

# Recommended Levels of Service for Transportation Asset Management Plan

Tuesday, 7 June 2022  
The Committee - Pre-Council  
Discussion Forum

Strategic Alignment - Strong Economies

**Program Contact:**  
Geoff Regester, Acting Associate  
Director Infrastructure

Public

**Approving Officer:**  
Tom McCready, Director City  
Services

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## EXECUTIVE SUMMARY

The City of Adelaide (CoA) is the custodian of assets which provide the community with services that are essential to their quality of life. Asset Management is a key business function for all councils to manage their infrastructure portfolio responsibly and effectively. We coordinate infrastructure related objectives through our Asset Management Plans, per legislation Section 122 of the *Local Government Act 1999 (SA)*.

This report presents the recommended asset management strategies and levels of service for road, kerb and water table, footpath, bridge and traffic signal infrastructure assets. Recommendations have utilised predictive modelling software within our new Asset Management System and consider recent community engagement results and the current condition of the transportation network. A recommended asset management strategy is presented for each transportation asset category, which would inform the development and updates to the Transportation Asset Management Plan and re-forecast the Long Term Financial Plan (LTFP).

The recommended levels of service allow for the continued provision of a safe and efficient transportation network, providing services in line with community expectations and ensure we manage our assets in a financially sustainable manner over the short, medium and long term. The estimated renewal requirements over the next 10 years are \$28.4m p.a. (annual average). This is approximately \$6.3m higher (28%) than the current LTFP allocation for transportation assets. It should be noted that years 6-10 include a significant standalone investment for Adelaide Bridge.

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The following recommendation will be presented to Council on 14 June 2022 for consideration

### That Council

1. Notes the results of the community consultation undertaken to benchmark current user satisfaction for transportation assets.
  2. Approves the development of the Transportation Asset Management Plan based on the planning principles and recommended management strategies presented within this report and Attachment A to Item # on the Agenda for the meeting of the Council held on 14 June 2022.
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## IMPLICATIONS AND FINANCIALS

City of Adelaide 2020-2024 Strategic Plan	<p><a href="#">Strategic Alignment – Strong Economies</a></p> <p>The approval of the planning principles and recommended asset management strategies presented within this report will inform the development and updates to the Transportation Asset Management Plan and re-forecast the LTFP. These Strategic Management plans support the delivery of our strategic objectives, ensuring we continue to create a beautiful, diverse city that celebrates its natural, cultural, and built heritage.</p>
Policy	<p>Asset Management Policy</p> <p>Strategic Asset Management Plan</p> <p>Public Communication and Consultation Policy</p>
Consultation	<p>In November 2021, an engagement process was undertaken with City residents and visitors to better understand and measure levels of satisfaction of users who utilise the services provided by our transportation infrastructure. The results are presented within this report and inform the recommended levels of services/asset management strategies.</p>
Resource	<p>Not as a result of this report</p>
Risk / Legal / Legislative	<p>The review and update of Asset Management Plans, including levels of service, is required every four years or within two years of a general Council election pursuant to section 122 of the <i>Local Government Act 1999 (SA)</i>.</p>
Opportunities	<p>The review of transportation levels of service provides an opportunity to ensure transportation assets are meeting the community's current and future requirements.</p>
21/22 Budget Allocation	<p>Not as a result of this report</p>
Proposed 22/23 Budget Allocation	<p>Not as a result of this report</p>
Life of Project, Service, Initiative or (Expectancy of) Asset	<p>There are implications for the future lifecycle management of our transportation network, including operation, maintenance, renewal and disposal of assets. These will be presented and discussed in detail within the Transportation Asset Management Plan.</p>
21/22 Budget Reconsideration (if applicable)	<p>Not as a result of this report</p>
Ongoing Costs (eg maintenance cost)	<p>There are implications for the future lifecycle management of our transportation network, including operation, maintenance, renewal and disposal of assets. These will be presented and discussed in detail within the Transportation Asset Management Plan.</p>
Other Funding Sources	<p>Once Asset Management Plans and the re-forecast Long Term Financial Plan are endorsed by Council, external funding opportunities will continually be pursued to offset costs, bring forward works, or provide for additional enhancements.</p>

# DISCUSSION

1. The purpose of this report is to present the recommended asset management strategies and levels of service for the City of Adelaide's (CoA) transportation assets which include road, footpath, bridge and traffic signal infrastructure assets. We have utilised predictive modelling software from our new Asset Management System and considered recent community engagement. An asset management strategy is presented for each transportation asset category.

## Background

2. Our transportation assets include roads, kerb and water table, footpaths, bridges and traffic signals. These assets are vital to the health and wellbeing of our community and enable pedestrians, cyclists, motorists and public transport users to move into and around the city and park lands. This significant network of infrastructure is valued at approximately \$930 million and has been developed over time through major investment across multiple generations.
3. With Council's strategic objectives to create a beautiful and diverse city that is welcoming, inclusive and accessible to all, it is critical to ensure that our transportation network continues to be appropriately managed, ensuring we provide appropriate services and benefits for both current and future generations.
4. We are currently reviewing our Asset Management Plan for Transportation, which is legislated in the *Local Government Act 1999 (SA)*. A level of service review is one of the first steps in this process. Other asset classes will follow in subsequent reports.
5. Asset Management Plan timelines and the proposed approach for community engagement on Levels of Service were presented through a workshop with Council Members at The Committee on 19 October 2021 ([Link 1](#)).
6. Background to concepts of 'Levels of Service' were presented to The Committee through the Business Plan and Budget Workshop on 22 February 2022 ([Link 2](#)).

## Strategic Context

7. This report discusses the levels of service for our existing assets. The adopted levels of service will be used to guide the asset planning within Asset Management Plans and inform required updates for the LTFFP.
8. New and upgraded infrastructure is driven by Council endorsed corporate strategies and incorporated into the Service Delivery Plan, where initiatives are endorsed annually through the Business Plan and Budget.
9. The primary objective of asset renewal is to intervene at the optimal time to minimise whole of life asset costs (increased capital costs, growing maintenance costs) and asset risk, to ensure services continue to be provided in-line with our community's expectation.
10. The levels of service and associated estimated costs in this report are for asset management planning purposes only. This report is not intended to result in decision making on future budgets. This will be formally done through the Asset Management Plan and the Business Plan and Budget. Forecast costs are based on current asset unit rates, condition, and useful lives, all of which are reviewed periodically.

## Community Consultation

11. In November 2021, CoA undertook an engagement process with City residents and visitors to better understand and measure levels of satisfaction of users who utilise the services provided by our transportation infrastructure.
12. The insights from the Survey are intended to be used to identify where current levels of service are not meeting the community's expectation. This will enable recommendations to be made to Council regarding future resourcing requirements for specific services.
13. The engagement process was primarily undertaken through questionnaire surveys (113 total respondents), where information was collected online using the YourSay platform (61 respondents), as well as through on street intercepts at various locations across the City (52 respondents). Additional information and feedback relating to CoA's infrastructure assets was also collected through the 2021 Resident Survey (318 comments) and engagement with the Disability Access and Inclusion Panel (44 comments).
14. To ensure that data was collected to enable a clear line of sight for decision making purposes, the questionnaire was structured to differentiate responses received from the various user groups who utilise the transportation network (ie cyclists, pedestrians and motorists) as well as differentiate responses relating to the City's Streets and the Park Lands.
15. A summary of this feedback is presented in **Attachment A**.

## Renewal Intervention Levels

16. Renewal intervention levels for each asset class have been established considering feedback from community consultation, risk management principles, engineering assessments, and the objective of minimising whole of life costs. A summary of this approach is presented in **Attachment A**.

## Predictive Scenario Modelling

17. Our Asset Management System's predictive modelling software has been used to inform recommended levels of service for each asset class through evidence-based decision making.
18. Evidence based decision making enables optimised capital renewal expenditure and service level outcomes.
19. This has allowed us to predict the deterioration of our assets over the short, medium and long term, as well as model multiple scenarios to evaluate and assess the relationship between levels of service, cost and risk.
20. Scenario models were developed for varying levels of investment in each of the asset classes. Scenarios included the current LTFP, no investment, budget equal to annual depreciation, budget equal to 50% of annual depreciation, as well as unconstrained funding (refer Appendix A).

## Roads and Kerb & Water Table

21. Our road network is valued at \$405m and is approximately 130 kilometres in length. Majority of these road assets have asphalt surfaces, however we have a small percentage of concrete, brick paved and rubble roads.
22. The overall condition of the road network is currently considered to be in good to fair condition (refer **Attachment A** - slide 10). Ongoing investment will be required to sustainably manage the road network as it deteriorates.

## Footpaths

23. Our footpath network is valued at \$283m and is approximately 290 kilometres in length. Assets are located in both City Streets and in the Park Lands, where the predominant footpath materials within the network are asphalt, concrete flagstone pavers and brick pavers, with smaller quantities of exposed aggregate concrete, slate, granite and quarry rubble footpaths.
24. The overall condition of the footpath network is currently considered to be in a fair condition (**Attachment A** – slide 18). There are a significant number of assets that are rated in condition 3 (fair), which are categorised as aging assets with defects requiring regular and/or significant maintenance to reinstate service.
25. Due to the significant number of assets rated in a fair condition that are anticipated to reach end of life within the 20-year planning period, further analysis will need to be undertaken through predictive modelling to ensure short and medium-term footpath investment requirements are equitably balanced.

## Traffic Signal Network

26. Our traffic signal network is valued at approximately \$60m and is made up of 134 signalised intersections. Each site is generally made up of a controller box, underground cables and conduits, traffic signal poles, lanterns, push buttons and audio tactiles.
27. The overall condition of the traffic network is currently considered to be in a fair to poor condition (**Attachment A** – slide 25). To ensure that risks are managed and the network remains operational, accelerated works strategies will be further investigated through predictive modelling.

## Bridges

28. Our bridge portfolio is valued at \$179m and consists of 5 major road bridges, 3 major footbridges and 44 minor Park Lands footbridges.
29. Our bridge asset portfolio is generally rated in a fair overall condition. Adelaide bridge is projected to reach end of life and require replacement within the 10-year planning period. Ongoing dialogue will be required with all levels of Government, to negotiate funding contributions and undertake detailed project planning with consideration of the potential to extend the tram network into North Adelaide.
30. The recommended renewal intervention strategy is based on remaining life estimates provided through regular engineering assessments, monitoring and recommendations. When major structural components are identified as approaching end of life, an options analysis assessment is typically undertaken to evaluate the feasibility of available treatments including rehabilitation and replacement.
31. The recommended strategy highlights Adelaide Bridge approaching end of life, with estimated treatment occurring over 2027/28 and 2028/29 (**Attachment A** - Slide 33). Park Lands minor footbridges and minor component renewals/rehabilitation are also required over the 20-year planning period.

32. It is anticipated there will be minimal impact on existing maintenance and operational costs, provided Adelaide Bridge is renewed and/or maintained.

### Summary & Next Steps

33. The recommended levels of service allow for the continued provision of a safe and efficient transportation network, providing services in line with community expectations and ensuring we manage our assets in a financially sustainable manner over the short, medium and long term. The estimated renewal requirements over the next 10 years are \$28.4m p.a. This is approximately \$6.3m higher than the current LTFP allocation (**Attachment A** - slide 35). It should be noted that years 6-10 include a significant standalone investment for Adelaide Bridge. This increase is attributed to:
- 33.1. Additional asset renewal requirements that need to be addressed in this planning period
  - 33.2. Increase in asset replacement costs
  - 33.3. Increase in the quantity of assets we manage since last Asset Management Plans were created
34. It is anticipated that existing maintenance and operational budgets will be sufficient if the recommended strategies are adopted.
35. Pending Council endorsements of the recommendations within this report, the next steps will involve integrating the planning principles and recommended management strategies into the Transportation Asset Management Plan.
36. A draft Transportation Asset Management Plan would return to Council in August 2022, requiring an approval to progress into the final stage of community consultation.
37. Asset Management Plans will be updated annually to account for any material changes in costs or outcomes.

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## DATA AND SUPPORTING INFORMATION

**Link 1** – Levels of Service Committee Workshop 19 October 2021

**Link 2** – Business Plan and Budget Workshop 22 February 2022

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## ATTACHMENTS

**Attachment A** – Transportation Levels of Service

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