



PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE OF PUBLIC ACCOUNTS

INFRASTRUCTURE PROJECTS – ROAD WORKS

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ABBREVIATIONS LIST

DIER Department of Infrastructure, Energy and Resources

DSG Department of State Growth

PAC Public Accounts Committee

CHARTER OF THE COMMITTEE

The Public Accounts Committee

The Public Accounts Committee (the Committee) is a joint standing committee of the Tasmanian Parliament constituted under the *Public Accounts Committee Act 1970*.

The Committee comprises six Members of Parliament, three members drawn from the Legislative Council and three members from the House of Assembly.

Its functions under the *Public Accounts Committee Act* (Section 6) are to inquire into, consider and report to Parliament on:

- *any matter referred to the Committee by either House relating to:*
 - *the management, administration or use of public sector finances; or*
 - *the accounts of any public authority or other organisation controlled by the State or in which the State has an interest;*
- *any matter arising in connection with public sector finances that the Committee considers appropriate; and*
- *any matter referred to the Committee by the Auditor-General.*¹

The Public Accounts Committee also has oversight responsibilities regarding the independence of the Auditor-General, which are derived from the *Audit Act 2008*.

¹ *Public Accounts Committee Act 1970, s.6*

EXECUTIVE SUMMARY

The issue of quality in relation to road works infrastructure projects in Tasmania was brought to the Parliamentary Standing Committee of Public Accounts (the Committee) in November 2014. While the initial correspondence made reference to a specific area of concern in the electorate of Apsley, the Committee agreed that the matter of quality in relation to road works was broader than the specific reported instance. The Committee therefore resolved to undertake a review to assess the standard of road works in Tasmania.

As part of this review, a briefing from the Department of State Growth was sought by the Committee to clarify a number of matters in relation to the issue of quality in road works projects.

In particular, the Committee sought clarification regarding the responsibilities of the Department and those of contractors; the standard of work requirements within the works contracts, and detail of Departmental monitoring of works whilst they are in progress; estimates of the need for repairs subsequent to completion of road works throughout the State for the last two financial years, and information regarding the period of time that contractors remain responsible for faults; clarification regarding road sealing timeframes in summer and winter and whether it is intended that some works are temporary rather than permanent due to season; and any other information the Department regards useful for the Committee.

The Committee made the following key findings:

- 1) The Department has not been liable for repairs for road infrastructure over the past two years. This is due primarily to the inclusion of a defects liability period which is defined specifically for each contract (between 12 and 21 months), which means that the responsibility for repairs arising from defective work rests with the Contractor during this time.
- 2) The Department of State Growth has identified improved communication to road users as a key priority.

The Committee has made the following recommendation in this report:

- The Committee recommends that the Department continue to improve communication initiatives with road users.

In addition, the Committee will schedule a review of this report in two years' time to confirm the effectiveness of the defects liability period in avoiding liability for road repairs.

CHAPTER 1 - INTRODUCTION

1. Background

On 17 November 2014, the Committee received correspondence from Ms Tania Rattray MLC, Member for Apsley, which made reference to an issue of concern regarding major roads works undertaken in her electorate.

The letter made specific reference to road works which had been undertaken on sections of the Bridport to Scottsdale Road, and highlighted some quality issues as a result of the *“break-up of new seal with large holes forming in a matter of weeks after the completed seal.”*

Reference was also made to the fact that the Department of Infrastructure Energy and Resources (now the Department of State Growth) had been contacted in relation to the issue, and the Department had indicated that *“the contractor would be responsible for the repairs and these would be carried out.”*

The letter confirms that subsequent repair works were undertaken, but that overall the issue caused much inconvenience and ongoing concern to those travelling the road. As a consequence, Ms Rattray highlighted that the resulting impacts of the project negatively impacted on the overall confidence of the public that the road is of *“adequate standard,”* and queries whether value for money had been delivered in relation to this project given the considerable amount of public money utilised.

The Committee considered the correspondence received from Ms Rattray, and agreed that the matter of quality in relation to road works was broader than the specific reported instance, as evidenced by the fact that similar concerns have consistently been expressed by members of the public to their elected representatives throughout the State.

2. Terms of Reference

The Committee resolved to undertake a review to assess the standard of road works in Tasmania.

3. Process of the Review

In order to inform this review, the Committee requested a briefing from the Department of State Growth.

The purpose of the briefing was to provide information to the Committee in relation to a number of elements relevant to this issue, including:

- 1) Clarification regarding the responsibilities of the Department and those of contractors;
- 2) The standard of work requirements within the works contracts, and detail of Departmental monitoring of works whilst they are in progress;
- 3) Estimates of the need for repairs subsequent to completion of road works throughout the State for the last two financial years, and information regarding the period of time that contractors remain responsible for defects;
- 4) Clarification regarding road sealing timeframes in summer and winter and whether it is intended that some works are temporary rather than permanent due to the season; and
- 5) Any other information the Department regarded as useful for the Committee.

CHAPTER 2 - DEPARTMENT OF STATE GROWTH BRIEFING

On Tuesday 10 February 2015, the Committee received a briefing from Mr Shane Gregory, General Manager Transport Infrastructure Services, Department of State Growth in response to these elements. A summary of the non-confidential aspects of the briefing is provided as follows.

1. Clarification regarding responsibilities of the Department and those of contractor

Department of State Growth construction and sealing contracts are undertaken under the of Australian Standard contract form AS2124 - General Conditions of Contract. This form of contract allows works to be undertaken for a 'lump-sum' payment or 'schedule of rates'. The normal structure for Departmental contracts is schedule of rates.

AS2124 defines the roles of the principal (the client - State Growth), contractor and Superintendent (responsible for administering the contract) and is supplemented by project specific requirements and technical specifications.

The Contractor is responsible for executing and completing the work under the Contract which is defined as:

..the work which the Contractor is or may be required to execute under the Contract and includes variations, remedial work, constructional plant and temporary works.

AS2124 places the onus on the Contractor to manage and execute the works to meet the requirements of the Principal as they are defined in the project specific requirements and technical specifications. The Contractor is responsible for undertaking any remedial works arising from defects.

The Principal has obligations to make payments as they fall due to the Contractor and supply various documents. Where the Contractor is in default, i.e. has failed or is failing to meet their obligations in delivering the work under Contract, the Principal has the right to terminate the contract, step in to complete the works or have the works completed by others. There is a defined process for a default situation and it is a remedy of last resort.

2. The standard of work requirements within the works contracts, and detail of the Departmental monitoring of works whilst they are in progress

Standard of works to be delivered are defined in a series of technical specifications for each activity, including general specifications, roadworks specifications, bridgeworks specifications, professional services specifications and standard drawings. All contracts are managed against these specifications and cross-referenced against the Australian Standards and AustRoads Guidelines.

The Department employs the services of a single Superintendent who ultimately has the responsibility for ensuring all works are carried out as set out in the contract between the Department and contractor as well as the approval of payment claims, variations or adjustments and making decisions as to reasonable measures or values of work, quantities or time. For each contract the Superintendent appoints a Superintendent's representative to monitor the activities undertaken by the contractor and larger contracts will also have a contract supervisor to assist the Superintendent's representative.

There are a series of hold points in the specifications based on the supply of information from the contractor and which may also require a physical inspection by the Superintendent's representative. The hold point is designed so that the contractor can demonstrate compliance with the Department's specifications and standards. The contractor is also required to undertake testing of completed works.

3. Estimates of the need for repairs subsequent to completion of road works throughout the State for the last two financial years, and information regarding the period of time that contractors remain responsible for faults

The Department has experienced some quality issues with certain roads projects as well as some road resurfacing sealing works undertaken under an annual maintenance program of road sealing.

The Department has not paid for repairs arising from defective work in the past two years as this responsibility rests with the contractor during the defects liability period. The defects liability period is the period of time, after the works are completed, for which the contractor is liable to repair works that have failed as a result of the contractor's workmanship.

The term of the defects liability period is defined specifically for each contract and is generally 12 months. In recent years the defects liability period for bituminous

resurfacing works has been extended to 21 months as reseal repairs must be undertaken during the warmer summer months.

There have been examples where the target standard of works has not been achieved, but no defects are apparent at the time. AS2124 allows for a reduction in payment to the contractor in these circumstances, recognising that the principal may not receive full value for the works undertaken. For example, a payment reduction is applied to asphalt resurfacing works where the level of non-compliance falls within a certain tolerance of the target requirements.

Payment adjustments for asphalt work in the last two financial years have totalled \$446,000 and the value of asphalt works redone by Contractors has totalled \$226,000.

4. Clarification regarding road sealing timeframes in summer and winter and whether it is intended that some works are temporary rather than permanent due to season

Bituminous surfacing is subject to weather conditions, ambient and road temperature; spray seals more so than asphalt. Bitumen for spray seals is applied to the road at approximately 170° C, to be soft enough to allow aggregates to embed and be held in place. Where road temperatures are too low the bitumen cools rapidly before the aggregates can be rolled in, resulting in stripping (aggregate pulling out of the bitumen). Spraying bitumen closely before rain can result in the bitumen emulsifying and seal failure.

These factors mean that the optimum season for spray sealing is from October to March, but sealing can be effectively undertaken as early as September or as late as April/May if weather conditions are suitable and bitumen mixes adjusted accordingly. Sealing in the 'fringe' season generally can't be undertaken early or late in the day as temperatures are too low.

When sealing new pavements the best quality outcome is achieved by applying the final seal immediately. To do this a bonding seal, known as a prime, is applied first and allowed to 'break' before the final seal is applied. This process is called prime and seal. The 'breaking' or setting of the Prime takes several days during which it cannot be driven on. For that reason this process is only used on new greenfield construction or where traffic can be detoured.

Where construction must be done under traffic a primer-seal is used. In this process a modified-bitumen is applied to the crushed rock base and a 10mm aggregate rolled-in. A primer-seal can be driven on immediately after rolling-in of the aggregate. Primer-seals can be used in cooler conditions as they have additives that modify the characteristics of

the bitumen and are initially softer, but are not robust enough for long term use. A final seal is applied twelve months later, after the additives have evaporated from the primer-seal bitumen. In that context, primer-seals are temporary works.

The Committee has identified that communication between the Department and road users could be improved, particularly in relation to the timing of road works in peak times or over the summer/holiday period, in order to address public misunderstanding about the need to undertake works during these times.

5. Any other information the Department regards as useful for the committee

In general, the Department's pre-qualified contractors produce a high standard of work. The Department has had concerns about the quality of work being delivered on some contracts and in response, has adopted a much stricter line on the management of contracts.

The level of defects has been a particular problem on annual resealing contracts over the last five years and a number of measures have been put in place to rectify this issue:

- Tendering timeframes have been brought forward to provide the maximum possible 'window' for undertaking the annual sealing program;
- The tendering process now includes a specific assessment of the Tenderers methodology for seal designs, post completion monitoring of work and rectification of defects; and
- Pre-qualified sealing contractors were advised in December 2014 that the tender assessment for sealing contracts for the 2015/16 financial year will include the status of outstanding defects from previous years. This has resulted in a significant 'clean up' of a large list of outstanding defects.

The Department has historically placed a higher priority on its relationships with contractors rather than enforcing contractual terms, resulting in a drop in quality. A clear direction has been issued to all contract administration personnel that delivery of contractual commitments is a priority and all personnel involved have been put through formal contract administration training. As a result of this stricter approach:

- Asphalt works to the value of \$226,000 have been rejected;
- Payment adjustments to the value of \$446,000 have been applied to contracts for asphalt works;
- Extended defects liability periods of 5 years have been applied to two contracts in conjunction with payment adjustments;

- One construction contractor was asked to show cause why their pre-qualification with the Department should not be suspended, resulting in a number of quality issues being promptly resolved; and
- Safety barrier works on two projects have been rejected.

The Department has also established a Construction Quality Group, to undertake additional auditing of construction projects.

CHAPTER 3 - KEY FINDINGS AND RECOMMENDATION

1. Key Findings

Having regard to the information provided by the Department of State Growth, the Committee made the following key findings:

1. Achieving value for money and quality outcomes in roads infrastructure projects is a key priority for the Department.
2. The Department has changed its approach from prioritising its relationships with contractors which resulted in a drop in quality of work, toward a focus on the delivery of contractual commitments. To this end, all personnel involved in the delivery of contractual commitments have been put through formal contract administration training.
3. The Department has identified quality in the delivery of road infrastructure projects as a key area of concern, particularly the level of defects on annual resealing contracts. The Department has responded by making several changes in their contract management and tendering processes, and has established a Construction Quality Group to undertake additional auditing of construction projects.
4. The Department has not been liable for repairs for road infrastructure over the past two years. This is due primarily to the inclusion of a defects liability period which is defined specifically for each contract, which places the responsibility for repairs arising from defective work with the contractor during this time (12-21 months).
5. The Department is restricted by a relatively short window of opportunity to undertake road construction and resealing projects. Bituminous surfacing is highly weather dependant, and the quality of the outcome is highly dependent on the right conditions for the sealing to take place, including ambient and road temperature, moisture content etc. Spraying bitumen before rain can result in the bitumen emulsifying and seal failure. These factors mean that the optimum season for spray sealing is from October to March, and potentially April/May if weather conditions permit. Sealing in the 'fringe' season generally can't be undertaken early or late in the day as temperatures are too low.
6. The Department of State Growth has identified improved communication to road users as a key priority, particularly in relation to the timing of road works,

however there is more work to be done to effectively communicate with road users.

2. Recommendation

The Committee is satisfied that the Department of State Growth has identified areas of concern in relation to road infrastructure quality, and has implemented appropriate measures in its management response to respond accordingly.

The Committee recognises that the changes in the Department's approach to consultation with road users will be ongoing.

The Committee also recognises the challenges posed by the highly complex nature of the Standards of traffic management, and the varying interpretation of the Standards by those required to implement them.

The Committee makes the following recommendation:

Recommendation 1 The Committee recommends that the Department continue to improve communication initiatives with road users.