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THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS MET AT HENTY HOUSE, LEVEL 4, CIVIC SQUARE, CHARLES STREET, LAUNCESTON, ON THURSDAY, 9 FEBRUARY 2012.

MATHINNA/EVERCREECH BRIDGE REPLACEMENTS

Ms SARAH BOYLE, ACTING MANAGER PLANNING AND DESIGN, AND **Mr STEVEN KACZMARSKI**, PROJECT MANAGER, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR (Mr Harriss) - Before we get started, Steve suggested that, as an overview of the North East Freight Roads Program, Sarah might give us a snapshot of where this particular project fits into that overall because there will be future projects not too far away which we will need to consider. If that is agreeable to the committee, if you would not mind doing that, Sarah.

Ms BOYLE - I am happy to do that. As you are aware, the North East Freight Roads Program is a \$42.5 million program of which \$34 million is a Federal contribution and \$8.5 million is a State Government contribution. The first project that was completed under the North East Freight Roads Program was the Tebrakunna Bridge which was completed in April last year and that is on Tebrakunna Road, near Pioneer and it was completed at a cost of \$1.3 million. That was the first project that was rolled out under the North East Freight Roads.

Since then we have been focused on the planning phase. The other major project areas making up the program are the Mathinna/Evercreech bridges. There are five bridges we are seeking to replace down around the Mathinna area. We are seeking to upgrade the Tasman Highway between Derby through to the junction of Gladstone Main Road and then a short section, 2 kilometres at Gladstone Main Road up to Herrick and the purpose of that is to achieve a cross-section that will support the use of B-doubles and support the freight industry, particularly the forest freight industry, but also some of the agricultural and dairy industry up here in the far north-east.

The next project that is running in parallel to the Tasman Highway upgrades is the upgrade of Bridport Main Road. That is a significant freight route. It doesn't meet cost-section requirements for high productivity vehicles yet it is a high productivity vehicle route. We also have a school bus curfew on the Bridport Main Road so during the school bus hours of eight and nine and three and four in the afternoon B-doubles are not permitted to run along there so we are seeking to upgrade that road so that we meet the cost-section and also can apply to have the curfew lifted as well by improving bus space.

The next project under this program is upgrading the three junctions on the Prossers Road/Patersonia Road, so we are upgrading the Tasman Highway junction at Nunamara with Patersonia Road and upgrading the junction between Patersonia Road and Prossers Road and the most significant upgrade is the upgrade of the junction between Lilydale Main Road and Prossers Road at this end.

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The final project under the North East Freight Roads Program will be some upgrades along Camden Hills Road. The Launceston Council has put together a little package of works that are targeted just minor curve improvements but from Camden Hill Road down to the Tasman Highway is a high productivity gazetted route so there are just some curves there that aren't working very well for the log freight vehicles.

Mr BOOTH - Why were the project names on these north-east forest roads -

CHAIR - We are just doing an overview at the moment, Kim, because there are other projects which are looming. We are talking about the overall north-east freight roads strategy/program so it is just an overview of others and we will come to the specifics -

Mr BOOTH - That is okay, but it was a general thing but I can ask it later.

Ms BOYLE - The two other projects shown on this plan which we had hoped to include; the status of those has changed. We are looking to upgrade the Bridport Main Road junction with the East Tamar Highway under this package. On further closer assessment what the agencies agreed to do is upgrade this junction with a similar treatment to one of the junctions on the Dilston bypass and it is just about giving notice for vehicles, and particularly for freight vehicles turning out of Bridport Main Road and turning right towards Bell Bay, so we have actually moved this project into the safety program so DIER will just pay for that out of their safety program.

The other project that is marked on here is the junction of Rocherlea Road and George Town Road and we will not be doing any work there at all as all the funds will be soaked up in these five projects.

CHAIR - On the specific project we're looking at today, Steven would you like to give us an overview?

Mr KACZMARSKI - As a brief summary, as Sarah identified, these five bridges are part of the north-east freight roads program. In effect, the bridges that are there at the moment were built many years ago and are in a poor state of repair. Three bridges have load limits on them at the moment, so that means that no freight can leave from the timber-harvesting area and go on the preferred route, which is to go through the Esk Highway and back up to George Town. They are being forced to use the other routes up through Ringarooma and Legerwood, which are much more mountainous and difficult and narrow roads. The purpose of this replacement is to allow those vehicles to go down to the Esk Highway, which is a much quicker and more efficient route for freight to move along.

Mr BOOTH - Why was the name of this project changed from the 'north-east forest roads project' to 'north-east freight road project'?

Mr KACZMARSKI - It was primarily in recognition that along Bridport Main Road particularly there is mixed freight; it is not just forest freight. There is a significant amount of agricultural freight along that road and there is some agricultural freight that runs along Tasman Highway as well.

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Mr BOOTH - What minister changed that? What drove the change from something that was clearly driven by a forest industry need to somehow sanitise it by changing it to freight roads for the whole area? I acknowledge that there are obviously other users but it was part of the forest industry strategy, it was called the 'north-east forest roads project'.

Ms BOYLE - This happened about three years ago. It was the minister prior to Lara Giddings.

Mr KACZMARSKI - It might be fair to say that we can't answer that at the moment.

Ms BOYLE - There was a process that was entered into in discussion on the change of the name and the minister at the time -

Mr BOOTH - It was a ministerial decision, not a departmental decision?

Ms BOYLE - Yes.

Mr BOOTH - In terms of that, you've identified the Bridport one as having potentially significant volumes of other freight, other than forests. Do you have a current breakdown of the amount of forest product transport as opposed to farm product transport on all the different projects proposed?

Ms BOYLE - I don't have the current percentage. Two years ago we conducted the third cycle of the Tasmanian Freight Survey, which is to be called the 'freight demand survey', in which all significant freight operators are surveyed for the current point-in-time freight task. At the moment I don't have the figures for the other general freight on Bridport and Tasman. We know there's a complicated movement for the dairy up here because they can't use HPB or a B-double trailer. They are doing something complicated and dropping a trailer in Branxholm, taking one trailer up and getting the milk and coming back and dropping that trailer and then moving on to another place to fill it up. There is at least one vehicle a day that does that, which adds significantly to the transport costs.

Mr BOOTH - So you don't have any contemporary demand figures?

Ms BOYLE - Not with me right now, no.

Mr BOOTH - These projects that have been determined, I assume there is some prioritisation of the design or supply of road networks based on a prioritised basis around the State. Have these been benchmarked or compared to the needs of roads in the south of the State, the Midland Highway or anywhere else?

Ms BOYLE - They haven't in the sense that because the money was allocated to this area we were required to upgrade the priority roads in this region.

Mr BOOTH - Was that Federal money?

Ms BOYLE - Yes, the \$34 million was Federal money, and it was targeted at this regional area.

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Mr BOOTH - Is there any intention to reprioritise or have another look at it given the demographic changes, particularly the industrial changes that have occurred in forestry? It could be a one-way journey, for example, we don't know, whereas it was predicated on the north-east being turned into a pulp mill wood production zone, which doesn't seem to be the case now. Has the department reanalysed the demand projections?

Ms BOYLE - For the forest freight demands - and you can see the shaded areas are reflective of the density of the forest coupes that can be extracted - some of the routes initially were analysed on pre-forest restructuring. This analysis was done immediately after the election commitment in 2007. The department built up something called a forest freight model and they collated the data from all the stakeholders with coupes that would be harvested. That model was developed and initially some of these projects were identified. The initial program comprised a link road from Blessington Road up to Tasman Highway, just near Nunamara. That link road was going to collect from the Ben Lomond and Roses Tier area - so it was basically all the upper Esk. It was going to collect timber from that area and move through the link road and up onto Prossers Road. It was essentially a bypass of Launceston for the Blessington, Upper Blessington and Roses Tier catchments.

Two things happened at the same time. Once we started evaluating the field conditions it was clear that the cost to construct that was going to take most of this funding allocation. The other thing, that was more significant, is that there is a lot of native forest up here so a lot of the vehicles that were going to move along there were going to be taking native forest product out. With the forest principles agreement pretty well overnight when Gunns withdrew from native forest harvesting the number of vehicles that would be using this road halved basically so we withdrew that project. We represented the case to the State and the Federal governments to remove that project from the program and replace it with these bridges.

Mr BOOTH - Given that you've negotiated the change for that particular road with the Federal Government, is that on the basis of just forest industry needs or are the communications now based on demonstrated need by other industries as well? The context of that is that the north-east is an area that has significant freight movements. There is a lot of timber and other products that are moved and potential growth areas that may be in other industries in other areas. It has been put to me by people in the north-east that in fact the whole north-east forest road strategy is a disaster as far as they are concerned. They want to see the Bridport Main Road done and they want to see the Lilydale Road done but as far as the rest of it goes, it is not really validated by the need anymore.

Ms BOYLE - The Bridport Main Road is probably our priority project in this because most of it does not meet HPV compliance. Within the program itself there was a nominal allocation of funding split between these so Bridport nominally is about \$14 million at the moment. In terms of reprioritising the remainder of these three significant projects and then the junction improvements here we have not stepped back and reprioritised and Bridport maintains the priority because of its general use and high traffic volumes. The time clock is that the Federal funding has been allocated from the Nation Building Program and that program finishes at the end of June 2014. We are planning on the delivery of all these projects prior to the end of the Nation Building Program.

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Mr BOOTH - Have you consulted with the Dorset Council recently with regard to their priorities?

Ms BOYLE - We have certainly spoken and kept the Dorset Council in the loop - September/October was the last briefing we had - regarding the two projects in their municipality, the Tasman Highway and the Bridport Main Road. They were fully supportive at that briefing of those two roads being upgraded.

Mr BOOTH - Is there anything in those projects that was predicated on softwood sawmilling at Scottsdale? When those things were drawn up was there consideration of softwood log transport to those sawmills, which no longer operate of course, which would make any special access for that purpose completely unnecessary? I don't know that there is such a project in there that is specifically or mainly for that purpose but can you enlighten us on that?

Ms BOYLE - The initial forest freight model was predicated on the softwood from the whole region coming to Scottsdale and now that that mill is closed essentially what is happening is Mathinna bridges will collect the softwood from down here and that will move out there and anything on the watershed from Mathinna Plains Road is still moving and it is just going to Bell Bay. So instead of some softwood coming this direction to Scottsdale it is now all moving along Bridport Main Road. It is still on Bridport Main Road from this watershed on Mathinna Plains Road. It has just changed direction.

Mr BOOTH - In other words, the fact that the original area that was to receive them is no longer receiving it doesn't make any difference to the road prioritisation?

Ms BOYLE - No. The product is still being moved and from that watershed it is still being moved along Bridport Main Road; it is just in a different form.

Mr KACZMARSKI - As far as the bridges are concerned you can see on page 11 the plantation timber areas that service the bridge area and the freight movement out through the bridges that we are talking about today.

Ms BOYLE - The overall objective of this was to improve transport productivity or transport efficiencies for the freight industry and particularly for the forest industry because that has the greatest component and with hopefully the lifting of the HPV curfew off Bridport Main Road it means that all HPVs will be able to use it through the school bus hours. We anecdotally know that B-doubles do stop at each end outside those hours and wait for the half hour or hour. In terms of transport efficiency for the freight industry both of these projects will make a significant difference. Similarly for Mathinna, Mathinna Plains and Mathinna bridges. At the moment, and from transport efficiency, the product that is still being moved, they are taking quite circuitous routes to get back down to Esk Main Road.

Ms WHITE - Could you give us an indication of the time frame? If this project is successfully approved by the committee, when will work begin on the bridges?

Mr KACZMARSKI - Our current plan would be that we will advertise tenders towards the end of March this year. There will be a fairly long tendering time because it is a design-and-construct contract, which means, as you can see, we have no concept plans

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for the bridges. We have just said what we require for each of the structures so the tenderers will need to do concept designs for us as part of the tendering process. That will conclude about July and we expect the successful tenderer will need to do a detailed design, which we will need to approve, and start construction about October this year on the Mathinna Plains bridges. We are hoping that the whole program can be finished by March 2014.

Ms WHITE - That gives you some leeway if there is another big rain such as we've experienced.

Mr KACZMARSKI - Yes, floods in the area are quite significant and affect the whole area.

Ms BOYLE - This is the photo of bridge 3043, that is the long bridge.

Mr BOOTH - With regard to that, this goes to a question I had in regard to Aboriginal heritage. It says here, 'Aboriginal Heritage Tasmania has advised that Aboriginal cultural heritage feel investigations are not required on the basis that the high level of site disturbance and that the bridges are to be demolished and replaced at the same location. DPIW Conservation Branch say there is no need for fauna and field investigations because the bridges are to be demolished and replaced at the same location'. But then it says, 'The construction zone will be 20 metres upstream and 20 metres downstream'. Does that mean that the bridges in fact won't be in the same place, they could be 20 metres upstream or downstream or you will be demolishing the current bridges and replacing them with the new bridges in exactly the same location?

Mr KACZMARSKI - The original plan was to demolish the existing bridges and replace them in exactly the same location. We have had a thorough review of the constructability aspects of the bridges and predominantly to avoid lengthy detours for people we are moving towards allowing contractors to replace the bridges, or the three bigger bridges, immediately either upstream or downstream of the current bridge. That is within the 20 metres that has been identified and investigated for Aboriginal issues as well as environmental issues. I have met on site with the general manager and the works managers of Break O'Day Council and talked about those issues. In the cases where we are changing the bridge locations, or potentially changing them, they have identified that is where the bridge was before they built these bridges. It's exactly how they built the current bridges; they were built either downstream or upstream of the existing structure. Generally speaking, that's a preferred way of going. The problem we identified here is that the detour routes are up to 20 kilometres on gravel road and some of those are Forestry roads, which are not that suitable. There is a maze of roads up in that area and the potential is that people might get lost if we sent them off on a detour, so that's been the main issue. From a constructability perspective, to allow a contractor with lighter vehicles to get across a bridge and access to both sides is much better. In this case they would have to drive around the entire detour route to get to the other side.

Mr BOOTH - That makes sense but there seemed to be a bit of an inconsistency and I am making sure for the record that AHT is aware that it is not going to be in the same location, which is what is advised in the document that has been provided to us by DIER.

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Mr KACZMARSKI - One of my tasks is to ensure that we have that discussion with AHT and DPIPWE and fill them in on exactly where we currently stand with our proposal. Once again, that won't be finalised until we get the concepts from the contractors.

Mr BOOTH - So you are saying that this information, at least in regard to this part, is not correct, that AHT could have an issue? They may need to look at Aboriginal heritage issues because it is not going to be where they thought it was going to be?

Mr KACZMARSKI - It is still within the 20 metres upstream and downstream.

Mr BOOTH - Were they advised that it would be within 20 metres upstream or downstream or it would be in the same spot?

Mr KACZMARSKI - I am sure we looked at the 20 metres upstream and downstream.

Ms BOYLE - The request for advice that DIER sent to AHT describes the bridges being replaced in the same location, but seeking approval for a 20-metre buffer zone for the purpose of construction, to move around the site. It was just to note that, although the bridge is intended to be replaced in the same location, there would be some disturbance up and down for the process of construction.

Mr BOOTH - But that might be different, mightn't it? I am not saying that it is but for the accuracy of the record and also in terms of allowing us to make a determination, which we have to do, we need to have absolutely accurate advice. There seems there is an issue here from what you have said, Steven. You indicated there that you would be in consultation with AHT. There is a similar problem with Break O'Day council as well because they have advised - and it says here, 'A development application is not required for the repair to make good of these bridges'. In fact you are not doing that, you're building a new bridge. Isn't that a bit of chicanery?

Mr KACZMARSKI - I met with the Break O'Day Council last week on site and suggested that we will make these proposed changes and they have said that we will need to DA now if we are going to build beside, so we are progressing to do that.

Mr HALL - You will need a DA?

Mr KACZMARSKI - Yes.

Mr BOOTH - Is there anything else there that is not accurate in the submission? So we are going to see a DA, there will be proper consultation with AHT as well?

Mr KACZMARSKI - As well as DPIPWE, yes.

Mr HALL - If you're moving the bridges either 20 metres upstream or downstream, it's going to mean some realignment of the roads. What additional cost has that put on the project?

Mr KACZMARSKI - It is much cheaper than the maintenance of the detour routes. In fact, in some cases we are putting the bridge back on the original alignment that was there before these bridges were built, so most of the formations are there. You can almost see

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where the road used to go, so the cost of that additional road pavement work will be less than the maintenance of the gravel roads that we would have to do for 12 months. This way it also reduces the construction time because to demolish a bridge and rebuild it you have to do one at a time because you can't get access past that to the next bridge. So this cuts back at least six months on the time span, which is another cost-saving factor.

Mr HALL - I accept that, I just asked the question in the context of I know of a bridge being built in the Meander Valley and the same questions were raised and they said it was going to cost too much to change the exits and the egress. In this case, as you say, there may well have been bridges where you are going to put the new ones.

CHAIR - Back to the discussion I was having with Steven and Sarah prior to convening the hearing, Steven mentioned that Sarah has an expanded grab on the P50 and the P90 concept, which in essence is our contingency. Do you want to go through that in some detail, please, because we are going to see this all the time now? It may even be that this concept will be applied to other capital works projects, not just roads and bridges. It might be for buildings as well.

Ms BOYLE - Probably about four or five years ago the Federal Government was becoming alarmed at the cost overrun of publicly-funded major road and rail projects and there was a pattern across the country of cost overruns up to about 40 per cent being quite reliable for significant projects which in Tasmania, from the Federal Government's perspective, because our projects are fairly small was not such an issue but when they are talking about \$1 billion or \$2 billion projects in Queensland and New South Wales the 40 per cent cost overrun is a significant issue for the Federal Government to have to resolve. They engaged some specialists in cost estimating to work with all the State road authorities to look at and evaluate each of the cost-estimating processes that each State was putting into place and then they drew together a preferred process that was agreed with the Federal Government, and there are a couple of different techniques but essentially we are heading nationally towards something called a probabilistic cost-estimating technique which uses a program that just runs thousands and thousands of iterations.

Out of that has evolved something called the best practise cost-estimating guide or standard for publicly funded road and rail projects. All the projects that the Federal Government fund now require that cost-estimating process to be used. Out of that there is this terminology that has evolved called the P50 and P90s estimates so the probabilistic technique just produces an NS curve that you can draw lines on. With the P50 line there is a 50 per cent chance that the project will be delivered for that amount of money and the P90 means there is a 90 per cent chance that that project will be delivered for that funding. On a P90 there is a 10 per cent chance that there will be a cost overrun to that cost that has been delivered.

It is quite a rigorous process. Over the development of the life of a project we apply that cost-estimating process at four different times. The initial phase is the project identification phase so any numbers that come out of there are based on historical rates on a per kilometre or per item basis and then the next phase in a project generally is the development and concept design, a preliminary design, and that is based on engineering surveys so you have more exact quantities then, although in Tasmania we are still applying an historical per unit rate so we get that end-of-concept or end-of-preliminary-

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design cost estimate with a P50 and P90 and then the design goes into the final design phase and so all the time we are refining the costs so that by the time we get to the pre-tender cost estimate we are hoping we are pretty close.

In developing these cost estimates there has been a lot of discussion around the risks and developing contingencies. Previously we have just added a 10 per cent or 20 per cent contingency as a flat rate so we have chosen a contingency percentage and we have said we will put a 20 per cent contingency on it. With this new process we actually identify all the risks very carefully right at the beginning of a project at the planning phase and we re-evaluate those risks and we put a dollar value to each of the individual risks. What we end up with is something called a derived contingency which again has generated through all this probabilistic cost technique and there is a range that is recommended for each of the phases of scoping, concept development and final design pre-tender which that derived contingency falls between. So that derived contingency percentage gets smaller as we are getting towards the end of the project.

What you do not see on these things is a flat rate contingency; you just see little percentage of a derived contingency which is an assessment of all the risks throughout the development of the project. In our reporting to the Federal Government in our project proposal report they require significant discussion and demonstration of how we derived the P50 and P90 cost estimates, and the contingency. They like to see the contingency range that has been derived through the risk assessment process. It is compulsory for all Federal-funded projects now. They will not provide funding for the delivery phase if we don't put out that P50 and P90 cost estimate.

Stepping back into the State-funded projects, the department has put up, and it has been agreed by Cabinet, the State infrastructure investment program and in that we have recommended the same process. We are just applying the same P50 and P90 cost-estimating process to go through for all our State funding projects as well because as an agency we believe that is a much more rigorous process of developing our cost estimates.

Mr BOOTH - Do you have a P factor for chance of going under cost, under budget?

Ms BOYLE - Off the S-curve you can pull off any P factor you like. P50 and P90 is what the Federal Government is requiring. P50 is the higher-risk number that there will be cost overrun. If you take a whole bracket of projects, you can say that over 100 projects 50 per cent of those projects might overrun and 50 per cent might under cost run. So within a whole program, and north-east freight roads is a small program because it has five projects happening under the one bracket - as we do the cost estimates for each of these different phases we are using the P50 cost. We need to get the scoping for each of these projects to match the P50 costs so that if there is cost overrun, there is going to be some float left, because we have no more money. The \$42.5 million is the maximum amount of funding we have so we have to deliver what we can in this whole package of projects and be very careful on the scale and scope within each project.

Mr BOOTH - If you say you're targeting a P50 result, that means you have sufficient money set aside to cover the overrun -

Ms BOYLE - Yes.

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Mr BOOTH - and that your calculation and overrun is likely to be accurate?

Ms BOYLE - Yes. Essentially the P100 is \$42.5 million and that means that we are 100 per cent sure that we have to deliver all this work for that amount of money. We are scaling and scoping each of these carefully in the unknowns we have. At the moment the first certainty we will have is the contract price for these bridges. Once we know that, we will have a bit more certainty as to how much money we have for the rest of the program. We have locked these two projects in and in terms of scaling to take account of any cost overrun or exceeding the P90 it will be picked up in the amount of work, and probably the amount of work we can deliver on Camden Road.

Mr BOOTH - So at the end of the day the \$34 million is the bucket and you'll build until you get to the \$34 million and effectively stop then?

Ms BOYLE - Yes, but, having said that, we need to be set up for having some scalability within the contracts, too. For Bridport Main Road we are certain we can deliver a certain amount of road widening to that 8-metre cross-section, but the remainder of it we are not certain about so we are keeping those projects as inseparable parts. We may put them out to tender and we may not, depending on how much this costs and how much that costs.

Mr BOOTH - They have been prioritised, have they, not through convenience but through, if ultimately you can't deliver the whole original forest roads project, what is delivered will be integrated and important and prioritised to deliver the highest order across that whole project scale?

Ms BOYLE - It is partly being prioritised on, I suppose, the rollout time as well, the constructability time to meet the construction seasons and to get the projects moving.

Mr BOOTH - So you won't end up with a stranded asset there like a road to nowhere or a beautiful big bridge that ends up being a country lane sort of thing?

Ms BOYLE - No. The way it is working the Mathinna bridges will, if it is approved here, occur and we will have a fixed price there. The next priority is the upgrades on the Tasman road and that is primarily because we can't scale that project, it is pretty well a non-scaleable. If we drop any of it out we won't be able to achieve the cost section required to get gazette if we are seeking gazettal to say it is an HPV route. It is an all or nothing if that is our objective. Bridport Main Road is more scaleable because it is just the way that has worked out. We have been there and we have done bits and pieces over the last few years. There are some sections that are close to meeting that cost section that we are looking for, not quite but close enough, and there are other sections that just don't meet it at all and we are widening from 6 metres to 8 metres and particularly the southern section nearest the 4 or 5 kilometres out of Scottsdale so it is a bit more of a scaleable project and because it is such a significant road, the department will keep its eye on in the long run to achieve the ultimate upgrades.

Then we have not scoped the works on Camden Hill Road yet. The Launceston Council is not all that enthusiastic at the moment on Camden Hill Road. They would prefer for all the money to be spent on Prossers Road. We will just juggle these two projects on the scope and on Camden Road and Prossers Road to a certain extent based on the costs

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when they become certain for the other major projects. The total package is P100 so there is no more money, that is it, we are just managing the project.

CHAIR - Any further questions? Steven and Sarah, thank you very much. As you heard me say to the other witnesses, the same applies to this. We will proceed to deliberate on the proposal and make some decisions about it and get our report written for a yes or a no as soon as we can and get it into the mix. Thank you very much.

THE WITNESSES WITHDREW.