AGENDA

Late Reports
City Future Committee meeting
Tuesday, 25 November 2025

Date: Tuesday, 25 November 2025

Time: 9.30am

Location: Tauranga City Council Chambers
Level 1 - 90 Devonport Road
Tauranga

Please note that this meeting will be livestreamed and the recording will be publicly available on Tauranga City Council's website: www.tauranga.govt.nz.

Marty Grenfell
Chief Executive

Order of Business

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9 BUSINESS

9.9 CHIPSEAL OVER ASPHALT IN THE 2025/26 RESEAL PROGRAMME

File Number: **A19393195**

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Please note that this report contains confidential attachments.

Public Excluded Attachment	Reason why Public Excluded
Item 9.9 - CHIPSEAL OVER ASPHALT IN THE 2025/26 RESEAL PROGRAMME - Attachment 2 - Appendix 2 - Memo Cost options for resurfacing programme table	s7(2)(b)(ii) - The withholding of the information is necessary to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information. s7(2)(h) - The withholding of the information is necessary to enable Council to carry out, without prejudice or disadvantage, commercial activities.

PURPOSE OF THE REPORT

1. Provide option's for deferral of the chipseal (CS) treatment over an existing asphaltic concrete (AC) surface component of the 2025/26 road resurfacing programme and options associated.
2. Included is a consolidated context for the decision-making process that is required; background and current state of the programme and community interest; summary of the current level of community interest and options to Council for consideration and subsequent direction to staff.

RECOMMENDATIONS

That the City Future Committee:

(a) Receives the Paper "CHIPSEAL OVER ASPHALT IN THE 2025/26 RESEAL PROGRAMME

(b) Support the recommendation of Option One, to continue with the reseal programme for 2025/26 as planned,

(c) Supports maintaining the current road surfacing policy without undertaking an in-depth review as part of the Long-Term Plan process, acknowledging that such reviews have been completed previously and that a policy change is not financially viable at this time.

(d) Confirms that no change to the current policy, such as introducing a targeted rate for different road surfacing types, is required at this time, recognising the equity and

debt considerations involved.

(e) Notes: Staff will add targeted communications to homeowners where their road will go from AC to CS at the beginning of the season and a review of the channels used to deliver this information.

(f) **Attachment 2** can be transferred into the open Due to commercial sensitivity will not be available for public release

EXECUTIVE SUMMARY

Considerations for Road Resurfacing in Residential Areas

3. Road resurfacing is essential for maintaining a safe transportation network. In residential settings, however, the focus of resurfacing extends beyond transportation needs to include amenity considerations, as the quality of the road surface can significantly influence how residents perceive their neighbourhood. Generally, communities tend to associate asphalt roads with a higher level of amenity.
4. The Council's current level of service policy dictates the selection of resurfacing treatments across the road network. This policy adopts a 'fit for purpose' approach: asphalt is reserved for roads with moderate to high traffic volumes or those subject to higher stress, while chipseal is used for low-volume neighbourhood roads.
5. There has been dissatisfaction among some community members regarding the current level of service provided in residential areas. The main concern is that neighbourhoods originally developed with asphalt roads, when scheduled for resurfacing, are now being resurfaced with chipseal in line with Council policy. This shift is perceived by some as a reduction in service quality and a decline in the overall amenity of their neighbourhood.
6. While resurfacing neighbourhood roads with asphalt may offer aesthetic advantages, the associated costs for Council are considerably higher. Asphalt is more expensive than chipseal and this is further exacerbated by the reduction in New Zealand Transport Agency (NZTA) funding, who do not fund asphalt surfaces on residential streets. The Agencies approach and Council's align with our 'fit for purpose' policy where chipseal delivers on the intended purpose of that type of road.
7. Staff recommend continuing to follow the 'fit for purpose' principle, as it provides the best whole-of-life value for money for ratepayers as asphalt is, on average, five times more expensive than chipseal. By utilising chipseal, Council saves on the upfront capital cost to ratepayers and secure NZTA subsidies, effectively doubling the available funding for road maintenance.
8. The resurfacing programme is already underway. Deferring all works at the 21 planned sites would result in significant additional costs, with current estimates exceeding the previously quoted $100,000.
9. In response to community concerns, it is possible to allow the affected Pāpāmoa residents to pay for AC, provided the road was already AC. However, timelines do not allow full consultation and the only feasible mechanism to allow this to happen for the current

program is a lump sum contribution of between $2000 - $6000 per household. This assumes all households in the street will contribute.

10. The residual risk of additional costs to either TCC or households is that the roads deteriorate while awaiting resurfacing, as delivering this change cannot be accommodated in this year's programme.
11. Given complexities with admin/ legal side of resident payment for AC, and the implications for the continuous renewal program, plus potential for additional costs with unresolved ownership, staff do not recommend this.
12. Any consideration for a significant change in road surfacing in TCC cannot be done at short notice, as this would necessitate a comprehensive network impact assessment, extensive community consultation, revision of maintenance programmes, and approval from funding partners.
13. A review of the road resurfacing policy would be better carried out as part of the Council's long-term planning process. It is important to note that the policy has already been examined twice—once in 2012 and again in 2020.
14. The 2020 review it highlighted that switching to a 'like for like' asphalt resurfacing approach (where every road originally surfaced with asphalt would be renewed with asphalt) would almost double the annual cost for the Council's renewals and resurfacing programme. Based on current figures, this change would increase costs by approximately $7.3 million per year.
15. Staff therefore recommend against reviewing this policy. Appropriate trigger points for policy review would be either a substantial cost/technology change or NZTA funding change.
16. In terms of funding options, there are different options for resident to contribute to a higher level of service, and a targeted rate is one avenue. Staff need more time to assess all the implications of those options; however, we believe a change of this nature would require the development of a new policy as the financial and equity issues are significant.
17. Staff therefore believe a special consultative procedure and or an annual plan process is required to ensure adequate consultation and assessment of the wider implications and to develop a robust policy.
18. Staff acknowledge the need to improve community consultation, particularly for sites where chipseal will replace asphalt. This includes providing early communications to residents about upcoming changes and inviting feedback on service levels during the development of the long-term plan.
19. All alternative options would have significant impacts on programme delivery and would incur additional costs, especially as the resurfacing programme is already in progress.

BACKGROUND

20. Since 2012, TCC has adopted a practice of overlaying chipseal on low-volume roads that were originally asphalted, primarily for cost efficiency. This policy was further confirmed in 2020 as part of the preparation of the LTP 2021 – 2031. Chipseal has been the preferred road surface for New Zealand Roads since the 1930s.
21. The investment case for maintenance activities is tested in the Activity Management Plan (AMP) plan which is produced every three years. The AMP is a strategic document that links

transport activities to desired service levels and national outcomes, provides evidence for funding decisions, and supports cost-effective, sustainable asset management.

22. Ours is recognised as an exemplar for other local authorities, as noted in the successive NZTA Procedural Audits.

23. The plan is drafted, reviewed, approved by the Council, and then sent to NZTA for funding. Each year, part of the plan is checked again and approved as needed. “Fit for purpose” and “value for money” principles are enshrined in all activity management plans around the country and is the same as how other New Zealand councils operate.

POLICY AND TECHNICAL CONTEXT

Chipseal vs Asphalt

24. Chipseal is the most cost-effective and NZTA-approved method for maintaining low-volume roads. Compared to asphalt, chipseal costs significantly less—often five times cheaper—while still providing a durable, waterproof surface that protects the underlying road structure.

25. Savings from chipseal also free up resources for other essential community services, making it the most practical choice for sustainable network management.

26. Chipseal and asphalt are the two main road resurfacing approaches used in Tauranga city:

- Chipseal – a layer of loose stone chips spread over bitumen binder and rolled into place
- Asphaltic concrete (known as AC or asphalt or hot mix) – pre-made bitumen and aggregate mixture.

27. Key physical characteristics of asphalt compared with chipseal resurfacing treatments is summarised in Table 1. Please note that the ‘flexibility’ characteristic is particularly relevant to this level of service discussion. In this context, flexibility relates to the strength of the underlying pavement and the amount of flex a pavement has under load (called deflection, measured in millimetres). Weak pavements with high deflection can cause cracking of the surface material.

28. Asphalt, like normal concrete, has no tensile strength so needs to be supported by a very strong base pavement with little, or no deflection. Often, our local and access roads do not have very strong pavements, so the extent of pavement strengthening work needed to support asphalt is considerably greater than chipseal. Sometimes a road pavement will need to be completely replaced (pavement rehabilitation). This has upward cost implications for the decision on resurfacing treatment.

29. The impact of climate change and the associated rise of groundwater levels is expected to accelerate pavement deterioration in affected areas. In those instances, the inherent flexibility of chipseal will provide greater resistance to deterioration.

30. In comparison, chipseal is more flexible and can be effectively applied to roads where the pavement has lost some strength and demonstrates moderate deflection. However, asphalt does provide a more durable, smooth surface producing less road noise.

31. The selection process for corridor surfacing is technical, incorporating multiple criteria to determine the most suitable whole-of-life solution, including:

- Tight vehicle turning circles and tracking

- Locations with frequent heavy braking (such as roundabouts and intersections)
- Heavy vehicle movements and overall traffic volumes
- Public amenity requirements, particularly in central business districts and retail areas

NPV Calculation NZTA method

32. Net Present Value (NPV) analysis is used to determine the difference between the present values of the various pavement treatment options available, over a 30-year analysis period. A lower net present value is good value for money.

33. In essence it helps to assess which strategy (i.e. maintain, heavy maintenance, renewal) provides the best return on investment for the Agency, and its stakeholders.

34. This table shows the long-term cost comparison between chipseal and asphalt resurfacing treatments. It uses Net Present Value (NPV) to calculate the total cost over 30 years, including resurfacing and annual maintenance.

35. For example, for AC to compete economically with chipseal over time, it would need to last more than 40 years without renewal.

Table 1: NPV calculation for current programme

Treatment Type	Total NPV (30 yrs)
Chipseal	$17.01 /m²
Asphalt (AC)	$73.98 /m²

36. In 2020, a thorough review of the total programme costs was conducted (see Appendix 1). The analysis found that, if all roads currently surfaced with chipseal (CS)—or planned to be resurfaced with CS—were included, the annual budget required would nearly triple compared to previous years. This calculation does not include the additional expense of upgrading CS roads to asphalt, which would be significantly more costly due to the need for a different underlying road structure. In today's terms, this would mean an increase of approximately $15.7 million per year for renewals and resurfacing alone.

OTHER EXAMPLES

37. The recommended, ‘fit for purpose’ option also aligns with majority of other similar Council approaches to road resurfacing. Most Councils in New Zealand have adopted a ‘fit for purpose’ resurfacing policy in line with NZTA funding assistance criteria. This includes the four major cities with network configuration or growth similar to Tauranga City (Auckland, Wellington, Christchurch and Hamilton).

38. There are a number of smaller councils who have adopted a ‘like for like’ policy approach, such as Hurunui District Council, Mackenzie District Council and Ashburton District Council. These smaller networks have a lot of unsealed and chipseal roads, so retaining similar surfacing is a more cost-effective option.

39. Further, these smaller districts tend to have very little asphalt roads and therefore residents do not have the same expectation for asphalt on neighbourhood roads. As an example Selwyn District Council have experienced considerable growth in recent times resulting in asphalt being used in new subdivision areas. Consequently, Selwyn District

Council in 2021 reviewed their 'like for like' policy and now does not guarantee reinstatement of the same surface type during resurfacing.

TCC MAINTENANCE PROGRAMME OVERVIEW

40. Tauranga City Council own and maintain approximately 630 kilometres of roading network and over three years, TCC has maintained a steady programme resurfacing ~5% of the network annually, investing roughly $50M per year in road and asset maintenance, with a strong focus on cost efficiency and NZTA co-funding compliance.

41. The full programme is spread out to allow both the resurfacing of all roads in time, as well as seasonal considerations. Hence, a deferral to the program can be hard to catch up as all future years are tentatively planned. Therefore, deferrals increase the risk of increased costs due to deferred maintenance, or a 'catch up' year where additional roading crews are needed. Both are a preventable financial burden.

42. Our network now consists of a mix of roading surfaces, being approximately 238km of CS and 228km of AC and 16km of other.

43. The 2025/26 resurfacing programme consists of 35 kms over 185 locations. Some quick programme facts include:

    (a) 20km is CS and 15km is AC

    (b) 7.5km will have chipseal over asphalt

    (c) 21 locations are in Papamoa (approx. 5.7km)

    (d) Six of these locations are planned to be CS over AC

    (e) The total programme budget is $9m ($2m CS $7m AC)

COMMUNITY FEEDBACK AND PAPAMOA-SPECIFIC ISSUES

44. In Papamoa, a considerable number of subdivision developments over 30 years old are due for renewal, resulting in feedback regarding the transition from asphalt concrete (AC) to chipseal (CS) resurfacing. Feedback received from Community Consultation Managers (CCMs), Elected Members (EMs), and directly from residents primarily highlights the following concerns:

    - Perceived reduction in aesthetic appeal
    - Increased noise levels and issues with loose chip
    - Concerns about perceived cost-cutting measures affecting quality
    - Preference for asphalt surfaces or foregoing resealing altogether
    - Belief that resealing is unnecessary and based solely on asset age, leading to a perception of wasted expenditure

45. Our communications have consistently reflected the underlying data and best practices in roading asset management, emphasizing these key points:

    - Resealing serves to protect roads from water ingress and mitigates the risk of expensive repairs resulting from further deterioration. Not all damage is visible on the surface.
    - These treatments are essential for long-term cost savings and deliver the best value for money. While asphalt concrete offers greater longevity without

intervention, in low traffic and low heavy vehicle environments, chipseal presents a clear cost benefit, as demonstrated in Table 1.

OPTIONS ANALYSIS

46. This analysis seeks to firstly consider our options to respond to provide an option for deferral of the chipseal (CS) treatment over an existing asphaltic concrete (AC) surface component of the 2025/26 road resurfacing programme and options associated.

47. The options A through E are specifically in relation to six Papamoa sites planned to have CS installed over AC in this current programme. They include Checketts Place, Montego Drive, Santa Barbara Drive, Santa Monica Drive, Sovereign Drive and The Gardens Drive.

Options Summary

- Option A: easiest to deliver but not for community relations in Papamoa.
- Option B: balances deliverability and positive engagement but creates equity concerns on other sites
- Option C: satisfies residents but creates major cost and policy challenges.
- Option D: is complex and uncertain.
- Option E: risks asset failure and negative perception.

TABLE 2: OPTIONS FOR PAPAMOA SITES – CHIPSEAL (CS) OVER ASPHALTIC CONCRETE (AC)

Option	Description	Key Points / Risks	Estimated Cost Impact	Deliverability	Community Impact
A: Continue as Planned	No change to the 2025/26 programme.	- Resident concerns remain unresolved. - Risk of further escalation.	**$0**	**High** – Fully deliverable within current programme.	**Negative** – High dissatisfaction in this area; likely complaints and reputational risk.
B: Defer for 12 Months	Delay resurfacing of six sites to review resident-funded or alternative surfacing options.	- Low–medium risk of remedial works (~$10,000 nominal). - Allows time for consultation and policy review.	**$10,000 nominal + higher budget due to additional work in the next year**	**Medium–High** – Manageable with programme reshuffle.	**Mixed** – Positive for affected residents but creates an **equity issue for the wider AC programme (21 sites)**, as some streets receive preferential treatment while others do not. **Key risk: Delay of the other 21 chipseal over asphalt sites will cost significantly more than the 100k previously.**
C: Resurface in AC	Replace planned CS with AC for six sites.	- Cost increase of $1.34m. - High risk of precedent setting and equity concerns.	**+$1.34m**	**Low** – Funding gap unresolved; policy implications.	**Very Positive yet problematic** – Meets resident expectations; but sets precedent and raises equity concerns citywide.
D: Residents Fund AC Upgrade	Residents pay cost difference between CS and AC.	- Targeted rate impractical. - Lump sum needs legal review. - Requires 100% participation.	**$1.34m differential** (funded by residents if successful)	**Low** – Complex and unlikely to succeed.	**Mixed** – Positive if successful; negative if participation fails; perceived inequity for other areas.
E: Remove Sites	Remove six sites from programme for 1–3 years.	- Medium–high risk of deterioration and costly rebuilds. - CS applies later unless policy changes.	**Unknown** – Potential future rebuild costs much higher.	**Medium** – Technically feasible but risky long term.	**Negative** – Residents see no action; potential backlash if roads deteriorate, potential for revisiting the debate in 1-3 years

FINANCIAL CONSIDERATIONS

48. The detailed financial implications of the deferral are outlined in the Appendix 2

Road Name	Length (m)	Estimated Number of houses	Chipseal estimates	AC estimates	Capital cost estimates - per property (one off-upfront)	Targeted Rate option per property-per annum*
Santa Monica Drive	667	128	$ 74,065	$ 517,680	$ 3,466	$ 643
Checketts Place	127	22	$ 15,040	$ 57,650	$ 1,937	$ 350
Montego Drive	501	46	$ 40,323	$ 315,880	$ 5,990	$ 1,115
Santa Barbara Drive	300	55	$ 24,149	$ 166,980	$ 2,597	$ 482
Sovereign Drive	436	39	$ 28,487	$ 218,530	$ 4,873	$ 907
The Gardens Drive	516	83	$ 80,438	$ 329,180	$ 2,997	$ 544

Note: Cost provided may change as further analysis and verification takes place.

*The target rate would be applicable for whole of life of the asset assumed at 20 years – but cannot be implemented in time for the current program.

FUNDING OPTIONS FOR RESIDENTS

49. Two primary funding options for residents have been identified: the targeted rate and the lump sum contribution. The targeted rate would be applied through the Council's rating system to affected properties; however, its implementation for the 2025/26 period is not feasible due to timing constraints and legislative requirements. Adoption of this approach would require formal changes to Council policy and extensive public consultation.

50. Alternatively, the lump sum contribution would require residents to pay the entire cost difference upfront. While this method is feasible in principle, it necessitates a comprehensive legal and financial review to ensure compliance and demands unanimous agreement from all property owners on each street to avoid funding shortfalls.

51. Both options are administratively complex, and the lump sum contribution is unlikely to succeed without full participation from affected residents. It should also be noted that a targeted rate cannot be established within the timeframe of the current programme.

IMPLICATIONS OF POLICY REVIEW AND FUNDING CONSIDERATIONS

Requirement for Policy Review

52. Should Council opt to implement Options B or C, a full policy review would be necessitated. This approach would eliminate the need to manage each street individually during every annual resurfacing programme.

53. Instead, it would establish a consistent and equitable framework for decision-making. The policy review process would require a thorough network impact assessment, amendments to current funding regimes, and extensive community consultation.

54. Given the significance and scope of these changes, they would need to be incorporated into a long-term plan cycle, rather than addressed through the annual plan cycle.

55. Note that any targeted rate also means the council carries the debt associated with a program over the 20 years it recovers the cost.

Scope of Policy Change: Funding and Equity Considerations

56. Council must also carefully consider the extent of any proposed policy change, particularly in relation to funding mechanisms and equity among residents. Two principal approaches could be evaluated:

    (a) Limiting Policy Change to Like-for-Like Renewals: Under this option, asphaltic concrete (AC) would only be used for renewals where it is already the existing treatment. It is important to acknowledge that this option introduces an equity issue for residents who have already had chipseal (CS) applied over AC, as well as for those who have never benefited from AC surfacing. The anticipated scope for a like-for-like renewal is approximately xx kilometres, with an estimated cost of $xx over the coming 10 years.

    (b) Resurfacing All Residential Streets with AC: Alternatively, Council may choose to resurface all residential streets with AC as they become due for renewal. The objective would be to provide a uniform level of service across all neighbourhoods upon completion. This broader approach would encompass approximately xx kilometres and is estimated to cost $xx over the next decade.

STATUTORY CONTEXT

57. The provision of maintenance and renewal programmes which contribute to an effective, efficient, and safe transport system in New Zealand, is guided by several key frameworks including:

    (a) Land Transport Management Act 2003 (LTMA): Sets the framework for managing and funding land transport activities.

    (b) Government Roading Powers Act 1989: Provides powers for NZTA and local authorities to build, maintain, and manage roads, including resealing activities.

    (c) Local Government Act 2002: Defines the role of territorial authorities in providing core infrastructure services, including roads. Councils must ensure roads are maintained to protect public safety and meet community needs.

    (d) Health and Safety at Work Act 2015: Applies to contractors and councils undertaken works, requiring safe work practices and traffic management.

STRATEGIC ALIGNMENT

58. This contributes to the promotion or achievement of the following strategic community outcome(s):

	Contributes
We are an inclusive city	✓
We value, protect and enhance the environment	✓
We are a well-planned city	✓
We can move around our city easily	✓
We are a city that supports business and education	✓

59. Looking after the assets we have and providing safe, well-maintained roads is central to TCC strategic outcomes regarding a well-planned city, a city that is easy to move around and a city that supports the efficient movement of goods and services for business.

60. As an inclusive city it is important we consider the nature of our improvement and renewal programmes to ensure equity across our diverse communities and suburbs. Our renewal programme does not currently favour any particular catchment in terms of the treatments implemented and also delivers a solution that is lower in carbon and emissions by way of raw materials and construction.

LEGAL IMPLICATIONS / RISKS

61. The main legal risks relate to compliance with rating legislation for resident contributions, equity implications requiring policy review, and contractual liabilities if programme changes are made without proper governance.

62. Lump Sum Contributions – Legal Compliance

- Under Part 4A of the Local Government (Rating) Act 2002, councils can allow residents to co-fund asphalt upgrades through lump-sum contributions, but only if:
- A capital project funding plan is adopted as part of the Annual Plan or Long-Term Plan.

- Written invitations are issued to eligible ratepayers, detailing costs, payment schedules, and terms.
- Equal treatment is given to those who opt in and those who do not.
- Failure to meet these statutory requirements could expose Council to legal challenge or judicial review for non-compliance.

63. Targeted Rates – Legislative Constraints
    - Targeted rates for asphalt upgrades require formal adoption through the Long-Term Plan process, including public consultation.
    - Attempting to implement targeted rates outside this process would breach the Local Government Act 2002, creating legal and reputational risk.
64. Equity and Precedent Risks
    - Offering asphalt upgrades (via lump sum or targeted rate) for selected streets could trigger equity challenges from other residents who received chipseal or never had asphalt.
    - This may lead to policy review obligations and potential claims of unfair treatment under Council's own service level policies.
65. Contractual Risks
    - Changing surfacing type mid-programme (from chipseal to asphalt) could incur contract variation costs and expose Council to contractual disputes if not managed within agreed notice periods.

TE AO MĀORI APPROACH

66. Minor works, such as road maintenance support the principles as outlined in the Te Ao Māori approach, including Manaakitanga, meaning care and safety of our people.

CLIMATE IMPACT

67. Chipseal is more climate-resilient and environmentally sustainable for NZ's conditions, while asphalt has higher embodied energy and carbon emissions, making it less favourable except for high-stress, high-traffic areas.
68. Chipseal is more resilient to climate change impacts

CONSULTATION / ENGAGEMENT

69. The annual resurfacing programme has a well practiced engagement process which in the main does a great job. It consists of broad messaging from TCC, and property level engagement driven by the contractor, but endorsed by TCC.
70. Staff recognise that community consultation, particularly about sites where CS will replace AC needs to improve, with an early warning communication sent to residents advising of the change. In addition, Council can invite feedback on the level of service issue during the preparation of the long-term plan.

SIGNIFICANCE

71. The Local Government Act 2002 requires an assessment of the significance of matters, issues, proposals and decisions in this report against Council's Significance and

Engagement Policy. Council acknowledges that in some instances a matter, issue, proposal or decision may have a high degree of importance to individuals, groups, or agencies affected by the report.

72. In making this assessment, consideration has been given to the likely impact, and likely consequences for:

    (a) the current and future social, economic, environmental, or cultural well-being of the district or region

    (b) any persons who are likely to be particularly affected by, or interested in, the matter.

    (c) the capacity of the local authority to perform its role, and the financial and other costs of doing so.

73. In accordance with the considerations above, criteria and thresholds in the policy, it is considered that the matter is of medium significance.

74. However, there is a high interest for local communities and schools who wish to see improvements for their community delivered as soon as possible.

ENGAGEMENT

75. While the communication and engagement activities surrounding the annual resealing programme have been fit for purpose historically, it is acknowledged that this needs to be revisited in light of the high community interest in resealing AC roads with CS.

76. Historically the programme was predominantly CS over CS and an 'inform' communication strategy has been appropriate. However, as the modern developer-led residential AC network has started ageing and coming up for renewal, the lack of enthusiasm for a lower level of service road from adjacent residents requires a different consultation process.

77. Staff are currently doing a review of the communication and engagement practices surrounding the annual resealing programme and intend to make changes to how we engage with the affected community, specifically where there is an intention to CS over an AC surface.

78. While this of itself will not change the community preference regarding preferred roading surfaces, it should prevent or at least reduce the escalation we have seen this year.

NEXT STEPS

79. If the recommendations in this report are adopted by the City Futures Committee, the next steps are to:

- Provide clear and targeted communications around the resurfacing programme annually;
- Implement the summer resurfacing programme for 2025/26 by applying the level of service policy.

ATTACHMENTS

1. **Appendix 1 - Reseal Programme 2025/26 - A19393166** ⇩
2. **Appendix 2 - Memo Cost options for resurfacing programme table - A19393167 - Public Excluded**

8.5 LTP 2021 - 2031 Road resealing Level of Surface Issues and Options Paper

File Number: **A11736812**

Author: **Russell Troup, Manager: Transport Network Operations**

Authoriser: **Nic Johansson, General Manager: Infrastructure**

PURPOSE OF THE REPORT

1. This paper provides information about Council's level of service for road resurfacing within Tauranga city. It includes a summary of the current level of service policy and its application; issues relating to the current approach; and, options for consideration in determining the appropriate level of service for the upcoming summer resurfacing season (2020/21) and the Long-Term Plan (LTP) 2021-2031.

RECOMMENDATIONS

That the Policy Committee:

(a) Receives the 'Road Resurfacing Level of Service Issues and Options' report;

(b) Retains the current level of service for road resurfacing, including the replacement of asphalt with chipseal on neighbourhood roads (road categories 4 and 5);

(c) Notes that the current level of service for road resurfacing aligns with NZTA's funding criteria and optimises the NZTA available subsidy; and

(d) Notes that insufficient funding for road pavement and resurfacing over the years, and the Council directed hold on replacing asphalt with chipseal has resulted in a backlog that is impacting on the road network, and approves:

(i) 2020/2021 'fit for purpose' resurfacing programme proceeding and

(ii) Funding to address historic backlog being included in the LTP 2021 – 2031 prioritisation process.

EXECUTIVE SUMMARY

2. Road resurfacing is required to contribute to the achievement of a safe transportation network. In residential areas, however, the road resurfacing level of service aligns more to amenity than transportation needs, with the quality of the road surface influencing how a local community perceives their neighbourhood. In general, asphalt roads are often perceived by communities as providing a higher level of amenity.

3. In new residential subdivisions, developers have primarily used asphalt to improve aesthetics and marketability. Asphalt surfaces also have the added advantage of providing a more durable surface that is less likely to suffer damage due to construction traffic stresses. Once subdivisions are complete, roads are vested in Council for continued management and maintenance. Changes by Council to the road surface when it is due to be renewed, can lead to some communities feeling aggrieved.

4. Council's current level of service policy determines how road resurfacing treatment is applied across the road network. The policy is described as 'fit for purpose' with asphalt being used for moderate to high volume and/or stressed roads and chipseal being used for low volume neighbourhood roads.

5. Some community members have expressed their dissatisfaction with the current level of service for road resurfacing in residential areas. The key issue being that under the Council's current level of service policy, many subdivision areas originally developed with asphalt road surfaces that are scheduled for resurfacing are to be resurfaced with chipseal. Some

community members perceive this as a decrease in the level of service provided by Council, and a decrease in the overall amenity of their neighbourhood.

6. Although there may be aesthetic benefits for communities in resurfacing neighbourhood roads with asphalt, the cost implications for Council are substantial. Cost increase is primarily a result of New Zealand Transport Authority's (NZTA) funding criteria that currently align with Council's 'fit for purpose' level of service policy. Failure to comply with NZTA expectations has implications on the level of subsidy available for resurfacing purposes, dramatically increasing costs to the ratepayer beyond what is considered affordable (costing Council up to nine times more than chipseal).

7. In addition, insufficient funding in the past for pavement and resurfacing has resulted in a backlog of work that needs to be addressed, adding more pressure to available funds.

8. It is therefore recommended that Council retains the current level of service policy and commences road resurfacing over the 2020/21 summer resurfacing season, including starting to address the backlog of work.

BACKGROUND

9. On 6 August 2019, Council considered two petitions from members of the community seeking to have their neighbourhood roads resealed with asphalt rather than the intended chipseal. As a result, Council agreed to defer replacing any asphalt surfaces with chipseal during the 2019-2020 summer resurfacing season.

10. Sites that provision chipseal over asphalt within the current 2020-2021 resurfacing programme remain on hold. Those sites are compromised and require resurfacing to prevent deterioration below an acceptable level of service that would require disproportionate maintenance cost to maintain in the interim.

11. Council also requested an issues and options paper regarding this level of service be brought to it for consideration during the Annual Plan 2020-2021 development process. This was subsequently deferred to the LTP 2021-2031 process and has resulted in the development of this issues and options paper.

ROAD RESURFACING

12. A road surface is the uppermost layer of a road pavement structure on which the traffic runs. The purpose of roading surfacing is to:

- Protect the valuable structure of the road under the surface, known as the road pavement, from water damage. If the road pavement gets wet, it will deteriorate rapidly.
- Minimise the rate of pavement wear and maintenance costs
- Provide a riding surface of suitable smoothness
- Minimise vehicle operating and maintenance costs
- Provide a dust-free surface
- Provide suitable properties for the local environment e.g. noise reduction and surface texture.

13. Council's road pavement asset replacement cost is currently valued at $419 million. It is therefore important that we manage the asset in accordance with best practice.

Key characteristics of chipseal and asphalt

14. There are two main road resurfacing approaches used in Tauranga city:

- Chipseal – a layer of loose stone chips spread over bitumen binder and rolled into place
- Asphaltic concrete (known as AC or asphalt or hot mix) – pre-made bitumen and aggregate mixture.

15. Key physical characteristics of asphalt compared with chipseal resurfacing treatments is summarised in Table 1. Please note that the 'flexibility' characteristic is particularly relevant to this level of service discussion. In this context, flexibility relates to the strength of the underlying pavement and the amount of flex a pavement has under load (called deflection, measured in millimetres). Weak pavements with high deflection can cause cracking of the surface material.

16. Asphalt, like normal concrete, has no tensile strength so needs to be supported by a very strong base pavement with little, or no deflection. Often, our local and access roads do not have very strong pavements, so the extent of pavement strengthening work needed to support asphalt is considerably greater than chipseal. Sometimes a road pavement will need to be completely replaced (pavement rehabilitation). This has upward cost implications for the decision on resurfacing treatment.

17. The impact of climate change and the associated rise of groundwater levels is expected to accelerate pavement deterioration in affected areas. In those instances, the inherent flexibility of chipseal will provide greater resistance to deterioration.

18. In comparison, chipseal is more flexible and can be effectively applied to roads where the pavement has lost some strength and demonstrates moderate deflection. However, asphalt does provide a more durable, smooth surface producing less road noise.

Table 1: A comparison of chipseal and asphalt characteristics

Characteristic	Chipseal	Asphalt
Flexibility	High	Low
Durability – high traffic / stress	Poor	Good
Durability – medium traffic / stress	OK	Good
Durability – low traffic / stress	Good	Good
Appearance / smoothness	Textured (varies depending on size of chip)	Smooth
Tyre noise	2 – 4 dB more noise than hot mix. Noise difference is negligible at speeds up to 50 km/h	OK
Loose chips	Nuisance problem initially	None
Skid resistance – safety	Good	Good
Water spray	Medium	High

19. For most residential roads, a resurfacing renewal is required on average every 12 years for chipseal and 16 years for asphalt. This varies depending on traffic volumes, stresses and other environmental factors.

CURRENT LEVEL OF SERVICE FOR ROAD RESURFACING

20. The current level of service policy adopted by Council can be described as "fit for purpose". Table 2 outlines how the current approach is applied across the six categories of roads in Tauranga city. In summary, asphalt is used for high and moderate volume roads (categories 1-3) and chipseal for lower volume neighbourhood roads (categories 4 and 5).

Table 2: Current level of service for road resurfacing across road categories

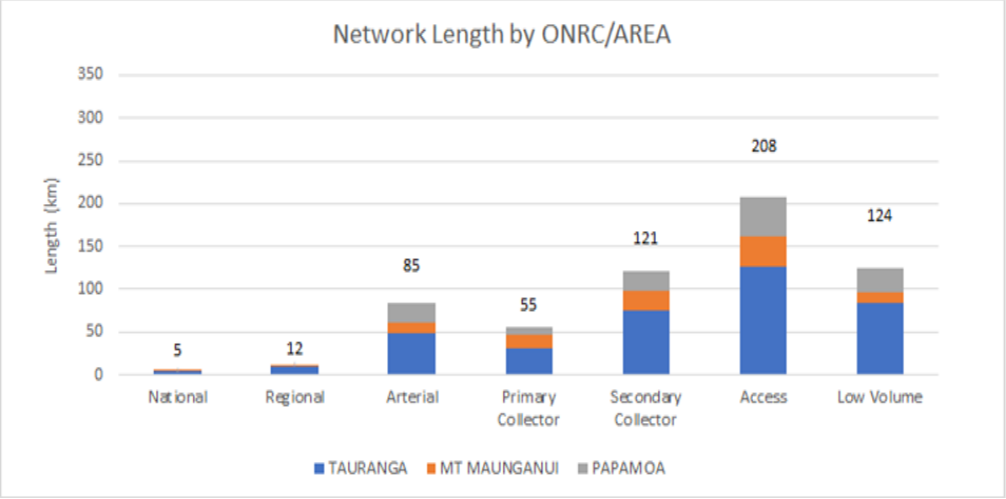
Type of road	Category	Type of resurfacing
Commercial and industrial	1A	Asphalt
Tauranga city centre, Mount Mainstreet, and Greerton village	1B	Asphalt

Arterial roads – these are roads that carry significant volumes of traffic and link major state highways, urban and commercial areas.	2	Asphalt
Collector roads – these are roads that carry moderate volumes of traffic and provide a connection between residential or neighbourhood streets and the arterial network. Most collector roads in Tauranga have more than 10,000 vehicles using them per day (vpd).	3	Asphalt
Neighbourhood roads – with greater than 200 vehicles using them per day (vpd).	4	Chip seal – except where there is a cul-de-sac head or an intersection with high wear and tear, or another valid engineering reason.
Neighbourhood roads – with less than 200 vehicles using them per day (vpd).	5	Chip seal – except where there is a cul-de-sac head or an intersection with high wear and tear, or another valid engineering reason.

21. For the purpose of this report we are primarily concerned with Category 4 and 5 roads. These are the low volume 'neighbourhood roads' that service residential subdivisions and are the subject of some community dissatisfaction. Under Council's current policy, when neighbourhood roads with asphalt are due for resurfacing, the treatment is chipseal rather than asphalt.

22. Figure 1 shows the breakdown of the road network by classification. 'Access' and 'low volume' roads, typically our neighbourhood roads, represent 54 percent of the total network length.

Figure 1: Network length by One Network Road Classification (ONRC)



Note: the number above each bar denotes the actual length of roads in that classification.

ISSUES FOR CONSIDERATION

23. Key issues for consideration for the road resurfacing level of service discussion include:

- Community expectations to retain the amenity value of asphalt road surfaces in new subdivisions, as well as perceived equity issues between the level of service provided in old and new subdivision areas.
- Continued growth of new residential subdivisions, with high amenity asphalt road surfaces, that are vested in Council for further maintenance continues to add to the current situation.
- Insufficient level of investment to address the backlog of road resurfacing needed, adding to financial constraints when considering increasing the level of service.
- NZTA expectations and funding criteria currently align with Council's current 'fit for purpose' level of service policy. Failure to comply with NZTA expectations has significant implications on the level of subsidy available for resurfacing purposes.

Community expectations road resurfacing

24. In residential areas, the road resurfacing level of service relates more to amenity than transportation needs, i.e. the quality of road surface in a neighbourhood may impact how the local community perceives their neighbourhood. Asphalt roads are generally perceived by the community as providing a higher level of amenity, including less traffic noise.

25. Amenity and perceptions of inequity in relation to the level of service provided are the two key community issues to consider in this level of service review. Table 3 describes these two issues in more detail.

Table 3: Summary of community issues relating to road resurfacing

Community issue		Description
Amenity	Noise	• Chipsealed roads with high average speeds (greater than 60km/hr) result in higher noise levels that may be a nuisance for residents. As speed reduces, the noise difference between asphalt and chipseal diminishes.
	Aesthetics	• Asphalt is more often perceived as a more aesthetically pleasing surface treatment than chipseal.
Perception of inequity	Residents	• Residents living in areas with asphalt surfaces may expect to retain this higher level of service. • Residents who have had an asphalt road resealed with chipseal may be particularly aggrieved if the policy changed to 'like for like' because they would now be subject to chip renewal going forward.
	New subdivision areas vs. older areas	• New subdivisions are being developed with asphalt road surfaces to maximise appeal for potential buyers. Some neighborhood (local and access) roads have an asphalt surface while others have chipseal depending on the resurfacing policy at the time. A change to the policy is likely to disadvantage older areas of the city which historically have been chip sealed as well as those chipsealed under a 'fit for purpose' policy in the past.

Growth issues – new subdivisions with high amenity asphalt

26. Tauranga city's growth and the continued creation of new subdivisions with high amenity asphalt roading continues to add to this community issue.

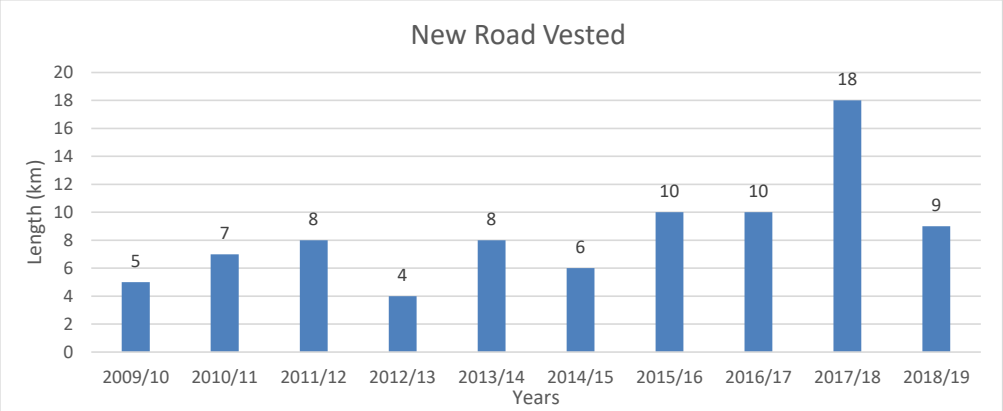
27. Tauranga city has experienced considerable and increasing levels of growth in recent decades, including many new residential subdivisions. Developers have primarily used asphalt in new residential subdivisions to improve aesthetics and marketability. They also

use asphalt to provide a more durable surface that is less likely to suffer damage due to construction traffic stresses.

28. Once subdivisions are complete, roads are vested in Council for continued management and maintenance. Figure 2 shows the growing length and number of roads vested in Council over the last ten years. This has led to a relatively high proportion of asphalt roads in Tauranga City. This was noted by NZTA in their investment audit in 2018 as an issue that needs to be addressed because it indicates deviance from best practice, 'fit for purpose' asset management that is economically optimal, particularly for neighbourhood roads[1].

29. As growth continues, the proportion of asphalt roads will also increase with new subdivisions and subsequently new roads being vested in Council to maintain. This has significant cost implications. For example, the proportion of asphalt to chipseal roads increased from 50 percent in 2017 to 55 percent in 2019. Under a 'like for like' scenario, the costs to renew with asphalt will be considerable higher (five to nine times greater for asphalt), than the 'fit for purpose' level of service currently held by Council.

Figure 2: The length and number of new roads vested in Council over a ten-year period



Level of investment is currently insufficient resulting in a backlog of roads in need of resurfacing

30. Currently, there is an annual road renewals budget of around $5 million for pavement and surfacing. Available modelling and data have confirmed that this level of investment is insufficient to maintain the road surface at a level that prevents pavement deterioration. The road pavement is a high-value asset ($527.4 million), which costs significantly more to replace (or rehabilitate) than resurfacing.

31. This historic underinvestment in resurfacing has resulted in a current backlog of approximately 100km of roads in need of resurfacing (refer Attachment A, Figure A).

32. Based on the expected life of a road surface, we should be resurfacing about 6 to 8 percent of our network each year[2]. In recent years, we have only resurfaced between 1.6 and 4.4 percent per annum (refer Table 4).

[1] Reference: NZTA Investment Audit Report May 2019
[2] Generally assuming a 610km road length divided by expected life of 12-16 years, then expressed as a percentage of the overall network length gives a rough order renewal percentage of 6-8%.

Table 4: Proportion of network resurfaced annually

Description	16/17	17/18	18/19	19/20	20/21 (Programmed)
Chipseal % of Network	2.8%	3.4%	1.9%	1.1%	2.9%
Asphalt % of Network	0.5%	1.0%	0.6%	0.5%	2.4%
Total % of network Delivered	3.3%	4.4%	2.5%	1.6%	5.3%

33. This substantial backlog of renewal sites across the road network typically have compromised waterproofness making them susceptible to damage (e.g. potholes and depressions). Those sites disproportionately contribute to the gradual decline in overall network condition that we are seeing through the data we are collecting and physical asset inspections (Attachment A, Figure B).

34. If this under-investment is not addressed, potholes will become increasingly prevalent as the pavement fails because of water ingress (refer Attachment A, Figure C). Further, the cost to repair will increase significantly with the need to renew the costly pavement ($80-150/m2), not just the road surface.

35. Although the aim is to address the historic backlog through the 2021-31 Long Term Plan (by optimising investment and increasing funds from $5 million to $7 million), there are also funding implications for the resurfacing level of service and an already stretched budget.

NZTA subsidy implications on costs and funding

36. In broad terms asphalt surfacing is around five times more expensive than chipseal. When NZTA subsidy eligibility is considered, asphalt is more than nine times more expensive than chipseal to install. Taking into account the fact that asphalt lasts longer than chipseal, the per annum cost, and net present value (NPV) is still considerably more expensive (refer Attachment B).

37. NZTA offer a 51 percent Funding Assistant Rate (FAR) subsidy for all resurfacing to achieve a ‘fit for purpose’ level of service. Under our current ‘fit for purpose’ policy, our resurfacing programme is endorsed by NZTA and optimally subsidised. NZTA have confirmed that they would not endorse a ‘like for like’ level of service (refer Attachment C for a letter confirming NZTA’s position).

38. If the Policy Committee were to adopt a ‘like for like’ or ‘all asphalt’ policy, NZTA are only willing to fund asphalt up to a ‘fit for purpose’ basis beyond road category three. This means that for category four and five roads the cost difference between a chipseal and asphalt resurface would be borne fully by Council. This is expected to be approximately $24 per square metre replacement cost and $1.37 per square metre annual cost (refer Table 5).

Table 5: Average cost and expected life by surface type

Surface Type	Average Cost	Average expected life	Average gross cost per m2 per year
Asphalt	$30/m2	16	$1.87
Chipseal	$6/m2	12	$0.50

39. Table 6 illustrates the stark cost implications observed for Category 4 and 5 roads (low volume / access / neighbourhood roads) where NZTA only subsidise to the ‘fit for purpose’ level (51% of the chipseal cost rather than 51% of asphalt cost on Category 4 & 5 roads). This means that if asphalt is used, the NZTA subsidy remains at the chipseal level ($3.06), leaving a shortfall of approximately $24/m2 that needs to be funded by the ratepayer as NZTA’s ‘fit for purpose’ criteria are not met. For a nominal 500 meter road, the net cost to

the ratepayer of resurfacing a Category 4 or 5 road would be $11,760 for chipseal compared to $107,760 for asphalt.

Table 6: A comparison of resurfacing with chipseal and asphalt - NZTA subsidy implications and costs to the ratepayer

	Chipseal (per square metre)	**Asphalt (per square metre)**
NZTA subsidised (meets their "fit for purpose" criteria)		
Gross cost	6	30
Subsidy @ 51%	3.06	15.30
Net cost (to ratepayer) / m2 **ELIGIBLE FOR FULL SUBSIDY - Net cost (to ratepayer) for nominal 500m long road, 8m wide (4000m2). FULL SUBSIDY**	2.94 $11,760	14.70 $58,800
Per annum net cost (to ratepayer) per year of seal life for nominal 500m long road, 8m wide.	$980	$3,675
Road category 4 & 5 (local and access roads)	*Fit for purpose = chipseal (i.e. Eligible for full subsidy)*	*Like for like = Asphalt (i.e. Not eligible for full subsidy)*
Gross cost	6	30
Subsidy	3.06	3.06*
Net cost (to ratepayer) / m2	2.94	26.94
Differential cost per square metre between policy options. This cost is fully borne by TCC.		$24
Net cost (to ratepayer) for nominal 500m long road, 8m wide (4000m2)	$11,760	$107,760
Per annum net cost (to ratepayer) per year of seal life for nominal 500m long road, 8m wide.	$980	$6,735

**subsidy amount up to the value 'fit for purpose' only as per NZTA advice*

OPTIONS ANALYSIS

40. Three level of service options are presented for the Policy Committee's consideration in relation to the six road categories across Tauranga city:

- Option 1 – 'Status quo': 'fit for purpose' policy as outlined in the current policy
- Option 2 – 'Like for like' policy: resurfacing roads with the same material as currently used
- Option 3 – All asphalt: resurfacing all roads with asphalt

Option 1 – Status Quo – Fit for Purpose (preferred option)

41. Option 1 represents the status quo with no change to the level of service policy. The level of service provided for each road category is:

- Categories 1, 2 and 3 roads (or greater than 10,000 vehicles per day) are resurfaced with asphalt.
- Categories 4 and 5 roads are resurfaced with chipseal (except where there is a cul-de-sac head, intersection with high wear and tear, or a valid engineering reason).

42. Table 7 summarises the key advantages, disadvantages, risks and costs associated with this option.

Table 7: Advantages, disadvantages, risks and costs associated with Option 1.

OPTION 1 – STATUS QUO	
Advantages	**Disadvantages**
Council maximises NZTA subsidy	Reduced / changed level of service in neighborhoods that previously had asphalt
Consistent level of service is provided across city	Some residents may feel dissatisfied with the level of service provided, especially where chipseal replaces asphalt. This may result in negative media attention.
Effective and responsible use of financial resources	
Greater length of resurfacing can be achieved	
Improved ability to address the historical backlog of renewal need	
Asphalt is still applied where it is considered appropriate	
General ratepayers satisfied with cost savings	
Costs remain the same.	
Key risks	
• Community risk – some sectors of the community will remain dissatisfied with this decision. This may result in negative media attention. Community expectations would need to be managed through clear communication outlining the reasoning for the policy decision.	
Risk mitigation measures for consideration include: • Council could change the Infrastructure Development Code to require the use of chipseal in residential subdivisions to mitigate this issue. However, the initial asphalt surfacing is not at the Council's cost and its durability is more appropriate to mitigate risk of damage from construction/building traffic stresses during the intensive building phase. • Requiring every LIM issued for a property in a neighbourhood road (Category 4 or 5) that has an asphalt surface to contain advice to the purchaser of the estimated year when the street will be due for resurfacing, and that chipseal will be applied.	
Costs for Option 1: 10 Year programme level indicative cost analysis	

	Road categories 1, 2 and 3	**Road categories 4 and 5**	**Total cost**
Overall programme Gross cost	$33M	$32M	**$65M**
NZTA subsidy	$16.8M	$16.2M	**$33M**
Net cost to Council	$16.2M	$15.2M	**$32M**

Option 2 – 'Like for Like' or road resurfacing with the same material that is existing (either asphalt or chipseal)

43. Option 2 represents a change to the level of service provided. This 'like for like' option represents resurfacing roads with the same material as currently used. The level of service provided for each road category would include:

    - Categories 1, 2 and 3 roads (or greater than 10,000 vehicles per day) are resurfaced with asphalt.
    - Categories 4 and 5 roads are resurfaced either chipseal or asphalt depending on what is existing.

44. Table 8 summarises the key advantages, disadvantages, risks and costs associated with Option 2.

Table 8: Advantages, disadvantages, risks and costs associated with Option 2.

OPTION 2 – LIKE FOR LIKE	
Advantages	**Disadvantages**
Amenity values remain unchanged in residential areas with asphalt (smooth roads with high aesthetic qualities and less noise)	NZTA will not fund above 'fit for purpose' treatments, so all additional cost is borne by ratepayers
Some residents satisfied with level of service provided	Community perceptions relating to inequitable and inconsistent decision making. This may particularly apply to residents who have recently had chipseal resurfacing over asphalt on their neighborhood road
	Over-investment in both cost and level of service from an optimal asset management perspective resulting in low value for money outcomes
	As growth continues, the proportion of the network in asphalt will increase with associated higher renewal costs
	Considerably higher costs to manage the same length of network with increased costs associated with maintenance of the underlying pavement
	Higher depreciation costs
	Ratepayers are dissatisfied with increased funding spent on residential subdivision road resurfacing
Key risks	
• Community risk – Ratepayers are dissatisfied with increased funding spent on residential subdivision road resurfacing at the cost of projects perceived to be more important. • Reputational risk – Council's inconsistent decision making and over-investment in a level of service that provides low value for money for ratepayers in this financially constrained environment.	
Costs for Option 2: 10 Year programme level indicative cost analysis	

	Road categories 1, 2 and 3	**Road categories 4 and 5**	**Total cost**
Overall programme Gross cost	$33M	$57M	**$90M**
NZTA subsidy	$16.8M	$16.2M	**$33M**
Net cost to Council	$16.2M	$40.8M	**$57M**

Option 3 – 'All Asphalt': resurfacing all roads with asphalt

45. Option 3 represents a change to the level of service provided. This option provides for the entire road network to be renewed with asphalt. Over time, all chipseal would be converted to asphalt as renewal need arises.

46. The level of service provided for each road category would include:

- Categories 1, 2, 3, 4 and 5 roads are all resurfaced with asphalt.

47. Table 9 summarises the key advantages, disadvantages, risks and costs associated with Option 3.

Table 9: Advantages, disadvantages, risks and costs associated with Option 3.

OPTION 3 – RESURFACING ALL ROADS WITH ASPHALT	
Advantages	**Disadvantages**
Amenity values remain unchanged in residential areas already with asphalt and improve in areas currently with chipseal (smooth roads with high aesthetic qualities and less noise)	NZTA will not fund above 'fit for purpose' treatments, so all additional cost is borne by ratepayers
Overtime, this results in the same level of service provided across the entire network	Any existing equity and inconsistency issues remain until the next resurfacing renewal. This may cause residents to pressure Council to expedite renewals ahead of when it is technically optimal.
Slightly longer life expectancy of road resealing.	Over-investment in both cost and level of service from optimal asset management perspective – sub-optimal value for money outcomes.
Improvements in overall road network durability.	As growth continues, the proportion of the network in asphalt will increase with associated higher renewal costs.
	Considerably higher costs to manage the same length of network with increased costs associated with maintenance of the underlying pavement
	Higher depreciation costs
	Ratepayers are dissatisfied with increased funding spent on residential subdivision road resurfacing

Key risks

- Community risk – Ratepayers are dissatisfied with increased funding spent on residential subdivision road resurfacing at the cost of projects perceived to be more important.
- Reputational risk – Council's inconsistent decision making and over-investment in a level of service that provides low value for money for ratepayers in this financially constrained environment.

Costs for Option 3: 10 Year programme level indicative cost analysis

	Road categories 1, 2 & 3	Road categories 4 & 5	Total cost
Overall programme Gross Cost	$39M	$90M	**$129M**
NZTA subsidy	$19.8M	$13M	**$32.8M**
Net cost to Council	$19.2M	$67M	**$86.2M**

Summary of Options Analysis

48. A comparison across the three options for all road categories is summarised in Table 10 below. It is clearly illustrated that although Options 2 and 3 may result in higher levels of

amenity for category 4 and 5 roads (and a consistent level of service for Option 3) across the roading network, the total costs are significantly higher. The cost to Council for a 500 meter road is $11,760 under Option 1, compared to $107,760 for both Option 2 and Option 3.

49. Continuing to resurface neighbourhood roads using chipseal represents the most cost effective and appropriate option. Option 1 is therefore the preferred option. This requires no change to the level of service policy.

Table 10: A comparison of key factors for each option

	Option 1: Status Quo	**Option 2: Like for Like**	**Option 3: All asphalt**
Categories 1, 2 & 3	Asphalt	Asphalt	Asphalt
Categories 4 & 5 (local and access roads)	Chipseal	Asphalt or chipseal depending on existing surface	Asphalt

The following relate to affected roads (Category 4 & 5) only:		
Surfacing Treatment	**Chipseal (fully subsidised)**	**Asphalt (not fully subsidised*)**
Cost effectiveness / financial prudence	High	Low
Amenity	Moderate	High
Consistent level of service across the network	Moderate	Low
Indicative cost to TCC (per m2) after NZTA subsidy	$2.94	$26.94
Cost to TCC for nominal road 500m long, 8m wide (4000m2) after NZTA subsidy	$11,760	$107,760
Cost per annum for life of seal (nominal road 4000m2)	$3,167	$9,113

*Asphalt treatment does not meet NZTA 'fit for purpose' funding criteria, therefore the subsidy applied matches that for a chipseal treatment only. Table 6 provides further detail.

**Detailed NPV calculations are provided in attachment B.

50. The recommended, 'fit for purpose' option also aligns with majority of other similar Council approaches to road resurfacing. Most Councils in New Zealand have adopted a 'fit for purpose' resurfacing policy in line with NZTA funding assistance criteria. This includes the four major cities with network configuration or growth similar to Tauranga City (Auckland, Wellington, Christchurch and Hamilton). There are a number of smaller councils who have adopted a 'like for like' policy approach, such as Hurunui District Council, Mackenzie District Council and Ashburton District Council. These smaller networks have a lot of unsealed and chipseal roads, so retaining similar surfacing is a more cost-effective option. Further, these smaller districts tend to have very little asphalt roads and therefore residents do not have the same expectation for asphalt on neighbourhood roads. In addition, Selwyn District Council advised that they have experienced considerable growth in recent times resulting in asphalt being used in new subdivision areas. Consequently, Selwyn District Council are reviewing their 'like for like' policy as a result of increased cost, technical and equity issues.

FINANCIAL CONSIDERATIONS

51. Financial considerations are detailed above in both the 'Issues for Consideration' and 'Options Analysis' sections of this report. The cost impact on the overall ten year programme and available funding sources are summarised below.

Cost impact on overall 10 year programme

52. The overall cost implication of the reseal level of service is outlined within the three options presented in this report. The summary table below (Table 11) compares the cost to complete Council's ten-year renewal programme under the various option scenarios considered in this report. A key consideration is the cost to Council once subsidy is considered. The bottom right cell of each option presents a considerable difference in cost to Council.

Table 11: Cost implications for Council on the ten-year renewal programme

	Overall programme	NZTA subsidy	Net cost to Council
Option 1			
Road Categories 1, 2 & 3	$33M	$16.8M	$16.2M
Road Categories 4 & 5	$32M	$16.2M	$15.2M
Total	$65M	$33M	**$32M**
Option 2			
Road Categories 1, 2 & 3	$33M	$16.8M	$16.2M
Road Categories 4 & 5	$57M	$16.2M	$40.8M
Total	$90M	$33M	**$57M**
Option 3			
Road Categories 1, 2 & 3	$39M	$19.8M	$19.2M
Road Categories 4 & 5	$90M	$13M	$67M
Total	$129M	$32.8M	**$86.2M**

Other relevant considerations:

53. Vested assets each year are typically asphalt, so over time the cost for a 'like for like' or 'all asphalt' option increases.

54. A net present value (NPV) assessment between chipseal and asphalt that includes provision for maintenance and pre-seal repair is included in attachment B. It shows that the whole of life cost of asphalt, in today's dollars, is considerably more than chipseal, refer Table 12. Therefore, where conditions permit (i.e. traffic volumes and stresses), chipseal is the most cost-effective solution and provides the lowest whole of life cost for Council.

Table 12: Net Present Value (NPV) summary comparison between Asphalt and chipseal

	Chipseal	Asphalt
7 year NPV	$28,200	$123,460
30 year NPV	$55,716	$182,930
48 year NPV (aligns with an assumed pavement life / renewal)	$61,832	$206,661

55.

Available funding sources

56. The roading renewal activity is funded as part of the Council's capital programme and is provisioned through Council's Long Term Plan and Annual Plan.

57. As discussed, the current 'fit for purpose' policy is endorsed by NZTA and therefore optimally achieves a 51% Funding Assistance Rate for the full resurfacing programme each year.

58. If Council were to adopt Option 2 or Option 3, the additional cost for a higher level of service would be borne by Council and not subsidised by NZTA.

59. If Council wished to proceed with either Option 2 or Option 3, Council could consider targeted rates to offset these additional costs. An indication of the requisite targeted rates for a nominal road 500m long, 8m wide is summarised in Table 12 below. Further cost details are also provided in attachment D.

60. Council would need to consider whether such a targeted rate should be implemented across the whole of the city (following public consultation), or by suburb or street where a specified level of community support is expressed. It should be noted that administrative overhead cost increases relative to the complexity of the targeted rate.

Table 12: Option 2 and 3: Targeted rates dependent on housing density and road surface life

Total cost to be recovered		**$133,960.00**
Total Annual Target Rate	16 years @ 50 properties	$192.57
Total Annual Target Rate	16 year @ 60 properties	$160.47
Total Annual Target Rate	16 years @ 40 properties	$240.71
Total Annual Target Rate	20 years @ 50 properties	$164.25

LEGAL IMPLICATIONS / RISKS

61. Key risks associated with each option are identified within the 'Options Analysis' section. There are no legal implications arising from this report.

SIGNIFICANCE

62. Under the Council's Significance and Engagement Policy, the preferred option is of 'low' significance as it represents a continuation of a level of service already provided.

63. If the Policy Committee decide to adopt an alternative option, that decision would result in a change to the level of service and is likely to be considered 'high' significance.

CONSULTATION / ENGAGEMENT

64. If the Policy Committee proceeds with the recommendations contained in this report, additional community consultation beyond the usual resurfacing programme process is not considered necessary because there is no change from the current policy. It should be noted that this decision is likely to result in some sectors of the community being dissatisfied, and it is therefore suggested that community expectations be managed through clear and targeted communications outlining the reasons for the policy decision.

65. The primary submitters of the two petitions received by Council on 6 August 2019 have been notified by TCC staff of the decision being considered at this Policy Committee meeting.

66. If the Policy Committee decide to proceed with an alternative option (including Options 2 and 3), a high level of community engagement would be appropriate as there is likely to be high public interest in a change to the level of service. This could be best achieved through the upcoming LTP consultation process.

NEXT STEPS

67. If the decisions in this report are adopted by the Policy Committee, the next steps are to:

- Provide clear and targeted communications detailing the reasons for the decision;
- Undertake Council's normal resurfacing notification process with affected communities; and
- Implement the summer resurfacing programme for 2020/21 by applying the level of service policy.

ATTACHMENTS

1. **Attachment A Background information regarding resurfacing backlog and network condition - A11885509**
2. **Attachment B Net Present Value Assessment - compares chipseal and asphalt - A11885510**
3. **Attachment C Letter from NZTA confirming funding assistance implications - A11885511**
4. **Attachment D Target Rate calculation - A11885513**

Resolution to exclude the public

RECOMMENDATIONS

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

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

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48 for the passing of this resolution
Confidential Attachment 2 - 9.9 - CHIPSEAL OVER ASPHALT IN THE 2025/26 RESEAL PROGRAMME	s7(2)(b)(ii) - The withholding of the information is necessary to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information s7(2)(h) - The withholding of the information is necessary to enable Council to carry out, without prejudice or disadvantage, commercial activities	s48(1)(a) the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 6 or section 7