



WAIMAKARIRI  
DISTRICT COUNCIL

# Utilities and Roading Committee

## Agenda

**Tuesday 26 April 2022**

**3.30pm**

***Zoom***

***Members:***

Cr Paul Williams (Chairperson)

Cr Al Blackie

Cr Robbie Brine

Cr Sandra Stewart

Cr Joan Ward

Mayor Dan Gordon (ex officio)

**A MEETING OF THE UTILITIES AND ROADING COMMITTEE WILL BE HELD  
REMOTELY VIA ZOOM ON TUESDAY 26 April 2022 AT 3.30PM**

Recommendations in reports are not to be construed as  
Council policy until adopted by the Council

**BUSINESS**

Page No

1 **APOLOGIES**

2 **CONFLICTS OF INTEREST**

*Conflicts of interest (if any) to be reported for minuting.*

3 **CONFIRMATION OF MINUTES**

3.1 **Minutes of a meeting of the Utilities and Roading Committee held on  
Tuesday 22 March 2022**

6-14

*RECOMMENDATION*

**THAT** the Utilities and Roading Committee:

- (a) **Confirms** the circulated Minutes of a meeting of the Utilities and Roading Committee held on 22 March 2022, as a true and accurate record.

3.2 **Matters arising**

4 **DEPUTATION/PRESENTATIONS**

Nil.

5 **REPORTS**

5.1 **May 2021, December 2021 & February 2022 Flood Events – Service  
Requests Update – Emile Klopper (Flood Team Lead), Caroline Fahey  
(Water Operations Team Leader) and Kalley Simpson (3 Waters Manager)**

15-43

*RECOMMENDATION*

**THAT** the Utilities and Roading Committee:

- (a) **Receives** report No. 220413056836.
- (b) **Notes** that 598 drainage service requests related to the significant rainfall events in May 2021, December 2021 and February 2022 were received, which have all been responded to although some require further maintenance or investigation work.

- (c) **Notes** that there are currently 59 drainage assessments identified and this is likely to increase as the service requests are worked through. Progress made since the previous Utilities & Roding Committee meeting is set out in Section 4 of the report.
- (d) **Notes** that background information in regards to the recent flooding event can be viewed in report No. 220310034384 entitled: "*February 2022 Flood Event - Update on Service Requests*".
- (e) **Notes** that a webpage has been set up on the Council's website to provide updates on the status of drainage works underway and targeted information will be sent out to the Waikuku Beach and Kaiapoi communities.
- (f) **Notes** that if further budgets are required for any capital works identified as part of the drainage assessment work, that these will be sought as part of the 2022/23 Annual Plan process.
- (g) **Circulates** this report to the Council and Community Boards for information.

## 6 CORRESPONDENCE

Nil.

## 7 REPORTS REFERRED FROM THE OXFORD-OHOKA COMMUNITY BOARD AND WOODEND-SEFTON COMMUNITY BOARD

### 7.1 No-Stopping Restriction on Tram Road at Earlys Road Intersection – Shane Binder (Transport Engineer) and Kathy Graham (Journey Planner/Road Safety Co-ordinator)

*(refer to attached copy of report no. 211104177987 to the Oxford-Ohoka Community Board meeting of 9 December 2021)*

44-47

#### RECOMMENDATION

**THAT** the Utilities and Roding Committee:

- (a) **Receives** Report No. 211104177987.
- (b) **Approves** establishment of a no-stopping restriction on the south side of Tram Road, to both the east and west of Earlys Road, for a length of 65 metres in each direction.

### 7.2 Vaughan Street, Sefton – Approval of No-Stopping Restriction – Shane Binder (Transport Engineer)

*(refer to attached copy of report no. 220201012278 to the Woodend-Sefton Community Board meeting of 15 February 2022)*

48-52

#### RECOMMENDATION

**THAT** the Utilities and Roding Committee:

- (a) **Receives** Report No. 220201012278.
- (b) **Approves** installation of the following no-stopping restriction on Vaughan Street:
  - i. For 120 metres length north of Cross Street on the west side.
  - ii. For 105 metres length north of Cross Street on the east side.

- (c) **Notes** that staff have not consulted with property owners, but an information notice explaining the need for parking restrictions will be distributed to all residences prior to any works being undertaken.

## **8 MATTERS FOR INFORMATION**

- 8.1 Extension of Contract: 18/56 – Street Lighting Maintenance & Renewals – Report to Management Team Meeting 4 April 2022– to be circulated to Utilities and Roothing Committee.**

53-66

*RECOMMENDATION*

**THAT** the Utilities and Roothing Committee receives the information in Item 8.1.

- 8.2 Skewbridge Warning Signage Project - Report to Accept Invited Price – Report to Management Team Meeting 11 April 2022– to be circulated to Utilities and Roothing Committee.**

67-105

*RECOMMENDATION*

**THAT** the Utilities and Roothing Committee receives the information in Item 8.2.

- 8.3 Request for Time-Restricted Parking at Rangiora Borough School – Report to Rangiora-Ashley Community Board Meeting 13 April 2022– to be circulated to Utilities and Roothing Committee.**

106-110

*RECOMMENDATION*

**THAT** the Utilities and Roothing Committee receives the information in Item 8.3.

## **9 PORTFOLIO UPDATES**

- 9.1 Roothing – Councillor Paul Williams**
- 9.2 Drainage and Stockwater – Councillor Sandra Stewart**
- 9.3 Utilities (Water Supplies and Sewer) – Councillor Paul Williams**
- 9.4 Solid Waste– Councillor Robbie Brine**
- 9.5 Transport – Mayor Dan Gordon**

## **10 QUESTIONS UNDER STANDING ORDERS**

## **11 URGENT GENERAL BUSINESS**

## 12 **MATTERS TO BE CONSIDERED WITH THE PUBLIC EXCLUDED**

*Section 48, Local Government Official Information and Meetings Act 1987*

### **RECOMMENDATION**

**THAT** the public be excluded from the following parts of the proceedings of this meeting.

o

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution, are as follows:

<b>Item No</b>	<b>Minutes/Report of:</b>	<b>General subject of each matter to be considered</b>	<b>Reason for passing this resolution in relation to each matter</b>	<b>Ground(s) under section 48(1) for the passing of this resolution</b>
12.1 – 12.3	Reports from Management Team meetings	Reports for information	Good reason to withhold exists under Section 7	Section 48(1)(a)

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987, and the particular interest or interests protected by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public are as follows:

<b>Item N°</b>	<b>Reason for protection of interests</b>	<b>Ref NZS 9202:2003 Appendix A</b>
12.1 – 12.3	Protection of privacy of natural persons To carry out commercial activities without prejudice	A2(a) A2(b)ii

### **CLOSED MEETING**

*See Public Excluded Agenda (separate document)*

### **OPEN MEETING**

### **NEXT MEETING**

The next meeting of the Utilities and Roading Committee is scheduled for 4pm, on Tuesday 17 May 2022.

### **BRIEFING**

**WAIMAKARIRI DISTRICT COUNCIL**

**MINUTES OF THE MEETING OF THE UTILITIES AND ROADING COMMITTEE HELD REMOTELY VIA ZOOM ON TUESDAY 22 MARCH COMMENCING AT 3.31PM.**

**PRESENT**

Councillor R Brine (Chairperson), Mayor D Gordon, Councillors A Blackie, S Stewart, J Ward and P Williams

**IN ATTENDANCE**

Councillors N Atkinson, P Redmond and K Barnett  
J Harland (Chief Executive) G Cleary (Manager Utilities and Roading), K Simpson (3 Waters Manager), E Klopper (Flood Team Lead), C Roxburgh (Water Asset Manager) and A Smith (Governance Coordinator)

**1 APOLOGIES**

There were no apologies.

**2 CONFLICTS OF INTEREST**

There were no conflict of interest recorded.

**3 CONFIRMATION OF MINUTES**

**3.1 Minutes of a meeting of the Utilities and Roading Committee held on Tuesday 22 February 2022**

Moved Councillor Williams

Seconded Councillor Blackie

**THAT** the Utilities and Roading Committee:

- (a) **Confirms** the circulated Minutes of a meeting of the Utilities and Roading Committee held on 22 February 2022, as a true and accurate record.

**CARRIED**

**3.2 Matters arising**

There were no matters arising.

**4 DEPUTATION/PRESENTATIONS**

There were no deputations or presentations.

## 5 REPORTS

### 5.1 February 2022 Flood Event – Update on Service Requests – E Klopper (Flood Team Lead), C Fahey (Water Operations Team Leader) and K Simpson (3 Waters Manager)

K Simpson presented this report, along with E Klopper, who was introduced to the Committee, as a consultant from Beca engaged by the Council to assist with the flood recovery work. Also assisting was Jack Boyd from Stantec. The report provided an update on the further work status following the recent flood events that had impacted the district, in May 2021, December 2021 and February 2022. There was approximately 600 service requests that staff were working through and these had been triaged into groups. There were approximately 60 further investigations the staff were currently working through. There was currently a more definitive programme being put together. Regarding communications, K Simpson advised that there had been an initial response sent to everyone who had lodged a service request and it was intended to directly follow up with people to let them know the outcome of further investigation work. Staff were also providing general communication updates on the Council website. There was also targeted consultation underway with the Kaiapoi residents, noting that a lot of the service requests from Kaiapoi residents related to issues that would be addressed by the Shovel Ready projects. This would be integrated with updates on the Shovel Ready works. It was also planned to produce an information flyer to be circulated to the Waikuku Beach residents.

K Simpson provided an update on drainage maintenance that had been undertaken due to concerns raised regarding drainage, particularly in the Kaiapoi area. Feldwick Drain had been fully cleared out, some remedial works would be required for the pump station. Dudley Drain and Sunday School Drain along the railway line had also been cleaned out. Drainage investigations were underway and future reports would provide an update on the maintenance programme as it progressed. It was noted that any capital works results from the investigations, they would be included as part of a staff submission to the 2022/23 Annual Plan.

Mayor Gordon asked if drafts of any information brochures or other communications could be circulated to the elected members to make sure they were addressing concerns that members are aware of in the community. K Simpson agreed.

Councillor Williams asked if the current Council contractors had sufficient resources to undertake the required work and would there be a need to bring in extra contractors to assist with the backlog of work. K Simpson acknowledged there was a backlog of work and some contractors had issues with staff resourcing as a result of the impact of Covid. CORD had advised they would make the Council's maintenance programme a priority however, if there was still issues with keeping up with the workload, further external resources will be engaged to get the work completed.

Regarding the investigation on Ranui Mews, K Simpson advised there had been some CCTV work undertaken both on and offsite. This hadn't identified any obvious blockages, however had shown that there was work that could be done onsite and also further investigations were ongoing downstream of the site, with evidence of surcharging. Staff were also deploying level sensors into the catchment to indicate to what extent the system was surcharging during future rainfall events. Depending on the outcome of investigations, K Simpson advised that it may be a combination of doing improvements within the Council reticulation in the street, as well as onsite upgrades to the reticulation at Ranui Mews.

Following a question from Councillor Stewart, K Simpson said it was planned to get the website communications improved and easier for the public to access. Councillor Stewart suggested these updates could go onto the website home page and supported improvement in the communications.

Councillor Barnett asked if there could be an overall report provided, with an update on progress with both the roading and drainage issues following the flood events. G Cleary advised that there had been some requests for permanent flood signs which staff were initiating. There had been discussion with Waka Kotahi on shared funding, and these discussions were ongoing. It was agreed that staff would provide a report to the Committee on roading issues as well as drainage, either as a joint report, or two separate reports.

Councillor Blackie referred to the recent tour of Kaiapoi regarding the grills that hadn't been lifted or inspected for some time. As part of the contract, these were supposed to be inspected on a 12 weekly cycle. It was asked if there had been any communication with the contractor about not fulfilling this part of the contract. G Cleary advised that this matter had been taken up with the road maintenance contractors CORD at senior level as part of regular meetings. They had indicated a willingness for this to be part of a programme of inspections and maintenance work that was required.

Of the drainage service requests listed, Councillor Stewart enquired how many were not located in a drainage rating area. It was agreed that this information would be sourced by staff and circulated to all members.

Moved: Councillor Williams

Seconded: Councillor Blackie

**THAT** the Utilities and Roading Committee:

- (a) **Receives** report No. 220310034384.
- (b) **Notes** that 598 drainage service requests were received related to the significant rainfall event in May 2021, December 2021 and February 2022, which had all been responded to although some require further maintenance or investigation work.
- (c) **Notes** that there were currently 59 drainage assessments identified as set out in section 4.6 and this was likely to increase as the service requests were worked through.
- (d) **Notes** that a webpage had been setup on the Council's website to provide updates on the status of drainage works underway and targeted information would be sent out to the Waikuku Beach and Kaiapoi communities.
- (e) **Notes** that if further budgets were required for any capital works identified as part of the drainage assessment work, that these would be sought as part of the 2022/23 Annual Plan process.
- (f) **Circulates** this report to the Council and the Community Boards for information.

**CARRIED**

Councillor Williams supported these maintenance matters being progressed as soon as possible.



**5.2 Drinking Water Standards and Rules: Submission to Taumata Arowai – C Roxburgh (Water Asset Manager) and H Proffit (Water Safety and Compliance Specialist)**

C Roxburgh presented this report, which sought endorsement of the Utilities and Rooding Committee to the proposed submission to Taumata Arowai on the new Drinking Water Standards and Rules that had been proposed, and released for public consultation. This was a complete set of new standards and rules, comprising of five consultation documents. There was a suggested amended recommendation to what was included in the staff report and members were given the opportunity to discuss this.

The most significant document was the Quality Assurance rules, which included all the documentation rules to be adhered to by suppliers. In general a lot more sampling, monitoring and new obligations for reporting were required. Some reporting measures had gone from monthly to daily, covering connections from 50 people up to 20,000, the proportionate scale requirement did not appear to have been taken into account. This was one of the key points of the Council's submission. The most significant point in the submission related to the transition timeframes. The signalled timeframe for the final compliance standards would be advised in mid- to late-May 2022 and compliance would be expected by 1 July 2022. This was a very short turnaround and this point had been made in the Council's draft submission.

Councillor Stewart asked if there was any change to the maximum allowable levels for iron, manganese, arsenic and nitrate in the new proposed standards. C Roxburgh advised that these levels were based on the World Health Organisation standards and there had been no significant change to any of these perimeters. The Ministry of Health standards were based on the average weight of an adult human..

Councillor Blackie spoke on the small suppliers (e.g. farm cottages) and it was confirmed that if there was more than one connection to a water supply, these would be classed as a supplier. C Roxburgh advised that there hadn't been an acceptable solution, with the same rules for two houses as up to 500 people, and staff believed there should be a category for less than 50 people. Rules had been tailored to the larger end of the scale, not the smaller end.

Moved: Councillor Williams

Seconded: Councillor Brine

**THAT** the Utilities and Rooding Committee:

- (a) **Receives** Report No. 220309033938.
- (b) **Notes** that Taumata Arowai had prepared a suite of new documents associated with an updated version of the Drinking Water Standards for New Zealand, which they were seeking feedback on, with submissions closing on the 28<sup>th</sup> of March 2022, with relevant documents reviewed by staff and submissions prepared.
- (c) **Endorses** the following submissions prepared by staff to be submitted to Taumata Arowai, in response to the consultation questions asked, noting that final amendments would be made to these submissions, to reinforce the transitional issues associated with the standards particularly with regard to chlorination, at the approval of the Chief Executive and Mayor, taking into account any feedback received from Councillors.
  - i. Covering letter to Taumata Arowai
  - ii. Submission on Drinking Water Standards
  - iii. Submission on Quality Assurance Rules
  - iv. Submission on Aesthetic Values
  - v. Submission on Acceptable Solution for Spring and Bore Water

- vi. Submission on Acceptable Solution for Rural Agricultural Supplies.
- (d) **Notes** that the submissions will be made public by Taumata Arowai.

**CARRIED**

**6 CORRESPONDENCE**

Nil

**7 REPORT REFERRED**

Nil

**8 MATTERS FOR INFORMATION**

- 8.1 OXFORD RURAL NO. 2 WATER MAIN RENEWALS 2021/22 – REQUEST TO ENGAGE WATER UNIT – Report to Management Team Meeting 28 February 2022– to be circulated to Utilities and Rooding Committee.**

Moved: Councillor Blackie

Seconded: Councillor Brine

**THAT** the Utilities and Rooding Committee receives the information in Item 8.1.

**CARRIED**

**9 PORTFOLIO UPDATES**

**9.1 Rooding – Councillor Paul Williams**

Councillor Williams attended an inspection of some of the gravel roads in the district, some of which had been washed out by flood waters as a result of the heavy rain. These would need to be remedied.

**9.2 Drainage and Stockwater – Councillor Sandra Stewart**

Councillor Stewart spoke on the upcoming briefing on drainage rating. Currently there was some rural and some urban rating areas, and a District Wide Flood Protection Rate. Ecan are now also proposing a new region-wide rate. The briefing should advise exactly what all these rates were going to deliver.

Councillor Stewart was also waiting to view the draft of the new Stockwater Bylaw communications package.

**9.3 Utilities (Water Supplies and Sewer) – Councillor Paul Williams**

Councillor Williams advised that construction on the central Rangiora Stage 5 Sewer upgrade was progressing well, as was the Woodend Road Rising Main. The Loburn Lea project was also progressing well with connection on the Ashley side.

There was continuing flushing and testing of the Woodend and Kaiapoi water schemes following the high chloroform detection.

There had been two burst pipes in the Church Street main which were being investigated.

The Backflow Prevention Policy was ongoing.

#### 9.4 **Solid Waste– Councillor Robbie Brine**

- Eco Central recently did a presentation to Christchurch City Council (CCC) Councillors about the planned \$16.8M upgrade that would be starting soon at the Materials Recycling Facilities (MRF). Rowan Latham from CCC had arranged for this to be presented to the Canterbury Waste Joint Committee staff group, and to any Councillors who were able to attend. As the presentation would be on line, it would be recorded, so interested Councillors would be able to watch the recording if they could not attend the 'live' event. Once a date and time had been finalised the details would be forwarded to elected members.
- Eco Central had advised that the status of the MRF was 'green', as of the end of last week, which meant there was not expected to be any issues with recycling processing this week.
- At this stage, kerbside collections were still able to be carried out in Waimakariri. Resourcing issues had caused some delays but so far the team had not had to work on a Saturday to finish collection rounds. There were the usual four trucks on collection rounds on Monday. Waste Management did have some office staff away owing to COVID isolations, and the Council were working closely with the despatch team to ensure any service requests for missed collections were being followed up promptly.
- Also at this stage, transfer stations were still operating as usual. Staff from WDC and Waste Management had undertaken a 'service disruption exercise' to determine the likely impacts of a loss of key staff, several site staff, or a disposal site/service provider owing to COVID so that to ensure ability to advertise any change in services at short notice. This may include the following changes:
  - Depending on staff availability, limiting the shop to shorter hours during the week, or closing the shop;
  - If the tyre removal company could not come to site for more than a week, refusal for more tyres being dumped (lack of space to stockpile more than one week of tyres);
  - If there were limited loader drivers or truck drivers available, ensuring rubbish was compacted and the removal of kerbside organics would be the priority therefore the Council could stop taking greenwaste and hardfill for a period of time;
  - Depending on processing site, transport or staff availability, Council would stop taking specific recyclable materials, or close the recycling area;
  - Depending on circumstances (staff / loader driver availability; skip driver availability), Oxford Transfer Station operations may be limited to just recycling and WDC bags.
- WDC and ECan staff would be visiting both cleanfill pits at Southrook Rehab Recycling Partnership (RRP) this week, to inspect for compliance with consent conditions. Sutherlands Pit re-test results had been sent through to ECan –Plastic Disclosure Project (PDP) had been engaged to provide advice about the likely causes of the 'peaks' in nitrate results in the South-Western bore in recent samples, including the latest re-test. The normal sampling round was scheduled for the end of April 2022, and the advice from PDP should be received by that time. This should result in the removal of the current non-compliance with condition 15.0 *"The information provided to Environment Canterbury in accordance with Condition (14) shall include recommendations on further action to be taken ..."*
- The closed landfill groundwater quality report for 2021 had been received from PDP, and this had been sent to ECan. There did not seem to be any change to the groundwater quality from the previous few years.
- Councillor Brine advised that staff wished to reintroduce audits of the recycling bins and he had raised the Health and Safety concerns. It was advised that any issues would be fully mitigated, with auditors being fully

gowned and using a stick, as opposed to physically going into the bins. If any members had any issues regarding these audits being recommenced, they were asked to email these concerns to Councillor Brine.

#### **9.5 Transport – Mayor Dan Gordon**

Mayor Gordon spoke on Mulcocks Road intersection, and had recently had a meeting with NZTA and a resident who was concerned with the level of accidents there. Mayor Gordon noted it was useful to gain an understanding of the direction of NZTA in this matter.

There was a meeting scheduled to be held on 4 April 2022 with the Minister of Transport, the Chief Executive, and all the Greater Christchurch Partnership members. This meeting was to discuss transport investment in the Greater Christchurch Partnership area.

#### **10 QUESTIONS UNDER STANDING ORDERS**

There were no questions.

#### **11 URGENT GENERAL BUSINESS**

There was no urgent general business.

#### **12 MATTERS TO BE CONSIDERED WITH THE PUBLIC EXCLUDED**

*Section 48, Local Government Official Information and Meetings Act 1987*

Moved Councillor Brine                      Councillor Williams

**THAT** the public be excluded from the following parts of the proceedings of this meeting.

o

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution, are as follows:

<b>Item No</b>	<b>Minutes/Report of:</b>	<b>General subject of each matter to be considered</b>	<b>Reason for passing this resolution in relation to each matter</b>	<b>Ground(s) under section 48(1) for the passing of this resolution</b>
12.1	Minutes of the public Excluded portion of Utilities and Roading Committee meeting of 22 February 2022	Confirmation of Minutes	Good reason to withhold exists under Section 7	Section 48(1)(a)
12.2 – 12.3	Reports from Management Team meetings	Reports for information	Good reason to withhold exists under Section 7	Section 48(1)(a)

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987, and the particular interest or interests protected

by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public are as follows:

Item N°	Reason for protection of interests	Ref NZS 9202:2003 Appendix A
12.1 – 12.3	Protection of privacy of natural persons To carry out commercial activities without prejudice	A2(a) A2(b)ii

**CARRIED**

**CLOSED MEETING**

*The public excluded portion of the meeting commenced at 4.05pm and concluded at 4.11pm.*

**Resolution to Resume in Open Meeting**

Moved: Councillor Brine                      Seconded: Councillor Blackie

**THAT** open meeting resumes and the business discussed with the public excluded remains public excluded.

**CARRIED**

**OPEN MEETING**

**NEXT MEETING**

The next meeting of the Utilities and Roading Committee is scheduled for 3.30pm, on Tuesday 26 April 2022.

There being no further business, the meeting closed at 4.11pm.

CONFIRMED

\_\_\_\_\_  
Chairperson  
Councillor Robbie Brine

\_\_\_\_\_  
Date

**BRIEFING**

*At the conclusion of the meeting a briefing was held to discuss:*

- 1. Chlorination requirements of new drinking water standards.***  
*(Colin Roxburgh) This was a briefing to full council and Community Board Chairpersons were also invited to attend.*

2. ***Kaiapoi and Woodend water supply, temporary chlorination and steps to remove this.*** (Colin Roxburgh)
3. ***Road Markings recommended for Southbrook Road –*** (Shane Binder)

UNCONFIRMED

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR INFORMATION**

**FILE NO and TRIM NO:** DRA-16-03 / 220413056836


**REPORT TO:** Utilities and Roading Committee


**DATE OF MEETING:** 26 April 2022

**AUTHOR(S):** Emile Klopper, Flood Team Lead  
Caroline Fahey, Water Operations Team Leader  
Kalley Simpson, 3 Waters Manager

**SUBJECT:** May 2021, December 2021 & February 2022 Flood Events – Service Requests Update

**ENDORSED BY:**  
(for Reports to Council, Committees or Boards)

  
 \_\_\_\_\_  
 Department Manager

  
 \_\_\_\_\_  
 Chief Executive

**1. SUMMARY**

- 1.1 The purpose of this report is to update the Utilities & Roading Committee on the status of the drainage service requests received related to the significant rainfall events that occurred over the 29<sup>th</sup> to 31<sup>st</sup> May 2021, 15<sup>th</sup> December 2021 and 12<sup>th</sup> February 2022.
- 1.2 A total of 598 drainage service requests were received related to these rainfall events and total of 59 areas have been identified for further assessment, as set out in the attached report (refer Attachment i).
- 1.3 The focus of this report is to provide feedback on the 59 areas identified and progress made on their investigation since the previous Utilities and Roading Committee meeting held on 22 March 2022.

**Attachments**

- i. February 2022 Flood Event - Update on Service Requests (TRIM 220310034384)
- ii. Spread of service requests throughout the district (TRIM 220420060017)

**2. RECOMMENDATION**

**THAT** the Utilities & Roading Committee:

- (a) **Receives** report No. 220413056836.
- (b) **Notes** that 598 drainage service requests related to the significant rainfall events in May 2021, December 2021 and February 2022 were received, which have all been responded to although some require further maintenance or investigation work.
- (c) **Notes** that there are currently 59 drainage assessments identified and this is likely to increase as the service requests are worked through. Progress made since the previous Utilities & Roading Committee meeting is set out in Section 4 of the report.

- (d) **Notes** that background information in regards to the recent flooding event can be viewed in report No. 220310034384 entitled: "*February 2022 Flood Event - Update on Service Requests*".
- (e) **Notes** that a webpage has been set up on the Council's website to provide updates on the status of drainage works underway and targeted information will be sent out to the Waikuku Beach and Kaiapoi communities.
- (f) **Notes** that if further budgets are required for any capital works identified as part of the drainage assessment work, that these will be sought as part of the 2022/23 Annual Plan process.
- (g) **Circulates** this report to the Council and Community Boards for information.

### 3. **BACKGROUND**

#### 3.1. **Increased Service Requests**

- 3.2. A total of 598 drainage service requests (SRs) were received which equates to roughly 75% of the approximately 800 SRs that Council typically receives annually. In addition to the flood related increase in SRs, unusually high groundwater levels and saturated catchments are resulting in further increases to SRs logged. Approximately 1,500 SRs have been logged in the past 12 months, resulting in a severe backlog.
- 3.3. A Flood Team has been established to address the backlog and focus on the flood event related service requests. The Flood Team comprises of two external consultants, working 3 days per week, and 3 Waters staff with support from the Project Delivery Unit.
- 3.4. All service requests have been triaged and grouped into focus areas requiring further assessment. A total of 59 areas have been identified for further assessment (refer to Attachment ii for a breakdown of the focus areas throughout the districts), which is going to take a number of months to work through.
- 3.5. It is expected that addressing the backlog of service requests and working through the investigations identified will take several months. It is noted that all 598 service requests have been responded to or acknowledged, however further follow up is required for those service requests where investigation work is required.
- 3.6. Since the previous U&R Committee update meeting, the Flood Team have focussed their attention on investigating the 59 focus areas completing preliminary designs and investigations for the following 5 key focus areas:
  - Broadway Avenue, Waikuku Beach
  - Swindells Road, Waikuku Beach
  - Fuller Street, Kaiapoi
  - Cust Road, Cust
  - Ranui Mews, Kaiapoi
- 3.7. A further 25 focus areas have also been assigned and progressed. Refer to Section 4 for an update on the progress made.

### 4. **ISSUES AND OPTIONS**

#### 4.1. **Drainage Assessments**

- 4.2. The following areas as indicated in Table 1 have been allocated and investigations started. Refer to Section 4.3 for a brief description of the areas that have completed their



preliminary designs and investigations. In addition to Table 1, three separate projects were identified to consolidate the remaining focus areas works into three separate packages of maintenance, CCTV and survey works. This will ensure efficiency in resource allocation of external contractors being relied upon to provide the Flood Team with critical information.

*Table 1: Focus Areas Currently being Investigated*

Scheme	Location	Status
Rangiora	Strachan Place	Underway
Kaiapoi	310 Beach Road	Underway
	46 A Fuller Street	Underway
	59 Main North Road	Underway
	68 Sovereign Boulevard	Underway
	69 Old North Road	Not yet started
	Porter Place	Complete
Woodend	5 B Norton Place	Underway
Waikuku Beach	31 Broadway Avenue	Underway
	12 Reserve Road	Underway
	14 Kiwi Avenue	Underway
	4 Swindells Road	Underway
Pines Kairaki	Beach Road	Underway
	56 Featherstone Avenue	Not yet started
Oxford Urban	Bay Road	Underway
	13 Queen Street	Complete
	23 Burnett Street	Not yet started
	189 High Street	Underway
Ohoka Rural	494 Mill Road	Underway
	175 Mill Road	Not yet started
	181 McHughs Road	Underway
Oxford Rural	31 Victoria Street	Underway
Cust Rural	1649 & 1689 Cust Road	Underway
	1838, 1840 & 1842 Cust Road	Underway
District Drainage	105 Taaffes Glen Road	Underway
	217 Toppings Road	Underway
	51 Smarts Road	Underway
	Mt Thomas Road	Underway
Other	Ranui Mews	Underway
	Kairaki PS	Underway

4.3. Progress on the 5 key focus areas is summarised below:

**4.3.1. Broadway Avenue, Waikuku Beach**

- Desktop and onsite investigations were carried out to determine the extent of the problems and their root cause.
- Maintenance, CCTV and survey briefs were compiled and issued with works programmed to take place:
  - Maintenance of existing

- The downstream drain was found to be overgrown. The maintenance Contractor was instructed to clean out the drains which will improve overall drainage within the area.
  - CCTV and jetting
    - Stormwater infrastructure (both pipes and sumps) were found to be silted up. There were also disparities found between onsite observations and GIS data. A CCTV survey was issued and jetting of the infrastructure. Jetting will also greatly improve drainage of the area.
  - Survey of existing and proposed
    - A survey was recently done of the surrounding area to confirm ground levels which will impact the ultimate designed solution.
- The preliminary design, based on available GIS and Lidar data, includes a proposed piped system from Kiwi Ave Park out to Broadway Ave through private property. The next steps are to confirm the preliminary design based on the survey and then discuss the proposed solution with the affected landowners.

#### **4.3.2. Swindells Road, Waikuku Beach**

- Topographical survey and CCTV inspection of pipework has been completed.
- The driveway culverts along both sides of Swindells Road are partially silted up and will be cleaned out.
- Options memo is currently being progressed covering the following short to long term options:
  - Short term solution - Upgrade/clean out existing pipework, driveway culverts, swales to meet reasonable level of service (expected 2 year AEP) as low cost.
  - Medium term solution - Improve primary capacity including linking existing low point to existing sump and temporary pump to be deployed in larger event to manage flows in excess of primary capacity.
  - Long term solution to ensure no flooding of houses in 50 year event, including potentially
    - upsizing existing pipework
    - replacing the section through the stopbank
    - new pipe through the stopbank from the low point
    - permanent pump station
  - Potential tie in to broader further works in Waikuku Beach including potential for retention basin in the adjacent reserve etc.
- It is anticipated that further budget would be required in order to implement these upgrades, which will be addressed as part of the Drainage staff submission on the draft Annual Plan.

#### **4.3.3. Fuller Street, Kaiapoi**

- Initial meeting has been held with the affected property owners.
- Onsite CCTV connectivity and topographical survey to be undertaken by Council.
- Potential solution is a bund/barrier along the rear boundary and flapgates on the stormwater outlets to prevent water from the drain entering the property and onsite improvements to drain rainwater from the property to the drain.
- A memo will be prepared with advice to the landowners in terms of onsite improvements and concept design and cost estimate for the bund/barrier along the rear boundary.

#### **4.3.4. Cust Road, Cust**

- Desktop and onsite investigations were carried out to determine the extent of the problems and their root cause.
- Maintenance, CCTV and survey briefs were compiled and issued with works programmed to take place.

- Various options were developed as part of the preliminary design, all of which require some level of input from the Roading team. Meetings have been scheduled to discuss the options with the team.

#### **4.3.1. Ranui Mews, Kaiapoi**

4.3.2. The issue with the sewer at Ranui Mews has been ongoing for a number of years. Council previously implemented an upgrade to reduce the Ohoka Road catchment by about 25% by diverting the Kaikanui Street PS discharge into the Courtenay Drive system. Based on modelling work this was expected to reduce the surcharging in the Ohoka Road sewer main.

4.3.3. This upgrade appeared to have worked as we didn't have any reported issues between June 2019, when the system was implemented, and May 2021. However, issues have been recently experienced during the May 2021, June 2021, December 2021 and February 2022 rainfall events.

4.3.4. The following investigations are underway to try and understand what is causing the issues with the toilets at Ranui Mews:

- CCTV inspection of pipework at Ranui Mews – We have put a camera through the four sewer laterals onsite. This did not identify any significant issue. However, concern over the venting of the toilets was raised and we will be getting further advice from a certified plumber on this matter.
- CCTV inspection of Council sewer mains – We have put a camera through the sewer mains from the shops to the north of Ranui Mews to the Ohoka Road / Vickery Street intersection. This did not identify any significant issue, however evidence of surcharging within these manholes was still evident. We subsequently inspected the 300mm main in Vickery Street and identified some significant fat build-up in the pipes, this has been removed and the source of the fat is currently being investigated.
- Installation of level loggers in manholes – We are installing some level gauges in several manholes in the Ohoka Road catchment. These will send out an alert if the manholes begin to surcharge. This will help us to respond to issues more quickly and also to identify any locations of significant inflows to the system during rainfall events.

4.3.5. The information collected from this investigation work, will be used to identify potential solutions. Once we have a recommended solution we will inform residents of the likely timeframe to implement the works. It is noted that the solution may be a combination of both onsite improvements to the Ranui Mews system and also offsite improvements to the Council's sewer mains.

4.4. Further programme and progress updates will be reported to the Utilities and Roading Committee at future meetings as this work progresses.

#### **Implications for Community Wellbeing**

Some of the locations of flooding have had flooding in the past and some residents have had to make insurance claims for flood related damage. This has a potential implication on community wellbeing for these residents.

4.5. The Management Team has reviewed this report and support the recommendations.

## **5. COMMUNITY VIEWS**

### **5.1. Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be directly affected by this work. However they will have an interest in any future proposed works that may have an impact on waterways and rivers. Staff will update the Runanga at the executive meetings and where relevant on specific projects engage with MKT.

### **5.2. Groups and Organisations**

Community boards and drainage advisory groups will be updated on the investigation works and any specific future proposed works that come out of the assessment.

### 5.3. **Wider Community**

A dedicated webpage was been set up for the May 2021 event and has been recently updated, refer:

<https://www.waimakariri.govt.nz/services/water-services/stormwater/drainage-works>

A community meeting was held for Waikuku Beach residents on 6 July 2021, however not all investigation work has been completed in this area. It is planned to release a targeted update to the Waikuku Beach community, either via a local newsletter flyer or dedicated flyer.

Target consultation is also planned for the Kaiapoi Community via the Shovel Ready programme of works which will address most of the issues experienced in the Dudley Drain, Feldwick Drain and McIntosh Drain catchments.

## 6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

### 6.1. **Financial Implications**

The costs associated with this investigation work will be charged to existing Drainage asset management and operations budgets. Any physical inspection work such as pipe maintenance and CCTV inspection work will be charged to the maintenance budget for the relevant Drainage scheme.

If further budgets are required for any capital works identified as part of the drainage assessment work, that these will be sought as part of the 2022/23 Annual Plan process.

### 6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability and/or climate change impacts.

### 6.3. **Risk Management**

There are no additional risks arising from the adoption/implementation of the recommendations in this report. The improvements implemented as a result of the drainage assessment identified will reduce the overall risk profile to Council and the community.

#### **Health and Safety**

The health and safety risks associated with undertaking this investigation work will be managed by standard Council processes.

## 7. **CONTEXT**

### 7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### 7.2. **Authorising Legislation**

The Local Government Act 2002 sets out the power and responsibility of local authorities, including the Council's role in providing drainage services.

### 7.3. **Consistency with Community Outcomes**

The Council's community outcomes listed below are relevant to the actions arising from recommendations in this report.

- *There is a safe environment for all*

- *Core utility services are provided in a timely and sustainable manner*

7.4. **Authorising Delegations**

The Utilities and Roading Committee is responsible for activities related to Stormwater drainage.

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR INFORMATION**

**FILE NO and TRIM NO:** DRA-16-03 / 220310034384


**REPORT TO:** UTILITIES AND ROADING

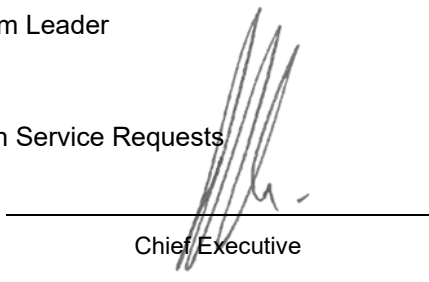
**DATE OF MEETING:** 22 March 2022

**AUTHOR(S):** Emile Klopper, Flood Team Lead  
Caroline Fahey, Water Operations Team Leader  
Kalley Simpson, 3 Waters Manager

**SUBJECT:** February 2022 Flood Event - Update on Service Requests

**ENDORSED BY:**  
(for Reports to Council,  
Committees or Boards)

  
Department Manager

  
Chief Executive

**1. SUMMARY**

- 1.1 The purpose of this report is to update the Utilities & Roading Committee on the status of the drainage service requests received related to the significant rainfall events that occurred over the 29<sup>th</sup> to 31<sup>st</sup> May 2021, 15<sup>th</sup> December 2021 and 12<sup>th</sup> February 2022.
- 1.2 A total of 598 drainage service requests were received related to these rainfall events. All service requests have been responded to although some require further follow-up maintenance or investigation work as set out in this report.
- 1.3 A Flood Team has been established, comprising of two external consultants and 3 Waters staff with support from the Project Delivery unit. All service requests have been triaged and grouped into focus areas requiring further assessment. A total of 59 areas have been identified for further assessment, which is going to take a number of months to work through.
- 1.4 The focus of this report is on the February 2022 event, however ongoing investigation work is also covered from the May 2021 and December 2021 events which was previously identified in other reports (refer TRIM 210909144676 and 211223205713).

**Attachments**

- i. Flood Team Prioritisation Methodology
- ii. May 2021 Flood Event - Update on Service Requests (TRIM 210909144676)
- iii. Response to December 2021 Flooding Event (TRIM 211223205713)

**2. RECOMMENDATION**

**THAT** the Utilities & Roading Committee:

- (a) **Receives** report No. 220310034384.
- (b) **Notes** that 598 drainage service requests were received related to the significant rainfall event in May 2021, December 2021 and February 2022, which have all been responded to although some require further maintenance or investigation work.

- (c) **Notes** that there are currently 59 drainage assessments identified as set out in section 4.6 and this is likely to increase as the service requests are worked through.
- (d) **Notes** that a webpage has been setup on the Council's website to provide updates on the status of drainage works underway and targeted information will be sent out to the Waikuku Beach and Kaiapoi communities.
- (e) **Notes** that if further budgets are required for any capital works identified as part of the drainage assessment work, that these will be sought as part of the 2022/23 Annual Plan process.
- (f) **Circulates** this report to the Council and the Community Boards for information.

### 3. **BACKGROUND**

- 3.1 The flood event that occurred on the 12<sup>th</sup> February occurred over an unusually wet period for February, when 200mm of rainfall occurred over a 2 week period in the eastern part of the District. This is approximately one third of the average annual rainfall. The previous 12 months have seen approximately 900mm of rainfall occur, which has only been exceeded twice in the last 20 years. The catchments in the District are currently very saturated and the groundwater levels are high, particularly in the coastal area.
- 3.2 The rainfall was higher in the coastal parts of the district (refer to Table 1 below). The critical duration of 24 hours meant that our larger drains (e.g.: Dudley Drain, Feldwick Drain and McIntosh Drain) and storage system were tested, however there were some more intense periods of rainfall that tested our piped systems and cause blockages at some locations.

Table 1 – Rainfall and Return Period 12<sup>th</sup> February 2022

Site	Total Rainfall	Return Period	Critical Duration	Rainfall For Critical Duration
Kaiapoi	98.4 mm	19 years, 0 months	24 Hours	94.6 mm
Woodend	107.8 mm	23 years, 1 months	24 Hours	101.4 mm
Rangiora	98.8 mm	13 years, 2 months	24 Hours	94.0 mm
Mandeville	68.6 mm	4 years, 1 months	24 Hours	64.2 mm
Summerhill	87.2 mm	5 years, 0 months	24 Hours	87.2 mm
Oxford	68.6 mm	2 years, 6 months	24 Hours	60.6 mm

- 3.3 Figure 1 below shows the total rainfall to have occurred in the previous 12 months. As mentioned above, the current total of over 900mm has only been previously exceeded twice in the last 20 years. It is expected that this figure will increase as we move into winter, which is typically a wetter time of the year in our District.
- 3.4 Figure 2 below shows the current groundwater levels in a monitoring bore M35/0143 to the west of Mandeville. When levels are above 10m below ground level the undercurrents are usually following in the District, which is currently occurring in the No.10 Road and Siena Place areas. It is expected that the undercurrents will continue to flow in the Mandeville area for at least the next two months.
- 3.5 Groundwater levels in the coastal area are also very high at the moment, which is impacting drainage systems, particularly soakage type systems, in Waikuku Beach, Pegasus, Woodend Beach and The Pines Beach.

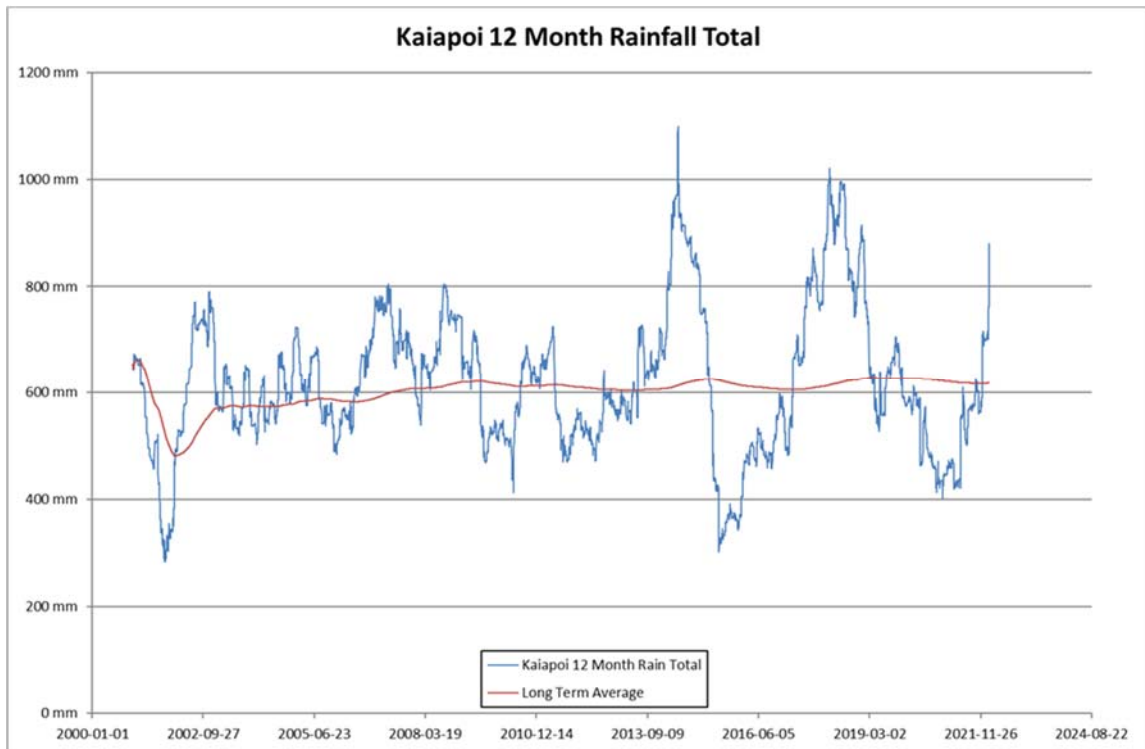


Figure 1 – Rainfall and Return Period 12<sup>th</sup> February 2022

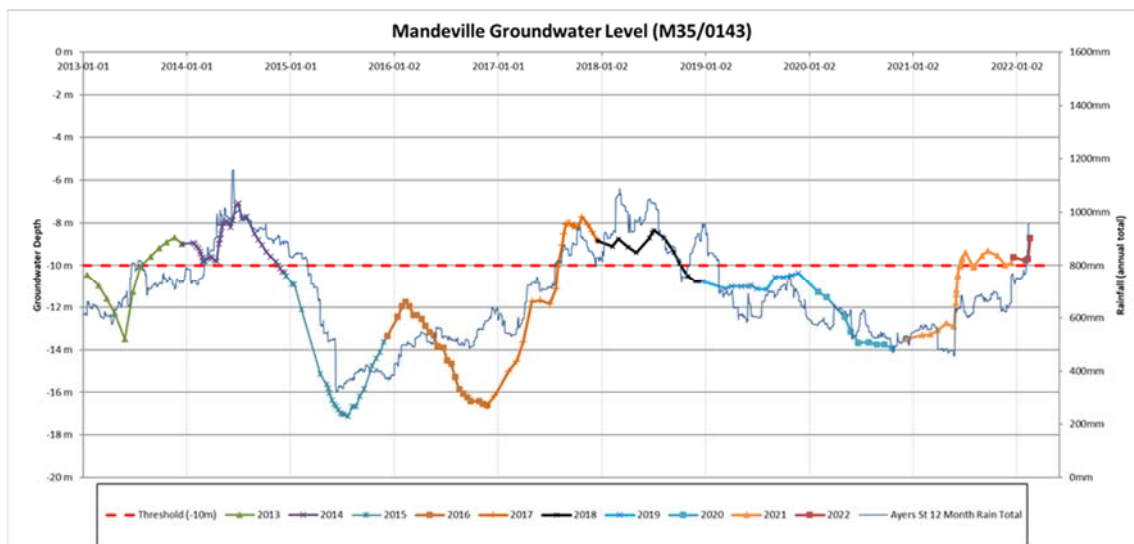


Figure 2 – Mandeville Bore (M35/0143) Groundwater Level

3.6 Analysis of the May 2021 Flood Event and December 2021 Flooding Event is included in previous reports (refer TRIM 210909144676 and TRIM 211223205713 respectively).

#### 4. **ISSUES AND OPTIONS**

4.1. A total of 598 drainage service requests were received related to the three rainfall events. Typically Council receives about 800 drainage related services requests a year, so the 598 service requests therefore equates to approximately three quarters of a year's requests. Additionally the Drainage team is experiencing an increase in service requests, given the saturated catchments and high groundwater level currently being experienced. There has been nearly 1,500 drainage service requests logged in the past 12 months, which is close to double what we typically receive. This has created a backlog that has to be worked through.



- 4.2. As a result of this backlog, a Flood Team has been established to focus on the flood event related service requests. The Flood Team comprises of two external consultants, working 3 days per week, and 3 Waters staff with support from the Project Delivery Unit.
- 4.3. All service requests have been triaged and grouped into focus areas requiring further assessment. A total of 59 areas have been identified for further assessment (refer Section 4.6 below), which is going to take a number of months to work through.
- 4.4. The 598 service requests have been triaged using a prioritisation methodology (refer Attachment i), which has been workshopped with the 3 Waters team. This included looking at the frequency of service requests, impact on the local network, and economic, environmental and human risk factors, as well as community drivers, low hanging fruit type solutions and discretionary outlier factors.
- 4.5. The spread of the 59 investigations across the District is shown in Table 2 below.

*Table 2 – Investigations across the District*

Scheme		Investigations – Focus Areas
1	Rangiora Urban	3
2	Kaiapoi Urban	17
3	Coastal Urban - Woodend	3
4	Coastal Urban - Waikuku Beach	4
5	Coastal Urban - Pines Kairaki	3
6	Pegasus	1
7	Oxford Urban	5
8	Ohoka Rural	4
9	Loburn Lea	0
10	Oxford Rural	1
11	Clarkville Rural	0
12	Coastal Rural	4
13	Rural Central	1
14	Cust Rural	2
15	Ashworths Rural	0
16	District Drainage	9
17	Stockwater / Irrigation	0
18	Wastewater	2
<b>Total</b>		<b>59</b>

- 4.6. It is expected that it will take a number of months to address the backlog of service requests and work through the investigations identified. It is noted that all 598 service requests have been responded to or acknowledged, however further follow up is required for those service requests where investigation work is required.

#### **Drainage Assessments**

- 4.7. The following areas have already been identified for further investigation. Some of these investigations are already underway. It is noted that additional localised areas may be added to the list as the service requests are worked through.

##### Rangiora (3)

- Newnham Street
- Ivory Street
- Strachan Place

Kaiapoi (17)

- Beach Road – Underway
- Mansfield Drive – Underway
- Williams Street / Golf Course
- Williams / Dale Street
- Sovereign Boulevard – Underway
- Old North Road
- Bracebridge Street
- Kalmia Place
- Feldwick Drive / Feldwick Drain and PS – Underway
- Williams / Cass Street
- Cridland Street West
- Fuller Street – Underway
- Porter Place / Dudley Drain – Underway
- Wesley Street
- Hamel Lane
- Williams Street / Courtenay Drive – Underway
- Main North Road / Courtenay Stream – Underway

Woodend (3)

- Woodglen Drive
- Norton Place – Underway
- Rangiora Woodend Road

Waikuku Beach (4)

- Broadway Avenue – Underway
- Reserve Road
- Kiwi Avenue
- Swindells Road – Underway

Pines / Kairaki (3)

- Beach Road – Underway
- Batten Grove
- Featherstone Avenue

Pegasus (1)

- Pegasus Main Street

Oxford Urban (5)

- Kowhai Street
- Bay Road
- Queen Street
- Burnett Street
- High Street / Church Street – Underway

Ohoka Rural (4)

- Mill Road / Ohoka village
- Mill Road Ohoka Stream – Underway
- McHughes Road – Underway
- Wilson Drive

Oxford Rural (1)

- Victoria Street – Underway

Coastal Rural (4)

- Main North Road (SH1) / Waikuku village
- MacDonalds Lane
- Stalkers Road / Woodend Beach
- Main North Road (SH1) / North of Pineacres – Underway

Central Rural (1)

- Skewbridge Road

Cust Rural (2)

- Cust Road / Earlys Road – Underway

- 1838-1842 Cust Road

#### District Drainage (9)

- Taaffes Glen Road – Underway
- Toppings Road – Underway
- Smarts Road – Underway
- Steffens Road
- Depot Road – Underway
- Upper Sefton Road
- Dixons Road
- Hodgsons Road
- Mt Thomas Road – Underway

#### Wastewater (2)

- Ranui Mews – Underway
- Kairaki PS – Underway

- 4.8. Regular programme and progress updates will be reported to the Utilities and Roading Committee at future meetings as this work progresses.
- 4.9. As we move into winter, Council staff will closely monitor groundwater levels and track weather events, and will proactively mobilise contractors and deploy temporary pumps and sucker trucks if necessary. Where there are areas of specific concern staff will contact residents directly in advance of any events to advise them of what they can be doing.

#### **Implications for Community Wellbeing**

Some of the locations of flooding have had flooding in the past and some residents have had to make insurance claims for flood related damage. This has a potential implication on community wellbeing for these residents.

- 4.10. The Management Team has reviewed this report and support the recommendations.

## **5. COMMUNITY VIEWS**

### **5.1. Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be directly affected by this work. However they will have an interest in any future proposed works that may have an impact on waterways and rivers. Staff will update the Runanga at the executive meetings and where relevant on specific projects engage with MKT.

### **5.2. Groups and Organisations**

Community boards and drainage advisory groups will be updated on the investigation works and any specific future proposed works that come out of the assessment.

### **5.3. Wider Community**

A dedicated webpage was been set up for the May 2021 event and has been recently updated, refer:

<https://www.waimakariri.govt.nz/services/water-services/stormwater/drainage-works>

A community meeting was held for Waikuku Beach residents on 6 July 2021, however not all investigation work has been completed in this area. It is planned to release a targeted update to the Waikuku Beach community, either via a local newsletter flyer or dedicated flyer.

Target consultation is also planned for the Kaiapoi Community via the Shovel Ready programme of works which will address most of the issues experienced in the Dudley Drain, Feldwick Drain and McIntosh Drain catchments.

Additionally proactive communications will be released for what Council is doing and what the community can do as we approach the winter season.

## **6. OTHER IMPLICATIONS AND RISK MANAGEMENT**

### **6.1. Financial Implications**

The costs associated with this investigation work will be charged to existing Drainage asset management and operations budgets. Any physical inspection work such as pipe maintenance and CCTV inspection work will be charged to the maintenance budget for the relevant Drainage scheme.

If further budgets are required for any capital works identified as part of the drainage assessment work, that these will be sought as part of the 2022/23 Annual Plan process.

### **6.2. Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability and/or climate change impacts.

### **6.3 Risk Management**

There are no additional risks arising from the adoption/implementation of the recommendations in this report. The improvements implemented as a result of the drainage assessment identified will reduce the overall risk profile to Council and the community.

#### **Health and Safety**

The health and safety risks associated with undertaking this investigation work will be managed by standard Council processes.

## **7. CONTEXT**

### **7.1. Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### **7.2. Authorising Legislation**

The Local Government Act 2002 sets out the power and responsibility of local authorities, including the Council's role in providing drainage services.

### **7.3. Consistency with Community Outcomes**

The Council's community outcomes listed below are relevant to the actions arising from recommendations in this report.

- *There is a safe environment for all*
- *Core utility services are provided in a timely and sustainable manner*

### **7.4. Authorising Delegations**

The Utilities and Roading Committee is responsible for activities related to Stormwater drainage.

## **Attachment i - Flood Team Prioritisation Methodology**

As part of the prioritisation and/or triaging of the Service Requests (SR), we need to assign a weighting to the request. Some criteria was developed to aid in assigning said weight. The selected criteria aims to balance out the various factors affecting the SR. These criteria and a short description can be seen below.

### **1. Frequency of SR – 2/15**

Various properties experienced some form of flooding during the flood events with subsequent SR's being logged. An assumption was made that certain properties and SR's should be prioritised above others should multiple SR's be logged at that particular property. That being said, it's worth noting that the scale of flooding and potential damage due to flooding doesn't necessarily correlate with the amount and/or frequency of logging a SR. As such the frequency category was allocated a weighting of 2/15.

When reviewing and analysing the frequency of SR's being reported/logged per property, the below was observed.

Frequency SR Logged	Properties	Weighting
1	421	0.5
2	47	1
3	9	1.5
4	2	2
5	1	2
Invalid Address	15	0
Total SR's Logged	570	

From the above table it can be seen that 421 properties logged 1 SR request, 47 logged 2 requests, 9 logged 3 SR's, 2 logged 4 SR's and 1 property logged 5 SR's. The above table also shows how the weighting distribution was split up. From the weighting distribution it can be seen that properties that had an "invalid address" received a "0" weighting. This is due to properties logging a SR without providing an adequate address cannot be prioritised above those that have as WDC staff will have no practical means to investigate the SR.

### **2. Impact on the local network – 3/15**

If, upon further investigation, it becomes apparent that certain SR's would have a significant impact on the larger local network, these SR's need to be prioritised above others as they might indicate a larger problem. Scoring/weighting for the SR's impact on the local network will be done in the following manner:

Scenario	No of Properties Affected	Road Classification Affected	Weighting (x/3)
1	1	Private Roads	0/3
2	>1 and <7	Local Roads	1/3
3	>7 and <15	Collector Roads	2/3
4	>15	Arterial and Strategic Roads	3/3

### **3. Risk – 3/15**

Risk was split up into three categories each with an equal weighting (see below). A simple yes or no answer was seen as sufficient for the purposes of prioritising the SR's.

- Economic Risk – 1/3
  - Does the SR relate to a flooding event which would cause economic damage such as damage to property?

- Human Risk – 1/3
  - Is there a risk to human and/or animal wellbeing?
- Environmental Risk – 1/3
  - Is there an environmental risk?

#### 4. Community drivers – 1/15

Certain locations of flooding have more impact on and awareness among the wider community. Community drivers include locations where flooding issues have been elevated on social media or to elected members, or may involve locations where the community is particularly vulnerable (e.g.: elderly residents). This factor was included to prioritise issues where there is greater community concern in trying to resolve persistent flooding issues.

#### 5. Low hanging fruit – 1/15

Low hanging fruit is defined as SR's that would, with relatively little effort, result in the issue to be resolved. Typical examples include rudimentary maintenance related works or even replacing damaged sumps and/or pipes.

#### 6. Discretionary Outliers – 5/15

If during the investigation and triaging phase certain SR's are identified which, to the best of the Flood Team's professional opinion, has an increased need to resolve, an added 5 points to the prioritisation score can be applied. These discretionary outliers will, per definition, be the minority and should only be allocated for the odd SR that truly needs to be prioritised above all others. This criteria is also intended to act as a pathway to certain SR's that would otherwise fall by the wayside due to a low frequency of submission and other criteria being underrepresented.

Weightings for the above criteria were therefore as follows:

Frequency	2
Impact on local network	3
Risk	3
Community Drivers	1
Low Hanging Fruit	1
Discretionary Outlier	5
Total	15

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR INFORMATION**

**FILE NO and TRIM NO:** DRA-16-03 / 210909144676


**REPORT TO:** UTILITIES AND ROADING

**DATE OF MEETING:** 21 September 2021

**AUTHOR(S):** Caroline Fahey, Water Operations Team Leader  
Kalley Simpson, 3 Waters Manager

**SUBJECT:** May 2021 Flood Event - Update on Service Requests

**ENDORSED BY:**  
(for Reports to Council,  
Committees or Boards)

  
\_\_\_\_\_  
Department Manager

  
\_\_\_\_\_  
Chief Executive

**1. SUMMARY**

- 1.1 The purpose of this report is to update the Utilities & Roading Committee on the status of the drainage service requests received during or following the significant rainfall event that occurred over the weekend of 29<sup>th</sup> to 31<sup>st</sup> May 2021 and the following smaller event on 20<sup>th</sup> June 2021.
- 1.2 A total of 269 drainage service requests were received related to the rainfall events. All service requests have been responded to although some require further follow-up maintenance or investigation work as set out in this report.
- 1.3 The focus of this report is on the follow-up work required to address service requests that were lodged but not part of the response and emergency work undertaken which is covered in other reports (refer 210625103046 and 210817135255).

**2. RECOMMENDATION**

**THAT** the Utilities & Roading Committee:

- (a) **Receives** report No. 210909144676.
- (b) **Notes** that 269 drainage service requests were received related to the significant rainfall event in May 2021 and following smaller event in June 2021, which have all been responded to although some require further maintenance or investigation work.
- (c) **Notes** that there are currently 13 drainage assessments identified as set out in section 4.3 and this is likely to increase as the service requests are worked through.
- (d) **Notes** that a webpage has been setup on the Council's website to provide updates on the status of drainage works underway.
- (e) **Notes** that if further budgets are required for any capital works identified as part of the drainage assessment work, that these will be sought as part of the 2022/23 Annual Plan process.
- (f) **Circulates** this report to the Council for information.

### 3. **BACKGROUND**

- 3.1 The flood event that occurred over the weekend of 29<sup>th</sup> to 31<sup>st</sup> May 2021 was a significant rainfall event over a three-day period which resulted in damage to Council's infrastructure assets as outlined in the report presented to Council in July 2021 (refer 210625103046). A smaller scale rainfall event followed on 20<sup>th</sup> June 2021.
- 3.2 The rainfall was higher in the western parts of the district (refer Table 1 below) and was a longer duration event which had more of an impact on river flows, and infrastructure next to rivers, rather than our urban systems.

*Table 1 – Rainfall Depths 29<sup>th</sup>-31<sup>st</sup> May 2021*

Rainfall Totals				
	29 May (mm)	30 May (mm)	31 May (mm)	Total (mm)
<b>Oxford</b>	6	122.8	37.8	227.6
<b>Rangiora</b>	44.8	99.8	31.4	176
<b>Mandeville</b>	37	72.4	19.4	128.8
<b>Kaiapoi</b>	29.8	78.2	22.6	130.6
<b>Woodend</b>	36	71.2	34.8	142
<b>Summerhill</b>	54.5	105.2	30.8	190.6

- 3.3 The highest rainfall quantities in the Waimakariri District were recorded around the foothills of Oxford and Okuku, with coastal areas showing lower-level rainfall levels. Coastal areas however were affected by swollen river levels and high tides, causing backflow of flood water into lower lying areas.

### 4. **ISSUES AND OPTIONS**

- 4.1. A total of 269 drainage service requests were received related to the rainfall events. Typically Council receives about 800 drainage related services requests a year, so the 269 service requests equates to approximately one third of a year's requests received over a short period of time. This has created backlog that has to be worked through.
- 4.2. The 269 service requests have been classified into one of the following categories:
- 4.2.1. **Maintenance Undertaken** (21) – This relates to either clearing a blockage or maintaining a drain. This may have been undertaken during the event (e.g., typically clearing of blocked sumps) or over the following weeks post event (e.g., programmed drain maintenance).
- 4.2.2. **Maintenance Proposed** (120) – This relates to areas that require more assessment to confirm no maintenance is required or areas where more substantial maintenance works is required (e.g., cleaning of Mounsey Stream), which will require more planning.
- 4.2.3. **Signs Erected** (12) – This relates to requests where the only works requested or undertaken was to erect flooding signs.
- 4.2.4. **Advice Provided** (19) – This relates to either advice being provided on a private drainage issue or the status of our system (e.g., confirming that the water race system had been shut down).
- 4.2.5. **Drainage Assessment** (80) – This relates to service requests where further investigation and assessment is required to determine if there is an underlying issue with the drainage system. These areas are discussed further below.



4.2.6. **Roading Investigation** (15) – This relates to service requests where water is running off the road onto private property or roading infrastructure may not be operating adequately (e.g., soak pits).

4.2.7. **Subdivision related** (2) – This relates to drainage issues in development areas that are more to do with compliance (e.g.: erosion and sediment control).

4.3. It is noted that all 269 service requests have been responded to or acknowledged and closed off.

#### **Drainage Assessments**

4.4. The following areas have already been identified for further investigation. It is noted additional localised areas will be added to the list as the service requests are worked through.

##### Kaiapoi

- Kiln Place – Blue Skies Pipeline Investigation (Complete)
- Kaikanui Stream – Capacity Assessment (Underway)
- Cridland Street West – Pipeline condition and capacity assessment

##### Waikuku Beach

- Waikuku Beach Campground – Extension of stopbank (Complete led by Environment Canterbury)
- Swindells Road – Pipeline condition and capacity assessment (Underway)
- Collins Drive – Flaggate upgrade
- Waikuku Beach Road – Flooding assessment
- Kiwi Ave Reserve – Pipeline condition and capacity assessment

##### Oxford

- Church Street / Burnett Street – Drain capacity assessment
- Pearsons Drain (Bay Road & Burnett Street) – Drain capacity review
- Burnett Street – Strategy development
- High Street / Church Street – Drainage assessment (Underway)
- Weka Street – Drainage upgrades (Underway)

4.5. The above assessment work is being undertaken by 3 Waters and PDU staff with support from Stantec who have a resource seconded into the Water Operations Team 2 days a week for this work. It is expected that it will take until the end of November to address the backlog of service requests.

#### **Implications for Community Wellbeing**

Some of the locations of flooding have had flooding in the past and some residents have had to make insurance claims for flood related damage. This has a potential implication on community wellbeing for these residents.

4.6. The Management Team has reviewed this report and support the recommendations.

## **5. COMMUNITY VIEWS**

### **5.1. Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be directly affected by this work. However they will have an interest in any future proposed works that may have an impact on waterways and rivers. Staff will update the Runanga at the executive meetings and where relevant on specific projects engage with MKT.

### **5.2. Groups and Organisations**

There are some drainage related issues that also relate to water races and irrigation races. Where this is the case staff are coordinating with Waimakariri Irrigation Limited.

### 5.3. **Wider Community**

A community meeting was held with the residents of Kiln Place the 11 June 2021 and a community meeting was held for Waikuku Beach residents on 6 July 2021.

A dedicated webpage has been set up, refer:

<https://www.waimakariri.govt.nz/services/water-services/stormwater/drainage-works>

## 6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

### 6.1. **Financial Implications**

The costs associated with this investigation work will be charged to existing Drainage asset management and operations budgets. Any physical inspection work such as pipe maintenance and CCTV inspection work will be charged to the maintenance budget for the relevant Drainage scheme.

If further budgets are required for any capital works identified as part of the drainage assessment work, that these will be sought as part of the 2022/23 Annual Plan process.

### 6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability and/or climate change impacts.

### 6.3 **Risk Management**

There are no additional risks arising from the adoption/implementation of the recommendations in this report. The improvements implemented as a result of the drainage assessment identified will reduce the overall risk profile to Council and the community.

#### **Health and Safety**

The health and safety risks associated with undertaking this investigation work will be managed by standard Council processes.

## 7. **CONTEXT**

### 7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### 7.2. **Authorising Legislation**

The Local Government Act 2002 sets out the power and responsibility of local authorities, including the Council's role in providing drainage services.

### 7.3. **Consistency with Community Outcomes**

The Council's community outcomes listed below are relevant to the actions arising from recommendations in this report.

- *There is a safe environment for all*
- *Core utility services are provided in a timely and sustainable manner*

### 7.4. **Authorising Delegations**

The Utilities and Roading Committee is responsible for activities related to Stormwater drainage.

**WAIMAKARIRI DISTRICT COUNCIL****MEMO**

**FILE NO AND TRIM NO:** DRA-16 / 211223205713  
**DATE:** 21<sup>st</sup> December 2021  
**MEMO TO:** Utilities and Roding Committee  
**FROM:** Kalley Simpson, 3 Waters Manager  
**SUBJECT:** Response to December 2021 Flooding Event

---

**Purpose**

The purpose of this memo is to provide some context to the Committee regarding the recent event, as well as provide information on how the staff are responding.

**What was the event?**

This table shows the details of the December 2021 rainfall event as recorded.

**December 15<sup>th</sup> 2021**

Site	Total Rainfall	Return Period	ARI (%)	Critical Duration	Rainfall For Critical Duration
Kaiapoi	112.2mm	70 years, 2 months	1.4%	12 Hours	91.8mm
Woodend	131.2mm	122 years, 11 months	0.81%	12 Hours	107.8mm
Rangiora	104.8mm	35 years, 10 months	2.8%	12 Hours	88.8mm
Mandeville	66mm	8 years, 1 month	12%	12 Hours	58.4mm
Summerhill	60.2mm	3 years, 1 month	32%	2 Hours	19.0mm
Oxford	40.2mm	0 years, 11 months	110%	12 Hours	29.4mm

To give a comparison, the following are the same details for the May 2021 event.

**May 30<sup>th</sup> 2021**

Site	Total Rainfall	Return Period	ARI (%)	Critical Duration	Rainfall For Critical Duration
Kaiapoi	133.6mm	18 years, 10 months	5.3%	48 Hours	121.8mm
Woodend	147.4mm	24 years, 10 months	4.0%	72 Hours	145.2mm
Rangiora	178.4mm	47 years, 8 months	2.1%	48 Hours	160.4mm
Mandeville	131.0mm	17 years, 1 month	5.8%	48 Hours	120.8mm
Summerhill	195.2mm	46 years, 0 month	2.2%	48 Hours	173.2mm
Oxford	232.2mm	129 years, 4 months	0.8%	72 Hours	229.2mm

Comparison of the two events shows that the December 2021 event was focussed on the coastal area of the District and had slightly less rainfall but over a shorter period of time. A more detailed analysis of both these rainfall events is set out in the attached memo (refer TRIM 211222205116).

### **How did the Council organisation respond?**

The U&R team were monitoring this weather event from early Monday afternoon. It became clear a day or two before the event that there was a significant rainfall expected. In response to this, the staff began contingency planning, and deployed contractors to check pump stations, inlet grills and flap gates, clean out key sumps and drains, and ensure known problem areas were inspected. Temporary pumps and sucker trucks were placed on standby.

On the day and night, the U&R department had teams inspecting the main geographical areas and reporting back on issues. In addition, service requests were being logged and contractor feedback was captured.

The majority of the issues were recorded in Kaiapoi, with lesser issues in Woodend, Waikuku Beach and Rangiora. The west of the District remained relatively trouble free.

Over the period of the 15<sup>th</sup> and 16<sup>th</sup> December, 171 flood event related service requests were received. On that day, and in the following days, the service requests were triaged. Those that were emergency issues were dealt with on the day. Others were collated for further assessment. Note that a number of these requests related to issues that also occurred in the May event. This places greater urgency on understanding the cause and determining solutions.

The Council's Civil Defence Emergency Management team was mobilised and provided coordination throughout the event, however, this is not covered in the scope of this memo.

### **What is still being carried out?**

The service requests have been allocated to individual staff, who have been contacting every submitter to discuss the issue raised, as well as assuring them that their issue has been captured and will be investigated to determine the appropriate response. It is noted that submitters have been advised that it will be several months before the issues have been investigated.

Staff have identified that there is insufficient internal resource to deal with the extra workload, given the current resource levels and workload.

It is intended that a flood response PCG will be set up comprising on internal and external staff in order to respond to this event. Staff have reached out to external consultants, seeking assistance with a flood response lead engineer and also a flood response assistant engineer. These roles will be funded from existing budgets.

The external roles will be filled in order to investigate and report on the issues, including making recommendations by approx. May 2022. A report will be prepared for the Utilities and Roading Committee at that time making recommendations on further works.

### **Summary**

Staff are aware that this latest event has caused a number of issues around the District, some of which are repeat issues. We are working towards looking into the issues, considering options and reporting to the Committee with recommendations, but this will take time and extra resources. In the meantime, submitters are being contacted to assure them that their concerns are being looked at.

**WAIMAKARIRI DISTRICT COUNCIL****MEMO**

**FILE NO AND TRIM NO:** DRA-16 / 211222205116

**DATE:** 22<sup>nd</sup> December 2021

**MEMO TO:** Mayor, Councillors and Community Board Members

**FROM:** Jordan Cathcart, Project Engineer

**SUBJECT:** Rainfall Event Analysis – 15 December 2021

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**1. Purpose**

The purpose of this memo is to provide a summary of rainfall analysis carried out for the storm events of May 30<sup>th</sup> 2021 and December 15<sup>th</sup> 2021 and discuss key characteristics and comparisons between the two events.

**2. Summary**

In the 2021 year the Waimakariri District has experienced two storm events with significant rainfall intensity and volume.

The first event occurred on May 30<sup>th</sup> 2021 and was characterised by a long duration (48-72 hours) with the most significant rainfall located more inland (Oxford, Summerhill and Rangiora). The most critical recurrence interval was in Oxford, of 0.8% (129 years) across 72 hours.

The general flooding mechanism was widespread surface flooding due to primary and secondary stormwater networks at capacity combined with high river flows. In addition, outlet locations near rivers, coastal and main channels experienced flooding due to being unable to discharge due to high downstream water levels.

*Table 1 May 30th Rainfall Analysis*

Site	Total Rainfall	Return Period	AEP (%)	Critical Duration	Rainfall For Critical Duration
Kaiapoi	133.6mm	18 years, 10 months	5.3%	48 Hours	121.8mm
Woodend	147.4mm	24 years, 10 months	4.0%	72 Hours	145.2mm
Rangiora	178.4mm	47 years, 8 months	2.1%	48 Hours	160.4mm
Mandeville	131.0mm	17 years, 1 month	5.8%	48 Hours	120.8mm
Summerhill	195.2mm	46 years, 0 month	2.2%	48 Hours	173.2mm
Oxford	232.2mm	129 years, 4 months	0.8%	72 Hours	229.2mm

The second event occurred on December 15<sup>th</sup> 2021 and was characterised by a shorter duration of 12 hours with much more significant rainfall along the coastline (Woodend, Kaiapoi and to some extent Rangiora) rather than inland. The most critical recurrence interval was in Woodend, of 0.8% (122 years).

The general flooding mechanism was confined to the more coastal townships, with surface flooding due to primary stormwater networks at capacity. There was moderate

flows in rivers and main channels, however, was not expected to be causing significant impact on the ability of upstream networks to discharge.

*Table 2 December 15th Rainfall Analysis*

Site	Total Rainfall	Return Period	AEP (%)	Critical Duration	Rainfall For Critical Duration
Kaiapoi	112.2mm	70 years, 2 months	1.4%	12 Hours	91.8mm
Woodend	131.2mm	122 years, 11 months	0.8%	12 Hours	107.8mm
Rangiora	104.8mm	35 years, 10 months	2.8%	12 Hours	88.8mm
Mandeville	66mm	8 years, 1 month	12%	12 Hours	58.4mm
Summerhill	60.2mm	3 years, 1 month	32%	2 Hours	19.0mm
Oxford	40.2mm	0 years, 11 months	110%	12 Hours	29.4mm

### 3. Annual Exceedance Probability (AEP)

It is important to define the annual exceedance percentage (AEP) of the storm events above. This is also commonly expressed as the 'return period' or 'average recurrence interval'.

This is described by NIWA as being "*The inverse of probability (generally expressed in %), it gives the estimated time interval between events of a similar size or intensity.*"

*For example, the return period of a flood might be 100 years; otherwise expressed as its probability of occurring being 1/100, or 1% in any one year. This does not mean that if a flood with such a return period occurs, then the next will occur in about one hundred years' time - instead, it means that, in any given year, there is a 1% chance that it will happen, regardless of when the last similar event was. Or, put differently, it is 10 times less likely to occur than a flood with a return period of 10 years (or a probability of 10%)."*

The annual exceedance probability is estimated using a comparison to the High Intensity Rainfall Design System (HIRDSv4) developed by NIWA. HIRDSv4 uses a regionalised index-frequency method to allow for estimates of high intensity rainfall at any location throughout New Zealand for several return periods and durations. Although this tool is primarily used for use with designing infrastructure, an estimate of the expected recurrence interval of a storm post-event can be used as an indication of the severity.

The data used for the development of this tool is based on historic rainfall records in the area. When considering significant events such as experienced this year, there is comparatively little data to compare to i.e. for an event >100 years there is not necessarily rainfall records for the past 100 years in the area of interest. For this reason statistical analysis is relied upon to calculate the expected recurrence interval for events such as these.

As the HIRDS is developed additional rainfall records will form part of the dataset and influence future iterations.

Another important consideration is that the statistical analysis and corresponding annual exceedance probability is dependent on the location within the district. For example, 100mm of rainfall over 12 hours will return a different AEP for Oxford and Kaiapoi.

#### 4. **Event Comparison**

Although there are some similarities when viewing the annual exceedance probability in isolation, the rainfall experienced was quite different between the two events.

Key differences between these rainfall events can be grouped into the following.

- Location of rainfall
- Critical duration of the storm
- Time of year

Please note this is not considered to be an exhaustive list of factors affecting rainfall response.

##### 4.1. Rainfall Location

As presented in Tables 1 and 2, there can be significant variation across the district, with the location in which the bulk of the rainfall occurs having an impact on the response of the system.

For the May event, widespread rainfall fell across the district with higher intensity in the upper catchments of Oxford and Okuku. This mobilised surface runoff across all catchments, and affected the ability of downstream networks to discharge due to high water levels in main drainage channels and rivers.

This was not the case in the December event as relatively low amounts of rainfall fell inland, meaning there was a larger capacity available in river channels.

##### 4.2. Critical Duration

###### 4.2.1. Rainfall Critical Duration

The critical duration of a rainfall event represents the period of time in which the AEP/return period is most significant. This may not necessarily represent the full duration if there were periods of lighter, or no, rain.

###### 4.2.2. Catchment Critical Duration

The critical duration of a catchment represents the storm duration for a return period that will generate the largest peak runoff from that catchment.

This is the time taken for runoff to travel the length of the catchment and is generally related to catchment size and land cover. An example is that, for any given return period, the critical duration for an urban street or neighbourhood would typically be less than 1 hour. At a town level this is in the order of 6 hours and for larger catchments such as the Ashley River is around 24-48 hours.

Longer duration rainfall events accumulate a larger volume of rainfall, at a lower intensity compared to a shorter duration storm of the same return period. A longer duration can influence the capacity of the stormwater and land drainage at a much broader scale as there is more time for larger catchments to reach peak runoff whilst still raining.

This can be complex when considering an area of the district that is affected by smaller urban catchments and larger rural catchments, for example Rangiora and Kaiapoi with upstream rural catchments to the west. In addition, the ability for the Kaiapoi urban network to discharge to the river network can be significantly restricted when water levels are high.

This was experienced in May where the river levels and main drainage channels across the district were swollen due to the significant rainfall volume across a long period and large rural catchments.

In December the duration was shorter and river flows reached peak levels after the highest intensity rainfall had passed, meaning that surface flooding was not compounded by river levels.

Longer duration events are also more likely to coincide with one, or several, high tide cycles as was the case for the May event.

#### 4.3. Seasonal Variation / Antecedent Conditions

The time of year affects the ability for infiltration of stormwater to ground (antecedent moisture condition). The likelihood of higher groundwater levels, and preceding rainfall events affecting the antecedent moisture conditions are higher in the winter (May event) than summer (December event).

In May, due to a combination of antecedent conditions and a long duration event the infiltration or 'storage' had been exceeded causing a larger proportion of rainfall to be directed to surface flow. The effect of infiltration has less of an impact within urban areas with large impervious areas.

#### 4.4. Event Summary

##### 4.4.1. May 30<sup>th</sup> 2021

- Widespread surface flooding due to primary and secondary stormwater networks at capacity
- Long duration and high intensity rainfall in upper catchments caused high river flows
- High tide coinciding with peak river and rainfall
- Outlet locations near rivers, coastal and main channels experienced flooding due to being unable to discharge due to high downstream water levels.

##### 4.4.2. December 15<sup>th</sup> 2021

- Rainfall localised around coastal townships, with surface flooding within these areas
- Moderate flow in rivers and main channels
  - o Low rainfall in upper catchments mean less inflow to rivers
  - o Peak river flows after periods of most intense rainfall had passed
- High tide didn't coincide with peak rainfall
- Outlet ability to discharge was not significantly affected by downstream water levels.

## 5. **Conclusion**

Rainfall analysis forms an important tool to provide context to the severity of rainfall at various locations around the district, however, it is critical to consider all aspects of a rainfall event such as duration, location and antecedent conditions.

Although the May 30<sup>th</sup> and December 15<sup>th</sup> storms were estimated to have a return period of >100 years (<1%) in Oxford and Woodend respectively, the ability of the primary and secondary networks to convey stormwater was characterised very differently.

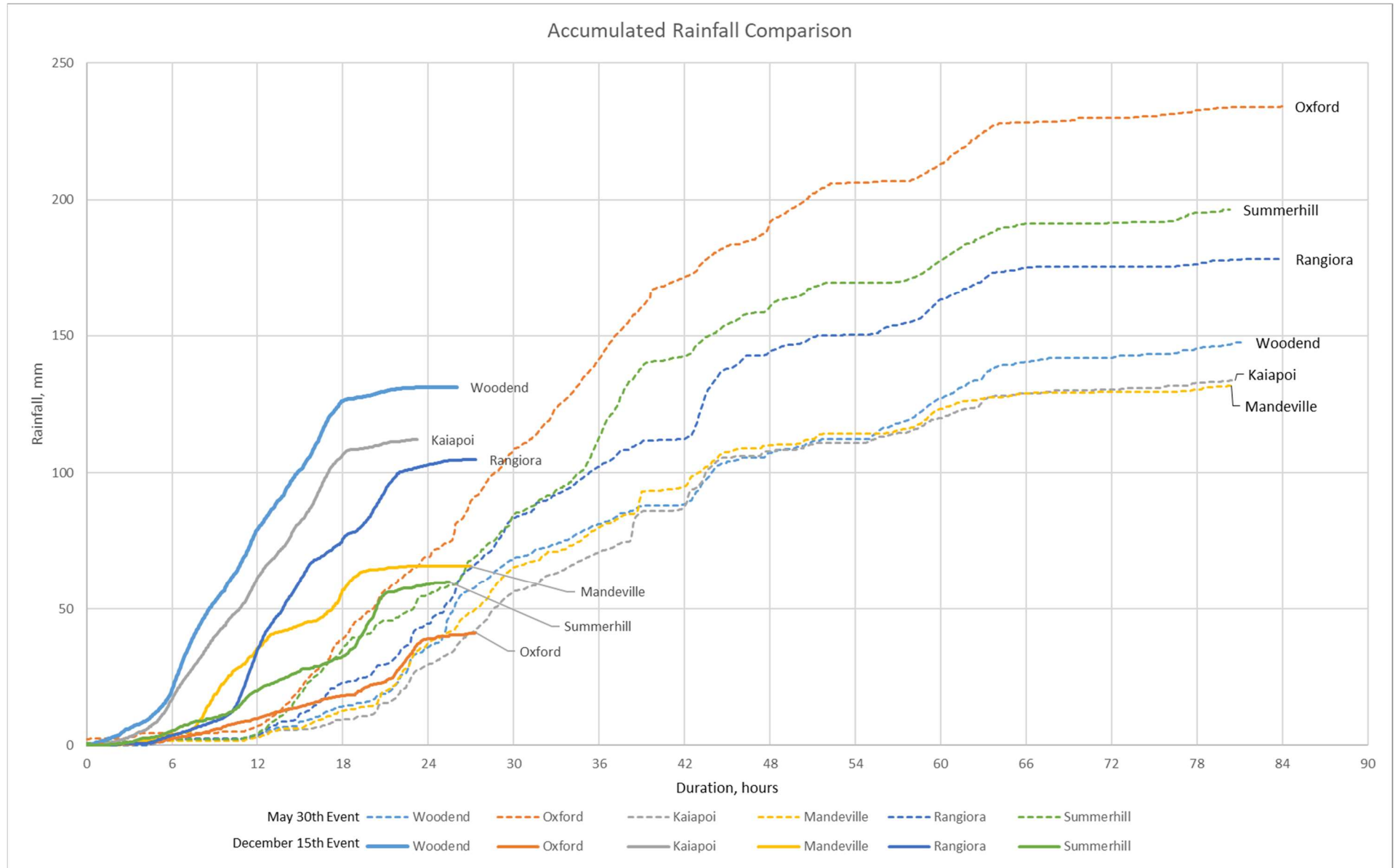


**6. References**

NIWA, <https://niwa.co.nz/natural-hazards/faq/what-is-a-return-period>

HIRDSv4 Technical Report, NIWA, August 2018,  
[https://niwa.co.nz/sites/niwa.co.nz/files/2018022CH\\_HIRDSv4\\_Final.pdf](https://niwa.co.nz/sites/niwa.co.nz/files/2018022CH_HIRDSv4_Final.pdf)

7. **Appendix A: Accumulated Rainfall**



**Appendix II – Spread of service requests throughout the district**

Scheme		Service Request – Count	Investigations – Focus Areas
1	Rangiora Urban	78	3
2	Kaiapoi Urban	133	17
3	Coastal Urban - Woodend	20	3
4	Coastal Urban - Waikuku Beach	27	4
5	Coastal Urban - Pines Kairaki	12	3
6	Pegasus	12	1
7	Oxford Urban	29	5
8	Ohoka Rural	36	4
9	Loburn Lea	0	0
10	Oxford Rural	9	1
11	Clarkville Rural	6	0
12	Coastal Rural	17	4
13	Rural Central	31	1
14	Cust Rural	9	2
15	Ashworths Rural	0	0
16	District Drainage	89	9
17	Stockwater / Irrigation	18	0
18	Wastewater	30	2
<b>Total</b>		<b>556</b>	<b>59</b>

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR DECISION**

**FILE NO and TRIM NO:** RDG-28 / 211104177987


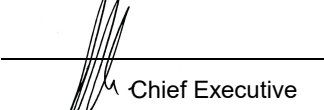
**REPORT TO:** OXFORD-OHOKA COMMUNITY BOARD

**DATE OF MEETING:** 9 December 2021

**AUTHOR(S):** Shane Binder, Transport Engineer  
Kathy Graham, Journey Planner/Road Safety Co-ordinator

**SUBJECT:** No-Stopping Restriction on Tram Road at Earlys Road Intersection

**ENDORSED BY:**  
(for Reports to Council,  
Committees or Boards)

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**1. SUMMARY**

- 1.1. This report seeks approval to establish a no-stopping restriction on the south side of Tram Road, to both the east and west of the Earlys Road intersection.
- 1.2. The intersection of Tram Road and Earlys Road is a stop-controlled intersection with Tram Road having priority over Earlys Road.
- 1.3. Tram Road has a 3.5m wide shoulder on the south side that extends for approximately 65m east and west of the intersection. This shoulder is used for westbound left-turning vehicles to decelerate, westbound through vehicles passing a stationary right-turning vehicle, and sight distance for traffic on the south approach of Earlys Road.
- 1.4. Staff have received a number of complaints about heavy vehicles and truck trailers parking in the 3.5m shoulder adjacent to the Earlys Road intersection.
- 1.5. While this parking is a currently a legal use of the shoulder, it creates a safety issue in that it impacts sight distance for motorists on the south approach of Earlys Road and the lateral space for westbound through traffic on Tram Road (passing around stationary right-turning vehicles at the intersection).
- 1.6. Due to these safety concerns, it is recommended that stopping is prohibited in this location.

**2. RECOMMENDATION**

**THAT** the Oxford-Ohoka Community Board:

- (a) **Receives** Report No. 211104177987.

**AND RECOMMENDS**

**THAT** the Utilities and Roading Committee:

- (b) **Approves** establishment of a no-stopping restriction on the south side of Tram Road, to both the east and west of Earlys Road, for a length of 65m in each direction.

**3. BACKGROUND**

- 3.1. The intersection of Tram Road and Earlys Road is a stop-controlled intersection with Tram Road having priority over Earlys Road.

- 3.2. Tram Road has one through lane in each direction, and a 3.5m wide shoulder on the south side that extends for approximately 65m east and west of the intersection.
- 3.3. This shoulder is used for westbound left-turning vehicles to decelerate, westbound through vehicles passing a stationary right-turning vehicle, and sight distance for traffic on the south approach of Earlys Road. It is noted that right-turning volumes onto Earlys Road likely do not meet the threshold required to install formal right-turn bays.
- 3.4. The existing intersection is depicted in aerial photography in Figure 1 of this report.

Figure 1: Existing Intersection



- 3.5. Tram Road has limited sealed shoulders for much of its length, so the widened shoulders on either side of the Earlys Road intersection provide one of a limited number of locations where vehicles could pull off Tram Road at a sealed location for emergency purposes.

#### 4. **ISSUES AND OPTIONS**

- 4.1. Staff have received a number of complaints about heavy vehicles and truck trailers parking in the 3.5m shoulder adjacent to the Earlys Road intersection. This behaviour is depicted in Figure 2 of this report.
- 4.2. As this shoulder presently has no parking restriction, this parking is currently legal. However, it impacts both sight distance for motorists on the south approach of Earlys Road and lateral space for westbound through traffic on Tram Road passing around stationary right-turning vehicles at the intersection.

## 4.3. Figure 2: Truck parking west of Earlys Road



- 4.4. Since 2015 there have been four crashes at this intersection, one of which resulted in serious injuries to a driver. Two of these crashes involved vehicles heading north on North Eyre Road who failed to see eastbound vehicles approaching on Tram Road.
- 4.5. It is noted that per the Austroads *Guide to Road Design Part 4A Unsignalised and Signalised Intersections*, the minimum gap sight distance for vehicles on giving way on the south approach of Earlys Road is 150m, and this sight line passes through the truck pictured in Figure 2.
- 4.6. Based on site investigation, it is recommended that the south side of Tram Road has a no-stopping restriction established for 65m on either side of the Earlys Road intersection. Establishment of this no-stopping restriction will lessen impacts to traffic safety and operations, namely for intersection sight distance and passing vehicle space, by preventing vehicles from parking in this undesirable location.

#### **Implications for Community Wellbeing**

There are no implications on community wellbeing by the issues and options that are the subject matter of this report.

- 4.7. The Management Team has reviewed this report and support the recommendations.

## **5. COMMUNITY VIEWS**

### **5.1. Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

### **5.2. Groups and Organisations**

There are no groups and organisations likely to be affected by, or to have an interest in the subject matter of this report. Police and local residents have raised concerns about the parking of heavy vehicles at this location due to concerns over sight distance and support measures necessary to limit parking.

### **5.3. Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report; the impacts of roadside management are considered to be localised and minor in nature. It is noted that no public consultation has been carried out with any adjacent residents or the wider community.

## 6. OTHER IMPLICATIONS AND RISK MANAGEMENT

### 6.1. **Financial Implications**

There are no financial implications of the decisions sought by this report. The minor costs for signage and markings can be accommodated within the road maintenance budget.

### 6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability and/or climate change impacts.

### 6.3 **Risk Management**

There are no risks arising from the adoption/implementation of the recommendations in this report.

### 6.3 **Health and Safety**

There are no health and safety risks arising from the adoption/implementation of the recommendations in this report.

Physical works will be undertaken through the Road Maintenance Contract. The Road Maintenance contractor has a Health & Safety Plan and a SiteWise score of 100.

## 7. CONTEXT

### 7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### 7.2. **Authorising Legislation**

Section 2 of the Land Transport Rule: Traffic Control Devices requires a Road Controlling Authority to "authorise and, as appropriate, install or operate traffic control devices."

### 7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report. This report considers the following outcomes:

#### ***There is a safe environment for all***

- Harm to people from natural and man-made hazards is minimised.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

### 7.4. **Authorising Delegations**

Per Part 3 of the WDC *Delegations Manual*, the Community Board has the delegated authority to approve traffic control and constraint measures on streets, and recommending to Resource Management & Regulations Committee; matters relating to Council parking by-laws.

Per Part 2, the Utilities and Roading Committee is responsible for roading and transportation activities, including road safety, multimodal transportation, and traffic control.

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR DECISION**

**FILE NO and TRIM NO:** RDG-28 / 220201012278

**REPORT TO:** WOODEND-SEFTON COMMUNITY BOARD

**DATE OF MEETING:** 15 February 2022

**AUTHOR(S):** Shane Binder, Transportation Engineer

**SUBJECT:** Vaughan Street, Sefton – Approval of No-Stopping Restriction

**ENDORSED BY:**  
(for Reports to Council,  
Committees or Boards)

  
Department Manager

  
Chief Executive

**1. SUMMARY**

- 1.1. This report summarises concerns raised by residents along Vaughan Street in Sefton, and seeks approval for the installation of no-stopping restrictions along Vaughan Street in order to minimise impacts to through traffic operations.
- 1.2. Vaughan Street is a local street in Sefton that connects Cross Street with Pembertons Road, with recently-developed residential sections on the west side of the road and the Sefton Domain on the east side.
- 1.3. In conjunction with the west-side residential development, Vaughan Street was recently urbanised and sealed as far north as No.13 with a 4.0m carriageway, with new kerb and channel on the west side. There is a large hedge on the eastern side of the road adjacent to the domain.
- 1.4. A service request has raised concerns about parked vehicles on Vaughan Street impeding through traffic operations due to the narrow carriageway. The present sealed carriageway, at 4.0m wide, is constrained by the kerb on the west side and the large hedge on the east side. This width is not sufficient to accommodate both on-street parking and safe through traffic.

**2. RECOMMENDATION**

**THAT** the Woodend-Sefton Community Board:

- a. **Receives** Report No. 220201012278;

And;

**Recommends** that the Utilities and Roding Committee:

- b. **Approves** installation of the following no-stopping restriction on Vaughan Street:
  - i. For 120m length north of Cross Street on the west side;
  - ii. For 105m length north of Cross Street on the east side.
- c. **Notes** that staff have not consulted with property owners, but an information notice explaining the need for parking restrictions will be distributed to all residences prior to any works being undertaken.



### 3. **BACKGROUND**

- 3.1. Vaughan Street is a local street in Sefton that connects Cross Street with Pembertons Road, travelling through recently-developed residential sections on the west side and the Sefton Domain on the east side. In conjunction with the west-side residential development, Vaughan Street was recently sealed as far north as No.13 with a 4.0m carriageway and new kerb and channel on the west side.
- 3.2. Photographs and mapping of Vaughan Street are included in Figures One to Three.
- 3.3. Figure One: Sefton environs



- 3.4. Figure Two: Vaughan Street looking north





#### 4. **ISSUES AND OPTIONS**

- 4.1. The present sealed carriageway on Vaughan Street, at 4.0m wide, is constrained by the kerb on the west side and a large hedge on the east side. This width is not sufficient to accommodate both on-street parking and through traffic.
- 4.2. District Plan roading standards require a minimum of 3.0m for a travel lane and 2.0m for a single parking lane on a local road.
- 4.3. Greenspace staff have evaluated the west side hedge bordering the Sefton Domain and consider it a valuable heritage asset. Staff concluded that trimming it sufficiently to achieve the necessary berm space for street parking would either permanently damage the hedge or require upwards of a decade to slowly shift the hedge.
- 4.4. Other options, including planting of a new hedge behind the existing hedge (e.g., further from the carriageway) and allowing it to establish over a number of years, have been considered. These options would all require installation of no-stopping restriction for the short- to mid-term and none are being progressed at this stage.
- 4.5. Staff recommend prohibiting on-street parking for the length of the kerb and channel (west side) and for the length of the hedge (east side) where this is immediately adjacent to the sealed carriageway, to allow for safe through travel.

#### **Implications for Community Wellbeing**

There are implications on community wellbeing by the issues and options that are the subject matter of this report.

These proposed improvements provide infrastructure in terms of safety improvements which provide safe access for residents within the district.

- 4.6. The Management Team has reviewed this report and support the recommendations.

#### 5. **COMMUNITY VIEWS**

##### 5.1. **Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

## 5.2. **Groups and Organisations**

There are no groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

No specific consultation has been undertaken on this issue.

## 5.3. **Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

## 6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

### 6.1. **Financial Implications**

There are financial implications of the decisions sought by this report. Installation of no-stopping restrictions will be carried out through the Road Maintenance Contract and is estimated to cost approximately \$600.

### 6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability or climate change impacts.

### 6.3 **Risk Management**

There are no risks arising from the adoption/implementation of the recommendations in this report.

### 6.3 **Health and Safety**

There are minor health and safety risks arising from the adoption/implementation of the recommendations in this report. Physical works will be undertaken through the Road Maintenance contract. The Road Maintenance contractor has a Health & Safety Plan and a SiteWise score of 100. The developer will be required to provide a Traffic Management Plan and will be audited as part of the development works.

## 7. **CONTEXT**

### 7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### 7.2. **Authorising Legislation**

Section 2 of the Land Transport Rule: Traffic Control Devices requires a Road Controlling Authority to "authorise and, as appropriate, install or operate traffic control devices."

### 7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report. This report considers the following outcomes:

#### ***There is a safe environment for all***

- Harm to people from natural and man-made hazards is minimised.
- Our district has the capacity and resilience to quickly recover from natural disasters and adapt to the effects of climate change.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

#### ***Transport is accessible, convenient, reliable and sustainable***

- The standard of our District's roads is keeping pace with increasing traffic numbers.
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes.

#### 7.4. **Authorising Delegations**

Per Part 3 of the WDC *Delegations Manual*, the Community Board has the delegated authority to approve traffic control and constraint measures on streets. Per Part 2, the Utilities and Roading Committee is responsible for roading and transportation activities, including road safety, multimodal transportation, and traffic control.

**WAIMAKARIRI DISTRICT COUNCIL**

**REPORT FOR DECISION**

**FILE NO and TRIM NO:** RDG-32-73 / 220405051414

**REPORT TO:** MANAGEMENT TEAM

**DATE OF MEMO:** 11 April 2022

**FROM:** Jig Dhakal, Project Engineer  
Joanne McBride, Roading & Transportation Manager.

**SUBJECT:** Skewbridge Warning Signage Project - Report to Accept Invited Price

**SIGNED BY:**  
(for Reports to Council, Committees or Boards)

  
 \_\_\_\_\_  
 Department Manager

  
 \_\_\_\_\_  
 Chief Executive

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**1. SUMMARY**

- 1.1** The purpose of this report is to seek approval for staff to accept prices for three separate components of works required to complete the Skewbridge Warning Signage Project.
- 1.2** The three components of work and associated prices are as follows:
- Supply and Installation of Skewbridge Electronic Signage to Harding's Traffic Ltd for a sum of \$50,394.74 (excluding GST)
  - Skewbridge Pavement and Kerbing works to JFC for a sum of \$49,894.03 (excluding GST)
  - Skewbridge Road Marking & Static Signage to Corde Ltd for a sum of \$34,599.32 (excluding GST)
- 1.3** The division of the project into three separate components of works, and the reasons for doing so was outlined in the Procurement Plan, which was approved by the Procurement PCG in March 2022.
- 1.4** The sum total of the three components of works is \$134,888.09 (excluding GST)
- 1.5** The sum total of the Engineer's Estimate for the same three components of physical works contract was \$148,783.69 with 20% contingency.
- 1.6** This contract is funded from Skewbridge Active Warning Sign Project Budget (PJ 101775.000.5135). The sum value of the three tendered prices is within the available construction budget of \$290,000.
- 1.7** To comply with the Council's Procurement Policy, Management Team approval on this tendering method is required.

Attachments:

- i. Report to Utilities and Roading Committee - Skewbridge Active Warning Signage Concept Design (TRIM No. 211215200532)
- ii. Report to Manager, Utilities and Roading - Skewbridge Electronic Signage Power Supply (TRIM No. 220317038927)
- iii. Procurement Plan (Trim No. 220113003173)

**2. RECOMMENDATION**

**That** the Management Team:

- a) **Receives** memo No 220405051414;
- b) **Authorises** staff to award the Skewbridge Electronic Signage works to Harding Traffic Limited for a sum of \$50,394.74 (excluding GST);
- c) **Authorises** staff to award Skewbridge Pavement and Kerbing works to JFC for a sum of \$49,894.03 (excluding GST);
- d) **Authorises** staff to award Skewbridge Road Marking and Static Signage works for a sum of \$34,599.32 (excluding GST);
- e) **Notes** that in accordance with the Council's Purchasing Policy, three prices need to be sought for the Skewbridge Electronic Signage unless approval is obtained from the Management Team;
- f) **Notes** that the reason for not seeking alternative prices to supply and installation of the warning signage was due to the following reasons:
  - The specialist nature of this signage has meant that staff have needed to liaise with the signage manufacture to develop the proposed solution;
  - The specialist nature of this signage will result in alternative products being proposed to suit product lines of alternative suppliers, should alternative prices be sought;
  - A delay in progressing with this purchase will mean signage will be unable to be implemented within the current financial year to meet project timelines.
- g) **Notes** that in accordance with the Council's Purchasing Policy, three prices were sought for the Skewbridge Pavement and Kerbing Works. Of the three requests only one price was received.
- h) **Notes** that the reason for not seeking alternative prices for the hardstand works is due to the following reasons:
  - The construction market is experiencing significant shortages in resource. This shortage is apparent in WDC recent Open Tender Contracts.
  - High demand for construction is resulting in inflated prices. The price provided is within the construction budget and the engineers estimate. Note that the estimate was created with price estimates prior to the recently inflated market, therefore the prices provided are considered to be very competitive.
  - A delay in progressing with this work will mean the pavement and kerbing works will be unable to be completed within the current financial year.

- i) **Notes** that the award of the line-marking and static signage to Corde is the District Roading Maintenance Contract and is provided for within the Road Maintenance Contract;
- j) **Notes** that this project is funded from the Skewbridge Active Warning Sign Project Budget (PJ 101775.000.5135) which has a total budget of \$330,000 excluding GST.
- k) **Resolves** that the recommendations only from in this report be circulated to Utilities and Roading Committee.

### 3. **BACKGROUND**

#### 3.1 **Background**

- 3.1.1 The Skewbridge Active Warning Signage Concept Design Report (refer to attachment i) was presented to the Utilities & Roading Committee in February 2022, outlining the scheme design for this project. Feedback from this report requested staff carry out further investigations regarding the power supply options for the electronic signage.
- 3.1.2 The power supply investigation resulted in a change in the design from permanent gird connection to panels and lithium batteries. A memo was presented to the Manager, Utilities and Roading for decision (refer to attachment ii).
- 3.1.3 Staff have proceeded with the detailed design, and sought to procure the various components of works, and per the Procurement Plan Section 4 (refer to attachment iii).
- 3.1.4 It is noted that the replacement of Skew Bridge is within Councils Long Term plan. The bridge itself has an estimated life of around 20 years, but staff believe it will have outgrown its functional usefulness before this time due to traffic growth and change of function of the route. Council has not yet received funding for the replacement of the bridge structure itself, however has received funding for the Business Case.

#### 3.2 **Skewbridge Electronic Signage Submission Process**

- 3.2.1 Through the design stage staff have been working with a supplier as it was considered the signage that they offered was the best fit for the needs of the site. This one Supplier was then as to price the supply and installation of the signage.
- 3.2.2 Electronic warning signage is a specialist item with limited available suppliers.
- 3.2.3 Hardings Traffic Limited are an Auckland Based Company who specialise in the design, supply and installation NZTA approved electronic warning signage in NZ.
- 3.2.4 Harding's Traffic Ltd have provided a quote for two electronic warning signs at Skewbridge with solar power supply for the sum of \$50,394.74 which includes:
  - Specialist design of Lithium batteries to be able to remove and charge offsite in emergency conditions.
  - Supply of radar, mobile data, remote data logging and other associated signage feature
  - Installation of signage, solar and control box.
- 3.2.5 In accordance with the Council's Purchasing Policy, three prices need to be sought for the Skewbridge Electronic Signage. The reason for not seeking alternative prices to supply and install warning signage is due to the following reasons:
  - The specialist nature of this signage has meant that staff have needed to liaise with the signage manufacture to develop the proposed solution;

- The specialist nature of this signage will result in alternative products being proposed to suit product lines of alternative suppliers, should alternative prices be sought;
- A delay in progressing with this purchase will mean signage will be unable to be implemented within the current financial year to meet project timelines.

### 3.3 Skewbridge Hardstand Works Submission Process

3.2.6 Three Suppliers were invited to price these works on the 15 March 2022 via variation price requests to existing tendered council contracts.

3.2.7 Submissions for the project closed 14 days following the initial invitation (29 March 2022). Only one submissions were received before closing time.

3.2.8 The Price was received from JFC for \$49,894.03 excluding GST.

3.2.9 The other two suppliers were Ongrade and CityCare Ltd. Ongrade did not have resource to provide a price for the works. City Care Ltd did not have resource to undertake the pricing and the works.

3.2.10 In accordance with the Council's Purchasing Policy, three prices should be sought for the Skewbridge Hardstand Works. The reason for not seeking additional prices is due to the following reasons:

- The construction market is experiencing shortages in resource. This shortage is apparent in WDC recent Open Tender Contracts.
- High demand for construction is resulting in inflated prices. The price provided is within the construction budget and the engineers estimate. Note that the estimate was created with price estimates prior to the recently inflated market, therefore the prices provided are considered competitive.

### 3.4 Skewbridge Line Marking & Static Signage Submission Process

3.2.11 One Supplier was invited to price these works.

3.2.12 Corde was asked to price the Skewbridge Road Marking and Static Signage works as part of the District Roding Maintenance Contract.

3.2.13 The provided price was received on the 5 March 2022 for the sum of \$34,599.32.

Contract 19/43 – District Roding Maintenance Contract, includes provision for works of this nature to be included within the Contract.

### 3.3. Health & Safety

3.3.1. The Health and safety risk associated with this Contract is assessed to be Standard.

JFC and Corde both have scores of 100% SiteWise accredited. Hardings are not SiteWise Registered, however will be required to obtain a SiteWise registered subcontractor to install the work.

The table below shows the tendered price for each of the three components of works.

Tenderer	Tender Price	SiteWise Registration
Hardings Traffic*	\$50,394.74	N/A



JFC	\$49,894.03	100%
Corde	\$34,599.32	100%

#### 4. **ISSUES AND OPTIONS**

4.1 There are three options available for Management Team:

4.2 Option One - Management Team accept the three prices:

- Supply and Installation of Skewbridge Electronic Signage to Harding's Traffic Ltd for a sum of \$50,394.74
- Skewbridge Hardstand Works install to JFC Ltd for a sum of \$49,894.03
- Skewbridge Line Marking & Static Signage to Corde Ltd for a sum of \$34,599.32

from the Skewbridge Active Warning Sign Project Budget (PJ 101775.000.5135) which is 51% funded by NZTA. This is the recommended option.

4.3 Option Two - Management Team accept one or two of the prices, and rejects the remaining prices to re-tender. This is not recommended, as:

- The works cannot be completed this financial year
- Price received was competitive, within budget and less than the engineer's estimate.
- Additional professional fees and project costs would be accrued.
- There would be further delay in addressing the existing risk.
- It is unlikely that a better combination of price, expertise and experience would be gained from requesting additional pricing.

4.4 Option three - Management Team reject all tenders and re-tender. This is not recommended for the same reasons noted in section 4.2.

#### **Implications for Community Wellbeing**

4.5 This project has implications on community wellbeing as the primary purpose is to improve the road safety of the area which has a high frequency of crashes.

#### 5. **COMMUNITY VIEWS**

##### 5.1 **Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be generally affected by subject matter of this report but have not been specifically consulted. In other areas they have expressed concern about road safety, and therefore staff intend to provide a brief description of the project for the next Runaga meeting agenda.

##### 5.2 **Groups and Organisations**

This project is likely to impact two groups of people:

### **Residents**

The rural residential community in the Skewbridge area are likely to be positively impacted by the reduced number of crashes, improving the overall safety of their community.

### **Commuters**

Traffic calming on the approaches to the bridge is likely to reduce speed and therefore reduce the likelihood of an accident, and the severity of an accident, should one occur.

## **5.3 Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

## **6. OTHER IMPLICATIONS AND RISK MANAGEMENT**

### **6.1 Financial Implications**

6.1.1 The Engineer's Estimate for the physical works contract was \$148,783.69 excluding GST.

6.1.2 The supplied prices sum to the value of \$134,888.09 excluding GST and is less than to this estimate.

6.1.3 The available budget versus the recommended tender price is summarised on the table below:

<b>Funding Source</b>	<b>Total Budget</b>	<b>Recommended Tender</b>	<b>Outstanding Commitments (PDU Fees etc)</b>	<b>Total Projected Cost (incl 20% contingency)</b>
Skewbridge Active Warning Sign Project Budget (PJ 101775.000.5135)	\$330,000	\$134,888.09	\$38,514.00	\$208,082.51

6.1.4 There is adequate budget available to allow the tender to be accepted.

### **6.2 Sustainability and Climate Change Impacts**

The recommendations in this report do have sustainability and/or climate change impacts.

- Traffic calming on the approaches to the bridge will allow for smoother transition of speeds therefore efficient fuel usage compared to harsh braking and acceleration.
- The design proposes solar panels/batteries, which is 100% renewable energy source.
- It is noted that the type of signage proposed for use in this location can be changed and shifted if required. For example, when bridge realignment occurs prior to sign end of life, the sign can be reprogrammed or shifted to another location.

### 6.3 Risk Management

There are risks arising from the adoption/implementation of the recommendations in this report.

- There is uncertainty with the supply of materials during this post Covid-19 lockdown period. The physical works estimate for this project includes a 20% contingency for any potential price increase.
- Construction is likely to cause some delays on Skewbridge Road. Staff consider the impacts of this to be minor with careful traffic management planning.
- In the current market prices have been coming in higher than previous years and there has been a reduction in contractors tendering for work. As such there is a risk to delivery of the project.

### 6.3 Health and Safety

There are health and safety risks arising from the adoption/implementation of the recommendations in this report.

The project will follow all relevant Council policies, procedures and guidelines relating to Health and Safety.

## 7. CONTEXT

### 7.1 Consistency with Policy

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### 7.2 Authorising Legislation

- Land Transport Management Act
- Local Government Act 2002.

### 7.3 Consistency with Community Outcomes

The Council's community outcomes are relevant to the actions arising from recommendations in this report. The relevant community outcomes include:

- There is a safe environment for all
- Transport is accessible, convenient, reliable and sustainable
- Core utility services are provided in a timely and sustainable manner

### 7.4 Authorising Delegations

The Management Team has the delegated authority to receive this report and accept the recommended prices, on behalf of the Council.

ATTACHMENT (i)

**Report to Utilities and Roading Committee - Skewbridge Active Warning Signage**  
**Concept Design**  
**(TRIM No. 211215200532)**

**Report to Manager, Utilities and Roading - Skewbridge Electronic Signage Power Supply**  
**(TRIM No. 220317038927)**

ATTACHMENT (iii)

**Skewbridge Procurement Plan**  
**(Trim No. 220113003173)**

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR DECISION**

**FILE NO and TRIM NO:** CON201856 / 220127010065

**REPORT TO:** MANAGEMENT TEAM

**DATE OF MEETING:** 4 April 2022

**AUTHOR(S):** Kieran Straw – Civil Project Team Leader  
Joanne McBride – Roading & Transportation Manager

**SUBJECT:** Extension of Contract 18/56 – Street Lighting Maintenance & Renewals

**ENDORSED BY:**  
(for Reports to Council,  
Committees or Boards)

 Department Manager

 Chief Executive

**1. SUMMARY**

- 1.1. This report is to seek Management Team approval to extend Contract 18/56 – Street Lighting Maintenance & Renewals by one year, to 30 March 2024.
- 1.2. The current contract for Street Lighting Maintenance and Renewals was let on a 3+1+1 basis, and has been running for 2 years. The current contract expires 30 March 2023, and includes provision for up to two one year extensions to a maximum contract period of 5 years. This provision complies with the NZTA Procurement Manual.
- 1.3. The Contract is a combined contract with three Road Controlling Authorities. Waimakariri District Council administers the Contract, with Hurunui District Council, and NZTA Street Lighting also included within the Contract. Both Hurunui, and NZTA have agreed to this extension.
- 1.4. The Contractor, Power Jointing Ltd have agreed to this extension.

**2. RECOMMENDATION**

**THAT** the Management Team:

- (a) **Receives** Report No. 220127010065.
- (b) **Approves** the extension of Contract 18/56 – Street Lighting Maintenance & Renewals for one year.
- (c) **Notes** that the revised Contract Completion Date is 30 March 2024, and that there is one further right of renewal remaining.
- (d) **Notes** that the original contract was approved by Council in February 2020, and this contract allows for this extension.
- (e) **Circulates** this report to the Utilities & Roading Committee for their information

**3. BACKGROUND**

- 3.1. Report No. 191223181826 to Council on 4<sup>th</sup> February 2020 was approved by Council to award Contract 18/56 to Power Jointing Ltd for a sum of \$2,872,041.40
- 3.2. The Council's contract for Street Lighting Maintenance was let on a 3+1+1 basis and has been running for approximately two years.

- 3.3. The Contract includes the provision of labour and materials to maintain the District's Streetlights; install new streetlights; and upgrade obsolete fittings. This includes requirements for regular inspections of all lights and periodic electrical inspections of all fittings. In addition, the contract includes updating the lighting assets in the RAMM Database
- 3.4. The Contract is a joint contract with three Road Controlling Authorities, each with their own Separable Portion. The Contract is administered by the Waimakariri District Council, and the monthly costs for maintaining Hurunui and NZTA street lighting is on-charged each month to the other RCA's.
- 3.5. Should the Principal wish to terminate the contract at the end of the 3 year period, the Principal is required to give three months' notice.
- 3.6. Three months is considered inadequate to prepare a replacement contract, and tender the works. Therefore staff are seeking early approval to extend the contract to ensure all options are available to Management Team.
- 3.7. The Contract clause that relates to the extension of Contract states:

*The Term of this Contract will be from the Date of Commencement for a period of three years.*

*This Contract will include two optional extensions, of one year. (3+1+1)*

*Extension of the Term will be at each Principals discretion, and will be notified at least three months prior to the Current Date of Expiry.*

*In making the decision to grant the optional extension, each Principal will take the Contractors Performance, including any Key Performance Indicators or Response Timeframe Result into account.*

- 3.8. Power Jointing Ltd's performance throughout this contract is considered "adequate". Their response to Service Requests has been good, however, like many Contractors in the current market, they have struggled to secure timely supplies of materials. This has led to delays with some projects and aspects of works.

#### **4. ISSUES AND OPTIONS**

- 4.1. The Management Team have two options available for their consideration:

- 4.2. Option One: Approve the One-year contract extension

This option is the recommended option, and the endorsement of the Hurunui District Council, Waka Kotahi, and Power Jointing Ltd.

If approved, there will be one further right of renewal at the end of the fourth year (30 March 2024).

- 4.3. Option Two: Decline to extend the contract.

This option will result in the Contractor being informed that the current contract will be terminated on the 30 March 2023, and staff will need to be allocated to prepare, and tender a replacement Street Lighting Maintenance and Renewals Contract.

There is adequate time to allow this option to be adopted, should the Management Team decide to do so.

Staff, however, do not recommend this option as there is nothing to indicate that retendering the contract will result in a better outcome for Council. This is due to historically low number of tenderers that have tendered for these contracts in the past, and the current contracting market that has seen high demand for labour.



### **Implications for Community Wellbeing**

There are not implications on community wellbeing by the issues and options that are the subject matter of this report.

## **5. COMMUNITY VIEWS**

### **5.1. Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

### **5.2. Groups and Organisations**

There are not groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

### **5.3. Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

## **6. OTHER IMPLICATIONS AND RISK MANAGEMENT**

### **6.1. Financial Implications**

There are financial implications of the decisions sought by this report.

The indicative annual value of the contract, for the Waimakariri District Council's Separable Portion, is as per the table below:

<b>Budget Category</b>	<b>Estimated Value of Works (2023 / 2024)</b>	<b>Budget Allocation (2023 / 2024)</b>
Street Lighting Maintenance (GL 10.270.744.2500)	\$459,393	\$472,155
Carriageway Lighting Renewals (PJ 100184.000.5134)	\$199,331	\$187,674
LED Replacement (PJ 100337.000.5134)	\$40,349	\$40,349
Street Lighting Minor Improvements (PJ 100185.000.5134)	\$20,000	\$20,000
<b>Annual Total</b>	<b>\$719,073</b>	<b>\$720,178</b>

The estimated value of the Street Lighting Maintenance for the annual extension is based on the annual cost of routine street light maintenance carried out over the 2020 / 2021 financial year.

The estimated value of the Renewals, LED Replacement, and Minor Improvements is based on the available budget, and the scope of works can be altered to fit the budget.

The value of Street Lighting Maintenance will depend on the number of call-outs and faults experienced. If required, the value of renewals can be reduced to ensure the budgets are met.

These budgets are included in the Long Term Plan.

## 6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability and/or climate change impacts, however the LED replacement programme component of works results in more cost effective and sustainable street lighting.

## 6.3 **Risk Management**

There are not risks arising from the adoption/implementation of the recommendations in this report.

There is a significant risk that retendering this contract in the current market conditions is likely to result in an increase in costs to maintain the districts street lighting network.

## 6.3 **Health and Safety**

There are not health and safety risks arising from the adoption/implementation of the recommendations in this report.

Power Jointing Limited's Health and Safety record on this Contract is considered Excellent, and they have a SiteWise score of 97%

## 7. **CONTEXT**

### 7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### 7.2. **Authorising Legislation**

Not applicable.

### 7.3. **Consistency with Community Outcomes**

The Council's community outcomes are not relevant to the actions arising from recommendations in this report.

### 7.4. **Authorising Delegations**

Management Team has been delegated authority to renew this contract.

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR INFORMATION**

**FILE NO and TRIM NO:** RDG-32-72 / 211215200532


**REPORT TO:** UTILITIES AND ROADING COMMITTEE

**DATE OF MEETING:** 22 February 2022

**AUTHOR(S):** Jig Dhakal, Project Engineer  
Joanne McBride, Roading and Transport Manager

**SUBJECT:** Skewbridge Active Warning Signage - Concept Design

**ENDORSED BY:**  
(for Reports to Council,  
Committees or Boards)

  
\_\_\_\_\_  
Department Manager

  
\_\_\_\_\_  
Chief Executive

**1. SUMMARY**

- 1.1. This purpose of this report is to provide the Utilities and Roading committee an overview of the scheme design for Skewbridge Active Warning Signage Project.
- 1.2. The preliminary design includes new electronic curve warning sign at each approach to the bridge, as well as supplementary traffic calming measures, to help encourage drivers to reduce their vehicle speed prior to reaching Skewbridge.
- 1.3. The preliminary estimate for the works is \$285,000 and is within the budget of \$330,000.

**Attachments:**

- i. Preliminary Drawings – Skewbridge Active Warning Signage (TRIM No. 211216201336)

**2. RECOMMENDATION**

**THAT** the U&R Committee:

- (a) **Receives** Report No. TRIM 211215200532;
- (b) **Notes** that the preliminary estimate for the physical works is \$285,000 and is within the budget of \$330,000;
- (c) **Notes** Waka Kotahi (NZTA) has approved 51% funding contribution of this project;
- (d) **Notes** that staff will proceed with detailed design stage;
- (e) **Notes** procurement is proposed with direct engagement with Mainpower for the power supply works and open tender for the signage install and civil works.

**3. BACKGROUND**

- 3.1. Skewbridge is a narrow (5.0m width) two lane bridge with curves at each approach.
- 3.2. According to Waka Kotahi's accident database (CAS), there have been 13 accidents recorded over the past 10 years. Anecdotal evidence at the site, and from residents which indicates that accidents at this location are under reported.
- 3.3. The CAS database shows 62% of crashes are recorded as losing control on the curve, whereas 13% are other reasons, and 25% is not recorded. Of the total number of crashes resulting from losing control at the bend, 75% occur on the north western curves, while

25% occur on the south eastern curve. This data was taken into consideration when carrying out the design, which is proposed to increase awareness of the curve and reduce speed prior to the curve, compared to speed on the bridge.

- 3.4. The installation of active warning signs was initiated to reduce speeds on Skewbridge (and approaches) while investigations and options are considered for the long term replacement of the bridge.
- 3.5. Waka Kotahi have approved co-funding of \$330,000 for 2021/22 for the installation of active warning signage and associated works on this bridge. Local share has also been included in Council budgets.
- 3.6. Residents in the area have been advocating for safety improvements such as lowered speeds in the area due to the number of crashes in the area. Council on 1<sup>st</sup> February 2022 approved the reduction on Skewbridge Road north of the bridge to 80km/hr. This new speed limit is likely to be implemented during March following public notification.
- 3.7. The replacement of Skew Bridge is within Councils Long Term plan. The bridge itself has an estimated life of around 20 years, but staff believe it will have outgrown its functional usefulness before this time due to traffic growth and change of function of the route. Council has not yet received funding for the replacement of the bridge structure itself, however has received funding for the Business Case.

#### 4. **ISSUES AND OPTIONS**

- 4.1. The following is provided to the Utilities and Road Committee for information.

##### **Design**

- 4.2. The concept design for this project has been undertaken by PDU engineers.
- 4.3. The aim of the design is to alert drivers to slow down prior to the curve and the bridge with two electronic warning signs, one on each approach to the bridge. The electronic warning signs are proposed to show an LED curve and a flashing “slow down.” The “slow down” text is only activated when the approach speed of the vehicle exceeds the posted curve advisory speed of 65km/hr. With the new electronic warning sign, there is a need to reshuffle the locations of the existing signage.
- 4.4. The LED signage will require permanent power supply due to the daily traffic volume of approximately 4500 vehicles per day in each direction. . This would result in the number of starts per sign being greater than what a standard Lead Acid battery can handle (4000 starts). The option to use a higher quality Lithium battery was considered, unfortunately these do not function well in cold temperatures as they cannot charge below zero degrees. Mainpower has been consulted to undertake the electrical design for the new power supply to the signage.
- 4.5. Supplementary traffic calming techniques are proposed for the bridge approaches. This includes the following:
  - 4.5.1. Reduced lane widths
  - 4.5.2. The reduced lane width is intended to help slow drivers on approach to the bridge. This will be achieved by installing a 0.5m wide dual centre line to increase separation between the lanes, reducing widths to 3.0m.
  - 4.5.3. Kerb build outs  
The electronic signage will be installed within new kerb build-outs. This will help create a gateway “threshold” on approach to the hazard. This kerb will not impede the road carriageway.

#### 4.5.4. Tactile Edge Lines

Ceramic domes will be installed on the edge lines around the bends on both the approach, and exit of the bridge. These are raised, and intended to provide drivers with an audible and tactile warning when straying from their lane.

#### 4.5.5. Improved delineation

Along with new and improved line marking, additional delineation is proposed to be installed on the guardrail itself. This will improve delineation, particularly during hours of darkness.

4.6. This project is currently in preliminary design and staff intent to progress to detailed design and tender.

4.7. The concept design has undergone a safety in design review (TRIM 211216201363). The concept design was identified as not requiring a Road Safety Audit (RSA) due to the small scale of the project (TRIM 220126009397). However a RSA will be undertaken during the detailed design stage and post construction stage.

#### **Procurement**

4.8. The procurement for the civil component of the works are proposed as an open tender. This work will involve the sign install, civil construction, trenching and installing power supply ducts. It is noted that the open tender process aligns with the Councils Procurement Strategy, and that Procurement will be authorised by the Procurement PCG in advance.

4.9. The electrical power supply component of the work (laying cables) is of a different nature to the civil component of the works. Staff are currently considering the estimated costs with this component, and considering a different procurement strategy.

#### **Implications for Community Wellbeing**

4.10. This project has implications on community wellbeing as the primary purpose is to improve the road safety of the area which has a high frequency of crashes.

4.11. The Management Team has reviewed this report and support the recommendations.

### **5. COMMUNITY VIEWS**

#### 5.1. **Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be generally affected by subject matter of this report but have not been specifically consulted. In other areas they have expressed concern about road safety, and therefore staff intend to provide a brief description of the project for the next Runaga meeting agenda.

#### 5.2. **Groups and Organisations**

This project is likely to impact two groups of people:

##### **Residents**

The rural residential community in the Skewbridge area are likely to be positively impacted by the reduced number of crashes, improving the overall safety of their community.

##### **Commuters**

Traffic calming on the approaches to the bridge is likely to reduce speed and therefore reduce the likelihood of an accident, and the severity of an accident, should one occur.

### 5.3. **Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

## 6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

### 6.1. **Financial Implications**

There are financial implications as a result of this project. The construction estimate is \$285,000 which includes the costs for the electronic signage, Mainpower connection, civil works and a 20% contingency.

The professional fees are estimated at approximately 10% of the costs bringing to total project cost to \$315,000. The budget for this project is \$330,000, therefore there is an additional 5% contingency overall.

The budget for this works is included in the Annual Plan.

Waka Kotahi (NZTA) has approved this works within their Low Cost Low Risk budget and will fund 51% of the project.

### 6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do have sustainability and/or climate change impacts.

- Traffic calming on the approaches to the bridge will allow for smoother transition of speeds therefore efficient fuel usage compared to harsh braking and acceleration.
- The design proposes permanent power supply for the electronic signage. Other electronic signage locations in the district have optioned for solar panels/batteries, which was not viable in this location due to the number starts per day. While grid energy is a mix of renewable and non-renewable power, the solar panels signage is 100% renewable.
- It is also noted that the solar panel and batteries have a 10 years design life. Electronic signage within the district show signs of battery end of life prior to 10 years. It is difficult to quantify the climate impact of connecting to the grid compared to the use of solar panels/batteries and the replacement of these items.
- It is noted that the type of signage proposed for use in this location can be changed and shifted if required. For example, when bridge realignment occurs prior to sign end of life, the sign can be reprogrammed or shifted to another location.

### 6.3 **Risk Management**

There are risks arising from the adoption/implementation of the recommendations in this report.

- There is uncertainty with the supply of materials during this post Covid-19 lockdown period. The physical works estimate for this project includes a 20% contingency for any potential price increase.
- Construction is likely to cause some delays on Skewbridge Road. Staff consider the impacts of this to be minor with careful traffic management planning.
- In the current market prices have been coming in higher than previous years and there has been a reduction in contractors tendering for work. As such there is a risk to delivery of the project.

### 6.3 **Health and Safety**

There are health and safety risks arising from the adoption/implementation of the recommendations in this report.

The project will follow all relevant Council policies, procedures and guidelines relating to Health and Safety.

## **7. CONTEXT**

### **7.1. Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### **7.2. Authorising Legislation**

- Land Transport Management Act
- Local Government Act 2002.

### **7.3. Consistency with Community Outcomes**

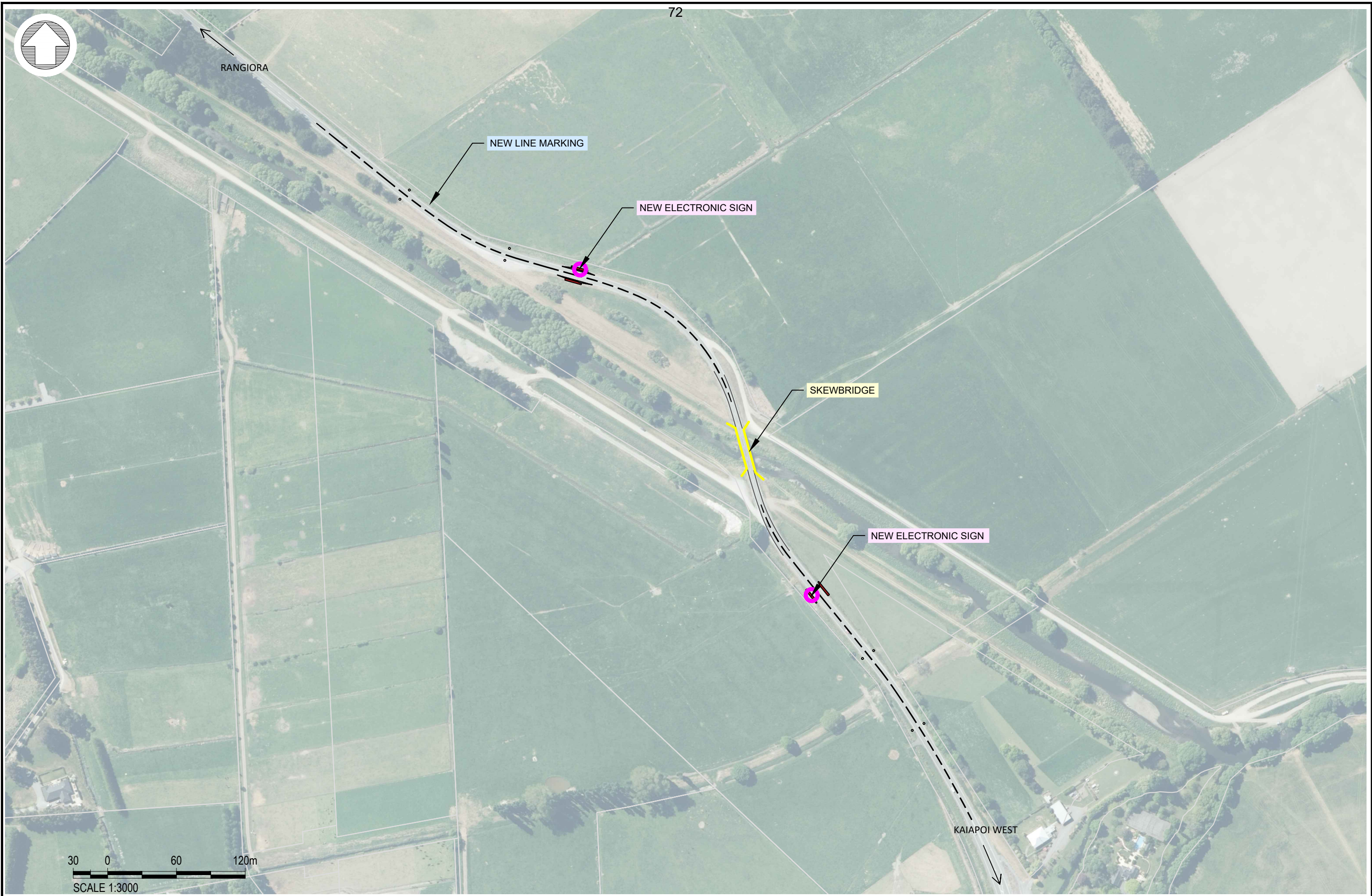
The Council's community outcomes are relevant to the actions arising from recommendations in this report. The relevant community outcomes include:

- There is a safe environment for all
- Transport is accessible, convenient, reliable and sustainable
- Core utility services are provided in a timely and sustainable manner

### **7.4. Authorising Delegations**

The Utilities and Roading Committee enjoy all the powers granted to a standing committee under the Delegations Manual and are responsible for the following activities:

- Roading and Transportation (including road safety, multimodal transportation and traffic control)



REV	REVISION DETAILS	DRN	CHK	APP	DATE
A	FOR INFORMATION	JD	---	---	28/09/2021

SURVEYED	---	--	PROJECT No	PD001793
DRAWN	JD	28/09/2021	CON No	CON2020--
DRAWING CHKD	---	--/2020	SCALE (A3)	1:2000
DESIGNED	JD	28/09/2021	DATUM ORIGIN	---
DESIGNED CHKD	---	--/2020	HORIZONTAL	NZTM GD2000
APPROVED	---	--/2020	VERTICAL	---

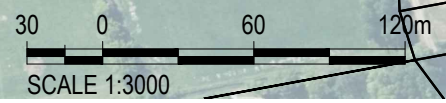
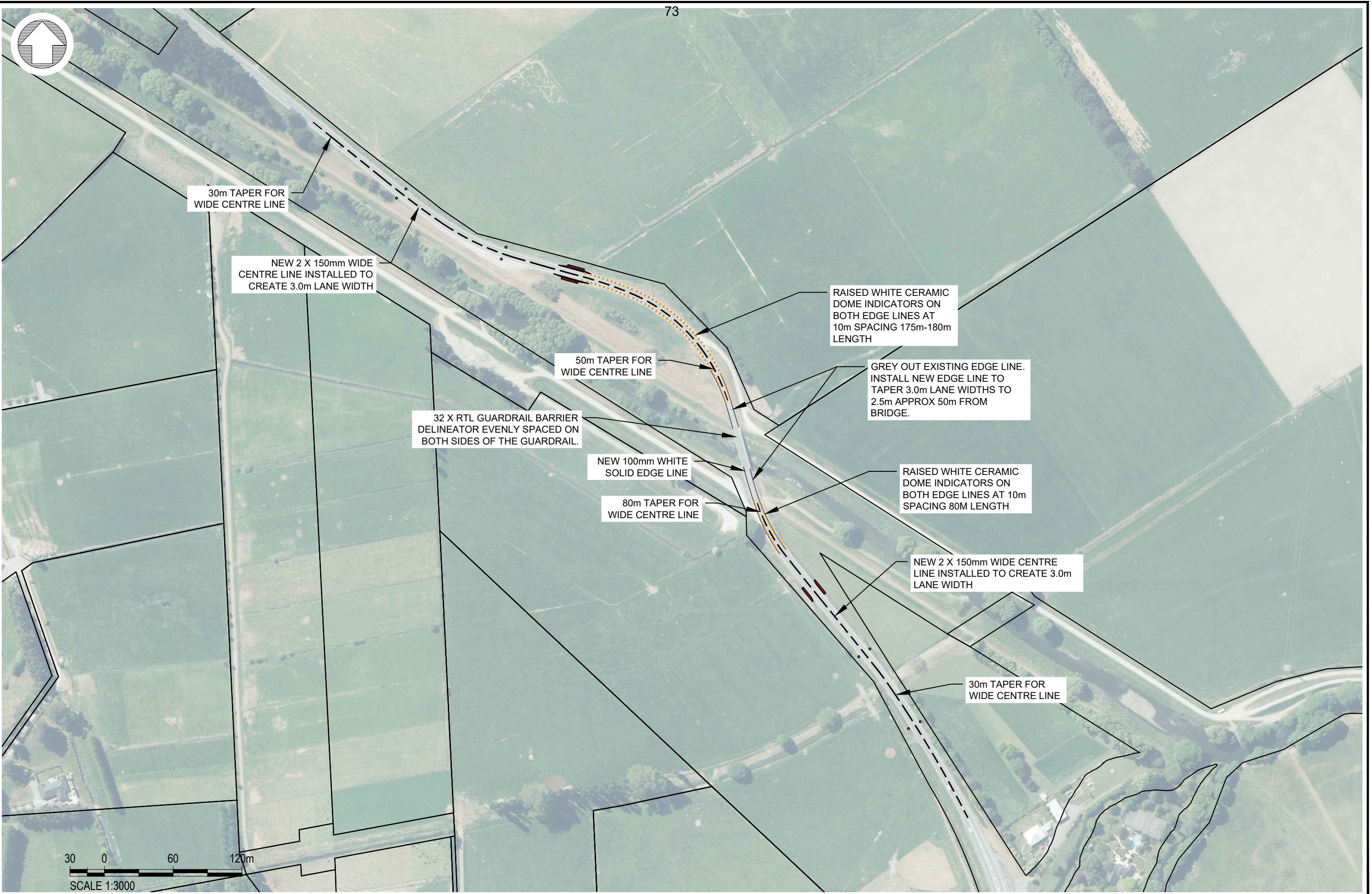


PROJECT	---
SKEWBRIDGE SIGNAGE UPGRADE	---
---	---

SHEET TITLE	---
CONCEPT DESIGN OVERVIEW	---
---	---

<b>PRELIMINARY</b>	
NOT FOR CONSTRUCTION	
DRAWING	4240
SHEET	REVISION
1	A





REV	REVISION DETAILS	DRN	CHK	APP	DATE
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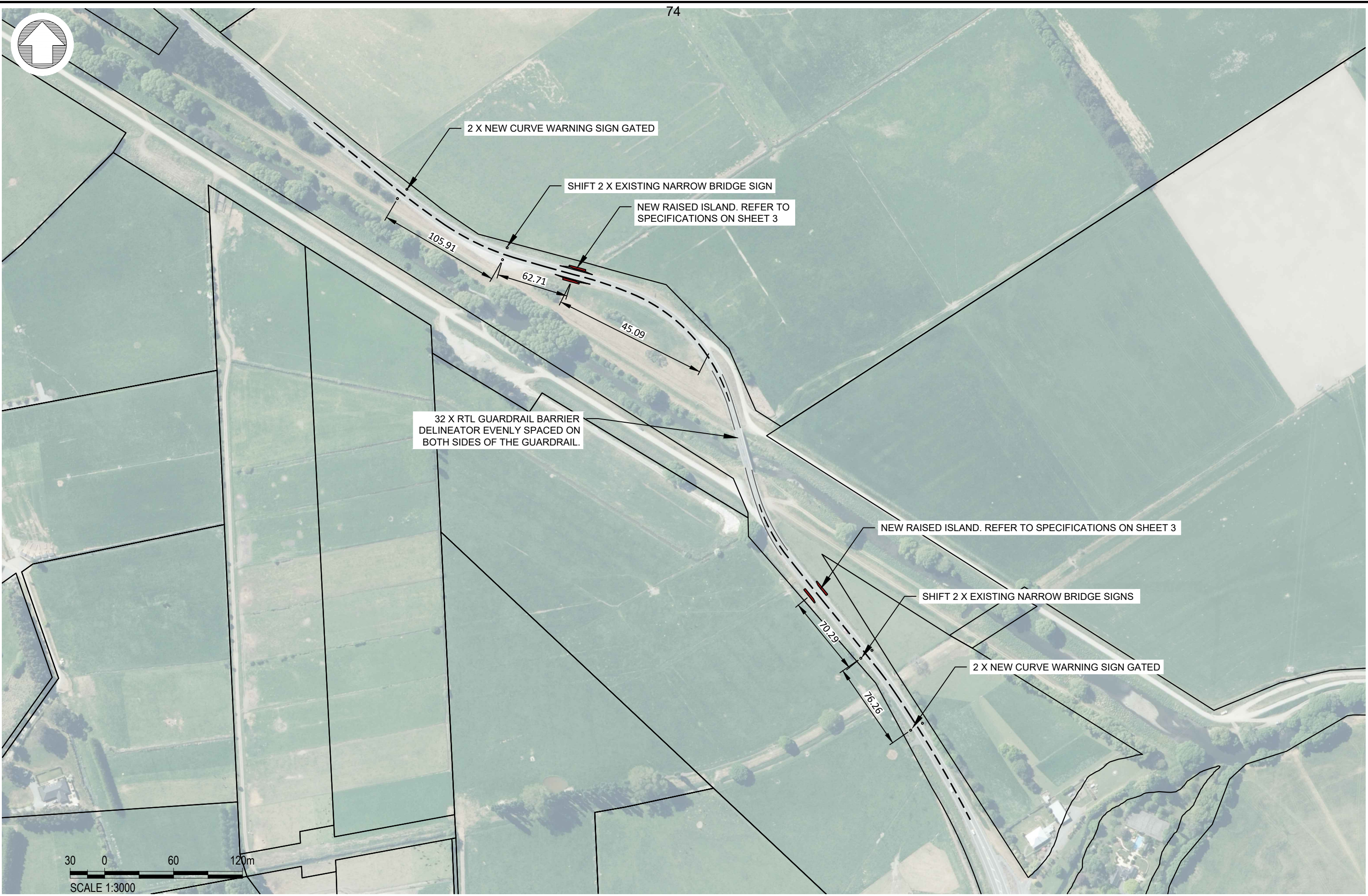
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DESIGNED	JD	28/09/2021	DATUM ORIGIN	
DESIGNED CHKD	---	--/2020	HORIZONTAL	NZTM GD2000
APPROVED	---	--/2020	VERTICAL	



PROJECT	---
SKEWBRIDGE SIGNAGE UPGRADE	---

SHEET TITLE	---
CONCEPT DESIGN	---

<b>PRELIMINARY</b>	
NOT FOR CONSTRUCTION	
DRAWING	4240
SHEET	REVISION
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REV	REVISION DETAILS	DRN	CHK	APP	DATE
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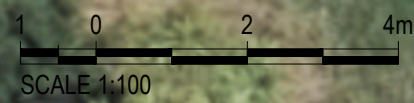
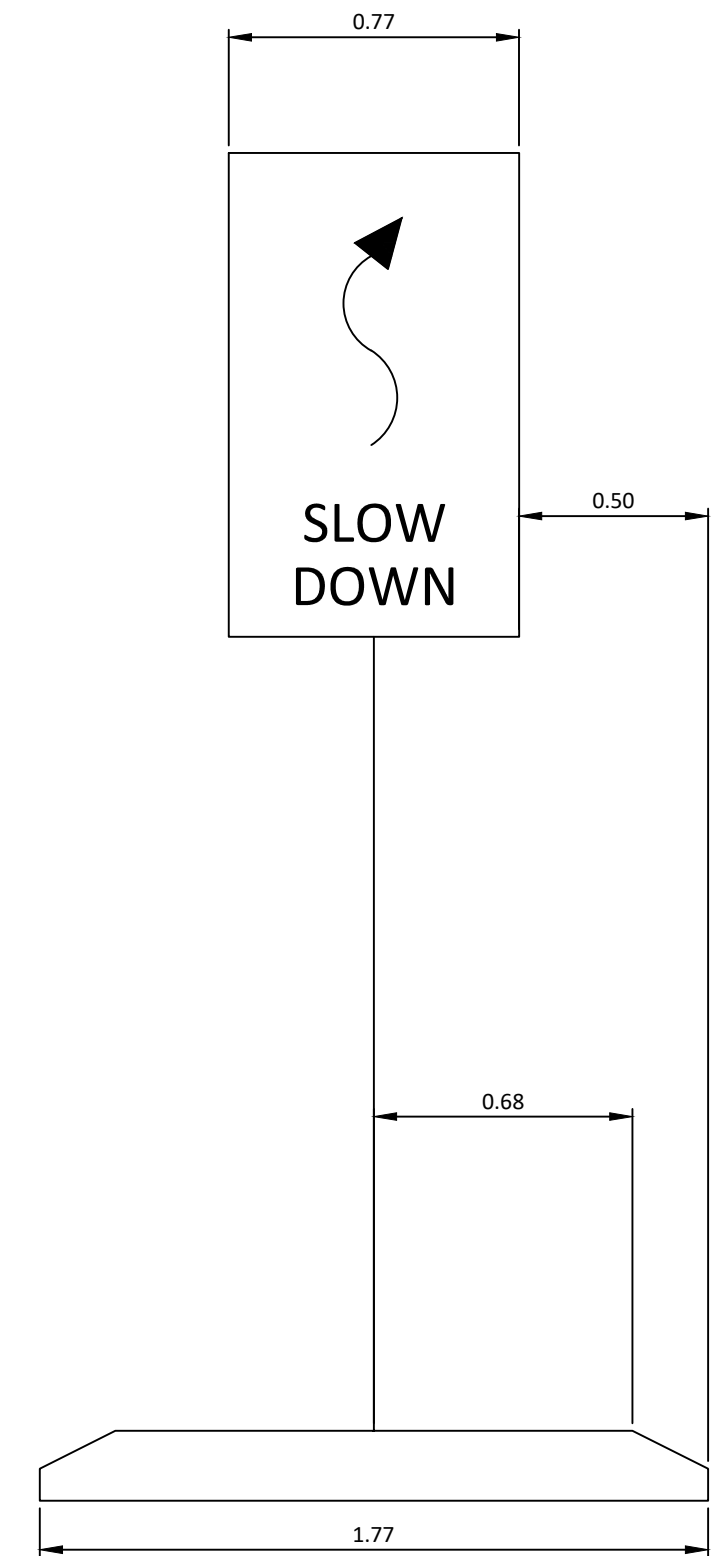
SURVEYED	---	---	PROJECT No	PD001793
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APPROVED	---	--/2020	VERTICAL	---



PROJECT	---
SKEWBRIDGE SIGNAGE UPGRADE	---

SHEET TITLE	---
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APPROVED	---	--/2020	VERTICAL	---



PROJECT	---
SKEWBRIDGE SIGNAGE UPGRADE	---

SHEET TITLE	---
CONCEPT DESIGN	---

<b>PRELIMINARY</b>	
NOT FOR CONSTRUCTION	
DRAWING	4240
SHEET	REVISION
1	A

**WAIMAKARIRI DISTRICT COUNCIL****MEMO FOR DECISION**

**FILE NO AND TRIM NO:** RDG-32-72 / 220317038927

**DATE:** 17 March 2022

**MEMO TO:** Gerard Cleary – Manager, Utilities & Roothing

**FROM:** Jigyasa Dhakal – Project Engineer  
Joanne McBride – Roothing & Transport Manager

**SUBJECT:** Skewbridge Electronic Signage – Power Supply

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**1. Purpose**

The purpose of this memo is to provide further information on the planned Electronic Active Warning Signage which is to be installed at Skew Bridge.

Since the report was presented further information has been received which helps inform the options available in regards to the power supply for the planned electronic signage. This memo also seeks a decision on the preferred option for the power supply to be implemented.

**2. Background**

Investigation has been carried out into the options available to achieve the objective of improved road safety at Skew Bridge. The recommended option included the installation of Active Electronic Warning Signage that is triggered when vehicles approaching the bridge are exceeding the posted curve advisory speed.

This memo discussed power supply options, and assessed the following options:

- Lead Acid Battery
- Lithium Battery
- Permanent on-grid power supply

The recommendation was to proceed with the installation of the permanent power supply. This was primarily due to concerns with the solar power supplies being unable to run for extended period in overcast conditions, and the inability to charge in sub-zero temperatures.

It should also be noted that the feasibility and costs of installing the permanent power supply was based on estimates for similar works. No conversation had been held with Mainpower at the time, and Mainpower had not provided a price for the proposed network connection and associated works.

A report (Trim 211215200532) was presented to the Utilities & Roothing Committee in February 2022. When this report was presented, elected members questioned the expense associated with the permanent power supply, and requested the battery / solar panel option be investigated further.

Following this further information has become available around the options available to power the Active Electronic Warning Signage.

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This includes further information on the costs associated with a permanent power supply, as well as the options, and limitations of the solar power options.

### **3. OPTIONS FOR POWER SUPPLY**

#### **3.1 Permanent power supply, connected to existing power network.**

The Engineers estimate had been calculated on the assumption that the low-voltage services could be extended from the end of the existing overhead services to the signage locations. This is approximately 350m on each side of the bridge. The cost estimate that was attributed to this portion of work was \$84,080. At the same time, a request had been lodged with MainPower to provide a network design and price for the works.

Staff have subsequently met with MainPower staff. This highlighted the following issues:

- Although low-voltage extension would work, there is a risk that the voltage drop along the length of the cable would be too high, and the power supply could become unreliable, and insufficient for any future energy requirements.
- The existing low-voltage overhead services to the north of Skewbridge are at capacity, meaning that any new services would have to be trenched from further north towards Mulcocks Rd. The total length of trenching required on the northern side of the bridge is 720m
- Mainpowers preferred solution was to extend the high voltage network, which would require the additional costs of a transformer, and required trenching for the full 720m.
- There is an alternative option to run power from the southern side only, however this is still approximately 350m to the proposed signage on the southern side of the bridge, and would then need ECan approval to trench through the stop-bank.
- To power both signs from the southern side also requires 720m of trenching, and has the same concerns regarding voltage drop across the length of the trench, meaning that a high voltage supply was recommended.
- The increase in length of required trenching, increase in trenching depth, and the added costs associated with high voltage cables, and transformer requirements increase the likely cost of this option to between \$200,000 and \$300,000. Mainpower have declined to price the option for us at this stage.

The outcome of this meeting was that the battery / solar panel options should be further explored to power the electronic signage.

#### **3.2 Solar Power, with Batteries**

Early inquiries had favoured a low voltage power supply over both Lead Acid Batteries and Lithium Batteries. This was primarily due to concerns that during extended periods of overcast weather, the batteries could run out, and the electronic signage would stop functioning.

For the Lead Acid battery option, this was 2.6 days of continuous run time, while the Lithium Battery (150Ah) provides for 5 days of continuous run time. This concern was further exacerbated due to the Lithium battery not being able to charge in sub-zero conditions.

The standard lithium battery and solar panel option for the electronic signage is single 150Ah batteries, and a single 100w solar panel.

The battery / solar panel capacity concerns have been further discussed with the battery supplier. These conversations sought to answer the following questions:

- Can the standard 150Ah battery be upgraded to a larger capacity battery?  
*There is an option to replace the single 150Ah battery with two 100Ah batteries to increase battery capacity to 200Ah*
- Can multiple batteries be installed within the unit (i.e. to increase the run time from 5 days to 10 days)?

*The housing unit is not large enough for two 150Ah batteries, or more than two 100Ah batteries*

*It is possible to add further batteries to the system, however this would require a stand-alone unit to house the additional batteries.*

*If additional batteries are required, additional charging is also required. This would result in the need for a "solar array" rather than a single solar panel.*

- If additional batteries cannot be installed within the unit, can they be purchased and stored with our Roading Maintenance Contractor, who could then swap them out during these conditions.

*Additional batteries and a charger unit can be purchased for an additional cost of \$4,967.05*

*Batteries can be easily removed by Councils maintenance contractor and swapped out for a replacement battery, however this does introduce an ongoing operation cost which is not desirable if it can be avoided.*

*Consideration would need to be given to storage conditions for the spare batteries to ensure they are not lost, or damaged while in storage at the Maintenance Contractors yard. They are also recommended for storage at 50% capacity to reduce battery degradation.*

*Additional batteries may be purchased at a later date, and do not need to be included with the initial purchase.*

- Can the solar panels be upgraded to increase the rate at which the batteries?  
*Yes, the supplier has recommended we install dual 200w solar panels. This allows the batteries to recharge from flat to 100% in just 6 hours of full light conditions (based on 200Ah battery), and maximise charging during low light conditions.*
- Can the units be insulated to allow charging in sub-zero conditions?  
*Batteries are housed within a unit therefore are not exposed directly to the elements. Insulation of the battery is not recommended due to the risk of over-heating during the summer months.*

#### 4. **RECOMENDATION**

##### **Battery Recommendation:**

It is recommended that each electronic sign is powered by two 100Ah Lithium batteries giving a total of 200Ah for each sign. This provides the greatest battery capacity without having the need to house the batteries in a stand-alone cabinet.

This solution ensures a continuous run time of 72 hours, which equates to approximately 14 days of running, depending on the number of times the signage is triggered.

The ten days run-time is based on the signage being triggered by 4500 vehicles per day, and an activation time of 4 seconds per activation.

This is considered conservative as it assumes that every vehicle triggers the sign, and that each of these vehicles triggers the sign for a full 4 seconds.

The 4 seconds of sign activation assumes 80m of advanced warning, based on a vehicle approaching the electronic signage at 80km/hr.

##### **Solar Panel Recommendation:**

It is recommended that the solar panels are upgraded to two 200w solar panels. This maximises the charging efficiencies during low-light, or low temperature conditions when temperatures may prevent charging of the battery until later in the day.

##### **Residual Risk:**

There remains a residual risk that after prolonged periods of overcast or sub-zero conditions that the signage may stop working due to depleted batteries. This is expected to be on rare occasions that this happens, and we can either accept that signage is not operational during these conditions, or alternatively programme the signage to conserve energy once the batteries drop below 25% capacity. This could be achieved by either:

- Reducing the time period each trigger puts the sign into the “active” state” (i.e. reducing the length of time the sign operates for); or
- Increasing the trigger speed of approaching vehicles (i.e. reducing the number of times the sign activates)

The signage supplier has confirmed that if we wished to alter the signage triggers to prolong battery life, then these changes can be made remotely at short notice.

Alternatively, additional batteries, and charger can be purchased to allow a battery rotation system to be implemented.

With the recommended battery and solar options providing up to 10 days of operation, it is recommended that the battery capacity is monitored for a period of time before in real-world conditions prior to committing to the purchase of additional batteries.

#### 5. **Cost Estimate**

The quote provided for the recommended option is \$50,394.74 excluding GST. This is the total cost, including supply, and installation of the electronic signage, however it excludes traffic management costs.

This is substantially below the \$200,000 to \$300,000 which was estimated by Mainpower to extend the high voltage power supply.

The project has a total estimated cost of **\$195,010.49**, noting that the line marking aspects of this project are currently being priced by Corde through the District Road Maintenance Contract, and the kerb build-outs are currently being priced as potential variations to existing Civil Works contracts. The estimate includes a 20% contingency due to the uncertainty regarding resourcing and supply costs etc.

**6. Circulation**

This memo is to be circulated to the Utilities & Roading Committee for their information.



## PROCUREMENT

# Procurement Plan

## Introduction

### What is a Procurement Plan?

The Procurement Plan outlines the entire procurement process, from sourcing suppliers through to completion/exit in line with the Council's Procurement Policy and Principles. In the Procurement Plan you will identify your procurement requirements, determine key milestones and/or delivery timeframes and describe the process in the identification and selection of suppliers/contractors/consultants. The objective is to provide a clear understanding of the scope, timeframe, budget and funding, as well as document responsible, effective and fit-for-purpose procurement of goods and services by the Council.

### When do I need to complete a Procurement Plan?

At a minimum you will need to complete a Procurement Plan for any goods, services and works being purchased from third party suppliers:

- of value greater than or equal to \$50,000; or
- not in compliance with Table 1 below.

In addition, a Procurement Plan should be considered when the project is either high risk or high public interest.

The following table sets out the Council's procurement thresholds as per the Procurement and Contract Management Policy (the Policy).

*Note: Guidelines to be used in conjunction with N3 and All of Government pricing.*

**Table 1**

Dollar value	Procedure
Less than \$5,000	Direct Purchase* from supplier with PO
\$5,000 to \$20,000	3 quotations or Direct Purchase* from supplier with PO
\$20,000 to \$100,000	3 quotations
>\$100,000	Public tender

\* Direct purchase means the procurement of goods and/or services by placing an order with the supplier of choice, without seeking other bids. As per 2.1 Definitions, Procurement and Contract Management Policy (190121005949).

### What sections do I need to fill out ?

All projects	<a href="#">section 1</a>
When PDU help is required	<a href="#">section 2</a>
When an external consultant is required	<a href="#">section 3</a>
When physical works are required	<a href="#">section 4</a>
Where the purchase of goods is required	<a href="#">section 5</a>

The approval levels are as outlined below:

**Level 1 - Delegated Authority Approval**

- <\$50,000 estimate AND
- In compliance with Table 1

**Level 2 - Delegated Authority, plus Procurement Manager Approval**

- \$50,000-\$249,999 estimate, AND
- In compliance with Table 1, OR
- High risk project/procurement
- Examples of high risk project/procurement:
  - Politically sensitive
  - Significant disruption
  - Uncommon technology
  - Cross-council work element

**Level 3 - Delegated Authority, plus Procurement PCG Approval**

- >=\$250,000 estimate, AND
- In compliance with Table 1, OR
- <\$250,000 estimate, AND not in compliance with Table 1

**Level 4 - Delegated Authority, plus Procurement PCG Approval, plus Management Team**

- >=\$250,000 AND not in compliance with Table 1, OR
- Multi-year maintenance contract, OR
- Strategic multi-year programme of works, OR
- Significant CBD/Red Zone/Arterial road works, OR
- High risk project\*
- Examples of high risk project/procurement:
  - Politically sensitive
  - Significant disruption
  - Uncommon technology
  - Cross-council work element

\* Note: Applies to any value.

**PROCUREMENT**

# Procurement Plan

## Section 1 - Project brief

Project name: \_\_\_\_\_

Council department: \_\_\_\_\_

Scheme/activity/location: \_\_\_\_\_

TRIM folder: \_\_\_\_\_ TRIM document number: \_\_\_\_\_

Project Owner/sponsor: \_\_\_\_\_ Project Manager: \_\_\_\_\_

PCG required: Yes No PCG Terms of Reference Trim number: \_\_\_\_\_

Procurement plan applicant: \_\_\_\_\_ Date: \_\_\_\_\_

### Project brief - describe the full project

To be populated prior to discussing professional services with PDU or external consultants. Please reference any relevant TRIM documents in the spaces below.

#### Background

Provide a paragraph on what the issue is, any work done to date, and why the project is required:

#### Project objectives/outcomes

This project is intended to achieve the following:

**Project specific constraints, critical H&S hazards and risks**

**Total project scope**

Describe the total project scope, including intended achievement in each financial year:

**Significant tasks required to complete project** 85

Resource consent: Yes No Maybe Building consent: Yes No Maybe

Land purchase: Yes No Maybe Easements: Yes No Maybe

Is the activity compatible with underlying land status? Yes No Maybe

Agreement to enter private property: Yes No Maybe

Heritage NZ authority: Yes No Maybe Cultural consultation: Yes No Maybe

Public consultation: Yes No Maybe

Comment on what is required:

**Options for combining works into this project**

	Considered		Viable		Comment
	Yes	No	Yes	No	
Other projects planned in same geographic area that could be contracted together?					
Other similar Council projects that could be contracted together?					
Other works by external organisation that could be included in scope?					

**Project financials and budgets**

Please enter relevant financial year.

	20	/ 20	20	/ 20
	\$	\$	\$	\$
PJ number: _____	_____	_____	_____	_____
PJ number: _____	_____	_____	_____	_____
PJ number: _____	_____	_____	_____	_____
PJ number: _____	_____	_____	_____	_____

Milestone	Date

Is internal assistance required? (tick one)      Yes - complete section 2      No - skip section 2

To be populated by Asset Manager prior to and after agreement with PDU.

**PDU scope**

Describe the project scope required from PDU, including intended achievement in each financial year.

**PDU deliverables, reviews, hold points and approvals**

The deliverables that are required are:

PDU estimated fees: \_\_\_\_\_

Note: Budget Holder's estimate of PDU fees.

Tick all that apply	To be populated by Asset Manager	To be populated in conjunction with PDU Manager
Required service	Is this service required?	PDU manage?
Project management		
Investigations		
Geotechnical investigations/design		
Optioneering/concept		
Surveying		
Modelling		
Public consultation		
Civil design		
Structural design		
Resource consents		
Electrical/mechanical design		
Procurement documentation		
Tender management		
MSQA		
Post construction support		
Legal review		
Peer review		
Architectural design		
Landscape design		

**Budget holder**

Name: \_\_\_\_\_ Position: Budget holder

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

*Note: By entering your name in the box above you are giving your authority for this procurement plan to proceed.*

**Project management**

Who is Project Manager? \_\_\_\_\_

**Approval**

Date sent to PDU: \_\_\_\_\_ Date approved by PDU: \_\_\_\_\_

Name: \_\_\_\_\_ Position: PDU Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

*Note: By entering your name in the box above you are giving your authority for this procurement plan to proceed.*



Are external professional services required? (tick one)

Yes - complete section 3

No - skip section 3

To be populated by PM prior to committing to Procurement of Professional Services.

Is it likely that multiple external consultants require procuring?    Yes    No

If yes, fill out section 3 multiple times.

**Sustainable consultant procurement**

Describe how sustainable procurement, in accordance with the procurement strategy, is to be considered as an outcome to this procurement and within the procurement evaluation and performance management criteria

- Require sustainability policy
- Require based within 40km

**Consultant scope**

Describe the project scope required from a consultant, including intended achievement in each financial year.

**Consultant deliverables, reviews, hold points and approvals:**

Note: Budget Holder's estimate of Professional Service fees.

**External procurement detail**

For all services where an external provider is intended, tick all that apply from the following:

Tick all that apply	To be populated by Asset Manager	To be populated in conjunction with consultant
Required service	Is this service required?	Is consultant delivering?
Project management		
Investigations		
Geotechnical investigations/design		
Optioneering/concept		
Surveying		
Modelling		
Public consultation		
Civil design		
Structural design		
Resource consents		
Electrical/mechanical design		
Procurement documentation		
Tender management		
MSQA		
Post construction support		
Legal review		
Peer review		
Architectural design		
Landscape design		

**Intended procurement request date:** \_\_\_\_\_

**Intended procurement method** (tick one)

Open tender (see Procurement by tender - detail overleaf)

Selected tender (see Procurement by tender - detail overleaf)

Panel (see Procurement by panel - detail overleaf)

Sole sourced (see Procurement by sole sourced - detail overleaf)

Describe why method chosen:

If selected tender, who is intended to be invited and why?<sup>91</sup>

**Procurement by tender - detail**

For all contracts where an open or selected tender is intended, complete the following:

Service being tendered: \_\_\_\_\_ Contract no: \_\_\_\_\_

Open or selected tender?    Open            Selected

Intended general conditions of contract *(tick one)*

    NZS3910            ACENZ            Short Form Agreement            Purchase Order

List any non-standard contractual approaches:

List any specific technical requirements:

List any specific health and safety issues:

Intended evaluation method *(tick one)*

    Quality only            Price quality method            Weighted attribute            Lowest price conforming

Intended weighting percentage - only fill in those percentages that apply:

Price	Relevant experience	Track record	Management skills	Technical skills	Methodology	Total
%	%	%	%	%	%	100%

Tender evaluation lead: \_\_\_\_\_

TET member: \_\_\_\_\_

Probity representative required?    Yes            No

For all contracts where sole sourced procurement is intended, complete the following:

Service being sought: \_\_\_\_\_

Why sole sourced? \_\_\_\_\_

Who: \_\_\_\_\_

Why this provider? \_\_\_\_\_

Specialist skill set      Previous knowledge or experience      Other \_\_\_\_\_

Intended General Conditions of Contract (*tick one*)

NZS3910      ACENZ      Short Form Agreement      Purchase Order

List any non-standard contractual approaches:

List any specific technical requirements:

List any specific Health and Safety issues:

## Approval to proceed with Professional Services Procurement

Select a level to confirm that signatories have read and agreed with the procurement approach.

Note: By entering your name in the Signed box below you are giving your authority for this procurement plan to proceed.

### Level 1 Delegated Authority Approval

- <\$50,000 estimate AND
- In compliance with Table 1.

Name:

Position: Activity Manager  
(Delegated Financial Authority)

Signed:

Date:

### Level 2 Delegated Authority, plus Procurement Manager Approval

- \$50,000-\$249,999 estimate, AND
- In compliance with Table 1.
- Examples of high risk project/procurement
  - Politically sensitive
  - Significant disruption
  - Uncommon technology
  - Cross-council work element.

Name:

Position: Activity Manager  
(Delegated Financial Authority)

Signed:

Date:

Name:

Position: Procurement Manager

Signed:

Date:

### Level 3 Delegated Authority, plus Procurement PCG Approval

- Either <\$249,999, AND
- not in compliance with Table 1, OR
- >=\$250,000 estimate, AND
- In compliance with Table 1.

Name:

Position: Department Manager

Signed:

Date:

Name:

Position: Procurement Manager  
(on behalf of PCG)

Signed:

Date:

**Level 4 Delegated Authority, plus Procurement PCC Approval, plus Management Team**

- >=\$250,000 AND not in compliance with Table 1, OR
- Multi-year maintenance contract, OR
- Strategic multi-year programme of works, OR
- Significant CBD/Red Zone/Arterial road works, OR
- High risk project\*:
  - Politically sensitive
  - Significant disruption

\* Note: Applies to any value.

Name:

Position: Procurement Manager

Signed:

Date:

**Management Team Approval Received**

Date:

**Is this procurement for a construction contract?** *(tick one)*  
**Yes - Complete Section 4**      **No - Skip Section 4**

*To be populated prior to committing to procuring construction.*

**Construction details**

**Specific project construction risks or constraints**

Site or project specific risks or constraints (e.g. time, cost, quality, sustainability):

**Construction procurement objectives and benefits sought**

Throughout this procurement, the following objectives will be achieved:

**Construction procurement risks**

ID#	Potential risks	How risks will be managed	Assigned to

**Construction scope**

Describe the project scope required in the construction contract, including intended achievement in each financial year:

Milestone	Date

List any specific technical requirements:

List any specific health and safety issues:

Construction contract estimate: \_\_\_\_\_

**Procurement details**

**Construction procurement method**

Intended procurement request date: \_\_\_\_\_

- Open or Selected tender *(see Procurement by tender - detail)*      Panel *(see Procurement by panel - detail)*
- Sole sourced *(see Procurement by sole sourced - detail)*

**1 - Procurement by open tender - detail**

For all contracts where an open tender is intended, complete the following:

Contract No: \_\_\_\_\_ Open tender

Intended general conditions of contract *(tick one)*

- NZS3910
- ACENZ
- Short Form Agreement
- Purchase Order
- Other



List any non-standard contractual approaches: 97

Intended evaluation method (tick one)

Quality only      Price Quality method      Weighted attribute      Lowest Price Conforming

Intended Weighting percentage - only fill in those percentages that apply:

Price	Relevant Experience	Track Record	Management Skills	Technical Skills	Methodology	Other	TOTAL
%	%	%	%	%	%	%	100%

Tender Evaluation Lead: \_\_\_\_\_

TET Members: \_\_\_\_\_

Tender Secretary advised:    Yes    No    Probity representative required:    Yes    No

**2 - Procurement by panel – detail**

For all contracts where Panel procurement is intended, complete the following:

Service being sought: \_\_\_\_\_

Panel name: \_\_\_\_\_

All Panelists      As Per Panel Management Plan

List Panelists approached and why?

**3 - Procurement by invited/selected tender or sole sourced – detail**

For all contracts, complete the following:

Are these works being added to an existing contract?    Yes    No

Are these works rolling over an existing maintenance contract?    Yes    No

Service being sought: \_\_\_\_\_

Why invited/selected or sole sourced? \_\_\_\_\_

Who: \_\_\_\_\_

Why this provider? \_\_\_\_\_

Specialist skill set      Previous knowledge or experience      Other: \_\_\_\_\_

Conditions of contract: \_\_\_\_\_

Choose the table that applies to this evaluation and edit accordingly.

Milestones for procurement	Date

**Budget details**

**Costs**

The budget codes are: \_\_\_\_\_

Please enter relevant financial year.

Budget elements	20 /20	20 /20	20 /20	Total
Total budget available per year	\$	\$	\$	\$
Minus actual committed costs to date – fixed sums	\$	\$	\$	\$
Minus other specific/identified costs (not yet committed)	\$	\$	\$	\$
Balance available for this contract	\$	\$	\$	\$
Engineers estimate	\$	\$	\$	\$
Proposed contingency	\$	\$	\$	\$
Unallocated balance remaining	\$	\$	\$	\$

Contract Contingency: \$ \_\_\_\_\_ %

Reason for contingency level: \_\_\_\_\_

**Approval to proceed with Construction Procurement**

Select a level to confirm that signatories have read and agreed with the procurement approach.

Note: By entering your name in the Signed box below you are giving your authority for this procurement plan to proceed.

**Level 1 Delegated Authority Approval**

- <\$50,000 estimate AND
- In compliance with Table 1.

Name: \_\_\_\_\_ Position: Activity Manager  
(Delegated Financial Authority)

---

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Level 2 Delegated Authority, plus Procurement Manager Approval**

- \$50,000-\$249,999 estimate, AND
- In compliance with Table 1
- Examples of high risk project/procurement:
  - Politically sensitive
  - Significant disruption
  - Uncommon technology
  - Cross-council work element.

Name: \_\_\_\_\_ Position: Activity Manager  
(Delegated Financial Authority)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Position: Procurement Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Level 3 Delegated Authority, plus Procurement PCG Approval**

- Either <\$249,999, AND
- not in compliance with Table 1, OR
- >=\$250,000 estimate, AND
- In compliance with Table 1.

Name: \_\_\_\_\_ Position: Department Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Position: Procurement Manager  
(on behalf of PCG)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Level 4 Delegated Authority, plus Procurement PCG Approval, plus Management Team**

- >=\$250,000 AND not in compliance with Table 1, OR
- Multi-year maintenance contract, OR
- Strategic multi-year programme of works, OR
- Significant CBD/Red Zone/Arterial road works, OR
- High risk project\*:
  - Politically sensitive
  - Significant disruption

\* Note: Applies to any value.

Name: \_\_\_\_\_ Position: Procurement Manager  
(on behalf of PCG and Management Team)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Management Team Approval Received** \_\_\_\_\_ Date: \_\_\_\_\_

Does this project involve the purchasing of goods (outside of a Construction contract)? (tick one)  
Yes - Complete section 5      No - skip section 5

To be populated prior to committing to procuring goods.

Supplier selection

How will the supplier be selected? (tick one)

- Existing supply contract/agreement      All of Government contract      Open tender
- Invited price      Sole sourced

If included in an existing contract/agreement, provide details of the contract:

[Empty text box for contract details]

Does this work comply with the contract conditions of the existing contract/agreement (for example, is it within the scope, or does it require a formal variation)?    Yes    No

How will the supplier’s price be evaluated? (tick one)

- Comparison to contract rates      Lowest Price      Negotiation

If negotiated, is a negotiation plan required?    Yes    No

What will be the legal conditions for supply? (tick one)

- Covered under existing supply contract/agreement      Covered under all of Government contract
- Government model contract for goods supply      Government model contract - Lite
- Supplier’s terms and conditions

Where the supplier is already known, provide details below:

Legal name of the supplier: \_\_\_\_\_

New Zealand business number of the supplier: \_\_\_\_\_

Address (for a company, use the registered office, for others use physical address): \_\_\_\_\_

Description of goods

Provide a short description of the nature of the goods being purchased. Include any product codes or serial numbers, and any specific certifications or standards that the goods must comply with:

[Empty text box for description of goods]

Delivery

Delivery time frame: The goods must be delivered within \_\_\_\_\_ (number) of business days from the date of order.

OR

Provide a date: \_\_\_\_\_

Delivery address: \_\_\_\_\_

List any specific delivery requirements (e.g. Water Unit to be notified prior to delivery, forklift required for unloading):

[Empty text box for delivery requirements]

Who will insure the goods during delivery (e.g. supplier or transport company):

\_\_\_\_\_

Do the goods require inspection/acceptance following delivery? Yes No

If yes, who will be responsible for this?

\_\_\_\_\_

List any specific storage requirements (e.g. goods must be stored under cover):

[Empty text box for storage requirements]

Who will insure the goods during storage, and is a specific policy required for this?

[Empty text box for storage insurance]

Do the goods require security or monitoring? Yes No

If yes, who will be responsible for this?

\_\_\_\_\_

Do the goods create a health and safety or environmental risk? (Such as spill risks or dangerous goods storage)

Yes No

If yes, who will be responsible for this, and how will it be managed?

[Empty text box for health and safety management]

**Cost**

The cost of the goods will be calculated as follows:

- Choose one option, insert relevant details and mark remainder as N/A
- If Buyer is to pay expenses for delivery, state these in 'expenses' below
- Specify any discount for early payment
- If the currency is not NZD, clearly state the agreed currency.

List

<i>Insert description of item or model number</i>	<i>Insert price</i>
Item/model/product number	Unit cost (excl GST)
	\$
	\$
	\$
<b>Total cost (excl GST)</b>	<b>\$</b>

If more rows are required, insert TRIM number to full list of items.

**OR**

Fixed cost

A fixed cost of \$\_\_\_\_\_ (fixed cost amount) excluding GST.

**OR**

Variable cost

As set out in the attached Schedule of Pricing \_\_\_\_\_ (insert TRIM number).

**Expenses**

- Choose one option, insert relevant details and mark remainder as N/A
- If the currency is not NZD, clearly state the agreed currency

No expenses are payable

**OR**

Specific items and agreed cost per item — specified expenses

*Such as freight/courier/insurance*

*Such as packaging costs*

*Such as storage*

*Cost per item*

Item of expense	Cost (excl GST)	Total max cost (excl GST)
	\$	\$
	\$	\$
	\$	\$
<b>Total cost (excl GST)</b>	<b>\$</b>	<b>\$</b>

If more rows are required, insert TRIM number to full list of items.

**OR**

Specific items and actual and reasonable cost per item — specified expenses

The buyer will pay the supplier’s actual and reasonable expenses incurred in delivering the goods up to the total maximum amounts stated below, provided that the claim for expenses is supported by GST receipts.

Such as freight/courier/insurance  
 Such as packaging costs  
 Such as storage

Cost per item

Item of expense	Cost (excl GST)	Total max cost (excl GST)
	\$	\$
	\$	\$
	\$	\$
<b>Maximum total expenses not to exceed (exc GST)</b>		\$

If more rows are required, insert TRIM number to full list of items.

**Invoices**

The supplier must send the buyer an invoice for the charges at the following times:

- Choose one option, insert relevant details and mark remainder as N/A
- If the currency is not NZD, clearly state the agreed currency

On supply of the goods

**OR**

At the end of the month, for goods delivered during that month.

**Address for invoices - buyer’s address**

For the attention of (Name of Senior Manager or Contract Manager): \_\_\_\_\_

Address (insert address for invoices: physical, postal, or email): \_\_\_\_\_

**Other instructions about invoices**

For example, Contract numbers, Purchase Order number(s), name of Buyer’s contract manager, clear description of goods.

Insert any special instructions:

## Approval to proceed with Goods Procurement 104

Select a level to confirm that signatories have read and agreed with the procurement approach.

Note: By entering your name in the Signed box below you are giving your authority for this procurement plan to proceed.

### Level 1 Delegated Authority Approval

- <\$50,000 estimate AND
- In compliance with Table 1.

Name: \_\_\_\_\_ Position: Activity Manager  
(Delegated Financial Authority)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

### Level 2 Delegated Authority, plus Procurement Manager Approval

- \$50,000-\$249,999 estimate, AND
- In compliance with Table 1
- Examples of high risk project/procurement:
  - Politically sensitive
  - Significant disruption
  - Uncommon technology
  - Cross-council work element.

Name: \_\_\_\_\_ Position: Activity Manager  
(Delegated Financial Authority)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Position: Procurement Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

### Level 3 Delegated Authority, plus Procurement PCG Approval

- Either <\$249,999, AND
- not in compliance with Table 1, OR
- >=\$250,000 estimate, AND
- In compliance with Table 1.

Name: \_\_\_\_\_ Position: Department Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Position: Procurement Manager  
(on behalf of PCG)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_



**Level 4 Delegated Authority, plus Procurement PCG Approval, plus Management Team**

- >=\$250,000 AND not in compliance with Table 1, OR
- Multi-year maintenance contract, OR
- Strategic multi-year programme of works, OR
- Significant CBD/Red Zone/Arterial road works, OR
- Examples of high risk project\*:
  - Politically sensitive
  - Significant disruption.

\* Note: Applies to any value.

Name:	Position: Procurement Manager (on behalf of PCG and Management Team)
Signed:	Date:
<b>Management Team Approval Received</b>	Date:

**WAIMAKARIRI DISTRICT COUNCIL****REPORT FOR DECISION**

**FILE NO and TRIM NO:** RDG-28 / 220324044049

**REPORT TO:** RANGIORA-ASHLEY COMMUNITY BOARD


**DATE OF MEETING:** 13 April 2022

**AUTHOR(S):** Shane Binder, Transportation Engineer

**SUBJECT:** Request for Time-Restricted Parking at Rangiora Borough School

**ENDORSED BY:**  
(for Reports to Council,  
Committees or Boards)

  
 \_\_\_\_\_  
 Department Manager

  
 \_\_\_\_\_  
 Chief Executive

**1. SUMMARY**

- 1.1. This report seeks approval to establish the following time-restricted car parking on Church Street outside Rangiora Borough School:
- 1.1.1. Establishment of a limited (8:00-9:00am and 2:30-3:30pm school days only) 5-minute parking restriction (P5) on the east side of Church Street, north of the mid-block pedestrian crossing for a length of 18 metres; and
  - 1.1.2. Modification of the existing 24-hour P5 loading zone on the east side of Church Street to be limited (8:00-9:00am Wednesday school days only).
- 1.2. Church Street is a local road in central Rangiora that runs between High Street and Johns Road, providing local access to the Rangiora Borough School, Dudley Park, and the Aquatic Centre. The frontage along the school is presently demarcated for two mobility car parks, a 35m long 5-minute (P5) loading zone, and the remainder is general unrestricted car parking. In the 2020 town centre parking survey, this block of Church Street had parking occupancy of 20-59% during the peak mid-day period.
- 1.3. Rangiora Borough School staff raised concerns around limited kerbside space available during school drop-off and pick-up times, resulting in parents double-parking on Church Street for 5-10 minutes or more during these periods. It was also noted that the existing P5 bus loading zone on Church Street, while technically in-force 24 hours daily, was only used by buses one morning per week and for general car parking at other times. While the day of the week could change in the future, the school principal did not expect that the number of days or time per day would likely be extended in the future.

**2. RECOMMENDATION**

**THAT** the Rangiora-Ashley Community Board:

- (a) **Receives** Report No. 220324044049;

AND

**RECOMMENDS THAT** the District Planning and Regulation Committee:

- (b) **Approves** establishment of a limited (8:00-9:00am and 2:30-3:30pm school days only) 5-minute parking restriction (P5) on the east side of Church Street north of the mid-block pedestrian crossing for a length of 18 metres.

- (c) **Approves** modification of the existing 24-hour P5 loading zone on the east side of Church Street to be limited (8:00-9:00am and 2:30-3:30pm Wednesday school days only).
- (d) **Circulates** this report to Utilities and Roading Committee for information.

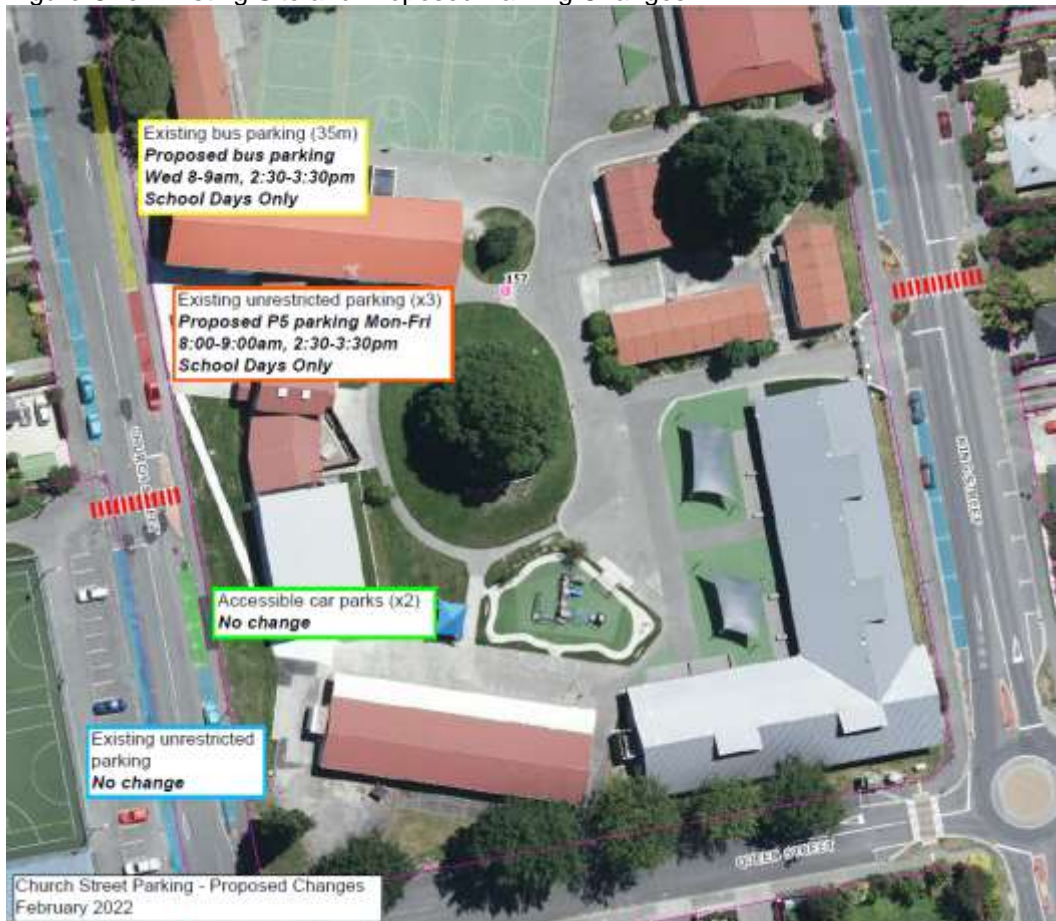
### 3. **BACKGROUND**

- 3.1. Church Street is a local road in central Rangiora that runs between High Street and Johns Road, providing local access to the Rangiora Borough School, Dudley Park, and the Aquatic Centre. Adjacent to the Rangiora Borough School, it has a 12m wide carriageway; there is one controlled zebra crossing between the school and park which narrows the carriageway with a kerb extension on the east side.
- 3.2. The frontage along the school is presently demarcated for two mobility car parks, a 35m long 5-minute (P5) loading zone, and the remainder is general unrestricted car parking. In practice, the P5 loading zone is used by school buses for limited once-weekly school activities. The general unrestricted car parking is typically used for all-day parking related to town centre activities.
- 3.3. In the 2020 town centre parking survey, this block of Church Street had parking occupancy of 20-59% during the peak mid-day period.
- 3.4. Rangiora Borough School serves a catchment covering Rangiora generally between High / Blakett Streets and Johns Road. Students travel to / from the school via foot, bicycle, and parents' vehicles.
- 3.5. The school campus is bordered by King Street on the east, Church Street on the west, and Queen Street on the south. There are two primary gates for students to access the campus, one each from King and Church Streets.
- 3.6. In February 2022, the school contacted Council about the possibility of implementing formal time-restricted drop-off and pick-up space on the school's frontage. Council staff met with the school principal on 8<sup>th</sup> February and observed school pick-up operations, including students leaving school by foot and bicycle, and parents waiting to pick up students in their private vehicles.

### 4. **ISSUES AND OPTIONS**

- 4.1. Rangiora Borough School staff raised concerns around limited kerbside space available during school drop-off and pick-up times, resulting in parents double-parking on Church Street for 5-10 minutes or more during these periods. It was noted that the same condition existed on King Street but to a lesser degree. King Street is a Collector Road with more through traffic, so this may reduce the attraction of double-parking in a through traffic lane.
- 4.2. During the site visit, it was also noted that the existing P5 bus loading zone on Church Street, while technically in-force 24 hours daily, was only used by buses one morning per week for technology classes and for general car parking at other times. While the day of the week could change in the future, the school principal did not expect that the number of days or time per day would likely be extended in the future.
- 4.3. Based on site investigation and consultation with the Rangiora Borough School, it is recommended that the three car parks north of the mid-block pedestrian crossing on the east side of Church Street have a 5-minute time-restriction established during morning (8:00-9:00am) and afternoon (2:30-3:30pm) school periods to accommodate parents who arrive by private vehicle.

- 4.4. Establishment of this time restriction will prove kerbside space for parents to briefly wait for their children instead of double-parking in a traffic lane. The Church Street school frontage is also better suited for this drop-off / pick-up space due to lower through traffic volumes, whereas the King Street school frontage is better suited to prioritise children who arrive by foot or bicycle. This time-restricted zone would cause the loss of five presently-unrestricted car parks.
- 4.5. It is also recommended that the existing 24-hour loading zone be redefined as a bus-only park during Wednesdays, 8:00-9:00am and 2:30-3:30pm only, formalising its use as general parking during all other times. These changes are shown below in Figure One.
- 4.6. Figure One: Existing Site and Proposed Parking Changes



### **Implications for Community Wellbeing**

There are implications on community wellbeing by the issues and options that are the subject matter of this report.

These proposed improvements provide infrastructure in terms of safety improvements which provide safe access for residents within the district.

- 4.7. The Management Team has reviewed this report and support the recommendations.

## **5. COMMUNITY VIEWS**

### **5.1. Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

## 5.2. **Groups and Organisations**

Staff have consulted with the Rangiora Borough School on these proposed changes and they were comfortable with the modifications. It is proposed that the school will update parents as to any parking changes through their established regular communications.

There are no other groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

## 5.3. **Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report; the impacts of kerbside management are considered to be localised and minor in nature. It is noted that no public consultation has been carried out with any other businesses or residents on Church Street or the wider community.

## 6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

### 6.1. **Financial Implications**

There are financial implications of the decisions sought by this report. Installation of parking signs and markings will be carried out through the Road Maintenance Contract and is estimated to cost approximately \$500 from the signs renewal budget.

This budget is not included in the Annual Plan/Long Term Plan.

### 6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability or climate change impacts.

### 6.3 **Risk Management**

There are no risks arising from the adoption/implementation of the recommendations in this report.

### 6.3 **Health and Safety**

There are no health and safety risks arising from the adoption/implementation of the recommendations in this report.

Physical works will be undertaken through the Road Maintenance Contract. The Road Maintenance contractor has a Health & Safety Plan and a SiteWise score of 100.

## 7. **CONTEXT**

### 7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

### 7.2. **Authorising Legislation**

Section 2 of the Land Transport Rule: Traffic Control Devices requires a Road Controlling Authority to "authorise and, as appropriate, install or operate traffic control devices."

Section 12.4 allows that "a Road Controlling Authority may restrict the parking of vehicles by designating an area of road as a loading zone to which a time restriction may also apply."

### 7.3. Consistency with Community Outcomes

The Council's community outcomes are relevant to the actions arising from recommendations in this report. This report considers the following outcomes:

***There is a safe environment for all***

- Harm to people from natural and man-made hazards is minimised.
- Our district has the capacity and resilience to quickly recover from natural disasters and adapt to the effects of climate change.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

***Transport is accessible, convenient, reliable and sustainable***

- The standard of our District's roads is keeping pace with increasing traffic numbers.
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes.

### 7.4. Authorising Delegations

Per Part 3 of the WDC *Delegations Manual*, the Community Board has the delegated authority to approve traffic control and constraint measures on streets.

Per Part 2 of the WDC *Delegations Manual*, the District Planning and Regulation Committee is responsible for parking enforcement.