2017 (No. 6)

PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Midland Highway Safety Upgrade Package – Epping Forest to Powranna

Brought up by Mrs Rylah and ordered by the House of Assembly to be printed.

MEMBERS OF THE COMMITTEE

Legislative Council	House of Assembly
Mr *Farrell*	Mrs *Rylah* (Chair)
Mr *Valentine*	Ms *Ogilvie*
	Mr *Shelton*

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1 INTRODUCTION

The Committee has the honour to report to the House of Assembly in accordance with the provisions of the *Public Works Committee Act 1914* on the -

Midland Highway Safety Upgrade Package – Epping Forest to Powranna

2 BACKGROUND

2.1 This reference recommended the Committee approve upgrade works to improve the safety of the Midland Highway between Epping Forest and Powranna. The project is located on the Midland Highway between Belle Vue Road, Epping Forest, and Powranna Road, Powranna.

2.2 In 2014 the Australian and Tasmanian Governments committed to the *Midland Highway 10 Year Action Plan*, which will provide $500 million in funding over 10 years for the upgrade of the Highway. The Midland Highway Safety Upgrade Package – Epping Forest to Powranna project is a component of the *Midland Highway Strategic 10 Year Action Plan*.

2.3 The Midland Highway upgrade projects utilise the 'Safe System' approach, which has been adopted by all Australian state and territory road authorities to achieve a minimum 3 star AusRAP rating. The 'Safe System' approach recognises that people will make mistakes which result in crashes and, therefore, road infrastructure needs to be designed to take account of these errors.

2.4 For most of the Midland Highway, the predominant crash type is loss-of-control, most of which are single vehicle crashes with some resulting in head-on crashes and fatalities. 60% of the fatalities on the highway have been due to head-on crashes.

2.5 The upgrade design being employed along the Midland Highway includes the provision of alternating sections of two lanes in one direction and one lane in the opposite direction separated by a flexible safety barrier. The 2 plus 1 configuration is alternated at regular intervals to provide safe and regular overtaking opportunities, reducing driver frustration and the risk of head-on crashes. Safe turning facilities and breaks in the flexible safety barrier are also provided at intervals to access properties on the opposite side of the road.

2.6 The upgrade to the Midland Highway between Epping Forest and Powranna will improve safety for all road users, and will, in particular, help to reduce serious injuries and fatalities caused by head-on collisions through the installation of a flexible safety barrier within a central median.

2.7 The proposed works include the following elements:

- Separation of northbound and southbound traffic though the provision of a flexible safety barrier within a central median;
- Providing 3 safe northbound and southbound overtaking opportunities through an alternating '2+1' lane arrangement;

- The provision of new turning facilities, with all facilities designed to accommodate B-double vehicles;
- Upgrading and/or relocation of licensed property accesses along the section of the highway;
- Closure of unlicensed property accesses
- Widening of 4 existing stock underpasses;
- Relocation of TasNetworks and Telstra infrastructure where necessary; and
- Removal and replacement of heritage trees.

2.8 In undertaking the project the Department of State Growth aims to:

- maximise retention of the existing pavement;
- avoid impact on significant environmental features where possible;
- minimise the need for land acquisition; and
- minimise the impact on existing public utilities.

3 PROJECT COSTS

3.1 Pursuant to the Message from Her Excellency the Governor-in-Council, the estimated cost of the work is $34,244,574.

The following table details the p50 and p90 cost estimates for the project:

Client Costs	
Scoping Phase	$279,013.00
Development Phase	$1,384,181.00
Delivery Phase	$3,559,165.00
Total Client Costs	$5,222,359.00
Construction Costs	
Contractor Costs	$21,852,134.00
Client Supplied Materials or Services (e.g. service relocations)	$700,000.00
Total Construction Cost	$22,552,134.00
Project Cost	
Base Estimate	$27,774,493.00
P50 Project Estimate (Total contingency %)	$32,412,659.00
P90 Project Estimate (Total contingency %)	$34,247,558.00

4 EVIDENCE

4.1 The Committee commenced its inquiry on Friday, 17 March last with an inspection of the site of the proposed works. The Committee then returned to the Epping Forest Hall, Epping Forest, whereupon the following witnesses appeared, made the Statutory Declaration and were examined by the Committee in public:-

- Ted Ross, Project Director, Department of State Growth;
- Stefano Conforti, Project Manager, State Roads, Department of State Growth; and
- Ross Mannering, Associate, Roads and Traffic Engineer, Pitt and Sherry Consultants.

Project Overview

4.2 Mr Conforti provided an overview of the proposed works:

> ***Mr CONFORTI*** *- I thank you for the opportunity to have the Department of State Growth here to describe the project as the Midlands Highway, Epping Forest to Powranna. I will introduce the members of the team from State Growth. Ted Ross is the project director looking after the whole Midlands Highway safety upgrade. Ross Mannering , from Pitt and Sherry is the designer who is helping the Department of State Growth with the whole project.*
>
> *The Epping Forest to Powranna section of road is part of the Midlands Highway Safety Upgrade, which is approximately 150 kilometres and this section of road is about 11 kilometres. This is approached with the same philosophy as the rest of the project, installing a safety barrier in the middle between the two northbound and southbound lanes of the*

highway. It will provide overtaking opportunities and will improve the intersections and turning facilities.

The project from Epping Forest to Powranna Road will include two U-turns and three intersections for turning facilities. It will have three northbound overtaking opportunities and three southbound opportunities to overtake which is two more than existing ones - two more in each direction.

A typical section of the road will include a 2.1 metre section which includes the wire rope safety barrier and a two plus one, which means an overtake with two lanes going one direction and one lane in the opposite direction with 2.5 metre shoulder each side.

Civil works will improve both the vertical and horizontal alignment which the engineering designers have been working on.

4.3 Mr Ross adding the following comments:

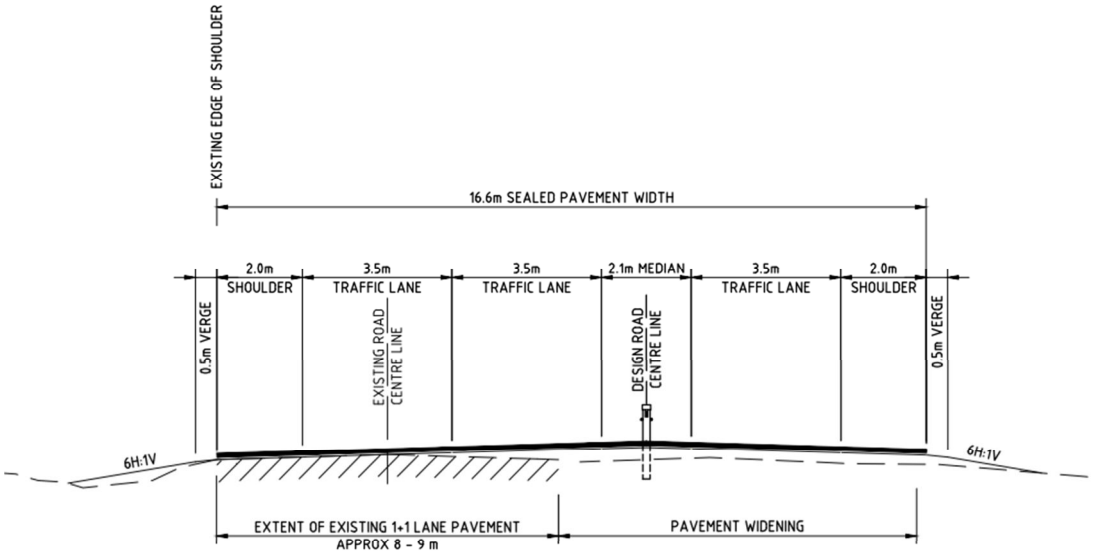
***Mr ROSS** - The treatment we are selecting here is innovative in terms of working in regards to a safe systems approach where the wire rope down the middle was specifically addressing the significant crash history on this highway of head-on collisions and loss of control. A lot of other road authorities are looking at what we are doing and think we are showing some great leadership. Tasmania should be commended in regards to the approach of what we are doing on this highway.*

Road Cross Section

4.4 The cross section which is being applied between Epping Forest and Powranna is consistent with all Midland Highway Upgrade Program projects. The cross section consists of:

- 3.5m wide lanes;
- A 2.1m wide centre median with flexible safety barrier installed;
- 2.0m wide shoulders; and
- 0.5m wide verges.

A typical cross-section of the '2+1' lane arrangement is shown in below.



TYPICAL CROSS SECTION
NTS

4.5 In his submission to the Committee Mr Terry Eaton raised a number of issues, some which related to the proposed road cross section. Mr Eaton raised concerns that the shoulder and verge width of 2.5m was "*less than the accepted minimum of 3m with a desirable 4m*". Mr Eaton noted that he considered this distance insufficient to attend to a disabled vehicle at the road edge.

4.6 The Committee sought further information from the witnesses on the concerns raised by Mr Eaton in relation to the proposed shoulder and verge width:

> ***CHAIR*** *- Another question that he asks is in regard to the shoulder widths - the 2.5 versus the 3 and 4 metre shoulder widths. Can you address those issues as I think we have gone for 2 metre shoulder width?*
>
> ***Mr MANNERING*** *- We have two metre wide sealed shoulders with a half metre gravel verge outside that. Because we have the central 2.1 metre median with the flexible safety barrier in the middle, we have also 1.05 on the right hand side of the lanes as well. The width is on the shoulder, and because we prefer people were not stopping on the side of the road in those locations, is enough for them to stop. I am not sure where the 3 to 4 metres comes from. That is not the requirement in Ausroads guidelines.*
>
> ***Mr ROSS*** *- When you are talking about 150 kilometres of road and if you are trying to do an extra two metres on either side of the highway, you would be spending a lot of money and we do not think that would provide value for money.*
>
> ***Mr VALENTINE*** *- ……This gentleman raises, 'This width reduction is considered unsafe for attending to a disabled vehicle at the road edge'. You did make some comment about the width of the shoulder.*
>
> ***CHAIR*** *- ……It is 2.5 metres and there is another 1.2 metres on the right-hand side of the road for a vehicle coming past that can move into that to get around another vehicle if it had to.*
>
> ***Mr MANNERING -*** *Yes, that is right. The 2.5 metre width is enough for a light vehicle to position themselves off the road. The little bit of room on the other side gives that flexibility for someone to move around.*
>
> ***Mr ROSS*** *- Very much part of the design consideration, especially in the areas where we have a single lane with wire rope on either side, is to make sure that we had sufficient room for a vehicle to park on the side or to undertake some maintenance.*
>
> ***Mr VALENTINE*** *- It could be a truck, could it not?*
>
> ***Mr MANNERING*** *- Yes, it could. Just picking up on what Ted said, along the sections where we do not have barriers on the side because we have not got roadside hazards, we have quite flat batter slopes, which are traversable. They are a 6 to 1 grade so you could get a bit further off the road, apart from just the sealed shoulder and the verge.*

4.7 Mr Eaton also expressed some concern with the separation of '2 +1' lane arrangements with a flexible safety barrier, with "*potential issues in regard to police enforcement, emergency vehicle access and diversion routes in the event of accidents and closure of the one lane sections*". The Committee questioned the witnesses on how emergency situations would be handled, and whether there would be any issues with emergency vehicle access and traffic diversion during response to an emergency. The witnesses noted that it was a relatively quick and simple process to remove the wire safety barrier if necessary, which would allow emergency vehicles to respond to an accident or emergency. The witnesses also noted that the ability to drop the barrier would allow authorities to divert traffic around any such situations, which would still permit traffic flow:

Mr SHELTON *- We have raised it before. In an emergency situation, if there is an accident and you want to get an ambulance through you can actually rip the rope down and out.*

Mr MANNERING *- Yes.*

CHAIR *- ……The final question that Mr Eaton has raised……Basically with the road configuration of two and one with the wire rope in the middle, he is seeking clarification in regard to police enforcement, emergency vehicle access and diversion routes in the event of accidents and closure of the one-lane section of the road. Could you address that issue, please?*

Mr ROSS *- As part of the last public consultation I talked to some SES volunteers who explained how they would divert traffic around these sorts of sections. They have their own plans that they are developing. They have not raised any significant concerns with us. As Mr Shelton said, you can drop the wire rope if required but there are also sufficient places in which we have gaps in the fence to be able to divert vehicles around any incidents.*

Mr VALENTINE *- So you can take the wire down. Do the posts just pull out?*

Mr ROSS *- Yes.*

Changes to the Road Alignment

4.8 The project includes works to improve road geometry where it has been identified that the road alignment is deficient, particularly with respect to visibility for drivers. The Committee questioned the witnesses on what works would be undertaken to improve the road alignment:

CHAIR *- In terms of the horizontal and vertical realignment that needs to take place on this section of road, it is clear, from being a regular traveller on this highway, that there are areas where visibility is not good. Can you explain what you have done in this design process to improve and make sure we make it to AusRAP3 standard - the best we can make it so it is value for money? Ultimately, that is the question we will be coming back to at the end of this meeting.*

Mr MANNERING *- As part of the design process we have reviewed the existing geometry of the highway, both horizontally and vertically. As you will appreciate, the highway is very straight so from a horizontal point of view there are no issues there. Through that review we did identify two sections vertically that required some improvement so we have those works incorporated into the project.*

We have one other spot where we have not been able to improve the geometry completely. To balance that we have widened the sealed shoulder a little. If there was an object on the road, which is what we assess in terms of sight distance, if you are driving your car you can see an object that is 200 ml high on the road. We have widened the shoulder so that if you saw the object you could manoeuvre around it. ……Where we want to try and retain the existing pavement, we have widened the shoulder a little to help with that.

CHAIR *- ……You are taking out the bend in the road, is that right? Can we put that on the record? Can you explain that to me?*

Mr MANNERING *- Yes, we are. Along the job there is a bit of a horizontal kink in the road which we suspect from, an historical point of view, might have to do with geo-technical conditions when the highway was originally constructed. As part of the project we are going to take that kink out because ground improvement techniques are a lot better these days than they have been in the past. That will straighten the alignment through there. It is also one of the sections where we have some of the new overtaking opportunities going in. Straightening the alignment makes it more appropriate for us to be able to put those in. If we left in the kink, we probably would not be able to achieve that same outcome.*

4.9 The Committee sought further information on why it was now possible to improve the horizontal alignment at this bend when it was likely to have been constructed in that way due to geo-technical conditions:

> ***Mr VALENTINE*** *- If it was diverted before to get around geo-technical issues, why are we able to do it today without having the same geo-technical problems? Do you think it might have been because it was a marsh? How do we stabilise a major highway on top of a marsh today? Have techniques changed?*
>
> ***Mr MANNERING*** *- We are working through the detailed design at the moment in terms of how we are going to do that treatment. Access to hard rock these days is a lot easier than it was in the past. What we normally do a lot with soft foundations is put in a rock drainage blanket - a large rock that allows the water to permeate through the rock without getting into the embankment and the pavement layers above. Being able to do that is a lot easier these days than it has been in the past.*
>
> ***Mr VALENTINE*** *- Do you do geo-tech drilling through that semi-marsh area to find out where the bedrock actually is and how much loading it can take?*
>
> ***Mr MANNERING*** *- As part of the developing the design, we have done extensive geo-technical investigations along the highway, both in the existing pavement itself to understand the strength of the existing road pavement and in the locations where we are also widening the pavement to understand the conditions where we will be widening the road and building it over the top.*

Increased Overtaking Opportunities

4.10 The proposed works will provide an increase in safe overtaking opportunities on this section of the highway.

4.11 Currently there is one northbound and one southbound formal overtaking opportunity. Drivers that wish to overtake outside of these formal overtaking lane arrangements have to cross to the opposite side of the road into the oncoming traffic lane, which can be dangerous.

4.12 This project will provide 3 northbound and 3 south bound overtaking opportunities, increasing this number by 2 in each direction. The installation of the flexible safety barrier in the median will also eliminate the danger created by overtaking on the opposite side of the road. The witnesses confirmed these new arrangements and reiterated that this will significantly improve safety for motorists:

> ***Mr MANNERING*** *- At the moment we only have two overtaking opportunities along this section of road. We have one northbound section and one southbound section. Everywhere outside of that there are opportunities to overtake but they mean you have to cross to the opposite side of the road. As part of the project we are increasing those overtaking opportunities to three northbound and three southbound. From a vertical alignment point of view we are reducing the need for people to cross on to the wrong side of the road on those vertical curves. It will make a substantial difference to the safety of the highway.*

Turning Facilities

4.13 As a result of installing the flexible safety barrier in the central median and the changes to property accesses, 5 safe turning facilities will be provided across the site as part of the proposed works.

4.14 Two of the turning facilities are P-turns and require a left hand turn off the highway to access the turning facility on roads adjoining the highway. One is located at Belle Vue Road, at the Southern end of the proposed works and is to enable south-bound traffic to turn back to travel north. The other is located at Powranna Road, at the Northern end of the proposed works, and is to enable north-bound traffic to turn back to travel south.

4.15 Three of the turning facilities are G-turns and require a right-hand turn across the roadway to enter and turn. Each G-turn has turning facilities on either side of the highway and provides a safe opportunity for traffic travelling in either direction to turn around. The G-turn facilities are located at the Fairfield property access, the Forton property access and just south of the Powranna Feedlot.

4.16 The Committee sought further evidence from the witnesses to support the inclusion of the U-turn facilities that have been provided in the design:

> ***Mr SHELTON - ... ...*** *There was one issue we talked about along the highway where there is an opportunity to do a U-turn where the break in the road is at Forton access. You might explain to the committee the purpose of that so we fully understand why it is there.*
>
> ***Mr MANNERING*** *- The turning facilities have been incorporated along the highway with the objective of minimising gaps in the barrier, and to provide U-turn facilities at appropriate gaps for the public and to accommodate the agricultural needs of the adjacent landowners. We have formal U-turn facilities for public use at the northern end of the job at Powranna Road and also across the road at Belleview Road. The other U-turn facilities along the job are primarily associated with agricultural use and the landowners' needs. We are not signing those for public vehicles. They are very much for familiar users of the site and people associated with agricultural activities of adjacent landowners.*

Consultation

4.17 The witnesses indicated to the Committee that extensive consultation had been undertaken with affected landowners. The witnesses indicated that this consultation had resulted in a design that recognised and accommodated how landowners used their properties:

> ***Mr MANNERING*** *- We have done quite extension consultation with all the landowners along the length of the job. We have had some really good discussions, probably some of the best I have seen on the Midland Highway projects we have been involved with. Landowners are providing input around how they use their properties - stock movement and machinery movement - which has helped us to incorporate some of those things into the design. One of the important things for us, especially from a cost perspective is making sure when we get into construction that we do not have the landowner coming back and saying that he did not think it was going to look like this. It is expensive to retrofit those things once we have a contractor on board. We have gone through talking to all the landowners about what the road upgrade is going to look like and understanding from them how that is going to impact on the operation of their properties. Then we try to incorporate into the design mitigations and things to accommodate the way they use the property. We are confident that we have those things in the design.*
>
> *As we mentioned on the site inspection, we have some unlicensed accesses that we are in discussion with landowners about closing. We are still working through that process as part of the detailed design.*

4.18 The Committee also questioned the witnesses on the consultation undertaken with the landowner regarding the construction of an internal access road from

the Fairfield property access to Bend Road. The witnesses explained that this road would be built to a specific standard negotiated with the land owner based on how the landowner proposes using the road, with ownership and ongoing responsibility for the road handed over to the landowner post construction.

> ***Mr SHELTON -*** *Along the lines of the acquisition, we talked about this third lane or the private lane that is being created between Fairfield and Bend Road. I want to put on record that through the negotiations, this will be a private road on private land, but part of the contract is to construct that lane way to a specific standard. Is that the plan?*
>
> ***Mr CONFORTI*** *- Yes, it is. It is the case.*
>
> ***Mr SHELTON*** *- After the contractor has finished, the land owner will take ownership of that and it is his responsibility to maintain in the future.*
>
> ***Mr MANNERING*** *- That is correct. As part of the construction works the track will get built and it will get built to the standards we specify. …… Once they have built it to that standard, the ongoing maintenance gets handed over to the land owner. Yes, we are building a track suitable for the use it is going to get and making sure at the end of the job it has been built to the standard required for his ongoing use.*
>
> ***Mr SHELTON*** *- So the process you're doing is no different to shifting of the pivot irrigator close to the road now where you have got to move it away. The project encompasses those costs in the project and then at the satisfaction of the land owner they take it over at the end.*
>
> ***Mr MANNERING*** *- Yes, that is right.*
>
> ***Mr VALENTINE*** *- …… Do you work out with the land owner about the loading of the road? If they are putting major gear down that road, do you work out with them first the standard it should be built to or do you dictate to them what the standard -*
>
> ***Mr MANNERING*** *- No, we talk to them about the types of vehicles they use. Some farmers have only semi-trailers coming in, others like a lot of the ones along here have got B-doubles, harvesters, those sorts of things. We get that information from them to understand it and then we work up the design.*

4.19 The witnesses also indicated this is an example of how the consultation process allows the Department to work effectively with landowners. This ensures that works are designed in way that accommodate how landowners use their property, and once built, there are appropriate checks in place to ensure that what has been agreed to is what has been constructed by the contractor:

> ***Mr MANNERING*** *- ……Like all projects the department undertakes, the contract administration team will make sure the contractor builds to the standard we have requested.*
>
> *……As part of the consultation process we do fencing and accesses and work with the landowners and agree on exactly what is going to be done. We have worked through a process with fencing and access agreements so that they get left with a written record of what we have agreed to provide for them. Once construction finishes, we both have a record of what we said we were going to do. If anything has not matched up there is a way to rectify that. Everything we agree with the land owners gets incorporated into the design documentation, whether drawings or contract specification that goes with the works. All gets given to the contractor to implement and build.*
>
> *….. We show them what we have worked up to accommodate their needs to make sure it fits their needs and that goes into the documents. That is the process we work through.*

Land Acquisition

4.20 Land from 12 individual titles will be subject to property acquisition for the proposed works. Land will be acquired from 3 major agricultural properties, namely, Fairfield, Forton and the Powranna Feedlot, 2 other properties and a section of Crown Land,.

4.21 The Committee sought further detail from the witnesses on how the land acquisition process was progressing, and the following exchange took place:

> ***CHAIR*** *- I would like to move to the property acquisition. There is quite a considerable number of pieces of land that were acquired. What we saw on the site visit was the need to widen a lot of that land through the Houghton property. Can you give me an overview of progress on the resolution? Are there any issues with the land acquisition and negotiations?…… is that all in order?*
>
> ***Mr CONFORTI*** *- The landowners have been provided with a notice to treat. The consultant is currently working on the survey plans, which will soon be provided to the landowners and to the Valuer-General. We do not know yet the exact area which will be acquired but we are well into the process.*
>
> ***CHAIR*** *- You are not aware of any problems?*
>
> ***Mr ROSS*** *- No. The notice to treat process is the commencement of an acquisition process, which is a compulsory acquisition process. This gives us certainty of being able to undertake works. Whilst sometimes negotiations can continue for some time, the property is as good as vested with us, so we can commence construction.*
>
> ***CHAIR*** *- Without issues of trespass.*
>
> ***Mr ROSS*** *- That is right.*
>
> ***CHAIR*** *- Yes.*
>
> ***Mr VALENTINE*** *- Do you do your consult with the land owner before you issue the notice to treat?*
>
> ***Mr ROSS*** *- Yes.*
>
> ***Mr VALENTINE*** *- It sounds sensible.*
>
> ***Mr CONFORTI*** *- We do not get involved in quantifying the value of the land. That is just solely the job of the Valuer-General.*

Impact on Property Accesses

4.22 There are a number of property accesses that will be impacted along the length of the project. A number of accesses along the highway will be upgraded, relocated or closed as part of the proposed works. Some of these will be designed as left-in/left-out accesses due to the installation of the flexible safety barrier in the central median. This will require of additional turning facilities as part of the proposed works.

4.23 The accesses to Fairfield and Forton properties will be upgraded and slightly relocated to cater for the widening of the road. Safe public turning facilities will also be provided at these accesses as part of the works. A crest near the Forton access will be lowered by 1.5m as part of these works to ensure that the Safe Intersection Sight Distance is achieved.

4.24 The Powranna Feedlot access will be located win a 1+1 lane section of the highway and will require a break in the median safety barrier to allow access like the current arrangement. This will be for access only and is not a public turning facility and will be signed as 'No U-Turn' for general traffic, except for emergency vehicles.

4.25 There are several minor property accesses reclassified as "left in – left out" located along this section of the Midland Highway. It is proposed that all currently licensed access points be left in - left out and utilise the turning facilities provided as required. All the existing licensed accesses will be modified to suit the new Highway levels and turn movements.

4.26 The Department of State Growth has identified a number of unlicensed accesses along this section of the Highway. Safety is improved when the number of accesses to the highway is limited. As the primary aim of the Midland Highway upgrade program is to improve safety for all road users, it is the Department's general policy to close unlicensed accesses in consultation with the affected landowners. All unlicensed accesses will be closed and new fencing installed to replace gates where required.

4.27 The Committee sought further information from the witnesses on how the closure of unlicensed accesses was proceeding:

> ***CHAIR*** *- In terms of the unlicensed accesses that you mentioned with us, where are we at with that? It sounds like is not completed yet. Do you just fence them off?*
>
> ***Mr CONFORTI*** *- We had extensive discussion to explain exactly what is happening to all the landowners, and still have to formalise the access and fencing agreement. That is basically the description of what we have been negotiating with them. We require the signature of the landowner, which I understand, is just a few days away.*
>
> ***CHAIR*** *- Likely to occur, in your opinion?*
>
> ***Mr CONFORTI*** *- Yes.*
>
> ***Mr ROSS*** *- All the landowners have been notified the accesses will be closed. At the moment we are going through a process where some of those landowners, are questioning our decision to close those accesses. We are in the process of providing them information in regards to why they have to be closed and are an unlicensed access.*
>
> ***CHAIR*** *- Good.*
>
> ***Mr VALENTINE*** *- There are not any showstopper issues coming up?*
>
> ***Mr ROSS*** *- It is not a showstopper. It is just a process we have to go through where we need to notify the landowners of what we are intending to do.*
>
> ***Mr VALENTINE*** *- Hopefully we are notifying them of what we intend to do after we have considered their concerns and the impact it might have on them. That is the main concern for us.*
>
> ***Mr SHELTON*** *- I understand the process we have and the Government can do land acquisitions and closing off accesses - From the committee's point of view, and Rob has mentioned showstoppers - there is none of the landowners at the moment jumping up and down and threatening to take the Government to court over issues been raised through this process? Everything you can see is going to be satisfied through the normal process?*
>
> ***Mr ROSS*** *- Yes.*

Value for Money

4.28 When assessing a proposed public work the Committee always seeks evidence on whether the proposed project is a good use of public funds and "value for money". In his submission, Mr Eaton raised this matter and stated that "*there is no evidence that the work is "value for money"*".

4.29 The Committee questioned the witnesses on whether the project was value for money, and the following exchanges took place:

> ***CHAIR*** *- Okay. The fundamental question we have to answer for Public Works is to determine whether this is value for money.*
>
> ***Mr CONFORTI*** *- …… Traditionally the normal process for designing a job goes through three phases, that is, concept design, preliminary design and then detailed design. In the Department of State Growth we have a process of reviewing every one of the stages. There are a number of people involved in the process and some of them are specialised in certain fields who look at the design to that stage, concept, preliminary and then detailed design, and make comments for potential improvements. These comments are taken on board by the consultant, by the designer, and incorporated in the design in each stage.*
>
> *In addition for the Midlands Highway project we added two additional processes. One is a review from an external consultant. It is another set of eyes from experienced designers to advise us and the designer of things that may have been overlooked or potentially subject to improvement. Another process, perhaps the most important, we also have a constructability review made by an external contractor. They look at the design from the contractor point of view and suggest if there are potential savings or ways to construct the job in a more economical way.*
>
> *For that review we make sure there is no conflict of interest and do not involve the contractors that potentially could tender for the job. This external review does not have any interest as a consequence to that particular job and they can give us their best advice.*
>
> ***CHAIR*** *- And the outcome was?*
>
> ***Mr MANNERING*** *- …… the key thing with this job is value for money. It is an 11 kilometre job and in the report, the P50 cost estimates of $32.4 million works out about $2.9 million a kilometre. This is pretty good relative to the other sections of the highway we are upgrading, especially when you consider the overtaking opportunities we are embedding in this project. Because the barrier is going in and whilst the key objective of the project is primarily is improving safety, we are also trying to maintain safe overtaking opportunities. We are going from having one overtaking opportunity in each direction to three, so have a wider cross section in terms of the upgrade. From that perspective the job does provide good value for money in terms of works delivery.*
>
> ***Mr VALENTINE*** *- …… Do you scavenge the current materials on the road surface and reuse in the project?*
>
> ***Mr MANNERING*** *- Yes. That is a big way we provide value for money and what we are doing.*
>
> ***Mr VALENTINE*** *- That is where the value for money comes in?*
>
> ***Mr MANNERING*** *- Yes. We try to reuse the existing pavement wherever we can. A lot of the sections on the highway, depending on their conditions, it depends on the existing seal fitness a bit but we would munch up the existing pavement, put some more gravel on the top and then reshape it to join with the new bits of widening.*

***Mr MANNERING** - ……We have incorporated that into the project and that is very much part of the value-for-money process. One of the big things with these projects is trying to retain use of the existing pavement. In the cost estimate, pavement materials are a big component of the project. Where we can reuse the existing highway, that means we can extend the funding for the program further and improve the safety benefits along the highway.*

Impact on Utilities and Services

4.30 The Committee noted there would be a need to relocate the Telstra and TasNetworks (formerly Aurora Energy) services located in the road reservation. The Committee sought further information on how negotiations were progressing with these public utilities, and where their assets would be relocated to:

***CHAIR** - I have a question in regard to the negotiations and what is going on with the utilities. You say here that it is ongoing. Can you give me an update on where you are with Aurora?*

***Mr CONFORTI** - There have been site visits and talking with TasNetworks. They have an overhead line crossing from east to west and running along the west section of road that we are looking at, which would be relocated. Pitt and Sherry, the designer, provided a design to TasNetworks. They have done the revision of the design. They came with an offer to us, which is currently being seen by the department and will be signed soon. That is pretty much the biggest relocation that we are going to do.*

***CHAIR** - And Telstra?*

***Mr CONFORTI** - There will be Telstra as well. We are still looking into it. At the moment we are doing the detailed design for the works. We will negotiate these works with the infrastructure providers.*

***CHAIR** - Do you think it is going to come within the cost parameters that you have already indicated for your project?*

***Mr CONFORTI** - Yes. The relocation of the utilities were included in the bigger estimate for the works. They seem to be in the budget. They did not come over the budget.*

***Mr VALENTINE** - In relation to that, once the utilities are in place, they are obviously not within the assets. They are outside the main assets of the state Government. If they decide to come back at a later time and need to dig trenches and the like, they are not going to be digging up state government asset, are they? I am thinking particularly of telecommunications.*

***Mr CONFORTI** - Telecommunications are normally positioned immediately outside the broad alignment while the TasNetworks poles are just inside the road reserve, just adjoining the fencing.*

***Mr VALENTINE** - That is fine. I understand.*

***Mr CONFORTI** - That is the general principle, but depending on circumstances -*

***Mr VALENTINE** - The reason I asked the question was, when we were in local government, we would go in and put in a new road and new footpaths and things, and then all of a sudden, Telco would come along and want to dig a trench right through the middle of the new asset, effectively reducing its life. That is not the circumstance here. That is what I wanted to clarify. Thank you.*

***Mr CONFORTI** - It is not.*

4.31 The Committee also sought confirmation that the consultation with public utilities had included discussions on their future plans, so that any future impact on the new road assets may be mitigated:

Mr SHELTON *- As we are both local government, the thought came to me also, Rob. I would not imagine it is the issue here. We are talking about a strip of the Midlands Highway and there is not likely to be any other reason to dig the asset up. As Rob has mentioned, we have seen it many times in the past where local government, or a body, has resealed a piece of road or whatever - a footpath - and then two months after that it is dug up again because of another - whether it is a gas pipeline or whatever. Does State Growth go through a process of asking the major utilities what their forward planning is and whether that forward planning affects a project you are looking at? Is there that forward thinking?*

Mr CONFORTI *- Yes that is part of the concept design when we go through these considerations.*

4.32 The witnesses also noted there were privately-owned services that cross the Highway and provided further information on consultation undertaken with landowners to ensure these types of services are accommodated in the project design:

Mr CONFORTI *- … … In addition to that we may have private services crossing the road. That is usually irrigation. They insert it in the culverts or their stock underpasses. I believe we have some of them along this stretch of road, which we have been checking on. We have been talking to the landowners to make sure there are no additional ones that we do not know of.*

Mr VALENTINE *- It is pipes you are talking about? Are you talking about irrigation pipes?*

Mr CONFORTI *- Yes. Irrigation pipes generally.*

Mr MANNERING *- I can explain that if you like. The normal water pipe assets like steel water mains and those sorts of things are really easy to track with a locator so we can find them. Some of the poly ones can't be detected as easily, especially smaller diameter pipes. So consultation with landowners is important, getting the knowledge from them about where they have infrastructure so we can take that into account in the design. We do go to a lot of effort to talk to landowners and understand where they have assets so if we need to lower them or if they have plans for a future one, we can deal with that in the design.*

Impact on Pioneer Avenue Tree Plantings

4.33 The project site contains significant Pioneer Avenue tree plantings. Impact upon these is unavoidable due to road widening, where they are classified as a roadside hazard or due to relocation of public utility services. However, plans developed in conjunction with landowners and relevant approval authorities will ensure that any impacts are minimised.

4.34 The Committee sought further detail from the witnesses on the impact on the Pioneer Avenue tree plantings, including how they were identified as being significant from an historic heritage perspective:

Mr VALENTINE *- … … You are talking about 12 historic plantings between Epping Forest and Powranna. Can you run us through any issues that there have been with regard to eliminating some of those historic plantings? I note you have here that you are going to do some further plantings if you run into issues with the local community in taking out heritage trees that might have been planted. Memorial trees, or are there any community issues there that are going to pop up and bite us at a later point?*

Mr MANNERING - *The answer to that is no. We are working through with pioneer trees and with the landowners to replace those on their property, if they want them, as part of that process. We are still working through that as part of finalising fencing and access agreements. The only other thing from a community perspective, which you might have*

noticed on the site inspection, is that there are a couple of crash markers from fatalities along the road. The department has a process in place for consulting with families about that on projects where work is going to be undertaken.

***Mr VALENTINE** - Very good.*

***Mr SHELTON** - On those 12 trees, are they mainly on the private properties?*

***Mr MANNERING -** Some are within the existing road reservation.*

***Mr SHELTON** - What species are they?*

***Mr MANNERING -** Now you are testing me.*

***Mr SHELTON** - I travel this road a lot. You don't see any oak or Douglas firs.*

***Mr CONFORTI** - As far as I know, on this section of road there are no European or continental species. They are all natives.*

***Mr SHELTON** - ……How have we identified that there are 12 historic plantings if they are natives? I am trying to understand whether its is a tree that has grown up there and has been there a long time, or whether it is a tree that has been planted and has significant cultural issues with one of the landowners? If it was on their land, they would know about it. If it is in the road reserve then -*

***Mr CONFORTI** - We were advised this information by an external specialised historical heritage consultant. They provide us the specific information.*

***Mr SHELTON** - I will have to have a look through the plans and find out. They are marked, aren't they?*

***Mr MANNERING -** Yes, they are marked on the plans. What Stefano says is right. For this project State Growth engaged a specialist heritage consultant. They go through and look at the history of the use of the highway. They have picked up where those plants through that process, whether it is through talking to people who know about history of highways - there are some well documented books and things on the history - or talking to landowners about it. That is what has helped to identify those trees.*

***Mr CONFORTI** - ……As part of the stakeholders' engagement, we never had any comment from any of the local community about these trees so I suppose they are not of concern for the landowners.*

Powranna Road Intersection

4.35 The Committee noted that the Powranna Cattle Saleyard is located on Powranna Road. The Committee also noted that any increase in activities at the saleyard could cause increased traffic flow at the Powranna Road intersection. The Committee sought further information from the witnesses on the implications of increased traffic volumes at this intersection:

***CHAIR** - While we were on a site visit at the Powranna intersection, near the Powranna sale yards I think we identified that. Could you explain why you think the design of that intersection will be sufficient for the traffic? How will it deal with B-doubles turning right out of the Powranna Road to turn south, and trucks coming in from the north to turn left to turn into the Powranna Road?*

***Mr MANNERING** - Our project actually finishes at the Powranna Road junction; that is the northern extent of our project. We have a U-turn facility, a P-turn facility, going on the southern side of Powranna Road. The existing junction there has turn lanes provided already. There is a left-turn lane as you are heading north. The traffic can move out of the through lane to turn left. Also traffic coming from the north heading south is able to move*

into a right-turn lane to be able to turn in from there. That gets them out of the way of the through traffic while they are waiting for a gap in the opposing direction of traffic.

For the volumes that we anticipate at the junction, at the moment, that geometry works well. It is consistent with other treatments along the highway with similar sorts of volumes. It is an appropriate treatment for that location. One of the things we are conscious of is because the feed lot operates on both sides of the highway there, there are movements out of the feed lot up to Powranna Road into there, so we have a gap in the median barrier at the feed lot access on the eastern side of the highway. Vehicles can turn right and go up and then turn left into Powranna Road. We have made that available to them. Then for the left turn, for vehicles turning out of the feed lot heading south, there is a new southbound-overtaking opportunity that commences almost immediately south of the junction. For a vehicle accelerating out of there, there is an opportunity for following vehicles to be able to move past them efficiently so they are not holding up the vehicles on the highway, and minimising any risk of rear-end collisions.

***CHAIR** - Mr Shelton raised the issue that Elders Australia might have been closed in Launceston and so Elders would also be running sales. In other words, the capacity would significantly increase at the Powranna saleyards. Could you make some comment about that?*

***Mr SHELTON** - In the past the Launceston City Council has said that the saleyards may close one day and that Elders may end up somewhere else. There has only been a general discussion. I would not like anybody to say that I had indicated that Elders were shifting down there. I just wanted to make that point, that there is a possibility that one day that could become the sale centre from the north and have both companies operating out of that one venue and therefore basically doubling what is there today.*

***Mr MANNERING** - Today is the first day we have heard about that. We think what we have there is appropriate at the moment but we will make more inquiries and see whether the timing does change anything in terms of our consideration of the project. As we mentioned when we were out on site, if that did happen down the track there is nothing to preclude us being able to come back and make some modifications to the intersection in the future, especially if there is not high certainty about it at the moment. What we are doing is not going to preclude any upgrades from being considered in the future.*

Defects Liability

4.36 The Committee noted there had been occurrences where remedial roadworks had to be undertaken due to works not performing as they should have. The Committee questioned the witnesses on contractual arrangements and how these cater for the remediation of defects:

***Mr VALENTINE** - We have noticed on a lot of projects - and not just in the life time of your government, Madam Chair, I must say that - you get a lot of stripping of chips off the top of the tarmac. It is very dangerous. I know in the south-east that there has been a lot of that and I have brought up questions on this in Parliament. I am not sure why that has been. It is absolutely deadly for a motor cyclist, because you have loose rock then smooth and then rough and smooth and it is not great when you only have the size of your fist as grip on the road.*

What are we doing to make sure when contractors lay this stuff they are laying it at the right temperature, thickness and aggregate to stop that from happening? It has happened a lot. My colleague says as you drive through various areas, you see bald sections where the chip seals come right off. I have been noticing it has happened a lot over the last eight years.

***Mr ROSS** - The department has a specification and we contract out these works to a professional contractor to undertake the sealing works. Where they have defects including things like stripping, it is the responsibility of the contractor to then mitigate against any*

issues. For example, on some sections where there is a strip they have come back and reduced speed.

***Mr VALENTINE** - That is the trouble.*

***Mr ROSS** - They are also made to sweep these areas and come back and rectify them. It is contractual arrangements and whilst we can have people out of the road who are inspecting this, at the end of the day we are relying on professional contractors to undertake this work.*

***Mr VALENTINE** - That is right. It is a real issue because as soon as it starts to strip off the department comes in and puts in speed limit signs because they don't want to be liable for accidents that might be caused through the insufficient surface. A contractor has to arrange to then reseal it or whatever they have to do. At the end of the day it is very costly to have to go back and revisit things all the time and it is very inconvenient for the public.*

Somebody who used to be an engineer way back when I was in the department, between 1974 and 1984, said a lot of this happens because they get the specifications wrong. I would not want to question that at all because I am not an expert. It would be interesting for you to read his article but it is making sure there is enough tarmac there to have the chip seal embed itself firmly into to the tarmac and the two levels of aggregate he used.

I would like to have some comfort if you can tell me what your experience is on that.

***Mr MANNERING -** There is no doubt in historic times the department has been well aware of some of those issues arising. One of the key things they did last year is, they have changed their standard specifications. The current roadwork specifications and the ones this project will be built to are actually a slightly modified version of the Vic Roads standard specifications, so the same specifications they use in Victoria.*

That decision to change those specifications has been all about getting, not just sealing practices but all road constructions practises, lifting the bar to improve the quality of those things. Sealing is covered by that and the sealing works in this project will have to be accordance with those Vic Roads specifications.

***Mr VALENTINE** - How long did you say it has been since that was changed?*

***Mr MANNERING -** I think maybe June/July last year.*

***Mr ROSS** - All contracts that have been let since June/July last year.*

***Mr ROSS** - ……There is one other change thing we have done. Traditionally, when Ross was talking about a two-stage process for sealing a road. The first one is a temporary primaseal that generally last for 12 months until you put down a final seal. Previously we have been undertaking final seals as part of a separate statewide contract. We are actually bringing that back in so contractors will be responsible for also doing the final seal. The idea is you are making the same contractor who builds and constructs the initial temporary seal also responsible to do the final sealing process. That is another change from which we will get much better results.*

4.37 The Committee also questioned whether there had been any recent changes in how defects are managed with contractors within the Department of State Growth's roadworks contracts:

***CHAIR** - I understand, and my recollection might not be accurate so please clarify this, that we have extended the limitation period for when they have to repair defects. Did it not used to be that it was only for 12 months and it is a much longer period they now have to come back and rectify defects if the surface strips or does any of these other things on the surface, is that right?*

***Mr ROSS** - If there is a defect on the road within the defects period that is cause to extend the defects period. The contractor not only has to make the original date of the defect period. They will have to fix the defect and the defects period starts again. If you have*

stripping issues, the superintendent is allowed to extend that period and make the contractors responsible until he thinks it is deemed to be acceptable and fit for purpose.

***CHAIR** - This came up in one of the very first public works meetings I had in 2014 and there was a change in how we were doing defects. I was trying to address Mr Valentine's concerns that was different from how it used to be, but I cannot remember the detail. Is that right? I want to be sure I am right on that.*

***Mr MANNERING** - I would have to double check whether there has been any change to defects liability period. Certainly historically defects liability period for roadworks was 52 weeks, 12 months. I would have to double check whether there has been any recent modifications.*

Certainly as Ted was alluding to is if there is an issue that needs to be dealt with within the period, the contractor is required at the direction of the superintendent to go back and rectify that. Once the defect period does pass, the maintenance contract kicks in when the department then becomes responsible for maintenance. The maintenance contractor in their performance requirements takes over for looking after the road and making sure it is in a fit condition.

***CHAIR** - ……Ross, if you could clarify that information and get it back to Scott in terms of the defect period that would be useful to have please.*

4.38 Mr Conforti subsequently confirmed in writing to the Committee that there had been no recent change(i.e. in the last 5 years) to the length of the defects liability period for the Department's roadworks contracts or any change to how the defects liability period is extended once a defect is recognised.

Reduced Speed Limits Through Roadworks

4.39 The Committee noted that there was often significant driver frustration at reduced speed limits in place through sections of roadworks, particularly when workers were not present on the site, and that this frustration can lead to unsafe driving behaviour. The witnesses recognised this frustration and provided further detail on current arrangements. The witnesses also indicated the Department was looking at ways to safely minimise these occurrences in future:

***Mr VALENTINE** - During the construction process one thing that really annoys road users is travelling through at night when there is a 40 kilometre or 60 kilometre sign up. While workers are in place you can understand it. You have to travel slowly. You have signs on the road and you have to remember the slow speeds are there for the safety of the workers. They knock off largely at 4.30 in the afternoon and all night people are travelling at 40 kilometres and getting frustrated. I have been there obeying the speed limits and have had people right up behind. The opportunity for accidents is probably quite significant because people get frustrated and want to pass. Is there any instruction given to contractors they can put a different speed sleeve over those signs once they have finished working on that site, assuming the pavement can put up with a higher speed at night? What is being done to save frustration for motorists during the construction process?*

***Mr ROSS** - Over the last few months we have been reviewing the some projects, especially down south, Kempton to Melton Mowbray, Mona Vale job currently under construction, south of Perth. We have been working very closely with the industry about the level of disruption on the road and frustration experienced by drivers.*

What we have been doing is working with the industry to explain to them about the need for us to be more consistent throughout the project, and advising people on the reasons why the speed limits have to be what they are. More recently we have also had a traffic engineer do a review looking at where we can try to maintain high speeds.

We would like to make sure contractors, when they finish a section of works, that they can go back up to a higher speed, or if they can have higher speeds at night. We are working through a process of saying, 'What do we need to do in order to meet that type of requirement?'

***Mr VALENTINE** - Only where it is safe, obviously to do so.*

***Mr ROSS** - Yes, where it is safe. We are looking at writing that in to this contract as a way of specifying a requirement for the contractor to maintain a safe site, but also to maintain appropriate speeds.*

***Mr VALENTINE** - Does a contractor have the authority to actually put up the speed they think is applicable, or do you dictate to them what speed will be used?*

***Mr ROSS** - They are required to undertake traffic management in accordance with the Australian Standard. The department has a process where we review those traffic management plans before they are implemented. What we are looking at doing as part of this contract is providing more detail in regards to not only in accordance with the Australian Standard, but actually providing more detail around the performance-type requirements we want in terms of managing the speeds.*

We are putting the reliance on the contractor then to work out what mitigating measures they need to do to make sure they can work safe. What we are trying to do in a contractual way, is to promote high speeds where appropriate and reduce speeds where they have to as well. At the moment we do not - we would agree that we do not quite have the balance we would like.

***Mr VALENTINE** - There are some places where you can travel for three or four kilometres at 80 kilometres an hour and there is not a person in sight. Of course you get people then putting their foot down and around the corner -*

***Mr ROSS** - The speed limits are not only there for the safety of the workers; they are also there for the safety of drivers. In many instances we have other roadside hazards, like drop-offs or machinery or loose gravel.*

***Mr VALENTINE** - No lines or whatever.*

***Mr ROSS** - Yes. We are also managing the safety of the motorists.*

***Mr SHELTON** - I believe I am right in saying, and I get frustrated too driving through this and my wife gets more frustrated, but the reality is the contractor owns the liability on that work site?*

***Mr ROSS** - When we let a contract, the contractor takes on responsibility for maintaining and is responsible for the safe passage of motorists and of their workers through the site.*

***Mr SHELTON** - The line has been covered at any point or whatever, and even though it is not all day, you can understand a contractor not being willing to raise the speed limit. There is some negotiation and I am glad you are working with the industry to try to remove some of the frustration.*

***Mr VALENTINE** - Or refine it.*

***Mr SHELTON** - Or refine it. That is good.*

***Mr ROSS** - It is not just - the department recognises it is our responsibility too.*

***Mr VALENTINE** - You have an overarching responsibility. It is interesting though when they put a speed limit sign up of 40 kms an hour - this morning I was travelling at 40 kms for a few kilometres down the road, and there is a person absolutely right on my hammer like, 'Speed up,' and I thought, no, I am not. Presumably the police can actually book someone for going over that speed. Those speed limit signs are legal?*

***Mr ROSS** - Yes. There is a few other things we are doing. All our contractors work with local police in regards to policing if there is an issue.*

A Four-Lane Midland Highway

4.40 In his submission, Mr Eaton questioned whether the Midland Highway upgrades program has included consideration of future upgrades to the highway, specifically "*does the ROW width allow for 2 lanes each direction as promised by the present government?*"

4.41 The Committee sought further information on whether the potential to upgrade to a four-lane highway had been a consideration in the current Midland Highway upgrade program:

> ***CHAIR*** *- ... ... Has consideration been given to an upgrade at a future date to allow for a four line highway?*
>
> ***Mr ROSS*** *- In regards to this section of road, the traffic volumes only warrant the treatment we have selected in terms of the two plus one. Our position is the sections we are upgrading are the northern and southern end and we are extending on existing four lane sections. In terms of future upgrades of this section how far ahead would we have looked at the traffic volumes?*
>
> ***Mr MANNERING*** *- We would have looked at 10 years advance of now in terms of traffic growth.*
>
> ***Mr ROSS*** *- Even then they are still well below any warrant for a four lane section through this section. We are quite comfortable what we are proposing here is going to last for a very long time.*
>
> ***Mr VALENTINE*** *- No doubt the surface will degrade at some point of time over 10 years. The traffic volumes might be greater than the four lanes and possibly need attention.*
>
> ***Mr MANNERING*** *- I will clarify that. From a traffic volume perspective we probably look 10 years in advance. From a pavement perspective, we normally design for 20 years to make sure.*

5 DOCUMENTS TAKEN INTO EVIDENCE

5.1 The following documents were taken into evidence and considered by the Committee:

- Midland Highway Upgrade Program – Epping Forest to Powranna - Submission to the Parliamentary Standing Committee on Public Works, Department of State Growth, 28 February 2017.
- Email Submissions from Mr Terry Eaton, dated Friday 10 March 2017 and Wednesday 8 March 2017.
- Email from Mr Stefano Conforti, dated 22 March 2017, providing additional information on the defects liability period for Department of State Growth roadworks contracts.

6 CONCLUSION AND RECOMMENDATION

6.1 The Committee is satisfied that the need for the proposed works has been established. Once completed, the proposed works will result in a much safer road environment for all users by:

- reducing head-on collisions through the provision of a flexible safety barrier in the median;
- providing additional safe overtaking opportunities while eliminating the opportunity for dangerous overtaking manoeuvres;
- providing additional safe turning facilities;
- changing the road alignment in sections where the current road geometry contributes to reduced driver visibility; and
- removing roadside hazards.

6.2 Accordingly, the Committee recommends the Midland Highway Safety Upgrade Package – Epping Forest to Powranna, at an estimated cost of $34,244,574, in accordance with the documentation submitted.

Parliament House
Hobart
12 April 2017

Joan Rylah MP
Chair