The Mayor and Councillors

WAIMAKARIRI DISTRICT COUNCIL

A meeting of the WAIMAKARIRI DISTRICT COUNCIL will be held in the COUNCIL CHAMBER, 215 HIGH STREET, RANGIORA on TUESDAY 19 FEBRUARY 2019 at 3.15PM.

Sarah Nichols
GOVERNANCE MANAGER

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

BUSINESS

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 Waimakariri District Council held on Tuesday – Wednesday 29-30 January 2019

   RECOMMENDATION
   THAT the Council:
   (a) Confirms as a true and correct record the circulated minutes of a meeting of the Waimakariri District Council held on Tuesday 29 and Wednesday 30th January 2019.
   (to be circulated separately)

4. REPORTS


   RECOMMENDATION
   THAT the Council
   (a) Receives report No. 190211014633;
   (b) Adopts the Draft Annual Plan 2019/2020 as the principal document relied on for the content of the Consultation Document;
   (c) Adopts the Consultation Document 2019/2020 as the statement of proposal for public participation in decisions on the content of the draft Annual Plan;
   (d) Notes the Annual Plan Engagement Schedule with the special consultative procedure to open on 11 March 2019 and close on 11 April 2019;
(e) **Notes** the Draft Annual Plan and Consultation Document refers to further information and reports and this information will be provided on the Council website during the special consultative procedure from 11 March 2019 to 11 April 2019;

(f) **Delegates** to the Mayor and Chief Executive authority to make changes to the Consultation Document following Audit opinion and Council comments.

*(attachments to be circulated separately)*

5. **MATTER REFERRED FROM THE REGENERATION STEERING GROUP MEETING OF 4 FEBRUARY 2019**

5.1 **Kaiapoi East Regeneration Area Road Upgrades – Fraser Scales (Senior Project Engineer)**

*RECOMMENDATION*

**THAT** the Council

(a) **Receives** report No. 181123137888.

(b) **Approves** the proposed concept design for Cass Street west (between Jones Street and the Kaiapoi East sport and recreation reserve) as shown in Figure 1 of this report.

(c) **Approves** the proposed concept design for Charles Street west (between Jones Street and Beswick Street) as shown in Figures 2 and 3 of this report.

(d) **Approves** the proposed concept design for Charles Street east (between Beswick Street and Jollie Street) as shown in Figures 4 and 5 of this report.

(e) **Approves** the proposed concept design for Jollie Street as shown in Figure 6 of this report.

(f) **Approves** the proposed concept design for Old Feldwick Drive (between Jollie Street and the private property at 10 Feldwick Drive) as shown in Figure 7 of this report.

(g) **Approves** the proposed concept design for Cass Street east (between old Feldwick Drive and Hall Street) as show in Figure 8 of this report.

(h) **Approves** the proposed concept design for Hall Street as shown in Figure 9 of this report.

(i) **Notes** the current project estimate for the proposed concept designs is $2,652,274.

(j) **Notes** the estimate includes professional fees and a project contingency of 30%.

(k) **Notes** the current Earthquake Infrastructure Recovery Programme and Regeneration Programme budget allocation for this work is $2,060,000.

(l) **Notes** Council approval is currently being sought to reallocate budget of up to $600,000 from within the Earthquake Infrastructure Recovery Programme.
programme activity (Project 48 for the purposes of decommissioning roads) to the District Regeneration programme activity, for the new purpose of rebuilding some of those roads within the Kaiapoi East Regeneration area.

(m) **Notes** if Council approves the budget reallocation, the Earthquake Infrastructure Recovery Programme and Regeneration Programme budget allocation for this work would increase to $2,660,000.

(n) **Notes** the current Regeneration Programme budget allocation of $2,060,000 includes a budgeted NZTA subsidy of $770,000. The current NZTA Activity List includes a scheduled subsidy total of $545,700 for both Charles Street and Jollie Street only. This discrepancy between the WDC budgeted and NZTA scheduled subsidy figures indicates a net shortfall of $224,300 (assuming Council accepts the aforementioned budget reallocation from the Earthquake Infrastructure Recovery Programme).

6. **NEXT MEETING**

The next scheduled meeting of the Council is on Tuesday 5 March 2019 commencing at 1.00pm to be held in the Council Chamber.
WAIMAKARIRI DISTRICT COUNCIL

REPORT

FILE NO: LTC 03-08 / 190211014633

REPORT TO: Council

DATE OF MEETING: 19 February 2019

FROM: Jeff Millward – Manager Finance & Business Support


SIGNED BY: (for Reports to Council or Committees)

1. SUMMARY

1.1. The purpose of this report is to recommend to Council the adoption for consultation the Draft Annual Plan 2019/2020 (AP) and Consultation Document 2019/2020 (CD). A proposed AP Engagement Schedule is also provided for feedback.

Attachments:

i. Draft Annual Plan 2019/2020 (TRIM No.181221152221) (to be circulated separately) containing:

ii. Consultation Document 2019/2020 (TRIM No. 190124007277)

2. RECOMMENDATION

THAT the Council:

(a) Receives report No. 190211014633;

(b) Adopts the Draft Annual Plan 2019/2020 as the principal document relied on for the content of the Consultation Document;

(c) Adopts the Consultation Document 2019/2020 as the statement of proposal for public participation in decisions on the content of the draft Annual Plan;

(d) Notes the Annual Plan Engagement Schedule with the special consultative procedure to open on 11 March 2019 and close on 11 April 2019;

(e) Notes the Draft Annual Plan and Consultation Document refers to further information and reports and this information will be provided on the Council website during the special consultative procedure from 11 March 2019 to 11 April 2019;

(f) Delegates to the Mayor and Chief Executive authority to make changes to the Consultation Document following Audit opinion and Council comments.

3. ISSUES AND OPTIONS

3.1. The draft Annual Plan 2019/2020 (AP) presented for approval is a requirement of the Local Government Act 2002 and sets out the activities, services and investment planned for the Council over the year and how council sets out how to fund its activities and services. The AP is for the second year of the Long Term Plan 2018-2018 (LTP) that is prepared every three years.

3.2. Section 95 States the Council must prepare and adopt an annual plan for each financial year. Section 95 (2A), provides exemption of consulting, if the annual plan does not include...
significant or material differences from the content of the LTP for the financial year to which
the proposed annual plan relates. Even though this AP does not differ significantly to the
LTP, Council considers it is good practice to consult with its community each year.

3.3. Section 95B, states the purpose of the CD is to provide a basis for effective public
participation in local authority decision-making processes relating to the activities on costs
and funding, as proposed for inclusion in the annual plan by:

(a) Identifying significant or material difference between the proposed AP and
the content of the LTP for the financial year to which the annual plan
relates; and

(b) Explaining the matters in paragraph (a) in a way that can be readily
understood by interested or affected people; and;

(c) Informing discussion between the local authority and its communities
about the matters in paragraph (a).

3.4. Local Government Act 2002 states that it is Council's discretion to decide what is
appropriate to include in the Consultation Document (CD).

3.5. The AP is not required to be audited, as the financial information does not differ
significantly to that adopted in the 2018-2028 Long Term Plan.

3.3 Key topics that the Council is seeking feedback on within the CD

1) Funding of Ultra-violet (UV) Treatment of Water Supplies;
2) Waimakariri Water Zone - Water Zone Implementation Plan Addendum (ZIPA);
3) Proposal to develop Tennis Courts in Coldstream Road, Rangiora;
4) Investigating Park and Ride Facilities;
5) Sustainability.

3.6. The key communications and actions planned over the consultation are as follows:

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Details</th>
<th>When</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Release/es</td>
<td>Prior to March 11 – Consultation opens. Covers topics generally. Encourages submissions</td>
<td>Week prior to March 11</td>
<td>Comms / Policy</td>
</tr>
<tr>
<td></td>
<td>April 1 – Consultation closes next week</td>
<td>April 1</td>
<td></td>
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<tr>
<td></td>
<td>June 18 – Annual Plan adopted. Summary news story explaining resident influence</td>
<td>June 18</td>
<td></td>
</tr>
<tr>
<td>Website information</td>
<td>Updating Annual Plan web page <a href="https://www.waimakariri.govt.nz/your-council/council-">https://www.waimakariri.govt.nz/your-council/council-</a></td>
<td>March 11 for content going</td>
<td>Comms / Policy</td>
</tr>
<tr>
<td></td>
<td>documents/annual-plan-201718</td>
<td>live</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creating a Let's Talk consultation page <a href="https://www.waimakariri.govt.nz/have-a-say/lets-talk">https://www.waimakariri.govt.nz/have-a-say/lets-talk</a></td>
<td>April 11 for archiving</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Archiving content on April 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Communication</td>
<td>Media releases automatically shared to the intranet. Customer service team briefed</td>
<td>Week prior to March 11</td>
<td>Comms</td>
</tr>
<tr>
<td></td>
<td>prior to consultation opening</td>
<td>April 1</td>
<td></td>
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<td></td>
<td></td>
<td>June 18</td>
<td></td>
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<tr>
<td>Council TV screens</td>
<td>Aligned with media release content</td>
<td>Week prior to March 11</td>
<td>Policy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>April 1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>June 18</td>
<td></td>
</tr>
<tr>
<td>FAQs</td>
<td>Will be developed as required. Closer to March 11</td>
<td></td>
<td>Comms</td>
</tr>
<tr>
<td>Email to Councillors and community</td>
<td>Email to EMs and Comm Board members letting them know about current stage in the AP</td>
<td>Week prior to March 11</td>
<td>Policy</td>
</tr>
<tr>
<td>board members</td>
<td>process and public communication. This can include sharing Media Release material</td>
<td>April 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>June 18</td>
<td></td>
</tr>
<tr>
<td>Print Ads</td>
<td>Recommend two half page ads in each local print publication during consultation period.</td>
<td>Between March 11 and April 11</td>
<td></td>
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<tr>
<td></td>
<td>Call to action will be for submissions at Let's Talk URL</td>
<td></td>
<td></td>
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<tr>
<td>Deliverables</td>
<td>Details</td>
<td>When</td>
<td>Responsible</td>
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<tr>
<td>Social Media – FB, Neighbourly</td>
<td>Content and timeline to align with print ads above. Share information to local community group’s Facebook pages (Woodend, Pegasus, Ohoka, Mandeville, Swannanoa – particularly for water issues)</td>
<td>Between March 11 and April 11</td>
<td></td>
</tr>
<tr>
<td>Email to target local groups</td>
<td>At policy discretion. Recommend an email to contact at the Runanga prior to Hui as an FYI</td>
<td></td>
<td>Policy</td>
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</tbody>
</table>

- All information will be on the website including on-line submission forms, supported by Facebook and Twitter notification, reinforcing engagement opportunities.
- Drop in sessions are being planned in Rangiora, Kaiapoi and Oxford.

3.7. Key Dates
- Consultation period – 11 March to 11 April 2019;
- Council hearing of submissions – 8 May to 10 May 2019 from 1pm;
- Council deliberations on submissions 28 May – 30 May 2019 from 9am;

3.8. The management team have received this report and support the recommendations.

4. COMMUNITY VIEWS
4.1. To be sought as per the Consultation Schedule.

5. FINANCIAL IMPLICATIONS AND RISKS
5.1. As set out in the Financial Section of the AP. The Key Assumptions and Risks determined within the LTP have been used as the underlying basis in preparation of the AP.
5.2. The Draft Annual Plan 2019/2020 proposes a District average rate increase of 4.5%. The Long Term Plan signalled an increase of 4.3%.

6. CONTEXT
6.1. Policy
This matter is a matter of significance in terms of the Council’s Significance and Engagement Policy.

6.2. Legislation
Local Government Act 2002

6.3. Community Outcomes
There are wide ranging opportunities for people to contribute to decision-making by national and regional organisations that affect the District.

Jeff Millward
Manager Finance & Business Support
1. SUMMARY

1.1. The purpose of this report is to seek a recommendation from the Regeneration Steering Group to the Utilities and Roading Committee on the proposed concept design for the upgrade (permanent repair) of the remaining roads in the Kaiapoi East Regeneration Area.

1.2. Proposed concept designs have been prepared for the following roads:
   - Cass Street (west) - between Jones Street and the sport and recreation reserve (including the Cass/Jones/Feldwick intersection)
   - Charles Street:
     - West - between Jones Street and Beswick Street
     - East - between Beswick Street and Jolie Street
   - Jolie Street
   - Old Feldwick Drive (from Cass Street to number 10)
   - Cass Street (east) - between the old Feldwick Drive and Hall Street; and
   - Hall Street

1.3. Note that Jones Street is not included in this report as a concept design because this street was approved by the Utilities and Roading Committee in October 2018. Jones Street is currently in the detailed design phase.

1.4. The concept designs are guided by the primary purpose of the road and seek to:
   - Support the Kaiapoi Reserves Master Plan
   - Facilitate safe and user-friendly motor vehicle improvements
   - Facilitate safe and user-friendly pedestrian and cycle movements where needed
   - Meet the servicing and parking needs of the expected land use
   - Align broadly with community expectations; and
   - Provide value for money.

1.5. The current project estimate for the proposed concept designs is $2,652,274. The Regeneration Programme budget allocation for this work is $2,060,000.

1.6. Approval is currently being sought from Council (190115003190) to reallocate budget of up to $600,000 from within the Earthquake Infrastructure Recovery programme activity (Project 48 for the purposes of decommissioning roads) to the District Regeneration programme activity for the new purpose of rebuilding some of those roads within the Kaiapoi East Regeneration area where these are now confirmed to be retained.
1.7. If Council approves the budget reallocation, the Earthquake Infrastructure Recovery Programme and Regeneration Programme budget allocation for this work could increase to $2,660,000.

1.8. The current Regeneration Programme budget allocation of $2,060,000 includes a budgeted NZTA subsidy of $770,000. The current NZTA Activity List includes a scheduled subsidy total of $545,700 for both Charles Street and Jollie Street only. This discrepancy between the WDC budgeted and NZTA scheduled subsidy figures indicates a net shortfall of $224,300 (assuming Council accepts the aforementioned budget reallocation from the Earthquake Infrastructure Recovery Programme).

1.9. Should the recommendations in this report be adopted, detailed design and tendering for the road upgrades would commence with a view to starting construction in September 2019. It is expected construction would be complete by March 2020. Staff will also seek to redress the indicated shortfall and discrepancy with NZTA, which may take several weeks to resolve.

Attachments:

i. Kaiapoi East Regeneration Area Road Upgrades (Abley Report) (1901070000879)

2. **RECOMMENDATION**

THAT the Regeneration Steering Group recommends:

THAT the Utilities and Roading Committee:

(a) **Receives** report No. 181123137888.

(b) **Approves** the proposed concept design for Cass Street west (between Jones Street and the Kaiapoi East sport and recreation reserve) as shown in Figure 1 of this report.

(c) **Approves** the proposed concept design for Charles Street west (between Jones Street and Beswick Street) as shown in Figures 2 and 3 of this report.

(d) **Approves** the proposed concept design for Charles Street east (between Beswick Street and Jollie Street) as shown in Figures 4 and 5 of this report.

(e) **Approves** the proposed concept design for Jollie Street as shown in Figure 6 of this report.

(f) **Approves** the proposed concept design for Old Feldwick Drive (between Jollie Street and the private property at 10 Feldwick Drive) as shown in Figure 7 of this report.

(g) **Approves** the proposed concept design for Cass Street east (between old Feldwick Drive and Hall Street) as shown in Figure 8 of this report.

(h) **Approves** the proposed concept design for Hall Street as shown in Figure 9 of this report.

(i) **Notes** the current project estimate for the proposed concept designs is $2,652,274.

(j) **Notes** the estimate includes professional fees and a project contingency of 30%.

(k) **Notes** the current Earthquake Infrastructure Recovery Programme and Regeneration Programme budget allocation for this work is $2,060,000.

(l) **Notes** Council approval is currently being sought to reallocate budget of up to $600,000 from within the Earthquake Infrastructure Recovery programme activity (Project 48 for the purposes of decommissioning roads) to the District Regeneration programme activity, for
the new purpose of rebuilding some of those roads within the Kaitapoi East Regeneration area.

(m) Notes if Council approves the budget reallocation, the Earthquake Infrastructure Recovery Programme and Regeneration Programme budget allocation for this work would increase to $2,060,000.

(n) Notes the current Regeneration Programme budget allocation of $2,060,000 includes a budgeted NZTA subsidy of $770,000. The current NZTA Activity List includes a scheduled subsidy total of $545,700 for both Charles Street and Jollie Street only. This discrepancy between the WDC budgeted and NZTA scheduled subsidy figures indicates a net shortfall of $224,300 (assuming Council accepts the aforementioned budget reallocation from the Earthquake Infrastructure Recovery Programme).

3. BACKGROUND

3.1. The Earthquake Infrastructure Recovery Programme included repairs to damaged roads in Kaitapoi, The Pines Beach and Keiraki. Works outside the Regeneration Areas have been completed. Due to uncertainty around future land uses and activities, works within the Regeneration Areas were placed on hold until the approval of the Waimakairi Residential Red Zone Recovery Plan (Recovery Plan).

3.2. These remaining roads suffered various damage to the road surface and base, kerb and channel, and footpaths. There are also localised drainage issues. Currently there is a 30km/hour speed limit on these streets.

3.3. Since approval of the Recovery Plan, the rebuild of Fieldwick Drive, in Kaitapoi East, and Courtenay Drive, in Kaitapoi South, have been completed. Works have also been undertaken on Moore Street and Blackwell Crescent. The upgrade of Jones Street in Kaitapoi East is currently in the detailed design stage with construction programmed to begin in mid 2019.

3.4. At the 5 March 2018 Regeneration Steering Group meeting, approval was given to progress the concept design for permanent repairs to Cass Street (between Jones Street and the sport and recreation reserve; and between Jollie Street and Hall Street), Charles Street (from Jones Street to Jollie Street) and to Jollie Street.

3.5. To guide the concept design, recommendations from the 5 March meeting also confirmed the primary purpose of these roads as follows:

Table 1: Primary purpose of remaining roads to be upgraded in Kaitapoi East

<table>
<thead>
<tr>
<th>ROAD</th>
<th>PRIMARY PURPOSE</th>
</tr>
</thead>
</table>
| Cass Street west (between Jones Street and the sport and recreation reserve) | • Vehicle access to the sport and recreation reserve.  
• Provision of on-street parking. |
| Charles Street | • Vehicle access to Jollie Street and Cass Street.  
• Vehicle access to adjacent land uses including:  
  - The sport and recreation reserve (the dog park)  
  - The adjacent riverbank reserves (Morgan Williams Reserve, Corcoran Reserve, Askeaton Park)  
  - Elements of the wharf and marine precinct  
  - The motor caravan park  
  - The existing caravan dump station |
4. ISSUES AND OPTIONS

4.1. Abley transportation consultants were engaged to produce concept roading designs for the following remaining roads to be upgraded:

1) Cass Street west – between Jones Street and the sport and recreation reserve.
2) Charles Street east – between Jones Street and Beswick Street.
3) Charles Street east – between Beswick Street and Jollie Street.
4) Jollie Street.
5) Old Feldwick Drive – between Jollie Street and the private property at 10 Feldwick Drive.
6) Cass Street east – between the old Feldwick Drive and Hall Street
7) Hall Street

4.2. The proposed concept designs were based on the identified primary purpose of the roads (as outlined in Table 1) and the following design objectives:

- Support the Kaiapoi Reserves Master Plan
- Facilitate safe and user friendly motor vehicle improvements
- Facilitate safe and user friendly pedestrian and cycle movements where needed
- Meet the servicing and parking needs of the expected land use
- Align broadly with community expectations; and
- Provide value for money.

An overarching design objective was also to contain the road upgrades within the existing road corridors.

4.3. Options for the concept design of the roads are outlined in the report from Abley included in full as Attachment i. The recommended option for each of the affected roads is discussed below.

Case Street West

4.4. Cass Street West (between Jones Street and the sport and recreation reserve) is currently approximately 13m wide with kerb and channel on both sides. There are 1.5m wide footpaths on both sides.
4.5. The recommended concept design option for Cass Street West includes the following key features:

- 3m wide shared path on the mixed-use business side
- Two 3.5m wide traffic lanes
- 6m deep angle parking space (on the reserve side of the road, 27 parks provided,
- 1.8m wide footpath on the reserve side
- A post and cable fence to define the reserve

*Figure 1 – Cass Street (west) recommended concept design.*

4.6. At the sport and recreation reserve, the end of the road terminates in a turning head which allows access to the reserve car park. The turning head has separate in and out vehicle crossings and can accommodate turning buses. An island is proposed in the centre of the turning head to discourage anti-social driving.

4.7. At the Cass Street, Jones Street, Feldwick Drive intersection, a roundabout is recommended. The roundabout will be delivered as part of the Jones Street upgrades. However, a single pedestrian refuge will need to be constructed on Cass Street to assist shared path users with crossing the main access road to the sports fields.

**Charles Street (west) - between Jones Street and Beswick Street**

4.8. Charles Street West (between Jones Street and Beswick Street) is currently approximately 14m wide with kerb and channel on both sides. The centreline is currently offset due to the poor condition of the road.

4.9. The recommended concept design for Charles Street (west) includes the following key features:

- A 1.8m wide footpath on the mixed-use business side of the road
- Parallel parking on the mixed-use business side of the road (29 spaces)
- Two 3.5m wide traffic lanes
- Kerb alignment on the Corcoran Reserve side of the road retained; and
- Buildout approximately half way along parallel parking to provide planting opportunity.

4.10. The give way at the intersection of Charles Street and Jones Street would remain as a T-intersection with Charles Street traffic having priority.
Between Charles Street west and east

4.11. Between Charles Street west and east, the adjacent land use in the Kaiapoi East Regeneration Area changes from mixed-use business to reserve. The concept design for this transition is a single-lane section of road that will slow traffic, minimise the crossing distance for pedestrians, and provide visual cues to the change in land use.

Charles Street (east) - between Beswick Street and Jollie Street

4.12. Charles Street East (between Beswick Street and Jollie Street) is currently approximately 14m wide with kerb and channel on both sides. There is a 1.5m footpath on the regeneration area side.

4.13. The recommended concept design option for Charles Street East varies across two sections. The first section (Section 2A) starts where the land use changes from mixed-use business to sport and recreation reserve. Section 2A includes the following key features:

- Parallel carparks on the Corcoran Reserve side (six spaces)
- Two 3.5m wide traffic lanes
- Kerb alignment on the Corcoran Reserve side retained
4.14. The second section of Charles Street East (Section 2B) extends along the front of the proposed dog park. Section 2B includes the following key features:

- 1.8m wide footpath on the dog park side of the road
- Angle parking on the dog park side of the road (reverse-in parking) (47 spaces)
- Two 3.5m wide traffic lanes
- Kerb alignment on the Corcoran Reserve side retained

4.15. Jollie Street is currently approximately 14m wide with kerb and channel on both sides. There is a 1.5m wide footpath on the west (dog park) side only. There are fenced road closures where Sewell Street used to intersect with Jollie Street.

4.16. The recommended concept design for Jollie Street includes the following key features:

- Parallel parking on both sides of the road (59 spaces in total)
- Two 3.5m wide traffic lanes
- 1.8m wide footpath on the dog park side of the road
- Kerb alignment on the future memorial gardens side retained.
Old Feldwick Drive (from Cass Street to number 10)

4.17. At the intersection of Cass Street and the old Feldwick Drive, at the northern end of Jollie Street, it is proposed to have a T-intersection with a kerb incient to enable large vehicles (such as a rubbish truck) to U-turn. Access to the boat ramp is retained, and some parking is proposed along the old Feldwick Drive.

Figure 7 – Recommended intersection layout at old Feldwick Drive

Cass Street (east) – between the old Feldwick Drive and Hall Street.

4.18. The recommended concept design for Cass Street (east) includes the following key features:

- Two 3.0m wide traffic lanes
- A swale for drainage on the north side of the road
- 1.8m wide footpath on the north side of the road
Figure 8 – Cass Street (east) recommended concept design.

Hall Street

4.19. The recommended concept design for Hall Street includes the following key features:
- A berm on the west side
- Two 3.0m wide traffic lanes
- A berm and swale on the east side

Figure 9 – Hall Street recommended concept design.

Construction programme

4.20. Should the recommendations in this report be adopted, detailed design and tendering for
the road upgrades would commence with a view to starting construction in September
2019. It is expected construction would be complete by March 2020.

4.21. The Management Team have reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Significant community engagement was undertaken during the development of the
Recovery Plan. The proposed concept design for the remaining roads in the Kaiapoi East
Regeneration Area gives effect to the land uses approved through this Plan.

5.2. Given that the Recovery Plan was approved in 2016, and further detailed in the
development of the Kaiapoi Town Centre Plan, 2028 and Beyond, and the Kaiapoi
Reserves Master Plan in 2018, there is an expectation from the community that the road
network in Kaiapoi East will now be permanently repaired.
5.3. Given the community have had significant opportunity to provide feedback on the proposed land uses and activities in the Kaiapoi East Regeneration Area, additional community consultation on the concept design of the remaining roads is not considered necessary.

5.4. Consultation will be undertaken with directly affected parties, including the private residential property owners on Cass Street and the old Feldwick Drive, particularly in relation to retaining permanent access to their properties from the road network. Consultation will also be undertaken with other affected parties as required. This could include key users of the sport and recreation reserve, and utility and service providers.

6. IMPLICATIONS AND RISKS

6.1. Financial Implications

6.1.1. A provisional budget allocation of $2,060,000 has been made within the District Regeneration activity budgets for the rebuild of the remaining roads in the Kaiapoi East Regeneration Area. This includes a budgeted NZTA subsidy of $770,000 (shown as ‘Revenue’ within the budgets). The current NZTA Activity List includes a scheduled subsidy total of $545,700 for both Charles Street and Jolie Street only. This discrepancy between the WCC budgeted and NZTA scheduled subsidy figures indicates a net shortfall of $224,300.

6.1.2. The current project estimates of the proposed concept designs is as follows:

<table>
<thead>
<tr>
<th>ROAD</th>
<th>CURRENT PROJECT ESTIMATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cass Street (west) - Jones Street to proposed car park</td>
<td>$459,734</td>
</tr>
<tr>
<td>Charles Street (west) – Jones Street to Beswick Street</td>
<td>$358,667</td>
</tr>
<tr>
<td>Charles Street (east) - Beswick Street to Jolie Street</td>
<td>$483,101</td>
</tr>
<tr>
<td>Charles Street one way transition</td>
<td>$134,651</td>
</tr>
<tr>
<td>Jolie Street</td>
<td>$505,969</td>
</tr>
<tr>
<td>Old Feldwick Drive (from Cass Street to number 10A)</td>
<td>$124,387</td>
</tr>
<tr>
<td>Cass Street (east) – old Feldwick Drive to Hall Street</td>
<td>$448,078</td>
</tr>
<tr>
<td>Hall Street</td>
<td>$137,687</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$2,652,274</strong></td>
</tr>
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</table>

6.1.3. The above project estimate includes an allowance for street light replacement, professional fees and a 30% contingency. This level of contingency is set by the confidence-based method used throughout the Earthquake Infrastructure Recovery Programme.

6.2. Community Implications

6.2.1. The repair of the remaining roads in the Kaiapoi East Regeneration Area will be a key action in the implementation of the approved land uses and activities in the Recovery Plan. It will be an important step in the regeneration of the Kaiapoi East area.
6.2.2. In the Regeneration Programme it is intended that the sports fields (north of Cass Street) will be available for use in the early summer 2020 season, initially for softball. The recreation area south of Cass Street (the dog park, community BMX track and walking trails around the stormwater wetland area) is expected to be open for use from mid-2018. While the road upgrades will not be fully complete before these facilities open for use, progress on the upgrades will enable more effective use of these facilities.

6.3. Risk Management

6.3.1. The proposed concept designs for the rebuild of the remaining roads in the Kaiapoi East Regeneration Area give effect to the land uses and activities approved in the Recovery Plan.

6.3.2. While the Kaiapoi Town Centre Plan, 2028 and Beyond provides some degree of certainty over the development of the mixed-use business area there remains the risk of potentially needing to retrofit vehicle crossings on Cass Street (west) and Charles Street (west). Such works would not require significant excavation of an upgraded road but would potentially affect paths over the width of the crossing.

6.3.3. Similarly, there is minimal certainty on how the Kaiapoi East rural area is to be used/developed, in the short and long-term. Access to this area will be via Charles Street, Jollie Street and Hall Street. The proposed concept designs for these streets enable the land uses and activities in the Recovery Plan. Should the land uses and activities depart significantly from those in the Recovery Plan (i.e. be more intensive) the designs may not be compatible. This is a matter that would need to be considered when entering into any land use agreements (e.g. a lease) for this area.

6.3.4. The indicated shortfall arising from the discrepancy between WDC budgeted revenue (NZTA subsidy) and the current NZTA Activity list figure, is proposed to be addressed through discussion with NZTA. There is no guarantee that the NZTA subsidy allowed for within the NZTA Activity list will be increased. Any change to the NZTA Activity list could potentially take several weeks to resolve.

6.3.5. Staff are seeking approval to commence detailed design in order to keep the project on programme in order to complete the roads in early 2020 to coincide with the opening of the sports fields. If the NZTA funding is not increased by the conclusion of design stage, then the alternative options may include:

i. Adopting a staged approach to construction
ii. Reducing the project scope
iii. Reducing the level of service
iv. Seek additional funds from Council

An options report will be put to Council in the event of an unfavourable outcome from the discussions with NZTA.

6.4. Health and Safety

6.4.1. A road safety audit of the proposed concept designs has been undertaken by ViaStrada.

6.4.2. The rebuild of the roads will follow all relevant Council policies, procedures and guidelines relating to Health and Safety.
7. CONTEXT

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

7.2. Legislation

7.2.1. Greater Christchurch Regeneration Act, 2016
The rebuild of the remaining roads in the Kaiapoi East Regeneration Area is consistent with the Waimakariri Residential Red Zone Recovery Plan, approved under the Greater Christchurch Regeneration Act in December 2016

7.2.2. Land Transport Management Act

7.3. Community Outcomes

7.3.1. The following Community Outcomes are considered relevant:
- There is a safe environment for all
- There is a healthy and sustainable environment for all
- Public spaces and facilities are plentiful, accessible and high quality
- The distinctive character of our takāwā - towns, villages and rural areas is maintained

7.4. Delegations

7.4.1. In accordance with their Terms of Reference, the Regeneration Steering Group can make recommendations on concept plans.
Kaiapoi East Regeneration Area
Road Upgrades
Waimakariri District Council
Kaiapoi East Regeneration Area
Road Upgrades
Waimakariri District Council

Quality Assurance Information

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<th>Waimakariri District Council</th>
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<tr>
<td>Job Number</td>
<td>WMKDC-J071</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Penny Gray, Senior Transportation Engineer and Jeanette Ward, Associate</td>
</tr>
<tr>
<td>Reviewed by</td>
<td>Matthew Noon, Associate</td>
</tr>
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<tr>
<td>15 November 2018</td>
<td>Draft</td>
<td>Penny Gray</td>
</tr>
<tr>
<td>6 December 2018</td>
<td>Final</td>
<td>Jeanette Ward</td>
</tr>
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<td>Design Considerations</td>
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<td>Existing Layout</td>
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</tr>
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<td>10.2</td>
<td>Existing Layout</td>
<td>29</td>
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<td>10.3</td>
<td>Cross Section Options</td>
<td>29</td>
</tr>
<tr>
<td>10.4</td>
<td>Recommended Option</td>
<td>30</td>
</tr>
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1. **Introduction**

1.1 **Scope**

Waimakariri District Council (WDC) commissioned Abley Ltd to develop road upgrade options within the Kaiapoi East Regeneration Area (KERA). This report outlines the options considered and the recommended road upgrade options. These were developed with consideration of the Waimakariri Red Zone Recovery Plan, the Reserves Master Plan, the Kaiapoi Town Centre Plan 2028 and Beyond and the Kaiapoi East Regeneration Area Horizontal Infrastructure Strategy.

The roads that require upgrading are Cass Street (west), Charles Street, Jollie Street, Cass Street (east), Hall Street and Cass Street as shown in Figure 1.1. A new road named Feldwick Drive has been completed north of the Cass Street and Jones Street intersection as shown in Figure 1.2. Jones Street upgrade is being progressed in parallel to this project.
1.2 Design Objectives

The overall design objectives were confirmed at 5 October workshop with WDC staff and used as the basis for determining the recommended option in conjunction with site specific needs as described for each section of road.

The design objectives were to:

- Support the Reserves Master Plan
- Facilitate safe and user friendly motor vehicle movements
- Facilitate safe and user friendly pedestrian movements where needed
- Facilitate safe and user friendly cycle movements where needed
- Ensure servicing and parking meets the needs of the expected land use
- Align broadly with community expectations
- Provide value for money roading designs that maximise the re-use of existing pavements.

1.3 Land use and Network integration

The Kaiapoi East Regeneration Plan defined the broad future land uses in this area. The Reserves Master Plan then developed the reserves related uses further as shown in Figure 1.3. This informed the site specific design requirements of each road, for example on-street parking needs, access requirements, active frontages.

Figure 1.3 Reserves Master Plan

Both the existing and future walking and cycling connections were considered in the designs. Figure 1.4 shows the path network for both walking and cycling. These paths, and how they interact with the roads, were a key factor throughout the development of the road designs.

A key issue that is yet to be resolved is how cyclists move between Williams Street and the Jones Street/Charles Street intersection. This area has some constraints and Council staff are investigating this as part of a cycleway improvement review.
The shared path on the east side of the new Feldwick Drive will extend southwards into Jones Street (east side) as shown in Figure 1.5. The Jones Street street design is being progressed in conjunction with this project but as a separate project. It is anticipated that this project will construct the kerblines for the Jones Street, Cass Street and Feldwick Drive intersection and the kerblines at the Jones Street and Charles Street intersection.
1.4 Development Process

The recommended road upgrade option was the result of an iterative selection process. The initial cross section and intersection options, as described in Sections 2-9, were developed by Abley and presented to WDC staff at a workshop (5 October 2018). This workshop discussed the benefits and constraints of each option. The key conclusion from this workshop was ensuring the proposed cross sections remained within the existing road carriageway to meet the value for money objective.

A subsequent meeting was held with WDC staff to finalise the preferred option for each street and intersection to present to the Regeneration Steering Group.

At the 5 November 2018 Regeneration Steering Group Meeting a workshop was held with the steering group. The preferred cross section for each street was presented along with the intersection options. Generally, the options were well received. The key feedback was:

- An articulated truck uses Cass Street and Jones Street to access the New World on Sewel Street and this is the preferred route
- Parking should be considered for the mixed use business on Cass Street (west)
- Parking should be considered for the reserve users on Charles Street Section 2
- Sportsground users need parking in Jollie Street and old Feldwick Drive and over-flow parking options for big sporting events should be considered

This feedback was considered and the final recommended option was developed for each street section and intersection as detailed in Sections 2-9 below.
2. **Section 1 - Cass Street (west)**

2.1 **Design Considerations**

The key design considerations identified for Cass Street (west) are:

- On-street parking needed for sports ground and future mixed-use business area
- Future mixed use business frontages on south side
- Provides access to the sports field ground car park
- Potential access to the mixed-use sites
- Pedestrian access from on-street parking to destinations required (sports fields, shops/offices)
- Shared use path connection to sports fields required
- Turn around facility required at east end (for those not entering the car park)
- Coaches will require use of this road to access the sports field car park

See **Section 3** for the design recommended for the intersection with Jones Street and Feldwick Drive.

2.2 **Existing Layout**

Cass Street is approximately 13m wide with kerb and channel on both sides as shown in **Figure 2.1**. There are 1.5m wide footpath on both sides.

This section of Cass Street from Jones Street to the sports centre access is approximately 150m long.

![Figure 2.1 Existing Cass Street (western section) layout looking east](image-url)
2.3 Cross Section Options

The cross section options developed for this section of road are outlined in Table 2.1. These options were refined and confirmed at a workshop with WDC staff.

Table 2.1 Cass Street (western section) cross section options

<table>
<thead>
<tr>
<th>Option #</th>
<th>Description</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Angle parking on north side</td>
<td>The shared path is on the south side to avoid a conflict point with the car park entrance, however in future the shared path will be outside mixed use business area.</td>
</tr>
<tr>
<td></td>
<td>• Shared path on south side</td>
<td>Angle parking is provided on the sports field side to provide over-flow parking capacity. Users of angle parks will reverse into opposing lane when exiting due to Cass St being a cul de sac, these could be made ‘reverse in’ only. Trees can be planted in-between bays as per the Feldwick Drive layout.</td>
</tr>
<tr>
<td></td>
<td>• Parallel parking on south side</td>
<td>Parallel parking provided on south-east side to cater for future business area, also provides additional parking for sports fields.</td>
</tr>
<tr>
<td></td>
<td>• Both sides kerb and channel</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>• Angle parking on south side</td>
<td>The shared path would be located on north side adjacent to parallel parking and provide good access directly to the sports fields. Parallel parkers may U-turn out of their park due to Cass St being a cul de sac.</td>
</tr>
<tr>
<td></td>
<td>• Shared path on north side</td>
<td>Angle parking is provided on the south side which would allow drivers to turn right into it and then reverse out the opposite way. While potentially not very aesthetically pleasing in front of shops, a section between the parking bays could be used as a large ‘parklet’ (area for outdoor dining etc).</td>
</tr>
<tr>
<td></td>
<td>• Parallel parking on north side</td>
<td>Traffic lane widths are kept to a minimum to reduce overall width of carriageway.</td>
</tr>
<tr>
<td></td>
<td>• Both sides kerb and channel</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>• Parallel parking on both sides</td>
<td>Parallel parking is provided on both sides to allow some over-flow parking from the car park and future proof the mixed use business parking area.</td>
</tr>
<tr>
<td></td>
<td>• Shared path on north-west side</td>
<td>Shared path is on north side adjacent to parallel parking.</td>
</tr>
<tr>
<td></td>
<td>• Both sides kerb and channel</td>
<td>Traffic lane widths are kept to a minimum to reduce overall width of carriageway.</td>
</tr>
</tbody>
</table>
2.4 Recommended Option

Following an assessment of the overall design objectives and discussion with Council staff, a modified Option 1 is recommended which would see the omission of the parallel parking on the south side with planting in the reserve area instead of the road reserve. This holds the proposed cross section within the existing road carriageway and minimise construction costs.

The roadway has been configured for angle parking as the sports fields are the priority for this area at present. However, there is flexibility to configure the road to allow parallel parking on both sides in the future, similar to option 3. The Reserves Master Plan allows for parking on Cass Street to service the sports fields whereas the mixed use business area is not proposed to have an active frontage on Cass Street.

The key features of the recommended option as shown in Figure 2.2 are:

- A 3m wide shared path on the south side
- Two 3.5m wide traffic lanes
- 6m deep angle parking spaces
- A 1.8m wide footpath on the north side
- A post and wire fence to define the sports field area
- 27 angle car parks provided

The angle car parks are designed to be parked in front-ways or in reverse. Parking in reverse allows sports field users to unload the car onto the berm and out of the carriageway area. Parking in reverse also has benefits when exiting as drivers can turn right out of the car park and exit towards Jones Street.

At this stage it is not recommended to install no stopping lines on the southern side. However, there is a risk that this area could be used to parallel park, especially if sport ground users are running late and there are no free car parks. This should be monitored and if parking on the south side is observed then no stopping lines are recommended.

The end of the road has been designed to allow separate ‘in’ and ‘out’ vehicle crossings around the cul de sac head to access the sports ground carpark. The scale of the cul de sac accommodates bus movements into the car park and small truck movements around the island. A tear drop shaped island is located within the cul de sac to reinforce the direction of travel and discourage car burnouts.

See Appendix A sheet 1 for the design plan.
3. Cass /Jones/Feldwick Intersection

3.1 Design Considerations

The following key design considerations were identified for the Cass Street (west)/Feldwick Drive/Jones Street intersection:

- Safe and intuitive intersection
- Caters for various vehicle types – including coach access to Cass Street west from Cass Street and Jones Street, articulated truck access between west and south legs
- Provides shared path crossing on east side
- Provides pedestrian crossing facilities

3.2 Existing Layout

The intersection is currently a priority T-intersection as the Cass Street eastern leg is closed to traffic. The Cass Street western leg traffic give way to the Jones Street and Feldwick Drive traffic as shown Figure 3.1. The current dominant traffic flow is between Cass Street (western leg) and Feldwick Drive due to the residential catchment and the current condition of Jones Street.

There are cutdowns for pedestrians to cross the Cass Street western leg, however there are no cutdowns for people to cross Feldwick Drive or the Jones Street legs. The shared path on the east side of the Feldwick Drive currently terminates where it meets the closed leg of Cass Street as shown in Figure 3.2.

Figure 3.1 Cass Street intersection with Feldwick Drive (looking west)

Figure 3.2 Cass Street intersection with Feldwick Drive (looking north)
3.3 Options

Two options were developed for this intersection as follows, these are compared in Table 3.1.

- Option 1 - Give way (Jones/Feldwick has priority)
- Option 2 - Roundabout

<table>
<thead>
<tr>
<th>Option #</th>
<th>Type</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Give way</td>
<td>• Lower construction cost</td>
<td>• Increased potential for crashes with likely greater severity (risk taking etc at busy times)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reinforces Jones/Feldwick as the spine road</td>
<td>• Difficult for pedestrians and cyclists crossing east-west</td>
</tr>
<tr>
<td>2</td>
<td>Roundabout</td>
<td>• Lower estimated crash rate and severity likely (separates vehicle conflict points)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Better for pedestrians and cyclists crossing east-west</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provides a gateway to the differing land uses (residential, recreational and mixed use)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitates effective wayfinding (directional signage in central island)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Higher construction cost</td>
</tr>
</tbody>
</table>

3.4 Recommended option

The recommended intersection type is a roundabout. However, the give way could be implemented initially given that the sports fields and mixed-use businesses will not be established in the short term.

If a give way is to be implemented, it should be constructed with consideration of a future roundabout requirements i.e. without the need to alter kerb lines or damage the carriageway surface.

Pedestrian refuge islands are proposed to be installed on Cass Street which will assist shared path users to cross Cass Street in a two-phase approach and provide a good level of service for pedestrians. It also encourages good lane discipline as right turners cannot cut the corner of the T-intersection.

This layout could cause delays to sports ground users as they are required to give way when exiting the sports ground area.

Tour coaches and articulated trucks have been assessed for this design and turning movements can be achieved. A mountable shoulder is required on the south west corner of the intersection to allow for the tracking of semi-trailers making a left turn into Cass Street. An example of a mountable shoulder is shown in Figure 3.3.
Figure 3.3 Mountable shoulder example

See Appendix A, sheet 2 for the design plan.
4. Charles Street/Jones Street Intersection

4.1 Design Considerations

The key design considerations identified for the intersection of Charles Street and Jones Street were:

- Safe and intuitive intersection
- Caters for various vehicle types – including coach between west and north legs, boat trailer movements between north and east legs
- Provides shared path crossing on east side
- Allows cycle access from the west to the shared path

4.2 Existing Layout

The intersection is currently a priority T-intersection with Jones Street traffic giving way to the Charles Street traffic as shown in Figure 4.1. The Coastguard building is located on the south side of the intersection as shown in Figure 4.2. This can be accessed by foot at this location however the vehicle access is located west of the intersection. There are cutdowns for pedestrians to cross the Charles Street on the eastern side on the intersection.
4.3 Options

Two options were considered for this intersection, a standard T-intersection and a change in priority T-intersection with Jones Street allocated the priority over Charles Street east leg.

Changing the intersection priority was not considered a safe and intuitive design for this intersection. Coast guard boat ramp users travel straight along Charles Street, therefore if the priority was changed they would be required to stop at the corner to give way to Jones Street vehicles. This creates a conflict point at this corner. It was considered that a standard T-intersection design would meet all of the design considerations.

4.4 Recommended layout

The recommended layout retains priority to Charles Street traffic. The revised design accommodates the following turning movements:

- Towed boats between Jones Street and Charles Street east
- Coaches between Charles Street west and Jones Street

The intersection has been narrowed on Jones Street and the east leg of Charles Street to minimise the crossing distance for pedestrians and cyclists. The west leg of Charles Street has retained some width to allow towed boats to turn out of and into the Coastguard boat ramp access.

Planting is proposed on the build out on the east leg of Charles Street to disguise the parallel parking along that section and create a visual narrowing which will help reduce the speed environment.

See Appendix A sheet 3 for the design plan.
5. **Section 2 – Charles Street (west)**

5.1 **Design Considerations**

The key design considerations identified for Charles Street (west) were:

- Future mixed business frontages on the north side
- Access to a future boat-trailer parking lot on the south side
- Existing campervan wastewater disposal site on the south side
- Footpath required on north side
- Turn-around facility for people visiting mixed-use business area required
- South side kerbline in better condition than north side kerbline

See Section 4 for the recommended design for the intersection with Jones Street.

5.2 **Existing Layout**

Charles Street is approximately 14m wide with kerb and channel on both sides as shown in Figure 5.1. The centreline is offset to the south due to the poor condition of the carriageway on the north side. There is a 1.5m wide footpath on the north side. A campervan wastewater disposal facility is accessed from this street as shown in Figure 5.2.

This section of Charles Street from Jones Street to the next section of Charles Street is approximately 210m long.

![Figure 5.1 Charles Street (west) existing layout looking east](image)

![Figure 5.2 Campervan waste disposal area](image)
5.3 Cross Section Options

The cross section options developed for this section of road are outlined in Table 5.1. These options were discussed and confirmed at a workshop with WDC staff.

Table 5.1 Charles Street (west) cross section options

<table>
<thead>
<tr>
<th>Option #</th>
<th>Description</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flush median option</td>
<td>Flush median to allow for cars towing boats to manoeuvre in and out of the car park without encroaching on the opposing lane. Parallel parking on north side for future mixed-use business. This could be interspersed with trees or parklets. Shared path on north side. Minimum width footpath provided on south-west side for access from trailer park to pontoon, footpath only needed as far as the boat trailer car park, after that extra room required for U-turning facility.</td>
</tr>
<tr>
<td>2</td>
<td>Minimum lanes widths, Parking both sides, Large shared path area on north-east side</td>
<td>10m wide carriageway with only a centreline marked. This allows for parking on both sides and when demand is low, become oversize lanes. Large shared path area proposed on north-east side to allow for a shared path area and a lingering area given the adjacent mixed use land use Minimum width footpath allowed on south-west side for access from trailer park to pontoon. Only needed to boat car park, after that extra room required for U-turning facility.</td>
</tr>
<tr>
<td>3</td>
<td>Parallel parking on north side only</td>
<td>Wider 3.5 lanes to allow for boat trailer manoeuvring. Parking on north side only for future mixed-use business zone. Trees can be inter-spaced in this area. Path on north side. No parking allowed on south side to allow for good visibility for boat trailers.</td>
</tr>
<tr>
<td>4</td>
<td>Angle parking on north-east side only</td>
<td>Angle parking on north-east side to allow parking for mixed-use business. Trees can be planted in-between bays similar to Feldwick Drive. Minimum traffic lanes to reduce carriageway width while still allowing some manoeuvrability. Minimum width footpath allowed on south side for access from trailer park to pontoon. Only needed to car park, after that extra room required for U-turning facility.</td>
</tr>
</tbody>
</table>
5.4 Recommended option

Option 3 is recommended with following key aspects, as shown in Figure 5.3:

- A 1.8m wide footpath on the north side between two berms
- Parallel parking on the north side
- Two 3.5m wide traffic lanes
- Kerb alignment on the south side retained
- Buildout approximately half way along parking to provide planting opportunity.
- Approximately 29 car parks provided.

![Figure 5.3](image_url)

Figure 5.3 Charles Street (west) recommended option

The parallel parking on the north side serves the mixed use business area and also creates a location where drivers using the Coastguard boat ramp can park before the proposed dedicated boat trailer park is developed.

It is envisaged that visitors to the mixed-use business area will u-turn from their car park to exit this area. If the disposal site is to remain in use then access will be required off road rather than on-road as currently marked.

It is assumed that users of the boat trailer park will take the most direct pedestrian route back to the pontoon and therefore, a footpath along the road was not required.

To minimise construction costs, only one kerb buildout is proposed approximately half way along this section of Charles Street. Planting is recommended at the start and end of this section, as well as within the buildout to break up the large seal area and create a visual narrowing at these locations.

See Appendix A sheet 4 for the design plan.
Charles Street One-way Transition

The recommended transition between Charles Street west and east is a one-lane section of road that will slow traffic and minimise the crossing distance for path users as shown in Figure 5.4. This transition differentiates between the mixed use section of Charles Street and the reserve section. It gives drivers a visual clue that the roads from this point are narrow and slow speeds should be observed. See Figure 5.5 for an example of this treatment.

![Figure 5.4 Transition between west and east sections of Charles Street](image1.jpg)

*Figure 5.4 Transition between west and east sections of Charles Street*

![Figure 5.5 Example of road narrowing](image2.jpg)

*Figure 5.5 Example of road narrowing*

The central part of the narrowing will be a flush paved area as used along the new Feldwick Drive design, see Figure 5.6. This feature provides good continuity between the new roads in Kaiapoi East. Any planting in this area should be set back from the kerb to allow good inter-visibility between opposing drivers and path users. Limit lines will be installed on both approaches to this narrowing to encourage the negotiation of priority. The transition has been designed for a 99th percentile car towing a large boat.
Figure 5.6 Example of paved flush surface

See Appendix A sheet 5 for the design plan.
6. Section 3 – Charles Street (east)

6.1 Design Considerations

The key design considerations identified for Charles Street (east) are:

- Access to dog park through gated entry
- Access to recreational area (picnic area and jetty) and water tower lookout/events area
- Footpath crosses the road at the transition between the west and east sections of Charles Street
- Pedestrian access from parking to destination (dog park, picnic area, viewing platform)
- Recreational path shown on north-east side only
- Turn-around facility for people only visiting this section

6.2 Existing Layout

Charles Street is approximately 14m wide with kerb and channel on both sides as shown in Figure 6.1. There is a 1.5m wide footpath on the north side.

This section of Charles Street from the previous section to Jollie Street is 330m long.

![Figure 6.1 Charles Street (east) existing layout looking west](image-url)
6.3 Cross Section Options

The cross section options developed for this section of road are outlined in Table 6.1 and were agreed with WDC staff.

Table 6.1 Charles Street (east) cross section options

<table>
<thead>
<tr>
<th>Option #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alternate angle parking on both sides of the road</td>
</tr>
<tr>
<td></td>
<td>Angle parking is alternated between the north and south sides depending on which destination requires parking. No footpaths are proposed. Kerb and channel is proposed along the angle parking with a berm against it. A swale is proposed along the north side until the dog parking area to discourage people from parking in this location.</td>
</tr>
<tr>
<td>2</td>
<td>Parallel parking both sides</td>
</tr>
<tr>
<td></td>
<td>A 10m wide carriageway would allow for parking on both sides and 3m wide traffic lanes. Kerb and channel would be provided along both sides of the road with a grass berm adjacent to the parking. No footpath is proposed.</td>
</tr>
<tr>
<td>3</td>
<td>Parking in the middle of the road</td>
</tr>
<tr>
<td></td>
<td>Parking would be located in the middle of the road. All pedestrians would be required to cross one lane of traffic. Could use this as a feature to differentiate this section of Charles Street from the northern one. Kerb and channel is proposed on both sides of the road to discourage parking on the berm/reserve. No footpath is proposed on either side.</td>
</tr>
</tbody>
</table>

6.4 Recommended Option

The recommended option is a modified version of Option 1 and Option 2. The difference being that the angle parking is proposed on the north side due to the impact on the road alignment. Parallel parking is proposed on the south side in the western end of the section. This small section of parallel parking allows for carparking for the reserve.

The key features of the recommended option for the western end, as shown in Figure 6.2 are:

- Parallel carparks on the south side
- Two 3.5m wide traffic lanes
- Kerb alignment on the south side retained
- Space to accommodate 6 parked vehicles

Figure 6.2 Charles Street (east) recommended option – western end
See Appendix A sheet 5 for the design plan.

The key features of the recommended option for the eastern end, as shown in Figure 6.3 are:

- A 1.8m wide recreational path on the north side between two berms
- Angle parking on the north side (reverse in would allow dogs to exit away from the traffic lane)
- Two 3.5m wide traffic lanes
- Kerb alignment on the south side retained
- Two blocks of angle parking provided with a total of 47 car parks

Figure 6.3 Charles Street (east) recommended option – eastern end

Road users parking in this section can choose to reverse into the car parks or forward park into them.

It is likely that this parking will be mainly used by dog park users, however users of the reserve could still park here and safely cross the road at the transition point.

To minimise construction costs, only one kerb buildout is proposed approximately half way along this section of Charles Street. Planting is recommended at the start and end of this section, as well as within the buildout to break up the large seal area and create a visual narrowing at these locations.

See Appendix A sheet 6 for the design plan.
7. Section 4 – Jollie Street

7.1 Design Considerations

The key design considerations identified for Jollie Street are:

- Future memorial gardens on east side
- Access to dog park through gated entry
- Possible over-flow parking area for sports fields on east side
- Access to private property on the west side of the road
- Pedestrian access from parking to destination (dog park, memorial gardens)
- Recreational path needed on west side only
- Potential turn around facility for people only visiting this section

7.2 Existing Layout

Jollie Street is approximately 14m wide with kerb and channel on both sides as shown in Figure 7.1. There are no road markings. There is a 1.5m wide footpath on the west side only. There are fenced road closures where Sewell Street used to intersect with Jollie Street.

This section of Jollie Street is approximately 225m long.

Figure 7.1 Jollie Street existing layout looking south
### 7.3 Cross Section Options

The cross section options as developed and reviewed with WDC staff are outlined in Table 7.1.

**Table 7.1 Jollie Street cross section options**

<table>
<thead>
<tr>
<th>Option #</th>
<th>Description</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Parallel parking on both sides • Tree planting on both sides</td>
<td>Parallel parking is allowed on both sides to service both the memorial gardens and the dog park. Trees are planted on both sides to create a ‘boulevard’. Parallel parkers will need a turning facility.</td>
</tr>
<tr>
<td>2</td>
<td>• Planted central island</td>
<td>Parallel parking is provided on both sides with trees planted in sections. A median island is provided with planting and also the ability to U-turn around the island. Carriageway lane widths are kept to a minimum.</td>
</tr>
<tr>
<td>3</td>
<td>• Central Parking</td>
<td>Central right angle parking is allowed for in the central island to access both the memorial gardens and dog park. All pedestrians will need to cross at least one lane of traffic. The parking allows drivers to U-turn back the way they came.</td>
</tr>
<tr>
<td>4</td>
<td>• Alternating angle parking</td>
<td>Angle parking is provided along Jollie Street on alternate sides of the road. When there isn’t parking there are trees. Angle parking allows drivers to U-turn back the way they came from.</td>
</tr>
</tbody>
</table>

### 7.4 Recommended Option

The key features of the recommended option 1, as shown in Figure 7.2 are:

- A 1.8m wide recreational path on the west side between a berm and the dog park
- Parallel parking on both sides
- Two 3.5m wide traffic lanes
- Kerb alignment on the west side retained
- Approximately 29 parallel parks provided on dog park side
- Approximately 30 parallel parks provided on memorial gardens side

**Figure 7.2 Jollie Street recommended option**
It is likely that drivers will U-turn from their parallel car parks to exit this area. To minimise construction cost it is proposed to have one kerb buildout, with planting, approximately half way along this section. This buildout could also accommodate an informal pedestrian crossing point or a vehicle access point to the Memorial Gardens area.

Additional planting, to create a boulevard effect, should be considered in the berm area.

Access to the private property on the west side is via driveway created at the bend with Cass Street. A gate would be required set back far enough to allow path users to move across driveway.

See Appendix A sheet 7 for the design plan.
8. Section 5 – Old Feldwick Drive intersection

8.1 Design Considerations

The following key design considerations were identified for the existing section of Feldwick Drive that will become sports ground parking and access to the private residence at 10 Feldwick Drive.

- Access to private property
- Waste collection truck turn around
- Car parking for softball facilities
- Retaining the existing kerblines for Feldwick Drive
- Future memorial gardens on south side
- Possible over-flow parking area for sports fields on south side
- Pedestrian access from parking to destination (sports fields, memorial gardens)

8.2 Existing Layout

Feldwick Drive is approximately 11m wide with kerb and channel on both sides as shown in Figure 8.1. The road is fenced off at the intersection with Gray Crescent and just north of 10 Feldwick Drive. This section of Feldwick Drive is predominately for the use of the property owners of 10 Feldwick Drive and any associated servicing such as waste collection. There are 1.5m wide footpaths on both sides.

This section of Feldwick Drive is 110m long.

Figure 8.1 Old Feldwick Drive existing layout looking north from Cass Street
8.3 Options

The following options were considered at this location.

<table>
<thead>
<tr>
<th>Option #</th>
<th>Description</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Roundabout</td>
<td>A roundabout was designed for this intersection. A classic roundabout design has four legs to it, this design only has three. To allow the rubbish trucks to turn around, a large (&gt;10m radius) roundabout is needed as well as a large seal area. A non-mountable island could be installed within the roundabout, however large turning lanes were still required to accommodate the truck and given there are only 3 legs on this roundabout it was considered that the lane discipline is likely to be poor with users travelling straight ahead not likely to use the roundabout. This could lead to confusion as to who has right of way at this intersection.</td>
</tr>
<tr>
<td>2</td>
<td>Cul-de-sac head</td>
<td>This design is similar to the roundabout but without the island. This created a large seal area that would be expensive to construct and maintain.</td>
</tr>
<tr>
<td>3</td>
<td>Standard T-intersection</td>
<td>This design held the kerblines of the existing Feldwick Drive with a narrowing near to the intersection. If the property at 10 Feldwick Drive was converted to reserve land then a rubbish truck would be required to do a four-point turn to manoeuvre at this location.</td>
</tr>
<tr>
<td>4</td>
<td>T-intersection with kerb indent</td>
<td>This created a kerb indent at the head of the T-intersection, to facilitate the U-turning movement by a small rubbish truck.</td>
</tr>
</tbody>
</table>

8.4 Recommended Option

Option 4, as shown in Figure 8.2, is recommended with the following features:

- Clear give way rules for road users
- Minimised seal area
- Ability for small rubbish truck to U-turn at this intersection
- Potential to install kerb indent if 10 Feldwick Drive becomes reserve land
- Flush cobbled detail at the start of Cass Street east to signal to road users they are entering a different land use area
- Flush detail also provides the transition between the kerb and channel and edge of seal

This option has the flexibility to install a kerb indent initially or if 10 Feldwick Drive became public land. The kerb indent is only required if 10 Feldwick Drive becomes reserve land for rubbish truck servicing. Therefore in the short term the kerb indent is not required and will add to construction costs.

If 10 Feldwick Drive becomes public land then the last house needing to be serviced by the rubbish collection is 65A Cass Street. A rubbish truck manoeuvring at the driveway for 65A Cass Street is not advisable and therefore the rubbish truck can continue to this intersection and U-turn at the intersection using the kerb indent facility. While 10 Feldwick Drive is occupied by a resident then it is assumed that the truck will manoeuvre outside 10 Feldwick Drive as it does currently.

By retaining the standard T-intersection the give way rules are clear to all road users and compliance with these rules is likely to be very high. Cars towing boats will not have to deviate from their desire path of travel and reserve users exiting the parking area on Feldwick Drive will be controlled by a Give Way control.
Figure 8.2 Old Feldwick Drive Intersection Layout

It is recommended to construct the kerb indent area as a mountable shoulder, as shown in Figure 3.3. This allows drainage to continue straight through this section, mitigating the need to install drainage within the kerb indent area. It will also visually look different. This could deter drivers from parking in this area. However, there is a risk that the kerb indent area unintentionally becomes a parking bay as it will be infrequently used by rubbish trucks. No stopping restrictions could be installed along this kerb to indicate it is not a parking area. It is recommended on days of high use at the sports ground that this area is monitored to see if it is being used for parking.

See Appendix A sheet 8 for the design plan.
9. **Section 6 – Cass Street (east)**

9.1 **Design Considerations**

The following key design considerations were identified for Cass Street (east):

- Recreational path needed on north side only
- Access to Askeaton Park boat ramp
- Access to rural land.

9.2 **Existing Layout**

Cass Street is approximately 13m wide with kerb and channel on both sides as shown in Figure 9.1. There are no road markings. There are 1.5m wide footpaths on both sides.

This section of Cass Street is 350m long.

![Figure 9.1 Cass Street (east) existing layout looking east](image)

9.3 **Cross Section Options**

The cross section options for this section of road, as developed and discussed with WDC staff, are outlined in Table 9.1.

<table>
<thead>
<tr>
<th>Option #</th>
<th>Description</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Swale on both sides</td>
<td>Carriageway with 4m lanes which ties-in with proposed Hall Street. Swale on both sides. No footpath on either side. Access to rural land over swales.</td>
</tr>
<tr>
<td>2</td>
<td>• Footpath on north side</td>
<td>Carriageway with 4m lanes which ties-in with proposed Hall Street. Swale on south side. Footpath on north side as shown on reserves master plan. North side will be kerb and channel with berm area between road and footpath.</td>
</tr>
</tbody>
</table>
9.4 Recommended Option

The recommended option is Option 2. The key features of the recommended option, as shown in Figure 9.2 are:

- A 1.8m wide footpath on the north side
- A berm on the north side between a berm and the footpath
- Two 3.0m wide traffic lanes
- Berm on the south side

![Figure 9.2 Cass Street (east) recommended option](image)

No on-street car parking is provided with this option. There is potential that on busy days at the sports field users may park on the berm. However, this could be managed by opening an over-flow parking area as identified in the Reserves Master Plan.

See Appendix A sheet 8 for the design plan.
10. **Section 7 – Hall Street**

10.1 **Design Considerations**

The following are the key design considerations identified for Hall Street:

- Access to Askeaton Park boat ramp
- Access to future rural land
- No recreational paths proposed
- Existing land parcel boundary on east and west sides

10.2 **Existing Layout**

Hall Street is approximately 11m wide with kerb and channel on both sides on the flat section (up to the bottom of the stop bank) as shown in **Figure 10.1**. There are no road markings. There is a 1.5m wide footpath on the east side.

This section of Hall Street is 150m long.

![Figure 10.1 Hall Street existing layout looking north](image)

10.3 **Cross Section Options**

The cross section options were developed and discussed with WDC staff and are outlined in **Table 10.1**.

<table>
<thead>
<tr>
<th>Option #</th>
<th>Description</th>
<th>Discussion</th>
</tr>
</thead>
</table>
| 1        | Swale on both sides | Carriageway with 4m lanes which ties-in with access to Askeaton Park.  
Swale on both sides. No footpaths.                                                    |
| 2        | Footpath on east side | Carriageway with 4m lanes which ties-in with access to Askeaton Park.  
Swale on west side.  
Footpath on east side to tie in with the existing stop bank walk and the proposed new path in the rural zone. |
10.4 Recommended Option

Option 1 as shown in Figure 10.2 is recommended with the following elements:

- A berm on the west side
- Two 3.0m wide traffic lanes
- A berm and swale on the east side

See Appendix A sheet 8 for the design plan.
Appendix A
Scheme Design Plans
NOTE: DETAILS SUCH AS CUT DOWNS, SIGNAGE, TACTILE PAVING AND HOLDING RAILS WILL BE ADDRESSED AT DETAILED DESIGN STAGE.

DESIGN LEGEND
- PROPERTY BOUNDARY
- EXISTING KERB & CHANNEL
- NEW KERB & CHANNEL
- EDGE OF SEAL / MOUNTABLE SHOULDER
- NEW MARKING
- FOOTPATH
- PAVED SURFACE
- BERM
- LANDSCAPING

KERA Road Upgrades
Scheme Plans for Approval
Cass Street (west)

See Sheet 2

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**DESIGN LEGEND**

- PROPERTY BOUNDARY
- EXISTING KERB & CHANNEL
- NEW KERB & CHANNEL
- EDGE OF SEAL / MOUNTABLE SHOULDER
- NEW MARKING
- FOOTPATH
- PAVED SURFACE
- BERM
- LANDSCAPING

**KERA Road Upgrades**

Scheme Plans for Approval
Cass Street / Jones Street / Feldwick Drive Intersection

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**DESIGN LEGEND**
- PROPERTY BOUNDARY
- EXISTING KERB & CHANNEL
- NEW KERB & CHANNEL
- EDGE OF SEAL / MOUNTABLE SHOULDER
- NEW MARKING
- FOOTPATH
- PAVED SURFACE
- BERM
- LANDSCAPING

KERA Road Upgrades
Scheme Plans for Approval
Charles Street / Jones Street Intersection

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DESIGN LEGEND

- PROPERTY BOUNDARY
- EXISTING KERB & CHANNEL
- NEW KERB & CHANNEL
- EDGE OF SEAL / MOUNTABLE SHOULDER
- NEW MARKING
- FOOTPATH
- PAVED SURFACE
- BERM
- LANDSCAPING

KERA Road Upgrades

Scheme Plans for Approval
Charles Street Section 2A
3.0m WIDE ANGLE PARKING BAYS x23

3.0m WIDE ANGLE PARKING BAYS x24

1.8m FOOTPATH

BUILD OUT

DOG PARK GATED ENTRANCE

3.5m TRAFFIC Lanes

NOTE: DETAILS SUCH AS CUT DOWNS, SIGNAGE, TACTILE PAVING AND HOLDING RAILS WILL BE ADDRESSED AT DETAILED DESIGN STAGE.

DESIGN LEGEND

PROPERTY BOUNDARY
EXISTING KERB & CHANNEL
NEW KERB & CHANNEL
EDGE OF SEAL / MOUNTABLE SHOULDER
NEW MARKING
FOOTPATH
PAVED SURFACE
BERM
LANDSCAPING

KERA Road Upgrades
Scheme Plans for Approval
Charles Street Section 2B
NOTE: DETAILS SUCH AS CUT DOWNS, SIGNAGE, TACTILE PAVING AND HOLDING RAILS WILL BE ADDRESSED AT DETAILED DESIGN STAGE.

For further information or to request additional details, please contact the relevant project manager.

KERA Road Upgrades
Scheme Plans for Approval
Jollie Street

DESIGN LEGEND
- PROPERTY BOUNDARY
- EXISTING KERB & CHANNEL
- NEW KERB & CHANNEL
- EDGE OF SEAL / MOUNTABLE SHOULDER
- NEW MARKING
- FOOTPATH
- PAVED SURFACE
- BERM
- LANDSCAPING
NOTE: DETAILS SUCH AS CUT DOWNS, SIGNAGE, TACTILE PAVING AND HOLDING RAILS WILL BE ADDRESSED AT DETAILED DESIGN STAGE.
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DESIGN LEGEND
- PROPERTY BOUNDARY
- EXISTING KERB & CHANNEL
- NEW KERB & CHANNEL
- EDGE OF SEAL / MOUNTABLE SHOULDER
- NEW MARKING
- FOOTPATH
- PAVED SURFACE
- BERM
- LANDSCAPING

KERA Road Upgrades
Scheme Plans for Approval
Cass Street (East) and Hall Street

PEGASUS BAY COASTAL TRACK
ACCESS TO ASKEATON RESERVE BOAT RAMP
SWALE
6m WIDE SEAL, INSTALL EDGE LINE MARKING
TIE INTO EXISTING
1.8m WIDE FOOTPATH