

MEDIA RELEASE**9 June 2017****Maintenance of selected road infrastructure assets**

ACT Auditor-General, Dr Maxine Cooper, today presented a performance audit report on **Maintenance of selected road infrastructure assets** to the Speaker, for tabling in the ACT Legislative Assembly.

Dr Cooper says 'Aging road assets and budget limitations have resulted in a backlog of road pavement repairs. Addressing the backlog will likely take years and is best guided by a long-term strategy which needs to be developed.'

The road repair backlog for 2015-16 has been calculated to cover 2 104 909m² and has grown by over 400 percent since 2010-11.

The audit also found that approximately 77 percent of community paths in Canberra are not subjected to regular inspections, with maintenance of these most commonly undertaken in response to complaints, and that a high number of traffic signal components were operating beyond their design life.

Dr Cooper says 'A planned program for inspecting community paths is needed and attention needs to be given to replacing old traffic signal components'.

The audit recognised Roads ACT's progression of an initiative for integrating engineering and environmental considerations in managing streetlight maintenance, with Roads ACT currently considering an Energy Performance Contract (to commence in the second half of 2017), with a private sector operator, that focuses on achieving energy efficiencies.

The sound governance and strategic asset framework that supports Roads ACT was also noted.

The Summary of the **Maintenance of selected road infrastructure assets** audit, with audit conclusions, key findings and the twenty recommendations is attached to this media release.

Copies of **Maintenance of Selected Road Infrastructure Assets: Report No. 5/2017**, are available from the ACT Audit Office's website www.audit.act.gov.au . If you need assistance accessing the report please phone 6207 0833 or go to 11 Moore Street, Canberra City.

EXTRACT OF SUMMARY CHAPTER

Overall conclusion

Aging road assets and budget limitations have resulted in a backlog of road pavement repairs. Reducing this backlog will likely take years and is best guided by a long-term strategy. Additionally, attention needs to be given to replacing old traffic signal components and a comprehensive inspection program for community paths developed and implemented. Roads ACT, given the lack of a comprehensive inspection plan, have adopted a practical risk based approach to managing paths, although this needs updating.

The overall sound governance and strategic asset management framework supports Roads ACT in undertaking its maintenance activities. Roads ACT's progression of an initiative for integrating engineering and environmental considerations in managing streetlighting maintenance is recognised. However, more routine improvements in the delivery of its maintenance activities are needed, including giving particular attention to how data collection and storage, and the subsequent development of operational plans, are managed.

Chapter conclusions

GOVERNANCE

Overall sound governance arrangements are in place to support road infrastructure asset maintenance activities. However, these could be improved by strengthening risk management practices and performance reporting. While there are effective risk identification practices in place to identify key risks, the appropriateness of some of the mitigation strategies outlined in Roads ACT's Risk Register need to be reassessed.

Roads ACT's Business Plan can be improved by incorporating the operational delivery targets that Roads ACT works towards for each asset class. The accountability indicators relating to road maintenance are appropriate. However, public reporting on maintenance could be improved by including additional indicators on the condition of road infrastructure assets. Additional accountability indicators relating to paths maintenance also need to be developed and publically reported.

STRATEGIC ASSET MAINTENANCE PLANNING

Roads ACT's Strategic Asset Framework and the 2013 Strategic Asset Management Plan align with the requirements of the ACT Government's Asset Management Guidelines. Priority needs to be given to updating the 2013 Strategic Asset Management Plan to ensure the ACT Roads

completion target date of June 2017 is met.

The Strategic Asset Management Plan is supported by operational plans. Most of these are out-of-date and there is no such plan for road pavement. Operational procedures have relied on the corporate knowledge of long-term staff. This approach creates an unnecessary risk of procedures being undertaken inadequately should key staff resign.

The Integrated Asset Management System (IAMS) is not routinely updated with data for all asset types resulting in a reliance on the use of offline paper asset condition data. This needs to be addressed to maximise efficiencies from having IAMS.

Consideration of environmental issues associated with maintenance can be improved by Roads ACT maintenance contracts (or service standards for in-house staff) specifying environmental requirements. Without these there are inadequate environmental controls.

When a query or complaint is received from the community, Roads ACT need a formal process for providing feedback when work has been undertaken to address the issue.

ROAD PAVEMENT

While Roads ACT reported in their 2015-16 annual report that 90 percent of territorial roads in the ACT were in good condition, there is a significant maintenance backlog for road pavement. This backlog has increased by more than 400 percent since 2010-11 and amounts to approximately two million square meters of road pavement needing maintenance (equivalent to 9.0 percentage of the total road pavement) which Roads ACT estimated would cost \$53 million in 2015-16 and increase to \$71 million in 2019-20.

The management of this backlog, while unlikely to be addressed in the short-term, needs to be guided by a long-term strategy and would be supported by Roads ACT addressing shortcomings in its practices, including developing and implementing an operational plan for the maintenance of road pavement, specifying quality standards for maintenance work and improving monitoring arrangements for maintenance activities.

COMMUNITY PATHS

A comprehensive inspection program covering community paths in the Territory is needed to reduce the risk of major maintenance in the long term and extend the useful life of paths. In the absence of such a program, Roads ACT has used a risk based approach and undertakes inspections in high priority locations which cover 26 (24 percent) of Canberra's 110 suburbs and in response to complaints. In the absence of a comprehensive inspection program, targeting inspections and reactive maintenance at high priority locations is appropriate, however, these locations were last reviewed in 2010 presenting a risk that some suburbs that should be included

are not.

Roads ACT achieved the majority of its internal performance (service level) targets relating to maintenance of community paths most of the time in 2015-16. While these along with other aspects of its maintenance activities can be improved, a major challenge for Roads ACT will be maintaining community paths as they rapidly age given budgetary limitations. There is a need for an assessment of future maintenance costs to be updated and included in the Transport Canberra and City Services' Strategic Asset Management Plan and this information used to inform budget proposals.

TRAFFIC SIGNALS

The majority of signal assets are operating beyond their design life and need replacing. A replacement schedule to guide this is needed.

The management of traffic signal maintenance activities could be improved by Roads ACT updating their strategic plan for the maintenance of traffic signals (last updated in 2005), improving contract management arrangements and better monitoring maintenance activities.

Replacing incandescent lanterns with Light Emitting Diodes (LEDs) in traffic signals is a progressive initiative that achieves several objectives; increasing longevity of lights, road safety and reducing greenhouse gas emissions.

STREETLIGHTS

Arrangements for the maintenance of streetlights will change in late 2017 with this being done under an Energy Performance Contract with the private sector operator. There is a focus on achieving energy efficiencies.

Roads ACT will need to monitor this contract, as is its practice, to make sure its benefits are realised. Also, information from the contractor on the condition of streetlights will need to be promptly updated in IAMS, something that is currently lacking. A new operational plan is needed which could be developed to align with the new contract arrangements.

Key findings

GOVERNANCE

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The 2015-16 draft *Roads and Infrastructure Business Plan* complied with some key requirements of the Transport Canberra and City Services Directorate's *Strategic*

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Planning and Reporting Framework. However, it did not identify Roads ACT's contribution to key ACT Government priorities, business objectives that were linked to the Transport Canberra and City Services Directorate's Corporate Plan or performance targets that would assist in managing its budget.

Roads ACT's reporting on its accountability indicators shows that a high percentage of territorial roads are in good condition and customer survey results, for the most part, show high levels of satisfaction with the public road network (noting that this is likely to include reasons other than maintenance). 2.29

During 2011-12 to 2015-16 the reported average percentage of road resurfaced was 3.6 percent for territorial roads and 2.4 percent for municipal roads, significantly below (by 28 percent and 40 percent respectively) their respective targets of five percent and four percent. 2.32

The four accountability indicators for the maintenance of road infrastructure (percentage of territorial roads in good condition, percentage of customers satisfied with the public road network, annual percentage of territorial roads resurfaced and annual percentage of municipal roads resurfaced) provide an indication of whether road surfaces are being maintained and are therefore relevant to assessing whether the ACT Government's goal of having 'well-maintained infrastructure' as set out in *The Canberra Plan* is being achieved. 2.35

While the accountability indicators and targets for the maintenance of roads are relevant they can be improved by including indicators on the percentage of distressed roads; percentage of road pavement that exceeds its optimal age and the timeliness of road maintenance activities. 2.38

There are no accountability indicators which provide information on whether the ACT Government's goal of having 'well-maintained infrastructure' has been achieved in relation to community paths. The two accountability indicators for community paths (*annual increased length of community paths (km)* and *customer satisfaction with access to cycle and walking paths*) do not provide information on the condition of community paths or the progress of maintenance work on these paths. 2.39

Roads ACT's Risk Register conforms to the key principles of the Australian New Zealand Risk Management Standard ISO31000:2009. The risks, the impact of these risks, responsibility for managing the risks, controls in place to address these risks and actions to be taken to address these risk, and officers responsible for monitoring and reviewing these risks are recorded in Roads ACT's Risk Register. 2.43

While Roads ACT's Risk Register conforms to the key principles of the Australian 2.49

New Zealand Risk Management Standard ISO31000:2009, it can be improved by more detailed analysis on treatment of risks before including specific actions to reduce the risks relevant to the maintenance of infrastructure to an acceptable level.

Roads ACT advised that neither business unit risks, divisional risks (Roads ACT) or directorate risks were reported to the Executive Director, Infrastructure, Planning and Operations, Risk Management Committee or Executive Leadership Team every six months as required by the Risk Management Framework. 2.51

The monthly Stewardship Report provided to the Executive Leadership Team of the Transport Canberra and City Services Directorate contains a significant amount of information on Roads ACT's management of feedback and complaints, business continuity review and test results, financial performance against budget and debtors (where relevant). However, the report does not clearly show the extent to which planned performance is being achieved against the accountability indicators relevant to Roads ACT or performance measures in the Roads ACT Business Plan. Furthermore, the Stewardship Report does not address the key risks specifically relating to Roads ACT. The inclusion of such information would provide the Executive Leadership Team with more comprehensive information. 2.65

The Finance Report provides financial information at a Divisional level to sufficiently allow the City Services Directorate and Roads ACT to adequately manage their maintenance budget. 2.71

Roads ACT contracts reviewed as part of this audit included appropriate requirements (as considered by the Subject Matter Expert) that support effective contract management practices for roads (reseal and asphalt overlay), community paths, streetlights and traffic signals such as: quality and compliance requirements; project plans and programs of work; performance and reporting requirements; payment and invoicing arrangements. However, some were inadequate with respect to environmental requirements. 2.75

STRATEGIC ASSET MAINTENANCE PLANNING

Paragraph

The Strategic Planning and Development Section advised that the 2016-19 Strategic Asset Management Plan, due to be updated by December 2016, is currently behind schedule, with a final version now expected by June 2017. Until that time the 2013 Strategic Asset Management Plan remains operational. 3.4

Roads ACT appropriately considered the potential impacts from growth and demand changes on the ACT and in response have included in the Strategic Asset Management Plan proposed strategies (not all of which are direct asset solutions) 3.12

such as increasing utilisation of existing assets and focussing community path maintenance to known aged care establishments in response to an ageing population

Transport Canberra and City Services have identified service levels for roads and other road infrastructure asset classes relating to maintenance regimes and inspection frequency. The service levels reflect consideration given to asset sustainability, customer expectations, quality requirements and public safety. 3.18

Roads ACT advised that environmental conditions are monitored and reported through the Environment Manager (and team) within Roads ACT who responds to land management issues as required; contractor requirements such as environmental management plans and requirements for necessary approvals/licences. 3.25

Roads ACT has not developed a procedure for environmental management of road infrastructure assets that would support maintenance activities and outline environmental controls. On a day to day basis, Roads ACT needs to ensure that maintenance contracts (or service standards for in-house staff) include environmental requirements. Without these there are inadequate environmental controls. 3.29

Asset lifecycle management plans within Roads ACT are adequate and support maintenance planning to sustain existing assets. Lifecycle management occurs for each asset class including strategies (such as maintenance planning, assessment criteria and repair methods) and maintenance programmes developed that aim for the lowest lifecycle cost of an asset whilst maintaining required service levels. 3.35

A review of the three Operational Plans in existence highlighted that much of the content was historical, contextual information and included obsolete data. Whilst the operational plans did contain some practical information such as a Condition Assessment Index, the documents are not used as a day to day procedural guide for staff. 3.42

The lack of current comprehensive operational plans for each asset class presents a risk that Roads ACT are unable to ensure that existing assets are being managed and maintained efficiently and effectively and that they fully support the delivery of services. It also presents a risk that in the loss of long-term staff with corporate knowledge there will be limited, if any, current operational procedures known. 3.46

While the information held within IAMS is useful and mostly reliable, it is not routinely complete for all asset types. Roads ACT could reduce its reliance on the use of offline asset condition data if the practices of updating IAMS improved. For 3.59

example, Roads ACT have not specified any required timeframes for field maintenance staff to update asset condition after defects are addressed, resulting in frequent incomplete data.

There is no electronic link between the Access Canberra's Client Record Management (CRM) system and Roads ACT systems. Although members of the public are able to select an option to receive feedback, there is no formal process for providing feedback on maintenance enquiries. 3.70

ROAD PAVEMENT

Paragraph

The amount of planned and unplanned maintenance was examined in this audit and it was found that in 2014-15, 58 percent was planned and 42 percent was unplanned. In 2015-16 the levels of planned versus unplanned was more even with 52 percent unplanned and 49 percent planned maintenance. 4.9

The reasons for deletion or rollover of programmed road resurfacing are not adequately documented by Roads ACT. For example, the notes included in the resurfacing program only state that the resurfacing item is either deleted from the program or moved to 2016-17. 4.30

The lack of an operational plan for road maintenance, combined with Roads ACT not having specifications or guidelines for unplanned maintenance, presents a risk that road maintenance practices may not reflect contemporary practices and standards. Developing an operational plan could be done in conjunction with the Strategic Asset Management Plan review process in 2017. 4.36

Contract management for the five-year resealing (chip sealing) contract, which ended in June 2016, was undertaken by an external consultant. The subsequent contract has maintained this arrangement. 4.40

The specification used in the Roads ACT asphalt contract makes cross reference to the NSW Roads and Maritime Services QA Specification for Heavy Duty Dense Graded Asphalt (R116) which the Subject Matter Expert considered best practice. 4.43

In 2015-16, approximately two thirds of the asphalt resurfacing and patching had been undertaken by in-house Roads ACT road maintenance crews, while the balance had been undertaken by one of the contractors of the panel of five contractors selected for this work. This is consistent with other jurisdictions. 4.48

Roads ACT's monthly Productivity Reports are produced to track time and cost of planned and unplanned maintenance. These reports do not report on the unit cost for in-house asphalt work that would be useful to compare results with contractors 4.52

and help assess cost effectiveness. The tracking of planned activities via the annual report on road surfacing could also be improved through including the Program item number for chip sealing in the annual maintenance program.

Between 2011-12 and 2015-16 the budget for road maintenance increased by approximately 24.1 percent. 4.56

Roads ACT have calculated the level of road infrastructure asset backlog for 2015-16 to be 2 104 909m², a growth of over 400 percent since 2010-11. This is based on the gap between the target resurfacing rates and the actual amount of resurfacing undertaken. 4.59

Funds received in 2015-16 and 2016-17 from the Federal Government as part of its Roads to Recovery program allowed the projected growth in the backlog to halt but did not allow the backlog to be reduced. Roads ACT anticipates that the backlog will continue to grow in 2017-18. 4.60

In its draft information paper to Cabinet, Roads ACT predicted the value of maintenance backlog works to grow from approximately \$53 million in 2015-16 to \$71 million in 2019-20. 4.64

Roads ACT is seeking ways in which to reduce the backlog such as trialling of alternative road surfacing methods using recycled materials. For example used printer toner, which is included in the final asphalt mix to extend the life of road surface and lower life cycle costs. While this is recognised, given the importance of the issue, a long-term strategy is warranted. 4.70

Roads ACT have undertaken inspections of territorial and municipal roads in accordance with service level standards. They have also responded to approximately 1 338 damage or defect reports relating to potholes and edging, and fixed the damage within one week, 85 percent of the time. 4.75

The ACT Government's performance target for road resurfacing was met in 2015-16 as a direct result of additional funding through the Roads to Recovery Program. However, prior to 2015-16, these resurfacing targets had not been met for some time (2010-11 for territorial roads and 2007-08 for municipal). The targets for the percentage of customer satisfaction and territorial roads in good condition have also been met. 4.77

The percentage of territorial roads in good condition is greater than 86 percent. The results have remained around 89 percent from 2011-12 to 2015-16 which indicates that a high proportion of ACT roads provide good ride comfort. It also means the ride quality on 11 percent of territorial roads is rated as fair to poor. 4.78

In 2012 the ARRB advised that if the current resurfacing rate of territorial roads in the ACT was to remain unchanged the resulting increased age of the roads would increase the risk of rapid pavement deterioration. 4.84

ARRB (2015) advised that by 2023 road condition deterioration would increase (cracking going from 19 to 34 percent, rutting from 11 to 17 percent and rough roads from 11 to 18 percent). And, also further advised that if the current resurfacing rate of territorial roads in the ACT was to remain unchanged the risk of rapid pavement deterioration will increase. This highlights the importance of preventative maintenance. 4.86

COMMUNITY PATHS

Paragraph

Maintenance of community paths could be improved by developing a renewal program for the timely replacement of older sections of community paths, across the Territory. 5.15

The Roads ACT *Asset Management Operational Plan for Community Paths* is out of date and does not have information on operating costs, resource requirements or environmental impacts associated with the maintenance of community paths. This information can be used to assist in effectively managing maintenance activities. 5.20

Of Canberra's 110 suburbs, 26 (24 percent) include locations assessed as high priority by Roads ACT for undertaking planned inspections of community paths. The planned inspections are in accordance with the priority rating for the location. However, since 2010, Roads ACT has not reviewed locations for their priority rating (based on the frequency of use and pedestrian mix, past compensation claims and pedestrian 'generators' such as shopping centre precincts) which determines the frequency of inspections. 5.28

There is no systematic approach for conducting inspections of the condition and safety of community paths that are not in high priority locations. As a result, Roads ACT is unable to reliably determine whether paths not in high priority locations (approximately 77 percent of community paths in Canberra) need to be maintained for safety or to expand their life span. A systematic approach would assist in avoiding higher costs resulting from a failure to identify and rectify small defects before they become large. 5.35

Information recorded in the Transport Canberra and City Services Integrated Asset Management System (IAMS) on community paths is updated on completion of repairs and maintenance. IAMS provides important management information and is extensively used to guide maintenance activities. 5.39

The Concrete Works Panel for the maintenance of community paths was established through an open tender process and in accordance with ACT Government's requirements ('Standard Conditions of Contract and Tenders').

5.44

Contract documentation was reviewed for six of the ten contractors on the Concrete Works Panel. For these six contractors, there was sufficient documentation of compliance with the requirements of the Concrete Works Panel, including the schedule of rates, approved temporary traffic management plans and progress reports on maintenance work. However, there were no environmental management plans to address adverse environmental impacts of the works and specify how these impacts will be addressed.

5.47

Roads ACT does not verify that the concrete used in community paths complies with the Design Standard strength requirements. Instead, Roads ACT relies on the strength quoted in the concrete supplier dockets provided by contractors which indicate the strength of the concrete mix.

5.49

Information on the maintenance of community paths is recorded in the Transport Canberra and City Services' Integrated Asset Management System (IAMS). Roads ACT (Road Maintenance Section) uses monthly management (productivity) reports produced from IAMS to monitor the costs of community path maintenance against budget.

5.51

While the Roads ACT 2013 *Strategic Asset Management Plan* identifies that there is a 'rapidly aging profile of the community path asset' and that 'this is forecast to become a significant budget constraint for Roads ACT', if the non recurrent funding provided in 2011-12 and 2012-13 is disregarded, the annual maintenance budget has remained relatively stagnant since 2011-12. Furthermore, the length of community paths increased by 13 percent over this period.

5.57

According to the *Community Path and Cycle Lane Project List* ' around 100 (67 percent) of the potential community paths upgrade projects were in high priority locations. In the 2016-17 Budget, Roads ACT was allocated \$1.5 million in funding for the construction of new paths but no funds have been allocated for these projects in the forward years from 2017-18 to 2019-20. Assessing the likely cost of these maintenance requests would allow Roads ACT to develop a more accurate budget for forward years.

5.62

Roads ACT achieved the majority of its performance (service level) targets relating to maintenance of community paths most of the time in 2015-16. Inspections were carried out in higher risk areas every one or two years, repairs or work (trip hazards) were addressed within seven business days (83 percent of the time) and complaints in relation to high use and pedestrian areas were addressed within five

5.64

or seven days respectively (83 percent of the time). However, there was no evidence that the replacement of paving or concrete in general or shopping areas was occurring within the target timeframe of ten business days.

TRAFFIC SIGNALS

Paragraph

Currently around 70 percent of traffic signals have been converted to LED. Roads ACT advised that they expect to convert the remainder by 2024, subject to funding, and expect that this will reduce electricity consumption by about 60 percent per site. This also has a consequential affect on road safety as fewer repairs means a reduction in disruption to traffic.

6.17

While the increasing risk of obsolescence of traffic signal components was identified by Roads ACT in 2005, and 2013 (as 36 percent of their traffic signal sites were older than their useful life of 25 years), a comprehensive replacement schedule for all components has not been developed. Without a comprehensive replacement schedule, for all traffic signal components, the frequency of faults will increase as the components age beyond their design life, resulting in increased risks to road safety.

6.21

Roads ACT's operational plan (titled (2005) *Strategic Plan for Traffic Signals in the ACT*) met the majority of the requirements of an operational plan, however it lacked information on staffing and resourcing requirements (including training) which impacts on Roads ACT effectively planning for resource allocation. It has not been updated since 2005 and may therefore not reflect contemporary practices.

6.31

The delivery of traffic signals maintenance has historically been outsourced under contract with Ecowise Services (Australia) Pty Ltd (Ecowise) which was awarded the Traffic Signal Maintenance Contract in July 2016 for a three year period with two consecutive one year extensions possible. Roads ACT advised that it has not sought to deliver this service in-house due to the very specific expertise requirements which are not widely available in the labour market place

6.33

The traffic signals contract includes a requirement for environment management plans. The Contractor's procedure for Traffic Signal and Cameras – Maintenance and Repair (Procedure T 102) was noted to include a section on environmental hazards and controls for Detector Loop installation, taking into account potential noise, air, and water pollution

6.40

However, the following deviations from good contract management for managing traffic signals existed:

6.41

- In the monthly progress report for July 2016, the Preventative (planned) Maintenance undertaken for the month was different to that

of the Preventative (planned) Maintenance Program. Roads ACT advised that the contractor has been given flexibility in undertaking Preventative (planned) Maintenance. However, Roads ACT does not track Preventative (planned) Maintenance undertaken against the Program based on monthly reports.

- The monthly report provided to Roads ACT by Ecowise includes the number of faults for the month, it does not identify the number of critical or major faults.
- Roads ACT do not reconcile at the end of each year the monthly reports against the Maintenance (planned) Program to check that all planned work was completed. There is the potential for preventative maintenance on traffic signals not to be undertaken as programmed which creates a risk to the serviceability of traffic signals and in turn public safety.

Reports provided by the contractor for the maintenance of traffic signals include information that aligns with contract requirements such as faults repaired, routine services completed, response times and the status of spare items; however, the monitoring of service levels for traffic signals could be improved through the inclusion of response times (between advice of fault and the repair) and the number of major faults. 6.52

The levels of service for traffic signals were reviewed during the audit however, as not all the service levels for traffic signals are monitored and reported, results could not be validated. 6.53

STREETLIGHTS

Paragraph

On 27 August 2016, the ACT Government released a Request for Proposal for the ACT Streetlights Project (Energy Efficiency and Smart City Upgrades) with the intention to enter into a Energy Performance Contract (to commence in the second half of 2017) with a private sector operator. 7.5

The Northrop superintendent (the contractor responsible for maintenance inspections) holds data on streetlight defects, gathered through the inspection regime as well as the asset condition resulting from maintenance undertaken, in an offline database. This data is only periodically updated by Roads ACT into IAMS and there are no defined timeframes for the updating of it into IAMS. 7.27

The Operational Plan is an internal document that supports the broader *Roads ACT Strategic Asset Management Plan*. The plan provides a detailed description of how Roads ACT defines the level of service in relation to streetlights and the policies and issues for the maintenance of streetlights. However, the most recent version of the plan is dated 2013 and should have been reviewed in 2015 based on its own 7.29

periodic review timeframes.

While Roads ACT has committed to transferring the complete management of streetlights to a service provider via a energy performance contact, an operational plan is still required that details how this contract will be managed and addresses areas such as key objectives/outcomes of the contract, how asset data will be maintained, staffing and resource requirements and processes for monitoring contract outcomes. This information is needed for Roads ACT to effectively manage it operations. 7.33

Monthly streetlight inspections have been undertaken. However, the service level for responding to public complaints has only been partially met. The service level for repairs within 10 days was met approximately 91 percent of the time whereas the repair of cable faults within 35 days was delayed approximately 33 percent of the time. 7.48

Unplanned maintenance is carried out in response to reported problems, outages or defects (e.g. repair vandalism, damage or luminaire outages). Data from IAMS and response time data from Access Canberra showed that in 2015-16 there were approximately 4 041 public enquiries made regarding streetlights of which 3 773 enquiries related to damaged or defective streetlights. 7.49

Roads ACT monitors the performance of ActewAGL through monthly reporting and invoicing provided to Roads ACT through the Northrop superintendent and the ActewAGL key performance indicator portal. The key performance indicator for quality was the percentage of system availability being more than 98 percent. For the 2014-15 financial year, the average service availability was 98.2 percent. 7.50

Recommendations

RECOMMENDATION 1 ROADS ACT'S BUSINESS PLAN

Roads ACT's *Roads and Infrastructure Business Plan* should specify Roads ACT's contribution to key ACT Government priorities, business objectives that link to the Transport Canberra and City Services Directorate's Corporate Plan and include relevant performance targets that relate directly to the performance of road infrastructure assets (such as accountability indicators and key service level targets).

RECOMMENDATION 2 ACCOUNTABILITY INDICATORS FOR ROADS AND PATHS MAINTENANCE

Roads ACT should develop accountability indicators with related targets for the percentage of distressed roads; distressed paths; percentage of road pavement that exceeds its optimal age; percentage of paths that exceeds their optimal age; and the timeliness of road maintenance activities.

RECOMMENDATION 3 RISK MANAGEMENT

Roads ACT should:

- a) undertake a detailed analysis of risk treatments before including specific actions (to reduce the risks relevant to the maintenance of infrastructure) in its Risk Register; and
- b) amend the Risk Management Framework to require information on risks to be reported to the Transport Canberra and City Services Division Head Executives, Executive team and nominated Risk Manager every six months.

RECOMMENDATION 4 REPORTING TO THE EXECUTIVE LEADERSHIP TEAM

Roads ACT should improve its reporting to the Executive Leadership Team by developing a report that includes information relating to Directorate priorities; human resource management; operations; financial management; progress reporting against planned levels of performance; and key risks relating to Roads ACT.

RECOMMENDATION 5 ENVIRONMENTAL MANAGEMENT PLANS

Roads ACT should:

- a) require environmental management plans be prepared for both contracted and in-house maintenance work; and
- b) include environmental management plans, in their maintenance contracts, which address the adverse environmental impacts of the work on community paths and specify how these impacts will be addressed.

RECOMMENDATION 6 OPERATIONAL PLANS

Roads ACT should:

- a) have up-to-date, comprehensive operational plans for all road infrastructure asset classes;
- b) develop an operational plan for road pavement;
- c) update its *Asset Management Operational Plan for Community Paths in the ACT* to include information on the staff, resources and estimated costs to maintain community paths and the environmental impacts of maintenance work; and
- d) develop a new operational plan for streetlights that reflects the new arrangements resulting from the Energy Performance Contract.

RECOMMENDATION 7 TIMELY DATA ON ASSET CONDITION

Roads ACT should:

- a) update the condition of all road infrastructure assets into IAMS (or its equivalent) within set timeframes;
- b) continue to work on a means of capturing asset condition reports directly from the field; and
- c) provide training and guidance to staff on the use of IAMS (or its equivalent).

RECOMMENDATION 8 CUSTOMER FEEDBACK

Roads ACT should develop a process for providing timely feedback to customers when work has been undertaken as a result of a customer query or complaint.

RECOMMENDATION 9 RECORDS MANAGEMENT

Roads ACT should:

- a) document its reasons as to why a road resurfacing project is deleted or rolled-over from one year to the next; and
- b) maintain contract management records on asphalt contracts to demonstrate achievement of the required quality of asphalt compaction.

RECOMMENDATION 10 REPORTING ON ROAD RESURFACING

Roads ACT should:

- a) improve the monthly productivity reports to include the unit cost for in-house asphalt work; and
- b) amend the annual key performance indicator report on road resurfacing (prepared for the Director of Roads ACT) to include the Program item number and the planned quantity against each road section.

RECOMMENDATION 11 ADDRESSING THE BACKLOG

Roads ACT should develop a long-term strategy for reducing the road maintenance backlog.

RECOMMENDATION 12 MAINTAINING COMMUNITY PATHS

Roads ACT should develop and implement a:

- a) renewal program for the timely repair of defects across the Territory; and
- b) planned program of inspections of the condition and safety of community paths that are not in high priority locations. The frequency of inspections should be sufficient to reliably determine whether maintenance of paths is needed.

RECOMMENDATION 13 HIGH PRIORITY OF LOCATIONS OF COMMUNITY PATHS

Roads ACT should review the list of high priority locations of community paths, and their priority rating, on a biennial basis and update the *Asset Management Operational Plan for Community Paths* and *Strategic Asset Management Plan* for the results of these reviews.

RECOMMENDATION 14 QUALITY CONTROL

Roads ACT should implement a system of verifying that concrete used by contractors to maintain community paths comply with ACT Government design standards.

RECOMMENDATION 15 COST OF MAINTAINING AND UPGRADING COMMUNITY PATHS

Assessments of the future costs of maintaining and upgrading community paths and the related funding requirements should be updated and included the Transport Canberra and City Services *Strategic Asset Management Plan*.

RECOMMENDATION 16 SERVICE LEVEL TARGETS

Roads ACT should maintain records of the timeliness of the replacement of paving or concrete in general and for shopping areas and monitor whether replacements are made within target timeframes.

RECOMMENDATION 17 TRAFFIC SIGNAL REPLACEMENT SCHEDULE

Roads ACT should develop a comprehensive traffic signal component replacement schedule.

RECOMMENDATION 18 CONTRACT MANAGEMENT FOR TRAFFIC SIGNAL MAINTENANCE

Roads ACT's contract management for traffic signal maintenance should:

- a) include a review of the monthly progress report;
- b) require that the number of critical or major traffic signal faults be reported by the contractor on a monthly basis; and
- c) undertake an annual reconciliation to ensure all planned maintenance has been completed.

RECOMMENDATION 19 MONITORING TRAFFIC SIGNAL MAINTENANCE PERFORMANCE

Roads ACT should, on a monthly basis, monitor maintenance undertaken against the agreed preventative maintenance program and service level targets for traffic signal maintenance.

Roads ACT should require the contractor responsible for traffic signal maintenance to report on the:

- a) number of major faults reported to be less than one per traffic signal per year in the monthly report; and
- b) elapsed time between being advised of the fault and the completion of the repair in the monthly report.

Transport Canberra and City Services Directorate response:

Transport Canberra and City Services (TCCS) welcomes the performance audit on selected Road Infrastructure Assets and looks forward to implementing its recommendations. This audit was undertaken shortly after the formation of TCCS (1st July 2016) during the transition from Territory and Municipal Services. As such a number of documents available at that time which could be considered out-of-date have since been updated or are being updated as part of business as normal. Notwithstanding this, TCCS is committed to addressing the findings of the report and has already undertaken tangible steps to start implementing the proposed recommendations.