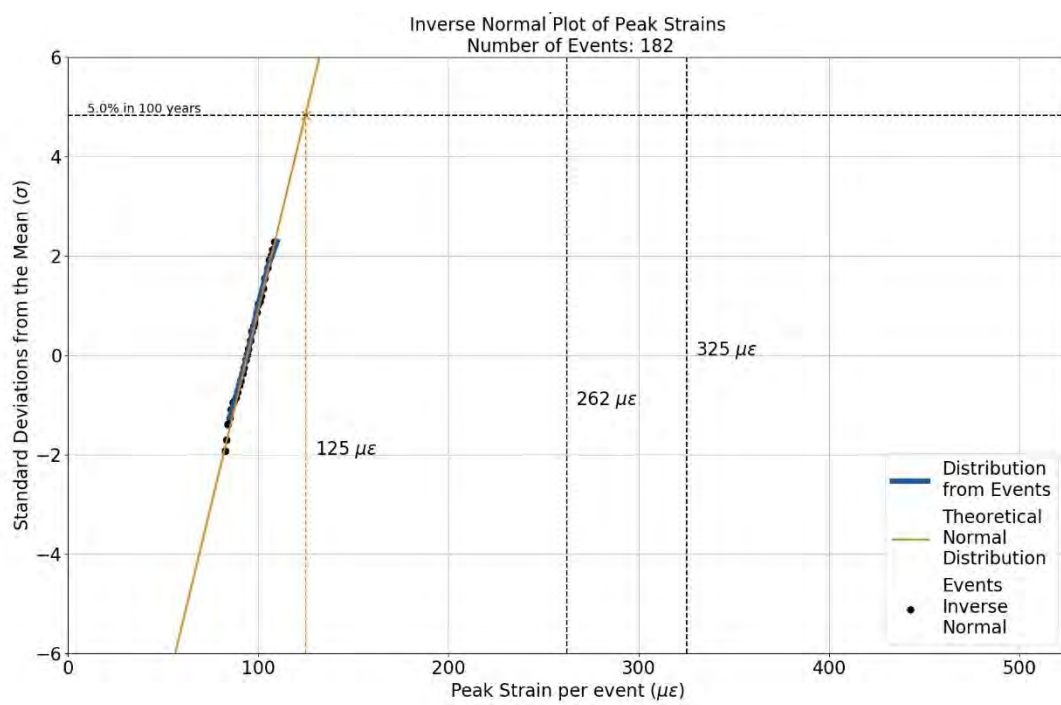
### Span A



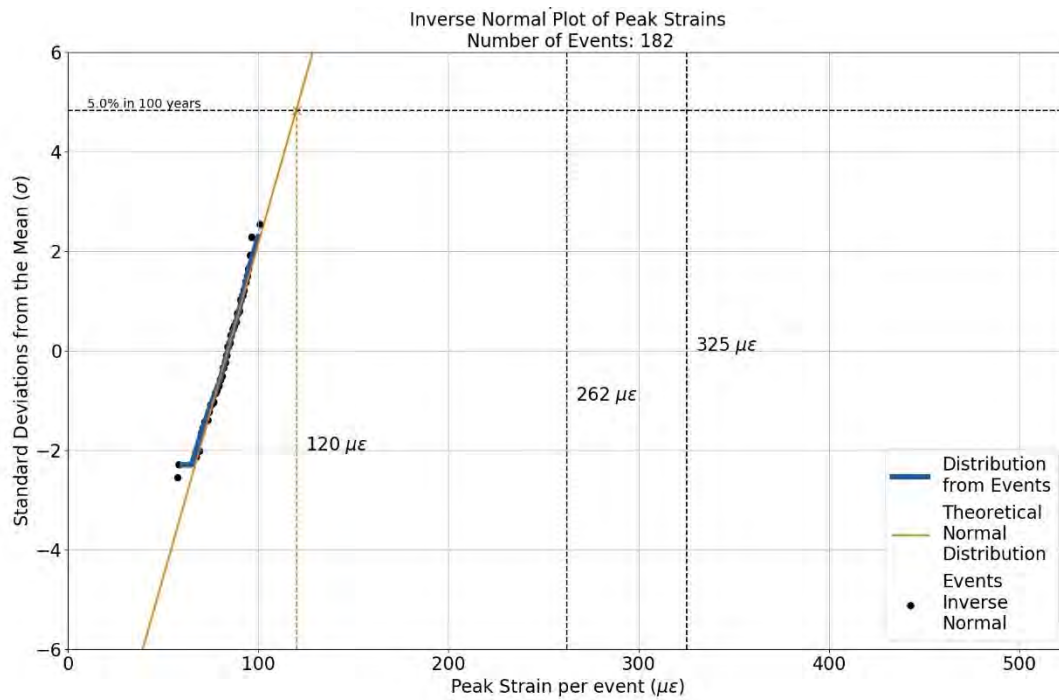
## Span B



## Span C

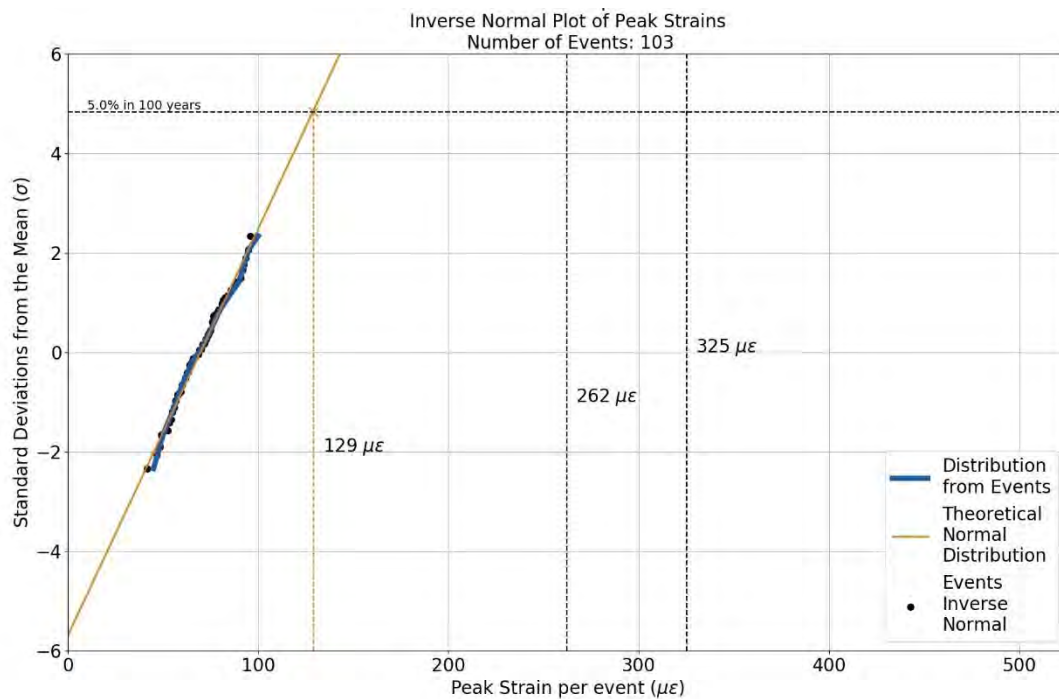


## Span D

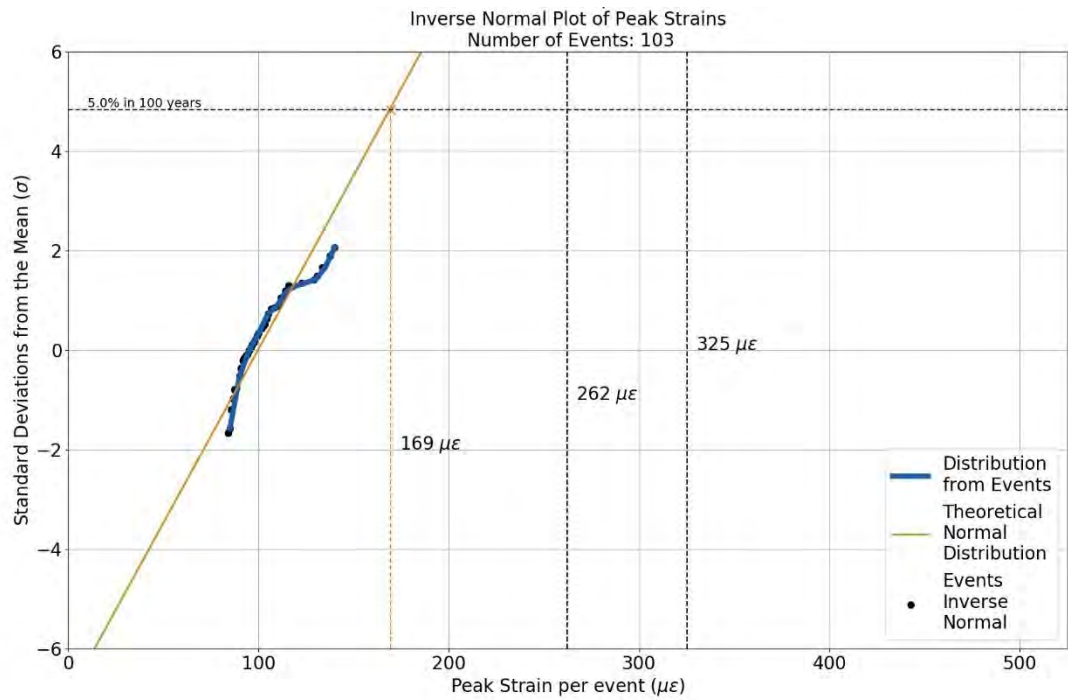


## B.1.4 OSOM LOW LOADERS

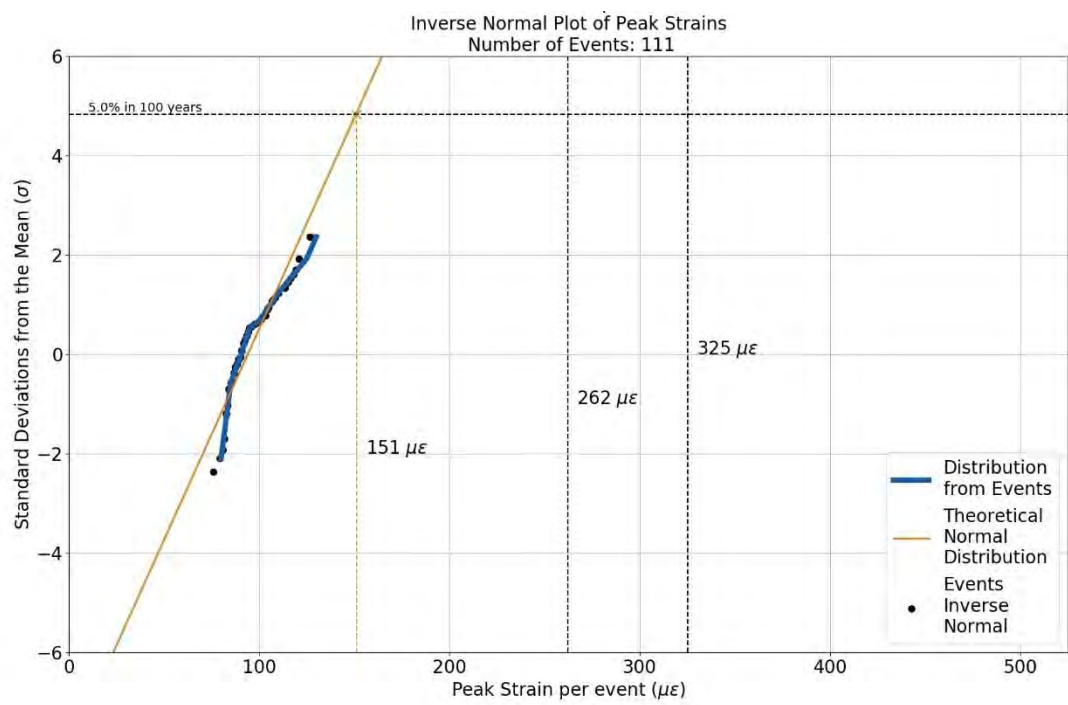
### Span A



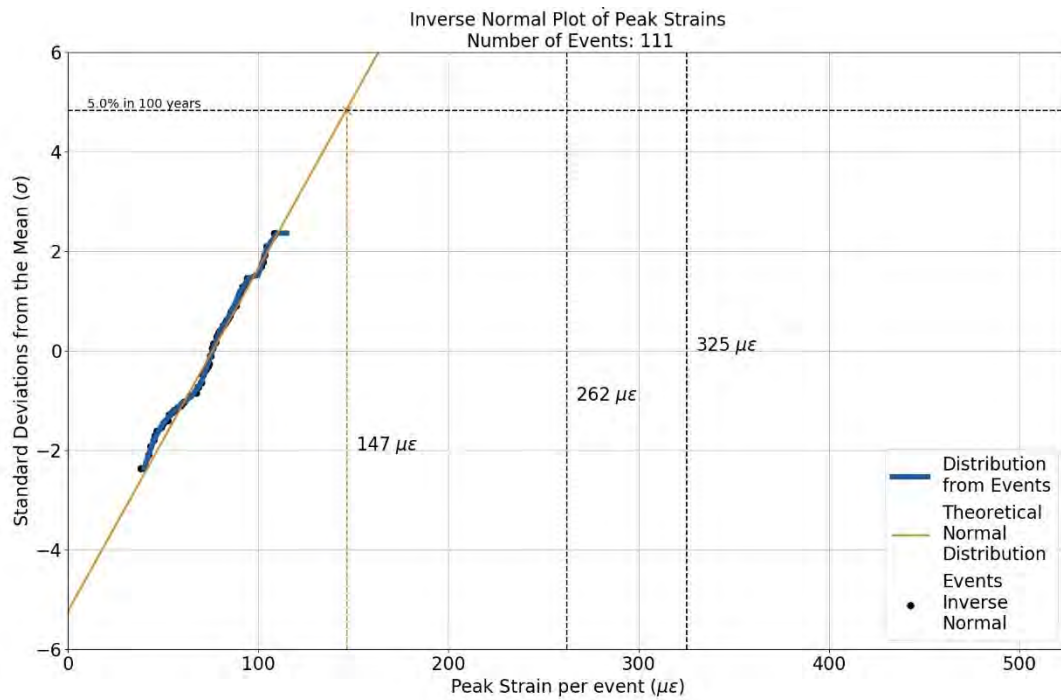
Span B



Span C

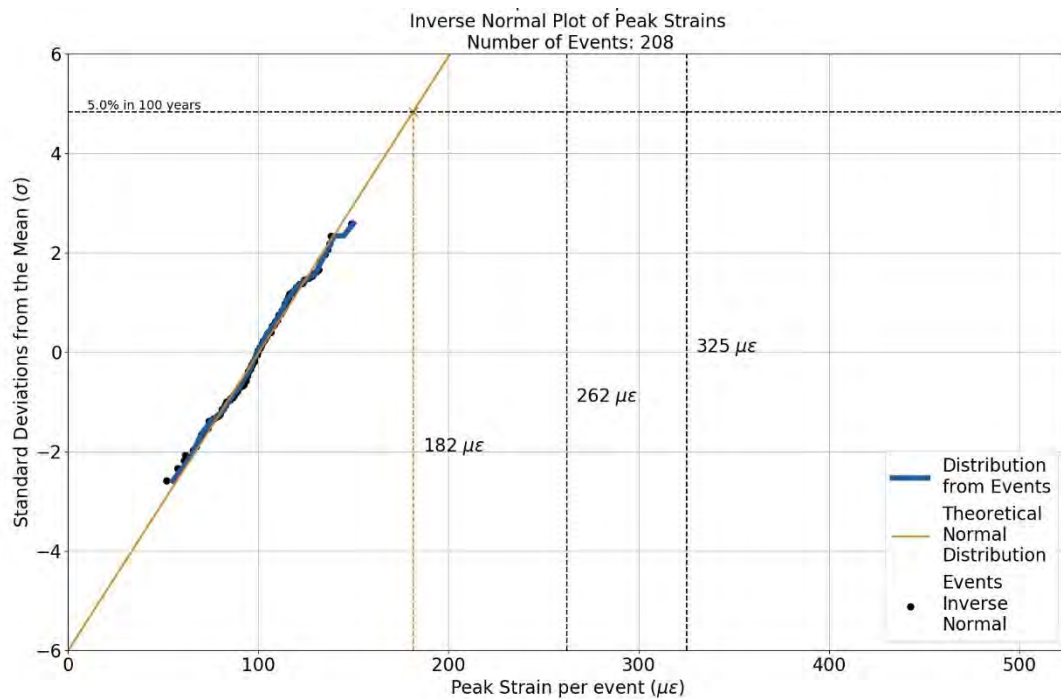


## Span D



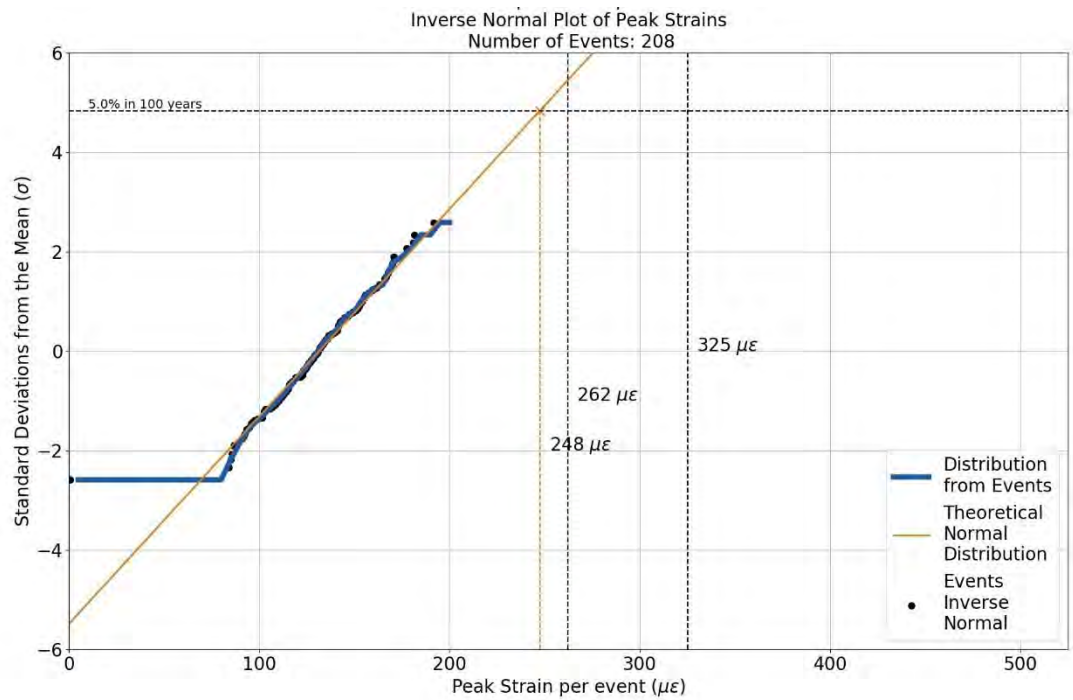
## B.1.5 OSOM LOAD PLATFORMS

### Span A

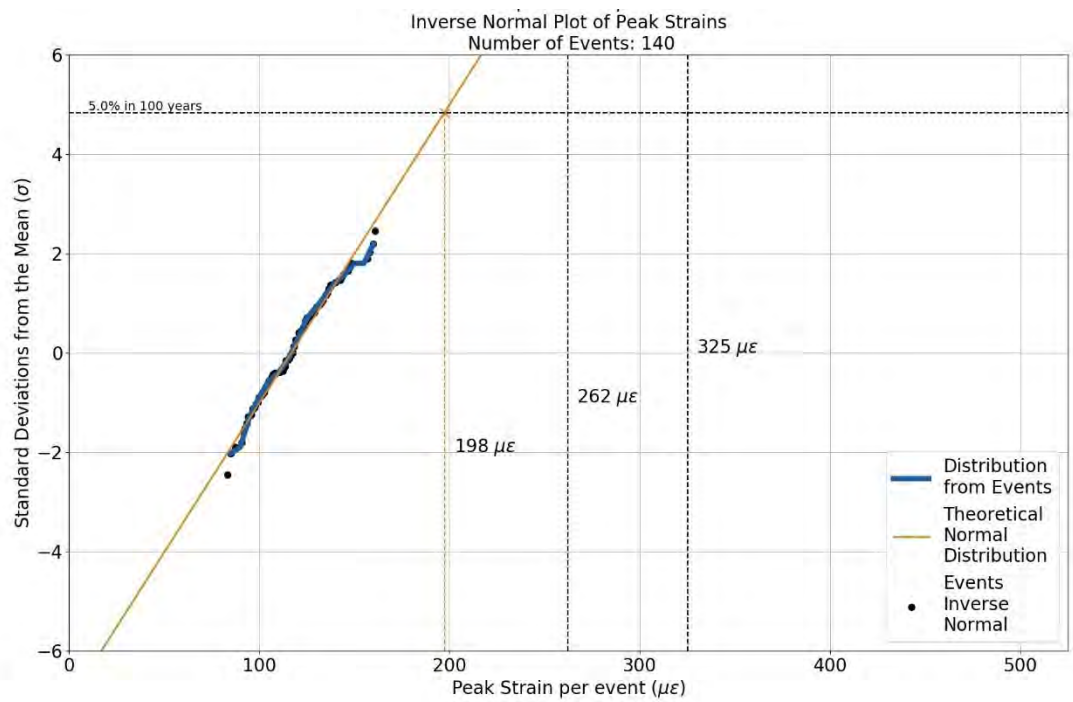




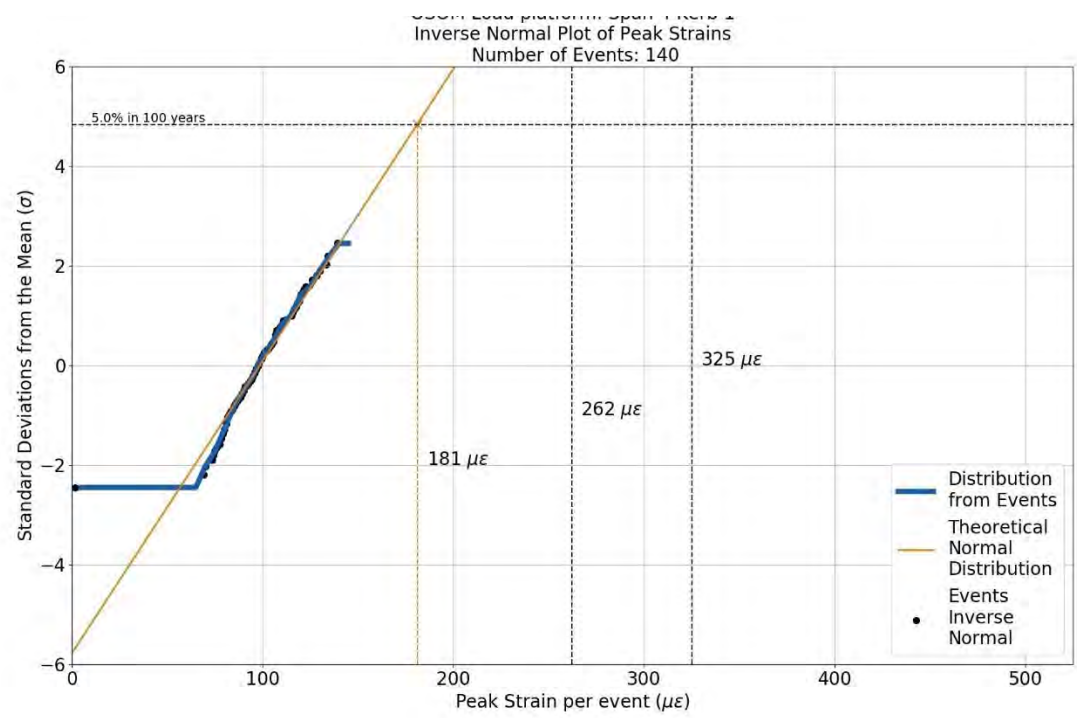
Span B



Span C



Span D



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## MEETING DETAILS

**Engineering and Infrastructure Standing Committee**  
Wednesday 12 May 2021

## AUTHOR

Niall Tierney

## AUTHOR POSITION

Acting Manager Infrastructure

## 5.5

## ROADS NETWORK DEFECTS STATUS UPDATE

### EXECUTIVE SUMMARY

This report seeks to provide an update on the current status of defects data as logged in the Reflect software system of the road infrastructure network for both Isaac local roads and the Department of Transport and Main Roads (DTMR) which Council maintain as part of annual Routine Maintenance Performance Contracts.

### OFFICER'S RECOMMENDATION

*That the Committee recommends that Council*

1. ***Notes the progress to date (up to 23 April 2021) relating to the current defect backlog for the following;***
  - a. ***Local roads within the Isaac Region.***
  - b. ***Department of Transport and Main Roads road network as part of Routine Maintenance Performance Contract 2020-21.***

### BACKGROUND

Isaac Regional Council (Council) is the current road steward of the Road Maintenance Performance Contract (RMPC) for the Department of Transport and Main Roads (DTMR) over a regional network area of approx. 1,288km. Council also provides maintenance and management services for approx. 4,759km of its local road network across urban and rural areas servicing residential, primary and heavy industry.

In response to the High Court ruling on the Goondiwindi vs Tait outcome, a tactical plan was adopted by the Executive Leadership Team (ELT) including a number of actions for the Engineering and Infrastructure directorate to review its policies and implement targets to address immediate concerns (short term) and develop long term solution to mitigate the risks. This report relates to the Road component of risks only.

The statistical data information included as an attachment to the report is to primarily provide an overview of current status of Council's defect backlog and internally a strategy for both Short-term and Long-Term Goals which identifies four key objectives in each area.

#### Short Term Goals

1. Address the accuracy of defect backlog
  - a. Initial data cleansing for both Local roads and RMPC network

- b. Following data cleanse, review and assessment of defects in the field to capture accuracy of current “non-accomplished” defects and update accordingly in the database system
- 2. Control Measures
  - a. Include further training with staff
- 3. Inspection Program/Regime to be implemented
- 4. Follow up actions
  - a. Fortnightly update by Network Overseers with logging of defects and prioritisation

## Long Term Goals

- 1. Condition assessment of Road Network
- 2. Engagement of consultant to perform and review a “Gap Analysis” of Council’s systems
- 3. Further review of RMPC Contract including
  - a. Financial budgets and impacts
  - b. Maintenance Program of Works
- 4. Operational review including
  - a. Provision for additional Network Inspectors

The following table represents an “Improvement Plan” implemented by Infrastructure team with tasks and target timelines for each to be actioned and current status of each task.

TASK NO.	TASK DESCRIPTION	RESPONSIBILITY	TIMELINE	STATUS
1	Review of current defect data i.e. (data cleanse of defects)	Admin Team	To be completed by 19/02/2021	Complete
2	Meeting to be held with Infrastructure Overseers to discuss data cleanse and defect prioritisation	Infrastructure Overseers/Admin team	To commence 22/02/2021	Complete
3	Road Network overseer’s Inspection review of defects (to assess accuracy of current defect data provided against defects in the field)	Infrastructure Overseers	To commence week of 22/02/2021 (Target 6-8 week for field inspections)	90% complete of Overall Network

4	Fortnightly updates provided of field inspections by Network Overseers	Infrastructure Overseers	As required	Complete
5	Field Inspection data updated in Reflect database system to provide revised defect backlog	Admin Team	As required	Complete
6	Fortnightly Status Report to review progress of defect backlog (i.e. defects raised vs actual works completed and accomplished)	Acting Manager Infrastructure	As required	Complete
7	Finalisation of Defect Backlog Report	Acting Manager Infrastructure	To be completed by 22/04/2021	Complete
8	Inspection Program – Develop Inspection Frequency based off a Road Hierarchy classification for all Infrastructure assets	Acting Manager Infrastructure/Infras tructure Coordinators	To be completed by 1/03/2021	In Progress

## IMPLICATIONS

The Goondiwindi Vs Tait court ruling has placed increased emphasis on council to ensure they can demonstrate they have an inspection, recording and actioning process in place to address defects as they arise. To address current and future defect on the road network the Directorate will need to consider its resources in terms of experienced and dedicated Inspectors and the prioritisation of routine maintenance works to ensure that improved response times can be achieved for identified defects.

## CONSULTATION

- Director Engineering and Infrastructure
- Infrastructure Coordinators
- Network Overseers
- E&I Administration Team

## BASIS FOR RECOMMENDATION

The report outlines the status to date of all defects currently picked up across all facets of infrastructure for both Isaac local roads and DTMR Network. This includes the total defects raised versus the total amount of defects completed and summarises outstanding defects “not completed”.

## ACTION ACCOUNTABILITY

Acting Manager Infrastructure to continue to provide monthly updates of defect status to Council.

## KEY MESSAGES

Council remains focused and committed to address current and future defects in order to provide a safe network infrastructure across the Isaac Region and the broader community.



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**Report prepared by:**

NIAL TIERNEY  
**Acting Manager Infrastructure**

Date: 4 May 2021

**Report authorised by:**

ROBERT PERNA  
**Director Engineering and Infrastructure**

Date: 4 May 2021

## ATTACHMENTS

- CONFIDENTIAL Attachment 1 – Monthly Report – April 2021 Defect Status Update

## REFERENCE DOCUMENT

- Nil

PAGES 93 TO 104 HAVE INTENTIONALLY BEEN REMOVED DUE TO CONFIDENTIAL REASONS

## MEETING DETAILS

**Engineering and Infrastructure Standing Committee**  
Wednesday 12 May 2021

## AUTHOR

Robert Perna

## AUTHOR POSITION

Director Engineering and Infrastructure

## 6.1 ENGINEERING AND INFRASTRUCTURE INFORMATION BULLETIN – MAY 2021

## EXECUTIVE SUMMARY

The Engineering and Infrastructure Directorate Information Bulletin for May 2021 is provided for Committee Review.

## OFFICER'S RECOMMENDATION

*That the Committee recommends to Council to:*

1. *Note the Engineering and Infrastructure Directorate Information Bulletin for May 2021.*

## BACKGROUND

The attached Information Bulletin for May 2021 provides an operational update for Committee review the Engineering and Infrastructure Directorate.

## IMPLICATIONS

Any specific implications or risks will be outlined in the Information Bulletin.

## CONSULTATION

Engineering and Infrastructure Directorate Staff.

## BASIS FOR RECOMMENDATION

This is an information only report.

## ACTION ACCOUNTABILITY

Information only report.

## KEY MESSAGES

Operational update to Elected Members.

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**Report prepared by:**

ROBERT PERNA  
**Director of Engineering and Infrastructure**

Date: 5 May 2021

**Report authorised by:**

JEFF STEWART-HARRIS  
**Chief Executive Officer**

Date: 6 May 2021

## ATTACHMENTS

- Attachment 1 – Engineering and Infrastructure Directorate Information Bulletin May 2021

## REFERENCE DOCUMENT

- Nil

**DATE:** May 2021

## ENGINEERING AND INFRASTRUCTURE

### DIRECTORATE HIGHLIGHTS

- Special mention to the Parks crews for the efforts to prepare facilities for our ANZAC day celebrations. The high standard was noticed and certainly appreciated.
- The last of the Directorates major tenders was awarded during April with the awarding of the rehabilitation works on Saraji Road. The Directorate in a firm position to have the majority of capital works committed prior to the end of the financial year.
- Councils own crews, as well as contractors, have commenced stabilisation pavement repairs across the networks. These repairs are addressing failed pavements and are achieving positive outcomes. This is a new work type for our internal crews, and they are performing well.

### ISAAC REGIONAL COUNCIL Statement of Comprehensive Income - For the Period Ended April 2021

ISAAC REGIONAL COUNCIL Statement of Comprehensive Income For the Period Ended April 2021							
Engineering & Infrastructure Services							
	YTD Actual	Commitments	YTD Actual + Commitments	YTD Revised Budget	Variance	Full Year Revised Budget	Completion
	\$	\$	\$	\$	\$	\$	%
<b>Income</b>							
<b>Operating Revenue</b>							
Fees & Charges	176,493	-	176,493	173,000	3,493	209,600	84.2%
Rental Income	1,070,501	-	1,070,501	1,184,621	(114,120)	1,421,545	75.3%
Sales of Contract & Recoverable Works	2,368,617	-	2,368,617	2,838,566	(469,948)	5,627,278	42.1%
Operating Grants, Subsidies & Contributions	3,147,291	-	3,147,291	4,996,267	(1,848,976)	7,985,103	39.4%
Other Recurrent Revenue	17,021	-	17,021	2,954	14,067	3,544	480.2%
	<b>6,779,923</b>	<b>-</b>	<b>6,779,923</b>	<b>9,195,407</b>	<b>(2,415,484)</b>	<b>15,247,071</b>	<b>44.5%</b>

# INFORMATION BULLETIN

<b>Expenses</b>							
<b>Operating Expenses</b>							
Employee Expenses	9,607,909	-	9,607,909	9,994,702	(386,793)	12,371,126	77.7%
Materials & Services	9,516,904	4,504,505	14,021,409	13,187,556	833,853	15,220,538	92.1%
Depreciation and Amortisation	12,561,597	-	12,561,597	12,503,409	58,188	15,004,091	83.7%
Corporate Overheads & Competitive Neutrality Costs	7,247,080	-	7,247,080	7,247,080	-	8,696,495	83.3%
	<b>38,933,490</b>	<b>4,504,505</b>	<b>43,437,995</b>	<b>42,932,747</b>	<b>505,248</b>	<b>51,292,250</b>	<b>84.7%</b>
<b>Operating Position Before</b>							
Capital Items	<b>(32,153,566)</b>	<b>(4,504,505)</b>	<b>(36,658,072)</b>	<b>(33,737,340)</b>	<b>(2,920,732)</b>	<b>(36,045,179)</b>	<b>101.7%</b>
<b>Capital Revenue</b>							
Capital Revenue	6,304,489		6,304,489	9,258,941	(2,954,451)	13,185,957	47.8%
Proceeds from Sale of Land & PPE	1,249,499		1,249,499	523,800	725,699	785,870	159.0%
	<b>7,553,988</b>	<b>-</b>	<b>7,553,988</b>	<b>9,782,741</b>	<b>(2,228,752)</b>	<b>13,971,827</b>	<b>54.1%</b>
<b>Net Result Attributable to</b>							
Council in Period	<b>(24,599,578)</b>	<b>(4,504,505)</b>	<b>(29,104,083)</b>	<b>(23,954,599)</b>	<b>(5,149,484)</b>	<b>(22,073,352)</b>	<b>131.9%</b>
<b>Total Comprehensive Income</b>	<b>(24,599,578)</b>	<b>(4,504,505)</b>	<b>(29,104,083)</b>	<b>(23,954,599)</b>	<b>(5,149,484)</b>	<b>(22,073,352)</b>	<b>131.9%</b>



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## INFRASTRUCTURE

### PREVIOUS MONTH'S ACHIEVEMENTS:

#### Minor Works completed:

Pothole patching has been completed in the following locations:

- Town roads are being completed when required
- Clermont Dysart Road
- Valkyrie Roadwork
- Saraji Road
- Golden Mile Road
- Glenden Township

Slashing works have been occurring on the following roads:

- Clermont in preparation for Anzac Day
- Saraji Road
- Dysart/Clermont Road
- Huntley Road

Vegetation Clearing Works have been occurring on the following roads:

- Works commenced on 20 April, for the following roads.
  - Mt McLaren Road
  - Kenlogan Road
  - Laglan Road
  - Russell Park Road
  - Peakvale Road

Roadside Furniture Works have been occurring on the following roads:

- Clermont town streets
- Saraji Road

- Dysart-Clermont Roads
- Airstrip Road
- Moranbah Town Streets and School Zone areas

Other works occurring around the region:

- Continue to log defects in the local roads database around the region
- Street sweeping has occurred in the Dysart township
- Stabilising patches have occurred on Golden Mile Road
- Installation of no camping signs at Ilbilbie
- Drainage repairs on Sarchedon Drive after rain events

Continuous monitoring and pickup of defects applicable to Local Road Network throughout the Isaac Region. The following charts provide a summary update of current data including condition in relation to these defects on our local road network:

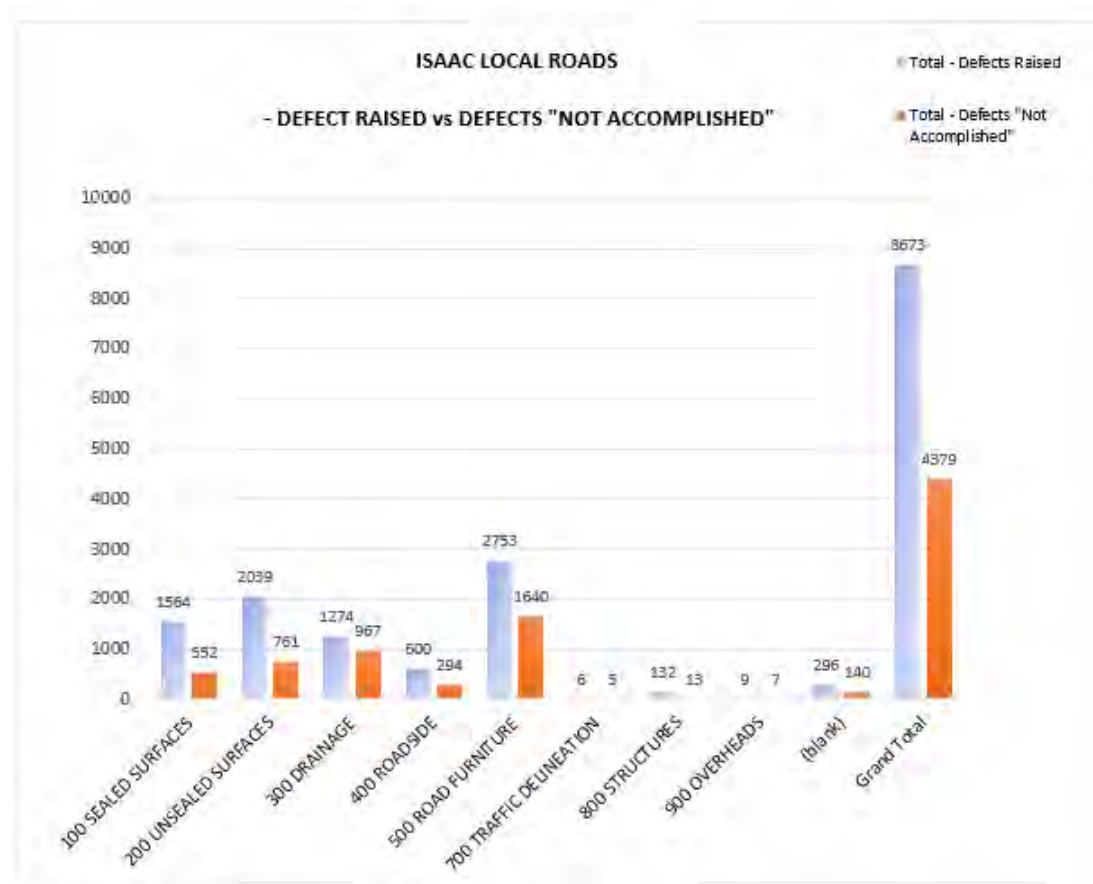


Figure 1: ISAAC Local Roads – Total Defects Raised vs Not Accomplished



Figure 2: ISAAC Local Roads – Total Monthly Defects Raised vs Defects Accomplished

## Maintenance Grading:

Programmed Works:

- Wuthung Road
- Riley's Crossing Road
- Carfax Road
- Collaroy Killarney Road
- Sarchedon Drive

## Resheeting:

Walthum Road:

- GST: Ground Surface Treatment (forecast): Chainages, 42.90 – 49.17 = 100% completed.
- Gravel Cartage (forecast): Chainages, 42.90 – 49.17 = 15% completed.
- Mix Lay & Compact: Chainages, 42.90 – 49.17 = 0% completed.

=====

## Turrawulla Road:

- Gravel Cartage (forecast): Chainages, 74.92 – 88.92 = 95% completed.
- Mix Lay & Compact: Chainages, 74.92 – 88.927 = 50% completed.

## RMPC:

Pothole patching works have been occurring on the following roads:

- 98A Gregory Developmental Road
- 27B Gregory Highway
- 27C Gregory Highway
- 85C Fitzroy Development Road
- 33A Peak Downs Highway
- 33B Peak Downs Highway

Slashing works have been occurring on the following roads:

- 33A Peak Downs Highway
- 33B Peak Downs Highway
- Oxford Downs Sarina Road
- Marlborough Sarina Road

Roadside Furniture works have been occurring on the following roads:

- 10F Bruce Highway

Other works that have occurred on the following roads:

- Monthly Road Inspections have continued to occur around the region
- Tree removal works occurred on Alpha Road at chainage 0.364 and 44.75

Continuous monitoring and pickup of defects applicable to DMTR Road Network. The following charts provide a summary update of current data in relation to defects in the Isaac Region pertaining information on condition of State Controlled network:

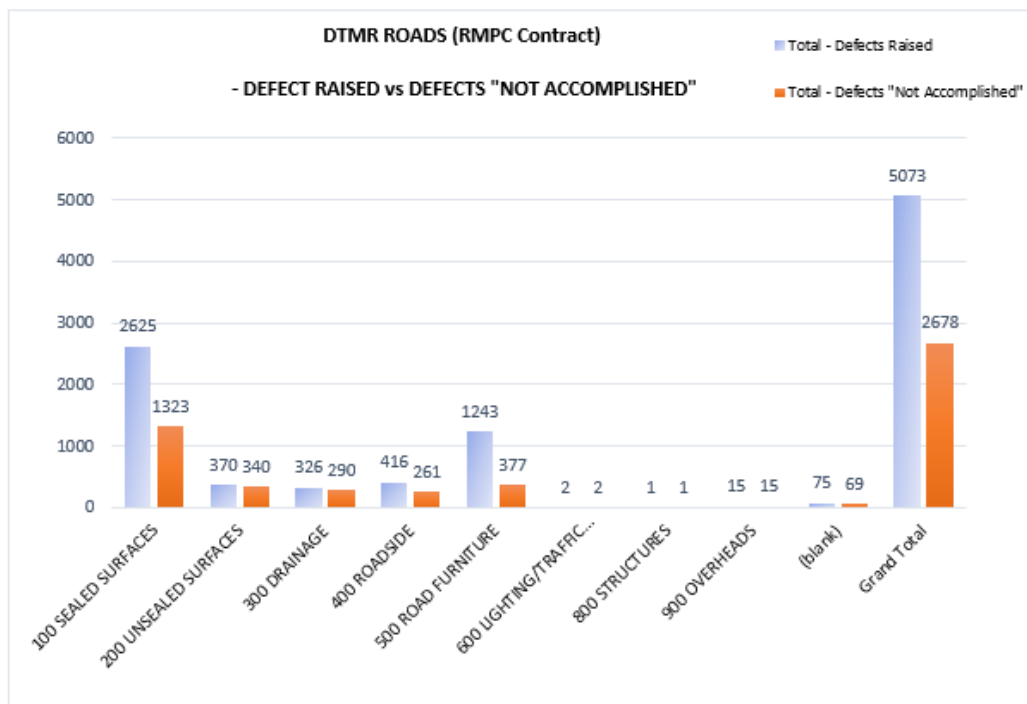


Figure 3: DTMR Roads – Total Defects Raised vs Not Accomplished

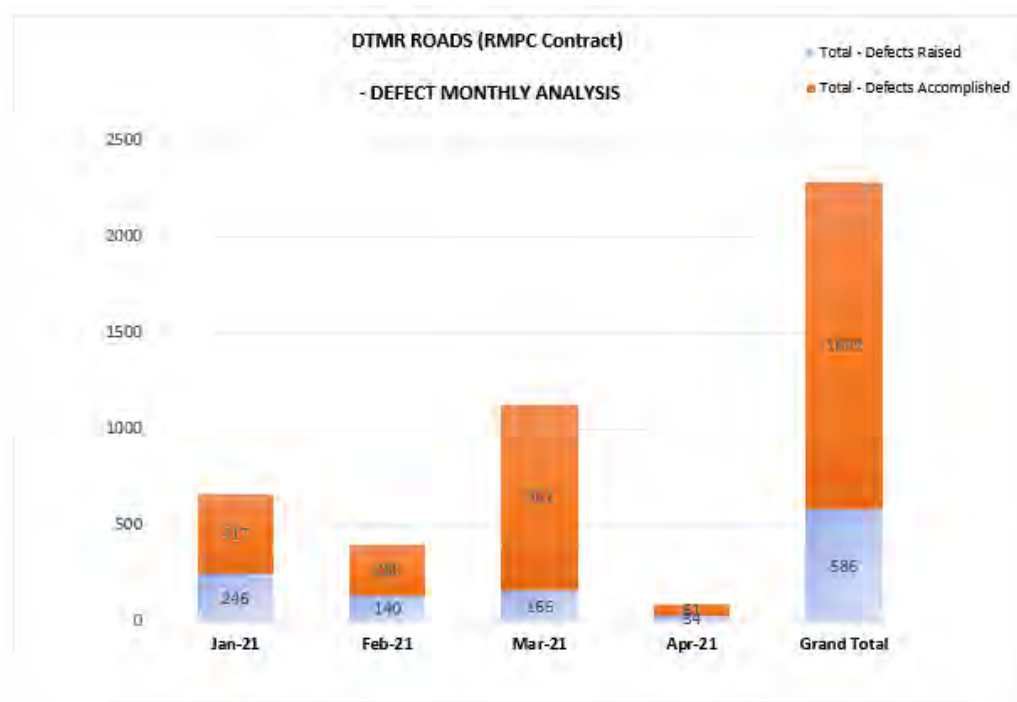


Figure 4: DTMR Roads – Total Monthly Defects Raised vs Defects Accomplished

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## Capital Works:

### CW212891 – Rural Rehabilitation Program:

- Greenhill Road, Illbilbie started on the 12 April and completed on the 22 April
- Kenlogan Road began on 23 April

Coastal Roads team assisting the Coastal Parks & Recreation team with the installation of bollards at the St Lawrence Recreational Grounds.

## Emergent Works:

- Sutter Development Road and Leggits Road Intersection has a vehicle accident which caused diesel to spill onto the road
- 33B Peak Downs Highway had a wide load fall off

## PREVIOUS MONTH'S ISSUES:

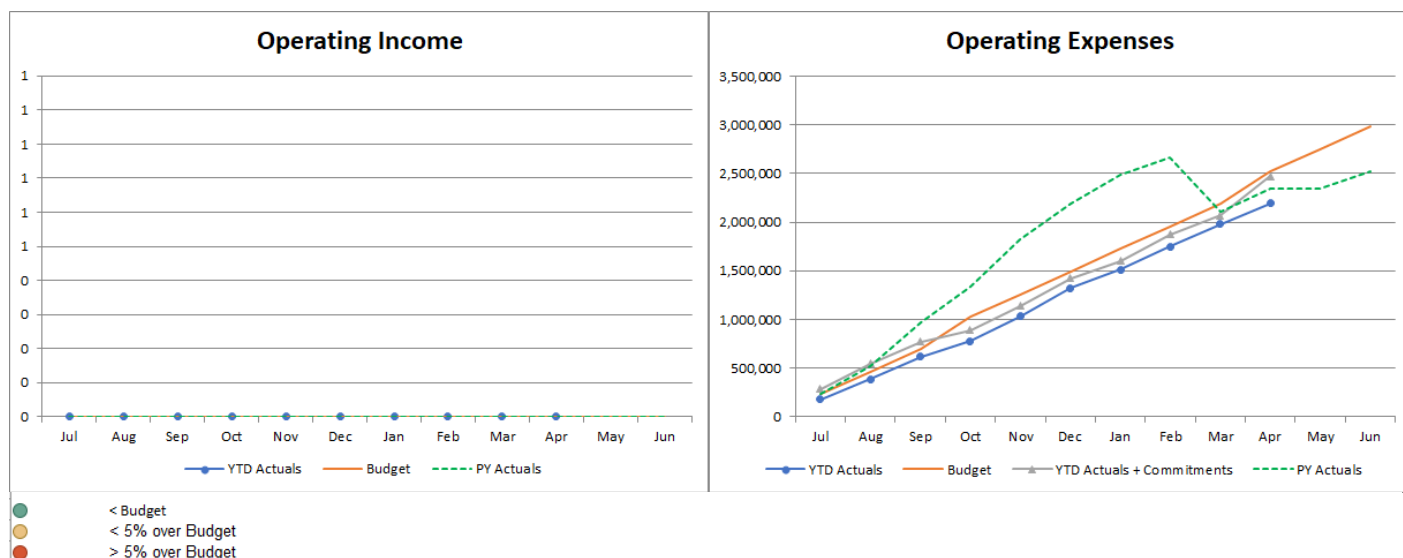
- Limited staff due to resignations and sick leave.
- Plant break downs Side tipper now out of service.



## FINANCIAL REPORT:

### Infrastructure East Operational Result from Period 1-10, 2021

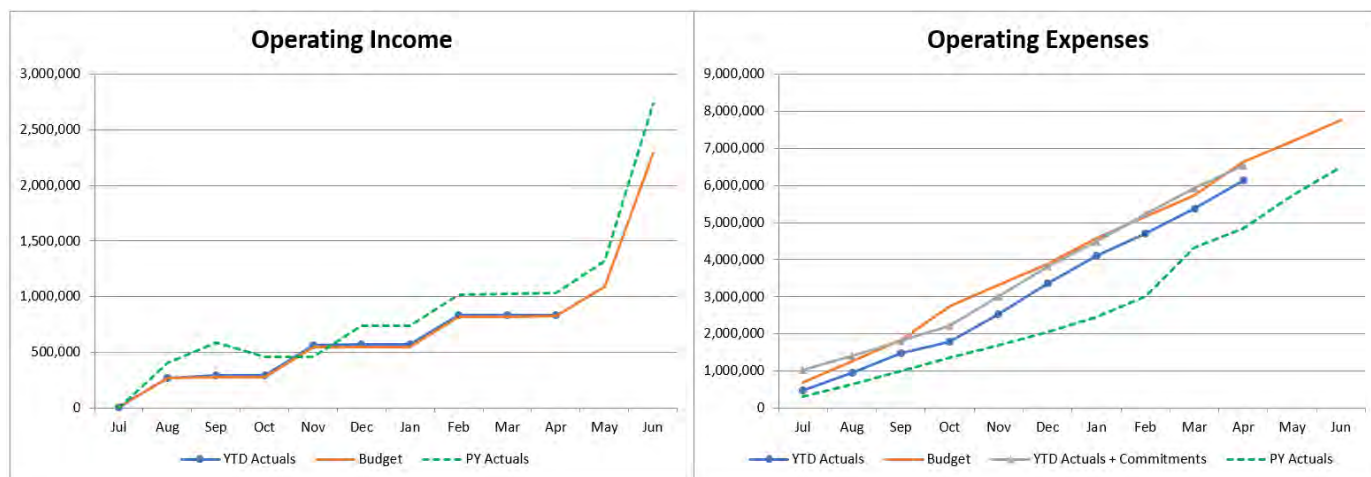
#### Manager Infrastructure East



Detail at M4 Level (Full Number)						
Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget
Operational Income						
		0	0	0	0	0
Operational Expenses						
1053	Manager Roads & Urban Services	216,823	980	217,802	280,182	332,786
2128	Roads & Town Assets - Glenden	76,724	5,018	81,742	121,459	144,017
2132	Roads & Town Assets - Nebo	185,851	3,242	189,093	205,863	243,510
2133	Roads & Town Assets - Rural (North)	825,837	36,659	862,496	1,042,847	1,234,286
2140	Works Administration - Nebo	68	0	68	0	0
2149	Urban Misc Works - Nebo	2,894	0	2,894	0	0
3165	Boat Ramps - East	648	0	648	2,038	2,408
3186	Urban Misc Works - Dysart	180	0	180	0	0
3199	Roads & Town Assets - East	58,127	4,008	62,135	61,584	72,986
3205	Works Administration - East	136	0	136	0	0
3253	Works Administration - Middlemount	685	0	685	0	0
3254	Floating Plant - Middlemount	(0)	0	(0)	0	0
3267	Roads & Town Assets - Rural East	799,282	229,155	1,028,437	803,292	953,796
4190	Urban Misc Works - Moranbah	25,406	786	26,192	0	0
		<b>2,192,663</b>	<b>279,847</b>	<b>2,472,510</b>	<b>2,517,265</b>	<b>2,983,788</b>
Surplus/(Deficit)		<b>(2,192,663)</b>	<b>(279,847)</b>	<b>(2,472,510)</b>	<b>(2,517,265)</b>	<b>(2,983,788)</b>
Full Cost Recovery						
		0	0	0	0	0
Operating Surplus/(Deficit) less Full Cost Recovery		<b>(2,192,663)</b>	<b>(279,847)</b>	<b>(2,472,510)</b>	<b>(2,517,265)</b>	<b>(2,983,788)</b>

## Infrastructure West Operational Result from Period 1-10, 2021

### Manager Infrastructure West



- < Budget
- < 5% over Budget
- > 5% over Budget

#### Detail at M4 Level (Full Number)

Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget	Remaining Revised Budget
<b>Operational Income</b>							
1382	Roads Assets – Central	3,544	0	3,544	2,954	3,544	0
3505	Work camp inmate program - Clermont	8,794	0	8,794	9,167	11,000	2,206
4193	Roads & Town Assets - Rural (West)	31,281	0	31,281	26,068	31,281	0
9022	Private Works Revenue - Isaac	6,459	0	6,459	0	0	(6,459)
9242	Grant/Subsidy - Road Entitlement FAG	787,100	0	787,100	787,100	2,246,650	1,459,550
		<b>837,179</b>	<b>0</b>	<b>837,179</b>	<b>825,288</b>	<b>2,292,475</b>	<b>1,455,297</b>
<b>Operational Expenses</b>							
1071	Regional Manager's Office - IPR	541,289	843	542,133	596,147	706,078	163,945
1178	Private Works Expenditure - Isaac	12,757	0	12,757	63	76	(12,681)
1250	Roads & Town Assets - Clermont	326,176	2,020	328,196	413,533	489,347	161,151
1352	Roads West Capitalised Internal Costs	315,860	0	315,860	224,333	265,121	(50,739)
1382	Roads Assets – Central	1,674,839	158,684	1,833,523	1,144,988	1,361,653	(471,870)
3190	Roads & Town Assets - Dysart	256,658	4,432	261,090	375,916	444,927	183,837
3225	Roads & Town Assets - Middlemount	186,792	3,017	189,809	224,442	265,666	75,856
3257	Floating Plant - Dysart	650	0	650	0	0	(650)
3505	Work camp inmate program - Clermont	77,226	761	77,987	69,204	81,901	3,914
4180	Roads & Town Assets - Moranbah	965,069	65,864	1,030,933	1,156,454	1,279,754	248,821
4193	Roads & Town Assets - Rural (West)	1,537,324	173,450	1,710,774	2,166,291	2,561,393	850,619
4254	Co-ordinator Infrastructure West	233,210	0	233,210	260,276	304,245	71,035
		<b>6,127,851</b>	<b>409,070</b>	<b>6,536,922</b>	<b>6,631,647</b>	<b>7,760,160</b>	<b>1,223,239</b>
<b>Surplus/(Deficit)</b>		<b>(5,290,673)</b>	<b>(409,070)</b>	<b>(5,699,743)</b>	<b>(5,806,359)</b>	<b>(5,467,685)</b>	<b>232,058</b>
<b>Full Cost Recovery</b>							
2845	Corp O'Heads & NCP Costs - Private Works	42,835	0	42,835	42,835	51,402	8,567
		<b>42,835</b>	<b>0</b>	<b>42,835</b>	<b>42,835</b>	<b>51,402</b>	<b>8,567</b>
<b>Operating Surplus/(Deficit) less Full Cost Recovery</b>		<b>(5,333,507)</b>	<b>(409,070)</b>	<b>(5,742,578)</b>	<b>(5,849,194)</b>	<b>(5,519,087)</b>	<b>223,491</b>

---

## DEVIATION FROM BUDGET AND POLICY:

Nil to Report

## OPERATIONAL PLAN / BUSINESS PLAN – EXCEPTION REPORTING

Not Applicable

## NEXT MONTH'S PROGRAM:

### Minor Works

Pothole patching will continue to occur on the following roads will continue around the region as required including the following,

- Clermont - Dysart Road
- Mount Stuart Bedford Weir Road
- Saraji Road
- Golden Mile Road

Slashing works will continue to occur on the following roads,

- Clermont Town Streets including the Clermont Airport
- Golden Mile Road
- Airstrip Road
- Braeside Road
- Turrawulla Road and Homevale National Park

Roadside furniture works around the region will be monitored and replaced as needed including works particularly around Nebo Town Streets.

Other works that will continue,

- DRFA works will continue around the region
- Road inspections to continue around the region
- Linemarking Clermont and Moranbah towns

### Maintenance Grading

- Cotherstone Road

- 
- Wuthung Road
  - Collaroy Killarney Road
  - Mountain View Road
  - St Lawrence North Road
  - Gillinbin Creek Road
  - Palms Road

## **Resheeting**

- Waltham Road – continuation of works
- Turrawulla Road – continuation of works
- Bulliwallah Road – to commence

## **Capital Projects**

CW212891 – Rural Rehabilitation Program – to continue through to end of May .

## **RMPC**

- Pothole works planned across the entire main roads network
- Slashing works planned on the following roads,
  - 27B & 27C Gregory Highway
  - Marlborough Sarina Road
  - Dysart Middlemount Road
- RMPC roadside furniture will be monitored and replaced as required.
- Continuation of monthly road inspections.

## **DEVELOPING INITIATIVES / ISSUES:**

Check-in Chat was rolled out to Dysart based outdoor crews and management positions to help improve communication and support in their roles.

## Clermont Work Camp

### PREVIOUS MONTH'S ACHIEVEMENTS:

The March-April rotation saw the prisoners again flat out getting all the vegetation under control for the clubs and organisations along with the Council sites we assist with. The weather made time efficiency hard to achieve as the consistent rain hampered our progress but all works were completed amongst breaks in the weather.

The key community project for this rotation was to get the Motor Cross Club up and running for their come and try day assisting with painting the inside windows of the club house, the door architraves and the roof flashing where repairs had been made to the club house.

We were also able to complete the painting of the safety tyre wall on one side and partial on the back side. This was a critical element for the club being it is a safety requirement for racing.

As per our normal rotations our two permanent workers attended their workplaces and continued to assist and develop some new skills. We are still working with Corrections to facilitate and hopefully commit to being able to assist with getting prisoners competent on some machinery to enhance their future opportunities.

Prisoner numbers were steady for the rotation. Hopefully as time goes on the numbers will become more consistent. Corrections is in the process of a management change and the current acting managers have been replaced with permanent staff which will begin to transition into their roles within the coming months.

Community/ Council works undertaken.

- Vegetation control. Summer growth heavy. Golf Club, SES, QCWA Hall, Racecourse, Bowling Club, Pony Club, Railway. Council sites: Monash Lodge, Frank Dennis units, B.A Hall, Copperfield Store, Copperfield house, Copperfield Cemetery, B.A Cemetery
- Motor Cross Club – Internal Paint, Outside flashing and tyre wall paint
- Permanent inmate saleyards
- Permanent inmate Historical centre Exhibition

### Clermont Motor Cross:



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## **DEVIATION FROM BUDGET AND POLICY:**

Nil to Report

## **OPERATIONAL PLAN / BUSINESS PLAN – EXCEPTION REPORTING**

Nil to Report

## **NEXT MONTH'S PROGRAM/ CURRENT PROGRAM:**

- Motor Cross Club – Outside paint repairs from building works. Tyre wall. Toilet block repairs and paint inside. In progress
- Bowls club – Paint Wall repairs - Concrete pathway to gate. In progress
- Kindy pathways
- IRC Concrete Island patch. Weather permitting
- Inmate to saleyards
- Inmate to Museum. General Labour
- Vegetation control for all sites
- Up and coming Clermont Show set up commitment
- Pony Club kitchen removal and install
- Gold Cup camp draft set up pack down, panel erections
- Gemfest set up assistance

## **Shows/Camp drafts/Events – Set up and pack down dates forward:**

- Clermont Show - Show is 24 – 26 May 2021 – 6/7 May entry day set up
- BA Bush Sports – Camp draft – 30 April – 2 May 2021 (Pending)
- Pony Club – 8,9,10 June 21 – portable panels. 11 June set up banners etc.
- Gold Cup – 14 June 21- portable panel set up, event equipment.
- Clermont Races – 2,3 July 21
- Gemfest 7/8 August 21

## **DEVELOPING INITIATIVES / ISSUES:**

- Parole of prisoner's mid rotation and shortly after acceptance into the work camp program. Skill loss during works and number reduction issues. Ongoing
- CEC meeting times and chair allocation. TOR requirements for committee composition and re-nomination to be finalised at the next CEC meeting.



- 
- Communication and expectation of the initiative and its workings. Cross institutional issues. Waiting on the return of the Manager Low Custody at Capricornia Correctional Centre for decisions to be made.
  - Some new equipment has been purchased which is making an amazing difference to the efficiency of the work also the morale of the Prisoners. Two new zero turn mowers have arrived at the Clermont depot on the 9 April.
  - Equipment register, stock take complete to be collated and tool engraving ongoing.
  - Management of weather influences and changing weather conditions. Prisoner health to be monitored.

## PARKS AND RECREATION

### PREVIOUS MONTH'S ACHIEVEMENTS:

The Levels of Service review and the Playspaces Strategy work continues with Chribec Consulting Parks staff in all Isaac towns around the region were well-prepared for Anzac Day, providing neat and attractive memorial sites for this important day

The Moranbah Parks team has worked hard to have the town looking fresh and attractive for the upcoming anniversary celebrations over the first weekend of May

Recent soil test reports for Eastern Sporting Fields in Moranbah have led to a 12-month improvement program for the turf

Nebo Parks staff carried out a cleanup of the Nebo showgrounds after the National Campdraft event

New planting provided at the Herschel Street rail carriages in Clermont

Hoods Lagoon aerators repaired after flooding on 16 March

Football season is underway and staff have concentrated on providing good fields for play

Dysart is experiencing ongoing issues with power at Lions Park for lighting, BBQ's and irrigation

### CAPITAL PROJECTS

- In MBH the Town Square water fountain replacement is awaiting final design and the RFQ is waiting in draft.
- On the Coast, the Carmila sports ground shade shelter footings have been poured in readiness for the construction and the St Lawrence Rec grounds fencing upgrades have begun (50% complete).
- Playground upgrade information has been provided to the relevant communities and in Nebo the Perry Park swing upgrade has an ETA completion for the end of May.
- The Clements Street median upgrade RFQ is in the final stages.
- Middlemount tennis court lighting has been completed with a handover on 19 April.

### STAFF

- An appointment has been made for the Parks & Recr Overseer in the West. The successful candidate will start in the role in late May.
- The role of Parks & Recr Overseer for the East has attracted some good candidates and interviews will take place in mid-May.
- The position of Works Admin Officer continues to be filled by a labour hire staff member at present.
- In Glenden both the Leading Hand and labourer roles have successful preferred candidates going through the onboarding process.
- In Moranbah short-listing has taken place for the Groundsman role, the Snr Irrigation maintainer role has been modified and labourer roles still exist.
- Nebo has a labourer role vacancy, with a labour hire currently in place.

- In Clermont three new labourers have now been appointed.
- In Middlemount two successful candidates were appointed for the labourer roles.

## PREVIOUS MONTH'S ISSUES

The Clermont Tennis Club continue to request that their cracked courts receive attention. As highlighted previously, Centre Court Construction (provided the resurfacing) will not address the situation under the warranty.

Clermont Junior Motorcycle Club requested that Council replace the problematic waterline from the boundary to the clubhouse, amenities and a tap in the grounds. As per the most recent lease agreement, Council is no longer responsible for the upkeep of these facilities. Given the urgency of the situation and the upcoming events, Parks & Recr has paid for the works to be done and the issue is to be discussed at the next CTFAC meeting.

Middlemount netball sustained a power failure to their facilities on 21 April, which included the basketball courts and the skate park. An electrician was engaged to investigate, with an indicative date of Thursday 29 April.

Electrical issues also plagued the footy club and Mulligrubs in Middlemount in mid-April and repairs are being effected at a cost of just under \$10,000.

skate park has been hit by graffiti artists and the refuse bins at Mulli Grubs have been burnt.

Advice has been received from QLD Dept of Resources regarding the cancellation of Reserves under the Barada Barna Peoples Determination. E & I is working with Governance to assess all the sites identified with a view to making applications to the Department for retention or disposal.

Vandalism has occurred at Clermont skate park, where all taps were opened and water left to flood the area  
Clermont Centenary Park entrance gate has been vandalised and damaged.

Clermont Hoods lagoon "Goose House" enclosure has had the fencing vandalised.

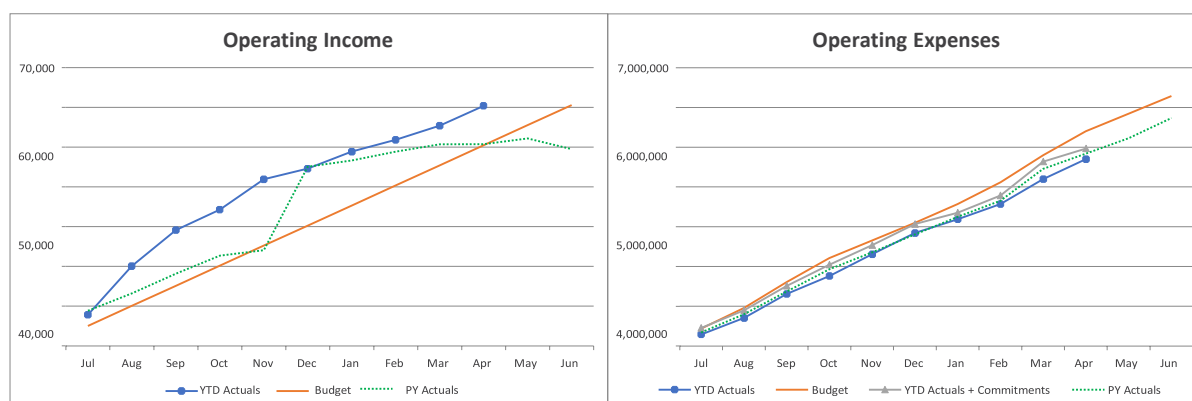
Dysart Centenary park sprinklers have been damaged by vandalism (approx ten sprinklers).

Moranbah Eastern Sporting precinct has had a break in the effluent irrigation line (soccer), predominantly due to an ageing line.

Lake Elphinstone has had a few early teething issues with the recently-installed solar pump and new tanks.

## FINANCIAL REPORT:

### Operational Result From Period 1- 10, 2021 Manager Parks and Recreation



- < Budget
- < 5% over Budget
- > 5% over Budget

Detail at M4 Level (Full Number)						
Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget
<b>Operational Income</b>						
9094	Coastal Camping Fees - East	47,315	0	47,315	35,667	42,800
9267	Sportsgrounds Fees - Nebo	271	0	271	417	500
9431	Sportsgrounds Fees - Clermont	2,790	0	2,790	4,167	5,000
9464	Sportsgrounds Fees - Moranbah	7,018	0	7,018	6,083	7,300
9691	Sportsgrounds Fees - Recreation Reserve St Lawrence	2,984	0	2,984	4,167	5,000
		<b>60,379</b>	<b>0</b>	<b>60,379</b>	<b>50,500</b>	<b>60,600</b>
<b>Operational Expenses</b>						
1055	Regional Mgr's Office - Community Facilities	398,950	39,129	438,079	376,654	428,783
2082	Rec Area - Lake Elphinstone - Glenden	90,401	17,634	108,035	66,827	79,927
2117	Public Conveniences - Glenden	21,996	1,834	23,830	21,045	24,478
2125	Parks, Gardens & Reserves - Glenden	455,784	2,453	458,237	541,421	611,641
2131	Recreation Facilities - North	38,313	109	38,422	45,170	50,627
2143	Parks, Gardens & Reserves - Nebo	260,745	18,129	278,874	341,404	395,173
2169	Parks, Gardens & Reserves - Rural North	5,812	91	5,903	3,715	4,179
2203	Depreciation Expense - Park Furniture	226,726	0	226,726	226,946	272,335
2613	Public Conveniences - Nebo	9,202	0	9,202	2,792	3,350
3179	Public Conveniences - Dysart	24,791	902	25,693	28,738	34,794
3181	Recreation Facilities - Dysart	170,785	0	170,785	88,663	100,545
3187	Parks, Gardens & Reserves - Dysart	377,672	5,640	383,312	474,718	544,834
3197	Recreation Facilities - St Lawrence	65,318	27,900	93,218	75,383	89,879
3198	Recreation Facilities - East	37,531	5,289	42,820	40,470	47,669
3223	Sportgrounds Skatepark - Middlemount	23,182	0	23,182	0	0
3224	Recreation Facilities - Middlemount	78,337	2,373	80,710	88,670	102,954
3230	Parks, Gardens & Reserves - Middlemount	362,903	845	363,748	398,150	454,369
3262	Parks, Gardens & Reserves - East	194,772	5,375	200,147	199,766	232,885
3274	Parks & Garden Assets - Middlemount	0	0	0	12,017	14,210
3622	Public Conveniences - Middlemount	11,472	0	11,472	31,895	36,966
3624	Public Conveniences - East	80,448	17,815	98,263	116,071	137,771
4162	Public Conveniences - Clermont	74,827	6,406	81,234	72,418	86,243
4164	Recreation Facilities - Clermont	75,918	1,823	77,742	94,884	112,228
4170	Parks, Gardens & Reserves - Clermont	503,731	12,405	516,137	766,270	900,224
4186	Parks, Gardens & Reserves - Moranbah	833,941	64,278	898,219	953,331	1,123,491
4610	Recreation Facilities - Moranbah	128,501	11,804	140,305	256,019	302,394
4611	Public Conveniences - Moranbah	62,740	23,280	86,020	83,125	98,130
6706	Write Off NCA - Land & Improvements	52,768	0	52,768	0	0
6708	Write Off NCA - Park Furniture	34,731	0	34,731	0	0
		<b>4,702,298</b>	<b>265,515</b>	<b>4,967,813</b>	<b>5,406,561</b>	<b>6,290,079</b>
<b>Surplus/(Deficit)</b>		<b>(4,641,919)</b>	<b>(265,515)</b>	<b>(4,907,434)</b>	<b>(5,356,061)</b>	<b>(6,229,479)</b>
<b>Full Cost Recovery</b>						
2833	Corp O'Heads & NCP Costs - Parks, Gardens & Cemeterie	(4,399,720)	0	(4,399,720)	(4,399,720)	(5,279,664)
		<b>(4,399,720)</b>	<b>0</b>	<b>(4,399,720)</b>	<b>(4,399,720)</b>	<b>(5,279,664)</b>
<b>Operating Surplus/(Deficit) less Full Cost Recovery</b>		<b>(242,199)</b>	<b>(265,515)</b>	<b>(507,714)</b>	<b>(956,340)</b>	<b>(949,815)</b>

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## **DEVIATION FROM BUDGET AND POLICY:**

Not Applicable

## **OPERATIONAL PLAN / BUSINESS PLAN – EXCEPTION REPORTING**

Not applicable

## **NEXT MONTH'S PROGRAM:**

Not applicable

## **DEVELOPING INITIATIVES / ISSUES:**

The actions and forward planning in terms of the ROSS is currently hampered by the lack of a Parks Planner.

## GALILEE AND BOWEN BASIN OPERATIONS

### PREVIOUS MONTH'S ACHIEVEMENTS:

#### MINING AGREEMENTS

Continued negotiation on

- Futura
  - Pipeline Licence
  - Notifiable Road Use
- BHP
  - Red Hill Road Impact Assessment
  - Golden Mile Haul Road Cross Over
  - Mabbin Road
  - Air Quality monitoring device
- Pembroke
  - Infrastructure Agreement
  - Compensation Agreement Executed
    - A request to reduce the amount of compensation is currently being reviewed.
- Vitrinite
  - Further approval of Saraji Road realignment design
  - Informal notification of intention to vary notifiable road use agreement
    - This includes an extension of time for the Notifiable Road Use and a varied location

#### Project Delivery

- LRCI Footpaths
  - Works in Dysart Complete, with works in Clermont commenced
- STIP footpaths
  - Works in St Lawrence and Carmilla Completed
  - Nebo Complete, Moranbah Commenced
  - Dysart and Middlemount commenced
- DRFA
  - The provision of water has allowed construction works to recommence and expected completion to be early May 2021

### PREVIOUS MONTH'S ISSUES:

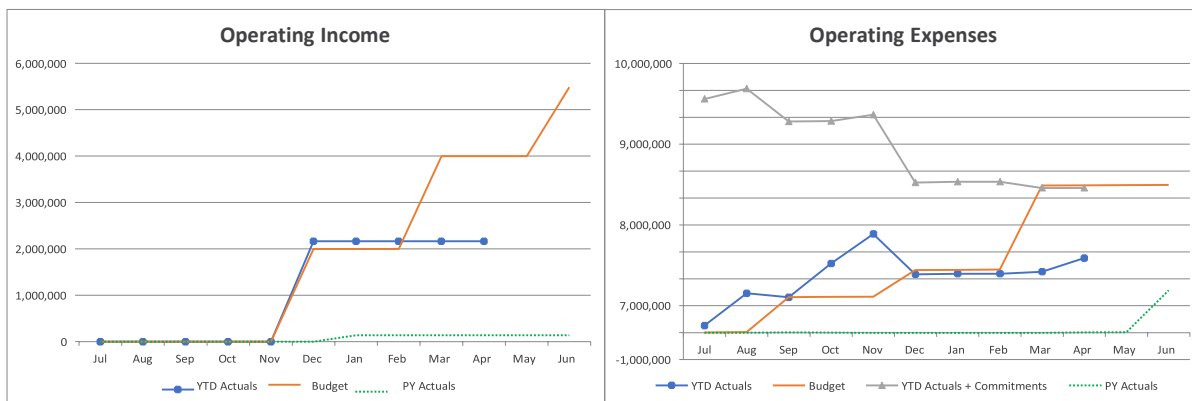
Adani Mining



- Utilisation of unapproved Roads
- Ongoing dispute resolution process with respect to Flood immunity
- Stakeholder concerns regarding dust and impacts to homesteads adjacent to Elgin Road

## FINANCIAL REPORT:

### Operational Result From Period 1- 10, 2021 Isaac Corporate Flood Damage

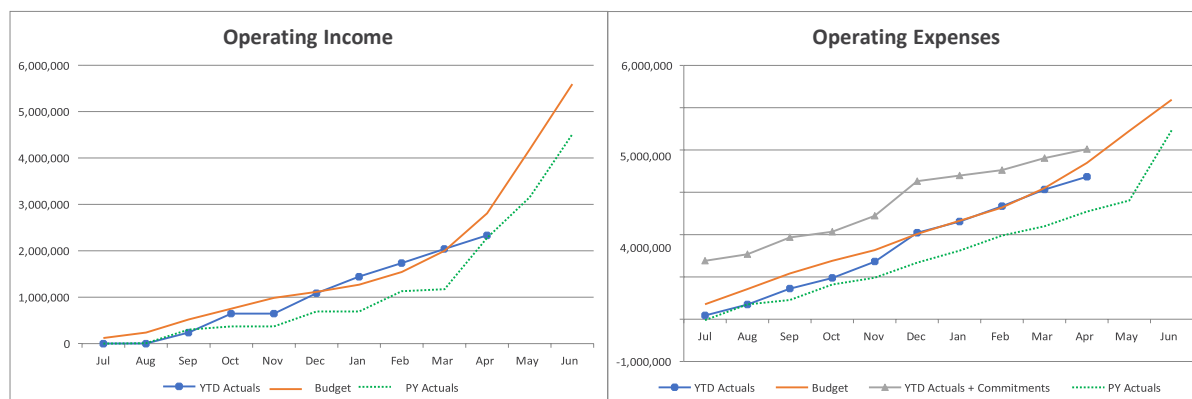


● < Budget  
● < 5% over Budget  
● > 5% over Budget

Detail at M4 Level (Full Number)						
Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget
1385	NDRRA Event Mar 2019 Cyclone Trevor	2,164,958	0	2,164,958	4,000,000	5,487,453
		<b>2,164,958</b>	<b>0</b>	<b>2,164,958</b>	<b>4,000,000</b>	<b>5,487,453</b>
1385	NDRRA Event Mar 2019 Cyclone Trevor	2,772,495	2,607,816	5,380,311	5,470,786	5,487,453
1396	2021 Jan Heavy Rainfall Event	0	0	0	0	0
		<b>2,772,495</b>	<b>2,607,816</b>	<b>5,380,311</b>	<b>5,470,786</b>	<b>5,487,453</b>
	Surplus/(Deficit)	(607,537)	(2,607,816)	(3,215,353)	(1,470,786)	0
		0	0	0	0	0
	Operating Surplus/(Deficit) less Full Cost Recovery	(607,537)	(2,607,816)	(3,215,353)	(1,470,786)	0
						3,215,353

## Operational Result From Period 1- 10, 2021 Bowen Basin and Galilee Operations

### Bowen Basin and Galilee Operations



● < Budget  
● < 5% over Budget  
● > 5% over Budget

Detail at M4 Level (Full Number)							
Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget	Remaining Revised Budget
1393	TMR Project	0	0	0	100,000	500,000	500,000
1600	Galilee Basin Operations	823,118	0	823,118	828,332	1,385,997	562,880
3211	RMPC Expenditure - Isaac	1,510,938	0	1,510,938	1,882,500	3,710,000	2,199,062
		<b>2,334,056</b>	<b>0</b>	<b>2,334,056</b>	<b>2,810,832</b>	<b>5,595,997</b>	<b>3,261,941</b>
							<b>Operational Income</b>
1252	Adani Project	28,815	768	29,583	9,307	11,094	(18,489)
1393	TMR Project	24,861	0	24,861	126,030	500,000	475,139
1600	Galilee Basin Operations	1,472,139	246,652	1,718,791	1,201,226	1,500,464	(218,327)
3211	RMPC Expenditure - Isaac	1,843,449	404,936	2,248,385	2,362,035	3,180,020	931,635
		<b>3,369,264</b>	<b>652,356</b>	<b>4,021,620</b>	<b>3,698,598</b>	<b>5,191,577</b>	<b>1,169,957</b>
							<b>Operational Expenses</b>
	<b>Surplus/(Deficit)</b>	<b>(1,035,208)</b>	<b>(652,356)</b>	<b>(1,687,564)</b>	<b>(887,766)</b>	<b>404,420</b>	<b>2,091,984</b>
							<b>Full Cost Recovery</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Operating Surplus/(Deficit) less Full Cost Recovery</b>	<b>(1,035,208)</b>	<b>(652,356)</b>	<b>(1,687,564)</b>	<b>(887,766)</b>	<b>404,420</b>	<b>2,091,984</b>

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## **DEVIATION FROM BUDGET AND POLICY:**

Costs associated with dispute resolution process between IRC and Adani are not reimbursable under the Agreement and will need to be included within the next Budget Review.

## **OPERATONAL PLAN / BUSINESS PLAN – EXCEPTION REPORTING**

Not Applicable

## **NEXT MONTH'S PROGRAM:**

- Undertaking of Dispute resolution process with Adani
- Continued negotiation of agreements
- Delivery of Capital Works

## **DEVELOPING INITIATIVES / ISSUES:**

The GBBO team are currently investigating the opportunity and requirements for the establishment of its own cumulative intelligent traffic monitoring system to confirm the specific impacts for resource projects.

## CORPORATE PROPERTIES AND FLEET

### WORKSHOPS, PLANT AND FLEET

#### PREVIOUS MONTH'S ACHIEVEMENTS:

The 2020-2021 Fleet and Plant replacement programme is progressing well with the majority of replacement assets received.

#### Replacement Fleet and Plant Assets Received April

- 2 x slasher tractors
- 1 x 72" Zero Turn Mower



#### Auctions

The March Fleet and Plant Auctions achieved great results for IRC, the auction was performed by Nasco in Biloela, and provided a 100% clearance rate with 95% of assets achieving reserve price or over.

The next auction will be late May 2021 which will be conducted by Pickles, this will be the last of the 2020-2021 FY.

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## Maintenance Reporting

Pre-start faults April - 57 Total

- 31 actioned as reactive maintenance across the region
- 16 Repairs still active.
- 10 Allocated for repair with next service

Services completed March – 12

## Procurement

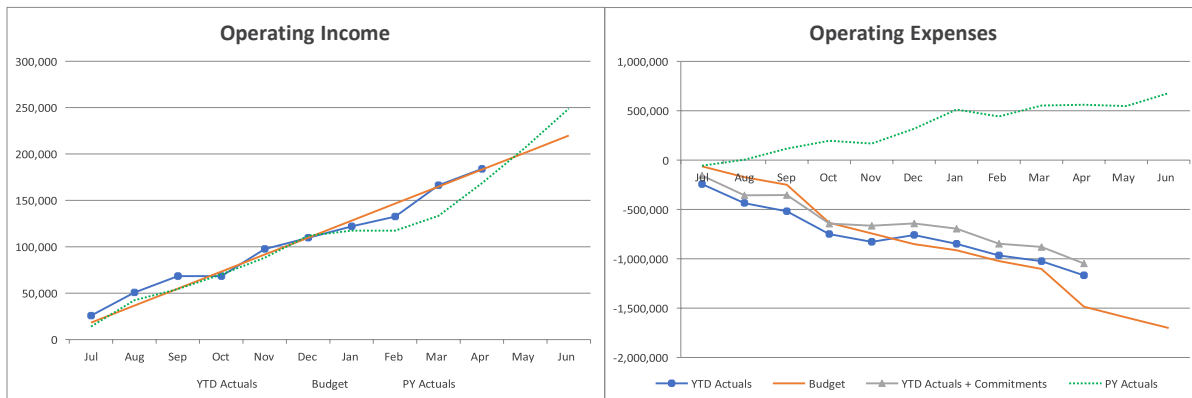
Draft preferred supplier agreements, RFQ and RFT are currently being finalised and forwarded to Procurement for lodging, this process will be completed by the end of May 2021.

## PREVIOUS MONTH'S ISSUES:

All Fleet and Plant Team members are currently under extreme pressure to maintain BAU requirements in addition to implementing recommended improvements to their service level delivery.

## FINANCE REPORT

### Operational Result From Period 1- 10, 2021 Manager Plant, Fleet & Workshops



● < Budget  
● < 5% over Budget  
● > 5% over Budget

#### Detail at M4 Level (Full Number)

Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget	Remaining Revised Budget
<b>Operational Income</b>							
2502	Fleet Operations - North	10,428	0	10,428	0	0	(10,428)
3501	Fleet Operations - Dysart	2,141	0	2,141	0	0	(2,141)
3612	Depot Buildings, Work Camps - East	113	0	113	0	0	(113)
4502	Fleet Operations - Moranbah	901	0	901	0	0	(901)
9253	Subsidy - Fuel Tax Credit - Isaac	170,485	0	170,485	183,333	220,000	49,515
		<b>184,068</b>	<b>0</b>	<b>184,068</b>	<b>183,333</b>	<b>220,000</b>	<b>35,932</b>
<b>Operational Expenses</b>							
1062	Regional Manager - Fleet, Plant & Disaster Management	125,992	96	126,088	122,837	145,204	19,116
1142	Plant & Fleet Manager - Isaac	434,488	53	434,541	430,099	508,614	74,072
1501	Fleet Operations - Corporate	176,422	580	177,002	213,770	256,120	79,119
1502	Fuel Tax Credits - Expenses	79	0	79	0	0	(79)
2031	Workshop - Nebo	37,509	928	38,437	92,961	109,914	71,477
2120	Depot Expenses - Glenden	1,559	297	1,856	1,167	1,400	(456)
2121	Workshop - Glenden	549	595	1,144	2,000	2,400	1,256
2138	Depot Expenses - North	29,898	0	29,898	13,931	16,602	(13,296)
2197	Depreciation Expense - Plant	2,216,196	0	2,216,196	2,157,617	2,589,140	372,944
2501	Fleet Operations - Glenden	(229,337)	1,179	(228,157)	(275,969)	(325,275)	(97,118)
2502	Fleet Operations - North	(577,775)	16,515	(561,260)	(605,069)	(710,082)	(148,822)
2607	Depot Buildings, Work Camps - Glenden	33,159	780	33,939	12,500	14,600	(19,339)
2608	Depot Buildings, Work Camps - North	30,027	14,846	44,873	19,750	22,500	(22,373)
3184	Depot Expenses - Dysart	16,013	0	16,013	16,598	19,802	3,789
3202	Depot Expenses - East	15,695	0	15,695	14,823	17,592	1,897
3227	Depot Expenses - Middlemount	10,333	0	10,333	72,994	84,197	73,864
3284	Workshop - St Lawrence	6,394	0	6,394	72,951	86,302	79,908
3501	Fleet Operations - Dysart	(532,510)	14,693	(517,817)	(643,558)	(756,374)	(238,547)
3502	Fleet Operations - Middlemount	(376,799)	3,552	(373,247)	(379,870)	(447,077)	(73,830)
3503	Fleet Operations - East	(403,415)	2,085	(401,330)	(384,091)	(453,959)	(52,629)
3504	Fleet Operations - Rural East	(14,043)	0	(14,043)	(30,710)	(36,225)	(22,182)
3610	Depot Buildings - Middlemount	19,369	1,680	21,049	18,933	22,100	1,051
3611	Depot Buildings, Work Camps - Dysart	34,529	1,588	36,117	30,500	34,500	(1,617)
3612	Depot Buildings, Work Camps - East	51,309	2,386	53,695	48,023	54,563	868
3613	Depot Buildings, Work Camps - Moranbah	36,386	4,167	40,553	19,200	22,400	(18,153)
3626	Workshop - Middlemount	31,176	1,853	33,028	81,626	96,627	63,598
4183	Depot Expenses - Moranbah	23,511	0	23,511	25,597	30,602	7,091
4241	Depot Expenses - Clermont	33,763	0	33,763	27,308	30,146	(3,618)
4501	Fleet Operations - Clermont	(1,369,837)	27,198	(1,342,639)	(1,627,251)	(1,910,153)	(567,514)
4502	Fleet Operations - Moranbah	(1,150,293)	16,944	(1,133,349)	(1,368,314)	(1,624,633)	(491,284)
4606	Depot Buildings - Clermont	29,224	631	29,856	22,083	26,500	(3,356)
7007	Workshop - Clermont (West)	48,521	4,727	53,248	87,103	49,946	(37,157)
7008	Workshop - Moranbah (West)	45,858	889	46,747	227,103	268,663	221,916
		<b>(1,166,047)</b>	<b>118,251</b>	<b>(1,047,796)</b>	<b>(1,483,356)</b>	<b>(1,700,098)</b>	<b>(652,301)</b>
		<b>1,350,115</b>	<b>(118,251)</b>	<b>1,231,864</b>	<b>1,666,690</b>	<b>1,920,098</b>	<b>688,234</b>
<b>Surplus/(Deficit)</b>							
<b>Full Cost Recovery</b>							
2841	Corp O'Heads & NCP Costs - Plant, Fleet & Workshops	794,813	0	794,813	794,813	953,776	158,963
		<b>794,813</b>	<b>0</b>	<b>794,813</b>	<b>794,813</b>	<b>953,776</b>	<b>158,963</b>
	<b>Operating Surplus/(Deficit) less Full Cost Recovery</b>	<b>555,302</b>	<b>(118,251)</b>	<b>437,051</b>	<b>871,876</b>	<b>966,322</b>	<b>529,271</b>



## DEVIATION FROM BUDGET AND POLICY:

Nil to report currently that have not been approved by Council.

## OPERATIONAL PLAN / BUSINESS PLAN – EXCEPTION REPORTING

Nil to report

## NEXT MONTH'S PROGRAM:

**Scheduled to Commence During Next Month (on going)**

### Capital Replacements

Project Name/ Description	Start Date	Scheduled End Date	Comments/Exceptions
Replace 31 Vehicles	1/7/2020	30/6/2021	Will be completed within the 20/21 FY, Nil carry overs  90% of vehicles have been delivered YTD
Various plant replacements	17/2020	30/6/2021	Will be completed within the 20/21 FY, Nil carry overs  Due to various specifications and build times these assets will be delivered over the coming months with as they are available
Truck replacements	1/7/2020	30/6/2021	Potential issue with 3 trucks. Delay in delivery time means that truck body build and subsequent delivery may extend next FY.

## DEVELOPING INITIATIVES / ISSUES:

- CPF are working closely with Contacts and Procurement to assist in identifying redundant assets in the depots and general clean out of old stock, with a view of cataloguing remaining assets and sharing across the organisation for redeployment where needed – STL, MBH Depot site cleans completed, Nebo Depot to be completed in March/April
- Fleet and Plant Management Plans, Strategy and guidelines are currently being developed with a draft to be completed by the end of June 2021. These will then be distributed through MLT for feedback prior to being provided to ELT for consideration.

## CORPORATE PROPERTIES

### PREVIOUS MONTH'S ACHIEVEMENTS:

Capital works nearing completion at 11A Archer Drive and 23 Barraclough Crescent, Moranbah, 13 Samson Street, Clermont, 8 Bovey Street, 3 Bovey Street. Capital works has commenced on 10 Kemmis Street Nebo with the fitting of new stairs, kitchen and bathroom renovation. Trades teams are also addressing BMR's (Building Maintenance Requests) at various locations throughout the region. 26 Norton Street underpinning and renovations are completed ready for new tenant on the 30th April. The 16-person fatigue accommodation project at 12 Acacia Street is well into the planning stage with the purchase of the land complete and the Development Application has been submitted to Planning for approval.

#### Before & In Progress - 13 Samson St, Kitchen



### Nebo Depot Clean-up

Staff have spent a couple of days at the Nebo Depot cleaning up rubbish and selecting unused items to auction off. It was a combined effort by most stakeholders, rationalising items and disposing of unserviceable items and preparing useable items for auction. The depot and surrounding workshops now look neat and tidy, eliminating risk of potential trip, slips and falls.

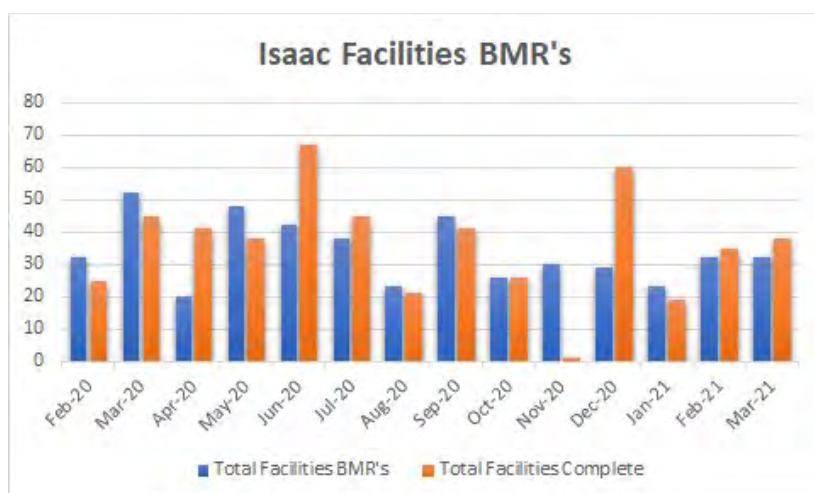
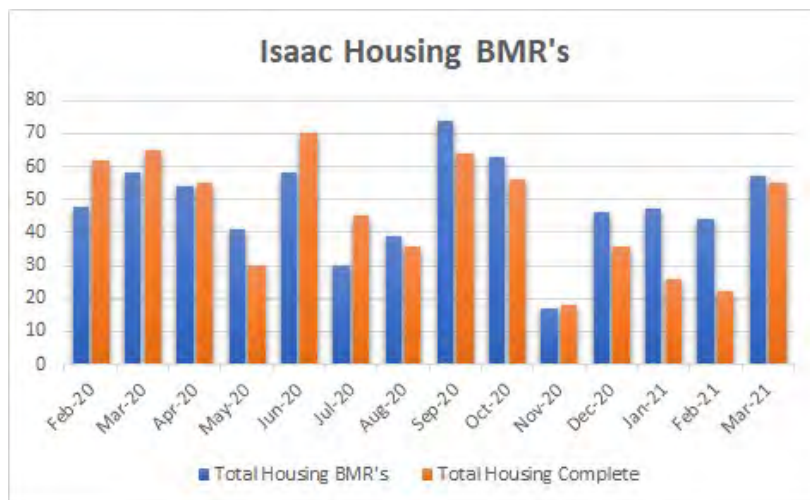


## **Clermont Grandstand Handover**

Cr Greg Austen and Cr Lyn Jones were present at the Clermont Grandstand project handover. Members from Clermont Junior Soccer and Junior Cricket were in attendance and were very pleased with upgrades to the grandstand, the canteen, amenities and the provision of power and lights to their respective sheds. Corporate Properties completed this project on behalf of the Parks team.



## Isaac Region Building Maintenance Requests (BMR's)



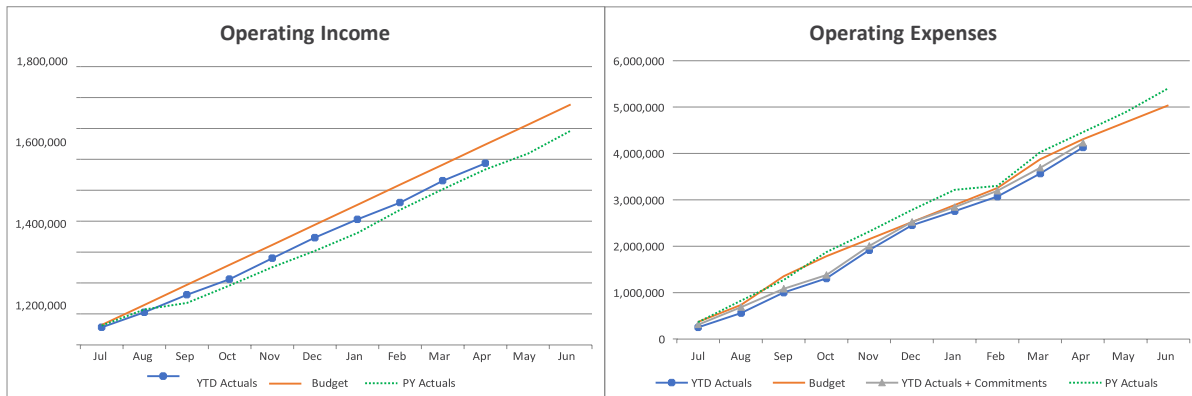
## PREVIOUS MONTH'S ISSUES:

- Nil to Report



## FINANCIAL REPORT:

### Operational Result From Period 1- 10, 2021 Corporate Properties & Fleet



● < Budget  
● < 5% over Budget  
● > 5% over Budget

Detail at M4 Level (Full Number)						
Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget
<b>Operational Income</b>						
3162	Council Employee Housing - Dysart	788	0	788	0	(788)
4158	Council Employee Housing - Moranbah	193	0	193	0	(193)
9040	Mac Services Commercial Tenancy Agreement	45,455	0	45,455	45,454	9,091
9210	Housing - Community - Glenden	4,355	0	4,355	7,500	4,645
9211	Housing - Council Employees - Glenden	21,269	0	21,269	25,000	8,731
9244	Housing - Community - Isaac North	22,764	0	22,764	25,000	7,237
9245	Housing - Council Employees - Isaac North	74,495	0	74,495	83,333	25,505
9353	Administration Office - Sundry Receipts Nebo	6	0	6	0	(6)
9401	Accommodation - Council Dongas - Clermont	32,572	0	32,572	29,167	2,428
9416	Rent - Aged Housing - Clermont	27,448	0	27,448	29,167	7,552
9417	Rent - Council Employee Housing - Clermont	106,526	0	106,526	125,000	43,474
9450	Rent - Affordable Housing - Moranbah	272,763	0	272,763	291,667	77,237
9451	Rent - Other Properties - Moranbah	35,280	0	35,280	23,333	(7,280)
9453	Rent - Council Employee Housing - Moranbah	311,666	0	311,666	362,500	123,334
9616	Rent - Council Emp Housing - Dysart	26,768	0	26,768	30,000	9,232
9675	Rent - Council Emp Housing - East	35,764	0	35,764	41,667	14,236
9749	Rent - Council Employee Housing - Middlemount	44,744	0	44,744	45,833	10,256
9839	Fatigue Management House Charges - St Lawrence	2,946	0	2,946	2,500	54
9847	Fatigue Management House Charges - Middlemount	3,116	0	3,116	5,000	2,884
9859	Fatigue Management House Charges - Moranbah	34,983	0	34,983	41,667	15,017
9892	Rent - Council Housing - Private - Dysart	160	0	160	0	(160)
9903	Rent - Council Dongas - East	64,516	0	64,516	79,167	30,484
9949	Rental Donga Nebo	6,722	0	6,722	3,333	(2,722)
		<b>1,175,298</b>	<b>0</b>	<b>1,175,298</b>	<b>1,296,288</b>	<b>1,555,545</b>
<b>Operational Expenses</b>						
1061	Corporate Properties Manager	853,838	34,649	888,486	935,819	216,494
1216	Tenancy & Leasing - Corporate	140,136	0	140,136	166,253	56,585
1236	Community Housing - Dysart	16,844	0	16,844	17,917	4,656
1239	Community Housing - MMT	0	0	0	8,144	9,625
1390	COVID-19 Coronavirus	6,934	0	6,934	8,333	3,066
2066	Community Housing - Glenden	10,799	391	11,190	5,042	(5,140)
2096	Community Housing - Nebo	15,764	136	15,900	11,417	(3,400)
2109	Council Employee Housing - Glenden	40,474	1,326	41,800	32,833	(7,600)
2114	Council Employee Housing - Nebo	65,969	995	66,965	50,250	(14,265)
2190	Depreciation Land & Improvements	663,001	0	663,001	719,258	200,109
2196	Depreciation Expense - Building & Other Structures	903,180	0	903,180	820,718	81,681
2199	Depreciation Expense - Office Furniture	39,028	0	39,028	39,049	7,831
2204	Administration Office - Nebo	22,834	0	22,834	9,417	(13,334)
2211	Fatigue Management House - Nebo	30	0	30	417	470
2605	Admin Building - Glenden	6,273	0	6,273	76,992	84,793
2606	Admin Office Maintenance - Nebo	27,463	492	27,955	74,286	58,441
3162	Council Employee Housing - Dysart	78,591	6,261	84,852	87,861	12,370
3171	Council Employee Housing - East	45,797	2,355	48,152	55,316	12,176
3178	Council Employee Housing - Middlemount	76,056	0	76,056	67,917	(2,556)
3275	Fatigue Management House - St Lawrence	0	0	0	417	500
3276	Fatigue Management House - Middlemount	1,963	0	1,963	6,917	5,537
3278	Council Dongas - Dysart	308	0	308	5,417	6,192

# INFORMATION BULLETIN

3279	Council Dongas - St Lawrence	2,201	163	2,363	417	500	(1,863)	●
3280	QR Camp Dongas - St Lawrence	28,088	1,016	29,104	26,417	27,500	(1,604)	●
3281	Council Dongas - Middlemount	40,596	771	41,367	20,333	22,000	(19,367)	●
3607	Admin Building - Middlemount	32,471	3,342	35,813	43,138	50,384	14,570	●
3608	Admin Building - Dysart	20,680	6,088	26,768	24,917	28,900	2,132	●
3609	Admin Office Maintenance- St Lawrence	33,495	1,463	34,959	91,346	107,422	72,464	●
4074	Aged Housing - Clermont	19,260	1,000	20,260	15,167	16,900	(3,360)	●
4124	Community Housing - Moranbah	13,990	590	14,580	16,667	20,000	5,420	●
4150	Council Employee Housing - Clermont	80,237	1,657	81,894	84,167	93,000	11,106	●
4158	Council Employee Housing - Moranbah	288,010	6,679	294,689	215,000	240,000	(54,689)	●
4201	Council Dongas - Moranbah	7,411	1,995	9,406	1,667	2,000	(7,406)	●
4203	Council Dongas - Clermont	43,616	1,511	45,126	8,333	10,000	(35,126)	●
4204	Tenancy & Leasing - Community Lease Facilities	0	0	0	833	1,000	1,000	●
4236	Affordable Housing - MBH Expenses	24,663	2,047	26,710	103,779	108,535	81,825	●
4247	Fatigue Management House - Moranbah	10,187	4,479	14,666	12,200	14,200	(466)	●
4256	Administration Office - Moranbah	212,956	16,817	229,774	233,118	275,508	45,734	●
4257	MBH Admin (ELT/Customer Service area/Council Chambe	25,633	2,450	28,082	30,833	37,000	8,918	●
4605	Admin Office Maintenance - Clermont	114,454	2,987	117,441	174,503	206,767	89,326	●
6709	Write Off NCA - Building	116,309	0	116,309	0	0	(116,309)	●
9451	Rent - Other Properties - Moranbah	1,067	0	1,067	2,000	2,000	933	●
		<b>4,130,606</b>	<b>101,660</b>	<b>4,232,266</b>	<b>4,304,822</b>	<b>5,039,734</b>	<b>807,468</b>	
<b>Surplus/(Deficit)</b>		<b>(2,955,308)</b>	<b>(101,660)</b>	<b>(3,056,968)</b>	<b>(3,008,534)</b>	<b>(3,484,189)</b>	<b>(427,221)</b>	
<b>Full Cost Recovery</b>								
2825	Corp O'Heads & NCP Costs - Housing & Facilities	1,843,986	0	1,843,986	1,843,986	2,212,784	368,797	●
		<b>1,843,986</b>	<b>0</b>	<b>1,843,986</b>	<b>1,843,986</b>	<b>2,212,784</b>	<b>368,797</b>	
<b>Operating Surplus/(Deficit) less Full Cost Recovery</b>		<b>(4,799,294)</b>	<b>(101,660)</b>	<b>(4,900,954)</b>	<b>(4,852,520)</b>	<b>(5,696,972)</b>	<b>(796,018)</b>	

## PREVIOUS MONTH:

- Commencing all capital delivery programmes for scheduling in 2020/21
- Ongoing BMR (Building Maintenance Requests) as required
- Moranbah Office Refurbishment is nearing completion with a further 3 offices available for occupation

## DEVIATION FROM BUDGET AND POLICY:

Nil to Report

## NEXT MONTH'S PROGRAM:

Key focuses for this period will be the continuation and completion of many maintenance programs as well as the planning and the continuation with the delivery of the capital works program for 2020/21. Capital Works projects in Clermont will commence with a major renovation at 13 Samson Street and minor works at other various properties. Residential refurbishments at 11A Archer Drive and 23 Barraclough Crescent Moranbah are underway with bathroom renovations, kitchen upgrade, new floor coverings and paint. A new fence is getting erected at 8 Bovey Street and major renovations will be undertaken at 10 Kemmis Street which include front and rear stair replacement, new landings, bathroom renovation and replacement of interior walls in downstairs store room. Electrical staff are undertaking RCD testing throughout the region

## DEVELOPING INITIATIVES / ISSUES:

Current PSA's that were in place at the beginning of the financial year have expired, this does not hamper service delivery, it does however create a longer procurement process to ensure we meet purchasing policy compliance. **Ongoing.**

There is a risk of a carry over on the construction of 12 Acacia Street Moranbah Fatigue Accommodation owing to Material Change of Use Development Permit for multiple residential development, this is at present with an external consultant. With the above timing impact, construction is expected to be completed late July

Corporate Properties are currently in discussion with the Department of Housing and Public Works in relation to some excess land that may be coming available, an initial valuation is being sort, this will determine the financial viability of the initiative whilst a usage determination is investigated.

	Project Name/ Description	Start Date	Scheduled End Date	Status Update
	<b>AOP &amp; ODP – Deliverables</b>			
	As per comments reported in below table			
<b>Capital Projects</b>				
CW Number	Project Name/ Description	Start Date	Scheduled End Date	Status Update



# INFORMATION BULLETIN

CW212849 CW212853 CW212931 CW212848 CW212932 CW212851 CW212850	Regional residential program- MBH- Commence Feb/Apr NBO- Commence Apr/May CLM- Commence Dec/May MMT- Commenced Jul/Aug DYS- Commenced Jun/Jul STL- Commence Aug/Sept GLN – Commence Jan/Mar	July 20	June 21	Commenced in December 20 In Planning Commenced in November 20 Construction Completed Construction Commenced Construction Completed In Planning
CW202876	Corp - Admin Building Upgrades/Renewals	Aug 20	April 21	3 new offices at Moranbah are in progress and ELT drainage project complete
CW202785	Moranbah Fatigue Accommodation	July 19	July 2021	Land purchased and plans ready for submission for building approvals, buildings ordered for manufacture. Risk of carry over due to Development Permit at present with external consultant
CW202837	Depots - Electrical Compliance Rectification	Aug 20	April 2021	Nebo workshop requires lighting upgrade, Dysart and Middlemount require lighting and GPO's
	Queensland Ambulance Installation of Vehicle Shed and Fatigue Accommodation at 2 Kemmis Street Nebo	April 21	June 21	RFQ issued for this project
Various	Commence all project scope and specifications for 2021-22 CW Delivery Program	July 20	June 21	Scoping, condition accessing and business cases in progress

## DEVELOPING INITIATIVES / ISSUES:

Not Applicable.

## INFRASTRUCTURE PLANNING AND TECHNICAL SERVICES

### PREVIOUS MONTH'S ACHIEVEMENTS: PROJECTS

#### Capital Works 2020-21: Ongoing Projects

- Valkyrie Road Design (CW212921) – Geotech site work is complete with test results in progress. Site survey is complete and awaiting for data from Surveyor. Culvert inspection complete. Project progress on track to start designs in May. Cultural Heritage and environmental review is also in progress.
- Pioneer Road Design (CW212911) – The RFQ documentation for design services of the road has been completed and advertised.
- Barada Barna Welcome to Country Signage (CW212922)- No quotes for installation were received for the first round. Alternative sources are being explored.
- Carmila Music Street Stormwater Restoration Project (CW212897)–The contract for design services has been awarded and the survey for the works have commenced. Preliminary design is expected early May.
- Bully Creek Bridge Design (212928) - Preliminary designs, documentation and report received. IPTS review is in progress.
- Road Safety Treatments (CW212923) – Execution of the works continuing in conjunction with Infrastructure section. Quotations for the supply of signs have been called for. The bus shelter for Clairview has been ordered.
- Clermont and Moranbah Cycle Network (CW212913) – RFQs issued for design services for both projects, closing end of April 2021.

#### Capital Works 2019-20: Ongoing Projects

- CW202779 Philips Creek Bridge
  - Formal agreement documentation for land acquisition being finalised. Telephone enquiries on the progress intimated that signatures are awaited.
  - Telstra Service Relocation: Works have been completed.
  - Ergon Service Relocation: Relocation works completed.
  - Revision of tender documentation in progress (relevant specifications, etc)

#### Capital Works 2018-19: Ongoing Projects

- CW192669 Grosvenor bridge Investigation – Final draft report received from ARRB on monitoring and condition of the bridge received. The report is being reviewed and will be reported to Council in May 2021.

## Operational Works 2019-20: Ongoing Works:

The below table identifies additional ongoing IPTS activities.

Traffic Counters	Install traffic Counters - Update of traffic count data	2 (Utah Drive Moranbah
Development Applications	Inputs in assessment of Development Applications	Development Applications assisted: Received 6 Issued 3 Backlog - 8 Work in progress - 4
Permits	Works on Road Corridor - Driveway/Crossover - Grids	Works on Road corridor: Received – 11 Issued –11 Backlog – 0 Work in Progress – 4  Land Access Activity: Received - 3 Issued – 0 Work in Progress - 3  Driveway/Crossover; Received - 3 Issued - 1 Backlog – 3 Work in Progress – 1  Installation of Grid: Received - 1 Issued - 0 Backlog – 1 Work in Progress - 0

## NATURAL RESOURCES

### Gravel

Carting began on material from the Epping Forest Pit for the Walthum Road resheet.

All material was carted to site for the Turrawulla Road resheet. This material also underwent treatment via the tractor driven rock crushing unit.

Discussions were had with Department of Forestry over on-selling raw material to Adani from inactive pits within the Moray/Elgin areas. DAF believe this arrangement could work to Council benefit financially while

also allowing Council to condition plans for rehabilitation on the sites. After all extraction has been exhausted the sites can be relinquished for removal off Council's Sales Permit relatively easy.

## **NEXT MONTH'S PROGRAM**

Site Based Management Plan will be drafted for a number of active pits and forwarded to Department of Forestry approval. Sites include Bulliwallah, Croydon, Mt Stuart, Blenheim, Frankfield and Laglan.

## **Water**

Proposed Charlton Dam – Frankfield Road: Two conforming and good value for money quotations were received and reviewed for the construction of the dam. Letter of offer will be sent by end of April.

## **NEXT MONTH'S PROGRAM**

Contractor award for construction works for proposed Charlton Dam, Frankfield Road – Capital Program. Potential start date early May 2021

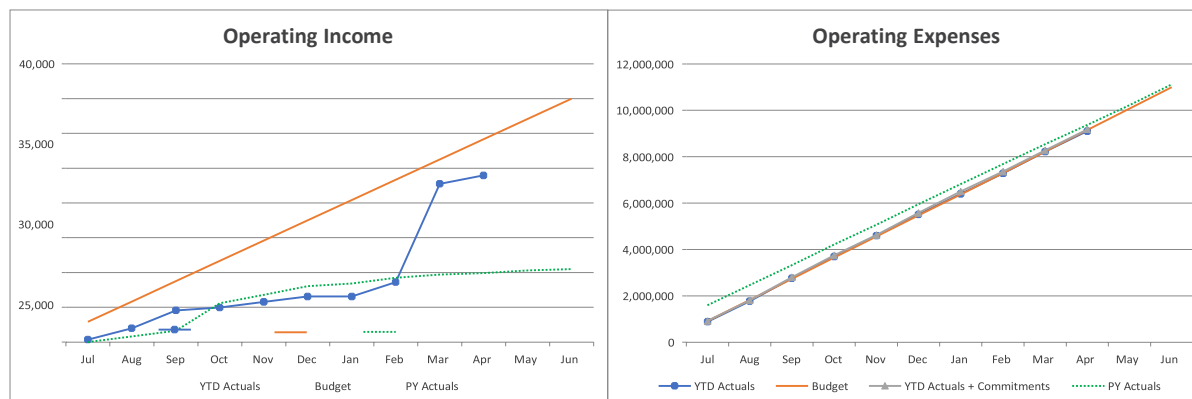
## **PREVIOUS MONTH'S ISSUES:**

Two weeks delay with evaluation on RFQ - Construction of Rural Dam due to rain set back on site meeting. Also additional information on each submission required by both tenderers.

## FINANCIAL REPORT:

### Operational Result From Period 2021 Manager Infrast and Technical Services

#### Manager Infrast and Technical Services



Detail at M4 Level (Full Number)							
Cost Centre	Description	YTD Actuals	Commitments	YTD Actuals + Commitments	YTD Budget	Annual Revised Budget	Remaining Revised Budget
1072	Regional Manager's Office - Technical Support	23,986	0	23,986	29,167	35,000	11,014
		<b>23,986</b>	<b>0</b>	<b>23,986</b>	<b>29,167</b>	<b>35,000</b>	<b>11,014</b>
1072	Regional Manager's Office - Technical Support	596,291	67,405	663,695	513,922	632,473	(31,223)
1608	Bridge Management	0	0	0	100,000	120,000	120,000
2157	Depreciation Expense - Roads & Drainage	8,513,466	0	8,513,466	8,539,822	10,247,786	1,734,320
		<b>9,109,756</b>	<b>67,405</b>	<b>9,177,161</b>	<b>9,153,744</b>	<b>11,000,259</b>	<b>1,823,098</b>
	<b>Surplus/(Deficit)</b>	<b>(9,085,770)</b>	<b>(67,405)</b>	<b>(9,153,175)</b>	<b>(9,124,577)</b>	<b>(10,965,259)</b>	<b>(1,812,084)</b>
2832	Corp O'Heads & NCP Costs - Roads & Urban Services	9,522,102	0	9,522,102	9,522,102	11,426,522	1,904,420
		<b>9,522,102</b>	<b>0</b>	<b>9,522,102</b>	<b>9,522,102</b>	<b>11,426,522</b>	<b>1,904,420</b>
	<b>Operating Surplus/(Deficit) less Full Cost Recovery</b>	<b>(18,607,872)</b>	<b>(67,405)</b>	<b>(18,675,277)</b>	<b>(18,646,679)</b>	<b>(22,391,781)</b>	<b>(3,716,504)</b>

## DEVIATION FROM BUDGET AND POLICY:

Nil to report

## OPERATIONAL PLAN / BUSINESS PLAN – EXCEPTION REPORTING

Not Applicable

## NEXT MONTH'S PROGRAM:

### Organisation Development Plan or Capital Projects

- Continuation with design and planning of Capital Works projects.

### Scheduled to Commence During Next Month

Project Name/ Description	Start Date	Scheduled End Date	Comments/Exceptions
Cycle Network Program 2021-22.	Mid-January 2021	April 2021	Working with TMR for approval of the Clermont Phase 2 and Moranbah Federation Park. Awaiting outcome of grant application
Design of Bully Creek bridge replacement. RFQ design services release	March 2021	May 2021	Design underway
RFQ documentation for Installation of Barada Barna – Welcome to Country signage	End Feb 2021	May 2021	No quotations received for the installation and pursuing alternative suppliers.
RFQ documentation for design services for restoration works of Music Street Carmila stormwater	End January 2021	May 2021	Survey underway, design and cost options being investigated.
RFQ release for Construction of Rural Dam	February 2021	May 2021	Contract award early May with construction to begin early May.
RFQ for design services for Pioneer Rd	March 2021	June 2021	RFQ documentation completed and quotations are awaited.
Design of Valkyrie Road	April 2021	June 2021	Survey of route underway

## DEVELOPING INITIATIVES / ISSUES:

Not Applicable



# INFORMATION BULLETIN

Report authorised by:

ROBERT PERNA

**DIRECTOR ENGINEERING AND  
INFRASTRUCTURE**

## ATTACHMENTS

- Nil