



INFRASTRUCTURE COMMITTEE MEETING

AGENDA

19 JULY 2022

Your attendance is required at an Infrastructure Committee meeting of Council to be held in the Council Chambers, 232 Bolsover Street, Rockhampton on 19 July 2022 commencing at 12:00pm for transaction of the enclosed business.

Meeting to commence no sooner than 15 minutes after the conclusion of the Communities Committee meeting.

A handwritten signature in black ink, appearing to be "C. P.", written in a cursive style.

CHIEF EXECUTIVE OFFICER
14 July 2022

Next Meeting Date: 16.08.22

Please note:

In accordance with the *Local Government Regulation 2012*, please be advised that all discussion held during the meeting is recorded for the purpose of verifying the minutes. This will include any discussion involving a Councillor, staff member or a member of the public.

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1 OPENING

1.1 Acknowledgement of Country

2 PRESENT

Members Present:

The Mayor, Councillor A P Williams (Chairperson)
Deputy Mayor, Councillor N K Fisher
Councillor S Latcham
Councillor C E Smith
Councillor C R Rutherford
Councillor M D Wickerson
Councillor D Kirkland
Councillor G D Mathers

In Attendance:

Mr E Pardon – Chief Executive Officer
Mr P Kofod – General Manager Regional Services (Executive Officer)

3 APOLOGIES AND LEAVE OF ABSENCE**4 CONFIRMATION OF MINUTES**

Minutes of the Infrastructure Committee held 21 June 2022

5 DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA**6 BUSINESS OUTSTANDING**

Nil

7 PUBLIC FORUMS/DEPUTATIONS

Nil

8 PRESENTATION OF PETITIONS

Nil

9 COUNCILLOR/DELEGATE REPORTS

Nil

10 OFFICERS' REPORTS

10.1 PROJECT DELIVERY CAPITAL PROJECT REPORT JUNE 2022

File No: 7028

Attachments: 1. **Capital Project Dashboard Report for June 2022**[↓](#)

Authorising Officer: Peter Kofod - General Manager Regional Services

Author: Andrew Collins - Manager Project Delivery

SUMMARY

Monthly status report on all projects currently managed by the Project Delivery unit.

OFFICER'S RECOMMENDATION

THAT the Project Delivery Monthly Report for June 2022 be received.

COMMENTARY

The Project Delivery section submits a monthly project report outlining the status of capital projects managed by the Unit.

The following projects are reported on for the month of June 2022.

- Hail Damage Insurance Claim
- Mount Morgan Water Security
- Alliance Maintenance Facility
- Botanic Gardens & Zoo Redevelopment
- Glenmore Water Treatment Plant Upgrade
- Gracemere & South Rockhampton STP Strategy
- Glenmore Water Treatment Plant Solar Farm
- Mount Morgan Pool
- North Rockhampton Sewage Treatment Plant Upgrade
- Riverbank Boardwalk
- Rockhampton Airport Security and Screening Upgrade / Solar
- Rockhampton Airport Parking

PROJECT DELIVERY CAPITAL PROJECT REPORT JUNE 2022

Capital Project Dashboard Report for June 2022

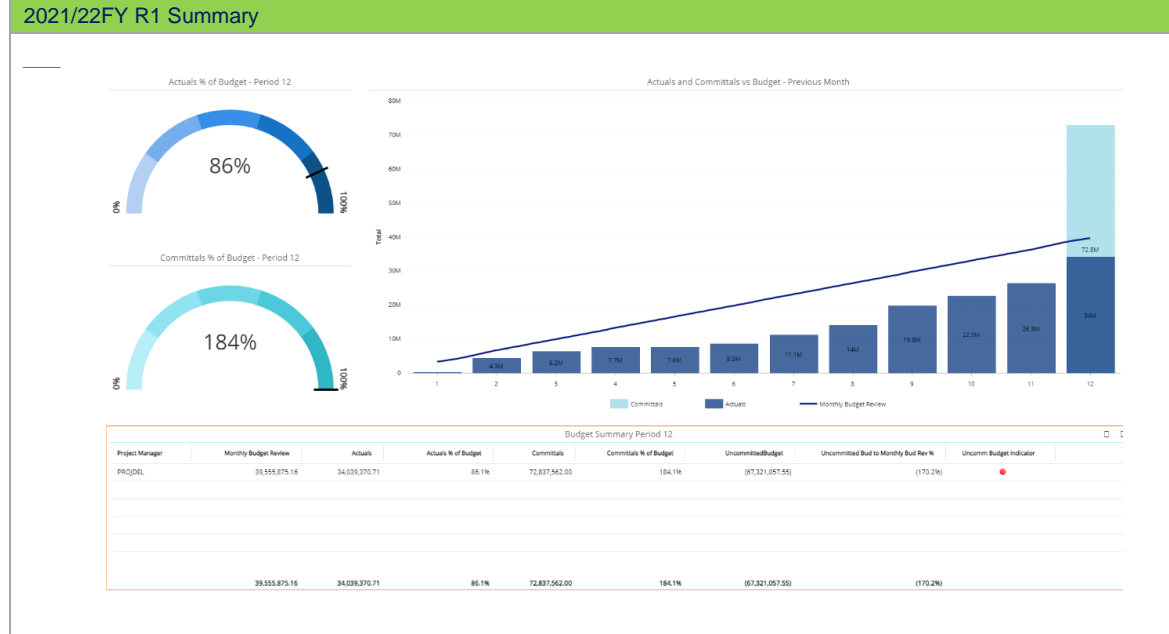
Meeting Date: 19 July 2022

Attachment No: 1

Scope
Deliver the annual capital works program, achieving a capital program within 95% of the budget.
Ensure the delivery of infrastructure projects meet objectives set out in the 2021/22 Operational Plan.

Traffic Light Reporting

Item	Last Month	This Month	Comments
Scope	A	G	No current scope issues
Budget	G	G	No current budget issues.
Schedule	R	R	Glenmore Solar Farm, contract termination has impacted project delivery times



Status Overview
Key Milestones & Deliverables This Month (June)

- Mt Morgan Water Security State Govt announced funding. Design development commenced.
- Alliance Maintenance Facility Apron concrete pavement being installed. Office fitout to Hangar underway.
- North Rockhampton Sewage Treatment Plant Bulk site works complete to working levels
- Hail Damage Insurance Claim Work commenced on Landfill site
- Glenmore Water Treatment Plant Site works underway.
- Botanic Gardens & Zoo Redevelopment Design development 90% complete
- Riverbank Boardwalk Boardwalk install over 80% complete

Three Month Horizon

July	August	September
<ul style="list-style-type: none"> • Alliance Maintenance Facility Taxiway complete/ Hangar Roof • North Rockhampton Sewage Treatment Plant Piling and under slab drainage to commence • Mt Morgan Pool Concept design options delivered to Council • Riverbank Boardwalk Construction continuing • Hail Damage Insurance Claim Kershaw Gardens and landfill roof replacement • Mt Morgan Water Security Alignment confirmed. Greater design commenced. 	<ul style="list-style-type: none"> • Mt Morgan Pool Design development based on concept option/ community Consult • Glenmore Water Treatment Plant Redevelopment works continues. • Alliance Maintenance Facility Site civil and Hangar works continue • North Rockhampton Sewage Treatment Plant Piling works and Underslab drainage continue. • Riverbank Boardwalk Construction completion end of month 	<ul style="list-style-type: none"> • Rockhampton Airport Parking Equipment arrival for site installations • Mt Morgan Pool Design development / Construction procurement • Riverbank Boardwalk Completed • Mt Morgan Water Security Design programmed for completion end of month • North Rockhampton Sewage Treatment Plant Piling works and Underslab drainage continue.



Project Name	Current Status	Monthly Update			
		Scope	Budget	Schedule	
Hail Damage Insurance Claim	Construction	G	G	G	<ul style="list-style-type: none"> • Works to Dooley Street Depot is 100% Completed. • North Rockhampton Library is completed with minor defects to rectify. • Boathouse Café hail damaged Solar Panels is 100% Completed. • Elfin House Childcare centre started on the 28th May and is 75% complete. Works are to be carried out on weekends for the Month of June and July to keep Childcare Centre operational. • Victoria Park Shade structures are awarded and works scheduled to be completed on 13th – 15th July. Current minor delay with supply of materials. • 152 Lakes Creek Road landfill works started on 6th of June. The Reviva Ibis Store, large recycle shed and old trendy trash shed have been completed. There is seven structures left to complete including Main transfer station roof. • Kershaw Gardens Precinct and Depot started on 6th of June. There are 18 roof structures to be replaced in total 3 are currently completed. • North Rockhampton Sewage treatment Plant is awarded and works yet to be scheduled.
Mt Morgan Water Pipeline Project	Business Case	G	G	G	<ul style="list-style-type: none"> • Business Case delivered and State Government funding announcement of \$40.4M confirmed. • Federal Govt have confirmed commitment of \$3.5M • AECOM engaged to develop D&C docs for the Gracemere and Old Cap Hwy works. • AECOM requested to provide fee proposal for design work on the greater project. • Pipeline alignment has been re-assessed with route changes proposed from Poison Creek Road intersection to Black Street in Mt Morgan

<p>Alliance Maintenance Facility</p>	<p>Construction</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>The project has progressed well. All civil works up to the asphalt flexible surfaces is nearing completion. Taxiway Culverts have been constructed and sections of concrete apron pavement has been poured. Hangar construction well underway, internal fitout commenced of office annexure area.</p> <ul style="list-style-type: none"> • Milestone 1 fund of \$3.75M has been received. • Milestone 2 fund of \$7.5M has been received. • Milestone 3 report and funding claim has been submitted.
<p>Botanic Gardens & Zoo Redevelopment</p>	<p>Design</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>Package 2 Visitor Hub: Project on-track. Activities completed within the month include submission of the 90% design package and detailed review. The team are working towards submission of the Issued for Construction (IFC) package in mid-August. A Council meeting with then follow on next steps.</p> <p>Package 3 Playground: Project on-track. Activities completed within the month include detailed discussion with the contractor to make minor adjustments to the layout to minimise all impact to structural root zones and tree protection zones. Minor civil design works underway to adjust level differences.</p> <p>Package 4 Enclosure Refurb: Project on track. Activities completed within the month include the design and construct tender closing for the enclosure refurbishments, and commencement of the tender evaluation. On-going negotiations with the tenderers are underway.</p>
<p>Glenmore Water Treatment Plant Upgrade</p>	<p>Design & Construction</p>	<p>G</p>	<p>G</p>	<p>A</p>	<p>Small amount of design still required for activities planned towards the end of the project.</p> <p>Works are underway on the new dosing shed. This includes a road realignment and earthworks for the new facility.</p> <p>At Principals request, Contractor has submitted an updated Contract Program to reflect unexpected delays in the supply of long lead items.</p> <p>Control Room relocation has been completed. Works will recommence in the lime room in July</p>

<p>Gracemere & South Rockhampton STP Strategy</p>	<p>Strategic Assessment</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>Current work relates to developing and implementation of stages to be able to realise the strategic plan. A consultant has been engaged to develop the design for the Arthur St PS and process / design works on both Gracemere and South Rocky STP's</p> <ol style="list-style-type: none"> 1 New Caustic soda dosing system at SRSTP 2 New Wet well for Sludge Pump Station 3 Design and Installation of Penstocks in bio-Reactors 4 Condition assessments & replacement of diffusers 5 Condition assessments & upgrade of sludge digesters 6 Upgrade of Sludge Lagoons both at SR & G STPS 7 Missing effluent pipeline at GSTP (Design of Pump Station now complete) 8 Installation of Odour Control system at GSTP 9 Arthur Street SPS (Geotech / survey complete design underway) 10 Gracemere new PS at STP (Geotech investigation awarded)
<p>Glenmore Water Treatment Solar Farm</p>	<p>Design & Construction</p>	<p>G</p>	<p>G</p>	<p>R</p>	<p>Site civil works complete. Termination condition being finalised. Tracking system equipment in stock has been inspected and is planned for transportation to site by mid-July 2022. This work is being undertaken as a Variation Proposal by Alliance Automation.</p>
<p>Mount Morgan Pool</p>	<p>Preliminary Evaluation</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>\$4.5M approved grant from Resources Community Infrastructure Fund. Funding agreement still to be received.</p> <p>Concept Design received and being reviewed, 3 options to be presented to council at Communities workshop on 21 July 2022</p>
<p>North Rockhampton Sewage Treatment Plant Upgrade</p>	<p>Construction</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>The main site civil works for building and drilling rig platform is now completed to working levels.</p> <ul style="list-style-type: none"> • The asbestos and debris found on site has been appropriately managed and resolved on site • Pre piling investigations undertaken with CPT tests. • Contractor has carried out a redesign based on their further assessment of the site conditions. • Pile setout completed for inlet works. • Clarifier RAS pipework on site.
<p>Riverbank Boardwalk</p>	<p>Construction</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>Project on track to be completed on 1st September 2022. 80 % of decking is installed, Newly hot dipped galvanised handrails are to starting reinstallation on mid July.</p>

<p>Rockhampton Airport Security and Screening Upgrade / Solar</p>	<p>Design & Construction</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>Project on-track. Defect rectification ongoing - Scope increased to include design of solar system for terminal and application to ergon for connection approval for Airport and tenant's solar applications.</p>
<p>Rockhampton Airport Parking</p>	<p>Design & Construction</p>	<p>G</p>	<p>G</p>	<p>G</p>	<p>Contract Awarded to equipment supplier 1 Feb 2022, design development underway. Total package includes operational services. Equipment is in manufacture stage, anticipate new arrival date on site early September 2022</p>

10.2 MOUNT MORGAN RAIL TRAIL FEASIBILITY STUDY

File No:	14498
Attachments:	Nil
Authorising Officer:	David Hood - Acting Coordinator Infrastructure Planning Martin Crow - Manager Infrastructure Planning Peter Kofod - General Manager Regional Services
Author:	Jamie Meyer - Infrastructure Planning Engineer

SUMMARY

The Mount Morgan Rail Trail Feasibility Study has been completed. The study confirms that there is strong community support for the project and that a rail trail on the existing rail corridor is technically feasible and would provide societal benefits substantially greater than the costs.

OFFICER'S RECOMMENDATION

THAT:

1. The Mount Morgan Rail Trail Feasibility Study be received; and
2. Council seeks funding for detailed design and trail development from available funding programs, as and when they become available.

COMMENTARY

The Feasibility Study for the Mount Morgan Rail Trail has been completed. The Feasibility Study examined the merit of developing a 'rail trail' on the disused Mount Morgan to Kabra railway line and outlines the benefits, costs, constraints, and opportunities associated with the development of a shared use recreational rail trail.

The rail trail would begin at the existing Mount Morgan railway station located in Railway Parade, Mount Morgan, and finish at Cedric Archer Park, Gracemere. The proposed rail trail would provide a recreational route for cyclists, walkers and potentially horse riders and cover a distance more than 29km. The rail trail would also provide tourism and recreational benefits by connecting the townships of Mount Morgan and Gracemere.

The Feasibility Study was comprehensive and included the following tasks:

- Field investigations
- Route selection
- Identify key issues and constraints
- Identify opportunities and benefits
- Cultural Heritage assessment
- Geotechnical assessment
- Community consultation
- Preliminary design and cost estimate
- Economic assessment
- Operation and Maintenance plan

Due to the number of files and size, the Feasibility Study and associated documentation have been made available to Council for their information separate to this report.

Feasibility

Construction of the rail trail is estimated to cost \$13.1 million, and it is estimated that during construction it would generate 24 direct local jobs, 37 indirect jobs and inject \$11.2 million into the regional economy.

Rail trail user numbers are estimated to be in the order of 20,700/year, with direct spending associated with these visitors estimated to be approximately \$1.4 million per year, supporting an additional 18 direct jobs across the region.

Ongoing costs to maintain the trail have been estimated at \$148,350 per year.

Over a 30-year period, the rail trail is expected to deliver a net present value of \$14.0 million, with an estimated benefit cost ratio (BCR) of 2.01 over the same period. The BCR is a ratio of the present value of total incremental benefits to the present value of total incremental costs. A BCR greater than 1.0 indicates that project benefits exceed project costs.

The findings of the Feasibility Study confirm that a rail trail on the existing rail corridor is technically feasible and would provide a significant return on investment.

Community Feedback

Based on feedback received during public consultation, and outlined in the consultation report, there is strong community support for the project. Two rounds of public consultation were undertaken; the first round was to gauge the level of public, stakeholder and business support and the second round was to receive community feedback on the preliminary design. 113 formal responses were received for the first round and 87% of those respondents supported the establishment of a multi-use rail trail between Mount Morgan and Gracemere. 66 responses were received during the second round, being about the preliminary design. 51 comments were supportive of the proposal, 6 submissions did not clearly identify whether they supported or opposed the proposal, and 9 submissions opposed to the project.

In general, people who were not adjoining landholders were very supportive of the project and indicated that they would use the trail if it was delivered. Many of these people could see a range of benefits to the region if the trail was built. There were also a few comments made regarding the preliminary design which will need to be considered prior to detailed design commencing. These comments included:

- Suggestion of how the trail could be sealed in stages
- Trail security
- Incorporating the Gracemere to Mt Morgan water pipeline in rail trail
- Facilities for horses eg car parking, water
- The suitability of proposed gates/accesses
- Alternate locations for trailheads/parking
- Fencing
- Suitability of water crossings/culverts

Landholder concerns

Some adjoining landholders had concerns with the proposal, raised a few issues and they appeared to be strongly opposed to the proposal. A full list of issues and recommendations to address these are included in the consultation report. In general, these can be summarised under three areas of concern:

- Farm management and disruption to farming practices (trail design issues);
- Non-farm management issues. These are generally concerns around safety, security, trespass, liability, and a range of related issues (trail design issues); and

- Trail management. These are generally concerns around maintenance, and the behaviour of trail users in regard to littering, toileting and other issues.

If the rail trail was to proceed, further consultation with individual landholders would be required to understand and resolve issues specific to their property and/or farming practices.

Horse riding

A decision on whether to allow horse riding on the trail has not yet been made. Council's consultants state that, of the trails listed as open on the Rail Trails Australia website, around 75% of them do not permit horse on them (for a range of reasons). However, results from the initial public consultation indicated that when respondents were asked "How would you use the trail?" and could choose from walking, running, cycling or horse riding, 45 out of 191 responses (24%) were for horse riding.

The main opposition was from landholders whose properties adjoin the corridor and were concerned with horses potentially bringing in weeds via faecal matter or a range of bacterial diseases which could cause difficulties for their livestock. This opposition or concern was raised in 4 submissions, and in meetings with landholders.

Further advice on the matter should be sought from suitably qualified persons before any decision is made about this matter. This could include undertaking a risk assessment to understand the risks that horse riders and other users, pose to adjoining landholders' biosecurity. Appendix D of the consultation report provides a biosecurity risk assessment (including horses) for a different project, being the Proposed Tweed Section of the Northern Rivers Rail Trail. Whilst it has been prepared for a NSW rail trail, it indicates that horse riding poses a low to medium biosecurity risk.

If horse riding was to be permitted, consideration would need to be given to additional infrastructure requirements during the detailed design process. This may include larger parking areas to cater for horse floats, water troughs and hitching rails at trailheads and along the trail, and a separate slashed bridle path, where possible, to avoid damage to the trail surface. There may also be increased maintenance cost due to damage of trail surface from horse hooves.

Horse riders may also pose a risk to other trail users particularly through narrow sections of the trail such as through cuttings and embankments down through the Razorback Range where the trail width is approximately 3m. One option may be to only allow horse riding on certain sections of the trail. Further investigation and consideration of these matters would need to be done during the design phase.

TMR Sublease

The existing railway corridor is owned by the State of Queensland through the Department of Transport and Main Roads. Council would need to enter a sublease arrangement with TMR and take possession of the land and be responsible for it as it is responsible for any of its own land (parks, sporting fields, other reserves etc.).

Advice from TMR is that they would consider providing a 'peppercorn' lease up to 40 years for purposes of Multipurpose Recreational Transport Use. The sublease arrangement would provide Council with exclusive entitlement of the land.

Potential Next Steps

The following steps are recommended to progress the development of the Mount Morgan Rail Trail:

1. Seek funding for detailed design and trail development, as and when funding programs become available, noting that many funding programs require a co-contribution of funds commitment from Council toward any project submission.
2. Subject to Council receiving funding:

- a. Undertake a biosecurity risk assessment to identify risks to adjoining landholders farming practices from potential trail users, including horse riders; and
- b. Prepare a further report that outlines the findings of the biosecurity risk assessment for Council's consideration about whether to limit use of the path to particular types of users

BACKGROUND

Council received \$250,000 (100% funding) through the Department of Transport and Main Roads 2020-21 Rail Trail Local Government Grants Program to undertake a feasibility study for the provision of a multi-use trail along the existing vacant Mount Morgan rail corridor. An invitation to tender was issued to undertake the feasibility study and was open from 12 December 2020 to 29 January 2021. Four tender submissions were received with Burchills Engineering Solutions awarded the contract.

The rail trail was identified in the Advancing Mount Morgan Strategy and will integrate with and provide benefit to other projects at various stages of planning and development.

PREVIOUS DECISIONS

On 15 March 2022, Infrastructure Committee received the Mount Morgan Rail Trail Feasibility Study – Consultation Outcomes report. This report provided the outcomes of the first round of public consultation undertaken from 16 August to 3 September 2021.

On 19 April 2022, Council resolved to undertake public consultation on the preliminary drawings for the Mount Morgan Rail Trail.

BUDGET IMPLICATIONS

There is currently no financial allocation in Council's 2022-23 Operational Budget. External funding would be required to progress the project. This report recommends that Council seeks to apply for external funding, as and when opportunities arise.

CORPORATE/OPERATIONAL PLAN

Corporate Plan 2017-2022

1.4 Healthy living and active lifestyles

CONCLUSION

The findings of the Feasibility Study confirm that a rail trail from Mount Morgan to Gracemere is technically feasible and is likely to provide a significant return on investment. The results from public consultation indicate that, in general, those who were not adjoining landholders were very supportive of the project and said they would use the trail if it were developed. Therefore, report recommends that Council seeks to apply for external funding, as and when opportunities arise and, if successful, continue with the potential next steps outlined in the report.

10.3 DERBY STREET/DENISON STREET INTERSECTION PROPOSED BLACK SPOT PROGRAM FUNDING APPLICATION 2023/24**File No:** 5252**Attachments:**

1. Option 1 – DDK-SK-Derby Street/ Denison Street & Kent Street (Recommended Option)[↓](#)
2. Option 2 - DOP - SK - 01 - Traffic Signals at Derby Street/ Denison Street[↓](#)
3. Option 3 - DOP - SK - 02 - Roundabout at Derby Street/ Denison Street[↓](#)

Authorising Officer: Martin Crow - Manager Infrastructure Planning
Peter Kofod - General Manager Regional Services**Author:** David Hood - Acting Coordinator Infrastructure Planning

Ordinary Meeting at its meeting on 12 July 2022 resolved that the matter be referred to the Infrastructure Committee meeting to be held on 19 July 2022.

SUMMARY

The following report highlights the proposed Black Spot Project for the intersection of Derby Street and Denison Street to be nominated for next round of funding (2023/24).

OFFICER'S RECOMMENDATION

THAT Council endorse the submission of a Blackspot project nomination for the works shown on Concept Drawing Numbers DDK-SK-01 to DDK-SK-03 dated 1 July 2022.

COMMENTARY

Council officers have been preparing applications for the 2023/24 round of Black Spot Funding. The program is fully funded by the Federal Government, and administered through the State, to address areas with a proven crash history through proposing safety treatments with a known benefit.

As part of the application process, a benefit cost analysis is performed on each proposed site. This is based upon the benefits of the proposed treatment measured against the crash history and is expressed as a Benefit Cost Ratio (BCR). To be eligible for Black Spot funding, the proposed treatment must score a BCR of 2.0 or greater. This often limits the scope of works for Black Spot intersections. In addition to the BCR requirement, the Black Spot Program provides maximum funding of \$2.0 million per project, with any additional costs above this limit to be contributed by Council.

In the previous rounds application (22/23) Council successfully applied for funding for Stanley Street and East Street intersection. In the 2021/22 round, Council successfully applied for funding to undertake safety improvements on the Upper Dawson Road / Caroline Street intersection and Waterloo Street intersections with Stewart and Robinson Streets.

On 28 June 2022, Council resolved to endorse the submission of the following locations and treatments:

- Upper Dawson Road / Derby Street and Upper Dawson Road / Canning Street intersections. Proposing to remove and formalise intersection movements. Estimated cost \$901,500. This is a resubmission from last year.
- Stanley Street / Bolsover Street intersection. Proposing to install a single lane roundabout. Estimated cost \$1,095,000. This is a resubmission from last year.

- Denham Street between Murray Street and Canning Street. Proposing to undertake intersection improvements and line marking along the route. Estimated cost \$1,080,000.
- Razorback Road “Jump Up” Northern curve and alignment to Poison Creek Road. Proposing to improve horizontal alignment through road widening and improve superelevation on select curves. Estimated cost \$1,894,000.

This report now seeks Council’s endorsement to make a submission for one more project in the 2023/24 Blackspot funding round. This additional project is located at the intersections of Derby Street / Denison Street and Derby Street / Kent Street and is a combined treatment across the two intersections and the adjoining streets.

The concept designs for the proposed treatments are attached to the report as **Attachment 1**, being Concept Drawings DDK-SK-01 to DDK-SK-03 dated 1 July 2022.

The Derby Street / Denison Street intersection recorded 1 ‘fatal’ and 14 ‘injury’ crashes between March 2017 and February 2022. These crashes predominantly involved vehicles travelling east on Derby Street (from Gladstone Road toward the Fitzroy River) and then colliding with vehicles travelling south on Denison Street. During the same five-year period, the Derby Street / Kent Street intersection recorded two ‘injury’ type crashes.

In developing solutions to address the crash history at the intersection, Council officers conducted site visits and intersection counts to quantify traffic movements and identify potential issues at the site. A site visit was also conducted with representatives from TMR and other local government representatives to identify problem areas and give feedback on proposed solutions.

Three options were considered as possible remedies to reduce the number and severity of crashes at the site. Concept drawings and cost estimates were developed for each option. A summary of each option is detailed below.

Option 1 (Recommended):

This option would provide further enhancement of the existing stop-controlled layout at Derby Street/ Denison Street supplemented by reconfiguring the intersection of Derby Street/ Kent Street from a priority-controlled intersection to a roundabout.

Key features, benefits and risks associated with this Option are:

- Retention of stop-controlled intersection at Derby Street / Denison Street
- Installation of Raised Safety Platforms (RSPs) on all legs to reduce approach speeds
- Installation of a single-lane roundabout at Derby Street / Kent Street to reduce approach speeds on the western Derby Street leg of the Derby / Denison Street intersection
- Parking restrictions to improve sight distance
- Improved lane delineation and line marking
- Enhanced signage including the installation of Vehicle Activated Signage (VAS) on Derby Street
- Low risk in terms of potential for the project experiencing cost and time over-run
- This concept has an estimated cost of \$1,947,500 and a benefit/cost ratio of 6.7.
- There is recorded evidence and anecdotal reports of high vehicle speeds on Derby Street travelling from Gladstone Road toward Denison Street.

The rationale for including a roundabout at Derby/Kent as part of this Option is that it would require motorists to slow to a roundabout negotiation speed before continuing to travel along the next block. It also addresses the two recorded ‘injury’ type crashes at the Derby Street / Kent Street intersection.

Option 2 (Traffic Signals at Derby/Denison):

Key features, benefits and risks associated with this Option are shown conceptually on Attachment 2 (Concept Drawing DOP-SK-01 dated 1 July 2022):

- Installation of traffic signals at Derby Street / Denison Street (note that this option requires the proposed road signals and existing rail signals to be interfaced such that they can 'communicate' with each other). Whilst this has been done many times elsewhere, most locations where it has been delivered are where all proposed road signal faces cannot be seen by train drivers and the 'road' is wholly contained on one side of the rail line (or corridor) or where the road crosses the rail line near to perpendicularly.
- All movements would be fully controlled by signals without any vehicle-to-vehicle conflict (in both the 'train' and 'no train' operational phases of the intersection)
- Installation of Raised Safety Platforms (RSPs) on all legs to reduce approach road speeds
- Only preliminary discussions have been held with Queensland Rail at the time of preparing this report.
- This concept has an estimated cost of \$1,164,000, with a nominal allowance of \$100,000 for QR signal works. The cost of QR signal interfacing could be significantly higher than the nominal \$100,000 included in the estimate, and in some cases the cost of such works has involved upgrading significant parts of rail signal systems at a very high cost. This very high cost of interfacing has arisen when the QR signaling system is incompatible with the new road signal systems currently available. (Note: the cost of required rail signaling equipment is unknown, however total project cost could be over \$2,000,000). The Option could have a benefit/cost ratio of between 9.3 (for no extra signal interfacing costs) to lower than 5 for a very high cost QR signaling system upgrade.
- This presents a high risk of cost over-run and potentially significant time delays for a project based on this Option. Experience has shown that seeking funds for an option with these sorts of risks is problematic.

Option 3 (Roundabout at Derby/Denison):

Key features, benefits and risks associated with this Option are shown conceptually on Attachment 3 (Concept Drawing DOP-SK-02 dated 1 July 2022):

- Installation of a roundabout at Derby Street / Denison Street
- Rail line cutting through central island
- Requires relocation of high and low voltage overhead powerlines and the pole on the southern corner of the intersection to accommodate adequate roundabout size.
- Unknown risk associated with potential requirement for active level crossing control to be installed on roundabout. This would add cost to the project if it was imposed as a Queensland Rail requirement.
- Estimated Cost \$1,717,500. BCR 6.7.

The options were considered from various perspectives, including perceived safety benefits, impacts on network performance, external services, stakeholder impacts, constructability, and cost. Considering these factors, the preferred option for a Black Spot Submission was Option 1, being the retention of the stop-controlled intersection at Derby Street / Denison Street, construction of new roundabout at Derby Street / Kent Street, and associated works to improve intersection safety (refer **Attachment 1**).

Option 1 was selected as it is expected to reduce both the frequency and severity of crashes, by improving signage and delineation at the intersection and with the installation of RSPs on all legs to lower speeds on both Derby Street and Denison Street. An additional benefit of Option 1 is that it largely retains the existing kerb lines/drainage structures at the Derby Street / Denison Street intersection, minimising overall construction footprint and cost and is a low risk in delivery terms.

The installation of the roundabout at Derby Street / Kent Street, as an important part of Option 1, would reduce the likelihood and severity of crashes at this intersection, but it would also slow motorists travelling along Derby Street coming from Gladstone Road. The effect of the slowing on overall travel time along Derby Street would be that it would be increased marginally. This, in combination with the RSPs and vehicle-activated signs on Derby Street, would minimise the occurrence of motorists driving straight through the intersection without slowing, as has been observed and recorded previously at the intersection. Sight distance at the intersection is proposed to be improved through the removal of on-street parking adjacent to the intersection, as well as removing the dedicated right-turn lane. Additional chevron/hatching pavement markings will also be installed within the rail exclusion zone on Denison Street to improve the delineation between the travel lanes and rail corridor. Overall, while it is noted that the retention of the stop-controlled intersection still retains the same number of conflict points when crossing the intersection, several countermeasures are being introduced to minimise the potential for crashes at the intersection.

Option 2 is considered to have a better overall improvement on intersection safety compared to Option 1, however, it presents significant challenges which would need to be overcome with regards to the rail line and external services. The \$1,164,000 cost estimate represents a best-case scenario assuming \$100,000 for rail line signal equipment, however, anecdotally this equipment could add up to an additional \$1.5m to the total cost. Additionally, the installation of signals would require boring under the rail line to run communications cables. Furthermore, there would be potential interactions between signal posts/overhead powerlines and post footings/underground services that would have to be mitigated.

Notwithstanding these issues, it should be noted that a signalised intersection does not eliminate the potential for crashes, as there is still a potential for drivers to 'see through' the intersection and run red lights. This has the potential for drivers to be passing through the intersection at relatively high speed, thereby potentially increasing the severity of crashes at the intersection.

Queensland Rail (QR) has been approached for in-principal support, however, the technical considerations, as broadly outlined in this report, need further collaboration with Queensland Rail to be able to progress a project that is reliant on external funding. Notwithstanding a requirement for QR support for the project, there are several unknowns associated with this option that present a potential unacceptable project outcome in terms of deliverability.

Option 3 would have a better impact on intersection safety compared to Options 1 and 2, however like Option 2 would present several challenges that could jeopardise delivery of the project. The primary concern with this option is the need for support from QR, and how the proposal would impact rail level crossing safety. While similar treatments have been applied on tram lines in Melbourne, they are not a widely-accepted treatment in Queensland – particularly in relation to heavy rail lines. This option would also require modification of high voltage (HV) overhead powerlines; however, it is considered that that this could be accommodated within the maximum funding of the Black Spot Program. Overall, due to the unacceptable potential risk posed by required support from QR, along with the unconventional design, led to this option not being recommended.

BACKGROUND

The Federal Black Spot Program is a federal funding grant, administered by the State, to improve safety at known Black Spot locations. A Black Spot intersection is defined as an intersection that has had more than three casualty crashes in the past five years. The Black Spot program aims to fully fund the works submitted in the application and the works must be completed within the nominated financial year. Black Spot treatments can also be submitted proactively through the completion of a road safety audit.

The Derby Street / Denison Street intersection was previously allocated funding for safety improvements under the Black Spot Program in the 2016/17 round, in conjunction with the William Street / Denison Street and Denham Street / Denison Street intersections. Project construction was completed in 2017, with kerb buildouts constructed at the intersections. Since the delivery of these works, injury crashes at the Derby Street / Denison Street intersection have increased, while crashes have remained consistent at Denham Street / Denison Street and have reduced at William Street / Denham Street.

The intersection of Derby Street / Denison Street has been subject to significant public and media attention in the past due to the frequency and severity of crashes at the intersection. The RACQ released data in 2022 ranking the intersection fourth worst in the state based on crash data between June 2018 and May 2021. A public petition was launched on change.org in February 2022 calling for action to be taken to address crashes at the site. Seventy-two people signed the petition.

BUDGET IMPLICATIONS

Projects nominated under the Federal Blackspot Fund will receive up to \$2.0M in funding. Although Council can elect to contribute to the project, a contribution to Blackspot proposals is not mandatory.

RISK ASSESSMENT

The Federal Government Blackspot Funding program assists Council and State Government Departments to reduce the number of casualty and fatality crashes within the Rockhampton Regional Council area. The systematic treatment of Blackspot identified locations helps to reduce the overall crash risks within our region.

CORPORATE/OPERATIONAL PLAN

This project aligns with the corporate plan outcome 1.1: Safe, accessible, reliable and sustainable infrastructure and facilities.

CONCLUSION

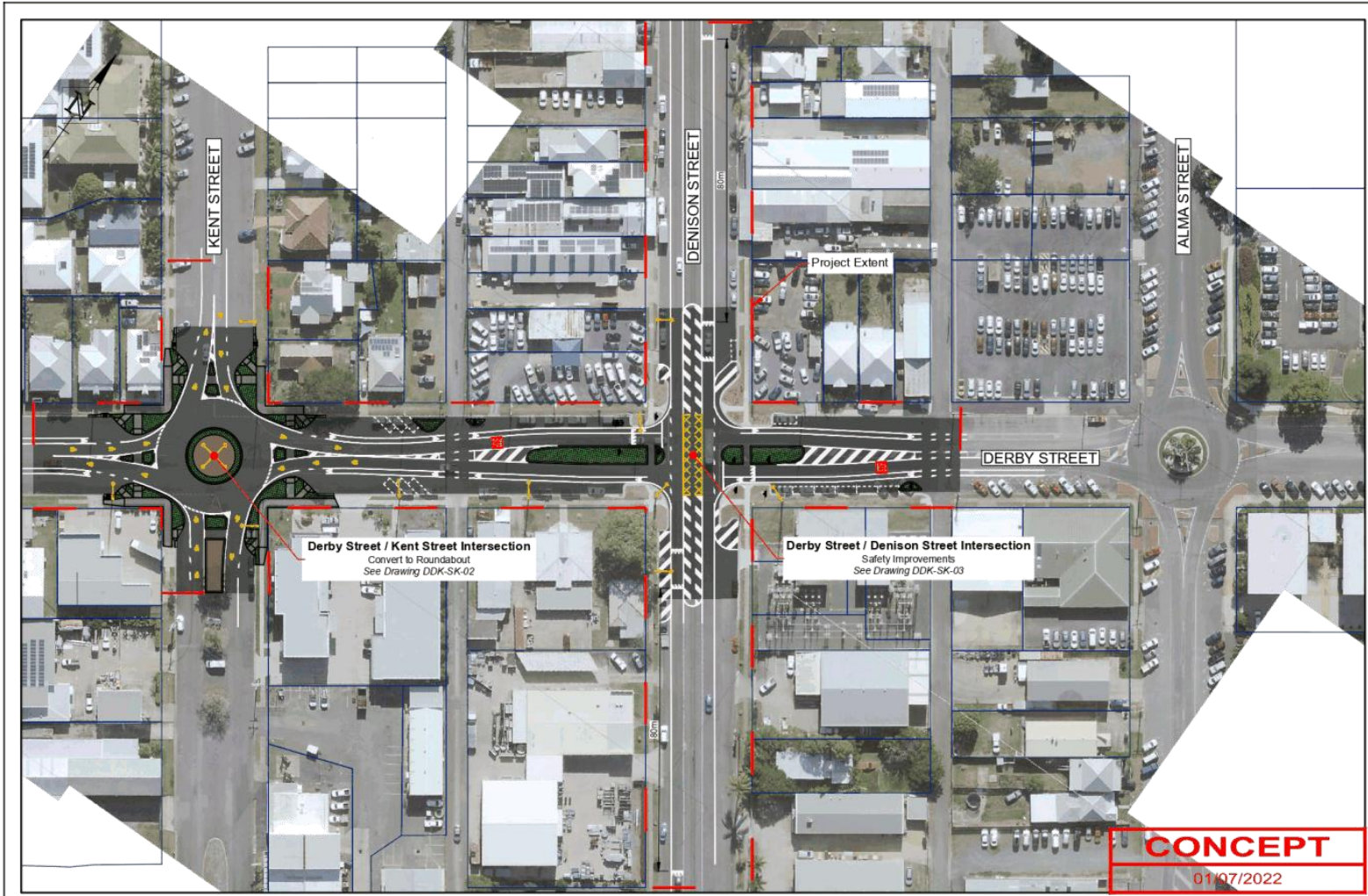
Council officers have proposed an additional project location proposed to be submitted under the Blackspot Program round for 2023/24. This report recommends a preferred option for submission. This report seeks Council's endorsement of the preferred option for submission.

**DERBY STREET/DENISON STREET
INTERSECTION PROPOSED BLACK
SPOT PROGRAM FUNDING
APPLICATION 2023/24**

**Option 1 – DDK-SK-Derby Street/
Denison Street & Kent Street
(Recommended Option)**

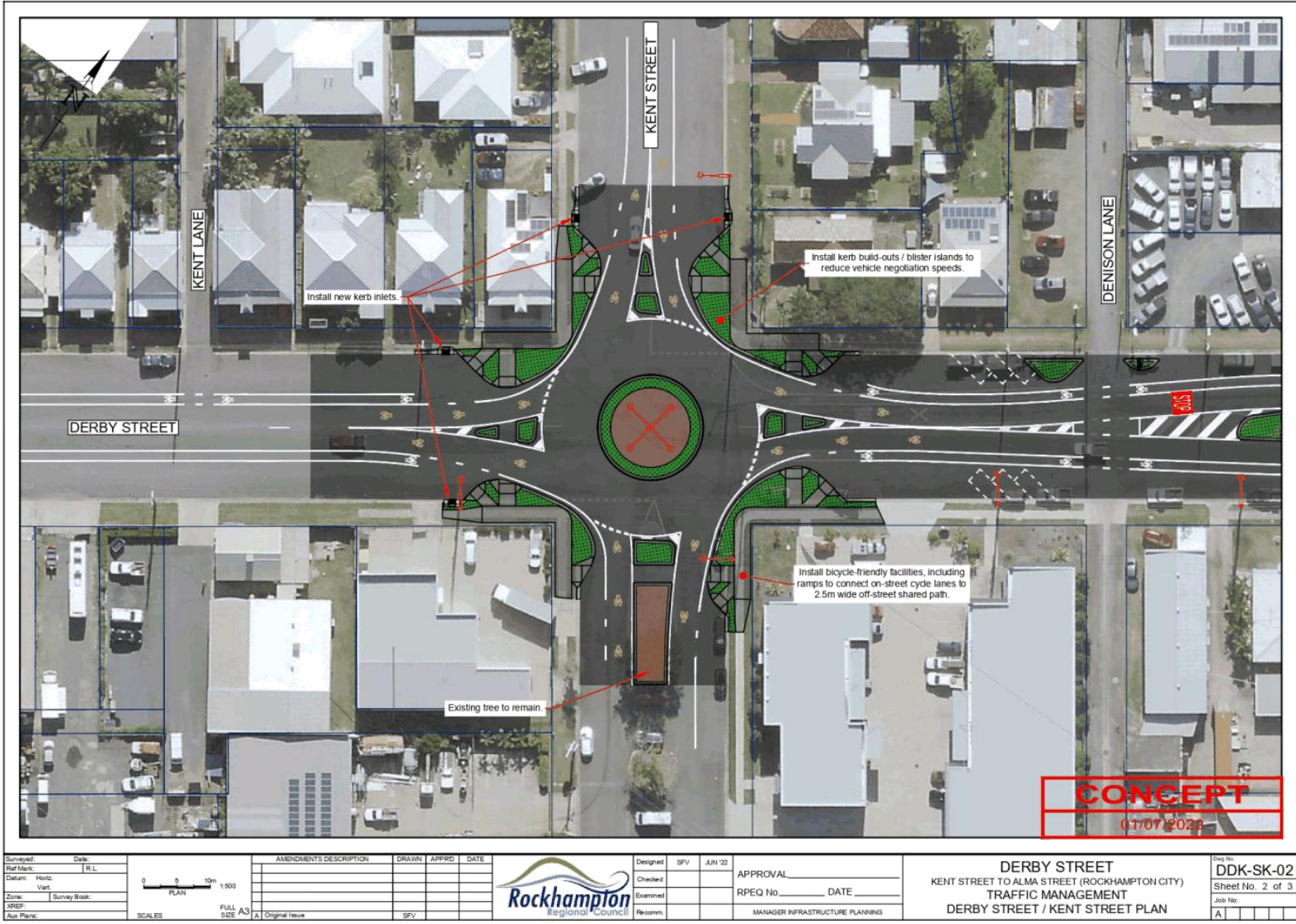
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Attachment No: 1



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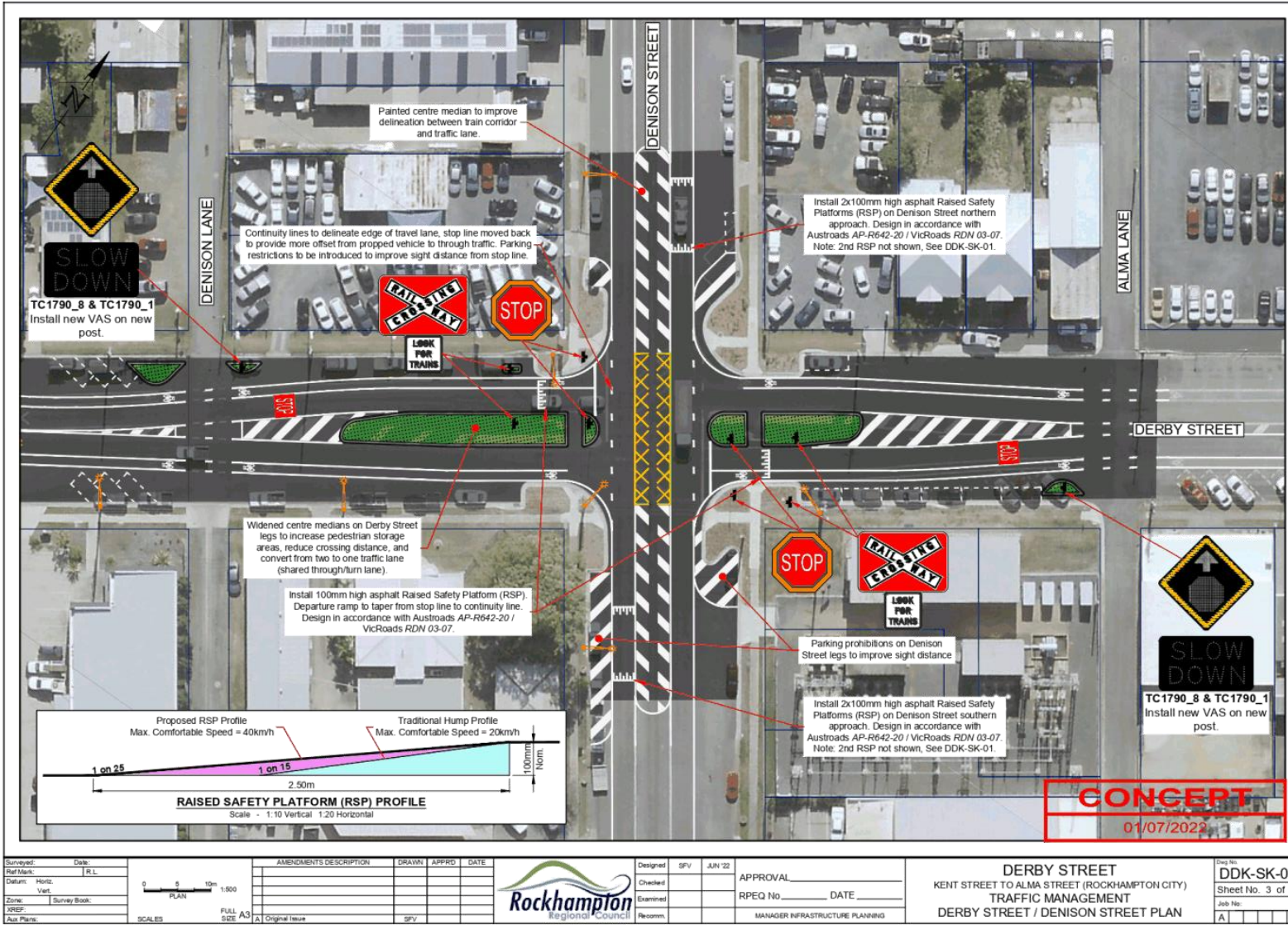
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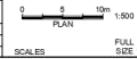
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 KENT STREET TO ALMA STREET (ROCKHAMPTON CITY)
 TRAFFIC MANAGEMENT
 DERBY STREET / KENT STREET PLAN

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KENT STREET TO ALMA STREET (ROCKHAMPTON CITY)
TRAFFIC MANAGEMENT
DERBY STREET / DENISON STREET PLAN

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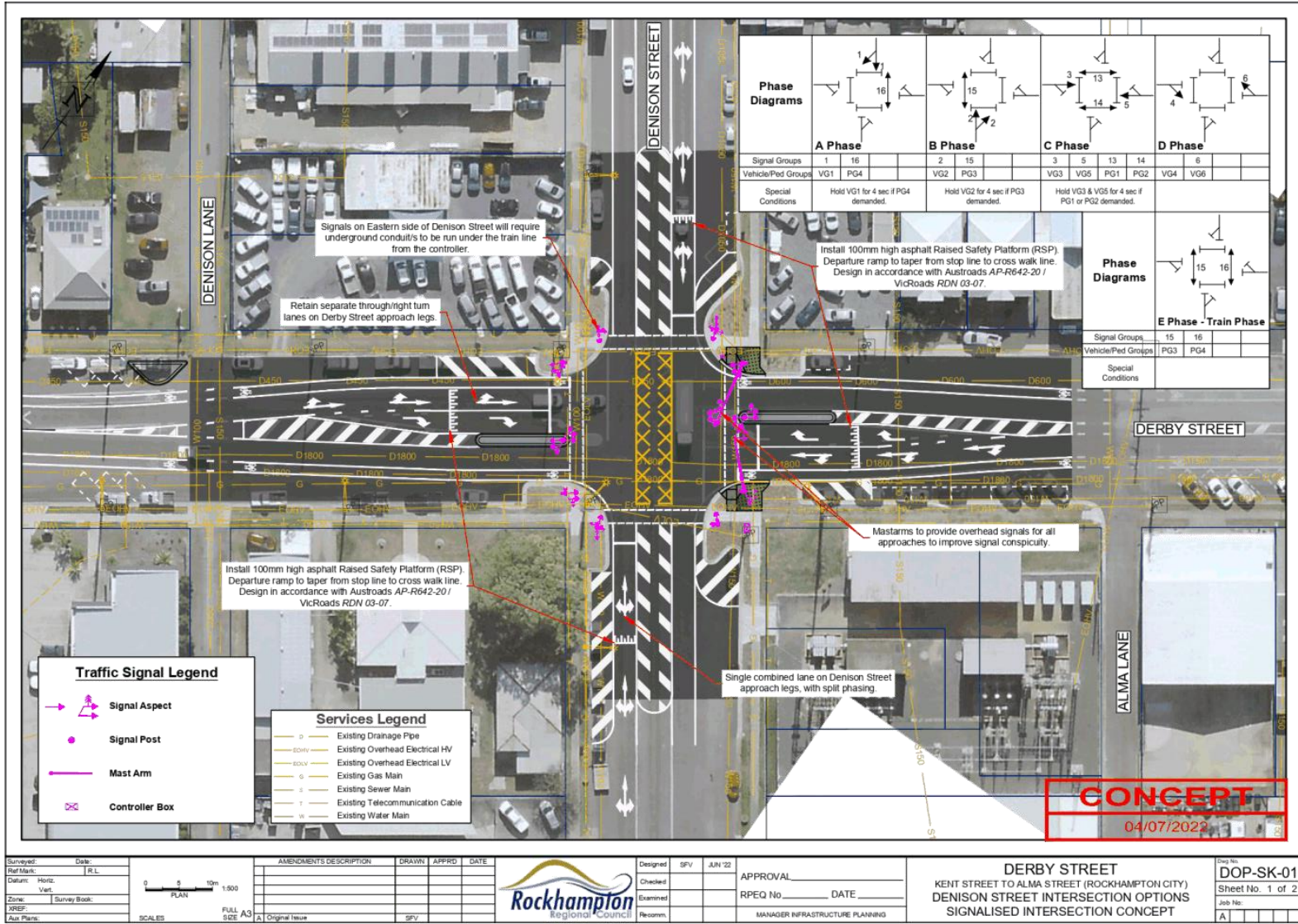
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**DERBY STREET/DENISON STREET
INTERSECTION PROPOSED BLACK
SPOT PROGRAM FUNDING
APPLICATION 2023/24**

**Option 2 - DOP - SK - 01 –
Traffic Signals at Derby Street/
Denison Street**

Meeting Date: 19 July 2022

Attachment No: 2



Phase Diagrams	A Phase	B Phase	C Phase	D Phase	E Phase - Train Phase
Signal Groups	1 16	2 15	3 5 13 14	4	15 16
Vehicle/Ped Groups	VG1 PG4	VG2 PG3	VG3 VG5 PG1 PG2	VG4 VG8	PG3 PG4
Special Conditions	Hold VG1 for 4 sec if PG4 demanded.	Hold VG2 for 4 sec if PG3 demanded.	Hold VG3 & VG5 for 4 sec if PG1 or PG2 demanded.		

Traffic Signal Legend	
	Signal Aspect
	Signal Post
	Mast Arm
	Controller Box

Services Legend	
	Existing Drainage Pipe
	Existing Overhead Electrical HV
	Existing Overhead Electrical LV
	Existing Gas Main
	Existing Sewer Main
	Existing Telecommunication Cable
	Existing Water Main

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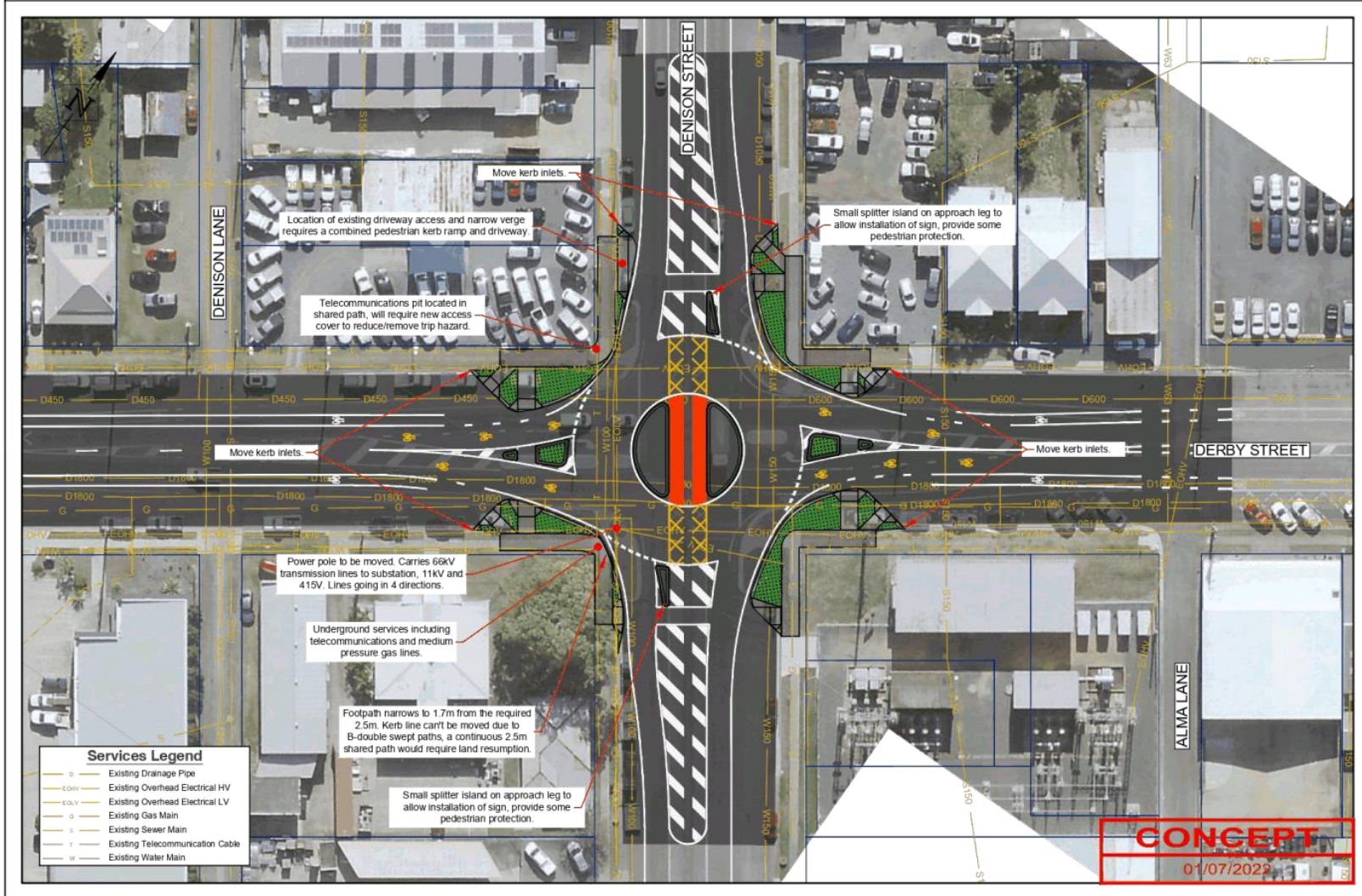
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**DERBY STREET/DENISON STREET
INTERSECTION PROPOSED BLACK
SPOT PROGRAM FUNDING
APPLICATION 2023/24**

**Option 3 - DOP - SK - 02 –
Roundabout at Derby Street/
Denison Street**

Meeting Date: 19 July 2022

Attachment No: 3



Services Legend

- D Existing Drainage Pipe
- EOHV Existing Overhead Electrical HV
- EOLV Existing Overhead Electrical LV
- G Existing Gas Main
- S Existing Sewer Main
- T Existing Telecommunication Cable
- W Existing Water Main

Power pole to be moved. Carries 66kV transmission lines to substation, 11kV and 415V. Lines going in 4 directions.

Underground services including telecommunications and medium pressure gas lines.

Footpath narrows to 1.7m from the required 2.5m. Kerb line can't be moved due to B-double swept paths, a continuous 2.5m shared path would require land resumption.

Small splitter island on approach leg to allow installation of sign, provide some pedestrian protection.

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10.4 WASTE COLLECTION SERVICES RUN CHANGE

File No:	169
Attachments:	Nil
Authorising Officer:	Peter Kofod - General Manager Regional Services
Author:	Charlie Sotiris - Acting Manager Rockhampton Regional Waste and Recycling Michael O'Keeffe - Manager Rockhampton Regional Waste and Recycling

SUMMARY

The purpose of this report is to provide Councillors with an update on the outcomes of the waste and recycling collection services run change, which took effect on 11 April 2022.

OFFICER'S RECOMMENDATION

THAT Council note the waste and recycling collection services run change has been successfully implemented.

BACKGROUND

The key objective of the waste and recycling collection services change was to improve utilisation of resources and minimize operating costs whilst still providing good customer service. Specific project objectives include;

- Even out the number of daily collection services.
- Efficient utilisation of collection vehicles.
- Minimise vehicle travel times by eliminating unnecessary or non-efficient travels.
- Eliminate or minimise staff overtime. Manage working hours and maintaining a standard day's shift promotes safe operations.
- Eliminate potential to overload vehicles due to size of collection area.
- Allow for growth in developing areas.
- Simplify customer service requests in relation to bin day enquiries.
- Facilitate implementation of an organics collection service.

COMMENTARY

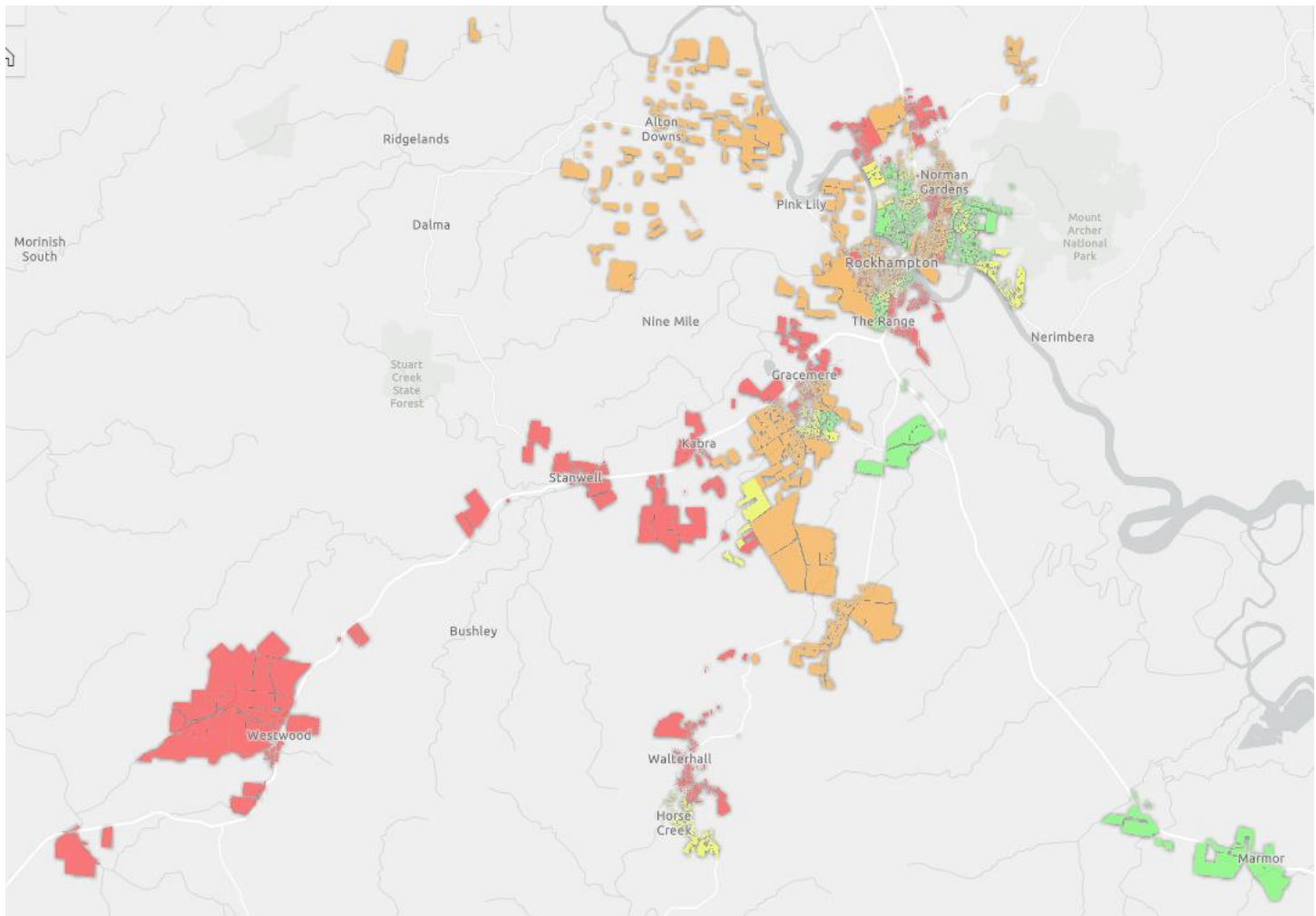
After detailed planning a decision was made to commence the roll out of the revised service commencing 11 April 2022.

The number of properties affected by this change is summarised in the table below and a map with corresponding colours has been provided to delineate collection areas.

Table of affected property numbers

Estimated number of serviced properties	32,406
Number of properties requiring some form of change	23,185
Number of properties with week change only (recycling)	4,885
Number of properties with week day and week change	5,049
Number of properties with day change only	13,251
Number of properties with no change	9,221

Regional map showing affected properties



How did we achieve this?

- Run boundaries were created to align with geographical areas.
- Working with the Collections Team to draft a run structure within a day. Collection areas were assessed on time required to complete the run and the number of bins collected. These were then overlaid into the new boundaries.
- The support from the Geographical Information Systems (GIS) and IT were key to the project's success.
- The recycling collections contractor provided their data which resulted in balancing Week 1 and Week 2 collections.
- Council's Communications team assisted with mail outs and information packages to ensure the community was well informed of the changes.

CONSULTATION

The support and direction of Council, Management, Collections Team, GIS, IT Services, Customer Services, Communications to name a few, cannot be underestimated and the success of transition from *Run Review to Run Change* is the combination of input from all parties.

OUTCOMES

We are now entering the 15th week and observations from 11 April 2022 include:

- Limited requests for missed or call back services.
- Reduced the number of collection runs on Monday which had 11 and Tuesday which had 10, to 8 runs each day.
- Capacity is available for allocation to growth areas such as Gracemere and Parkhurst.
- Administration and Customer Service can easily respond to bin day enquiries.
- Feedback from Customer Service includes;
 - Online search tool was easy to use.
 - Limited complaints received and these were promptly resolved by waste team.
 - Recycling message on flyer was effective and easy to understand.
 - Missed bin general and missed bin recycle dropped out of the top five (5) customer requests in the month of May, following initial spike in April.
 - Missed recycling slightly decreased.
- CQ Bin Cleaners (private bin cleaning operator) has expressed operational efficiency and complimented Council on the change. Mileage and work hours are down.
- Council's Contract JJ's Waste and Recycle provided comment to advise that this is the smoothest run change they have experienced of all serviced areas, given the number of affected properties.

CONCLUSION

The run change has delivered improved operational efficiencies and has been well accepted by the community.

11 NOTICES OF MOTION

Nil

12 QUESTIONS ON NOTICE

Nil

13 URGENT BUSINESS/QUESTIONS

Urgent Business is a provision in the Agenda for members to raise questions or matters of a genuinely urgent or emergent nature, that are not a change to Council Policy and can not be delayed until the next scheduled Council or Committee Meeting

14 CLOSURE OF MEETING