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TRANSCRIPT OF PROCEEDINGS

TRANSCRIPT IN CONFIDENCE

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INDEPENDENT PLANNING COMMISSION

PUBLIC MEETING

RE: BARANGAROO SOUTH AND CENTRAL

SECOND SESSION

PANEL: **DAVID McNAMARA**
JOHN HANN
WENDY LEWIN

PARTICIPANTS: **STEWART VERITY**
MIKE WOOD
BOB NATION
MICHAEL ROWE
LISE MADDOCKS
JOHN RIORDAN
LEANNE BOYLE
DAVID McCRACKEN
NICOLE ROBINSON
LAURA LEWIS
SANDRA BENDER

LOCATION: **LEND LEASE OFFICE, LEVEL 14**
T3 BUILDING
BARANGAROO, NEW SOUTH WALES

DATE: **2.40 PM, TUESDAY, 14 AUGUST 2018**

MR S. VERITY: I'll just introduce you to Mike Wood. Mike is associate director of Grant Associates, who are the designers of the public domain.

MS W. LEWIN: Yes.

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MR VERITY: Based in Singapore. We have him here for a week on workshops with the BDA, who are the owners of the site. So what I've asked Mike to do is just give you a quick 10 or 15 minute presentation on the design basis of the public domain. Feel free to ask him any questions you want to, and then probably what I'll do is a little bit more targeted, and of course, we're sort of in your hands in terms of anything in particular you'd like to discuss in any detail. No problem.

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MR J. HANN: All right. Well, look, before we kick off, Stewart, what I – with the new legislation, we've got a new protocol on how we manage the various meetings the briefings, so if you could – would you mind bearing with us.

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MR VERITY: Sure.

MR HANN: We have James here who will run a transcript of the meeting, and that's – it's come from – we do that at the public meetings, and we just started to do that with our other formal meetings, so hence there is – but I'll run through that now, if you don't mind, and then we can kick off with the rest of the briefing and yourself. So, look, thanks very much for making yourselves available for the breaking. Before I begin, just wanted to acknowledge the traditional owners of the land on which we meet, the Gadigal People, and pay my respects to their elders past and present. So today we're here to deal with the matter of development application SSD7944, which is in relation to the public domain works Barangaroo South and Central from Lendlease Millers Point Proprietary Limited, the applicant, who's seeking approval for the public domain works within the south and central areas of Barangaroo. So, look, my name's John Hann.

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MS LEWIN: I'm Wendy Lewin.

MR D. McNAMARA: I'm David McNamara, the director of the Commission Secretariat.

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MR HANN: Look, I should say that it's – in regard to the transcript, it works best if one person speaks at a time, so just during the conversation, otherwise it gets a bit blurred. But would you mind running around the table just introducing yourselves, if that's - - -

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MR M. WOOD: Mike Wood, Grant Associates Singapore.

MR B. NATION: Bob Nation, designer and adviser for the Barangaroo Delivery Authority.

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MR M. ROWE: Michael Rowe from Ethos Urban, planner on the project.

MS L. MADDOCKS: Lise Maddocks. I'm a development manager at Barangaroo Delivery Authority.

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MR J. RIORDAN: John Riordan. I'm the planning manager for Barangaroo South.

MS L. BOYLE: Leanne Boyle from Lendlease Millers Point. I'm the executive general manager for the project.

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MR D. McCracken: David McCracken. I'm an adviser to the Barangaroo Development Authority – Delivery Authority.

MS N. ROBINSON: Nicole Robinson, manager of planning and design for Barangaroo Delivery Authority.

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MR VERITY: Stewart Verity. I'm senior development manager with Lendlease on the project.

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MS L. LEWIS: Laura Lewis, project manager for the public domain works.

MR HANN: Okay. Thank you. And, look, as I mentioned, with the transcript, so that's recorded and then we upload it onto the website so it's publically available. So, look, this is part of our decision-making process, having this briefing. It's early on in the process, and, look, it forms just one of the several sources of the information that we use for the determination. And, look, it's important for us to be able to ask questions, but if – in order to clarify various issues, but if you don't feel you've got those particular answers then, you know, please take it on notice, and if you could respond in writing to us on those, that'd be appreciated. And then that – whatever you respond in writing, we'll upload to the website as well. So having said all that, we're ready to go. So over to you, Stewart and Mike, in terms of how you want to provide the briefing for us.

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MR VERITY: Yeah. Look, Mike – as I said, Mike will kick it off with just a bit of an overview.

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MR HANN: Okay.

MR VERITY: If you want to stop him about any design principles or anything that sits behind where we've gone with things, feel free to. I've got a presentation which addresses a couple of things in particular that we want to talk about. I've also got a series of slides related to essentially City of Sydney's comments that I can refer to. But I guess it's really sort of up to you. Whatever you want to talk about, I can probably get the material up on a screen and - - -

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45

MR HANN: Okay.

MR VERITY: - - - we can talk to it, so - - -

MR HANN: Thank you.

5 MR VERITY: And if anyone wants to take a coffee order, that's more than welcome as well. Mike?

MR WOOD: All right. Thank you. I've put this plan up on the screen. It's a working background plan that we're using for all of our coloured master plans.
10 Apologies. That's all I have at the moment, so I hope it's okay. I hope everybody can see it. We've been working on the project now for some years. 2014 late I think is where we first developed pretty much the plan as you see it now, in various iterations, composing of a number of distinctive spaces that we've called it, really, but overall, our vision is to really – from the outset, to really develop this as a place
15 of international significance, a string of beautifully designed places and spaces really that respond to some of the distinctive characteristics of the site, and also of existing Barangaroo Headland Park, and the part of Barangaroo South that's already been completed, so the final piece of the puzzle for us.

20 It composes of a series of distinctive spaces, each with their own unique characteristics and qualities. Hickson Park, as you know, at the base of the future residential towers, stitched to the streets, Watermans Quay going east-west from Hickson Road, an extension of Barangaroo Avenue, and then your arrival at Watermans Quay, this last hurrah space, if you like, and the engagement between the
25 city and the waterfront, so this beautiful circular cove that we envisaged is bringing together those distinctive spaces, and then the continuation of Wulugul Walk past and in front to the west of the Crown Resort Hotel.

30 As part of that narrative, we sought initially to try and convey a few propositions that would define a continued narrative throughout the site. So you see throughout these distinctive places are circular elements, mature fig trees in our minds that begin to define gateways and experiences as you enter into these places. So when you walk around the design, you see these distinctive shapes starting to take place, and really it's just a unique element to try and bind all of these spaces into one; a series of
35 distinctive, unique spaces in one holistic one, I suppose you could phrase it.

So moving back, then, from going to the waterfront, moving back, we composed the space of a distinctive boardwalk experience hanging out over the existing it might stand out defined by the proposed pier. The extension of timber is an
40 element to really define the whole waterfront experience around the cove, drops down from the existing level to get you closer to water, continuing and embracing the Spirit of Tasmania loading dock, which we're retaining in its form, at least bringing that up to the same level as the promenade so it can engage with that space, and then continuing northwards towards Barangaroo Central and Headland Park.

45 Behind that, this distinctive arc of allee trees, which really defines that first arrival to the waterfront, and you can see that really the curve in terms of a design response for

us was an ability to be able to bring together these three or four distinctive spaces into a holistic one at the place where the city meets the water. So moving back from that, really, Barangaroo Avenue is quite simply an extrusion of the existing 1A, so that defines northwards, all the way up to the boundary of future Barangaroo Central, really repeating the rhythm of furniture and street trees into what will be quite a leafy defined avenue of trees, all expressing the City of Sydney existing furniture palette, so black granite and the materiality that you see that's been designed by design's furniture palette.

10 East to west, Watermans Quay, really trying to create that as a green street, and one of the key components of that is the significant crossing across the middle of it, and the way that it engages between the residential buildings to Hickson Park. Hickson Park itself really was a bit of a sense of relief in the cityscape for us, a place to pause, a little bit of a place away from the hustle and bustle, if you like, of the remaining parts of Barangaroo. So quite simply defined as a space around the base of buildings, a tree belt. We coined it as a tree belt, which acts to buffer the scale of the buildings, provide amenity, provide places to sit in the shade, but also really – really to showcase some of these magnificent feats that we've dotted around as identity markers.

20 after that we developed a notion of how the city breaks down the parks. So the materials and the composition of the elements kind of relax a little bit from the urban streetscapes, filter out to this broken edge of paving, and then essentially a large expanse of lawn which can be populated for temporary events throughout the course of the year. Very, very short snapshot of what the design contains. Hope that's okay. If there's any questions of if I've missed anything out, I'm happy to answer those.

30 MS LEWIN:

MR HANN: Wendy? No, that's fine, thank you.

MR WOOD: Okay.

35 MR: Can you pass me the screen?

MR: Do you need the charger, sorry?

40 MR: No.

MR HANN: Stewart, would you be able to introduce our more recent member here just because we're - - -

45 MR VERITY: We're being recorded.

MS BENDER: That's fine.

MR VERITY: Sandra Bender from the authority.

MR HANN: Thank you.

5 MR VERITY: The authority, that is.

MS BENDER: I'm the – I'm the executive director of activation

10 MR HANN: Okay. Thanks very much, Sandra.

MR VERITY: Here we go. So as I said, Mike's already given a bit of a design presentation. There's a couple of particular things that I want to focus on. First is about the ground plan materials, and the second one is about staging of Hickson Park and that issue, which I'm sure you read about in some of the documentation. Then
15 I've just a set of issues, I guess, which I can refer to, and I can get up the original drawings and things like that if you want to around things that the city has raised. Also deep soil zone, and obviously if there's time for particular discussion. If you want to talk or ask questions along the way, just stop me. It's not a problem, okay?

20 MR HANN: Okay. Thanks.

MR VERITY: So first of all, in terms of material selection, there's a couple of our drawings – and you probably can't – I know you can't read that, because I can't read it and I'm a lot closer. There's a couple of drawings within our drawing set which
25 refer to a precast concrete paver for the entire waterfront. We – we need some flexibility with that, essentially. Leaving it the way – where we've moved to, we have in situ concrete out in front of stage 1A. We're not entirely happy with the results that have been we don't want to repeat that.

30 While we at this time – which I must admit was about two years ago now – we had specified a concrete material yet to be determined in terms of aggregate mix and colour and so forth, and that was partly related to price, because we do have a budget for this work, and we can't exceed that budget. We have since been able to identify a number of options in stone which will still achieve the budget. We want to be able to
35 essentially up-spec what we've put into the application and put a better, much more robust and better quality material in there, ie, granite, which – which at present we would have to secure through a section 96, which – which we'd like to avoid and have some flexibility in that in terms of selection of materials – ground plan materials.

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MR HANN: Is this specific to a particular area of the

MR VERITY: It's the – it's the – in the entire waterfront area. So this area under the trees is all porphyry, and Mike might have not mentioned it, but there's a band of
45 porphyry – it's not there now in central – but there's a band of porphyry in the Headland Park which then ran all the way down through central which we're then picking up and running all the way through Barangaroo South to give that continuity

of – of place all the way from Hickson Park all the way down. So that’s this band of porphyry. We widen it out around the cove in part to help create that place, but also make it part of a greater whole.

5 The rest of the paving all through the front of Crown, the back of the cove, and within the area on the waterfront, excluding the street in front of Crown, which is material, is currently, in these drawings, at least, is specified as precast concrete. In terms of our discussions with the department – with the delivery authority where we have gone when developing design, we’re all about – we’re all about using stone
10 rather than concrete and widening and introducing that stone to the full extent of the opening to Barangaroo Avenue as well. So everywhere you see – around the waterfront you see that paving of precast concrete, we’re now proposing to do that in stone.

15 Another issue with that paving is we – these are specified as – it’s probably – you probably don’t appreciate it from looking at the drawing, but those – that paving is 500 by a metre, each of the pieces. So they’re quite – it’s a big space, and we want big materials to help break that down and recognise the size of that space. We’re having trouble being able to get a 500 by a metre precast – the biggest we can get is
20 about 900, which is going to make things not fit as easily as we currently do, and coordinate with stage 1A as well. So we want to stick to 500 by 1000 as well.

Hickson Park staging – so just a bit of a snapshot of, you know, what we’ve been asking – what we’re asking for in this application. In the blue there is the actual
25 wording from the application in terms of the draft condition, if you like. The residential towers, just to give the subtext to that, the residential towers won’t be complete at the time that Crown is completed. The condition that currently sits in there, which I think one is the – mod 8 condition which I think is one of the slides, says that we have to complete Hickson Park, have it completed, open and publicly
30 accessible prior to the first OC, which is Crown. We’ll still have residential towers being constructed.

I’ve got some programs so you can see the relationship of all the projects. While we’re constructing those towers, we need exclusion zones to work around those
35 towers for public safety as well as logistics, et cetera. And by having a stage completion of Hickson Park rather than complete it all at once, it means that we – we’re not in a position where we have to complete the whole park or pause the construction of the towers, complete the park, move the exclusion zones back, demolish the park, and then do it again later. So it’s avoiding rework and inefficient
40 and unnecessary work.

MR HANN: Can we just dwell on this for a little bit, because - - -

MR VERITY: Sure. And I’ve got a few more slides on it as well, so - - -

45 MR HANN: Have you?

MR VERITY: Yeah.

MR HANN: Okay. Well, why don't you go through those - - -

5 MR VERITY: Okay.

MR HANN: - - - and then we'll come back and – okay. Thanks.

10 MR VERITY: So this one is the actual condition it's in mod 8, and the drawing which the PAC put together is part of the approval of mod 8, which I'm sure you're familiar with, John. Essentially, as I said, completion of the park prior to the first – the first building in block Y, block 4A or 4B, which are noted on the plan there. And the extent of Hickson Park.

15 In terms of staging, when you go back to mod 8, our staging which was in the mod 8 application clearly showed the hotel finishing in late 2019. It's actually a little bit later than that now. And the park being finished at the same time as most of these buildings, because it was always envisaged that we needed to get to a point where those buildings were basically complete structurally so we could then complete the
20 park around that. That's notwithstanding the condition actually requires something else. But that was the place that we started from.

In terms of where things are – so the hotel will be complete in December 2020 is what their current program is looking at, and my understanding from discussions
25 with Crown is they're on track with that program. You've only got to look out the window to see where they are now. So they're getting down the track. The remediation started in March '17 and will go through till April 2019. The basement starts in March '19, so just before the completion, we start piling and doing the hydrostatic slab at the bottom of the whole. That goes right through to November
30 '20. So with those dates, we've literally got one month to finish. That's the ground slab finished in November '20. We've got one month to finish the park. And it's just not possible to do it in that timeframe. R4A, R4B and R5 run in between April '20 and all finishing around the same time in April '23. So while the basement is still under construction, there are cores coming up, and obviously they're going to be
35 above the ground by the time the basement is finished, and there's going to be a need to have some segregation and some exclusion zones from those towers.

So all those three – all those three towers will be in various stages of construction by the time – we'll give you a copy of this too, obviously – by the time Crown is
40 complete in December 2020, which creates a problem in terms of the conditions – the concept plan conditions that we need to respond to. So what we've asked for is for staging of the park under the – under the – the proposition we've put is that we are delivering – at the time of Crown's opening, we will be able to deliver 100 per cent of the waterfront and a proportion of the park with an exclusion zone of about 12 to
45 16 metres around those buildings. That then equates to about 85 per cent or almost 18,000 square metres of public domain, complete, open, 100 per cent accessible at the time of Crown's opening. So I guess the proposition we put in our application –

and you might like to talk to this a little bit, Mike – the proposition we’ve put in our application is that 85 of per cent of the total amount of public domain that’s required for Crown’s opening, it’s really – we consider it’s consistent with the objections and the scope of the control.

5

MR ROWE: Yeah. So just – just adding on what Stewart’s contributed there in terms of – obviously as the consent authority, your obligation is to consistent with the terms of the concept approval, and one of the things to get your head around is the idea of if it’s not entirely completed and because of the exclusion zones at the time, have we satisfied our commitment or obligation under the concept plan? And whilst we understand that, yes, that’s – it’s not 100 per cent complete, in terms of that general consistency question, the condition itself – I don’t know if you want to go back to it, Stewart – whilst it didn’t envisage the exclusion zones around the tower, it did provide for the temporary construction road corridor on Barton Street.

10

15

So - - -

MR VERITY: Which basically ran down this alignment through here.

20

MR ROWE: So it always did allow for some part of the public domain to not be acceptable at the time the OC was issued for one of the buildings in stage 1B or 1C, just not in a location that we’re suggesting it. And so we think that it can still – as Stewart’s pointed out in terms of 85 per cent is going to be publically accessible, that we’re actually still within that terms of being generally consistent, acknowledging the practicalities of what we’ve explained in actually being able to provide it and not creating redundant work and safety issues.

25

MR VERITY: Did you want to dwell on this point a bit?

30

MR HANN: Yeah. Was there anything more on the staging - - -

MR VERITY: No, no. It was the last slide in respect of - - -

35

MR HANN: Well, I guess just for absolute clarity, so the exclusion zones are in the application.

MR VERITY: Yes, they are.

MR HANN: Okay. Right.

40

MR VERITY: This drawing that’s on the screen there is in the application.

MR HANN: Right.

45

MS BOYLE: And we would have to do the exclusion zones any way as part of our safety requirement because we’re building the towers at the same time, so our minimum exclusion zone from an operational safety and construction point of view would be 12 metres.

MR HANN: Right.

MS BOYLE: So 12 to 16 metres allows a clear, accessible entry, particularly when you think about the congestion of the site and the logistics around the site, the
5 number of workers onsite, and in particular, one of our absolute focuses at Lendlease which you – I'm sure you appreciate is fall from materials, so protecting our workers, the safety, the public, and also the practicality of being able to deliver that with the actual towers themselves, that strip there would be practical as well.

10 MR HANN: Okay.

MS LEWIN: Is it entirely essential to be in the round exclusion zones to the full perimeter?

15 MS BOYLE: Yeah. Because all those towers – yeah. Because all those towers, they're actually quite close together, those towers, so there's only – between R4A and R4B - - -

MR VERITY: That's this - - -
20

MS LEWIN: Yes.

MR VERITY: R4A.

25 MS BOYLE: Yeah.

MR VERITY: R4B.

MS LEWIN: Yes.
30

MS BOYLE: R4B. They're about 12 metres apart. And then between those two towers, there's something similar – I think it's 18 metres between those two. That will - - -

35 MR VERITY: 12 at the podium.

MS BOYLE: 12 at the podium. They'll all be under construction at the same time. So when you consider the number of workers that are going to be onsite, the number of truck movements, trying to actually separate that from the public is extremely
40 difficult and needs to be considered in our overall safety plan, and that's all been considered together with our construction delivery team, so we've put a lot of thought into it.

MR McCracken: So have you committed to construction for these - - -
45

MS BOYLE: No. We have a construction development team, and they have input into this.

MR McCracken: So – no, sorry. My question was are these under construction at the time of Crown opening?

MS Boyle: Yeah. The cores are underway.

5

MR McCracken: A guarantee?

MS Boyle: Yeah.

10 MS Lewin: So just - - -

MR Verity: Sorry. Further to being in the round, what that also allows us to do is get the deliveries, etcetera, to the site off the street, so they're able to come in and circulate around the building, completely off the street and not clog up the rest of the street system either through Barangaroo or the wider Hickson Road and Barangaroo Avenue.

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MS Lewin: So this is a best case option for you. If it was in the city in a very tight urban – much – not in the road - - -

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MS Boyle: Yeah.

MS Lewin: - - - as you have here, but in a normal - - -

25 MS Boyle: City block.

MS Lewin: - - - city block, you would have the constraints that – even more greater constraints that you have with Hickson Road and the Barangaroo Avenue and Watermans Cove.

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MS Boyle: But you don't normally have three towers of this significant size together under construction at the same time, whereas in a city block it's normally one building, and then you can access that. Normally you can access it from – you know, in a city block, usually two, three or four sites, so you can actually get into it from different locations, whereas we've got three towers, 250 metres, 210 metres and 107 metres under construction all at the same time.

35

MR Rowe: And fronting a park.

40 MS Boyle: And – yeah, a public park.

MS Lewin: Well, that's the issue at hand, though, isn't it, fronting the public park.

MR Rowe: But if something were to fall off onto those buildings in that construction process – obviously that's

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MS LEWIN: No. I'm just – the question is really about the real requirement to have 12 to 16 metres on the park side when there's such an available frontage in the round on the other three sides.

5 MS BOYLE: You also have - - -

MS LEWIN: That's - - -

10 MS BOYLE: - - - Crown to the south - - -

MS LEWIN: Yes.

15 MS BOYLE: Sorry, to the west of that, and they will be under operation, so they will be open, so that'll be a publically accessible road to Barangaroo Avenue. So ideally we would like more, but, of course, we recognise the – you know, the requirement to open to the park and, you know, we think that that's possible. So 12 metres would be the minimum that we would request.

20 MR VERITY: If you look at – if you look at a building in the city at about – you know, being constructed at about 250 metres height, what would typically happen is you would have a class B hoarding over the top of the footpath of about five metres.

MS LEWIN: Yes.

25 MR VERITY: That 250 metre tower would also be set back from that façade line by five or six metres, perhaps.

MR NATION: Not in my case.

30 MR VERITY: Not in your case?

MR WOOD: Maybe.

35 MR VERITY: You know, so you're - - -

MS LEWIN: It varies.

40 MR VERITY: You're still talking. It varies, but there's still a setback of some considerable width of whatever it might be. It varies from building to building. But at least the width of the footpath, and then a setback for the tower. If Graham has his way, there's a podium and a setback for every tower, but obviously that isn't always the case. So in that sense, it's - - -

45 MS BOYLE: And the number of tower cranes on here will be quite substantial too. We'll have probably six tower cranes, five tower cranes going.

MR McNAMARA: But that's – that's the simultaneous construction that creates that situation.

MS BOYLE: Yeah. Yeah, it does.

5

MR McNAMARA: And R5 isn't yet approved?

MS BOYLE: No. That's not approved yet. So there's a response to submission

10

MR McNAMARA: Outstanding.

MR RIORDAN: --- to be – outstanding, yeah.

15

MR VERITY: So if you look at the start times, R5 is a full year later start than R4A, and because the building is so much smaller, it can still finish at the same time.

MR McNAMARA: Okay.

20

MS LEWIN: Okay. Thanks.

25

MR McCracken: So from the authority's point of view, I'm conscious that this has been tabled and I'm speaking with some trepidation on the basis that I don't know the exact status of the authority's approval of this, on the basis that we support safety absolutely, but also the commitment to the park. So I apologise. We've had a resource who has been responsible for this issue who has just left, so therefore we are not all fully briefed on that. I've just sought some advice, and the executive isn't 100 per cent certain of our position with respect to this. I just feel I should make that known at this point.

30

MR HANN: Yeah. Okay. Thank you.

MS LEWIN: Good. Thank you.

35

MR VERITY: They're the two main issues that I wanted to address specifically from a Lendlease point of view. I do have a range of other slides which start to go through some of the City of Sydney stuff.

40

MS LEWIN: That'd be good.

MR VERITY: If you'd like to talk through those, I'm happy to.

MR HANN: Yeah. That'd be ---

45

MS LEWIN: Yeah.

MR VERITY: First round – and I’ll preface that by saying in terms of all the other issues that have been raised by the City of Sydney, the resolution that’s in the department’s report and the draft conditions which go with that are – from our point of view are fine. You know, so I don’t think we’re – don’t take this as presenting
5 this in a way that we need to see changes or we’re asking for changes. We’re quite happy with where things are at. The deep soil zone is the first of these, and I can go through the individual sections on another document if you’d like to do that as well. Yes?

10 MS LEWIN: Yes. Yes, thanks.

MR VERITY: Okay. I’ll just talk to this one first. So the requirement in mod 8 was for creation of a deep soil zone of at least 2000 square metres at three metres depth.

15

MS LEWIN: Yeah.

MR VERITY: There’s – there was – there are some constraints in being able to locate that and achieve that. Primarily, the basement for Crown which sits in this
20 location here was already approved – already had its levels approved, and that created a leftover space, if you like, in terms of where we could potentially locate that. The second thing is that all the levels in the basement from ground up need to be tied together to keep the basement upright to stop the walls falling in. So there needs to be a consistent joining of those basement slabs right up through the structure
25 of the basement. The only place we can accommodate any change to that or a set down in that slab is in this area up here, and what we’ve done is we’ve maximised the area that we can do that in.

30 So while the requirement is 2000 square metres, we’ve created a zone of about two and a half thousand square metres, and within that there’s areas that are above three metres, areas that are on three metres, and areas at a little bit below three metres. In order to sink things as low as we can, we’ve had to turn the beams around and have upstanding beams, so there’s a small penetration of beams into that zone in some locations, and I’ll bring those sections up. But overall, there’s a – in terms of
35 volume, we’re well over the volume of soil that would’ve been created. 6000 cubic metres – we’re at about seven and a half thousand cubic metres rather than what would you get for 2000 squares at three metres deep.

40 I’ll just get another file up, sorry. So these are a set of sections that have been drawn – each of these green lines here are a set of sections that have been drawn through to give an illustration of what that soil depth is right through the area. So you can see – at this is a section from – you can see the section location down here. The top of the screen there is the left of the screen up here. So Hickson Road here, that slab comes across, up to the edge of the side of Hickson Road. We’ve got these upstand beams I
45 was talking about. And because of the level of Hickson Road, we had to grade down where that section is down to the level of Hickson Road, so we get deeper as we go further east.

Once we get up to around this location here, we're about three metres deep. Because of the angle of the section, this is just showing the edge of Crown's basement, so it's just cutting through the corner of it, and then it runs right through up to R4B. We're over three metres through all these legs except for the upstand beams, and then lower
5 through here. This is a section that's cut right through between the park and the gap between R4B and R5, and it just shows that three-metre depth running right through there with the upstand beams. And this is – this is the grade of the ramp that runs down from the park level down to the space between the buildings.

10 The reason we needed to do that is so we get the grades for drainage in the park without having to create drains in the park. So we're keeping things all as flat and as low as possible. By lifting things up and creating that high point, we're able to just very gradually drain things out rather than if we kept the same sort of design as we had prior to mod 8, we would've very gradually drained everything towards the
15 north. But because of the distances now, we're not able to do that. It just becomes just too shallow a grade. Section through the northeast part of the park, so you can see that this is Crown's basement through here, upstand beams at about three metres plus, except for the location around the park through here.

20 And this one, through the edge, right up adjacent – parallel to Hickson Road, obviously there's a lot more depth in some of these plans as to where the figs are as well. We're getting up to sort of three and a half metres there. It's pretty much the same consistent story of where all of these sections are cut. There's a lower area where the grass predominantly is, which is, you know, only 400 to 500 mill for grass,
25 but it's these deeper zones. Our application – we've got some expert opinion there from Stuart Pittendrigh and Simon Leake, soil scientists and arborists, very strongly supporting the fact that a depth of three metres for trees is neither necessary – actually, there's no oxygen down at those levels. The roots won't go that far. They'll probably only go to about a metre and a half, but nonetheless, we've got the
30 condition, so we're complying with it as much as we can.

Again, this is grading down towards Hickson Road, so you can see those heights reducing a little bit as you get towards Hickson Road with a ramp sort of cut through the middle here. This is some other material about what the impact would be if we –
35 if we needed to achieve a consistent three metres everywhere, we would essentially be lifting everything up – and I don't go through this in detail – we'd essentially need to lift everything up, and that would then have flow-on effects all over the place. And in terms of that, if I go back to the presentation, I do have a couple of sections which hit on specifically something which City of Sydney have raised in their
40 application, in their response.

They propose that – we've got some mounded planting in some of these shallow areas of, you know, 100 to 150 mill. They've suggested that there shouldn't be any mounding, which really leaves us with the only option of increasing the height of the
45 wall to retain the soil. And I haven't discussed anything of the implications of the other side, but in terms of the wall itself, we're ending up with – that wall height end up – gets increased to 4.25 from where it was, which is about 800 millimetres at its

worst case, 600 millimetres at its best case. So part of the utility of that wall that we're trying to create is for casual seating as well, and once we're getting up to 800 and 600 mill, it loses the ability to do that.

5 There will be details that deal with how the soil meets that and drains on the edges, so we're very conscious of that. But we are concerned that we need to keep that wall down at a level that is useable as a seat. When you get around to the main entrances to the park at Hickson Road particularly, but also Barangaroo Avenue, you're looking at that wall height getting up to about 1350. That's then creating the need
10 for balustrades as well from the garden beds down to Hickson Road. So completely changes the character and the approach of what we've been trying to create. You know, your views into the park through those areas are also reduced, obviously, because there is some low understory planting through there.

15 You're really starting to work against some of those other principles that were in the concept plan approval as well. So in our view, as much as the control talks about three metres deep, 2000 square metres, we've got – which is 6000 cubic metres, we've got seven and a half thousand cubic metres. Some places we are three. One places we're a little bit less than three. The implications of having to comply 100 per
20 cent cast iron guarantee are that we're going to have a lot of negative impacts that start to undermine the design intent of the entire scheme, not just at these walls, but also on the other side, because we're creating greater grades, we're creating higher levels all over the place. So we're really trying to work against that. You - - -

25 MR McNAMARA: No. I was going to say thank you.

MR VERITY: Hickson Park North, I've – I won't read that out. That's just straight out of the City of Sydney's submission, talking about the northern edge of Hickson Park. And really, I guess the intention of that comment was to point out that the
30 design resolution in there – I'm paraphrasing here – the design resolution of the northern part of the park isn't to the same level of detail as the southern part of the park. There's a couple of reasons for that. I wouldn't call it the same design. It's not of the same design resolution. There's a very conscious objective to create as large an area of open grassland usable space as possible, and that's always been the
35 objective, and that I think is underlined in the concept plan approval as well.

So that is one reason for being the way that it is. The second reason is that at this point, we don't know what's in central. To start to indicate or propose a detailed resolution for that area of parkland further than what we have at the moment is
40 presupposing what might be in central, and I don't think at this point that's the right thing to do. We've very much been looking at it from where – how do we achieve the objectives in the best way, and how do we maximise flexibility for responding to something that might happen in the future. So that's I guess our response and how we seek the park design in that sense. Sorry. You just look like you're going to be
45 asking me a question all the time.

MR McNAMARA: It might just be worth – okay. So acknowledging we don't know what's happening in central, but hypothetically if the space remained like that, does it function appropriately?

5 MR VERITY: I think so, yes. As I said, the objective for the space is to create a large lawn, multifunction usable space for events, for just relaxing, for a range of things. It does not. In terms of the grades, etcetera, it does that. It's as flat as possible. We're only talking grades of about – at their maximum in the park area of about one in 50, so we're very, very low in that sense. In terms of draining the park,
10 all the drainage and the grades that work with drainage will work, will be collecting stormwater at the periphery and challenging that back to the wider stormwater system, rather than creating things in the middle of the park, creating some drains in the middle of the park. From the utility of the park and its usability, about keeping the openness – the view through to the waterfront from Hickson Road, it does all
15 those things. If you start to put in more trees, mounding, some of the things that City of Sydney have identified, you start to work against a lot of those objectives.

MS LEWIN: Can I - - -

20 MR WOOD: I think from my perspective, I would add that – onto Stewart's point that if we do start to populate that northern edge with tree planting, through some of the microclimate studies that we've done in the initial design of the park, we start to add in additional shade that isn't obviously what we're after in those winter months. So we did a series of shadow studies that maintain the park as much solar access in
25 the winter as possible and as much shade provided by the tree belt for summer sun as well.

MS LEWIN: On the matter of the tree belt in the northwest corner, that is very exposed - - -

30 MR VERITY: Up here?

MS LEWIN: Yes. The northwest - - -

35 MR WOOD: Northwest. Yeah.

MS LEWIN: - - - corner.

MR WOOD: Yeah.

40 MR VERITY: Yeah.

MS LEWIN: Is directly exposed to the harbour, and westerly winds. The north-westerlies and the south-westerlies will whip around – the south-westerlies will whip
45 around the Crown building. The exposure of that area, I would've thought, would be perfect – you would be able to mitigate that – the effect of the westerlies – north and south-westerlies with some judicious tree planting, graded tree planting, planting of

trees with a higher canopy and more open trunk systems so that you didn't have the issue of partly blocked views, or even – you could even argue for filtered views from Hickson Road. But I would've thought that that might've been even a temporary measure, but until you knew what was happening in central. But has that ever been explored?

MR VERITY: Can I just say that the assumptions that we went through with the wind assessments that we did in the application as well assumed that the nature and the character of Barangaroo Avenue would be continued. So you'd have street tree planting consistently above – up both sides of the street.

MS LEWIN: Two rows?

MR VERITY: Two rows, one on each side. We've then placed within this area the – the existing built form in the current approval of mod 8 for central, and that's what was modelled in terms of a built form and a landscape outcome in terms of the amenity of the park. And you can go and read our assessments in detail, but they are shown to be successful in terms of their – the amenity created within the park. So is there the need for additional trees on top of that? I guess the question is that really depends on whether central changes from that assumption, if you like.

MR ROWE: I think it's also just worth adding some of the mod 8 conditions for approval for Hickson Park. So they require it to be primarily soft landscaping, including extensive areas of grass, and they also require to provide view corridors from Hickson Road to the harbour. So as Stewart was saying before, it's about trying to balance some of those key mandated requirements in the concept plan.

MS LEWIN: Sure.

MR VERITY: I've realised after today that the section on the right is probably a little bit old now, but one of the things that City of Sydney raised was about the resolution of how we deal with the edge of the park to Hickson Road and to Barangaroo Avenue, and how we've advanced that for the RTS. Their feeling was that it didn't go far enough. They wanted to see some mounding, you know, some – a whole range of different things along those edges to create some – a different presentation to the street.

Where we've landed in terms of that is we have a very real necessity to deal with vehicle – you know, diminishing – avoiding vehicle impact off the streets into the park. You know, there's a lot of stuff you read around the world about that. So we were trying to address those issues at the same time as create an edge for the park. We wanted to – where we landed is to keep very formal and have a formal edge to form the street. So we landed on a system which essentially is they're concrete rather than sandstone blocks, and they're located within the extension of the City of Sydney paving that's on the street.

- There's a variety of openings though there, so they act as both seats as well as – as well as a vehicle deterrent, if you like. It's the same approach on both sides. So I haven't got slide son both of them, but it's exactly the same approach. There's been some further development about how this detail actually works in terms of drainage
- 5 of the park, etcetera, which we're moving towards, but the approach is very much about creating a series of sandstone blocks or bollards that create the vehicle deterrent, also act as seating, but are also permeable to allow pedestrians to move in and out as quickly and as easily as possible.
- 10 At the same time, by not having mounding and so forth, we're maintaining those views through to the water all the way through there as well, which we think is very important. There's a comment in the City of Sydney's submissions about porphyry selections and transitions and those sort of things. We actually met with City of Sydney a number of times, and I felt we resolved these issues. That may or may not
- 15 have come across in their submission, but certainly in terms of porphyry, their comments in terms of porphyry was about slip resistance, and about the grading of porphyry versus the City of Sydney granite on those – the edges between the park and the streets.
- 20 The slip resistance we spoke to City of Sydney about – porphyry has a better slip resistance than granite, so the issue isn't so much about the slip resistance per se; it's the fact that there's a slight difference between the two. If anything, the slipperier material is the City of Sydney granite. I thought – as I said, I thought we'd resolved all this, but then not having participated with you this morning probably hasn't led
- 25 you to that understanding. The other thing we're doing is we're moving between – we've got areas which are porphyry sets, which are quite rough split blocks. You know, that's a consistency thing with Hickson Park and running that all through, and that's just that one-metre wide strip on the edge.
- 30 In areas where we've got – where we're proposing it be used for events and other activities, we're talking about a much smoother finish. So where they talk about the roughness and so forth, and if you look at the image on the right which I showed some of these guys this morning from Newport, they're exactly the same split, but because they're larger pieces, they don't have the same rough character that you do
- 35 get of the sets. So in most cases we're talking about porphyry which is at least this sort of size rather than this size. So that whole aspect of roughness and so forth is going to disappear in a sense anyway. But on top of that, where there's areas where events have been proposed, they will probably be even smother than that.
- 40 MS LEWIN: Can I just - - -
- MR VERITY: Sure.
- MS LEWIN: - - - ask a question about the detailing of – you're going onto the
- 45 detailing of it. The – on the larger – with larger sets, they're usually dry-jointed, and they're on a bed that stabilises them so that when maintenance occurs or is required

or resurfacing of an area, you take them up, and you can put them back in without any mortar joints being - - -

MR WOOD: Do you - - -

5

MS LEWIN: Do you – and I noticed in the parkland, headland, there’s white mortar joints generally, and I’m just wondering what your program would be for such an extensive area of porphyry if – and it’s likely – that maintenance or re-servicing of areas has to be undertaken. Most common around the city or anywhere, you see, in this country, bitumen as a replacement. I’d hate to see that. What sort of program would you have in place to - - -

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MR WOOD: In terms of a maintenance program?

15

MS LEWIN: Well, yes. Re-servicing and then resurfacing with the sets. Do you have that - - -

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MR WOOD: Well, I think the first – the first part of your question would be that these – the majority of all of these sets are on a rigid pavement, so they’re all on a podium or on a slab. So we would most definitely be recommending that they are mortared similar to porphyry, similar to that construction to maintain that continuity. The second part, most certainly we see these areas replaced by bitumen either when they’re replaced. I don’t think in the special areas that we’ve proposed the porphyry to go, I’d hope that the authority and Lend Lease would share that view that certainly the maintenance regime wouldn’t be to replace it with anything else but the original material that has been placed there.

25

MS LEWIN: Would you consider dry joints in the

30

MR WOOD: I don’t think it would be particular suitable, given the amount of foot traffic, pedestrian traffic, the rigid structure that they’re applied to, and the consistency with the rest of the Barangaroo development. I don’t think consider them, no.

35

MS LEWIN: Are you proposing the crushed sandstone as well, or the decomposed sandstone?

MR WOOD: No.

40

MR VERITY: No, no.

MR WOOD: No, we’re not proposing that, no. We’re - - -

45

MR VERITY: That image was just to give an indication of what’s coming through from - - -

MS LEWIN: The north.

MR VERITY: - - - the porphyry, specifically, what's coming through from Headland Park.

MR HANN: Right.

5

MR VERITY: Not the rest of it.

MR WOOD: Yeah.

10 MR HANN: That's the porphyry - - -

MR VERITY: Yes.

MR HANN: - - - extension of the walk, so to speak.

15

MR VERITY: Yeah, exactly.

MR WOOD: The porphyry materiality was really chosen to highlight particularly special places identified along the waterfront like the Spirit of Tasmania loading dock, like the cove itself, just to really continue that thread of narrative that comes through from Headland Park, you know, when you're coming through the gates of Barangaroo, there's a large porphyry mat that identifies that as a significant place. Really we just continued that thread through into our design. And, you know, it's inherently Australian, won't fall apart, enduring material with those wonderful colour textures and forms. So it fits perfectly really that waterfront edge.

20

25

MR VERITY: In terms of maintenance itself, you know, part of – part of the replacement of porphyry with bitumen or so forth is – you know, is potentially related to budget and issues like that. For this precinct, every tenant in this precinct pays a levy. That levy all goes to – essentially goes to the delivery authority, which is then used for maintenance public domain in part, as well as other public assets and so forth. So there is an ongoing stream of cash which funds that maintenance and upgrade at the time.

30

35

The second issue that he talked about was how we're grading – this is probably not quite the right slide, but talking about grading the – between the city Sydney granite areas to porphyry, particularly locations like around the park, et cetera. Mike, you might like to talk about the principles about why we've done that, and then perhaps how we've advanced that through the current - - -

40

MR WOOD: Yeah.

MR VERITY: Design - - -

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MR WOOD: Yeah, sure. I mean, really the notion of the transition of the hard paving materials in the strategy was how we took this character from distinctly urban parts of Barangaroo South through to the more parklike characters, particularly in

- Hickson Park. So to do that, we knew that we were dealing with materials that were set by the city of Sydney and their standards, and that they differed somewhat to the materials that were used as part of Headland Park at the moment, so it's about blending those in. And overlaid on that, we knew that for this space, we had to have
- 5 the very, very best of international quality design and detailing, so we embarked on quite a detailed series of integration strategies of how we can get the city of Sydney's granite integrating well with the porphyry that we wanted to denote those parklike areas.
- 10 So we've got lots of systems where these interrelate with each other, and mainly they are at the base of the interfaces between the streets and Hickson Park. So Watermans Quay, that entry between the residential buildings and the R4A porte-cochere as it interfaces with Barangaroo Road.
- 15 The porphyry in itself, I should add, in the park, then to the northern boundary of the residential buildings it takes on a different form, and then as you grade into the park, it subtly changes in the composition. It gets a bit more random in its orientation, just to emphasise that – that arrival at the big northern area of Hickson Park.
- 20 MR VERITY: What we didn't want to do was to create a distinct line between a footpath edge and the park. We felt that it was a much better outcome to blend the two together. Very clear – there's a very clear delineation, in a sense, of where that city of Sydney footpath is in those materials, but then that starts to inform itself on the park, and the park starts to inform itself on the edge as well. So you get this
- 25 grading and bleeding of materials together which becomes much more porphyry. One of the reasons for selecting porphyry, besides its connection with the rest of the site, Barangaroo Park, et cetera, was because some of the tones within that stone are similar to the tones that you get in the city of Sydney granite. So it gives you the ability to start to blend those things and make it a more gradual sort of transition.
- 30 Different situation to the rest of Barangaroo here because we use the same material all through essentially what are streets there, pedestrian streets. This is a different situation. We really see this as a parkland space, therefore it's a different sort of space, and we think that a gradation or a blending of materials is a better outcome than a hard line.
- 35 Community facilities and the pier community facility – I guess the first point to make is this application doesn't contain a proposal for a future facility on the pier. That's for a future application. The reason that's for a future application – there is a concept plan requirement for a competitive process, and that's certainly still the intention that
- 40 there will be a competitive process for what goes out there. The first point city of Sydney I think we were making were how can we assess this, we don't know what's out there. We very much see that as, it's not part of this application; it's a future application.
- 45 The second thing was about the required GFA for community uses. The concept plan requires us to have a minimum of 3000 square metres. We've actually already exceeded that, and we had exceeded that prior to mod 8 as well. You'll see in the

application there's some correspondence from the Department of Planning which confirms that as well. So you know, as much as – as much as the city was raising issues about areas of community facilities, about resolution of what goes on the pier, the structure that goes on the pier, we feel they're either achieved or they're part of a
5 separate application and not part of this application.

MR: Do you want to talk about this one?

10 MR McCracken: Yeah. Talk in broad terms just - - -

MR Verity: This is the last slide.

MR McCracken: Just to give a bit more perspective to that is that indicated that there would be a subsequent application for that pier, which is – probably
15 evidenced by some of the city's comments with respect to that, and also with the draft understanding of this. Two things, though, relate to our thinking at the moment is how – how that facility or how that pier would work as part of the public domain, and its scale and accessibility. So our part is to say, "We've got two areas of that." One is the public element. Well, three areas. There's the pier element, the
20 waterfront walkway.

There is a public element of permanent public. and then there's a usable area of a facility that may be shared at various times. So if I go to the right-hand slide as an indication on the upper level, we've worked through – and I'll let Sandra talk to in a
25 little bit about how we see that as a future ambition where we would see a beautiful sculptural piece, if you like, pavilion structure not dissimilar to Foster in Marseille. I'm not saying architecturally similar, but impactfully similar to something which is a it gives some solar amenity, some shade.

30 The northwest at Barangaroo has got two issues. Well, the west and the northwest have got two issues: the solar access, and that was the comment I was making up on the roof about the scale of that area outside Cirrus through to now another 500 square metres on the pier. Is that the right scale of open space without any sort of
35 attenuation to it? And secondly, the south-westerly winds that you've talked about, again on the basis that this pier is aligned with the ferry terminal, probably the only view impediment you'd ever consider might be at that southwest – that southern edge of that pier where you've got some wind protection and you're only really hitting – your view impediment is only to the ferry station, so something which is maybe
40 moveable, tenable as a protection to wind, but also it's not a detriment to view, and actually it's perpendicular to your view corridor from the restaurants and the amenity of the broader stage 1A promenade and the restaurants behind it.

So in thinking that, we would see a future application about a pavilion, a piece of infrastructure that supports activities on that upper level, where you see Mike's
45 written 3.4 or something on there, and what size is that. And then a second tier of timber deck as a permanent piece of infrastructure that's always public. So if you're doing some activity on the upper level – not this – I mean, I don't think we're saying

this is the same as Fed Square, but when you see Fed Square have an activity in it, the public disposition is impactful. So having something which equally maintains a more public element where it says one – 2.7, and then you’ve got the walkway around the edge. So that’s the level of thinking that we have at the moment in terms
5 of breaking that down.

The question that we are discussing at the moment is a step to the right as a precursor in a base case to a future application. Could that – the transition from the left-hand drawing which is the literal illustration of the pier as it sits today, could we make the
10 transition to the one on the right within this application now, is that consistent, or would the change in levels and the bit of detail that Mike’s illustrated in the drawing on the right be such a change that needs a separate application. So that’s a probably vague question to you at the point, more for briefing at the moment. So we’re sitting with that at the left-hand side. We believe there’s some sensible amendment to that.
15 There’s an opportunity to be amended sequentially now, and those – to respond to those concerns that I’ve just

MR McNAMARA: Yeah. Look, I think the simple answer is what’s on the left has been assessed; what’s on the right hasn’t been.
20

MR McCracken: Yeah.

MR McNAMARA: And the Commission’s role is to make decisions, not to assess things. So – and also another factor is you’re still thinking about what the right looks
25 like and it’d be best to come back once, and maybe that’s just an entire application for a permanent sculptural structure, could the incorporate some modifications to the levels.

MR McCracken: Yeah.
30

MR McNAMARA: I understand this is all built on a structural slab, effectively. You’ve got the option to be flexible - - -

MR McCracken: Yeah.
35

MR McNAMARA: - - - so I think that would – my only advice would be that’s the best way to approach it, and we’ve been asked to consider what’s on the left.

MR McCracken: Sure. Okay. So you need any other – do you want any other
40 information at this point from Sandra’s ambition about how that might work, or that’s – is it something - - -

MR McNAMARA: It sounds really interesting, but I think it’s probably for another
45 day - - -

MR McCracken: Okay.

MR McNAMARA: - - - unfortunately.

MR McCracken: No problem.

5 MR McNAMARA: Yeah.

MR VERITY: That's all I have. I'm happy to go and address anything specifically you might have in – I have many plans.

10 MR HANN: Thanks. Thanks very much, Stewart. Look, there's a couple of things that we'd be interested in your views on. The pontoon which is further to the north and immediately west of hotel envelope – the Crown envelope, it's really – looking at the available plans that we've got, it appears that what it does is constrain, if you like, the space – public amenity between what would be Crown's licensed area and
15 the effective area that the public will access, other than acknowledging that the public will access the actual deck of the pontoon, but that's just specific purposes, so it's really a question of, you know, what consideration have you given to the narrowing of that and the effect on the public amenity?

20 MR VERITY: So are you talking about this?

MR HANN: So we're talking about that area there, and in particular, immediately to the east of the pontoon. It's that section there.

25 MR VERITY: Yes. Look, I guess there's a couple of things to address in that. The first is that there's – I think, going right back to mod 8, there was always a desire to have an ability for water taxis and so forth to make short-term drop-offs and so forth. There's also an extent of site which is maximised. The reason – one of the main reasons for the gap between the pontoon and the rest of the boardwalk is really
30 related to potential falls from the edge of that structure, and making sure that you're not falling onto a hard surface. There's a safety issue with that.

MR HANN: Okay.

35 MR VERITY: By creating that gap and doing something which is, you know, DDA compliant, it really creates a need for what is essentially about a two-metre separation, from memory, from something, when we're talking about the tide range, we're talking about something that's sitting about RL2.3, I think, is the level of the boardwalk which we're meshing in with in central, down to a lowest tide level which
40 is over two metres below that.

MR HANN: Yes.

45 MR VERITY: So it's really around making sure that those falls from the edge are falls to water rather than falls to a structure.

MR HANN: I see.

MR VERITY: Because that is going to start to lead us down the track of balustrades and all sorts of things which we weren't very favourable to achieving.

5 MR HANN: So that would be the alternative, would be to have balustrades down to a pontoon?

MR VERITY: Yes.

10 MR HANN: Yes.

MS LEWIN: You've addressed that with the stepped terracing in Wattimer's Cove; is that right?

15 MR VERITY: Through here?

MS LEWIN: Yes, have you got - - -

MR VERITY: We don't have any balustrades there because it's all falls to water. This area though here?

20 MS LEWIN: Yes, you've stepped down to - - -

MR VERITY: That's two steps.

25 MS LEWIN: Yes.

MR VERITY: It's only 300 mil.

30 MS LEWIN: Yes, yes, so would that have been an alternative you explored along the edge of this quay?

MR VERITY: I don't think you'll get the grades as well as the connection, the continuous connection, to the lower boardwalk which exists in central, or did exist in central, will go back into existing in central, so we need – we have 2.3 boardwalk of about four metres wide or three metres wide all the way from Headland Park down the front of – front of central. That meshes right through this area here, and that's the connection to that lower level all the way through. To achieve that and get down to that lowest level, I mean, you can see the length of the ramp here. That's the sort of length that you need to achieve those grades.

40 MR HANN: With the use of the pontoon for public use as a berth for water taxis and so on, where's the nearest existing or where's the nearest water taxi facility to this particular location?

45 MR VERITY: Water taxis will pick up, my understanding is, further down, the other side of King Street Wharf.

MS BOYLE: Down near Darling Harbour, isn't it?

MR VERITY: Down near Darling Harbour.

5 MS BOYLE: Yes, I think I've walked past it

MR HANN: I don't know, that's why I'm asking the question.

10 MS BOYLE: Yes, I think I walked past it the other day.

MR HANN: I've got no idea.

MR VERITY: Yes.

15 MR HANN: Yes.

MS BOYLE: It's as you - - -

20 MS BENDER: King Street for water taxis, and there's also the Street Dock, which is in Nawi Cove. Those are the two locations currently, and this was seen as the third.

25 MR VERITY: Yes, so essentially, you know, what we were trying to do with all of this is you have a water taxi connection at the very north of the site, in the headland park, in the bay there, Nawi Cove. You have a connection down in Darling Harbour, where you have nothing in Barangaroo, where the main focus of development is. This is our opportunity to get something in Barangaroo as well.

30 MS LEWIN: Are they roughly equidistant?

MR VERITY: It's going to be pretty close, yes.

MS LEWIN: Are they roughly equidistant along that - - -

35 MS BENDER: They're probably not exact, but they're very close to.

MS LEWIN: Not exact, but close to, yes.

40 MR VERITY: Probably - - -

MS BENDER: Because it has that sort of step down into amenities for visitors.

45 MR McCracken: So it's - the ferry wharf's at the southern end of King Street Wharf.

MR HANN: Yes.

MR McCracken: The ferry – sorry, the water taxi at the southern end of all the berths at King Street Wharf.

MR HANN: Yes.

5

MS Lewin: Yes.

MR McCracken: And the next one is – that's 300 metres to Nawi Cove, which is the small - - -

10

MR HANN: Yes.

MR McCracken: - - - floating dock in the cove that's been constructed.

15

MR HANN: Yes.

MR McCracken: So that's 300 metres that way.

MR HANN: Yes.

20

MS Lewin: Three hundred metres. Three hundred metres.

MR McCracken: I'd say the other one's probably 500 - - -

25

MR HANN: Okay.

MR McCracken: - - - or 600.

MR HANN: Stewart, what would be the distance between the Crown Hotel's licensed area and the existing – as you've shown there. What's the - - -

30

MR Verity: From this edge?

MR HANN: Well, if you bring it further to the north – bring your cursor further to the north.

35

MR Verity: Yeah.

MR HANN: That – the licensed area of Crown out to where the – where the pontoon - - -

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MR Verity: From this point out to here?

MR HANN: Yeah.

45

MR Verity: 30 metres.

MR HANN: No, no, no. No, no. But if you take the pontoon out.

MR VERITY: Yes. To where the edge of the boardwalk is.

5 MR HANN: Yeah. Where the water – yeah. Where your gap is. Where you say the gap is.

MR VERITY: I couldn't tell you off – I'd have to take it on notice.

10 MR HANN: Okay.

MR VERITY: I'll need to go and measure.

MR HANN: All right. Okay. Thanks.

15

MR VERITY: Unless you scale something off one of those drawings.

MR WOOD: From where to where, sorry?

20 MR VERITY: From the edge of Crown's licensed area.

MR HANN: Licensed area.

MR WOOD: Yeah, yeah.

25

MR VERITY: To this point here is what you're talking about?

MR HANN: Yeah. That's right.

30 MR WOOD: Right. Okay. Yeah. We'd have to measure it specifically.

MR HANN: Okay.

MR VERITY: I don't know whether this is to scale. I don't think it is - - -

35

MR WOOD: No.

MR VERITY: - - - that scale.

40 MR NATION: Stewart, it used to be 30 metres from the face – the building face of Crown at the back of their outdoor entertaining areas - - -

MR HANN: Yeah.

45 MR NATION: - - - to the edge – no, no, to the edge of the – to the back of the boardwalk. Yeah. To that edge.

MR WOOD: There to there?

MR NATION: Yeah. 30 metres.

5 MR WOOD: Yes. Yeah.

MR HANN: Okay.

10 MR VERITY: We'll - - -

MR HANN: Maybe just come back to us on that.

MR VERITY: We'll - yeah. We'll give you a drawing - - -

15 MR HANN: Don't worry about it now.

MR VERITY: - - - that gives you some measurements.

20 MR HANN: No. Yeah. No. That'll be fine. Okay. There was - in relation to buildings 4A and 4B - R4A, R4B, if I recall with the strata there and the wind studies that were done for that, there was a concern around the amenity, if you like, and how that would - how that would be mitigated with mature tree planning in the vicinity. So I guess trying to look at this holistically and not each entity in its own - you know, pulling it together. So now with the public domain proposal, can you just
25 talk to how the landscaping and tree planting will address that, how it fits together?

MR VERITY: Yeah. Look, there - it's fair to say there's still resolution going on to the design of the strata itself, which partly addresses those issues, and I don't have the answers on that. In terms of the wind impacts, there's a couple of impacts to talk
30 about. One is downwash from the buildings themselves.

MR HANN: Yeah, yeah.

35 MR VERITY: And the other one is about wind coming through the strata itself.

MR HANN: Yeah.

40 MR VERITY: The main - the main impact of wind coming through the strata is from the south to the north.

MR HANN: Yeah.

45 MR VERITY: That's been managed by a combination of these street trees sitting on - - -

MR HANN: Okay.

MR VERITY: - - - Barangaroo Avenue, plus some additional planting inside the boundary of the property.

MR HANN: Yeah.

5

MR VERITY: So it's not public domain – or it's public domain in terms of use, but it's - - -

MR HANN: Yeah.

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MR VERITY: - - - on private land or leasehold land.

MR HANN: It's in the envelope of 4A.

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MR VERITY: Exactly.

MR HANN: Yeah, okay.

20

MR VERITY: There are some resolutions to be made through the strata itself to help mitigate that issue as well, and that's a building issue rather than - - -

MR HANN: Yeah.

25

MR VERITY: - - - public domain. On the other side, the planting of all these trees in the tree belt through here, if you like, there's a first line, if you like, which have a connected canopy at about six metres, which then connects into the awning of the buildings. Those two things together protect from the downwash. So it's important from our point of view that when those trees are put in, they're put in at the right spacing, they're put in the right size that they're able to maintain that - - -

30

MR HANN: Okay.

MR VERITY: - - - connection across in front of those canopies.

35

MR HANN: Right.

MR VERITY: It's not every wind direction that has the impacts.

MR HANN: Yeah.

40

MR VERITY: It's really the northeast, which are these ones primarily, and form the southwest, which is the issue up through here, through the strata itself.

MR HANN: They're tunnelling through the strata.

45

MR VERITY: Yeah.

MR HANN: Yeah. Sorry. Yeah. No, that's good. No. Thanks, Stewart.

MR WOOD: The other one near R5 is also placed specifically for wind mitigation, if I'm not wrong.

5

MR VERITY: Yes. That one there?

MR WOOD: That's it.

10 MR HANN: Okay. Understand.

MR VERITY: And the fig itself as well?

MR WOOD: Yeah, yeah. And the fig.

15

MR HANN: Yeah.

MR VERITY: Yeah.

20 MR HANN: Okay.

MR VERITY: So, I mean, there's a number of rationales going on here in terms of the way the landscape has been created and trees have been placed. It's about a – you know, there's those wind issues and they're fed into it. There's about creating green volume. There's about the tree belt around the southern part to maximise solar access and give shade to those areas around there. All those things are quite integrated and working together.

25

MR HANN: Yeah.

30

MR WOOD: The other thing I would add- sorry. I'm not sure if you mentioned it, Stewart. Obviously there's a requirement for that tree species to be evergreen.

MR VERITY: Yes.

35

MR HANN: Yeah.

MR WOOD: It's not

40 MR HANN: Okay. Yeah.

MR WOOD: So there's a year-round protection from wind.

MR HANN: Lighting?

45

MS LEWIN: Yes. Let's go to lighting. We noticed that the lighting proposed for the park is different to the City of Sydney smart poles. You've got a lighting system which is I think present in Headland Park. Is that correct?

5 MR VERITY: No. It's not the same as Headland Park.

MS LEWIN: Or it's not - - -

MR VERITY: It's not drawn from Headland Park at all.

10

MS LEWIN: It's not the same. It's the – is it the same as the lighting within stage 1?

MR VERITY: I'll explain in a little - - -

15

MS LEWIN: Because we - - -

MR VERITY: I'll try and summarise, if you like.

20 MS LEWIN: Yeah. We noticed that there's quite a variety of lighting towers.

MR VERITY: So the approach with lighting is that streets are City of Sydney. You know, we're maintaining that. That's existing. That's out here on the streets as well. So we maintain that. The approach of lighting along the waterfront is – we are
25 continuing in stage 1 being up in front of Crown and around the cove. That approach is, in inverted commas, “moonlight through trees”. They're poles which are spaced quite evenly in a zigzag sort of pattern, and they have projectors that shine through those trees. Those trees themselves are not totally deciduous but semi-deciduous. They're quite light in terms of foliage, and that's purposefully done to get that light
30 shining through there.

30

That combined with lightings in the balks along the edge, and is the general approach for all of the waterfront. When we come up to in front of Crown here where the distances are obviously greater, the approach that we're utilising through there is the
35 same approach through there, but the poles are higher and there's an additional projector that – cluster of projectors that projects down onto that boardwalk, along with lighting of the handrails, and all of that together meets code, and really, we're trying to create – we're not – don't want things overly lit. We're trying to keep things soft and quite – you'll throw a nice word out, Bob.

40

MR NATION: You always use the term romantic.

MR VERITY: There you go. Soft and romantic. So you've got moonlight. We're trying to keep things soft. We're not trying to over-light spaces. We're trying to
45 also focus on key elements within the public domain, so around the fig trees, for example, where the planters are, there's a band of low, soft light that runs around those, but also projects up onto the trees to start to pick out key aspects as well, or

45

key items as well. In the park itself, it's specifically designed for the park. It's not done somewhere else. It's not – we're not drawing on what they did at Headland Park and transplanting it down here. It is still developing.

5 We are going to work through – we are working through a lighting plan, which is in the draft conditions as well, which will start to detail that. The principles are established in the application but not the detail. It's a combination of low level light integrated into street furniture as well as some up-lighting and some – and a limited number of poles through that area as well, both to achieve code but also to not over-illuminate aspects.
10

MR WOOD: Yep. The park having a clear and distinctive identity I suppose is one of our key principles with regard to lighting and furniture.

15 MR VERITY: I should probably also say as well that this area right up here, given that this will be complete prior to central being complete, we will have to have some temporary lighting around the edges. We will have awnings there. There's some safety issues there that we'll need to address prior to central being – being completed as well. So that's got to be part of it as well.
20

MS LEWIN: Yep. All right.

MR HANN: Anything else, Wendy?

25 MS LEWIN: No. That's about the detail I wanted. Yeah.

MR HANN: Okay.

30 MS LEWIN: Okay.

MR HANN: Any other matters?

35 MS LEWIN: I think we've covered most of the list. Let me just go through it. No, I think that's all.

MR HANN: I think we're done.

MS LEWIN: I think that's it.

40 MR HANN: Yeah.

MR VERITY: Okay. Thank you.

45 MR HANN: Thanks very much. Really appreciate - - -

MR VERITY: I'm sure if you've got any other questions - - -

MR HANN: - - - the opportunity.

MR VERITY: - - - we're happy to respond to them as well, so please just send them through, and we'll get on it straightaway.

5

MR HANN: Yep. We will. But no, look, thanks. It was comprehensive, and thanks for bearing with us on our various questions.

MR VERITY: And I'll get you a drawing with some measurements on it as well.

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MR McNAMARA: Yeah.

MS LEWIN: Good.

15 MR HANN: Yeah, that'd be great.

MR McNAMARA: Good. And can you send that through, the slides you showed us today?

20 MR VERITY: Yes, I will. Yes.

MR McNAMARA: Yep. Great. Thanks.

MR HANN: All right.

25

MS BOYLE: Thank you.

MR HANN: Thank you.

30 MS LEWIN: Thank you.

MR HANN: Thanks very much.

MR McNAMARA: Thanks everyone for your time.

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MR VERITY: I'll just address it to you?

MR McNAMARA: Yeah. Yeah, that'll be fine.

40 MR VERITY: Yep. No problem.

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[4.00 pm]