

### 11.3 - Hopeland Road (A & B) – Rehabilitation - variation request - RFT 07/2024 (SJ954)

<b>Responsible Officer:</b>	Manager Engineering Services
<b>Senior Officer:</b>	Director Infrastructure Services
<b>Disclosure of Officer's Interest:</b>	No Officer involved in the preparation of this report has an interest to declare in accordance with the provisions of the <i>Local Government Act 1995</i> .

#### Authority / Discretion

Executive	The substantial direction setting and oversight role of the Council such as adopting plans and reports, accepting tenders, directing operations and setting and amending budgets.
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#### Report Purpose

The purpose of this report is to advise Council of an increase to the scope of the Hopeland Road rehabilitation project due to latent ground condition which has been identified during the construction phase, and to seek Council approval of a variation to increase the project budget to address the issue and complete the project.

#### Relevant Previous Decisions of Council

These two projects (Hopeland Road A & B rehabilitation) were approved by Council as part of the 2023/2024 Annual Budget and were carried forward to the 2024/2025 Financial Year.

*Special Council Meeting - 7 October 2024 - SCM006/10/24 - COUNCIL RESOLUTION / Officer Recommendation*

*That Council:*

1. *AWARDS the Tender RFT 07/2024 - Hopeland Road (A & B) - Rehabilitation to Raubex Construction Pty Ltd as recommended in CONFIDENTIAL attachment 1 for the amount of \$1,434,119.33 ex gst.*
2. *AUTHORISES the Chief Executive Officer to sign a contract on behalf of the Shire of Serpentine Jarrahdale for RFT 07/2024 - Hopeland Road (A & B) - Rehabilitation.*
3. *APPROVES the following budget variation:*

Account Number	Type	Account Description	Debit \$	Credit \$
6400-80536-4817-0000	Decrease Income	Nicholson Road (SLK 0.46 - SLK 2.43) - Capital Grants - State Black Spot	1,000,694	
6400-80536-4816-0000	Increase Income	Nicholson Road (SLK 0.46 - SLK 2.43) - Capital		-1,438,459



		<i>Grants - Federal Black Spot</i>		
6400-80453-6600-000	<i>Increase Expenditure</i>	<i>Hopeland Road - A Rehabilitation - Capital Expenditure</i>	489,271	
6400-80453-4808-000	<i>Increase Income</i>	<i>Hopeland Road - A Rehabilitation - Grant - Main Roads</i>		224,818
6400-80454-6600-000	<i>Increase Expenditure</i>	<i>Hopeland Road - B Rehabilitation - Capital Expenditure</i>	331,809	
6400-80454-4808-000	<i>Increase Income</i>	<i>Hopeland Road - B Rehabilitation - Grant - Main Roads</i>		158,497
<i>Reason:</i>				
<i>Budget Amendment fund the increased tender and internal cost for Hopeland Road A and B. This is funded from savings in Nicholson Road project, which is now fully Federal Government funded.</i>				

**Background**

The Hopeland Road A&B rehabilitation projects were approved as part of the Metropolitan Regional Road Group (MRRG) Rehabilitation Program and are jointly funded by MRRG (2/3) and the Shire (1/3).

The scope of the project included pavement rehabilitation of 8m wide x 2.3km long section of the road by means of cement stabilisation to a depth of 200mm and application of a primer seal followed by 2 coat seal as the wearing course.

The footprint of the two projects is shown in the figures below:



**Figure 1: Hopeland Road A from SLK 2.5 to SLK 3.9**



**Figure 2: Hopeland Road B from SLK 3.9 to SLK 4.8**

As part of the planning stage of the project, to inform the detailed design, pavement samples were taken from the existing pavement. These samples were taken at 200 metre intervals. The results of these samples indicated the pavement depth varied between 200mm deep to 470mm deep.

During the construction of the project, after the pavement stabilisation had been completed and primer seal applied, some areas of the road surface started to fail under the traffic loading. The areas that showed signs of failure were becoming loose and appeared to be sandy.

The Shire engaged a consultant to take pavement samples of the failing areas and undertake a Particle Size Distribution (PSD) analysis to determine the cause of the failure. The test results indicated there was a high sand content in the failing areas, which was unforeseen and is considered to be a latent condition. There are 3 localised sections of the road pavement that have failed which have been identified as having high sand content. These sections of the road are 80m, 90m and 160m in length and need to be treated to improve the quality of pavement basecourse material.

These structural deficiencies, mainly due to disproportionately high sand content have compromised the compaction, strength and uniformity of the pavement, making it unsuitable for sealing. As a result, additional work is required to improve the basecourse by removing the sandy sections of the pavement and replacing it with more suitable basecourse material prior to sealing the road. These unforeseen additional works will delay the project completion by approximately 2 weeks.

A variation is required to be raised for the project due to these latent ground conditions to enable rectification works to be completed.



The below two images show the area of primer seal failure due to the high sand content.



## Statutory Environment

Section 3.57(1) of the *Local Government Act 1995* requires a local government to invite tenders before it enters into a contract of a prescribed kind under which another person is to supply the goods or service.

In addition to prescribing the kinds of contracts that must be publicly invited, the *Local Government (Functions and General) Regulations 1996* (Functions and General Regulations) also provide for varying a contract for the supply of goods of services:

### **21A. Varying a contract for the supply of goods or services**

*If a local government has entered into a contract for the supply of goods or services with a successful tenderer, the contract must not be varied unless —*

- (a) the variation is necessary in order for the goods or services to be supplied and does not change the scope of the contract; or*
- (b) the variation is a renewal or extension of the term of the contract as described in regulation 11(2)(j), (ja) or (jb).*

## Comment

The scope of works to remediate the three failing sections of the road pavement as proposed by the Shire's consultant includes:

- Remove the top 75mm layer of the pavement with high sand content and dispose off site



- Import and place 75mm layer of gravel basecourse (MRWA spec) on top of the excavated pavement;
- Wet mix and stabilise the pavement to 200mm depth;
- Apply prime and 2 coat seal.

This treatment will provide a uniform 200mm thick stabilised basecourse which meets Main Roads WA specification to provide a sound base for application of seal over the road pavement.

Approval of this variation is crucial for enabling completion of the project and maintaining the safety and integrity of the road pavement given the works have progressed to a point where the original seal has been removed and the failed pavement is exposed. With the project currently being live and all the contractor's resources currently being on-site, the contractor is in position to immediately commence works to rectify the issue and complete the project. This ensures that any safety-related risks, which may arise from the compromised pavement quality, can be promptly mitigated.

The contractor's quotation for the remedial works is \$194,932.85. Currently, the project budget has \$54,000 unallocated funds. Therefore, this request is for a variation to allocate an additional \$150,000 to the project budget which also allows for \$10,000 to be allocated to Shire project management cost. Shire Officers have undertaken their own quantity survey and cost estimation for the required pavement improvement works using the Shire's unit rates to validate the contractor's quotation. The quotation provided by the contractor has been found to be reasonable.

It is important to note that if the variation request is not approved, the project will not achieve the design objective leaving behind a significant safety risk. As a result, the untreated failing sections of the pavement will require continuous and costly maintenance over the coming years. Currently, the road is considered unsafe to be opened to full traffic movement due to the loose surface. As the pavement is almost for certain to deteriorate further with passing traffic, the safety risk associated with continued use of the road will increase, potentially leading to accidents and significant pavement deterioration. In the event that the failed sections of the pavement are left untreated, temporary traffic management with reduced speed will need to be implemented over these sections until the pavement is rehabilitated.

As the project is jointly funded by MRRG and the Shire, Officers will submit a cost variation to Main Roads WA for this additional cost (\$150,000). If successful, 2/3 of this cost (\$100,000) will be recouped from MRRG and the remaining funds (\$50,000) will be the responsibility of the Shire.

To verify that the inadequate pavement areas are limited to the areas already identified, Officers arranged with the contractor to excavate a number of test holes along the length of the road to verify the pavement structure and material. This investigation indicated that the remaining sections of the road have adequate pavement depth and suitable material. This, coupled with the traffic using the road not causing any further areas of failure, confirms that the areas of failure are limited to what has been identified to date.

**Options****Option 1**

That Council:

1. APPROVES the budget allocation of \$150,000 for a variation to the RFT 07/2024 Hopeland Road (A & B) – Rehabilitation project;

<b>Account Number</b>	<b>Type</b>	<b>Account Description</b>	<b>Debit \$</b>	<b>Credit \$</b>
6400-80453-6600-0000	Increase Expenditure	Hopeland Road A – Rehabilitation – Capital Expenditure	75,000	
6400-80454-6600-0000	Increase Expenditure	Hopeland Road B– Rehabilitation – Capital Expenditure	75,000	
6400-80453-5033-0000	Increase Transfer from Reserve	Hopeland Road A – Rehabilitation – Transfer from Reserve – Road and Bridge Asset Reserve		50,000
6400-80453-4808-0000	Increase Income	Hopeland Road A – Rehabilitation – Capital Grant – Main Roads		25,000
6400-80454-5033-0000	Increase Transfer from Reserve	Hopeland Road B – Rehabilitation – Transfer from Reserve – Road and Bridge Asset Reserve		50,000
6400-80454-4808-0000	Increase Transfer from Reserve	Hopeland Road B – Rehabilitation – Capital Grant – Main Roads		25,000

**Reason:**

Funds required for the variation to the Hopeland Road Rehabilitation project

2. AUTHORISES the Chief Executive Officer to sign a variation on behalf of the Shire of Serpentine Jarrahdale to the Tender RFT 07/2024 Hopeland Road (A & B) – Rehabilitation project.
3. REQUESTS the Chief Executive Officer conduct a lessons learnt analysis and discuss this with elected members at a future Policy Concept Forum to inform future road projects.

Option 2

That Council DOES NOT APPROVE the budget variation, and resolves to leave the road as is, under temporary traffic management with reduced speed.

**Conclusion**

The contractor is currently on site progressing with the upgrade works. The remedial works are necessary to prevent further deterioration of the road pavement and complete the project to its full scope.

**Attachments (available under separate cover)**

- Nil

**Alignment with our Council Plan 2023-2033**

<b>Thriving</b>
4. Ensure sustainable and optimal use of Shire resources and finances
<b>Liveable</b>
2. Improve maintenance and investment in roads and paths
<b>Connected</b>
2. Contribute to a well-connected, accessible and health community

**Financial Implications**

Although the proposal requests the Shire to fund the variation to the contract, Officers will submit a cost variation application to Main Roads WA. This application will formally request additional funds to cover two-thirds of the project's total costs, in accordance with the approved MRRG road rehabilitation program.

In the interim, Officers request that \$150,000 be drawn from the Road and Bridge Asset Management reserve for this project. Any variation amount approved by Main Roads WA will be returned to the reserve.

The above proposed course of action will require a formal budget variation. Accordingly, approval is sought for the following budget adjustments for the reasons specified:

Account Number	Type	Account Description	Debit \$	Credit \$
6400-80453-6600-0000	Increase Expenditure	Hopeland Road A – Rehabilitation – Capital Expenditure	75,000	
6400-80454-6600-0000	Increase Expenditure	Hopeland Road B– Rehabilitation – Capital Expenditure	75,000	
6400-80453-5033-0000	Increase Transfer from Reserve	Hopeland Road A – Rehabilitation – Transfer from Reserve – Road and Bridge Asset Reserve		50,000



Account Number	Type	Account Description	Debit \$	Credit \$
6400-80453-4808-0000	Increase Income	Hopeland Road A – Rehabilitation – Capital Grant – Main Roads		25,000
6400-80454-5033-0000	Increase Transfer from Reserve	Hopeland Road B – Rehabilitation – Transfer from Reserve – Road and Bridge Asset Reserve		50,000
6400-80454-4808-0000	Increase Transfer from Reserve	Hopeland Road B – Rehabilitation – Capital Grant – Main Roads		25,000
<b>Reason:</b> Funds required for the variation to the Hopeland Road Rehabilitation project				

**Risk Implications**

Risk has been assessed on the Officer Options:

Officer Option	Risk Description	Controls	Principal Consequence Category	Risk Assessment			Risk Mitigation Strategies (to further lower the risk rating if required)
				Likelihood	Consequence	Risk Rating	
1	Not approving the proposal for budget variation to progress with the variation for the road works by the contractor	Report to OCM, Procurement Policy	Financial	Almost Certain	Minor	MODERATE	Approve variation to the budget and contract to complete the scope of works
2	Road works do not occur, can result major property damage and human injuries	Speed reduction signs, ongoing maintenance costs.	Financial	Almost Certain	Minor	MODERATE	Approve variation to the budget and contract to complete the scope of works



**Voting Requirements: Absolute Majority****Officer Recommendation****That Council:**

- 1. APPROVES the budget allocation of \$150,000 for a variation to the RFT 07/2024 Hopeland Road (A & B) – Rehabilitation project;**

<b>Account Number</b>	<b>Type</b>	<b>Account Description</b>	<b>Debit \$</b>	<b>Credit \$</b>
6400-80453-6600-0000	Increase Expenditure	Hopeland Road A – Rehabilitation – Capital Expenditure	75,000	
6400-80454-6600-0000	Increase Expenditure	Hopeland Road B– Rehabilitation – Capital Expenditure	75,000	
6400-80453-5033-0000	Increase Transfer from Reserve	Hopeland Road A – Rehabilitation – Transfer from Reserve – Road and Bridge Asset Reserve		50,000
6400-80453-4808-0000	Increase Income	Hopeland Road A – Rehabilitation – Capital Grant – Main Roads		25,000
6400-80454-5033-0000	Increase Transfer from Reserve	Hopeland Road B – Rehabilitation – Transfer from Reserve – Road and Bridge Asset Reserve		50,000
6400-80454-4808-0000	Increase Transfer from Reserve	Hopeland Road B – Rehabilitation – Capital Grant – Main Roads		25,000

**Reason:****Funds required for the variation to the Hopeland Road Rehabilitation project**

- 2. AUTHORISES the Chief Executive Officer to sign a variation on behalf of the Shire of Serpentine Jarrahdale to the Tender RFT 07/2024 Hopeland Road (A & B) – Rehabilitation project.**
- 3. REQUESTS the Chief Executive Officer conduct a lessons learnt analysis and discuss this with elected members at a future Policy Concept Forum to inform future road projects.**