

TRANSCRIPT

STANDING COMMITTEE ON THE ECONOMY AND INFRASTRUCTURE

Subcommittee

Inquiry into infrastructure projects

Melbourne — 19 October 2016

Members

Mr Joshua Morris — Chair

Mr Khalil Eideh — Deputy Chair

Mr Jeff Bourman

Mr Nazih Elasmr

Mr Bernie Finn

Ms Colleen Hartland

Mr Shaun Leane

Mr Craig Ondarchie

Participating member

Ms Samantha Dunn

Staff

Secretary: Lilian Topic

Witness

Mr Evan Tattersall, CEO, Melbourne Metro Rail Authority.

The CHAIR — I will begin by declaring open the Standing Committee on the Economy and Infrastructure public hearing. Thank you to our witness present today as well as members of the gallery. Today we are hearing evidence in relation to our infrastructure inquiry. Evidence today is being recorded. This hearing is to inform the third of at least six infrastructure reports. Witnesses may well be invited back to attend future hearings as our inquiry continues. All evidence taken today is protected by parliamentary privilege, therefore you are protected for what you say in here today but if you go outside and repeat those same things, those comments may not be protected by this same privilege. Thank you, Mr Tattersall, for your presence here today. I might hand over to you at this point. You might just state your name and your role and then move into any introductory comments that you might like to make before we have some questions from the committee.

Visual presentation.

Mr TATTERSALL — Evan Tattersall, CEO, Melbourne Metro Rail Authority. I will just do a very brief reminder. Talking to this first slide here, the orange dotted line you see is the 9 kilometres of twin tunnels and the blue circles represent the five underground stations that we are doing.

Just to refresh, the essence of the project is all about keeping Melbourne's livability going by introducing these new tunnels from approximately South Kensington in the north-west through to South Yarra in the south-east. We are increasing the heart of our railway system by about 45 per cent. The city loop at the moment is near capacity; this increases that by nearly half, which is a massive uplift.

It also takes two of the busiest lines that are currently used in the loop out and runs them through the new tunnel, that being the Sunbury line and the Dandenong line. That gives you a very good service on the new line we build, but it also creates space in the city loop to then allow more services on a lot of other lines around Melbourne's network. So it is not just about the Sunbury to Dandenong line; it is about a large proportion of our network that gets upgraded by this project. It is also about expansion. Increasing the capacity in the heart enables expansion on the perimeter of the system, such as electrified services to Melton, should that be where it goes in the future. You cannot do these things until you fix the capacity through the heart.

We are at the stage in the project where we have looked far and wide to see what is happening around the world. We have recruited expert resources from around the world and we have looked at projects in the UK, in Asia and in America to just understand exactly what is happening around the world, what is the latest and greatest and where all the challenges have been — and there have been a few around the world — to ensure that what we do here reflects the best thinking around the world at the moment.

This slide gives an update on our environment effects statement process that you are probably aware we are doing. We have just finished the hearing stage of this process. We have had a lot of people put submissions in — nearly 400 submissions; 120 of those were where people actually appeared before the independent advisory committee. It was a really good opportunity for the public and stakeholders to come and have their say and try and help us develop the performance requirements that we put in place to help us manage this project.

This slide shows a couple of examples of good initiatives that have come out of the interaction we have had with stakeholders in the community. Fawkner Park is on the left there. At one stage we were using a fair chunk of Fawkner Park for our tunnel boring machine launching area. We have now been able to develop our thinking in light of concerns to avoid going into Fawkner Park at all. That not only saves impacts on the local tennis club there and childcare centre but also saves quite a lot of mature trees, which is obviously a very important part of our project.

We have also managed to avoid some intervention shafts that were along Toorak Road there, which again saves impact on the community. On the right-hand side, we had an alternative to go over or under the CityLink tunnels, and we have, in light of a whole lot of consultation, adopted now to go under City Link, which saves again a big impact on the park above there. So there were a lot of trees that would have gone had we gone above; a big disruption to the park that we now have been able to avoid. Just a couple of examples of some of the stuff that is coming out of it.

Stakeholder engagement: a lot of effort through newsletters and meetings and all the stuff that you would expect of a project of this nature. But one example to illustrate what we are doing is the Parkville region, where we are building a station. We have established a reference group up there with all of those names listed on the screen. There are some major players in the health precinct and major players in the education precinct that we now

have regular forums with to make sure that they can tap into us and we can tap into all of the concerns, and there are some genuine concerns up there that we are working through.

Finally, just a bit of an update on where we are at with the project. We are just starting some early works, which are two pronged. There are enabling works, we call them, which we are doing ahead of our planning approvals being in place, and that really is just minor service relocations around the stations. Then we are gearing up with our contractor John Holland to start major shaft works once the environmental approvals are in place early next year.

With our procurement packages, our main PPP contract is now out. The request for tender documents are out, and they are scheduled to close in March next year. We have got three major consortiums that were shortlisted — best around the world. We have got players in each of these consortia that are international players, as well as a good local mix. They comprise more than 80 companies when you put them all together. We hope to have our shortlisted proponents by towards the middle of next year, with a view to having that contract in place by the end of the year.

With our rail systems alliance, we are also out to tender, with two strong consortia there in a competitive alliance process. We released that earlier this month, and bids should be in by February next year, with a view to having the contract awarded by the middle of the year. I think that is probably about it; I have covered this.

We will be starting significant works early next year, with both the shafts I mentioned and closure of some streets around the city, tram works up near Toorak Road and partial closure of Domain. Then the really big works, once we get our major PPP contract on board, will start in early 2018 with the tunnelling works and impacts, particularly on St Kilda Road and Grattan Street. I think I have covered all that. That is all I wanted to update you on.

The CHAIR — Thank you. Mr Tattersall, I was hoping just to go back to the time frames that you were describing then, so talking was it early 2017 to actually break ground in terms of the build?

Mr TATTERSALL — Subject to planning approvals being in place, yes.

The CHAIR — I am assuming you have probably got a more definite ideal time frame rather than just early 2017. Have you got a — —

Mr TATTERSALL — We would hope by March that we are out establishing our shafts. So that will be a shaft in Franklin Street, near the City Baths; one in A'Beckett Street; and we will be accessing City Square, where we need to break out the existing car park to effectively set it up for the main contractor once they come on board at the end of the year.

The CHAIR — Okay, that is good. Now, one of the areas of concern has been the number of trees that are going to be taken out of the gardens and the like as a result of this particular build. Can you confirm how many trees it is that are expected to be cut down as a result of the cut-and-cover method proposed to be used?

Mr TATTERSALL — When you say the cut-and-cover method, sorry, are you specifically referring to the Domain precinct?

The CHAIR — Yes, the Domain precinct.

Mr TATTERSALL — I think about 224 was the count, but that is a work in progress. We take the worst-case scenario — I suspect that is the way to put it — and once we get our contractors on board, they have performance requirements that will come out of this environment effects statement process that obligates them to mitigate the number of trees, so find ways to reduce, where possible. There are some good ideas already coming up out of the tender process.

The CHAIR — So a tunnelling method rather than a cut-and-cover would see a significant number of those trees not cut down, one would assume?

Mr TATTERSALL — We have done an assessment on a cavern solution, which is where effectively you put a shaft down and come in from the side — similar to what we are doing in the city, in the CBD stations — and come in underneath, instead of opening up the 250-odd metre long box. We save about 15 trees is the

bottom line. The reason we do not save a lot is because at Domain we have this high-volume interchange between tram and train, so we have got a lift system and escalator system in the centre of St Kilda Road at the tram terminal that enables you to get down to the train station very quickly and efficiently.

To do that, you have to open up the centre of St Kilda Road via a big box, effectively — not as big as a cut-and-cover method, but a big box all the same — that still requires you to move the trams. We want to keep the trams going through there at all times. There are too many people on the trams to try and find an alternative route or bus, so we want to keep the trams going. To do that you have to push the tram out so you can build the box in the middle, which then forces a lot of the impact on the trees. But, as I say, we are looking at ways and means to reduce that. But a cavern solution does not actually save you much in the way of trees.

The CHAIR — Okay.

Mr TATTERSALL — And it takes longer. It has a greater impact because you have more spoil coming out. And of course if you do have a cavern it has got to be a lot deeper for ground conditions. Therefore you have a longer travel time for that tram-train connection, and it sort of defeats the purpose of having that effective transfer in that location.

The CHAIR — Now, I note there have been over 7000 people who have signed a petition calling upon the government to have a Domain station built using a tunnelling method rather than that cut-and-cover. What would your message be to those over 7000 people?

Mr TATTERSALL — It would be outlining what I really just went through then, that the perception that a cavern solution actually reduces the impact is not right. The impact is much the same, but we would be there longer and, as I said, that longer term transport solution is much less effective because of the travel time/distance. People will not tend to use it anywhere near as much because it will take them longer to get up and down. That is the advice of the modellers. So I would be giving a similar sort of message, and we have. We have consulted far and wide now with local residents about the pros and cons of each.

The CHAIR — I was hoping you might be able to confirm for us what the impact on St Kilda Road is going to be during the construction of the Domain station. Are we going to see significant lane closures on St Kilda Road during construction?

Mr TATTERSALL — The plan right now is to reduce the traffic lanes — so that where the cars go as opposed to trams and bicycles, that we will keep running — to one lane in each direction and that is roughly between Domain Road and Toorak Road, while we build the station box. Then the focus is to get the top of the box on as quickly as possible. So we are using what we call a top-down method where you put your piling in, excavate enough so that you can get your deck on, and then you start working from underneath the top deck. That way enables you to then start to reinstate the surface level and get things back to normal while you continue to work from underneath. But the ultimate effect is that it closes to one lane in each direction, which puts extra load on Punt Road and Kings Way, and we are working with VicRoads on how we then improve the throughput on those roads to manage the impact.

The CHAIR — So going forward, once the station has been completed, what is the permanent impact going to be on St Kilda Road? I think there has been discussion that it may be reduced to just two lanes each way instead of the regular four. I am just wondering what are the permanent impacts upon St Kilda Road once the station is completed?

Mr TATTERSALL — It is effectively three lanes in each direction at the moment with turning lanes as well. It is not four.

The CHAIR — Yes, fair enough.

Mr TATTERSALL — We are still working through this with VicRoads, and we obviously need our contractors on board with the detailed design, because we are doing this on the basis of our reference design that we have produced today. The detail of that might see minor changes to the way the final legacy arrangements pan out, but at the moment we are looking at three lanes in each direction, except that off peak one of those lanes in each direction becomes available for parking in between Domain Road and Toorak Road, but in the peak there would be three lanes in each direction, which is effectively the same as now.

The CHAIR — But permanent lane reductions have not been ruled out to this point?

Mr TATTERSALL — Well, that is what I am saying: instead of three plus a turning lane, as you have got at the moment, it will be three, and that third lane will be used for parking as well. So you have three clear at the moment. There would be three during the peak, but off peak it would revert to parking.

But the load on St Kilda Road, working that through with VicRoads and the council, is such that you do not need the three during the off-peak period; it is only in the peak when you need it. But that could change. That is subject to working it through with VicRoads in the detailed design.

The CHAIR — We will see what we get to.

Mr LEANE — The new metro tunnel will connect the Sunbury line at one end to the Dandenong line at the other end, so those two lines at each end of the city will benefit from being able to put on extra services and so forth. With a line like the Frankston line, how does that benefit from the project at completion?

Mr TATTERSALL — By taking load off the city loop. The Frankston line is an example. We will still use the city loop for trains coming around the loop and back. Because we have cleared space in the loop they will be able to run more trains on the Frankston line.

Mr LEANE — Yes. There have been discussions that at peak hour they could be as close together as 4 minutes apart, that sort of frequency.

Mr TATTERSALL — It is really to be determined by Public Transport Victoria and their timetabling, but that sort of frequency, yes.

Mr LEANE — That sort of frequency. That is the sort of capacity that would be increased?

Mr TATTERSALL — Yes.

Mr LEANE — We had Infrastructure Victoria in before we had our break to speak to yourself. One of their medium-term recommendations, which is 15 to 30 years away, is that there should be a rail link to the airport. If that was a short-term recommendation, the capacity to link a new spur, whether it be the airport rail, whether it be Rowville or anything like that, just is not there at the moment with just the city loop.

Mr TATTERSALL — Well, again, it is really one for PTV, but you can only run so many trains on your line, so when we finish our project it will be every couple of minutes. It will be 24 trains an hour. If you then link more that come in from, say, an airport link that comes in to Sunshine, as opposed to some other solution, then one of those or every time a train comes from the airport it takes the space of one of those 24.

Mr LEANE — As you said, it might take the space, or it might be 'instead'.

Mr TATTERSALL — 'Instead of', yes.

Mr LEANE — But basically, with the city loop now, that capacity now for extra spurs is a problem, that internal capacity.

Mr TATTERSALL — That is how I understand it for an airport link, but again, it is probably a better one for Jeroen.

Mr LEANE — I will ask Jeroen, then. How much increased internal capacity will your project deliver when it is finished?

Mr TATTERSALL — On which — —

Mr LEANE — Capacity internally. At the moment there is so much capacity on the loop, as far as we know, to put extra services on. Your project is going to be able to increase that capacity by a certain amount.

Mr TATTERSALL — Across the network it increases it by about 40 000 passengers in the peak. That is sort of the simplest way to express it. Exactly how many trains that applies to — that is across the various lines, because we uplift on the Upfield, Craigieburn, Werribee, Sandringham and Frankston lines, in addition to what

happens on the Sunbury to Dandenong line, where you have the new high-capacity trains that come into play. But this is day one stuff. That is not the capacity that you could ultimately have if you do more things on those other lines, like put high-capacity trains on them, put high-capacity signalling on those lines — —

Mr LEANE — Signalling, yes. So there are other improvements to the network that could marry in.

Mr TATTERSALL — So we facilitate a greater expansion of capacity by getting more into the heart of the network.

Mr LEANE — What is the nature of the early works so far of identifying services under the ground that the tunnelling machine might have to travel through?

Mr TATTERSALL — It is more around the boxes and the shafts that we are going to construct. So it is moving gas, power and Telstra lines just out of the way, on the other side of the footpath or on alternative routes just so that it is clear. What it helps us do is that if we wait till the main contractor is on board, they will be doing it in parallel with trying to get their shafts going and it will be a greater level of disruption. So what we are trying to do is spread it so the impact is less when the main contractor starts to work. They will still do it in the same time frame, probably, but they would be doing it altogether.

Mr LEANE — Yes. So you said there is a shaft — was it at Franklin Street?

Mr TATTERSALL — Franklin, yes.

Mr LEANE — And then one at — —

Mr TATTERSALL — One at A'Beckett and then City Square itself. It is an existing car park underneath there, so we are going to open up the car park and retain the structure that is there. There is basically a hole there now except for the slabs for the car park levels. We will take all those out and effectively create a big box that seems ready for the main contractor to come in. They will drop their depth a little bit and then access their cabins through City Square.

Mr LEANE — So City Square will not be dug up?

Mr TATTERSALL — City Square will be dug up.

Mr LEANE — It will be dug up?

Mr TATTERSALL — Yes. There will be a big hole for a number of years.

Mr LEANE — Okay. But as you are saying, there is already an amount of depth from the car park. Is that underneath the Westin hotel?

Mr TATTERSALL — It is beside the Westin.

Mr LEANE — So the Westin will not be affected?

Mr TATTERSALL — It will be, but what we will do is put a wall along the face of where the Westin hotel is so we do not physically — —

Mr LEANE — You are not going to physically going to — —

Mr TATTERSALL — We will modify it in there a bit. There are some structure works we need to do, but it will be retained as a car park for the Westin hotel, albeit there will be some temporary movement of the resident car parks in there while we do our work. Once we get that wall up and get the residents back in, that will be a relatively short period of time. Let us hope less than six months. After that we will be working on the Swanston Street side of the Westin hotel under what is currently the open space area.

Mr LEANE — Okay. And that is where will be one of the launching trenches for the boring machines?

Mr TATTERSALL — It will be an access point for road headers. To complicate things, on the outside of the city we are using tunnel-boring machines. On that section between CBD north and CBD south, our view,

subject to the contracting market not having a different view, is it will use what we call road headers. It is like a mining technique. It is a different type of machine that you drop down that hole, and it goes in and just sort of chews its way around. It is like an excavator with a rotating head that chews out the material.

Mr LEANE — Okay, compared to, as you said, the external from the CBD. That would be what we all understand as a tunnelling machine.

Mr TATTERSALL — Tunnel-boring machine.

Mr LEANE — Tunnel-boring machine.

Mr TATTERSALL — Yes, and our plan is to get six of those so we can work on multiple fronts.

Mr LEANE — Are they the ones where they put the concrete collar in and say, ‘Go’?

Mr TATTERSALL — Yes. That is it. It is the most efficient way to build a tunnel. In the city we have got big cabins where we open them up for the stations, so that is why you need to be able to chew out the sides.

Mr LEANE — As you said, you have had interest and tenders from all around the world, from 80 companies, and inside those 80 companies there would be a number of experts in tunnelling and those machines?

Mr TATTERSALL — Yes, there are. There are Italians, Spanish, Europeans that do this all over the world.

Mr LEANE — As you put in your slide, there is a bit of this already happening in London and other places. It is good for them to test it out in their cities before they come here.

Mr TATTERSALL — It is amazing the amount of metro systems being installed around the world at the moment.

Ms HARTLAND — Can we take a step back and talk about that Domain intersection? When the trees are lost, will you replant mature trees? How will they be replaced?

Mr TATTERSALL — You can plant trees that are up to about three to four years old. We are working closely with the cities of Melbourne and Port Phillip. The City of Melbourne have actually already got trees growing because they have a regular retirement of trees when they get to the back end of their life. We are going to effectively ramp that up more so that we are growing trees in parallel that are at about that three- to four-year age limit that can be dropped in.

As I have said before, our focus will be to get the surface back to a normal level as quickly as possible. We will be planting the trees during the period of the project, not waiting until the end, so as quickly as possible at that three- to four-year level. I think that gets you about three- to four-metre high trees or something like that. They are not full blown, but they are reasonable size trees.

Ms HARTLAND — All of that will be done with the City of Melbourne?

Mr TATTERSALL — Yes.

Ms HARTLAND — That makes sense. How long will that area be impacted by the work?

Mr TATTERSALL — The overall period to build these stations is between five and six. For the ones in the city it is more like six, and the ones at Domain, Parkville and Arden are more like five. We have put an acoustic shed over the top. Then there are several years where we are working underneath to do the actual structural elements. Then there are a couple of years of fitting out the actual station proper and the services. Then there is the integration period with all the systems. So you are actually there for a lot longer, but in terms of the impact on the area, it is a matter of a few years. Again, until we get our contractors on board with the final detail, we will not be able to know all that exactly. But it will be about a year without an acoustic shed on it and then probably three years of impact where you are doing works underneath and you still have stuff coming up out of the ground and trucks moving around and impact on the local area.

Ms HARTLAND — The other projects you went to see, such as in New York, Copenhagen and Hong Kong, they would all have similar issues in terms of actually trying to do this through very urbanised areas. What were the things you learnt from those projects, to do or to avoid?

Mr TATTERSALL — We were particularly interested in how they protected as soon as possible the amenity from obviously noise but also dust. The acoustic sheds are what are commonly used around the world. When you have got an open shaft where you are bringing dirt up from, you get an acoustic shed over the top as quickly as possible. These are insulated sheds that reduce your noise dramatically. Then you have proper wheel washers so you are not bringing mud out on the streets. You bring your spoil up into the shed, load it into the trucks and move it out outside of peak, ideally. Particularly with Crossrail, where they were working in the heart of London, their focus was on moving trucks outside of the peak period so they were not clogging up an already very clogged city, that sort of thing. It is fairly standard procedures. I saw it in New York and we saw it in Hong Kong and in London. Others have been to Singapore and Malaysia, and that is the method that is used traditionally.

Ms HARTLAND — How much disruption and noise would people who live really close to these sites expect? Some people will be living 10 metres from these sites.

Mr TATTERSALL — It will vary. While we have open boxes, we will only be working during the day; we will not be doing any out-of-hours work. Once we get acoustic sheds on and get noise mitigated, then we will be looking at extended hours, working 24 hours for the tunnelling operation. It will be truck movements that are probably the biggest impact then. We are working with the community and with the stakeholders to get routes for the trucks so we can take them away from sensitive areas, like residential areas. But there will be impact, there is no denying that.

Ms HARTLAND — Clearly, as we have discussed before, regional rail was a very different experience for residents. I think they were very poorly treated during the whole construction phase, especially in terms of noise and dust. If you know that there is going to be a major impact, will you be offering relocation for residents? How are you going to manage that? I could only imagine, especially probably at the Domain station, lots of residents there, whereas at Arden there is hardly anybody there. How will you deal with that?

Mr TATTERSALL — That is something that has had a fair bit of focus during this environment effects statement process. We have got what we call resident impact management guidelines that have come out of our submission — they have been modified during the EES process — and they have a whole lot of layers of impact. It starts with if it is during the day, there are certain things you do, or if it is in the evening. If it is at night proper, it gets down to what the level of impact is, obviously — how many dBA over the existing levels — and how long it is going to be for. The simple answer is, yes, we do have a relocation policy, and it is quite clearly set out in those environmental performance requirements that are on the website as to how we would apply it. The contractors will be locked into having to comply with those.

Ms HARTLAND — How will you inform residents? This was again a problem with regional rail, that they had guidelines but they did not actually bother to tell anybody, so how will you do that?

Mr TATTERSALL — It is a very public process at the moment, as I said before. We will be out actively engaging and advising of the outcomes. I mean, this is all subject to the recommendations of the panel and the approval by the minister, but by early next year, assuming this sort of thing is still the way we are going to do it, we will then be having a very solid communication process through precinct groups that we will set up, particularly around the stations, because that is where the greatest impact will be, and the portals, so that we inform the community.

Ms HARTLAND — On the other areas where you will have lots of residents — at Arden street, at this stage, there are not a lot of people there — the city ones will be more hotels and businesses that will be affected?

Mr TATTERSALL — Yes.

Ms HARTLAND — And the western portal. Can you remind me? It is in between Footscray and West Footscray, is it not?

Mr TATTERSALL — Yes. Right near South Kensington station. We have had a lot of discussion with the residents out there. I have been out there myself to a couple of three-hour sessions where we have been through what the design is and how we intend to build it. As a consequence of that there is a very strong desire from those residents to move the portal further to the west so it helps to mitigate the impact and it saves some of the houses that need to be acquired there under the current solution. So we are looking very closely at that right now. We hear loud and clear that there is a very strong push out there to do this, to help mitigate, and we just need to finalise this EES process.

Ms HARTLAND — Those residents have been through this a few times before with other projects as well, so I can only imagine they are quite organised.

Mr TATTERSALL — Well, it is very genuine concern.

Ms HARTLAND — Yes.

Mr TATTERSALL — They are very reasonable. In the sessions we have had, they — —

Ms HARTLAND — Yes, because that had the threats of having J. J. Holland reserve and all of that other kind of space taken for other projects.

Mr TATTERSALL — Yes, and they are very concerned about parkland out there, because there is not a lot. So, J. J. Holland Park, we are not going to touch the park.

Ms HARTLAND — It is really pivotal.

Mr TATTERSALL — Yes.

The CHAIR — I believe there was a presentation given to local government about the impacts of lane closures and the like on St Kilda Road. Would you be able to provide that to the committee?

Mr TATTERSALL — This is with the City of Port Phillip, when you say local government?

The CHAIR — I believe so, yes.

Mr TATTERSALL — We have certainly briefed them on what the plan is, which is essentially what I put to you before. But, yes, there are documents in the EES documentation that show how we intend to close Domain Road and the impact on Albert Reserve and that sort of thing, so that it is all in the EES. So, yes, we can definitely get you references to all of that, if you would like.

The CHAIR — Was there a specific presentation that was given to the council?

Mr TATTERSALL — Yes. There have been a number of presentations to the City of Port Phillip and Stonnington, for that matter, and the City of Melbourne.

The CHAIR — Great. Could you provide those to the committee?

Mr TATTERSALL — I assume we have still got those.

The CHAIR — That would be great, if you could. I was hoping to discuss the impact to hospitals as a result of the build. I note there was significant concern in many of the submissions from different hospitals about the impact that the tunnelling would have upon their operations. Do you recognise that there was not enough thought gone into the impact to hospitals as a result of the tunnelling process?

Mr TATTERSALL — No, I do not agree that there was not enough thought gone into it. I agree that there is a lot of work to do. But we have been very clear with the health groups up there, and I have been up there and addressed as the CEO a forum with all of the health entities up there that I have been to several times now. I am going up this afternoon.

So we know what the concerns are. We do not have all the answers to a detailed level yet, but we have performance requirements that we are putting in place through the environment effects statement process that we will lock our contractors into to say, ‘You cannot vibrate more than X millimetres per second’ and ‘You

can't have noise levels beyond Y', for example, at different stages. They have some very sensitive equipment in the hospitals up there and obviously they have operations that they do, so we will need to work with them at a really detailed level and plan that step by step such that what we do works for them. All the details of those answers we do not yet have but we will have before we start banging holes in the ground. That is for sure.

The CHAIR — I suppose one of the concerns is how can the community be guaranteed that the tunnelling process is not going to adversely affect the hospitals. I mean, it is one thing to have guidelines in place, but when you are tunnelling I suppose you are tunnelling and it is difficult to tunnel in a way that is going to have a reduced impact. How is it that those hospitals can be guaranteed that their operations will not be impacted by the tunnelling process?

Mr TATTERSALL — Well, there are probably a couple of layers to that. There is the impact on the building fabric itself, which was raised as a concern in early days. That is something that when we do detailed engineering assessments on structure, there will be a limit of vibration that those buildings can handle. They usually can handle a lot more than the limits we put on for other reasons, anyway, and we will make sure we do not exceed those limits.

There are things you can do. You monitor your tunnel-boring machine from the surface as you are advancing, and if your vibration levels increase for whatever reason — you might have a fault in the ground conditions — you slow your machine down so that you do not exceed the levels. So from a structural integrity point of view, I am confident that we can come up with construction methods that do not impact the buildings. From an operation's point of view, it may be acoustic treatment that we do to the buildings if it is a noise issue. It may be that we do need to move beds from one area to another area to move them further away. There are a lot of things that can be done. We will work with the hospitals to make sure that the solutions we put in place work for them.

The CHAIR — In terms of the big hole that we will see in City Square, I am assuming that is going to have a significant impact on surrounding businesses. What work is being done to assist those businesses?

Mr TATTERSALL — Again, there are varying levels of impact, and every business is different. Any business that is directly affected, and there are some, will be moved from the area. Brunetti's is an obvious one that sits in the square that has to be moved. They are already working with us. We are relocating them to another place and they are being compensated for that. It is more complicated for other businesses that are further away from the direct site. But what we have here is akin to large building projects. It is like a Queen Victoria site or a Myer Emporium site.

Mr LEANE — There will be a hoarding around a rectangular area.

Mr TATTERSALL — And we will work with each business, depending on where they are and what the impact is, to make sure signage and advertising initiatives are in place to make sure that we minimise the impact on them as much as possible.

The CHAIR — You spoke about compensation. Do you know yet how many businesses will be compensated as a result of the total project or even individual facets of the project?

Mr TATTERSALL — We know all the businesses that we will be directly acquiring or blocking access to, in which case it triggers the Land Acquisition and Compensation Act. So yes — and we have been talking to every one of those businesses.

The CHAIR — How many are there?

Mr TATTERSALL — They were 44 buildings in total for the project, and 29 of those are commercial and 15 are residential. That is all, say, behind Young and Jackson's area, for example; there are a number of businesses there. There are the ones under the Westin there and there are others up on CBD north.

The CHAIR — Do you have a total number of businesses that will be impacted and compensated?

Mr TATTERSALL — That are being acquired?

The CHAIR — Yes.

Mr TATTERSALL — We do. It is 29 buildings. The actual number of businesses within that I do not have off the top of my head but we can let you know.

The CHAIR — Could you provide that to the committee?

Mr TATTERSALL — Sure.

The CHAIR — That would be excellent if you could. I was hoping to talk about St Kilda Road and in particular the buildings at 416, 416A and 418 St Kilda Road. I understand there are significant concerns amongst local residents about access to emergency vehicles like fire engines, ambulances and the like due to the lack of access to the frontages of their buildings. I am wondering what is going to be done about those real concerns?

Mr TATTERSALL — Yes, they are genuine concerns. We have done a lot of work with those apartment buildings already but it is an ongoing process. We know their concerns and we are trying to find solutions that will work. Irrespective of the residents' concerns, we are not able to block access for emergency vehicles, for example, so we need to solve that irrespective of the concerns of the residents, and we are working on that.

The CHAIR — So still a work in progress, that one?

Mr TATTERSALL — Yes, very much so.

The CHAIR — I was hoping to ask again about the tree removal. Do you have a time frame in which that tree removal is likely to begin? Is that likely to be at the beginning of the project, in March 2017, or a bit further down? When is that expected to commence?

Mr TATTERSALL — So, again, you are just talking about the Domain precinct?

The CHAIR — Yes, sorry, the Domain precinct.

Mr TATTERSALL — It will start in a small way early next year after the planning approvals are in place when we do some tram works up there. Then it will be progressive. But the main tree removal component will probably be early 2018 when the main contractor is on board, and that is when we are establishing shafts.

Mr LEANE — Just getting back to the hospitals precinct. In other jurisdictions where you said that similar types of projects are on foot as we speak, I imagine there would be similar challenges that have actually overcome in those sorts of facilities as far as going under all sorts of buildings?

Mr TATTERSALL — Certainly there were learnings from Crossrail. It is a real eye-opener what they have done there. They have come within 200 millimetres of foundations of buildings and things like that. So, yes, all through that project, as you would appreciate right through the heart of London, they have worked very closely with all sorts of residential and commercial buildings.

Mr LEANE — And engineers find a way?

Mr TATTERSALL — Yes.

Mr LEANE — You mentioned that you have had numerous discussions with the main stakeholders in the precinct, and I imagine that there would be a bit of excitement about actually having a direct link, a heavy rail station, in that precinct in the future and what that means for that precinct?

Mr TATTERSALL — They are absolutely overjoyed by the fact that they are going to have a station on their doorstep and they cannot wait for it to come. Yes, they recognise there will be some years of pain while it happens but they are looking to the long-term decades. It is a fantastic location for a station. They just cannot wait.

Mr LEANE — What is the estimated workforce on the ground at its peak, do you think?

Mr TATTERSALL — For us?

Mr LEANE — Men and women wearing red jackets and helmets.

Mr TATTERSALL — Overall, you mean, for the project?

Mr LEANE — Yes.

Mr TATTERSALL — I think at peak we end up at around 5000. That is including suppliers and fabricators, so not directly on the ground.

Mr LEANE — So directly on the ground, re we talking 1000, 2000?

Mr TATTERSALL — Across the project, the whole 9 kilometres — and again it is going to vary all the time because it is not all happening at the one time —

Mr LEANE — Of course.

Mr TATTERSALL — I would wait until the contractors come back and confirm.

Mr LEANE — Fair enough, and obviously the contractors understand the government policy around 10 per cent apprentices and other workplace requirements as well. So that has all been flagged to them during the process?

Mr TATTERSALL — They are all clearly locked in. We call it social outcomes. It is the 10 per cent apprentices and trainees, it is 2.5 per cent Aboriginal, it is social procurement and other initiatives to help employ disadvantaged groups within the community.

Mr LEANE — Fantastic.

Ms HARTLAND — I have a couple more. On the Parkville precinct, as someone who catches the 401 from North Melbourne station, I just know how popular that is and I can just imagine what it is going to be like when it is all finished and how well used it will be. With your consultation committee — all of those groups that you put up on your slide before — there is a representative of each of those organisations as part of that consultation?

Mr TATTERSALL — Yes.

Ms HARTLAND — Then when the drilling et cetera starts, how will you consult with them? Will there be weekly meetings? Will you be updating? How are you going to do that?

Mr TATTERSALL — There are two levels. There is that forum which we have established — well there are three actually. There is the CEO-level forum that I go to. There is the precinct group that I showed you there before. At the moment I think it is about every six weeks they are meeting, but that will be as often as required, probably monthly. Then under that there will be subgroups, because different members of those groups will have different needs. But things like the bus and managing the 401 and the 402 bus, for that matter, we are working with PTV and VicRoads and that on how we can make sure that bus service is efficient during construction. Obviously we cannot drop them off where we will have the station being built, but we will make sure that that functionality is maintained. Ultimately the load on those bus services will probably drop off, because the train line will go directly there from the west.

Ms HARTLAND — That is right. I think you can just see from how many people use that service now that the need is definitely there. Is it possible for us to just go to some of those forums, just to see how it is being dealt with?

Mr TATTERSALL — To one of them? Yes, certainly. The Parkville precinct forum?

Ms HARTLAND — Yes.

Mr TATTERSALL — No reason why not.

Ms HARTLAND — That would be really good. The other thing is: have you got any sense of when all of this is finished how many more passengers the network is going to be able to move?

Mr TATTERSALL — Like I say, on day one of Melbourne Metro in 2026, there is an extra 40 000 passengers roughly, in the peak period. That is not what the system would enable you to do; that is what the timetable on day one determines, and that is based on the seven-car high-capacity trains that are being bought. But, for example, we are building platforms that are 220 metres long in all these five new stations, with a view to those trains being able to be extended to 10-car carriages, which means you go from 1100 people to 1600 people in a carriage.

Ms HARTLAND — So you are future proofing it?

Mr TATTERSALL — Yes. So the potential is enormous.

Ms HARTLAND — I think you talked before about being able to then run trains at 4-minute intervals?

Mr TATTERSALL — That was on the Frankston line for that example. Again, like I say, it is probably a better one to talk to PTV about, but that is the sort of benefit. It just depends on the needs of the line as to how many trains they actually run, so that will be something PTV will work out with their timetabling.

Ms HARTLAND — And without this project, what would happen to our current transport, especially rail, system?

Mr TATTERSALL — My understanding is it will continue to become more and more congested. If you do not do this project, it will grind to a halt.

Ms HARTLAND — Within a 5-to-10-year period?

Mr TATTERSALL — Again, it is a good one for Jeroen. But people ask me about the project and I say, ‘Don’t worry about us; we know what we’ve got to do. We just have to get on and do it; worry about the next Melbourne Metro’, because by the time we finish this, there will need to be another one.

Ms HARTLAND — There will be the need for the next. Thank you.

The CHAIR — Mr Tattersall, I am hoping to just explore again the compensation that is going to be available to businesses and residents. Do you have an estimated total cost for that compensation as it progresses?

Mr TATTERSALL — Are you talking about under the Land Acquisition and Compensation Act?

The CHAIR — That is correct, yes.

Mr TATTERSALL — We have got estimates, but obviously it is going to be subject to a whole lot of detail, working through, understanding the business that is being acquired. The ultimate compensation will depend on what they can demonstrate, of course, to us.

The CHAIR — Could you provide those estimates to the committee?

Mr TATTERSALL — I do not think that would be appropriate at this stage. Perhaps down the track, once we have further established what those costs are, but at this stage it is still a work in progress.

The CHAIR — I am sure the committee would find it enlightening if you could provide that to us.

Mr TATTERSALL — Maybe at a future stage, but it is premature to do that at this stage.

The CHAIR — I was hoping to go back to the time line for the project. Remind me, the finalisation of the EES, when do you expect that you will be able to provide the completed EES to the minister?

Mr TATTERSALL — The independent advisory committee now have six weeks to finalise their recommendations to the minister, so it will be late November. They will get that to the minister, and then it is up to the minister to determine if, when or how he approves the project.

The CHAIR — So it is, say, from December it is sort of in the minister’s court in terms of how — —

Mr TATTERSALL — From late November it should be.

The CHAIR — Late November, how long it is that — —

Mr TATTERSALL — It might be earlier, depending on how the committee goes. That is their call.

The CHAIR — It is really up to them. Then from there, expecting to begin work in March 2017, so quite a tight time frame there in terms of the approval of the EES to actually breaking ground?

Mr TATTERSALL — We would hope to have the minister's decision by early 17, but it is a bit unknown. It is up to the minister. Assuming that happens by early next year, we would then start to get into establishing the sites where the shafts are going to be constructed.

The CHAIR — Going back to the Domain station, it appears that one of the premises for the planning of the Domain station was to not infringe upon the Shrine of Remembrance or its grounds. Am I correct in assuming that?

Mr TATTERSALL — No. I mean we have certainly tried not to encroach any more than we can help into the grounds, but the fundamental location of the station was driven by modelling and transport, what is the best transport solution.

The CHAIR — I know some residents have been advocating for the station to be located underneath the Shrine of Remembrance to alleviate some of the above-ground impacts that we are presently seeing. Is there a reason that was discounted?

Mr TATTERSALL — It does not really make sense if you are trying to have that direct tram-train interchange that I talked about before. If you put the station over under the shrine, then people are not going to transfer from the trams to the train, because by the time they do that they might as well stay on the tram and head into the city.

The CHAIR — Was there direct consultation with the shrine in terms of the impacts of the project?

Mr TATTERSALL — Yes, definitely. On what area we need to build, and also how we have the entrance on the eastern side, which is the shrine side, definitely, yes.

The CHAIR — Any further questions from the committee?

Mr LEANE — Just one for clarification. Some things that you say can be sensationalised, so I just want to be clear about the City Square being a big hole —

The CHAIR — Who would do that?

Mr LEANE — A big hole. That is the only reason we are here, the City Square being a big hole for a number of years, right?

Mr TATTERSALL — Yes.

Mr LEANE — So exactly the same as you can walk around a few city blocks and you will find a construction site that is a big hole, because they are digging a big underneath car park for a building to go on top and there is a hoarding around it and maybe some posters for a visiting concert or something, which I am sure will not be on yours — —

Mr TATTERSALL — We hope to be a bit more sophisticated than that.

Mr LEANE — Yes, yours will be. Can you please explain what it will actually look like, that it is not going to look like a big hole that someone can fall into or anything like that? It would be good if you can clarify it.

Mr TATTERSALL — Yes. It will be very much akin to one of those big building sites you see around town, so there will be hoardings. We are very conscious of the high-profile location of City Square. It is obviously the heart of Melbourne, with the tourists, so we will not be putting ratty hoardings up, I assure you. The other thing to note is that after a year or so we will be putting an acoustic shed over City Square as well.

That is to, again, mitigate that impact of noise and dust. So behind the hoarding there will be a shed, and quite a substantial shed. We are just working with the City of Melbourne in particular and the Westin hotel on the appearance of that shed, what we can do to make it not be too big and ugly. It is a very functional solution to help mitigate the impact of the project.

Mr LEANE — That will mitigate, as you said, the noise and the dust?

Mr TATTERSALL — Yes.

Mr LEANE — The things that can occur on a standard building site in town?

Mr TATTERSALL — That is right, yes.

Mr LEANE — So it will actually be better?

Mr TATTERSALL — It should be better.

Mr LEANE — Good.

Ms HARTLAND — I have got one last question. On some big projects I have actually seen progress boards. They have just got all the latest information on what is happening. Is that something that you think you will do?

Mr TATTERSALL — Yes, we definitely want to do that.

Ms HARTLAND — I have found them really helpful on other things. You know exactly what is going on.

Mr TATTERSALL — Yes. We do intend to do that.

The CHAIR — I understand that there are 60 trees on Tom's Block that are going to be retained as a result of some changes to the depth of the tunnel; is that correct?

Mr TATTERSALL — Yes, 60 I think it is.

The CHAIR — I am just wondering: since the release of the EES have there been other changes that will either reduce or increase the number of trees lost in other areas?

Mr TATTERSALL — So the one I referred to before about Fawkner Park?

The CHAIR — Yes.

Mr TATTERSALL — Definitely, and along Toorak Road there with the intervention shafts, going over CityLink, which is the Tom's Block one you refer to. There are other initiatives that we are working through that are not yet finalised, like the western portal one. It does not really change the tree impact too much. But there are a number of initiatives that I would hope will result in less trees.

The CHAIR — So they are some that may find less trees removed. Are there any changes that may increase the number of trees removed from any areas?

Mr TATTERSALL — No. We have adopted a worst-case scenario, and performance criteria for the contractors is to reduce from that, not increase. And we do have a two-for-one replacement approach at the moment, so for every tree we take out, we want to put two back. It is obviously subject to some practicalities with councils, to make sure they do have the spaces and we are not overdeveloping the tree population, but that is the target.

Ms HARTLAND — It would never do that.

Mr TATTERSALL — You would think not.

Ms HARTLAND — When you actually get going, instead of having you come here, maybe we could come to you, I suppose when there is something to show us.

Mr TATTERSALL — Sit on a tunnel-boring machine.

Ms HARTLAND — No, I do not think I am going to go that far, but I would be really interested.

Mr TATTERSALL — Sure.

The CHAIR — We could go and have a look at the giant hole, Mr Leane. That would be good, if we could go out and have a look at what is happening on the ground. Thank you, Mr Tattersall, for your evidence today. You will be provided with a copy of today's transcript for proofreading, which will ultimately be made available on the committee's website. Once again, thank you for your attendance today.

Mr TATTERSALL — Thanks.

Witness withdrew.