

OPUS 2

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Grenfell Tower Inquiry

Day 42

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1 Thursday, 24 September 2020
 2 (10.00 am)
 3 SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to
 4 today's hearing. Today we are going to begin by hearing
 5 some evidence from a representative of the M&E
 6 subcontractor, Max Fordham, I think.
 7 MS GRANGE: Yes, that's correct.
 8 SIR MARTIN MOORE-BICK: Yes, Ms Grange.
 9 MS GRANGE: Yes, Mr Andrew McQuatt, please.
 10 MR ANDREW McQUATT (affirmed)
 11 SIR MARTIN MOORE-BICK: Thank you very much, Mr McQuatt.
 12 Would you like to sit down and make yourself
 13 comfortable.
 14 Yes, Ms Grange.
 15 MS GRANGE: Yes, thank you.
 16 Questions from COUNSEL TO THE INQUIRY
 17 MS GRANGE: Thank you very much for attending today to give
 18 your evidence. We really appreciate that.
 19 If you have any difficulty understanding anything
 20 that I'm asking you, please ask me to repeat the
 21 question or put it in a different way.
 22 If you need a break at any point, please just let us
 23 know.
 24 Also, try to keep your voice up so that the
 25 transcriber sitting to your right can take a note of

1

1 what you are saying.
 2 You have made one statement to the Inquiry dated
 3 21 September 2018. Can we turn that up: {MAX00017292},
 4 and if we can look on page 27 {MAX00017292/27} of that
 5 statement, is that your signature there?
 6 A. Yes.
 7 Q. We can see the date. Actually, I think it's
 8 27 September 2018; is that correct? I think I had said
 9 the 21st.
 10 A. 27th, yes.
 11 Q. Thank you.
 12 Have you read that recently?
 13 A. Yes, I have.
 14 Q. Are its contents true?
 15 A. Yes.
 16 Q. Great.
 17 Have you discussed your evidence with anyone before
 18 coming here today?
 19 A. No.
 20 Q. Great.
 21 Just a few questions in terms of your background.
 22 If we look at paragraph 6 of your statement on page 2
 23 {MAX00017292/2}, there we can see you helpfully explain
 24 that you graduated from the University of Edinburgh with
 25 an MEng mechanical engineering degree, and then you

2

1 began work at Max Fordham in Edinburgh as a graduate
 2 engineer in June 2007. You became a partner in the LLP,
 3 in Max Fordham, on 5 May 2011, and you remain working at
 4 Max Fordham to this date.
 5 Is it right you're still working at Max Fordham?
 6 A. That's correct, yeah.
 7 Q. In the next paragraph, at paragraph 7, you say:
 8 "During my time working at Max Fordham prior to
 9 working on Grenfell Tower I have worked in a range of
 10 project sectors ..."
 11 We can see that included housing, individual private
 12 dwellings, further education colleges, offices,
 13 cultural, schools there.
 14 Had you worked on a high-rise residential project
 15 before the Grenfell Tower project?
 16 A. No.
 17 Q. What about high-rise residential projects involving the
 18 overcladding of the building?
 19 A. No.
 20 Q. Now, we know that on the Grenfell project Max Fordham
 21 was appointed as building services engineers on the
 22 project; that's correct, isn't it?
 23 A. Yes, and acousticians, but the acousticians were run
 24 from a separate area (?).
 25 Q. And acousticians?

3

1 A. Yeah.
 2 Q. Thank you.
 3 Is it right that such building services engineers
 4 are sometimes referred to as M&E engineers, standing for
 5 mechanical and electrical?
 6 A. That's right, yes.
 7 Q. You were the project engineer on the Grenfell project;
 8 is that right?
 9 A. That's right, yeah.
 10 Q. Is it correct that in your role as project engineer, you
 11 were responsible for the day-to-day running of the
 12 project for Max Fordham?
 13 A. Yes.
 14 Q. We know from your statement that you were involved in
 15 the project between 31 May 2012 and 23 May 2013, when
 16 your involvement with the project ended and you became
 17 involved in other projects for Max Fordham; is that
 18 right?
 19 A. Yes.
 20 Q. Thank you.
 21 Now, we're going to focus today, because this is
 22 what we're looking at in Module 1, on the exterior of
 23 the building and in particular with you at the
 24 insulation material being used on the spandrels and the
 25 columns.

4

1 I first want to ask you some general questions about
 2 the use of insulation in the construction industry.
 3 Is it right that the purpose of adding insulation to
 4 a building is to improve its thermal efficiency?
 5 A. Yes, I agree with that.
 6 Q. When people speak of improving thermal efficiency, that
 7 means reducing the rate at which heat travels from
 8 a hotter element to a colder one; is that correct?
 9 A. Yes.
 10 Q. Does that mean improving the retention of heat in winter
 11 and avoiding overheating in the summer?
 12 A. Yes.
 13 Q. Is it right that the rate at which a product for use in
 14 construction conducts heat can be measured in watts per
 15 metre squared kelvin?
 16 A. That's right, yes.
 17 Q. Is this known as a lambda value?
 18 A. Yes.
 19 Q. Is it right that the lower the lambda value, the better,
 20 because this means fewer units of energy are being lost
 21 per metre squared?
 22 A. That's right, yeah. The lower the lambda value, the
 23 thinner the material would need to be.
 24 Q. Yes, I understand.
 25 A. Yeah.

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1 Q. Now, in relation to the building as a whole, is it right
 2 that, when assessing its thermal performance, you need
 3 to consider how well or badly each of the elements
 4 performs?
 5 A. Yes, yeah.
 6 Q. Is it right that the building element is a part of the
 7 building, so for example the walls, the windows the
 8 roof; is that correct?
 9 A. Yeah, that's correct.
 10 Q. Is it right that the thermal resistance of each building
 11 element is shown by its U-value?
 12 A. Yes, yeah.
 13 Q. And this is also measured in watts per metre square
 14 kelvin as well; is that correct?
 15 A. That's right. So, yeah, I think watts per metre squared
 16 kelvin would be the U-value. The lambda value doesn't
 17 have the metre squared; it's to do with the linear
 18 thickness.
 19 Q. I see, okay.
 20 Again, here, is it right that the lower the U-value
 21 the better --
 22 A. Yes.
 23 Q. -- in terms of thermal efficiency?
 24 A. Thermal efficiency, yes.
 25 Q. Is it correct that generally -- I think you have already

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1 confirmed this -- you will need less of a material with
 2 a lower lambda value to achieve the desired U-value than
 3 you would of a material with a higher lambda value?
 4 A. That's correct, yes.
 5 Q. Now, in terms of the Building Regulations, do you agree
 6 that the U-value of a building element is important
 7 because there are rules on how high it can be under the
 8 Building Regulations?
 9 A. I do, yes.
 10 Q. Were you aware at the time that the statutory guidance
 11 about this is contained in Approved Document L --
 12 A. Yes.
 13 Q. -- which is one of the practical guidance documents
 14 issued pursuant to the Building Regulations?
 15 A. Yes.
 16 Q. Is it right that on the Grenfell project you were
 17 looking at Approved Document L1B?
 18 A. Yes. Erm ...
 19 SIR MARTIN MOORE-BICK: You look as though you want to add
 20 something.
 21 A. No, I don't, I just always get confused between the
 22 two -- there's parts A and B and there's parts 1 and 2,
 23 and often it's -- I always have to look it up to tell me
 24 which one.
 25 MS GRANGE: Yes, fair enough, understood. We will go to it

7

1 in a moment.
 2 Did you take Approved Document L into consideration
 3 when you were setting the U-value for Grenfell Tower?
 4 A. I personally ... yes, I took it into consideration as
 5 far as I checked that the U-values that were proposed
 6 were in line with --
 7 Q. Yes.
 8 A. -- part L, yes.
 9 Q. Thank you.
 10 Now, let's go to Approved Document L1B. This is
 11 {INQ00011283}.
 12 Now, can you confirm that this was the version of
 13 ADL in force at the time you were working on the
 14 Grenfell project? We can see it's the 2010 edition and
 15 it incorporates further 2010 and 2011 amendments. We
 16 get that in the bottom right-hand side. Can you see
 17 that?
 18 A. Yes. Yes, I think it is the document that we were
 19 using.
 20 Q. Thank you.
 21 If we turn on to page 19 {INQ00011283/19}, we can
 22 see in the right-hand column that there's a heading,
 23 "Renovation of thermal elements", and it makes clear
 24 there that:
 25 "For the purposes of this Approved Document,

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1 renovation of a thermal element through:
 2 "a. the provision of a new layer means either of the
 3 following activities :
 4 "i. Cladding or rendering the external surface of
 5 the thermal element; or
 6 "ii. Dry-lining the internal surface of a thermal
 7 element."
 8 Do you see that there?
 9 A. I do, yes.
 10 Q. Was that consistent with your understanding that that's
 11 what renovation of a thermal element meant?
 12 A. Yes.
 13 Q. Thank you.
 14 Now, the next paragraph at paragraph 5.8 explains
 15 that where the renovation covers a certain amount of the
 16 surface, the performance of the whole thermal element
 17 should achieve or better the U-value in table 3; is that
 18 correct?
 19 A. Yes.
 20 Q. We're going to look at table 3 in a moment and see what
 21 it said in terms of U-values and the guidance it gave,
 22 but before we go to table 3, if we just look while we're
 23 in this part of the document over on page 20
 24 {INQ00011283/20} at paragraph 5.9, and I'm going to read
 25 this out to you. So 5.9 appears in the left-hand column

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1 towards the bottom of that page. I wonder if we could
 2 just blow it up a little bit more. There we go. Can
 3 you see that there, 5.9?
 4 A. Yes.
 5 Q. It says:
 6 "If achievement of the relevant U-value set out in
 7 column (b) of Table 3 is not technically or functionally
 8 feasible or would not achieve a simple payback of
 9 15 years or less, the element should be upgraded to the
 10 best standard that is technically and functionally
 11 feasible and which can be achieved within a simple
 12 payback of no greater than 15 years."
 13 Then there is some guidance on that approach in
 14 appendix A.
 15 I want to check: did you understand that at the time
 16 of the Grenfell project, that if you couldn't achieve
 17 the U-values that were set out in the guidance here, you
 18 had to achieve whatever was the best standard that was
 19 technically and functionally feasible?
 20 A. Yes, I did.
 21 Q. Yes.
 22 Now, then at the bottom of this page we get table 3,
 23 and is it right that on the Grenfell project we needed
 24 to be looking at the second item down under "Element",
 25 "Wall - external or internal insulation"? Is that

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1 right?
 2 A. That's right, yes.
 3 Q. Yes, so this is what was relevant to Grenfell, and we
 4 can see in the right-hand column, column (b), that the
 5 improved U-value, the watts per metre squared kelvin,
 6 had to be -- or the guidance was saying -- 0.30. Is
 7 that correct?
 8 A. That's correct, yes.
 9 Q. Thank you.
 10 Now, just before we leave Approved Document L,
 11 I just want to look back at page 4 {INQ00011283/4},
 12 towards the beginning of this document. On the
 13 right-hand side we see a heading "Consideration of
 14 technical risk". Here we get a paragraph, and I'll just
 15 read the key parts to you. It says:
 16 "Building work to existing dwellings must satisfy
 17 all the technical requirements set out ..."
 18 Then it explains which regulations of the
 19 Building Regulations. Then it says this:
 20 "When considering the incorporation of energy
 21 efficiency measures in dwellings, attention should also
 22 be paid in particular to the need to comply with Part B
 23 (fire safety), Part C (site preparation ..."
 24 Then other approved documents are also mentioned in
 25 that list. Do you see that there?

11

1 A. I do, yes.
 2 Q. Again, at the time of the Grenfell project, were you
 3 aware that Approved Document L made this link back to,
 4 for example, part B, "Fire safety", making clear that
 5 attention also needed to be paid to those parts of the
 6 approved documents?
 7 A. I don't recall reading that part.
 8 Q. Yes.
 9 A. I think any -- I think I would have held that
 10 assumption.
 11 Q. Yes.
 12 A. But without --
 13 Q. Yes.
 14 A. -- being aware of that paragraph.
 15 Q. Yes.
 16 Just to be clear, we see this paragraph in other
 17 parts of Approved Document L, whether it's dwellings or
 18 non-dwellings. It has a similar statement about
 19 attention being paid to other parts of the approved
 20 documents. But I think what you just said is although
 21 you weren't aware of this specific paragraph, you did
 22 have a general awareness that you needed to be aware of
 23 other parts of approved documents. Is that right?
 24 A. Absolutely, yes.
 25 Q. Thank you.

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1 A. I guess if I put that in the context for a building
 2 services engineer, we would need to redesign pipes and
 3 ductwork that travels through and around buildings.
 4 Q. Yes.
 5 A. We often have to take a piece of ductwork through a
 6 compartment wall, for example.
 7 Q. Yes.
 8 A. So we would refer to part B because part B would give us
 9 the rules that we needed to know --
 10 Q. Yes.
 11 A. -- for those elements. So, yes, I was aware of part B
 12 in that context.
 13 Q. Yes. Exactly.
 14 Picking up on that, you also might, with those
 15 pipework and ductwork locations, have to think about
 16 insulation in those areas, mightn't you, as well?
 17 A. The insulation of --
 18 Q. Of pipework and ductwork --
 19 A. -- the pipework, yes.
 20 Q. -- in compartments. You might have to think about
 21 insulation around the pipework; is that correct?
 22 A. Yes.
 23 Q. Yes, and that --
 24 A. Not necessarily in relation to part B. I think if I was
 25 thinking of insulation around pipework I would be

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1 thinking more about part L and energy conservation --
 2 Q. I see.
 3 A. -- and things like that.
 4 Q. Okay.
 5 SIR MARTIN MOORE-BICK: Well, presumably you would be
 6 thinking about part B in relation to things like
 7 firestopping if you were putting ducts through existing
 8 walls, wouldn't you?
 9 A. That's right, yes.
 10 MS GRANGE: I now want to turn to some questions about your
 11 understanding of the requirements relating to
 12 fire safety at the time you worked on the Grenfell
 13 project.
 14 Now, were you familiar in general with schedule 1 to
 15 the Building Regulations and the fact that there were
 16 functional requirements set out therein?
 17 A. Yes.
 18 Q. Were you aware that there was part B, "Fire safety",
 19 within schedule 1 of the Building Regulations?
 20 A. Yes.
 21 Q. Were you familiar with Approved Document B? Had you
 22 ever had to look at that in your work as a mechanical
 23 and electrical engineer?
 24 A. Yes. I think it's the approved documents that you would
 25 go to on a day-to-day basis to ... when you're dealing

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1 with the Building Regulations issues, you would go to
 2 the approved document part B as your kind of first stop.
 3 Q. In practice, how would you access those approved
 4 documents? Did you have them in hard copy in the office
 5 or did you look at them electronically?
 6 A. Tend to look at them electronically.
 7 Q. Yes.
 8 A. And you would probably look at the index, do a word
 9 search for the types of things that you were thinking
 10 about at that particular time.
 11 Q. Yes. So that was a common occurrence as part of your
 12 day-to-day job?
 13 A. Yes.
 14 Q. Thank you.
 15 Did you have an awareness of the B4 requirements in
 16 relation to external flame spread? Was that something
 17 that was on your radar?
 18 A. No.
 19 Q. What was your understanding of the purpose of something
 20 like Approved Document B? What did you understand the
 21 purpose of it to be?
 22 A. I understood that if you followed the guidance in the
 23 approved documents, then you are showing compliance with
 24 the functional requirements of the Building Regulations.
 25 So if you were operating within the bounds of the

15

1 approved documents, you were in a safe place --
 2 Q. Yes.
 3 A. -- in terms of compliance.
 4 Q. Yes.
 5 Now, at any stage when you were working on the
 6 Grenfell project, did you come to read Approved
 7 Document B on fire safety, or any part of it?
 8 (Pause)
 9 A. I think -- I would have accessed Approved Document B
 10 probably when we were discussing elements like the
 11 dry riser and about moving the inlet valve to the
 12 dry riser. I know I would have checked Approved
 13 Document B because that would have been my go-to place
 14 to check on the rules for that sort of thing. But
 15 I certainly didn't read it cover to cover.
 16 Q. No, understood.
 17 A. And I certainly didn't ever look up part B4.
 18 Q. No.
 19 More specifically, then, when you were considering
 20 what materials to be used as insulation in the tower and
 21 making suggestions about those materials -- and we're
 22 going to come on to look at what you did in that regard
 23 in a moment -- did you ever come to consider Approved
 24 Document B on fire safety?
 25 A. No, I didn't.

16

1 Q. Who did you think within the design team would be
 2 considering the requirements of Approved Document B
 3 relevant to the insulation of the external wall?
 4 A. I would have thought the architect who was designing
 5 that element would have been looking at that, and it
 6 wouldn't have surprised me if they had sought further
 7 guidance from other parties like the fire engineer, but
 8 that would have been -- my interface probably on that
 9 would have been with the architect.
 10 Q. Yes, thank you.
 11 Now, if we can just briefly look at Approved
 12 Document B, this is {CLG00000224/93}. This is the
 13 beginning of the B4 section which you have already
 14 explained you didn't look at during the project, but
 15 I just want to ask you a couple of quick questions about
 16 this.
 17 On page 95 {CLG00000224/95}, in the right-hand
 18 column towards the bottom of that page, we get
 19 a statement there in the first paragraph, where it says:
 20 "The external envelope of a building should not
 21 provide a medium for fire spread if it is likely to be
 22 a risk to health or safety. The use of combustible
 23 materials in the cladding system and extensive cavities
 24 may present such a risk in tall buildings."
 25 Now, you see that there.

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1 Now, I appreciate you didn't come to specifically
 2 look at this on the project, but were you generally
 3 aware at the time of the project that the use of
 4 combustible materials in the cladding system and
 5 extensive cavities might present such a risk in tall
 6 buildings?
 7 A. No, I wasn't.
 8 Q. Were you aware that there was specific guidance given in
 9 Approved Document B about insulation materials and their
 10 combustibility?
 11 A. No, I wasn't.
 12 Q. So if we just look at one more thing in Approved
 13 Document B, on page 96 {CLG00000224/96}, we get
 14 paragraph 12.7, if we can blow that up. There we see
 15 it, "Insulation Materials/Products". So it says:
 16 "In a building with a storey 18m or more above
 17 ground level any insulation product, filler material
 18 (not including gaskets, sealants and similar) etc. used
 19 in the external wall construction should be of limited
 20 combustibility ..."
 21 Do you see that there?
 22 A. Yes.
 23 Q. Is it right that you weren't aware at the time that
 24 insulation products on buildings above 18 metres should
 25 be something called limited combustibility?

18

1 A. That's correct, yeah.
 2 Q. Had you ever heard the term "limited combustibility"
 3 being used about the fire performance of materials such
 4 as insulation?
 5 A. No.
 6 Q. Had you ever heard of the term "class 0" or "national
 7 class 0", about building materials, including insulation
 8 materials?
 9 A. I couldn't -- I can't recall with any certainty.
 10 There's been so -- you know, between then and now there
 11 has been so much talk of things like this, and it's
 12 really difficult --
 13 Q. I understand.
 14 A. -- to pin that down, whether I knew about that or not.
 15 We do --
 16 Q. Had you -- sorry, carry on.
 17 A. We do specify things like cables, and cables will also
 18 have classifications like those, so --
 19 Q. Yes.
 20 A. -- maybe in terms of that sort of thing, then perhaps
 21 I was aware in that context.
 22 Q. Okay.
 23 In your time at Max Fordham, had you ever attended
 24 any courses or other training on the
 25 Building Regulations and the associated guidance,

19

1 including in Approved Document B on fire safety?
 2 A. I wouldn't say we had a -- you know, we never had one
 3 particular lecture that could -- with that heading that
 4 springs to mind. I guess one of the ways that we
 5 worked, as I kind of said before, the approved documents
 6 were -- you know, they are a go-to document in terms of
 7 the way that we're trained. We would be shown by our
 8 supervisors to look at these documents and to reference
 9 them. And then things like -- often when we have CPDs,
 10 so people would come into our practice and they would
 11 maybe give us a talk on a certain subject -- and that
 12 subject would never be, "I'm coming in to do a talk on
 13 the Building Regulations", but it would be very common
 14 for a manufacturer to come in and have some slides on
 15 the Building Regulations as part of the talk.
 16 So I would say, throughout my career, the topic of
 17 Building Regulations and how products might -- you know,
 18 if a manufacturer comes in to talk about something, then
 19 they might reference the Building Regulations and ...
 20 Q. Yes.
 21 Now, you were talking about CPD there and I think
 22 you mentioned a couple of times that manufacturers would
 23 come in and talk to you.
 24 Is it right that a lot of the CPD that was done
 25 through Max Fordham was as a result of manufacturers

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1 coming in and talking to you about specific products,
 2 which then might touch on compliance issues?
 3 A. Yes. I think what we sort of define as CPD is when
 4 someone comes in and has a talk to us.
 5 Q. Yes.
 6 A. But then there might be a sort of broader sense of CPD
 7 where we have our own internal lunchtime talks and
 8 graduate lectures and things like that, which again --
 9 but they would also touch on Building Regulations
 10 matters if they were relevant.
 11 Q. Yes. But I think you have confirmed that it was
 12 common -- am I right? -- for manufacturers to come in
 13 and give --
 14 A. Yes.
 15 Q. -- CPD-type talks?
 16 A. Yeah, it's one of the ways that they use to get you
 17 thinking about their products and their name, and so
 18 they use that as a common --
 19 Q. Yes.
 20 At the time of the Grenfell project, were you aware
 21 of any other industry guidance documents which were
 22 relevant to external wall construction or the materials
 23 to be used, for example, for an insulation product?
 24 A. No.
 25 Q. So if I said that there might have been guidance by

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1 something called the Centre for Windows and Cladding
 2 Technology, the CWCT, would you have ever come to look
 3 at that?
 4 A. No.
 5 Q. No.
 6 Now, just before we get into what happened on the
 7 project and your involvement in the insulation issue,
 8 I want to just explore briefly Max Fordham's contractual
 9 responsibilities on the project and the scope of works
 10 that they were doing.
 11 Now, we know that the initial proposal from
 12 Max Fordham was a fee proposal put forward by your
 13 colleague Bill Watts. Were you aware of that at the
 14 time you were working on the project?
 15 (Pause)
 16 A. I can't honestly remember.
 17 Q. Don't worry.
 18 A. If --
 19 Q. Let's just look at that fee proposal, this is
 20 {MAX00000075}, and this is the initial fee proposal,
 21 I think there was a subsequent one that was very
 22 similar, and this one was dated 21 June 2012.
 23 Did you ever see any documents like this or any
 24 other contractual terms relevant to Max Fordham's
 25 appointment to the Grenfell project?

22

1 A. Again, it's very difficult to say with absolute
 2 certainty that I saw this, but all I can say is it's
 3 quite normal, working on a project, to have a look at
 4 the fee offer, to check it to make sure you're doing the
 5 right things.
 6 Q. Yeah. So you may well have seen --
 7 A. I may well have done.
 8 Q. -- this at the time? Sorry, carry on.
 9 A. No, I may well have seen this.
 10 Q. Okay.
 11 Just looking at this, we can see in the first part,
 12 under the heading "Scope", three paragraphs down,
 13 there's a sentence that begins:
 14 "We understand that the priorities of the
 15 refurbishment of Grenfell Tower are as follows ..."
 16 Then there is a list of priorities, and the third
 17 one there is:
 18 "Improving the thermal efficiency and visual
 19 appearance of the façade, possibly complementary to
 20 KALC."
 21 Now, just breaking that down, did you understand
 22 that one of Max Fordham's role was to help improve the
 23 thermal efficiency of the façade?
 24 A. Yes.
 25 Q. Were you aware that it was one of the key priorities of

23

1 the refurbishment of Grenfell Tower?
 2 A. Yes. I recall my very first visit to the tower, getting
 3 off at the train station, looking up at the tower with
 4 Bill, and Bill talking me through what the job was and
 5 what we were going to do, and very clearly, looking at
 6 it: overcladding, that was going to happen, that was
 7 part of it. So it was very much embedded in my mind
 8 that that was going to be part of this job.
 9 Q. Thank you.
 10 Was it also your understanding that visual
 11 appearance was a priority for the refurbishment?
 12 A. I can't see why it wouldn't have been, you know, you're
 13 making such a huge intervention to this tower, you're
 14 obviously going to change its appearance by insulating
 15 it, you're going to change its appearance in a really
 16 major way --
 17 Q. Yes.
 18 A. -- and so, yeah.
 19 Q. Yes.
 20 A. I think we've said here, with the KALC project, you
 21 know, you have got the new academy and leisure centre
 22 next door, so I think they wanted to help tie it all
 23 together.
 24 Q. Thank you.
 25 Now, if we look at the bottom of this page for

24

1 a moment, if we can just zoom in on the bottom, what's
2 proposed here is that the offer for mechanical and
3 electrical services is based upon Max Fordham providing
4 a design in accordance with, and then there is reference
5 to the ACE schedule of services part G(b) "Mechanical
6 and Electrical Engineering (detailed design in
7 buildings)". So this is a standard form document that
8 was produced by the Association for Consultancy and
9 Engineering, ACE.

10 Again, were you aware that the terms of
11 Max Fordham's appointment were pursuant to that type of
12 agreement?

13 A. I believe I would -- I am aware of the ACE agreements
14 and that's a common thing for us to use. In terms of
15 referencing it, I wouldn't have gone to it. As my role
16 then, I wouldn't have gone to that on a regular basis;
17 I would have allowed my supervisor to kind of understand
18 the finer details of the ACE agreement and make sure
19 I was on the right track.

20 Q. I see. I understand, yes.

21 We see there that, in the next line at the end of
22 that first paragraph under M&E services, it says:

23 "We have included for all services described in
24 Part G2 and the following other services in Part G3."

25 Then we get two services that are particularly

25

1 relevant to the work that Max Fordham did in relation to
2 the thermal efficiency of the tower:

3 "G3.11 'Develop energy efficient strategies for the
4 fabric & engineering services.'

5 "G3.17 'Work in connection with assisting the
6 architect in obtaining Building Regulation compliance
7 (Part L).'"

8 You see those two things there?

9 A. Yes.

10 Q. At the time of the project, did you understand that
11 those were two of the key services that Max Fordham was
12 providing on the job?

13 A. I believe I would have done. I think these additional
14 services were something that we quite commonly would put
15 into --

16 Q. Yes.

17 A. -- one of these, because it's a place where we can add
18 value to our offers, so that's quite a common thing, so
19 I believe I would have been aware.

20 Q. Yes, understood. Those do appear in the final version
21 of the signed ACE agreement between the TMO and
22 Max Fordham. We've got that document.

23 Did you understand that Max Fordham was responsible
24 on the project for the provision of consultancy services
25 and advice in relation to energy strategy and

26

1 sustainability pursuant to the contract with the TMO?

2 A. I believe so, yes.

3 Q. Now, the contract that was subsequently signed in fact
4 incorporated the ACE schedule of services part G(c), not
5 part G(b). Did you have any involvement in that?

6 A. No, I didn't.

7 Q. Fine.

8 Now, in terms of others that were appointed on the
9 project, when did you become aware that Studio E had
10 been appointed as architect on the project?

11 A. For me, as soon as I started on the project, they were
12 already the architects, and I was introduced -- so Bill
13 had already laid the groundwork for setting the project
14 up, and so by the time I came on to the project, I was
15 very much being introduced to: this is the team, this is
16 what's going to happen.

17 Q. Yes.

18 A. And run with the -- start on the design work,
19 essentially.

20 Q. Yes.

21 Were you also aware that Exova had been engaged by
22 the TMO to provide some fire safety engineering
23 services?

24 A. Yes, I think I was, yes, because I did ask them some
25 questions on the smoke vent system on the project.

27

1 Q. Yes.

2 A. So, yeah, I knew that they were involved.

3 Q. If we can look now at an email, this is {SEA00003568},
4 and I want the second email down on that page, sent at
5 21.20. Now, this is not an email that you were involved
6 in, it's a chain between Mr Kuszell of Studio E and
7 Mr Sounes at Studio E, but I just want to ask you
8 something about it.

9 So I want to look in particular at the last
10 paragraph. He says there:

11 "I feel first I need to acknowledge receipt, ask to
12 meet, then walk the site with him (?) to understand the
13 scope described, probably with Neil."

14 Then he says this:

15 "We are a little green on process and technicality
16 so I propose some rapid [CPD] - MF being my first point
17 of call."

18 Then he said:

19 "I will hold off circulating this until we
20 understand their thinking on consultants."

21 Can you see that there?

22 A. Yes, I can, yes.

23 Q. Now, this is a very early email that Mr Sounes sends to
24 Mr Kuszell about the prospect of Studio E being involved
25 in the Grenfell project, and when Mr Sounes gave

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1 evidence, he confirmed that MF there, "MF being my first
2 point of call", was Max Fordham. Yes?
3 Now, can you help us as to whether Studio E did ever
4 in fact approach Max Fordham for some rapid CPD on the
5 project?
6 A. So, yeah, as we've said, this is a long time before the
7 start of my involvement in the project. All I could add
8 to that would be: I know from looking at our email
9 records that there were other people at Max Fordham who
10 seemed to have conversations, who did -- I think one
11 person did go to site with Bruce, possibly, before I was
12 involved. I was -- I only recently became aware of
13 this.
14 Q. Yes.
15 A. When I started on the project, I'd assumed I was the
16 first Max Fordham engineer to be shown around the
17 building, but only recently I discovered that that's not
18 necessarily the case, maybe some other people had done
19 earlier on, perhaps in February time.
20 Q. Yes.
21 A. But I couldn't add anything else to what they might have
22 said or ...
23 Q. Yes, okay.
24 In his evidence, Mr Sounes, when asked about this,
25 said he thought that it involved a consultation which

29

1 took place by phone. Can we just be clear that that
2 wasn't a consultation with you?
3 A. It wasn't with me.
4 Q. No.
5 Was it your understanding, when you were working on
6 the project and when you were involved, that Studio E
7 were looking to Max Fordham to provide guidance
8 generally in respect of process and technicality?
9 (Pause)
10 A. I think ... I think, I could answer that by saying
11 I think what Studio E were looking to us to do were to
12 help them work out whether it was even possible to
13 replace a heating system and a hot water system in
14 a tower while it was occupied, without interrupting the
15 supply of water or heat to any of -- you know, to those
16 flats. It was a complex, complex problem, and
17 I would -- clearly that's why we are there, as
18 subconsultants, to help Studio E with areas that they
19 are unable to deal with, and obviously that's why they
20 wanted us in, to help them work out whether the heating
21 system could be replaced and these challenges could be
22 met.
23 Q. Yes.
24 A. So I think in terms of what Studio E were leaning on us,
25 it would have been quite rightly in the areas that we

30

1 were employed to give advice on.
2 Q. Yes.
3 A. Like the heating and hot water system.
4 Q. And in relation specifically to the insulation of the
5 tower and improving the thermal efficiency with the
6 overcladding, did you ever get the impression that
7 Studio E were relying heavily on Max Fordham helping
8 them understand how to go about that kind of project?
9 (Pause)
10 A. I don't think so. I think -- obviously we'll come on to
11 the emails.
12 Q. Yes.
13 A. The emails focus heavily on insulation, but if you don't
14 take the insulation into account just yet, there wasn't
15 a -- there wasn't emails asking us how we should do
16 other elements of the cladding system --
17 Q. Right.
18 A. -- you know. So, no, I didn't feel like we were being
19 asked really at those early stages to comment on the
20 technicalities of the façade.
21 Q. In your dealings with Studio E on the project, did those
22 dealings ever suggest to you that they might be
23 inexperienced with regards to technical issues connected
24 with the refurbishment?
25 A. I knew that the project engineer that I was working

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1 with, Adrian, I knew he also hadn't done a high-rise
2 when we were working, because when we were walking round
3 the tower he told me as such. But I just -- it was my
4 experience that people often do -- everyone does
5 something for the first time, and so that didn't really
6 ring alarm bells for me, that was just the architect
7 I was working with, who sat below Bruce, so I wasn't
8 viewing it as a -- I wasn't assessing Studio E as
9 a practice, it was just between the two of us, as two
10 people working on a job, and I knew I felt supported,
11 but I couldn't comment on --
12 Q. Yes.
13 A. -- how he felt.
14 Q. Thank you.
15 You mentioned Adrian there. Was that Adrian Jess at
16 Studio E?
17 A. Adrian Jess, yes.
18 Q. Yes, thank you.
19 Let's just look at Mr Sounes' witness statement for
20 a moment. This is {SEA00014273/32}, and I want to look
21 at paragraph 64. He says this:
22 "In the internal email I expressed my view that
23 I felt Studio E was 'a little green on process and
24 technicality', because Studio E, as a practice, had not
25 previously been involved in high-rise residential,

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1 heating renewal nor the overcladding of occupied
 2 buildings. I said I would speak to Max Fordham to
 3 develop my understanding of the process. I learnt that
 4 they had indeed been involved in similar projects
 5 before, and despite my initial uncertainty, I was
 6 comfortable that Studio E had the experience and
 7 expertise to take on the work being discussed at this
 8 stage."

9 Do you see that there?

10 A. I do, yes.

11 Q. Who was it, do you think, at Max Fordham that Mr Sounes
 12 might have spoken to about similar projects before?
 13 Would that have been your immediate line manager?

14 A. It must -- it certainly wasn't me. It would have had to
 15 have been Bill Watts --

16 Q. Bill Watts, yes.

17 A. -- or Mark Palmer, who was actually my line manager.
 18 But probably Bill Watts, because he was setting the
 19 project up.

20 Q. Yes.

21 Now, at this point I just want to look at an email
 22 relating to Exova. This is {SEA00005686}. Again, this
 23 is not an email you were involved in, but what we see
 24 here is in August 2012 Mr Sounes gives Cate Cooney at
 25 Exova some contact details, including your contact

33

1 details. He says, "The contact at Max Fordham (Services
 2 Engineers) [is] ..."

3 My question for you is: did you ever have any
 4 communications with Exova in relation to the choice of
 5 insulation for the rainscreen cladding system on the
 6 tower?

7 A. No, I didn't.

8 Q. Now, prior to putting forward the fee proposal,
 9 Max Fordham were present at several early design team
 10 meetings, and I just want to look at a few of the
 11 minutes of those meetings.

12 If we can go to {ART00000037}, this is a design team
 13 meeting on Thursday, 24 May 2012, and this was attended
 14 by your colleague, Bill Watts. He is there in the
 15 "Present" list. You are not there, either in the
 16 "Present" either or in the "Distribution" list for this
 17 one.

18 On page 2 {ART00000037/2} of that document, under
 19 "Services", I just want to look at what the minutes
 20 record. So it's in the middle of the page, and I want
 21 to look at the second paragraph down, and it says:

22 "Design team need environmental design criteria:
 23 U-values, ventilation openings etc to progress cladding
 24 design. Options discussed: overcladding, internal
 25 lining, fixed windows with acoustic [louvres]."

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1 Do you see that there?

2 A. I do, yes.

3 Q. Now, with reference to internal lining, can you help us
 4 as to what that reference might be referring to?

5 A. So that would be talking about whether -- well,
 6 I assume, because obviously I wasn't at this meeting --

7 Q. Yes.

8 A. -- but I think we might have had a similar conversation
 9 at a meeting I was at, just to -- so when we're talking
 10 about internal lining, it would be: let's not put the
 11 insulation on the outside of the building, let's put it
 12 on the inside, on the flat side of the tower.

13 Q. Were you ever involved in a discussion about that on the
 14 project?

15 A. Only very briefly.

16 Q. Yes.

17 A. It was very quickly discounted, as there was far too
 18 much disruption. You know, these were people's homes,
 19 and the idea of going into people's homes and ripping
 20 out the entire wall finish was just an unimaginable
 21 amount of disruption, so it was very quickly discounted.

22 Q. Thank you.

23 Now, if we turn to another set of design team
 24 meetings, this time further forward in time on
 25 25 June 2012. This is {ART00000096}.

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1 What we see here is that you are not in the
 2 "Present" list but you are in the "Distribution as
 3 present" list. Do you see that? Three people up from
 4 the bottom, can you see your name?

5 A. Yes.

6 Q. Does that mean that you would have received the minutes
 7 of this design team meeting?

8 A. Yes.

9 Q. And any other design team meetings that you were on the
 10 project for?

11 A. Yes, I believe you can see Bill Watts and Matt Smith
 12 were both present.

13 Q. Yes.

14 A. I think by that point I had started to attend meetings
 15 with Matt Smith, and this particular occasion was
 16 because I was on holiday, so Bill was basically stepping
 17 in for me with Matt in this meeting, and I would have
 18 received these.

19 Q. Thank you, that's very helpful.

20 Then if we go to page 2 {ART00000096/2} of this, at
 21 the bottom of the page, immediately above the heading
 22 "Acoustics", we see this:

23 "MF indicate target U-values for walls as 0.15 W/m2K
 24 and 0.22 W/m2K for windows, subsequently corrected to
 25 1.6 ..."

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1 I think that's the windows corrected to 1.6; is that
 2 right?
 3 A. Yes, I think it was originally 0.16 for the windows in
 4 the original minutes, and we had to say that's
 5 impossible to achieve. It was just the decimal --
 6 Q. A typo, yes.
 7 Then in brackets we see it says:
 8 "(limiting U-values given in Part L1B are 0.30 and
 9 1.8 respectively)."
 10 Do you see that there?
 11 A. I do, yeah.
 12 Q. So we have looked at Approved Document L1B already this
 13 morning and we have seen where the 0.30 comes from in
 14 table 3 of ADL; that's correct, isn't it?
 15 A. Yes.
 16 Q. But in terms of the first part of that minute, and the
 17 initial part, "[Max Fordham] indicate target U-values
 18 for walls as 0.15", can you explain to us the rationale
 19 behind indicating a target U-value of 0.15 at that time?
 20 A. I can. So what I will say is I didn't -- I'll explain
 21 first where that number came from and then maybe --
 22 Q. Yes.
 23 A. -- a bit of rationale behind it.
 24 So, I mean, when I was looking back at this, I knew
 25 the 0.15 figure wasn't something that initially came out

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1 of my mouth, because you can see the number being
 2 written down here for the first time in a meeting that
 3 I wasn't actually present at. But looking back at the
 4 emails that I received, I see that the very first email
 5 that I received from Bill Watts introducing me to the
 6 Grenfell Tower project, he had attached a Word document,
 7 and in there, one of the things -- one of the paragraphs
 8 was about U-values and it said -- I can't remember the
 9 exact wording, but it was along the lines of, "We should
 10 go for new-build targets", and it didn't say any more
 11 than that.
 12 From that point on, possibly when I met Bill on site
 13 and we were looking at the tower, again, I think that,
 14 "We should be going for new-build targets here" was
 15 repeated, and I think from ... I think it's -- if you
 16 were to build a tower from scratch, and you were to
 17 build a concrete tower, apply insulation to that
 18 concrete frame and apply rainscreen, that didn't seem
 19 any different from doing the renovation. It seemed like
 20 the perfect place to start, and it was very similar to
 21 how you would construct a new-build.
 22 So because it was so similar to how you might
 23 construct a new-build, those new-build targets didn't
 24 seem crazy. Why -- they seemed like they would be not
 25 that difficult to achieve, and so it was just something

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1 that was accepted as a good idea. I think as soon as we
 2 expressed that at these design team meetings, there was
 3 just a general acceptance that it was the good, right
 4 thing to be trying to do.
 5 Q. Right thing, why?
 6 A. The right thing because we might come on to -- I know in
 7 my -- in the planning statement that we helped to write,
 8 I kind of express my feelings in the initial -- in the
 9 introduction to that planning statement, and I say -- my
 10 words were something like, "You will only get a chance
 11 to do a renovation like this once in a building's
 12 lifetime", and we were trying to look to the future and
 13 trying to look to making this a building that would
 14 still stand up in 30 years' time. And so we wanted to
 15 do something now that would, you know, stand up in the
 16 future.
 17 And also you have things like the London Plan, which
 18 is a planning policy, and it very clearly states
 19 a hierarchy of things you should try to do when building
 20 a new building or renovating a building, and it very
 21 clearly states the top tier of that hierarchy is to
 22 reduce energy use by improving the fabric of the
 23 building first. So that should always be the first step
 24 you take, rather than just slapping on fancy gizmos and
 25 gadgets on to a building.

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1 And I think there was -- from other projects I had
 2 worked on, I think there was a general feeling in the
 3 construction industry that people recognised the
 4 importance of improving the fabric of the building as
 5 the first step that you should do.
 6 Q. Is it fair to say that environmental considerations,
 7 energy efficiency, were at the heart of why that U-value
 8 was selected?
 9 A. Absolutely, yeah.
 10 Q. Were you conscious at the time that that was, because it
 11 was the target for a new-build, a very ambitious target?
 12 A. I didn't ever think of it as an overly ambitious target,
 13 I thought of it as a sensible target. Again, we were
 14 working on other projects, other new-build projects in
 15 London, which might have had even -- it would be common
 16 to come across even lower U-value targets in order to
 17 meet the CO2 targets of the London Plan, and the
 18 buildings that I could see were building constructed, a
 19 lot of them were being constructed of concrete with
 20 insulation and rainscreen, and so nothing seemed out of
 21 the ordinary in what we were trying to do here.
 22 Q. Now, we know you haven't done a high-rise residential
 23 before, an overcladding before. When Max Fordham were
 24 proposing that target, were any checks done with anybody
 25 within Max Fordham who had been involved in

40

1 an overcladding project before?
 2 A. Certainly not that I'm aware of, but I think that
 3 would -- you know, that would have to be ... I couldn't
 4 answer that. You know, Bill put forward the 0.15 watts
 5 per metre squared. That's something he would have to
 6 answer. I can't ... all I can say is I wasn't aware of
 7 a wider discussion about it; I was just kind of, "Okay",
 8 you know.

9 Bill was a very, very senior person in our practice
 10 and he had won this job, and I'm receiving a set of
 11 meeting minutes that tell me that this is the U-value,
 12 and I was, although totally on board with it, I never
 13 came up with it in the first instance, so I struggle to
 14 really dig deep into the rationale of where it came
 15 from.

16 Q. Is it fair to say, so far as your thinking went, that
 17 you were very much comparing and having in mind
 18 new-build targets when you were selecting it?

19 A. Yes.

20 Q. Was it any part of your thinking at the time that
 21 because that figure of 0.15 was significantly below the
 22 guidance in Approved Document L, there was room for
 23 adjustment if that became necessary? Was that any part
 24 of your thinking?

25 A. I think it was. I think we knew -- and as well, as you

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1 say, I was aware of the clause in part L that basically
 2 says, "Here's the targets, but if you find any of these
 3 things too hard to do, then you can just relax your
 4 target". I was aware of that, and I was -- that would
 5 have been absolutely an acceptable thing to do.

6 Q. Did you expect when that was proposed that others on the
 7 project might push back and say, "Nah, that's just too
 8 ambitious"? Did you have that expectation when it was
 9 proposed by Max Fordham?

10 (Pause)

11 A. I don't think I had an expectation, but the -- it seemed
 12 to just be widely accepted, and widely sort of accepted
 13 by the other members of the design team, so ...

14 Q. And that wasn't surprising to you?

15 A. Erm ...

16 (Pause)

17 I think I found it quite positive, that here was
 18 an aspirational target being proposed and there were
 19 people who were willing to go with it, because they
 20 believed in it, and I felt that was quite a positive
 21 experience. So if I was surprised, I was only surprised
 22 in a good way, because often targets are reduced because
 23 of money, because, "Let's reduce that target because we
 24 can't afford it". So the fact that the client and
 25 everyone was behind it and willing to pay for it, it was

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1 a positive experience for me, that here we are going to
 2 build a building of really high quality and we're going
 3 to do a really good thing. It sort of backed up that
 4 feeling that I had.

5 Q. I see.

6 Was any consideration ever given during your time of
 7 working on the project to making an adjustment to the
 8 U-value and increasing it?

9 (Pause)

10 A. The only time I think that it would have sort of come
 11 into our minds is when we were looking at the thickness
 12 and we were trying to work out whether the thickness
 13 could be accommodated within the build-up that the
 14 architect had deemed to be the maximum build-up that
 15 could be accommodated, and so I think as we looked
 16 through those issues, if there had been a point in time
 17 when we'd -- if we couldn't have achieved the 0.15
 18 within the thickness that the architect had drawn, then
 19 I think we would have changed it. But there wasn't a --
 20 we never got to the point where we didn't think there
 21 was a reasonable technical solution to meet what we were
 22 trying to achieve, so we didn't ever have that
 23 push-back.

24 Q. Does it follow from your answer, therefore, that there
 25 was never any serious discussion about raising the

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1 U-value target?

2 A. I don't think -- no, there wasn't a serious discussion
 3 about it, no.

4 Q. And just to be absolutely clear, these minutes suggest
 5 that it was Max Fordham suggesting this target U-value
 6 of 0.15; do you agree with that, that that came from
 7 Max Fordham and not from any other party, the client or
 8 the architect, it came from Max Fordham?

9 A. I agree with that, yes, it came from Max Fordham.

10 Q. Now, if we can turn then to an email {SEA00004737/2},
 11 this is an email from your colleague Matt Smith. It's
 12 the third email down at 16.42. It's from Matt Smith to
 13 Bruce Soules, so it's your colleague to Bruce Soules,
 14 and this is just before that meeting on 25 June 2012
 15 that we were just looking at. He says:

16 "Afternoon Bruce

17 "Do you have an idea on the likely wall/cladding
 18 build-up yet? What U-value are you targeting? The
 19 early indications from the acoustic survey are that the
 20 acoustic vents may be around 300mm deep so it'd be
 21 useful to know what depth of wall we'll be working
 22 with."

23 You see that there?

24 A. (Witness nods).

25 Q. Now, that suggests that Max Fordham were looking to

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1 Studio E, saying "What U-value are you targeting?"
 2 A. Yes.
 3 Q. But just to be clear, is it your understanding that it
 4 was Max Fordham who actually then came up with the
 5 target of 0.15?
 6 A. Yes. I think what we did here ... we were looking for
 7 details from the architect, and really the architect's
 8 designing the whole wall system, and so we were asking
 9 them, you know, "Where have you got to with this? What
 10 U-value do you think you can achieve?" And obviously
 11 subsequently we suggest a U-value, and I think it's
 12 not ... we were trying to ... I guess we were trying to
 13 push it on without suggesting ourselves, because it's
 14 always better if someone has come up with the target
 15 themselves in order that we're not too heavily involved
 16 with it. You know, you see a lot of things where people
 17 say, "Your insulation" or "Your U-value", and sometimes
 18 it can be quite difficult because you are people put in
 19 a position where people are saying, "This is your
 20 target", but you don't actually have any power to
 21 specify any of the elements they're talking about. So
 22 for us, I was trying to -- and I believe I had
 23 a conversation with Matt before he sent this email, and
 24 I think the intention of this email was to try and
 25 trigger that notion --

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1 Q. Yes.
 2 A. -- that, "These aren't our walls, these are your walls,
 3 can you please show us the details."
 4 Q. Yes.
 5 A. And I suspect what happened after this was they said,
 6 "We're just not sure what a good target would be, can
 7 you help", and I think that's what we've said. Yeah.
 8 Q. Mr McQuatt, you just "And I suspect what happened after
 9 this ..."
 10 A. Sorry, yeah --
 11 Q. Do you have any clear recollection of any U-value target
 12 actually then being suggested by Studio E? We can't see
 13 it in any of the documents.
 14 A. Sorry, no, I don't think Studio E suggested
 15 a document -- suggested a U-value. I think --
 16 Q. Thank you.
 17 A. -- we did.
 18 Q. Was it your understanding that you were proposing
 19 a U-value but that Studio E was ultimately responsible
 20 and therefore could overrule that and say, "No, too
 21 ambitious, we're going to go for 0.3", or something like
 22 that?
 23 A. Absolutely, yeah. That is the general life of
 24 a building services engineer. You know, you're there to
 25 give advice and to do your best, but the architect is

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1 the lead and they will say, "Well, thank you very much
 2 for that advice, but it's not possible in this
 3 instance". That's a common thing to happen.
 4 Q. Yes.
 5 Just to pick up in your witness statement, you make
 6 a similar point. If we can to paragraph 101 of your
 7 statement on page 24 [MAX00017292/24], in the first two
 8 lines, we see this is where you said it in your
 9 statement:
 10 "Nothing was being fixed at this stage, the U-values
 11 were no more than targets and were always capable of
 12 amendment or change depending on the circumstances, or
 13 any input from others responsible for specifying the
 14 cladding requirements."
 15 Now, do you recall ever making clear to others on
 16 the project, including the architect, that as far as you
 17 were concerned that target could be changed if it was
 18 problematic? Was there ever that discussion that went
 19 on?
 20 A. I don't recall having that discussion explicitly, no.
 21 Q. Prior to proposing the target U-value, just to be clear,
 22 to your knowledge did you or anyone else within
 23 Max Fordham check whether there was anything in Approved
 24 Document B on fire safety which might affect whether
 25 that U-value could be achieved?

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1 A. I certainly didn't, and I'm aware of -- I'm not aware of
 2 anything.
 3 Q. So there was no check of section 12 of ADB and what it
 4 might have said in there about insulation?
 5 A. I don't think so.
 6 SIR MARTIN MOORE-BICK: Was that a no?
 7 A. No, sorry.
 8 MS GRANGE: If you shake your head, that doesn't appear on
 9 the transcript, thank you.
 10 A. Sorry.
 11 Q. Whose responsibility did you think it was on the project
 12 to check the provisions in ADB on fire safety in respect
 13 of insulation products used in the external wall?
 14 A. I don't think I would have thought of it in that
 15 explicit terms, but I think I would have thought the
 16 architect's designing the walls, therefore they'll take
 17 care of compliance.
 18 Q. I see.
 19 Now, if we can turn to {SEA00004973}, this is
 20 an email of 5 July 2012 from Mr Sounes to you and
 21 Matt Smith and Bill Watts, also at Max Fordham. The
 22 subject is "Grenfell Tower". We want to just pick up on
 23 the final paragraph of this email. He is talking about
 24 being disappointed that a meeting didn't happen in the
 25 first paragraph, and then he says this in the final

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1 paragraph:
 2 "We've sent off enquiries to Rockwool and Kingspan
 3 on the insulation and await their reply. The 0.15
 4 U-value you've asked for looks a(sic) to me a bit
 5 aspirational - see attached which suggests approx 450mm+
 6 of insulation."
 7 Do you see that there?
 8 A. I do, yes.
 9 Q. Now, we'll look in due course at the attachment that he
 10 sent, but just at this point, was there any
 11 consideration given or any discussions held to changing
 12 the U-value, given what he says there about "looks to me
 13 a bit aspirational"?
 14 (Pause)
 15 A. When I read this email, I ... there was certainly a hint
 16 of the fact that we might have to change the U-value,
 17 because clearly the Rockwool thicknesses were thicker
 18 than the architect felt could be accommodated in the
 19 build-up, but of course the email says, "We've sent off
 20 enquiries to Rockwool and Kingspan".
 21 Q. Yes.
 22 A. So when I read that, I didn't worry too much, because
 23 I thought -- I knew that a Kingspan solid insulation
 24 board would have a better lambda value than the
 25 Rockwool, a lower lambda value than the Rockwool, so

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1 I knew that the Kingspan would come back with thinner
 2 thicknesses of insulation, and so I didn't feel the need
 3 to jump on this email, because I thought: well, we're
 4 waiting -- and as the email says "and we await their
 5 reply". So at the time I looked at that, I thought:
 6 well, okay, it might need to change, but we'll --
 7 overridingly, we'll await their reply. So I think
 8 I just looked at that and I thought: let's see what
 9 Kingspan have to say.
 10 Q. So there was no separate discussion within the design
 11 team with you and Studio E at this point about changing
 12 the value?
 13 A. No.
 14 Q. You say that you knew that Kingspan had a solid
 15 insulation board that would have a better lambda value.
 16 How did you know that? What was that based on, that
 17 knowledge of the Kingspan product?
 18 A. I think probably one of the first jobs I ever did at
 19 Max Fordham was to sit and do a U-value calculation in
 20 order to do a heating calculation. So it's kind of
 21 a thing you would commonly do, designing a heating
 22 system. The first thing you would do is you would look
 23 at a wall build-up, and if the architect hasn't provided
 24 you with the U-value, which you would need to know to
 25 measure the heat loss of the building, you would do

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1 a quick calculation yourself just to get yourself in the
 2 right ballpark. So I was -- at that point, I was used
 3 to seeing buildings coming in, being asked to do a heat
 4 loss calculation. I would see the insulation was
 5 Kingspan. I would be aware --
 6 Q. I see.
 7 A. -- of where to go, to get -- what documentation to go to
 8 to get the right lambda value to plug into my
 9 calculation. So I think there was an awareness there of
 10 different insulation types and --
 11 Q. Was there a particular type of insulation produced by
 12 Kingspan that you had in mind at this point?
 13 A. I think the only thing I knew about Kingspan was it was
 14 a solid board rather than a mineral wool or a softer
 15 kind of insulation. So I think that's really as far as
 16 my knowledge went.
 17 Q. Yes.
 18 If we can look at another email on this topic, this
 19 is at {SEA00005818}. So this is an email of
 20 15 August 2012, so a bit later in time, from Mr Sounes
 21 to you, copying in Matt Smith, on the Grenfell project.
 22 I want to look at the paragraph right at the bottom of
 23 this email, after the numbers and the list. He says
 24 this:
 25 "We need to discuss U-value/insulation spec.

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1 I found a U-value calculator here [he gives the link]
 2 ... and made a stab at insulation thickness to achieve
 3 the 0.15 U-value. Attached is from the website. I'm
 4 not sure how to make allowances for the brackets.
 5 Remember we have an issue with the insulation around the
 6 columns and I don't want you advertising something we a)
 7 aren't showing and b) we can't achieve. Can we
 8 discuss?"
 9 Do you see that there?
 10 A. I do, yes.
 11 Q. Just picking up on a few things in this, what was the
 12 issue with the insulation around the columns that he is
 13 referring to expressly there?
 14 A. Bruce had expressed to me the issue was that the columns
 15 were very close to the windows. The diamond-shaped
 16 column, you had the kitchen window right next to it. If
 17 we started adding thicker and thicker insulation to
 18 that, that column expands in size and the edge of that
 19 column then starts to move in and encroach on the
 20 kitchen window, and so I understood that we didn't want
 21 that to happen. So we may have already had a phone call
 22 about this, but I had an understanding that the desire
 23 was to keep the insulation on the columns thinner than
 24 the rest of the --
 25 Q. Yes.

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1 A. -- façade elements.
 2 Q. He says, "Can we discuss?" Did you have a discussion
 3 with Mr Sounes around this time about the U-value and
 4 whether or not that was achievable, whether it should be
 5 amended? Was there any such discussion?
 6 (Pause)
 7 A. I think this -- these documents were leading up to the
 8 planning report, where we were going to make -- we were
 9 going to tell planners what the U-value target was, and
 10 so we needed to make sure it was buildable, and it was
 11 right, and I believe Bruce's uncertainties were there
 12 wasn't a calculation that covered all the different
 13 elements, so the spandrel panels, the window infill
 14 panels and the column, there wasn't an overall average
 15 calculation being done at that point, and I think what
 16 Bruce was worried about was, when we actually looked at
 17 the columns, and it would be a bit thinner, that would
 18 impact our ability to meet the overall 0.15, and
 19 therefore we shouldn't be advertising the 0.15, we
 20 should be seeing what we can actually achieve, and
 21 I think he was looking for help from me to understand
 22 that that could be achieved.
 23 Q. Just to be clear, was there any serious discussion at
 24 this point about changing the U-value?
 25 A. I don't recall, but I think it was implied in the ...

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1 the sections were becoming more firm, you know, the
 2 space allowed for insulation was starting to become more
 3 and more fixed on the drawings, and so I think from my
 4 point of view, by the time we got to this stage, it had
 5 become a little bit like: you've got 200 millimetres for
 6 insulation in this wall and now we're going to check to
 7 see what we get, and we hope it achieves a 0.15.
 8 But I think if it didn't, I think it would have been
 9 back to the drawing board on the 0.15 rather than
 10 changing the sections at that point, because I think we
 11 were balancing so many different aspects, you know, with
 12 the window depths, and I think the architect was quite
 13 happy with that build-up they had drawn.
 14 So I think at this point it became less about
 15 a conversation of: well, the façade can just infinitely
 16 change to accommodate the U-value; I think at this point
 17 it started to get a little bit like: well, we don't want
 18 to be changing these sections, so ...
 19 Q. Yes. Okay.
 20 There are another two emails on this same theme
 21 about whether any consideration was given to amending
 22 that U-value target. Let's go to another email. This
 23 is {SEA00008181/2}. Halfway down page 2, there is
 24 an email dated 2 September 2013 from a Mr Von Terssch,
 25 Keith Von Terssch, at British Gas. It's an email to the

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1 TMO.
 2 What subsequently happens -- and we can trace this
 3 through in a moment -- is it gets forwarded to Studio E
 4 and then it gets forwarded to Duncan Campbell at
 5 Max Fordham eventually.
 6 What we can see in this email is that Mr Von Terssch
 7 is saying in the second paragraph:
 8 "As discussed at the meeting there are a number of
 9 areas that we need to confirm so that we can price up a
 10 funding offer accurately for you. We have the report
 11 from Max Fordham that gives some of the information but
 12 a few gaps still remain. We will need you to send
 13 through ..."
 14 Then he asks in the first bullet point for:
 15 "Information on the insulating material for the
 16 walls - we mentioned that previous projects have not
 17 reached a U-value of 0.15."
 18 Do you see that there?
 19 A. Yes.
 20 Q. So saying he has mentioned with someone in discussion
 21 with the TMO that previous projects have not reached the
 22 0.15.
 23 Were you ever made aware of this email during the
 24 time you worked on the project?
 25 A. No.

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1 Q. No?
 2 A. It was long after my involvement ended.
 3 Q. If we go right to the top of the page, page 1
 4 {SEA00008181/1}, we can see that eventually this does
 5 get forwarded to -- I beg your pardon, Duncan Campbell
 6 is copied in here to this email chain, including the
 7 British Gas email, but you didn't see it?
 8 A. No.
 9 Q. No.
 10 Can we look at another Studio E email. This is
 11 {SEA00014346}, and if we start on page 1, there is
 12 an email here from Tomas Rek to Bruce Sounes. So this
 13 is an internal email within Studio E, copying in others.
 14 He then sets out, we can see at the very bottom of this
 15 page, some BREEAM potential scoring assessment comments.
 16 Can you help us as to what BREEAM is?
 17 A. It's the Building Research Establishment Environmental
 18 Assessment Method, and it's a commonly -- it's a way of
 19 measuring the kind of sustainability credentials of
 20 a project, and often funders will have a minimum
 21 requirement that they would say, "Well, we would like
 22 you to get a certain score in order for us to give you
 23 money towards this project".
 24 Q. Yes.
 25 A. That's one of the ways it can be used.

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1 Q. I appreciate this is an internal email within Studio E
2 which you wouldn't have seen at the time. But if we go
3 on to page 2 {SEA00014346/2}, there is a heading
4 "Environmental Impact of Materials", it's Mat 01. So
5 third item down it says:
6 "Mat 01 Environmental Impact of Materials."
7 Do you see that there?
8 A. I do, yes.
9 Q. There is some black text in the last paragraph there
10 that says:
11 "It also seems MF went for 'ott' U values to achieve
12 maximum credits available for Thermal Performance
13 Criteria which come to force if Green Guide Rating
14 credits do not manage achieve the top 25 credits
15 available."
16 Now, we understand, and this was confirmed by the
17 Studio E witnesses, that "'ott' U values" meant "over
18 the top U-values", yes, when they refer to "ott".
19 Did anyone ever suggest to you, from Studio E or
20 indeed anyone else on the project, that the U-values
21 were over the top?
22 A. No. I think it's -- as I said earlier, I think I felt
23 really comfortable in a positive way that there was
24 a good buy-in for this strategy. So, no, no one was
25 ever ... no one ever referred to them in that way.

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1 Q. If we can look next at an email from July 2012. This is
2 {SEA00005276}.
3 A. Sorry, is it worth to point out that the -- this comment
4 couldn't be right, because, you know, as we've seen, the
5 0.15 was discussed at a very, very early stage of the
6 project.
7 Q. Yes.
8 A. And it wasn't -- the project was running for several
9 months with everyone with that understanding until the
10 BREEAM actually -- we didn't realise at the start of the
11 project that we needed a BREEAM score, so that came in
12 slightly later. So all the decisions about 0.15s were
13 done before this. So to suggest that the 0.15 was being
14 done to get some credits in a scoring scheme that we
15 didn't actually know we'd have to comply with, it just
16 couldn't have been right.
17 Q. I understand, thank you, that's helpful.
18 So if we can go to {SEA00005276}, this is an email
19 of 24 July 2012 from Bruce Sounes to you and Matt Smith,
20 and I just want to read the whole of this email with
21 you. He says:
22 "Andrew, Matt,
23 "I asked Rockwool about achieving 0.15 U-values and
24 this is their response, below. We have been working on
25 a maximum of 250mm build up to the spandrel zones. The

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1 decision on the final system is pending, but assume a
2 50mm panel/vent zone, leaving you 200mm for insulation.
3 The geometry at the columns results in a reduced build
4 up of approximately 200mm (150mm insulation) at high
5 level. At low level we are thinking of cladding the
6 columns in brick ..."
7 Then he talks about that. Then he says:
8 "Pushing the cladding line any further out will
9 probably have buildability (below) and aesthetic issues.
10 "We are proposing extensive areas of curtain wall to
11 the lower stories which could receive augmented
12 insulation behind the solid panels. Please keep this in
13 mind when preparing your calculations."
14 So he's forwarding an email from Rockwool setting
15 out their response to the 0.15 U-value. I'm going to
16 come back to that Rockwool response later.
17 In the second paragraph of this email, Mr Sounes is
18 identifying that the build-up would probably only leave
19 between 100 and 200 millimetres for insulation,
20 200 millimetres for the spandrels and 100 millimetres on
21 the columns, and he is also saying that there are
22 potential buildability and aesthetic issues.
23 Can you just explain to us what you understood him
24 to mean when you got this email about those buildability
25 and aesthetic issues if you pushed the cladding line out

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1 any further?
2 A. I took this email to mean that the 200-mil zone is all
3 that it's ever going to be. We're not changing it now,
4 for good reasons. And I think how I took this was that
5 Bruce was worried about not being able to achieve the
6 0.15, and this is why his last line about extra
7 insulation at lower storeys, I think he was -- had
8 a suspicion that we weren't going to be able to achieve
9 the 0.15, but he was saying we could put more insulation
10 on the lower levels if that helps balance out the
11 overall calculation, so we could still achieve the
12 target without actually changing the build-up that we're
13 now working with, which is this 200 millimetres of
14 insulation at the -- in the main areas of wall and then
15 a reduced amount around the columns.
16 Q. Yes.
17 Did you understand Mr Sounes to be providing maximum
18 thicknesses for the insulation in this email? Is that
19 how you read it?
20 A. At this point, yes, that's how I read this, yeah.
21 Q. Did you ever discuss with Mr Sounes or anyone else at
22 Studio E whether the design could be altered to allow
23 for thicker insulation, to allow a bigger gap between
24 the concrete and the outer cladding?
25 A. Two points that I would make is (1) that in the design

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1 team meetings there would be lots of discussion about
 2 these issues, so I would feel I would have understood
 3 a lot of the issues that Bruce was dealing with in terms
 4 of the daylight, the thickness of hangers, the scale --
 5 I realised that this number is part of a bigger picture,
 6 and so I didn't push that because I felt I understood
 7 that this was the compromise, this was -- the solution
 8 that we had honed in on was the best thickness for
 9 a whole range of reasons.

10 Q. Yes.

11 A. So I think that ... and I've completely forgotten my
 12 second point.

13 Q. So I asked you: did you ever discuss with Mr Sounes or
 14 anyone else whether to allow for thicker insulation, ie
 15 a bigger gap between the concrete and the outer
 16 cladding? Did you ever actually have that discussion
 17 with Mr Sounes?

18 A. No, and that was my second point, was from the very
 19 earliest emails that we had from Studio E, there was
 20 always Rockwool and Kingspan, Rockwool and -- you know,
 21 so just embedded in my mind was this thing that Kingspan
 22 was okay. There was nothing wrong with using Kingspan.
 23 Bruce had suggested it in his first email, he had used
 24 it in the online calculator in the email that we looked
 25 at previously, he said, "I have given a stab at

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1 a U-value calculation" and there was a link in that
 2 email.

3 Q. Yes. Yes.

4 A. That was Bruce doing his own calculation using Kingspan.
 5 And so at this point, there was nothing to suggest to me
 6 that it needed to be relaxed in any way. We had
 7 something that was going to be acceptable, I thought it
 8 worked within the 200-millimetre zone that we were all
 9 talking about, so it all just seemed to be slotting into
 10 place. So I guess that's my rationale for saying we
 11 weren't having these conversations, because I thought it
 12 was working.

13 MS GRANGE: Yes.

14 Mr Chairman, that might be a good moment for
 15 a break. I'm about to turn to some more detailed
 16 questions about the specific materials.

17 SIR MARTIN MOORE-BICK: Yes. Seems like a good idea.

18 Mr McQuatt, we're going to have a short break now.
 19 We will come back and resume at 11.35, please.

20 I have to ask you, while you're out of the room,
 21 please don't talk to anyone about your evidence or
 22 anything to do with it. All right?

23 THE WITNESS: Thank you.

24 SIR MARTIN MOORE-BICK: If you would like to go with the
 25 usher, she will now look after you. Thank you.

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1 (Pause)

2 Right, 11.35, please. Thank you.

3 (11.21 am)

4 (A short break)

5 (11.35 am)

6 SIR MARTIN MOORE-BICK: All right, Mr McQuatt? Happy to
 7 carry on?

8 THE WITNESS: Yes.

9 SIR MARTIN MOORE-BICK: Good, thank you.

10 Yes, Ms Grange.

11 MS GRANGE: Thank you.

12 I will now ask you more detailed questions about
 13 consideration given to particular insulation materials
 14 on the project. If we can go back to an email we looked
 15 at earlier, {SEA00004973}, we can see there -- we looked
 16 at it earlier -- that as at that point, 5 July 2012,
 17 Mr Sounes says he has sent off enquiries to Rockwool and
 18 Kingspan. You see that there. We will come back to
 19 each of those in a moment.

20 There is no reference here to Celotex. Can you help
 21 us, were the Celotex products being considered at this
 22 stage, or any Celotex products?

23 A. Not by name. In my mind, I think, Kingspan -- I mean,
 24 these are all brand names that we're looking at: by
 25 Rockwool, they mean mineral wool; by Kingspan, they mean

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1 to me a solid insulation board. And so Kingspan,
 2 Celotex, were kind of interchangeable --

3 Q. Yes.

4 A. -- in what I took that to mean.

5 Q. I see.

6 We see that Mr Sounes gave an attachment to that
 7 email, and he says, "see attached which suggests
 8 approximately 450mm+ of insulation". If we can open up
 9 that attachment, that is at {MAX00000101}.

10 Now, did you look at this attachment when you were
 11 sent it?

12 A. I can't honestly remember if I saw this attachment at
 13 the time.

14 Q. Now, Mr Sounes told us in his evidence that this was
 15 an extrapolation from the Rockwool website. Were you
 16 aware of that at the time, that Mr Sounes had looked at
 17 the Rockwool project(sic), extrapolated in terms of
 18 thicknesses, and that's where he got his 450-millimetre
 19 plus from?

20 A. I can't honestly remember.

21 Q. So you can't remember looking at this at the time?

22 A. No. I knew that Bruce had gone to the Rockwool website
 23 and made an assessment, but I can't remember the
 24 details.

25 Q. What he told us he had done is basically extrapolate in

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1 the dotted line with the U-value.
 2 A. Yes.
 3 Q. So he's got certain thicknesses off the website, but
 4 then he has carried it on to get to the 0.15 U-value on
 5 the left-hand side, and then extrapolated that that
 6 might mean 450 millimetres approximately of Rockwool
 7 thickness. Do you see that there?
 8 A. I do, yes.
 9 Q. Can you help us as to whether Max Fordham ever sought to
 10 clarify where that calculation had come from, or was
 11 asked to do a formal calculation for the Rockwool at
 12 this stage?
 13 A. I don't think we were asked to do a formal calculation
 14 on the Rockwool.
 15 Q. No. Yes.
 16 A. No.
 17 Q. Then if we can go to {SEA00004978}, this is
 18 Max Fordham's response to Mr Sounes' email dated 5 July.
 19 It's from your colleague Matt Smith, but you are copied
 20 in to it. As we can see from the first paragraph, in
 21 the second line he says:
 22 "Those thicknesses of Rockwool seem a bit high -
 23 does that also include the thermal bridging from
 24 fastenings/frame etc and a ventilated cavity? For
 25 a glass fibre slab (excluding fastenings etc) we'd

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1 expect to be able to achieve 0.15 U-value with approx.
 2 180 mm (material only)."
 3 Now, can you explain what steps you or others at
 4 Max Fordham took before saying, "Those thicknesses of
 5 Rockwool seem a bit high"? Are you aware of that?
 6 I appreciate this was your colleague, Mr Smith.
 7 A. I think we discussed the reply, so I think I have a good
 8 idea of what he would have done.
 9 Q. Yes.
 10 A. Like I described initially doing U-value calculations
 11 for heating systems is a thing we would commonly do, so
 12 I think what Matt did was he did a quick calculation of
 13 his own, put in a Rockwool lambda value at that
 14 thickness, and he must have played around with the
 15 thickness of the insulation.
 16 Q. Yes.
 17 A. He came to 180, which is what he came to, and that's
 18 a lot less than the 450. So I think --
 19 Q. Yes.
 20 A. -- that's what's fed into his statement of, "This seems
 21 a bit high".
 22 Q. I see.
 23 A. His own calculation.
 24 Q. He says that 180 --
 25 SIR MARTIN MOORE-BICK: Sorry, could I just ask: this

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1 suggests that glass fibre was one potential form of
 2 insulant, but nobody seems to have discussed the use of
 3 glass fibre. Was there a particular reason for that?
 4 A. I don't know, and I suspect that we've just got slightly
 5 confused terminology in the email, rather than meaning
 6 a particular --
 7 SIR MARTIN MOORE-BICK: Well, in what respect?
 8 A. Perhaps Matt meant mineral wool. I think he probably
 9 just wasn't being very accurate on that term.
 10 SIR MARTIN MOORE-BICK: All right, thank you.
 11 A. It's still a flexible insulation type, so it has
 12 a similar sort of look to it, and I imagine that's where
 13 the confusion had come from.
 14 SIR MARTIN MOORE-BICK: All right, thank you.
 15 MS GRANGE: If he was in fact meaning glass fibre slab, is
 16 what you're saying that that might give you some
 17 indication of what thickness a Rockwool would be,
 18 because they're not dissimilar? Is that what you're
 19 saying?
 20 A. They have similar lambda values.
 21 Q. I see.
 22 A. So I think his calculation was reasonable in that
 23 respect.
 24 Q. But just to be clear, did anybody actually do
 25 a calculation to work out what thickness of Rockwool, of

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1 mineral wool, would be required to achieve the 0.15?
 2 Did anyone within Max Fordham do that at this time?
 3 A. I believe that's what Matt was trying to do there.
 4 Q. Now, Mr Smith queries in the email whether the thickness
 5 of Rockwool, the 450 millimetres, includes the thermal
 6 bridging from fastening, frame, et cetera, and a
 7 ventilated cavity.
 8 Can you help us as to how those factors might fact
 9 the calculation of the thickness of insulation and the
 10 U-value that could have been achieved?
 11 A. Yes. If you were to do a calculation and you were to
 12 factor in the metal brackets that must go from the
 13 concrete face of the structure, travel through the
 14 insulation, to be able to fix the rainscreen --
 15 Q. Yes.
 16 A. -- those connections are sort of a weaker link, in terms
 17 of more heat will travel through those connections. So
 18 Matt is saying, I think, we don't know what the
 19 Rockwool -- what Rockwool have assumed, perhaps they've
 20 been a bit heavy-handed in their assumption, I don't
 21 know.
 22 The difficulty I have with this email is clearly we
 23 haven't included for any thermal bridging in our
 24 calculation, which I think we should have done, so
 25 I think the 180 figure that's there is very -- only

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1 looking at a very idealised cross-section through the
 2 material, and it's not looking at other things. So in
 3 reality I would expect the answer to be somewhere
 4 between 450 and 180, depending on the other elements
 5 that were in play. But clearly, I mean, at this point
 6 we didn't know the specific details of the cladding.

7 Q. I see.

8 You talk there about what Rockwool have assumed, but
 9 it's right, isn't it, that this was Mr Sounes'
 10 extrapolation of some information on Rockwool's website
 11 to come to the 450 millimetres, so this wasn't
 12 Rockwool's calculation, was it, at this stage?

13 A. That's correct, and I couldn't comment, maybe we've
 14 misinterpreted that at the time, or -- I'm not sure.

15 Q. Just to be absolutely clear, I think what you're saying
 16 is if you used thermally broken brackets that interrupt
 17 the thermal transfer through the brackets, that can help
 18 you in terms of achieving a lower U-value; is that
 19 correct?

20 A. Yes, that would be part of the calculation.

21 Q. And Mr Smith is querying whether Mr Sounes, in his
 22 calculation, had taken account of that thermal bridging
 23 from fastenings, frame, et cetera. Do you agree?

24 A. Sorry, can you repeat that? Sorry.

25 Q. What Mr Smith seems to be doing is questioning whether

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1 Mr Sounes' calculation had taken account of the thermal
 2 bridging from the fastenings and frame.

3 A. I think what Matt is suggesting is that it's not that
 4 the Rockwool calculation hasn't taken it into account,
 5 but the Rockwool calculation might be a bit pessimistic
 6 in its assumptions, therefore coming up with a really
 7 thick insulation thickness.

8 Q. I see. The Rockwool might be pessimistic in its
 9 calculations, or Mr Sounes' calculations might look
 10 pessimistic if you haven't taken into account thermally
 11 broken brackets; is that correct?

12 A. Yes.

13 Q. Yes.

14 Now, let's look at the response we see from
 15 Rockwool. This is {SEA00005276/2}, and it's an email
 16 from Mr Ian Pritchard to Mr Sounes. We know that you
 17 were sent this email on that same day. Again, I'll make
 18 good that point in a moment, but just sticking with this
 19 email from Mr Pritchard, we can see that his response
 20 says:

21 "Dear Sir

22 "... apologies for the delay in getting back to you.

23 "Further to your email, we would normally recommend
 24 the use of our Rainscreen Duoslab for these types of
 25 construction; however, due to the low specified U-value

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1 the thickness needed would be exceptionally high,
 2 probably beyond the point of sensible building
 3 practice."

4 Then he says he is unsure of the exact construction
 5 for the roof that needs insulating.

6 So that's what Rockwool say.

7 Now, can you help us: did anyone ever respond and
 8 seek an actual calculation from Rockwool of what
 9 thickness would be required? We can see he's saying he
 10 thinks it's going to be exceptionally high, but did
 11 anyone ever get a specific calculation from Rockwool
 12 about what it would be?

13 A. Not to my knowledge. This was something that Bruce was
 14 doing.

15 Q. Can you help us as to why that wasn't something that
 16 Max Fordham ever did?

17 A. We had set the target and it wasn't necessarily -- if
 18 Bruce was designing this element and he was liaising
 19 with the specialists, then that was -- that seemed like
 20 the right way to be going about it, rather than us
 21 trying to get involved. It seemed like a reasonable
 22 thing that Bruce was liaising with the manufacturers
 23 directly to try and get some calculations done. So
 24 I think I would have read that email and taken the --
 25 probably "beyond the point of sensible building

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1 practice" to mean all the things that I understood with
 2 Bruce in terms of length of brackets and all the other
 3 implications that might have on a building.

4 Q. Did you expect -- we know you were forwarded this email
 5 in due course -- that there would be a further follow-up
 6 with Rockwool to say, "Well, can we actually understand
 7 from you precisely what the thickness needed would be?"

8 A. I don't think I ever expected that, no.

9 Q. No.

10 A. Because in my mind, the Kingspan thicknesses were much
 11 closer to what we wanted, and so in my mind, receiving
 12 this email, I thought: okay, that's what it is, we won't
 13 be using rainscreen Duoslab then, we'll be using
 14 Kingspan, and that -- or something like it. That was
 15 what I read from this.

16 Q. To your knowledge, was any effort ever made at any stage
 17 of the project to determine precisely what thickness of
 18 Rockwool would actually be required to achieve the 0.15
 19 U-value?

20 A. I don't think it was, no.

21 Q. Would you agree that Rockwool was effectively discounted
 22 as an option on the basis of thickness?

23 A. Yes.

24 Q. Can we just look at Mr Hyett's report. He is
 25 the Inquiry's expert in architectural matters. This is

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1 at {PHYR0000003/19}, and I want to look at the bottom of
 2 the page at paragraph 3.5.8.
 3 Now, what Mr Hyett does is he does do the
 4 calculations using mineral wool to see what U-value and
 5 thickness you could get, and effectively what he says --
 6 and he summarises it there in that paragraph -- is that:
 7 "... with mineral wool it is possible for the
 8 spandrel/slab condition to produce a 0.142 [U-value] ...
 9 against a 250 mm mineral wool installation, and for the
 10 column condition to produce a 0.170 [U-value, so
 11 slightly above your U-value target] ... against a 180 mm
 12 mineral wool installation ."
 13 Do you see that there?
 14 A. I do, yes.
 15 Q. Mr Hyett's calculations appear on the following pages.
 16 We can just briefly look at them. At pages 20 and 21 we
 17 can see he has done the calculations for us, and this
 18 shows how he has come with here -- this is on the column
 19 location -- the 0.17 U-value. If we go on to the next
 20 page, he has come up with the 0.142 U-value with
 21 250 millimetres of Rockwool.
 22 Now, do you agree that Mr Hyett's calculations
 23 indicate that an insulating material using Rockwool
 24 could have been accommodated without undue technical
 25 difficulty?

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1 A. I don't think I can --
 2 Q. That's not for you to comment?
 3 A. I don't think I can say that.
 4 Q. I see.
 5 SIR MARTIN MOORE-BICK: Can I just help for a bit more help
 6 on that. Have you actually examined Mr Hyett's
 7 calculations?
 8 A. I have looked at them, yes.
 9 SIR MARTIN MOORE-BICK: You have been through them to see
 10 whether there are errors or holes in them, shall we say?
 11 Have you found any errors or holes?
 12 A. Not errors. I see the calculation that Matt Smith sent
 13 in his email where he came up with the 180-millimetre
 14 thickness, and you can see there that that's actually
 15 exactly the same calculation as Mr Hyett has done for
 16 the column, and he comes up with -- he comes to the
 17 answer not of a U-value of 0.15, he comes to the higher
 18 of 0.17, I think he comes to, and I think that
 19 discrepancy between what we've done and what Mr Hyett's
 20 done is the thermal breaks, the bracketry. We didn't
 21 include the bracketry in our simple calculation,
 22 Mr Hyett has, and I think that explains the differences.
 23 SIR MARTIN MOORE-BICK: And to that extent, one could regard
 24 Mr Hyett's calculation as likely to be a bit more
 25 accurate; is that --

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1 A. A bit more accurate, yes.
 2 SIR MARTIN MOORE-BICK: All right.
 3 A. And I'd also caveat by saying the assumption he has made
 4 for the bracketry, I have not looked at that number in
 5 any way to say that I would -- that would have been
 6 accurate in terms of the construction.
 7 SIR MARTIN MOORE-BICK: Okay, thank you, that's helpful.
 8 What about the spandrel calculation?
 9 A. Again, that's the same. His calculation includes for
 10 thermal bridging through the bracketry, ours does not.
 11 His is more --
 12 SIR MARTIN MOORE-BICK: So, again, likely to be slightly
 13 more accurate. But these are the sorts of calculations
 14 with which you are presumably very familiar, are they?
 15 A. Yes, yeah.
 16 SIR MARTIN MOORE-BICK: I ask you that because I think you
 17 said you haven't found anything to criticise in the
 18 calculations.
 19 A. (Witness nods).
 20 SIR MARTIN MOORE-BICK: That's very helpful, thank you.
 21 A. Yes.
 22 MS GRANGE: Yes, that's really helpful. That was exactly my
 23 next question, whether the difference between --
 24 SIR MARTIN MOORE-BICK: Sorry.
 25 MS GRANGE: No, no, it's good -- whether the difference

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1 between Mr Hyett's calculations and anything you had
 2 done at the time was because of the use of thermally
 3 broken brackets which could make that difference, so
 4 I think you've clarified that.
 5 A. You keep saying "thermally broken brackets", and I think
 6 my point is we didn't make any assumption for any
 7 brackets, thermally broken or not.
 8 Q. I understand.
 9 A. The other thing I would sort of say as well is clearly
 10 there is a discrepancy between the 450 that the Rockwool
 11 website might suggest and these calculations, and it's
 12 quite a big difference, and actually when I probed that
 13 myself, I could see that the Rockwool website does make
 14 quite a large allowance for heat transfer through
 15 bracketry, but I am in no way -- I don't know the
 16 details of those to -- I just know that there is a large
 17 difference between the two.
 18 Q. Do you agree that these are relatively straightforward
 19 calculations that can be done, the ones Mr Hyett's done?
 20 A. Yes.
 21 Q. Can you help us as to why such calculations weren't ever
 22 done on the Grenfell project for mineral wool, Rockwool?
 23 (Pause)
 24 A. I can't, other than the 250-mil -- even with this
 25 calculation coming out at 250 millimetres, it was still

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1 more than the 200 that we were working to as the
 2 maximum, so ...
 3 Q. Then it would be an assessment, wouldn't it, for the
 4 architect about whether that increased thickness could
 5 be accommodated within the design --
 6 A. Yes.
 7 Q. -- satisfactorily ?
 8 Let's turn now to have a look at the Kingspan
 9 products. If we look at {SEA00004986}, we can see that
 10 on 6 July 2012 -- this is from you(sic) to Matt Smith
 11 but you are copied in here -- what Bruce is saying is
 12 that:
 13 "Kingspan have come back with 200mm phenolic to
 14 achieve 0.15 U-value. See attached."
 15 And there is an attachment to it .
 16 Then he says:
 17 "I've attached a datasheet for glass fibre product.
 18 I'm rusty on calculations but I interpret this product
 19 as having twice the thermal conductivity of phenolic,
 20 and therefore needing twice the thickness."
 21 Given Mr Sounes' comments in this email that
 22 200 millimetres of insulation could be accommodated on
 23 the spandrels, do you know why the Kingspan product
 24 wasn't pursued any further?
 25 (Pause)

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1 A. I can only -- I think it's -- Kingspan is referring to
 2 a trade name --
 3 Q. I see.
 4 A. -- for solid -- a phenolic foam PIR solid insulation,
 5 and so I think it was developed further, in a -- and
 6 I can come on to explain. I think -- I could explain
 7 now where I know -- I know exactly where Kingspan came
 8 from and why it appeared and --
 9 Q. Okay, let's take this one stage at a time.
 10 First of all, are you saying that, in your mind at
 11 the time, there was little difference between a phenolic
 12 insulation material and any other foam insulation
 13 board --
 14 A. That's right, yes.
 15 Q. -- such as a PIR board?
 16 A. (Witness nods).
 17 Q. Did you actually know there was a difference at the
 18 time?
 19 A. I don't think I did. I think I took Celotex and
 20 Kingspan to be two manufacturers that had insulation
 21 boards with similar lambda values, and then that's as
 22 far as I --
 23 Q. We are coming on to the Celotex in just a moment, but
 24 help us then. You say you can tell us exactly where the
 25 Kingspan came from. What's your evidence on that?

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1 A. The Celotex came from. Sorry, you said where the
 2 Kingspan came from.
 3 Q. Yes, I thought you said earlier that you could tell us
 4 exactly where the Kingspan came from, but maybe you
 5 misspoke.
 6 A. No, sorry, I meant to say I could tell you where the
 7 Celotex --
 8 Q. If we could just hold fire on that for a moment and let
 9 me keep going.
 10 A. Okay.
 11 Q. At the time of your work on the Grenfell project, did
 12 you have any understanding of the fire performance
 13 characteristics of these foam boards, including phenolic
 14 or PIR insulation?
 15 A. The only exposure we would have had, I think, to
 16 Kingspan is when they would come in to talk to us about
 17 pipe insulation, because they make solid pipe insulation
 18 as well as building insulation.
 19 Q. Okay.
 20 A. And it's very difficult now to unpick what I've heard,
 21 and I know Bruce made a lot of comments about this
 22 material charring, and it's very difficult -- I'm trying
 23 to -- that could have been something that I had opinion
 24 of, that could have been something that I thought: well,
 25 these pipe insulations will sort of char but not go on

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1 fire, but I couldn't say with 100% certainty --
 2 Q. Mr McQuatt, we don't want you to speculate. I think
 3 what we're interested in is whether you do have
 4 a recollection of knowing something about the fire
 5 performance of these phenolic or PIR insulation boards
 6 at the time of the Grenfell project.
 7 A. I couldn't say --
 8 Q. No.
 9 A. -- I did.
 10 Q. We see in this -- and it picks up on the Chairman's
 11 question a moment ago -- that there is a datasheet for
 12 a glass fibre product. When we look at that glass fibre
 13 product datasheet, it's got an A1 fire performance.
 14 Do you know whether any further consideration was
 15 ever given to the glass fibre product on this project?
 16 A. I don't think it was. I think -- and the reason for
 17 that is it would have twice the thickness. I think it
 18 was excluded at that point of this email. I think it
 19 was attached for information, but to me, the line about
 20 it being twice the thickness was just --
 21 Q. Yes.
 22 A. -- the point to stop.
 23 Q. So you wouldn't have looked at the datasheet and
 24 considered the fire performance of that product at the
 25 time?

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1 A. No.
 2 Q. So FR5000, let's move to that, the Celotex product. If
 3 we can go to {SEA00005840}, this is an email from you to
 4 Mr Sounes dated 16 August 2012, and you say:
 5 "Bruce,
 6 "I have done the following calculations to work out
 7 how much insulation that we would need to achieve 0.15
 8 overall. The Celotex FR5000 is a solid PIR board, data
 9 sheet attached, I think this is the only type of product
 10 that will give us the required performance, Kingspan
 11 also [do] a version of this. Could you comment on the
 12 Spandrel panel?"
 13 As far as we can see, this is the first mention of
 14 Celotex's FR5000 product in this email.
 15 Is it right to say that it was you that introduced
 16 that Celotex FR5000 as a potential insulation product
 17 for the project?
 18 A. Yes, it was.
 19 Q. What led you to put forward the FR5000 product at this
 20 stage?
 21 A. So I was carrying out a calculation -- so some of these
 22 emails I think have come slightly out of sequence with
 23 how they happened. I had a telephone conversation with
 24 Bruce, and we were discussing how he was unsure whether
 25 the fact that we couldn't put as much insulation on the

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1 columns, he didn't -- he was unsure whether that would
 2 mean that the overall U-value wouldn't be enough. So
 3 I told him that, well, I could do an area-weighted
 4 calculation, so I would calculate the U-values of the
 5 column, the spandrel and the window infill, and I would
 6 area-weight them based on the areas of façade they make
 7 up and that would give us an average. And that was
 8 something at that point that I think hadn't been done
 9 and was kind of worrying Bruce, that that was going to
 10 be -- that was going to mean we couldn't meet the
 11 target. So I said, "Well, I'll perform that
 12 calculation".
 13 So I went off to do that, and I think the
 14 spreadsheet was attached, I think, to this email, and
 15 I went off and did the calculation, and one of the
 16 numbers that I needed for the calculation was the lambda
 17 value of the Kingspan board. And I went to the Kingspan
 18 website to download a datasheet so that I could get
 19 an accurate number for that lambda value, and you needed
 20 to log in and fill out and register as a user.
 21 In my head, there was very little difference between
 22 Celotex and Kingspan. I knew I had a log-in for
 23 Kingspan -- for Celotex, sorry, so I thought: I'll just
 24 speed this up a little bit, go to the Celotex website,
 25 I will get a datasheet for a solid insulation board just

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1 to make sure that the lambda value that I was putting
 2 into my calculation would be accurate and it would be
 3 one -- it would be something that you could go and buy,
 4 essentially, just basically showing your working, is how
 5 I felt about it, and so -- and that's how I ended up
 6 going to the Celotex website, clicking through, I think
 7 they have a sort of cascading thing, you know, select
 8 insulation by application, and I think I would have gone
 9 through, you know, walls, and I can't remember the exact
 10 detail, but I went through some sort of process, and it
 11 came out with: this would be an insulation.
 12 I downloaded that, I took the lambda value, put them
 13 into that calculation, and then because I wanted to let
 14 Bruce know where I had got that number, I sent him the
 15 datasheet, and I think there, you know, my -- "Kingspan
 16 also do a version of this", it kind of shows my thinking
 17 that Kingspan and Celotex were very similar.
 18 Q. Did you or to your knowledge Max Fordham have any
 19 previous experience of using the FR5000 product?
 20 A. No.
 21 Q. Did you have a relationship with Celotex at this time?
 22 You said you had the log-in details.
 23 A. Again, it was log-in details from previously trying to
 24 get a lambda value of an insulation type.
 25 Q. Now, Mr Sounes has given us some evidence about this,

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1 and I want to show you what he said. If we can go to
 2 the transcript, this is on 11 March, {Day12/181:12}, and
 3 I want to read what he says. I think it's me asking
 4 him:
 5 "Question: During your time on the Grenfell
 6 project, can you explain why you thought Celotex FR5000
 7 was suitable to be used within the overcladding system?
 8 "Answer: Why did I think it was?
 9 "Question: Yes.
 10 "Answer: Erm ... it had been put forward by
 11 Max Fordham, who I knew had -- who I understood had
 12 undertaken this sort of project several times, or many
 13 times, and I guess I made an assumption that they had
 14 used this before in similar circumstances. So it was
 15 based rather on inferring its acceptability from
 16 previous experience by Max Fordham."
 17 Do you see that there?
 18 A. I do, yes.
 19 Q. Now, did you appreciate at the time that, in suggesting
 20 this product, Studio E were taking this as a tacit
 21 endorsement of its acceptability for use on the
 22 building?
 23 A. I didn't. I didn't realise that, no.
 24 Q. When you said in the email that you think this is the
 25 only product that you're going to be able to use, what

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1 considerations did you have in mind? Did you have fire
 2 in mind when you made that suggestion?
 3 A. I had the lambda value in mind, and the two things that
 4 I had in mind were the lambda value for the thickness,
 5 and in my mind it was almost interchangeable with the
 6 Kingspan, and the Kingspan had been on the table, put
 7 forward by Studio E in many emails, and so there was
 8 just nothing that sparked any concern that it wasn't
 9 okay.
 10 Q. Was any consideration given at this stage by you to its
 11 fire performance in any way at all?
 12 A. No.
 13 Q. Can you help us as to why not, why you wouldn't have
 14 been carrying out even very basic checks to see what its
 15 fire performance was before suggesting it on a project
 16 like this?
 17 A. For one thing, it was ... I wasn't aware that I was
 18 suggesting something new into the project, for one.
 19 I thought I was -- I thought it was already there and
 20 established in terms of the use of Kingspan.
 21 Q. Yes.
 22 A. You know, the design of the façade isn't what we do, and
 23 I thought it was, you know -- I didn't go to any extra
 24 lengths to make that explicitly clear, I just thought it
 25 was clear in terms of my role as a building services

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1 engineer as to what I would be looking at.
 2 Q. Is it your evidence that, had you been able to log on to
 3 the Kingspan website when you first tried and been able
 4 to get some lambda calculations for their foam board,
 5 you would have been just as likely to put forward the
 6 Kingspan product at this point?
 7 A. Exactly, yeah.
 8 Q. Yes.
 9 If we can look at the datasheet which you attached
 10 to the email, this is at {SEA00005841}, we can see on
 11 the top right-hand side that it's dated January 2012 and
 12 it's for Celotex FR5000.
 13 If we look at the first list of bullets halfway down
 14 that page, we can see that it states that FR5000:
 15 "Has Class 0 fire performance throughout the entire
 16 product in accordance with BS 476."
 17 That's the fourth bullet down. Can you see that on
 18 that page?
 19 A. Yes.
 20 Q. Now, did you give any consideration to that part of this
 21 datasheet when you were putting forward that product?
 22 A. I didn't, no.
 23 Q. So you didn't consider what it was saying about class 0
 24 fire performance? That didn't enter your mind at all?
 25 A. No. It was very much focused on the first bullet point,

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1 and they've actually put the lambda value in the text.
 2 That's what I wanted. That was the number I was after.
 3 Q. Were you aware just in general terms at this time that
 4 this product was a combustible insulation, and that
 5 there might be fire performance questions that needed to
 6 be asked of it in due course?
 7 A. No, it just never -- it sounds so silly to say this now,
 8 with all that's passed, but it just never occurred to me
 9 in any way that something that I could just go on to
 10 a website and select would be so unsafe or have the
 11 potential to be so unsafe, you know. I thought
 12 I was ... and, you know, and if -- you know, and I know
 13 we've covered that I didn't work on high-rise, but it's
 14 also up until that point, every building that I had
 15 worked on, PIR insulation board on walls -- you know,
 16 I had done a lot of projects, I had seen it again and
 17 again and again. In my mind, it was just a common
 18 material that's used and had, you know ...
 19 Q. Okay.
 20 We also see in that first bullet point that it says
 21 it has a lower thermal conductivity value, 0.021 watts
 22 per metre squared kelvin, compared with other typical
 23 PIR insulation boards providing enhanced thermal
 24 performance.
 25 To what extent was that 0.021 figure key to you

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1 putting forward this product on the project?
 2 A. It was the only number I was looking at, but I suppose,
 3 as an example, I didn't find other insulation materials
 4 and sort of think, "No, not good enough, not good
 5 enough, not good enough", until I came to this one; this
 6 was just the first one I came to and I used this lambda
 7 value, if that helps answer.
 8 Q. Had this product had a lambda value which had been
 9 higher than that, let's say significantly higher, would
 10 you have considered FR5000 for use on the project?
 11 A. I would say that at this point in the project, the solid
 12 board was always going to have a better lambda value
 13 than the Rockwool, than the alternative. So whether
 14 that was 0.021 or 0.024, as that number gets bigger, so
 15 does this thickness of insulation, and at some point
 16 that thickness of insulation would have come out at
 17 larger than 200.
 18 Q. Yes.
 19 A. If that was the case, I would have done this
 20 calculation, and I would have sent an email back to
 21 Bruce, and then there would have been a decision point
 22 to make: do we relax the U-value or do we change the
 23 build-up? And it just so happened that I took that
 24 lambda value, I did the calculation, and it all fell
 25 within the parameters of this 200 millimetres. So it

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1 seemed like an ideal solution.

2 Q. Okay.

3 Can we now look at the Max Fordham sustainability

4 and energy statement that was prepared for the project.

5 This is {MAX00000412}. This was dated 17 August 2012.

6 Just to be clear, Mr McQuatt, everyone in

7 Max Fordham was clear, weren't they, that they were

8 dealing with a tall building, a building above

9 18 metres, on this project?

10 A. Oh, yes.

11 Q. If we go to page 6 {MAX00000412/6} on this document, in

12 the left column in the first paragraph under 2.1, it

13 says:

14 "Improving the insulation levels of the walls, roof

15 and windows is the top priority of this refurbishment."

16 Do you see that there?

17 A. Yes.

18 Q. Did that reflect your understanding of the position,

19 that it was the top priority of the refurbishment?

20 A. Yes, it reflected my understanding, but also if we think

21 about just the context, I was writing this report --

22 you know, I may have been using slightly sort of

23 artistic licence to ... this is firmly what I believed.

24 It may not have been -- when I say the top priority of

25 this refurbishment, it may not have been everybody's top

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1 priority of this refurbishment, but it was certainly my

2 top priority of this ...

3 Q. There is no reference in here to fire safety also being

4 a priority, is there?

5 A. No, but again, it's the energy --

6 Q. Yes.

7 A. -- statement to planners. I don't -- I think that would

8 just be taken as -- I would have taken that as read,

9 you know, it's so fundamental that I wouldn't have

10 thought --

11 Q. Didn't need to be stated?

12 A. -- it needed to be stated, yeah.

13 Q. On this page we can see that the document explains that

14 the recommended U-value does exceed that permitted under

15 the Building Regulations. This is the fourth paragraph

16 down in the left column under 2.1. You can see in the

17 second sentence, second line down:

18 "The proposed insulation levels far exceed those

19 required by Building Regulations."

20 You see that there?

21 A. Yes.

22 Q. Is that the bit that you were explaining you drafted

23 earlier, because you go on here and say:

24 "Insulation improvements may only happen once or

25 twice in a building's lifetime due to the complexity and

90

1 disruption caused. For this reason we are going over

2 and above current Building Regulations to make sure the

3 building continues to perform well into the future."

4 A. Yes, I wrote that.

5 Q. You wrote that?

6 A. Yes.

7 Q. We can see, just to finish this point, on the bottom of

8 this column, there is a table, 2.1, which tells you the

9 extent to which what was being achieved on this project

10 was an improvement over the Building Regulations, and we

11 can see that it's a 50% improvement. Do you see that

12 there?

13 A. I do, yes.

14 Q. Then on the same page, in tables 2.2 and 2.3 in the

15 right-hand columns, if we can look at those, what we see

16 is that Celotex FR5000 is listed there as the

17 insulation. It's in both tables, for spandrels and

18 columns. It's the third one down in the spandrels, and

19 the third one down in the column.

20 A. Yes.

21 Q. So at this point, Max Fordham -- this is August 2012 --

22 are including the Celotex FR5000 in the energy and

23 sustainability statement; yes?

24 A. Yes.

25 Q. Does it follow from that that nobody had suggested to

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1 you, prior to putting that statement together, that that

2 insulation wasn't appropriate for buildings above

3 18 metres?

4 A. That's correct, yeah.

5 Q. Then if we go to the final stage C report produced by

6 Max Fordham dated September 2012, {MAX00001683}, can you

7 recall, did you draft this stage C report for

8 Max Fordham?

9 A. I would have drafted most of it, yes.

10 Q. Yes.

11 A. Matt would have done some sections, but I did most of

12 it, I think.

13 Q. At page 12 {MAX00001683/12}, is it right that what we

14 effectively see here is the same information from that

15 sustainability and energy statement replicated in this

16 stage C report?

17 A. Yes, I don't think it changed between the two documents.

18 Q. Now, how would you characterise what Max Fordham are

19 doing here in terms of the insulation product? Are they

20 specifying the use of FR5000 in this statement, or is

21 Max Fordham doing something else? If so, what?

22 A. I think in this, what I'm trying to do, I'm trying to

23 show my working, I'm trying to show that this thermal

24 conductivity value of 0.021 is based on an actual

25 product.

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1 Q. Yes.
 2 A. When I look back at this, I think there is no -- there
 3 was no need for me to write that in this document. It
 4 wasn't important information for this document
 5 whatsoever. In fact, both of those tables you might say
 6 are probably too much information for the actual target
 7 audience. All they really needed to know was the
 8 information in table 4, which said: we have a target
 9 and, you know, we're achieving it. And I think just
 10 because I had done the calculation, I felt that: well,
 11 I'll put it in there, just to show my working.
 12 Q. Yes.
 13 By suggesting the use of that product, the FR5000,
 14 were you seeking to influence the decision of the design
 15 team as to what material to choose?
 16 A. I don't think I was. I think I was just trying to be
 17 very explicit about where I'd got that number.
 18 Q. I see.
 19 A. Because if the project ran on and then someone did say,
 20 "Oh, for any reason we can't use that material", it
 21 might be -- I mean, remember, at this point I have
 22 absolutely no idea how much Celotex FR5000 actually
 23 costs. It may be ten times the price of its competitor,
 24 I don't know. For some reason, it might have been
 25 wrong, and I think I was just trying to show everyone

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1 what the assumptions were very clearly at that point.
 2 Q. At the point you wrote this, was it your view that
 3 a final decision had been taken to use FR5000 on the
 4 project?
 5 A. I can't recall. I wouldn't have put that in there if
 6 there was any information telling me that it wasn't
 7 going to be used, but I don't recall having that
 8 discussion saying, "Yes, we've looked at this
 9 information, we've looked at this and we're going to go
 10 for it". I think it was just in the planning, it never
 11 got corrected, and it went on like that.
 12 Q. I see.
 13 Now, in terms of this stage C document, we can't
 14 find any reference to fire safety in here; do you agree
 15 there's no references to fire safety?
 16 A. I think the stage C document might include an appendix
 17 on the heating options. There's no main section on
 18 fire safety, but there is an options appraisal of how
 19 we're going to replace the heating system, and I know in
 20 there we discussed firestopping around pipework as
 21 a potential issue that might have to be managed if
 22 we're, you know -- so I would say that from the point of
 23 view of a building services engineer, we were thinking
 24 about fire safety issues that impacted on the work that
 25 we were specifying, pipework changes, but not in -- this

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1 wasn't intended to be the definitive -- and that's kind
 2 of why I said that this detail -- this section goes into
 3 too much detail, because what it's really doing is it's
 4 really just wanting to convey that there are U-value
 5 targets, and these are the U-value targets that we are
 6 using in the energy calculations and simulations. The
 7 detail isn't --
 8 Q. Yes.
 9 A. -- actually relevant to this report, really.
 10 Q. Just to be clear absolutely clear, is it right that
 11 FR5000 was included in this stage C report solely
 12 because it delivered the U-value at the thickness you
 13 wanted?
 14 A. Yes. I mean, you could pick up on "you wanted" and say
 15 that, you know, it was the team delivering a project
 16 rather than just me solely being the owner of the
 17 thickness of that wall, and in fact I wasn't.
 18 Q. I want to put this point to you directly so you have the
 19 chance to answer it. I want to put to you that
 20 Max Fordham and you, as the project lead on this
 21 Max Fordham project, as experienced mechanical and
 22 electrical engineers, should have given at least some
 23 consideration to fire performance when proposing these
 24 types of insulation products for the external wall.
 25 A. I think in hindsight it's difficult to not have wanted

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1 to have reviewed all those things, and clearly over the
 2 past couple of years it's the question you ... should
 3 I have known information, more information than I knew,
 4 and this different sector? And it's something I go
 5 round and round. And I guess in hindsight I would have
 6 just stuck to the numbers, I would have done that
 7 calculation without a datasheet. I would have just
 8 said, "This is the minimum lambda value that is
 9 required, carry on with your specification". But with
 10 so many things you trip up when you try to be helpful,
 11 and you try to push the project on, you try to muck in,
 12 and in hindsight I wouldn't have suggested Celotex FR --
 13 or any insulation material, because it wasn't my job,
 14 but ...
 15 Q. What about making expressly clear to the others on the
 16 project, including Studio E, that you hadn't considered
 17 fire safety? Did you ever do that at any stage on the
 18 project? Did you ever say to them, "I've only looked at
 19 the thermal performance, to be absolutely clear with
 20 you, anything to do with fire safety of this project is
 21 down to you"? Did you ever say that?
 22 A. No, I didn't.
 23 Q. And can you help us as to why not, why you wouldn't have
 24 made that clear?
 25 A. Again, because I ... I was receiving emails that said

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1 Kingspan and Rockwool. Kingspan was always in the
 2 conversation, so the solid PIR board was just always in
 3 the conversation. So it was -- there was just nothing
 4 there to spark that level of -- you know, if I had been
 5 in any way aware that there was a danger here, then yes
 6 I would have -- absolutely I would have flagged that up
 7 and said, "I've only considered thermal performance".
 8 Q. Yes.
 9 A. I just didn't think it was necessary at the time.
 10 Q. Now, we know that then in late 2012 Celotex FR5000 was
 11 included as the insulation in the NBS specification that
 12 was prepared by the architect, Studio E. Were you aware
 13 of that at the time, that that particular product was in
 14 the NBS specification?
 15 A. I can't say for sure, because now that I've seen it,
 16 it's very difficult to work out when I saw that line in
 17 the specification.
 18 Q. Did you ever have any conversations with another
 19 different Celotex product being used, say RS5000, on the
 20 project? Did anyone ever discuss that with you at any
 21 stage?
 22 A. No.
 23 Q. I just want to show you something Mr Sounes said in his
 24 witness statement. This is at {SEA00014273/118}, and
 25 I want to look at paragraph 287.

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1 In the first sentence he says this:
 2 "With regard to the insulation, I refer you back to
 3 paragraphs 43.9 and 116.2 where I discuss how the
 4 insulation was selected by Max Fordham."
 5 Do you see that there?
 6 A. Yes.
 7 Q. I want to focus on the use of the word "selected".
 8 Do you agree that the insulation was selected by
 9 Max Fordham?
 10 (Pause)
 11 A. I know I did, I mean ... clearly I sent an email. It
 12 was selected in terms of the lambda value, and to kind
 13 of expand that to me saying, "This is what should be
 14 used" is, to me, quite a big jump.
 15 Q. Yes.
 16 A. And so, you know, I don't ... if you start -- you know,
 17 if you take the word "selected", what exactly does it
 18 mean? It's difficult. If you said, did Max Fordham
 19 specify the insulation, it would be, you know,
 20 an unequivocal no.
 21 Q. Yes.
 22 A. But selected, suggested ... I mean, I would say
 23 "suggested" to me is a more appropriate word.
 24 MS GRANGE: Okay. Thank you.
 25 Mr Chairman, I have come to the end of my questions,

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1 but it's customary at this point to take a short break
 2 to see if there are any others that have been suggested
 3 and check my notes, check I haven't missed anything.
 4 SIR MARTIN MOORE-BICK: Yes, of course.
 5 Well, Mr McQuatt, as you have heard, Ms Grange
 6 thinks she has reached the end of the questions she
 7 needs to ask you, but she needs to have a little time
 8 just to check that, and there are others who are not in
 9 this room who may wish to suggest questions as well.
 10 So we're going to have a break. I will say, what,
 11 12.40?
 12 MS GRANGE: Yes. I was going to suggest 12.35, but that's
 13 a bit ambitious.
 14 SIR MARTIN MOORE-BICK: I think it might be a bit ambitious.
 15 We will have a break until 12.40, and then we will
 16 see if there are further questions that we need to ask
 17 you. All right?
 18 THE WITNESS: Thank you very much.
 19 SIR MARTIN MOORE-BICK: Of course, don't talk to anyone
 20 about your evidence while you're out of the room.
 21 If you would like to go with the usher, she will
 22 look after you. Thank you.
 23 (Pause)
 24 12.40, then, please. Thank you.
 25 (12.28 pm)

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1 (A short break)
 2 (12.40 pm)
 3 SIR MARTIN MOORE-BICK: All right, Mr McQuatt, we will see
 4 if there are any more questions for you.
 5 Ms Grange.
 6 MS GRANGE: Just a couple.
 7 SIR MARTIN MOORE-BICK: Yes, very well.
 8 MS GRANGE: You said to us just this morning that when you
 9 went to the Celotex website, you went through
 10 a cascading process to get through to the calculations
 11 you wanted to find, the U-value calculations.
 12 Do you recall whether you were presented with
 13 an option for walls over 18 metres?
 14 A. I don't think I was. I have no recollection of that.
 15 Q. Sticking again with that episode, when you were looking
 16 for U-value calculations for -- you said initially the
 17 Kingspan product and then the Celotex product. Can we
 18 just go to something which we think you had earlier,
 19 this is {MAX00000104}. It's dated 6 July 2012, and do
 20 you remember we looked this morning at Mr Sounes saying
 21 he had heard back from Kingspan and it was going to be
 22 200 millimetres, and he attached a Kingspan document to
 23 that? That appears to be this. So it was sent to you.
 24 If we look on page 2 {MAX00000104/2} of this, we
 25 have Kingspan's U-value calculations, we can see, for

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1 a K15 product, Kooltherm K15. Do you see that there in
2 the middle of the table?
3 A. I do, yes.
4 Q. If you had these calculations -- this was 6 July 2012 --
5 why then on 16 August 2012, when you were looking at
6 Kingspan and Celotex, did you not just go back to these
7 calculations that you already had from Kingspan?
8 A. I must have forgotten that I had received them.
9 Q. Yes.
10 A. It would make perfect sense to go back to this. I don't
11 disagree with that at all. I don't know why I didn't.
12 MS GRANGE: Yes, okay, that's helpful. Great. Thank you
13 very much.
14 Mr Chairman, are those all my questions. Thank you.
15 SIR MARTIN MOORE-BICK: Well, Mr McQuatt, it just remains
16 for me to thank you very much for coming to give your
17 evidence. Those are all the questions we have for you.
18 It's been very helpful to hear what you have to tell us,
19 and thank you very much for doing so.
20 Can I just ask, have you got a long journey to make
21 back to the north now?
22 THE WITNESS: I'm not going back until tomorrow, so ...
23 SIR MARTIN MOORE-BICK: At least we have got through your
24 evidence quickly enough to enable you to do whatever you
25 need to do next, anyway.

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1 Thank you very much for coming and you are now free
2 to go.
3 THE WITNESS: Thank you very much.
4 SIR MARTIN MOORE-BICK: Thank you.
5 (The witness withdrew)
6 SIR MARTIN MOORE-BICK: Well, Ms Grange, that's probably
7 a convenient point to break, isn't it?
8 MS GRANGE: It is.
9 SIR MARTIN MOORE-BICK: We have another witness coming
10 waiting in the wings.
11 MS GRANGE: Yes, that's Mr Jon White, the clerk of works, is
12 coming this afternoon, and Ms Grogan is going to be
13 examining him. Could I suggest that we perhaps take the
14 lunch break now?
15 SIR MARTIN MOORE-BICK: That's what I was going to suggest.
16 MS GRANGE: And start at 1.45.
17 SIR MARTIN MOORE-BICK: Do you know whether Mr White is here
18 already?
19 MS GRANGE: He is here, but he needs a bit of time to --
20 SIR MARTIN MOORE-BICK: No, no, I just wanted to make sure
21 he wasn't asked for 2 o'clock.
22 MS GRANGE: Ah, no, he's here.
23 SIR MARTIN MOORE-BICK: In that case, we will break now,
24 take the hour for lunch now and resume at 1.45.
25 MS GRANGE: Thank you.

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1 SIR MARTIN MOORE-BICK: Thank you all very much, 1.45,
2 please.
3 Thank you.
4 (12.45 pm)
5 (The short adjournment)
6 (1.45 pm)
7 SIR MARTIN MOORE-BICK: Yes, Ms Grogan, you're going to call
8 the next witness, I understand.
9 MS GROGAN: Yes, Mr Chairman, it's Jon White.
10 SIR MARTIN MOORE-BICK: Thank you.
11 Would you ask Mr White to come in, please.
12 MR JONATHAN WHITE (affirmed)
13 SIR MARTIN MOORE-BICK: Thank you very much, Mr White.
14 Would you like to sit down and make yourself
15 comfortable.
16 THE WITNESS: Thank you.
17 SIR MARTIN MOORE-BICK: All right?
18 THE WITNESS: Yes.
19 SIR MARTIN MOORE-BICK: Yes, Ms Grogan.
20 Questions from COUNSEL TO THE INQUIRY
21 MS GROGAN: Thank you.
22 Can you please give the Inquiry your full name.
23 A. My full name is Jonathan White.
24 Q. Thank you very much for coming to give evidence today
25 and to assist the Inquiry with its investigations. I'll

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1 be asking you the questions today.
2 If you have difficulty understanding anything I'm
3 asking you, please ask me to repeat the question or to
4 put it a different way, and also please keep your voice
5 up so that the transcribers can hear you.
6 You have made one witness statement for the Inquiry.
7 It's in a folder on your desk.
8 A. Yes.
9 Q. It will also appear on the screen in front of you. Can
10 I please take you to the first page, which is
11 {JRP00000330}, so that we can see it. Then the last
12 page, page 9 {JRP00000330/9}. It's dated there
13 27 June 2019. Do you see that?
14 A. Yes.
15 Q. Is that your signature at the bottom?
16 A. It is.
17 Q. Can you confirm that the contents are true?
18 A. Yes, I can.
19 Q. Have you discussed your evidence with anyone before
20 coming here today?
21 A. Only with my lawyer.
22 SIR MARTIN MOORE-BICK: And when was that?
23 A. Before this had all started.
24 SIR MARTIN MOORE-BICK: Oh, some time ago?
25 A. No, just recently.

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1 SIR MARTIN MOORE-BICK: All right. Thank you.
 2 MS GROGAN: I'm going to ask you first about your
 3 qualifications and experience.
 4 You have set out your experience in your witness
 5 statement, going back to page 1 {JRP00000330/1}, please,
 6 at paragraphs 4 to 12. I'll just summarise it here for
 7 you, instead of reading it all out.
 8 After school, you attended a civil engineering
 9 college.
 10 A. Yes.
 11 Q. You then undertook a five-year management programme with
 12 Mowlem, which is a major construction company, and that
 13 included a one-year full-time City & Guilds
 14 qualification in concrete and general construction.
 15 A. Yes.
 16 Q. You were with Mowlem for 26 years.
 17 A. 25/26 years, yes.
 18 Q. Moving on now to page 2 {JRP00000330/2} of your
 19 statement, that continues your career history.
 20 You left Mowlem in 2000, and you say there you
 21 undertook various jobs, including surveying housing
 22 stock.
 23 Do we take it you mean there local authority
 24 housing?
 25 A. Yes.

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1 Q. You joined John Rowan and Partners in 2009 -- that's at
 2 paragraph 10 -- as a clerk of works to be contracted
 3 out. Is that right?
 4 A. Yes.
 5 Q. Then during your time at John Rowan and Partners, you
 6 spent five years as a full-time clerk of works at
 7 a project in Haringey.
 8 A. Correct.
 9 Q. Now, we have a copy of your CV which was included in
 10 John Rowan and Partners bid to KCTMO. If we could turn
 11 to that now, it's {JRP00000295/4}.
 12 Have you seen that in that format before?
 13 A. Yes.
 14 Q. So on this page at the right-hand side, we can see
 15 a list of projects that you have been involved with.
 16 The fourth bullet point down, Brunel University
 17 project, it refers there to having carried out external
 18 works. Did that include any cladding?
 19 A. No, it didn't. It was mainly re-roofing works and
 20 internal fitting out, painting, decorating.
 21 Q. Were those buildings high-rise buildings?
 22 A. No.
 23 Q. Next one down, Homes for Haringey project, is that the
 24 project where you were a full-time clerk of works for
 25 five years?

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1 A. Yes.
 2 Q. It says there works included major refurbishment works,
 3 internal kitchen and bathroom works, and complete M&E
 4 renewal, new roofs, cladding, windows and decoration.
 5 A. Yes.
 6 Q. Were those works similar in nature and scope to those at
 7 Grenfell Tower?
 8 A. No. No rainscreen cladding, apart from one job at
 9 Tulloch Court where we had a Rockwool and rendered
 10 re-cladding.
 11 Q. You answered my next question. Was that a high-rise
 12 building?
 13 A. It was, yes.
 14 Q. And you said there Rockwool and rendered?
 15 A. Yeah.
 16 Q. On that project, did your role include checking for
 17 compliance with the Building Regulations?
 18 A. No, we never had a role of checking compliance, but we
 19 checked that the Building Control officer was checking,
 20 and there was no issues.
 21 Q. Just pausing with your CV for a second, it says on the
 22 left-hand side that you joined JRP in 2006. Your
 23 statement says 2009. Is that an error in this version
 24 of your CV?
 25 A. Yes, it probably is. I did work for a period of time

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1 for John Rowan and Partners, not as a full-time -- or
 2 working full-time for them, so I think I worked for them
 3 for about six months before they asked me to go
 4 full-time.
 5 Q. Was that as a freelance contractor-type arrangement?
 6 A. Yeah. When I started, yes.
 7 Q. Aside from those projects listed on your CV, prior to
 8 2014, did you have any experience of the re-cladding of
 9 residential high-rise buildings?
 10 A. No.
 11 Q. Have you ever been involved in a building project that
 12 used ACM before, aluminium composite material?
 13 A. No.
 14 Q. What about PIR insulation in a rainscreen cladding
 15 system?
 16 A. No.
 17 Q. Or phenolic?
 18 A. No.
 19 Q. Was the Homes for Haringey project using the Rockwool
 20 and render system the only cladding project you've ever
 21 done?
 22 A. Well, cladding could be classified as anything that was
 23 on the outside of the building. So, yes, I've done lots
 24 of brickwork, some glazing, stonework, and other sort of
 25 cladding. But never rainscreen cladding, apart from the

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1 one at Tulloch Court.
 2 Q. So Grenfell was your second rainscreen cladding project?
 3 A. Yeah.
 4 Q. Your CV also states that you are MICW and MCIOW.
 5 A. Yeah.
 6 Q. We see that on the left. What does MICW stand for?
 7 A. Member of Institute of Clerk of Works.
 8 Q. And MCIOW is Member of the Chartered Institute of
 9 Building; is that right?
 10 A. Yes.
 11 Q. Do either of these memberships require you to carry out
 12 CPD?
 13 A. Yes. I've actually stopped being a member of MCIOW, but
 14 I'm still an MICW, and yes they do, and so does our
 15 company. Our company do training, regular training,
 16 yeah.
 17 Q. We'll come to that.
 18 MCIOW, then, when did you stop being a member?
 19 A. Oh, many years ago.
 20 Q. How many hours or points does the MICW require you to do
 21 in terms of CPD?
 22 A. I couldn't tell you offhand how many.
 23 Q. Between 2014 and 2016, were you compliant with your CPD
 24 requirements?
 25 A. I would say the number -- the training that JRP do is

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1 probably normally more than what is required.
 2 Q. Moving on to a new topic now, which is your awareness
 3 and knowledge of the Building Regulations.
 4 Were you aware of the requirements of schedule 1,
 5 part B, "Fire safety", of the Building Regulations 2010
 6 in 2014?
 7 A. Yes, I am aware of them, yes.
 8 Q. Were you aware of part B3, "Internal fire spread"?
 9 A. I am aware of them, yes.
 10 Q. B4, which is "External fire spread"?
 11 A. I mean, all the Building Regulations -- I have been in
 12 the industry 45 years, so I know -- I've got a general
 13 knowledge of them, but I wouldn't say I know everything
 14 about them.
 15 Q. Were you aware that there was a requirement in B4.(1)
 16 that the walls should adequately resist the spread of
 17 fire?
 18 A. Not specifically, no.
 19 Q. Were you familiar with the guidance in Approved
 20 Document B?
 21 A. Not specifically.
 22 Q. When you say not specifically, do you mean you knew it
 23 existed but you didn't know what it contained?
 24 A. Yes. Yes.
 25 Q. So would you have been aware at the time that there were

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1 different routes to compliance with the Building
 2 Regulations as set out in Approved Document B?
 3 A. Sorry, could you repeat that question?
 4 Q. Were you aware at the time that there were different
 5 routes to compliance with the Building Regulations set
 6 out in Approved Document B?
 7 A. Not specifically.
 8 Q. Were you aware that Approved Document B provided that,
 9 for buildings of 18 metres or more, insulation used in
 10 the external construction should be of limited
 11 combustibility?
 12 A. Not specifically.
 13 Q. Again, does not specifically mean not at all?
 14 A. I knew there were regulations regarding tall buildings
 15 but not -- I wasn't actually specifically -- I didn't
 16 know the exact knowledge.
 17 Q. Did you have an understanding of what the term "limited
 18 combustibility" meant?
 19 A. I think probably now I do, but maybe at the time
 20 I didn't.
 21 Q. Had you heard of the term "national class 0"?
 22 A. I have heard of it, yes.
 23 Q. Were you aware of what that meant at the time?
 24 A. No.
 25 Q. Were you aware at the time of working on Grenfell Tower

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1 what the requirements in relation to cavity barriers in
 2 an external wall were?
 3 A. I know if they're being specified that they were then
 4 required.
 5 Q. Perhaps if we go to the text of Approved Document B at
 6 this point, it's {CLG00000224/82}. So that's the
 7 guidance there, section 9 on concealed spaces.
 8 If we scroll down to diagram 33 so that shows up on
 9 the screen. Have you seen that diagram before?
 10 A. Yes.
 11 Q. Would you have been aware at the time of your work on
 12 Grenfell where cavity barriers ought to have been
 13 located in accordance with that diagram? So we see
 14 there at compartment floor lines.
 15 A. Yes.
 16 Q. Yes? Around the windows?
 17 A. Yes, they may be required or may not be, yeah.
 18 Q. When you say "may be required, may not be", Approved
 19 Document B guidance is that they should be around
 20 openings. In what circumstances would they not be
 21 required?
 22 A. When the design says so.
 23 Q. Is that all you would ask, you would just ask the
 24 question: does the design say they need to be provided?
 25 A. We don't check -- my role as site inspector, I don't

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1 check for compliance, but I check who is -- the person
2 who is doing compliance, which is Building Control, is
3 inspecting, and if they have any issues, that they
4 follow them up.

5 Q. We will come back to cavity barriers under a separate
6 topic later.

7 A. Okay.

8 Q. Have you ever attended any training or CPD on part B of
9 the Building Regulations?

10 A. No.

11 Q. Were you aware of industry guidance that provided
12 commentary on part B4 of the Building Regulations? So,
13 for example, BCA technical guidance note dated
14 18 June 2014, and I'll just give a transcript reference
15 here: for the transcript, it's {CEP00057294}.

16 A. No.

17 Q. Were you aware of the subsequent version of the BCA
18 technical guidance note, 18 June 2015?

19 A. No.

20 Q. For the transcript, that's {CEL00002347}.

21 What about the CWCT Technical Note 73?

22 A. No.

23 Q. That's again, for the transcript, {CWCT00000019}.

24 Were you personally aware of any previous fires that
25 had been linked to ACM cladding?

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1 A. No.

2 Q. Were you aware of the fire at Lakanal House in
3 Southwark?

4 A. Yes, I do remember it, but I didn't specifically
5 remember it as a cladding fire. I thought it was
6 a compartmentation fire.

7 Q. Were you aware of any of the fires that took place in
8 high-rise buildings in the UAE in 2012/2013?

9 A. No.

10 Q. Were you aware of the fire at Knowsley Heights in 1991?

11 A. No.

12 Q. And Garnock Court in Irvine in 1999?

13 A. No. When you say aware, aware at the time, but
14 obviously since then, since the fire, it's obviously
15 been well documented.

16 Q. Were you familiar with the CDM Regulations?

17 A. I was roughly familiar, yes.

18 Q. In your experience, how do the CDM Regulations apply, if
19 at all, to someone carrying out a clerk of works or site
20 supervisor, site monitoring role?

21 A. I would say it doesn't, the clerk of works or site
22 inspector wouldn't have any CDM responsibility.

23 Q. I'm now going to ask you about John Rowan and Partners
24 as a company.

25 You say in your statement at paragraph 10

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1 {JRP00000330/2} -- we don't need to go to it -- that at
2 the time you joined JRP, there were three clerks of
3 works working in your department. Was that the position
4 as at April 2014?

5 A. Yes.

6 Q. And that's three including you?

7 A. Yes, but that did vary, you know, month by month.

8 Q. Is that because JRP took in contractors to then hire
9 out, so freelancers?

10 A. No, we did have staff come and go.

11 Q. You have mentioned John Rowan and Partners providing CPD
12 and training to its employees; how often was that?

13 A. It's continual. They have -- often they have sessions
14 during lunchtime in the office, and they do have one or
15 two-day courses as well which we're encouraged to go on.

16 Q. Was any of that training mandatory?

17 A. Yes, there were some mandatory ones, like health and
18 safety training.

19 Q. Would health and safety include fire safety?

20 A. No, that would be general site safety.

21 Q. Did any of the John Rowan and Partners training cover
22 the regulatory requirements, such as the
23 Building Regulations?

24 A. No.

25 Q. Did it ever cover fire safety in terms of the safety of

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1 the construction of a building, rather than site safety?

2 A. No, the only aspect they did was fire risk assessment of
3 sort of existing buildings, and that would be to check
4 fire doors and smoke detectors, et cetera. It would be
5 on an existing building.

6 Q. Was fire risk assessment something you ever did as part
7 of your role?

8 A. No.

9 Q. Aside from formal CPD and training, were you expected to
10 keep up with industry knowledge about materials and
11 products that are used on building projects?

12 A. Yes, I expect we would always expect to, and I would
13 read Construction News or Building Magazine to try and
14 keep up with any information.

15 Q. Did any of the CPD that you undertook more broadly, so
16 not just what John Rowan and Partners provided, cover
17 part 4 of the Building Regulations?

18 A. No.

19 Q. Up to 2016, did you ever attend any industry seminars or
20 events where high-rise rainscreen cladding was covered?

21 A. No.

22 Q. If we go now to John Rowan and Partners' bid to KCTMO
23 for the Grenfell project, that's at {JRP00000295/16}.

24 While that document is coming up, did you see the
25 bid submitted to KCTMO at the time?

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1 A. No, I didn't, no.
 2 Q. So in the third paragraph of that page, it says there:
 3 "Furthermore CPD is paramount to our company and all
 4 staff are encouraged to obtain professional
 5 qualifications."
 6 We have discussed that.
 7 There is then a bullet point list at the bottom. It
 8 says:
 9 "During the past six months, our Clerks of Works
 10 have undertaken the following courses."
 11 Then it lists them there.
 12 A. Yeah.
 13 Q. Advanced domestic electrical and heating; UKATA asbestos
 14 training; FIRAS fire risk assessment training;
 15 condensation, damp and decay; equality and diversity; MS
 16 project; health and safety on site.
 17 Had you undertaken any of those courses?
 18 A. Yes, all of them.
 19 Q. And had you undertaken them before 2014?
 20 A. Yes. I believe so.
 21 Q. I'm now going to ask you some questions about JRP's
 22 contract with the TMO before the Grenfell refurbishment.
 23 Did you know that John Rowan and Partners was
 24 bidding for the Grenfell Tower job at the time?
 25 A. No.

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1 Q. You have said in your statement that you were not
 2 involved in the tender process, and you have said now
 3 that you weren't aware of the bidding. I think we can
 4 take it from that then that you had no input --
 5 A. No.
 6 Q. -- at all?
 7 A. No.
 8 Q. Did you see the invitation to tender from --
 9 A. No.
 10 Q. -- KCTMO?
 11 Did you see it at any point up to the fire? So is
 12 that a document that you have seen before the
 13 Grenfell Tower fire?
 14 A. Yes, I did get a copy of the tender document probably in
 15 the summer of 2015. That's the first time I saw it.
 16 Q. Before the summer of 2015, did Mr Virdee ever explain to
 17 you what it said?
 18 A. No.
 19 Q. Did he explain to you the duties it set out that the
 20 clerk of works was expected to undertake?
 21 A. No, Mr Virdee would never -- he was not my direct line
 22 boss. That would be somebody else, Luis Zarraoa.
 23 Q. Did Mr Zarraoa ever tell you what was in the invitation
 24 to tender and what it required of a clerk of works?
 25 A. No, but he just outlined the job, really.

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1 Q. What did he say?
 2 A. That it was a refurbishment job, tower block, and
 3 roughly described what work was going on, and in order
 4 for me to familiarise it with myself and work out what
 5 I was going to do, was to meet the client,
 6 Claire Williams, at the beginning of the job and
 7 determine what we were to do.
 8 Q. Now, you have told us that you were then provided with
 9 a copy of the invitation to tender in summer 2015; did
 10 you read it?
 11 A. Yes.
 12 Q. We'll look at some of the specific terms in a second.
 13 Were you aware that, under the design and build
 14 contract with Rydon, the KCTMO did not have
 15 an obligation to engage a clerk of works?
 16 A. Was I aware of it?
 17 Q. Yes.
 18 A. No.
 19 Q. Were you ever told why KCTMO decided to appoint a clerk
 20 of works?
 21 A. No.
 22 Q. Did you attend an interview with the TMO before
 23 John Rowan and Partners won the tender?
 24 A. No.
 25 Q. Were you aware that Mr Batty had?

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1 A. I found out later.
 2 Q. Mr Batty is Tony Batty, who was the other clerk of works
 3 employed as a subcontractor to JRP to do M&E work; is
 4 that right?
 5 A. Site inspector, yes, yeah.
 6 Q. Can we go now, then, to the invitation to tender which
 7 is at {JRP00000011/1}.
 8 We see there it's entitled "Site Monitoring and
 9 Supervision Services, Improvements and Enhancements and
 10 to Grenfell Tower".
 11 Going on to page 4 {JRP00000011/4}, please, at the
 12 top under the heading "Requirements, General", it
 13 states:
 14 "KCTMO requires an organisation to provide two
 15 clerks of works to assist in the supervision and
 16 monitoring of the works. One clerk of works should have
 17 experience in mechanical and electrical installations
 18 and the other with building works (ideally with
 19 experience of the installation of external cladding)."
 20 Then it goes on to outline what the anticipated time
 21 requirement would be.
 22 Were you aware in 2014 that KCTMO had specifically
 23 asked for someone with experience of cladding?
 24 A. At what time, the beginning of the job?
 25 Q. Yes, at the beginning of the job.

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1 A. No.
 2 Q. Do you know if KCTMO were ever informed that you had
 3 only been involved in one cladding project -- one
 4 rainscreen cladding project before this job?
 5 A. Yeah, I think you need to -- I mean, the cladding, as
 6 I said before, cladding could be anything: it could be
 7 brickwork, glazing, stonework. So, you know, I have got
 8 lots of experience in cladding.
 9 Q. But do you know if KCTMO were ever informed that you had
 10 only been involved in one rainscreen cladding project?
 11 A. I don't know.
 12 Q. Further down in the box, so further down the page to the
 13 next half, we see there that the ITT sets out the
 14 duties, and it says:
 15 "The duties of the clerk of works shall comprise,
 16 but not be limited to ..."
 17 Second bullet:
 18 "Have access to the drawings and specification, and
 19 be familiar with the same; using them as a reference
 20 when inspecting the work."
 21 Do you see that there?
 22 A. Yes, I do, yeah.
 23 Q. Sixth bullet:
 24 "Taking measurements and samples on site to make
 25 sure that the work and the materials meet the

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1 specifications and quality standards."
 2 And third bullet from the bottom:
 3 "Being familiar with legal requirements and checking
 4 that the work complies with them."
 5 Do you see that?
 6 A. Yes, I do.
 7 Q. Would you say that description accords with the tasks
 8 a clerk of works normally undertakes?
 9 A. Yes.
 10 Q. In relation to being familiar with legal requirements
 11 and checking that the work complies with them, is that
 12 something you had been told by your line manager in 2014
 13 would be required of you?
 14 A. Sorry, could you say question again, please?
 15 Q. So in 2014 --
 16 A. Yeah.
 17 Q. -- that third bullet from the bottom, being familiar
 18 with legal requirements --
 19 A. Yeah.
 20 Q. -- did Mr Zarraoa tell you that that was going to be
 21 part of your duties?
 22 A. Not specifically, but by checking that the legal
 23 requirements were fulfilled by other people, I would say
 24 that that's what I did.
 25 Q. So you considered that to be part of your role, it

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1 didn't need to be said?
 2 A. Yeah, part of my site inspector's role is always to
 3 check whether Building Control had visited site and
 4 whether they had any issues and whether they were
 5 resolved.
 6 Q. There's a difference between checking whether
 7 Building Control had checked and checking for yourself.
 8 Is it your evidence that that duty required you to check
 9 that Building Control were checking?
 10 A. Correct.
 11 Q. But not that you had to check for yourself that the work
 12 complied with legal requirements?
 13 A. Correct.
 14 Q. What did you understand legal requirements to be?
 15 A. Well, I think my requirements on site was two legal
 16 requirements: first it was the health and safety, and
 17 the other was the Building Regulations.
 18 Q. So you agree legal requirements would include
 19 Building Regulations?
 20 A. Yes.
 21 Q. In the industry, is it a standard requirement for clerk
 22 of works to carry out that role, being familiar with
 23 legal requirements and checking compliance?
 24 A. I would say no, not for actual checking compliance. We
 25 never check or sign off for compliance.

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1 Q. We're going to go into some more detail about the scope
 2 of your role on the Grenfell project, but at this stage,
 3 having seen those duties, would you say they are more
 4 consistent with a site supervision role or more
 5 consistent with a clerk of works role?
 6 A. This looks like a general clerk of works specification,
 7 a role what they do.
 8 Q. So in his witness statement to the Inquiry, Tony Batty
 9 describes his role, and if we pull that up, that's
 10 {SDA00000238/9}. He says there at paragraph 36, which
 11 is about two-thirds of the way down, second sentence:
 12 "If there were aspects of the installation which
 13 I inspected that appeared not to be in compliance with
 14 Building Regulations I would note that in my reports,
 15 but it was the standard of installation rather than the
 16 design which I was checking."
 17 Is that what you did too on site?
 18 (Pause)
 19 A. As I walked round, I -- if I saw anything that ... like
 20 for instance any fire doors or anything that I saw that
 21 I felt didn't comply, then I'd actually bring it up in
 22 my report, but I never actually checked the details of
 23 the compliance. That was done, I think, by
 24 Building Control.
 25 Q. Had you familiarised yourself with the requirements of

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1 the Building Regulations as they would apply to
 2 an external rainscreen cladding system before --
 3 A. No.
 4 Q. -- commencing your role?
 5 A. No.
 6 Q. So in terms of being able to note any obvious
 7 non-compliances, you wouldn't have been equipped to do
 8 that, would you?
 9 A. No.
 10 Q. Why didn't you familiarise yourself with the
 11 requirements of the Building Regulations?
 12 A. That wasn't my role.
 13 Q. I'll move on now to ask you some questions about the
 14 scope of your role.
 15 If we go back to your statement at paragraph 13,
 16 which is on page 2 {JRP00000330/2}, you say there:
 17 "It is important, in my opinion, to explain that
 18 there seems to be a misunderstanding in what my role,
 19 and by association that of my employers JRP, was on the
 20 Grenfell Tower Project. Whereas I have stated, above,
 21 that I was a full time [clerk of works] on the Haringey
 22 council project this was due to the fact that I was
 23 involved in the whole building project each and every
 24 day. In respect of my role on the Grenfell Tower
 25 project, a more accurate description of my role and

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1 function was one of Site Inspector or Site Monitor of
 2 works. This was because our role was far more limited
 3 in its scope and our overall involvement."
 4 A. Yes.
 5 Q. You then go on to explain the difference between a clerk
 6 of works and site inspector/monitor in paragraphs 14
 7 and 15. If I can summarise, you say a clerk of works is
 8 based full-time on a particular project for the whole
 9 project.
 10 A. Yeah.
 11 Q. And a site inspector/monitor visits site on
 12 an intermittent basis and tends to have a far more
 13 limited role.
 14 What do you mean by far more limited role?
 15 A. A site inspector role is purely dedicated by or
 16 instructed by the client of what they want, in terms of
 17 what we need to inspect, how long our visits were, if
 18 they wanted a -- what sort of report. But generally,
 19 a site inspector would carry out the snagging at the end
 20 of the job or to check all the finishes. So it would
 21 be -- the snagging would be consistent, but the actual
 22 duration, the type of report, what they want to look
 23 for, varies according to different projects and
 24 different clients.
 25 Q. What would you say is the difference between a site

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1 inspector and a clerk of works?
 2 A. I would say the clerk of works is generally a term used
 3 as a person who would be involved with the job from
 4 right at the beginning of the job, from design, going
 5 through planning, pre-contract meetings, to looking
 6 after the actual construction, and then doing all the
 7 snagging, and then maybe 12 months after, checking the
 8 12-month defects. So the role would be completely --
 9 from right at the beginning of the job to right at the
 10 end, and even after the defects.
 11 SIR MARTIN MOORE-BICK: Can you help me with this: if you
 12 were instructed as a classic clerk of the works, so to
 13 speak, would you expect to produce regular, as it were,
 14 descriptive reports on what was going on?
 15 A. No, because I would be there all the time, and I would
 16 be -- I'd be there at all the site meetings, I would
 17 have my own office, I'd have all my drawings, so
 18 I wouldn't have to report; I'd be there all the time,
 19 so --
 20 SIR MARTIN MOORE-BICK: Would you be recording what was
 21 going on?
 22 A. Yes. I would have a -- normally you would have a diary,
 23 a daily diary, you would record everything, and you
 24 would be involved in all the decisions and all the
 25 meetings and, you know, a much fuller role than a site

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1 inspector.
 2 SIR MARTIN MOORE-BICK: You would then be, would you, the
 3 eyes and ears of the building owner?
 4 A. Correct, of the client, yes.
 5 SIR MARTIN MOORE-BICK: Whereas, if I have understood you
 6 correctly, forgive me, if you're a site inspector, the
 7 degree of your interest, shall I say, and reporting is
 8 a matter for the client to tell you what he wants you to
 9 do?
 10 A. That's right.
 11 SIR MARTIN MOORE-BICK: That's helpful. Thank you very
 12 much.
 13 Sorry, Ms Grogan.
 14 MS GROGAN: Thank you, that's very helpful.
 15 So, so far as I understand your evidence, in both
 16 cases you would be reporting to, as is often described
 17 on a construction contract, the employer?
 18 A. Actually, originally, the clerk of works would normally
 19 be employed by the architect. But recently it's
 20 normally the client.
 21 Q. Under design and build contracts specifically, what's
 22 the practice?
 23 A. Oh, it's normally the client.
 24 Q. Thank you.
 25 So would a site inspector become familiar with the

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1 drawings and specifications and use those as a reference
 2 for checking the work?
 3 A. No, not necessarily totally familiar. You know, if
 4 there was issues or when I was doing my site inspection
 5 if there was areas where I was unsure of things, then
 6 I would then go back to the office and check the
 7 drawings or specification then.
 8 Q. Would a site inspector take measurements on site to make
 9 sure materials and work meet the specification and
 10 quality standards?
 11 A. Not unless I was requested.
 12 Q. Would a site inspector check for compliance with legal
 13 requirements?
 14 A. Only check that the compliance team was checking, and
 15 they had no issues, and if so, I report them in my
 16 report.
 17 Q. So the answer to the first two is no, but the third one
 18 is yes, a site inspector would check that
 19 Building Control had been on site?
 20 A. Yes. Yes.
 21 Q. Having looked at the invitation to tender with me, do
 22 you agree that it was intended that JRP would do all of
 23 those things?
 24 A. Erm ... I've seen lots of tenders, and they promise the
 25 Earth, and they talk about lots of things, but,

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1 you know, as a site inspector, really we would be
 2 focusing on speaking to the client and see what they
 3 wanted done, and that's what happened at Grenfell.
 4 Q. When you saw the tender then in 2015, were you surprised
 5 to see those obligations set out there?
 6 A. No, it's a general clerk of works, site inspection
 7 description.
 8 Q. But your evidence is that you were carrying out the site
 9 inspection role.
 10 A. Yes.
 11 Q. And that a site inspection role is more limited --
 12 A. Yes.
 13 Q. -- than a clerk of works role. So why weren't you
 14 surprised, then, to see all of the duties for a clerk of
 15 works set out?
 16 A. Because often the client puts everything down as a clerk
 17 of works. So, you know, the term clerk of works is
 18 confusing to a site inspector.
 19 Q. You go on to say at paragraph 16, which is at the bottom
 20 of that page that we have up, that:
 21 "From experience the role and scope of services of
 22 CoW and Site Inspector varies very much from client to
 23 client."
 24 Then moving on to the next page {JRP00000330/3}, the
 25 paragraph continues, and you have already explained this

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1 to us today, you say:
 2 "A lot however, depends on what the client considers
 3 a Clerk of Works or a Site Inspector's role to be, and
 4 what they require out of the role."
 5 A. Yes.
 6 Q. And that can vary from project to project.
 7 On the basis of what you have said there and what
 8 you have said to the Inquiry today, would you agree that
 9 the written terms of appointment are therefore
 10 an important reference point for defining what the clerk
 11 of work's role is to be?
 12 A. No, not really, on the tender, no. I would say the most
 13 important thing would be our meeting with the client.
 14 Q. Do you agree that calling someone a clerk of works or
 15 a site inspector doesn't on its own tell you what that
 16 person has been contracted to do?
 17 A. Yes, people do mix up the two.
 18 Q. Would you agree that the terms are often used
 19 interchangeably in the industry?
 20 A. Yes.
 21 Q. Would you agree that it's not the case that a clerk of
 22 works has to be on site every day?
 23 A. Depending on the job. If it's a big job, I would say
 24 yes, definitely, but even if it's a little job, I would
 25 expect the clerk of works to be there right at the

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1 beginning, on the conception, the design stage, and
 2 being involved with all the site meetings, and then go
 3 all the way through and then do the defects. So it's
 4 more being involved throughout the length of the job.
 5 Whereas, for instance, Grenfell, I started in -- my
 6 first visit was in February 2015, my first official
 7 visit, which was some seven/eight months after the job
 8 had started.
 9 Q. In his witness statement to the Inquiry -- and we don't
 10 need to bring it up, but the reference is
 11 {SDA00000238} -- Mr Batty doesn't make the distinction
 12 that you make between the role on Grenfell as a site
 13 supervisor and a clerk of works.
 14 A. Yeah.
 15 Q. Did you ever discuss the scope of your role with him at
 16 the outset of the project?
 17 A. Not specifically, no. No.
 18 Q. So you never sat down together and agreed: well, we're
 19 being site inspectors on this job, not clerks of works,
 20 and so that affects what we're going to do?
 21 A. I don't think it really made a difference. We discussed
 22 that he would be looking after the M&E and I would be
 23 looking after the building works.
 24 Q. Staying with your witness statement on page 3
 25 {JRP00000330/3}, if we go down the page to paragraph 20,

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1 you say there that:
 2 "We (JRP or myself) were never provided with
 3 a formal brief or description of what my actual role or
 4 specific remit was, until I attended a meeting on
 5 16th September 2014 with the client ..."
 6 A. Yes.
 7 Q. If we go now to {JRP00000010}, and scrolling down the
 8 page to the email at the bottom, this is an email from
 9 Claire Williams to Gurbal Virdee dated 8 July 2014.
 10 We have heard that Mr Virdee is not your line
 11 manager, but he was the person leading on the bid to
 12 KCTMO, wasn't he?
 13 A. Yes.
 14 Q. She says there:
 15 "I am writing to introduce myself as the project
 16 manager for Grenfell Tower, for which your organisation
 17 was appointed general building clerk of works on 12 June
 18 2014.
 19 "I am just reviewing the terms of your appointment
 20 to make sure that I understand the exact basis of the
 21 appointment, and will be in contact with you probably
 22 next week."
 23 Did you see that email at the time?
 24 A. No.
 25 Q. Did Mr Virdee ever tell you that the terms of

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1 appointment were still under review?
 2 A. No.
 3 Q. She describes JRP there as a general building clerk of
 4 works, not as a site inspector. If we scroll up on that
 5 page to the next email, which is Mr Virdee's reply,
 6 second line, he also refers to you there as a general
 7 building clerk of works. Do you see that? So:
 8 "Our general building clerk of works is likely to be
 9 Jon White ..."
 10 A. Yes.
 11 Q. Were you aware that Mr Virdee had described your role to
 12 Claire Williams in that way?
 13 A. I wasn't aware, no, but I can see it now.
 14 Q. Do you accept that that may have caused some confusion
 15 as to what the nature of your role actually was going to
 16 be?
 17 A. It's the confusion of the clerk of works and site
 18 inspector. I mean, I would always clarify that by --
 19 when we had a talk with the client, we would determine
 20 what our role was.
 21 Q. Did you clarify that with Claire Williams on
 22 16 September?
 23 A. Yeah, we talked about what she wanted us to do, and
 24 that's what we did.
 25 Q. Did you ever say to her, "I am not a clerk of works,

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1 I am a site inspector"?
 2 A. No.
 3 Q. Did you ever explain to her what the difference in your
 4 mind between those two things was?
 5 A. No, because, you know, everyone gets confused about the
 6 term clerk of works and site inspector, so we were
 7 anxious just to carry on and do whatever she wanted us
 8 to do.
 9 Q. Going now to another chain of emails which is
 10 {JRP00000334/2}, please, zooming in at the top we see
 11 this is an email from Luis Zarraoa to you and
 12 Tony Batty --
 13 A. Yes.
 14 Q. -- containing his notes of the meeting with
 15 Claire Williams on 16 September. That's the meeting we
 16 were just talking about.
 17 A. Yeah.
 18 Q. Was it the three of you who attended for JRP?
 19 A. Yes.
 20 Q. And of course, Tony Batty was employed by a separate
 21 company, but he was a subcontractor, I should just make
 22 that clear.
 23 A. Yes.
 24 Q. From what you said already, it's clear you recall that
 25 meeting, don't you?

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1 A. Yes.
 2 Q. Can you recall what Claire Williams said to you about
 3 what she wanted you to do on site?
 4 A. I think a lot of the notes are there. She wanted us to
 5 be her eyes and ears, and specifically she wanted us to
 6 include in our reports the KPI, she wanted us to record
 7 any issues to her only, to report to her, and she was
 8 very concerned with the residents and she said,
 9 you know, "Please can you make sure the residents are
 10 happy with the works and keep a good eye on them".
 11 Q. So under the heading there "[Clerk of works] role", just
 12 at the bottom, it says:
 13 "No instructions but report back to client ... and
 14 to Max Fordham ..."
 15 Does this mean that you were not given more detail
 16 about what your role was to be?
 17 A. No, I think that was -- I mean, again, if you look at
 18 different roles, a clerk of works role, you would be
 19 able to issue instructions, but she specifically said we
 20 were not to issue any instructions.
 21 Q. I see. So that means don't issue instructions, not we
 22 have no instructions about what we're required to do?
 23 A. Yes.
 24 Q. I see that, yes.
 25 Did you form the impression at the time of that

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1 meeting that you were not being asked to perform
 2 a typical clerk of works role?
 3 A. Yes.
 4 Q. And on what basis was that?
 5 A. Well, the biggest basis was that here we were, we were
 6 meeting in September and the job had already started in
 7 June. So, you know, if it was a clerk of works role, it
 8 would be -- we would be already involved with everything
 9 that's going on.
 10 Q. I see.
 11 On page 3 of that email {JRP00000334/3}, you will
 12 see there is a number of headings there. Under "Items
 13 to flag up", it says:
 14 "Building fabric: cladding, windows, internal
 15 finishes."
 16 So you were specifically asked to look at the
 17 cladding, the windows and the internal finishes?
 18 A. Yes.
 19 Q. Did Ms Williams say anything in particular she was
 20 asking you to look out for?
 21 A. No. That was general items.
 22 Q. Under the heading, "Info required from KCTMO", which is
 23 right at the very bottom, I think we need to scroll
 24 down, it says:
 25 "Spec of works and MI manufacturers instructions."

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1 So were you expecting to have a copy of the
 2 specification for the project?
 3 A. I think in an ideal world that would be nice, but in
 4 reality it very rarely happens, and what happens, when
 5 we go to site, obviously there would be a copy of the
 6 specification there and drawings there. I mean, often
 7 the case I had maybe five jobs in a week, so I'd one job
 8 a week -- so it would be impossible for me to have five
 9 lots of drawings and specifications. So I normally use
 10 that information when I go to site and I know it's up to
 11 date.
 12 Q. So it's easier for you to have all that documentation
 13 on site rather than to take it away and --
 14 A. Yes.
 15 Q. -- read it another time?
 16 A. Yes.
 17 Q. What did you mean by specification there at that
 18 meeting?
 19 A. Well, specification of the job.
 20 Q. Would that be the NBS specification?
 21 A. Yes.
 22 Q. Would that also be specifications of subcontractors that
 23 were building on the NBS?
 24 A. No, we wouldn't normally get a copy of that, but we
 25 wouldn't normally get a copy of the specification. We

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1 would normally observe it and look at it when we went to
 2 the site office.
 3 Q. Why did you ask for it at this meeting, then, if it was
 4 more convenient for you and it's normal practice to just
 5 view it on site?
 6 A. Erm ... I think, certainly regarding Luis, he likes to
 7 if possible have copies of the specification, but maybe
 8 it's more for him than for me. I mean, I know where the
 9 specification is, it's in the site office. So I know --
 10 maybe he would like to keep a copy of that for each job
 11 in the office.
 12 Q. What was meant by "manufacturers instructions"?
 13 A. I don't know.
 14 Q. Would you normally expect to see copies of
 15 manufacturers' instructions on site?
 16 A. On site, yes. They would have all the relevant
 17 information on site.
 18 Q. When you went to the site office, would you actually
 19 check these documents?
 20 A. No, not unless there was a reason to check them.
 21 Q. So it wouldn't be that on your first day on the job you
 22 would go to the site office and review the
 23 NBS specification?
 24 A. No. I mean, when I got my first day of the job, which
 25 was in -- official -- which was in February 2015,

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1 you know, the whole site was alive with people, things
 2 going on. So I think I really wanted to get out and see
 3 what was going on.
 4 Q. So I can take it from that on Grenfell, then, you didn't
 5 look at the NBS on day one.
 6 A. No.
 7 Q. Did you ever look at it?
 8 A. Occasionally, yes.
 9 Q. What sort of things were you checking it for?
 10 A. If there was -- you know, I would walk around the site,
 11 and if there was anything I wasn't sure of, then if
 12 I needed to check the specification, I would. I think
 13 there was -- there may have been some examples of that.
 14 I think on some of the newly built flats, there was no
 15 heat detector in the new kitchens, and I thought that
 16 was a bit odd, so I checked the specification.
 17 Q. We'll come back to the NBS later when we talk about the
 18 cladding.
 19 Going now, then, to {JRP00000332/2}, which is
 20 another set of emails. This is an email from
 21 Claire Williams to Luis Zarraoa. Did you see this at
 22 the time?
 23 (Pause)
 24 A. Yes, I think I got a copy of that.
 25 Q. So in the first full paragraph there, about halfway

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1 through, she says that she would like to skew the number
 2 of days potentially for each clerk of works, which was
 3 originally proposed as 40 days each, so that's 80 days
 4 in total.
 5 A. Yes.
 6 Q. But she says there she needs more for M&E.
 7 A. Yes.
 8 Q. Is that what actually happened, that Tony Batty was on
 9 site more than you were?
 10 A. Yes, I think certainly at the beginning she was -- she
 11 implied that she didn't want me there to start with,
 12 but, as there was lots of M&E going on, she wanted Tony
 13 there earlier. And also she implied that she'd want
 14 Tony more than me.
 15 Q. So did you get the impression that she was more
 16 concerned with M&E than with the general building words?
 17 A. Yes, at that stage, yes.
 18 Q. At that stage; did that concern continue throughout the
 19 project or was there a time when the TMO became more
 20 concerned with what you were doing?
 21 (Pause)
 22 A. I'm not sure. Can you say that question again?
 23 Q. So you said at that stage Claire Williams was more
 24 concerned with M&E than she was with general building
 25 work.

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1 A. Yes.
 2 Q. Did that ever change?
 3 A. I would say it equalled out further on down the line.
 4 Q. When would that have been?
 5 A. So when we officially started, which was -- when
 6 I officially started in February, and that was only
 7 actually twice on that month, but maybe in March, when
 8 we were both visiting regularly then, every week,
 9 according to requirements.
 10 Q. So under item 1 there, we see KPI. She is asking you to
 11 report on quality workmanship, health and safety and
 12 progress.
 13 A. Yes.
 14 Q. Did you get the impression that progress and keeping to
 15 programme was a priority for the TMO?
 16 A. Yes, one of their priorities, yes.
 17 Q. Moving down the page, then, to item 2, which is just on
 18 the second half of the page, you see there the heading
 19 "Specification".
 20 A. Yes.
 21 Q. She says:
 22 "The other thing I said I would get to you is
 23 specification information - which is all on line. I
 24 have no hard copies."
 25 There is a link there.

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1 A. Yes.
 2 Q. Did you ever click on that link, did you access it?
 3 A. Yes, we did try to, but we could never achieve the full
 4 information, and there was lots of emails and phone
 5 calls about that, and eventually what we could obtain
 6 was only a very limited part of the specification, which
 7 was quite a period after we started. But, again, as far
 8 as Tony and I was concerned, we could check the
 9 specification when we needed on the site.
 10 Q. Which part of the specification did you manage to obtain
 11 in the end?
 12 A. It was Tony, actually, that actually managed to get in.
 13 I think there was only heating or rainwater pipes or
 14 something like that. It was a very limited part of the
 15 specification. I think it's all recorded in the emails,
 16 if you go through all the emails.
 17 Q. Under item 3 there, "AOB", it says:
 18 "Further to some of Jon's comments, I confirm:
 19 "A Windows- I have asked Rydon to send [through]
 20 sill section drawings earliest ..."
 21 Did that ever happen?
 22 A. No, I never actually got the drawings. I mean, my
 23 observation there was in my experience we've had a lot
 24 of problems with pigeons, and to tell her that maybe she
 25 needed to think about pigeon protection to the eills.

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1 Q. So the reason for asking for the window drawings was
 2 about pigeons rather than to familiarise yourself with
 3 how they were going to be constructed?
 4 A. Yes, yeah.
 5 Q. At the meeting, did you discuss the legal requirements
 6 for the project, so the Building Regulations --
 7 A. No.
 8 Q. -- in particular?
 9 Were you told by Claire Williams that you were not
 10 to check that the works complied with legal
 11 requirements?
 12 A. No.
 13 Q. Did she give you any instructions about how you were to
 14 liaise with Building Control?
 15 A. No, we never liaised with Building Control whatsoever.
 16 We had no official time with them at all. We never got
 17 invited to any of their meetings, never asked to talk to
 18 them at all.
 19 Q. We will come back to that under a separate topic.
 20 A. Okay.
 21 Q. In the email, Claire Williams refers to you and to
 22 Tony Batty as clerk of works rather than site inspector.
 23 Did you think to correct her at the time that she should
 24 call you a site inspector?
 25 A. No, I think everyone mixes us up, the role, so we're

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1 quite used to it .
 2 Q. If we go now to {JRP00000336/2}, that's an email from
 3 Tony Batty dated 1 October, and you have referred in
 4 your evidence just now to having a back and forth with
 5 the TMO about not being able to access the link?
 6 A. Yes.
 7 Q. This email mentions that --
 8 A. Yes.
 9 Q. -- in the first paragraph, and he says:
 10 "It may be better to have everything printed off by
 11 TMO and for me to collect it, what do you think?"
 12 So Tony Batty there seems to want the hard-copy
 13 drawings.
 14 A. Yes.
 15 Q. But that's not something you felt you needed?
 16 A. No, I knew it would be in the office, the site office.
 17 Q. Do you know if that ever happened, if he got hard copies
 18 provided for him?
 19 A. I don't know. You have to ask him.
 20 Q. He mentions in that email as well that he had his site
 21 induction on 1 October. Your induction was 15 October,
 22 wasn't it?
 23 A. Yes, I believe so.
 24 Q. And we can find that in paragraph 25 of your witness
 25 statement {JRP00000330/4}.

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1 A. Yes.
 2 Q. What did the induction cover?
 3 A. Basically general site rules, and safety rules, fire
 4 egress, and that was it, really. And then we got
 5 a Rydons jacket at the end of it.
 6 Q. So it was more about rules for being on site rather than
 7 the nature of the works?
 8 A. Yes.
 9 Q. Did you discuss the scope of your role with Rydon
 10 personnel at that meeting?
 11 A. No.
 12 Q. Did you explain to them that you were just there for
 13 site inspection, not clerk of works?
 14 A. No, just said we're there as a site inspector and we
 15 would be coming regularly when the time -- when we were
 16 instructed.
 17 Q. Did you explain that you were not checking for
 18 compliance with Building Regulations?
 19 A. No.
 20 Q. Did you discuss the cladding at all?
 21 A. No.
 22 Q. Were you shown any drawings?
 23 A. No, I mean, I was there a very limited time, you know,
 24 it was a quick in and out job, really, you know. It was
 25 very quick. I did however do a mock report as well. So

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1 I wasn't there for very long talking to them at all.
 2 Q. Yes, we're coming on to your mock report now.
 3 A. Yes.
 4 Q. We don't need to look at the report itself, but you send
 5 it to Claire Williams, and the reference is
 6 {JRP00000338/3}. There is an email from you,
 7 17 October:
 8 "Hi Claire,
 9 "Please find enclosed our first site inspection
 10 report ..."
 11 If we go back a page now to page 2 {JRP00000338/2},
 12 at the bottom we have an email from Claire Williams of
 13 20 October 2014:
 14 "Jon
 15 "I have not agreed a start date for you yet, and
 16 only found out last week that you had had an induction.
 17 "I need to monitor the works and your hours - which
 18 are not yet agreed."
 19 Then she asks Luis to ring her.
 20 She refers to not having agreed a basis for your
 21 service. What did you understand that to mean?
 22 A. I think she was -- she didn't want us to start yet, or
 23 me to start yet, so it was just a question of start
 24 date.
 25 Q. Did you get the impression from TMO that cost was

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1 a concern?
 2 A. Only that -- only what she said, was that, you know, she
 3 was obviously checking the hours.
 4 Q. We've already noted that you and Tony Batty were to
 5 spend 80 days on site split between you.
 6 A. Yeah.
 7 Q. Having done your job now and knowing what you know about
 8 the project, did you consider that to be sufficient?
 9 A. I can't remember. I mean, you would be able to work
 10 out, or someone would be able to work out, how many
 11 hours we did, how many, because we did -- at the end of
 12 2015 we did more than one day a week. But I think
 13 initially that was sufficient to what she wanted us to
 14 do.
 15 But, however, when so much works was going on at the
 16 same time, especially when the snagging was going on,
 17 then I asked her, you know, "We need more time to do
 18 that work", which we eventually got at the end of 2015,
 19 I think. For a small period we had -- we were working
 20 there two days a week.
 21 Q. So to sum that up in a nutshell, at the time you never
 22 felt, "I don't have enough time to do this job
 23 properly"?
 24 A. No, not for what she wanted, yes.
 25 Q. Were you aware of what others on the project thought

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1 your role was?

2 A. No.

3 Q. Do you think that describing yourself as a clerk of

4 works, for example, by issuing clerk of works reports as

5 they were titled, that others working on the project may

6 have misunderstood what your role was?

7 A. Yeah, maybe, yes.

8 Q. If we could go to Claire Williams' witness statement,

9 that's {TMO00840364/7}, and paragraph 34, please. She

10 says there:

11 "TMO also engaged John Rowan and Partners as Clerk

12 of Works to inspect the various works on site. This

13 included inspection of workmanship and quality to ensure

14 works were carried out as designed and to challenge

15 Rydon when necessary if there were shortcomings."

16 A. Yes.

17 Q. "They also had a role to report on health and safety

18 issues. This was an additional tier of inspection ..."

19 Do you agree with her summary there of what she

20 asked you to do.

21 A. Yes.

22 Q. So part of your role was to ensure that works were

23 carried out as designed?

24 A. Yes, but not necessarily compliance.

25 Q. But certainly checking to make sure that what was

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1 installed reflected what had been designed?

2 A. Which we did in a way that we checked that the people

3 signing off that compliance had signed it off.

4 Q. It's a slightly different question I'm asking, which is:

5 were you checking what was installed on site against the

6 design to see that it matched?

7 A. Not specifically.

8 Q. Not specifically or not at all?

9 A. Well, again, I would say that, by checking that

10 Building Control were checking the design, and they had

11 no issues, that we were.

12 Q. So is it your evidence that it's Building Control who

13 are to check whether what's installed matches the

14 design?

15 A. Yes.

16 Q. Okay. So is all you really did on site to check whether

17 Building Control were coming?

18 A. And what -- and if they had any issues and they were

19 inspecting and there was no problems.

20 Q. Then in terms of workmanship, you were just checking to

21 make sure there is no damage --

22 A. Correct.

23 Q. -- to materials that were being installed?

24 A. Yeah, was there anything that was falling off or it was

25 loose, or ... our main role was to check the finished

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1 product. So we'd do the finishing snagging.

2 Q. I see.

3 You were engaged, and we will go into more detail on

4 this later, but it wasn't just snagging, was it, you

5 were on site before the snagging happened?

6 A. Yes.

7 Q. And you were checking works as --

8 A. Yes.

9 Q. -- they went along before snagging?

10 A. Yes, we were observing everything that went on, yeah.

11 Q. Peter Maddison of the TMO has also described your role.

12 Have you heard of or met Peter Maddison from the TMO?

13 A. Yes.

14 Q. As part of your role on Grenfell you met him?

15 A. Yes.

16 Q. Okay.

17 We don't need to go to the statement. The reference

18 is {TMO00847337/8}, paragraph 37. He says your job was

19 to report independently on the compliance of the

20 construction work as it proceeded. Do you agree or

21 disagree with that statement?

22 A. I would disagree that, not compliance, no.

23 SIR MARTIN MOORE-BICK: Well, when we talk about compliance,

24 compliance with what? I had rather assumed it was part

25 of your role to check that things were being done

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1 broadly in accordance with the drawings.

2 A. We didn't specifically -- I didn't specifically check

3 the drawings and what was done on site, I was observing

4 at a moment, a snapshot of time, one day a week, what

5 was going on, and if there was any problems, I was

6 ensuring that if there was any problems, for instance if

7 Building Control had any issues, then -- which there

8 were some issues, then I would highlight those and try

9 and make sure those issues were resolved.

10 SIR MARTIN MOORE-BICK: Right.

11 I think if we're going to ask about compliance, we

12 need to know with what it is he is supposed to be

13 checking compliance.

14 MS GROGAN: Yes, Mr Chairman, I will keep a clear

15 distinction between with the Building Regulations and

16 with the drawings going forward.

17 Mr Gibson also describes your role as checking for

18 compliance, but he doesn't say with what.

19 A. Yes.

20 Q. Were you aware that were some at the TMO thought that

21 your role involved compliance-type checking, so either

22 with Building Regulations or drawings?

23 A. No. No.

24 Q. Did anyone at Rydon ever ask you what the scope of your

25 role was?

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1 A. No.
 2 Q. The Rydon witnesses in their evidence to this Inquiry,
 3 in their oral evidence, have also described your role.
 4 Mr Hughes has said that your role was to check that
 5 work was in accordance with specifications and drawings.
 6 It sounds like you wouldn't agree with that.
 7 A. No.
 8 Q. Mr Martin said that he understood you would be
 9 inspecting in relation to the Building Regulations and
 10 relevant guidance.
 11 A. No.
 12 Q. Were you aware of either Mr Hughes or Mr Martin's views
 13 of your role at the time?
 14 A. No.
 15 Q. Did you ever get the impression that different people at
 16 Rydon would have different views about the scope of your
 17 role?
 18 A. No.
 19 Q. What about other professionals on the project, such as
 20 Studio E, Artelia, Harley?
 21 A. No.
 22 Q. So you thought everyone knew what you were there for and
 23 what the limits of your job were?
 24 A. To be honest with you, you know, I was working for
 25 KCTMO, so my concern was what they thought and what

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1 I was doing for them.
 2 Q. Now, in paragraph 48 of your statement, which is on
 3 page 6 {JRP00000330/6}, you say that you were not
 4 required to check any specific items regarding
 5 fire safety.
 6 However, if we go forward in your statement to
 7 page 8 {JRP00000330/8} and paragraph 60, you say:
 8 "If we saw any fire safety issues during our
 9 inspections, they were highlighted to CW ..."
 10 I think that's Claire Williams.
 11 A. Yeah.
 12 Q. So you weren't asked to do it, but you did in fact
 13 report issues if you saw them?
 14 A. Of course.
 15 Q. So would it be fair to say you took the initiative on
 16 that aspect?
 17 A. Yes.
 18 Q. I take it those fire safety issues wouldn't include
 19 non-compliances with the Building Regulations?
 20 A. No.
 21 Q. If poor workmanship risked compromising fire safety, do
 22 you accept that this would have fallen within your remit
 23 as a matter to be reported to the TMO?
 24 A. If I saw poor workmanship, I would highlight it in my
 25 report and notify Claire Williams.

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1 Q. But I think you have said that using materials different
 2 to those specified, even if they compromised
 3 fire safety, would not have fallen within your remit?
 4 A. No. Unless I spotted it, if I did spot it, but I don't
 5 think I ever did. Whatever I spotted, I highlighted.
 6 Q. So if you had spotted something installed that didn't
 7 match a drawing, and it was a fire safety issue, that's
 8 something you would have reported?
 9 A. If I saw it, and if I -- you know, if I saw it, that it
 10 wasn't right, I would let her know.
 11 Q. That would depend on you knowing what was in the
 12 drawing?
 13 A. Yes.
 14 Q. I see.
 15 If a failure to undertake works that you knew ought
 16 to have been carried out risked fire safety, would that
 17 have been something you reported?
 18 A. Could you ask that again?
 19 Q. We'll come back to it with a specific example, but if
 20 you knew that something had to be installed --
 21 A. Yes.
 22 Q. -- and it hadn't been, is that something you would have
 23 raised?
 24 A. Yes.
 25 Q. Now, moving on to a new topic, which is about access to

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1 drawings, I think we can take this quite quickly because
 2 we've already discussed it.
 3 If we just go to your statement on page 7
 4 {JRP00000330/7}, paragraph 51, you say there:
 5 "We were never supplied with any drawings and had
 6 very limited specifications. If there was a need to
 7 look at any drawings, then Rydon provided them on site.
 8 All the specifications and drawing had been approved
 9 before we even got to site."
 10 A. Yes.
 11 Q. Based on what you have already said, drawings were
 12 available for you to check on site; is that right?
 13 A. Yes. Yes.
 14 Q. You were in fact emailed drawings from time to time from
 15 Rydon personnel, weren't you?
 16 A. No, I never got any emails, emailed drawings at all.
 17 Q. Could we look at {RYD00058812}. If we zoom in, this is
 18 an email from David Hughes on 24 November 200, subject
 19 line "Revised Harley Drawing":
 20 "Hi Jon
 21 "Please see attached the following revised
 22 drawing ...
 23 "This shows how we are actually fitting the uplift
 24 trim to the cladding panels."
 25 So Mr Hughes sent you a drawing.

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1 A. This I think was a request I asked for, I think, and he
 2 couldn't find it at the time when I was on site.
 3 Q. Go to {MAX00005878/2}, and zoom in. Again,
 4 David Hughes, and you are there on the circulation list,
 5 your email address is there. Do you see that?
 6 A. Yes.
 7 Q. It's the fourth line down:
 8 "Dear All
 9 "Please see following drawings attached as mentioned
 10 in design team minutes."
 11 That includes the fire strategy.
 12 So, again, Mr Hughes is sending you drawings there
 13 in that email.
 14 A. Some drawings, yes. Yes. I mean, I didn't get --
 15 I wasn't a part of an issue, a drawing issue. He may
 16 have sent me the odd drawing here and there.
 17 Q. So from time to time Rydon sent you drawings, either for
 18 your information or on request?
 19 A. Yes.
 20 Q. Okay.
 21 Was there ever an occasion where you asked to see
 22 a drawing and were not provided with it, either there
 23 and then or later by email?
 24 A. Not that I can recall, no.
 25 Q. Do you recall seeing drawings of the cladding?

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1 A. I did see some drawings, yes.
 2 Q. Do you recall seeing drawings showing the location of
 3 cavity barriers within the cladding?
 4 A. Not specifically, no.
 5 Q. Is that something that you would have been interested
 6 in, where the cavity barriers were located?
 7 A. Not specifically, no.
 8 Q. And is that because you didn't see yourself as having
 9 a role in design?
 10 A. We didn't have any role in design, no.
 11 Q. Do you recall seeing design drawings of the windows?
 12 A. No.
 13 Q. Did you feel at the time that you had sufficient access
 14 to drawings?
 15 A. I knew that all the drawings would be in the site
 16 office, yes.
 17 Q. Just checking on specifications, you have said to us
 18 that you had seen the NBS specification on site.
 19 A. Yes.
 20 Q. If I could just take you to a particular part of it,
 21 it's {SEA00000169/63}. So that's the section,
 22 "Rainscreen cladding". If we go over the page
 23 {SEA00000169/64}, we see it starts there, H92.
 24 Did you look at that at the time?
 25 A. No.

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1 Q. So you didn't think to check what had been specified in
 2 respect of the cladding?
 3 A. No.
 4 Q. So you --
 5 A. I was only there one day a week so, you know, I had
 6 limited time, and my role was not to check all the
 7 drawings or any of the specifications. So, no, I didn't
 8 read all the specifications, no.
 9 Q. If we go to {HAR00009735}, that's Harley's specification
 10 for the cladding. Did you ever see that?
 11 A. No.
 12 Q. And did you ever ask to see it?
 13 A. No.
 14 Q. Did you know at the time what materials were being used
 15 in the façade for the cladding panels above the fourth
 16 floor?
 17 A. No.
 18 Q. So you didn't know it was ACM?
 19 A. No.
 20 Q. Did you know what the insulation was being used in the
 21 cladding system?
 22 A. No.
 23 Q. Did you know broadly what type it was, so not the brand
 24 but that it was PIR?
 25 A. Not specifically, no.

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1 Q. Did you know which cavity barriers were being used?
 2 A. No, not specifically, but I saw them being installed.
 3 Q. Did you know what the white window infill panels were,
 4 above the large ones and the small ones housing the
 5 kitchen extract fans?
 6 A. No.
 7 Q. And you never asked?
 8 A. No.
 9 Q. Were you ever provided with manufacturers' instructions
 10 for these products?
 11 A. No.
 12 Q. And did you ever ask to see those?
 13 A. No.
 14 Q. So you didn't consider it your role to check whether any
 15 of those products were installed in compliance with the
 16 manufacturers' instructions?
 17 A. No, I didn't think it was my role, no.
 18 Q. If we go now back to Mr Batty's evidence, it's
 19 a different form of statement, it's one he has given to
 20 the police, it's {MET00023699/10}. At the very bottom
 21 he starts the last sentence:
 22 "My role was ..."
 23 Then on to page 11 {MET00023699/11}:
 24 "... that once they had started the installation, to
 25 go and check that it was a good standard and a good

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1 quality. Claire WILLIAMS asked me what I needed and
2 I asked for the specifications and the drawings but she
3 told me to contact MAX FORDHAM for them so I told her it
4 would be best to have a meeting. We went to their local
5 office ..."

6 He goes on:

7 "I sat down with Duncan CAMPBELL and got given both
8 the electrical and mechanical specifications. I also
9 got an A3 set of drawings for the whole of the site.
10 I checked that he was okay with me reporting against the
11 drawings and specifications if I saw something that
12 I was against and he agreed."

13 You didn't adopt a similar approach to Mr Batty?

14 A. No.

15 Q. Why not?

16 A. Because I had all the information on site if I wanted
17 it.

18 Q. Mr Batty says there that he checked that Duncan Campbell
19 was "okay with me reporting against the drawings and
20 specifications if I saw something that I was against and
21 he agreed".

22 A. Yes.

23 Q. But you didn't consider it your role to do that?

24 A. Well, I -- if I'm -- on my site inspections I saw
25 anything that was -- I was unsure of or need to be

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1 resolved, then I would check the drawings or
2 specification on site.

3 Q. I see.

4 Moving on to a new topic, which is insulation, you
5 have already told us that you weren't aware what the
6 insulation was being used in the cladding. Did you ever
7 hear anyone mention any brand names on site like Celotex
8 or Kingspan?

9 A. No.

10 Q. If we go to {JRP00000171}, this is one of your site
11 inspection reports dated 24 April 2015. If we could go
12 to page 2 {JRP00000171/2}, please, under the box "Works
13 in progress", which is in the top third, it says in the
14 third line down:

15 "The cladding insulation has fire proofing and
16 cladding rails has started on the West and North
17 elevations only."

18 What did you mean by the cladding insulation has
19 fireproofing?

20 A. It means the fire barriers.

21 Q. I see. So it's a reference to the cavity barriers?

22 A. Yeah.

23 Q. Why did you call that fireproofing?

24 A. Just a term used.

25 Q. Did you think that the client, Claire Williams, would

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1 understand what you meant by that?

2 A. I don't know, you'll have to ask her.

3 Q. Who told you that it had fireproofing, or was it just
4 something you observed?

5 A. Well, I could see the barriers being installed.

6 Q. In his witness statement to the Inquiry, Mr Hughes of
7 Rydon says that he told you what kind of insulation was
8 being installed on the tower. If we go to that, to see
9 the words he uses, it's {RYD00094213/10}, paragraph 55.
10 So he says there:

11 "In December 2015 or January 2016 I discussed with
12 Ben Bailey and agreed the use of Kingspan, as Barleys
13 had difficulty obtaining Celotex from their supplier."

14 Then at the last line, the last sentence, he says:

15 "I told Steve Blake and the Clerk of Works, Jon
16 White, of this use of Kingspan insulation material."

17 Do you recall that conversation?

18 A. No, I don't. Definitely not. I would have definitely
19 put it in my report if that was the case.

20 Q. When you looked at the insulation being installed on the
21 face of the tower, did you note any markings on it?

22 A. Not specifically, no.

23 Q. If we could go to {RYD00055130}, and if we zoom in, it's
24 about two-thirds of the way up, we can see, sort of four
25 floors up from the bottom of that picture, some markings

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1 on the insulation. It's quite difficult to see, but
2 they are there.

3 A. I can't really see it, actually, to be honest with you.

4 Q. No, it is a little bit fuzzy. What those markings are,
5 we think, is Kingspan branding. Do you recall ever
6 seeing branding on the insulation?

7 A. No, I don't, no.

8 Q. Do you recall seeing a protective film over the cladding
9 panels with the name Reynobond on it?

10 A. No. The only film I remember seeing was the protection
11 to the panels themselves, that was just protecting the
12 panels.

13 Q. Yes, that's the film I'm talking about --

14 A. Oh.

15 Q. -- the film protecting the panels. Did you see it had
16 branding on it?

17 A. No, not that I recall, I just remember seeing the film
18 on it.

19 Q. So did you know that the design of the cladding system
20 did not provide for any cavity barriers around the
21 windows?

22 A. No, we were not -- we're not involved with any design
23 issues at all. We started, as I said, in February, so
24 a lot of the design had been done.

25 Q. But when you were on site looking at the installation,

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1 did you note that there were no cavity barriers around
 2 the windows?
 3 A. No, I didn't.
 4 Q. Is that because you weren't aware that that was advised
 5 in the Approved Document B guidance that there should
 6 be?
 7 A. I would say that if there was something wrong with the
 8 installation or lack of cavity barriers, then
 9 Building Control would have spotted that and therefore
 10 highlighted it. So I would say if there was any
 11 concerns, then that's how I would pick it up, by picking
 12 up what Building Control had seen and if there was any
 13 issues, and then I would highlight it in my report.
 14 Q. Mr Martin of Rydon has told the Inquiry in his oral
 15 evidence that you might have been the person who told
 16 him that cavity barriers were not required around the
 17 windows. Would that have been you?
 18 A. No.
 19 Q. If we could go to {ART00005636}, that's Artelia's
 20 certificate of practical completion.
 21 A. Yes.
 22 Q. Did you see that at the time?
 23 A. I think I may have got a copy of it, if this was right
 24 to the end of the job, so yes. I mean, we were actually
 25 finished by then, so I think I may have got that in

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1 a later email after the job had finished.
 2 Q. If we could go to page 17 {ART00005636/17}, please, the
 3 first email, which is at the bottom, from Andrew Malcolm
 4 on 15 July, we believe that's an email to you, and we
 5 can tell, I think, from the reply which we'll go to in
 6 a second:
 7 "Jon,
 8 "Further to our discussion, please can you write
 9 back and confirm that all the items listed below and in
 10 the attached are considered de-[minimis] and that the
 11 [entirety] of the works are compliant with the
 12 employer's requirements."
 13 Then scroll up the page to a reply from you:
 14 "Hi Andrew,
 15 "Yes I can confirm all items are just awaiting final
 16 [de-snagging] which should take place early next week.
 17 None of these items should affect PC."
 18 He had specifically asked you to confirm that the
 19 works complied with the employer's requirements. Were
 20 you giving that confirmation in this email?
 21 A. What I was saying, and I think he was asking me, was
 22 whether all the snagging and de-snagging had been
 23 complete, which -- this is what I was trying to say
 24 here.
 25 Q. He asked you a second part of the question, which was:

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1 do all works comply with the employer's requirements.
 2 You didn't answer that question in this email, did you?
 3 A. No, because I just refer to the snagging. I mean,
 4 I didn't sign off compliance; therefore, you know, I was
 5 just concentrating on the snagging.
 6 Q. Do you think it's possible that it was taken from your
 7 email that you had confirmed that everything complied?
 8 A. Well, I didn't actually say that, did I? So I would say
 9 no.
 10 MS GROGAN: Thank you, Mr Chairman, that's probably
 11 an appropriate moment for a break.
 12 SIR MARTIN MOORE-BICK: Is that a convenient moment?
 13 MS GROGAN: Yes.
 14 SIR MARTIN MOORE-BICK: Mr White, we're going to have
 15 a short break now. We will come back and resume
 16 questions at 3.30, please.
 17 THE WITNESS: Okay.
 18 SIR MARTIN MOORE-BICK: I have to ask you not to talk to
 19 anyone about your evidence or anything relating to it
 20 while you're out of the room, if you would, please.
 21 So if you would like to go with the usher, she will
 22 look after you.
 23 THE WITNESS: Thank you very much.
 24 SIR MARTIN MOORE-BICK: Thank you very much.
 25 (Pause)

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1 Right, 3.30, please. Thank you.
 2 MS GROGAN: Thank you.
 3 (3.15 pm)
 4 (A short break)
 5 (3.30 pm)
 6 SIR MARTIN MOORE-BICK: All right, Mr White, are you ready
 7 to carry on?
 8 THE WITNESS: Yes, I am, yes.
 9 SIR MARTIN MOORE-BICK: Thank you very much.
 10 Yes, Ms Grogan.
 11 MS GROGAN: Thank you, Mr White.
 12 We are moving on to a new topic now, which is your
 13 inspections of the cladding.
 14 A. Yes.
 15 Q. Mr Osgood of Rydon has described the process of
 16 inspection whereby the cladding was inspected by you two
 17 floors at a time; is that right?
 18 A. No, that would be -- no, it would be impractical to do
 19 that.
 20 Q. So could you just describe for me then how you went
 21 about inspecting the cladding and at what stages?
 22 A. Yes. Initially I went on the climbers, and I had to
 23 rely on obviously them to come down and I couldn't drive
 24 it myself, but generally I would get them to collect me
 25 and then I'd go on the climber and I would just check

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1 what they were doing, which I did, and where they're
2 actually working, I would be in the area where they were
3 working, just checking that, you know, all the --
4 everything looked properly fitted, there's no loose
5 materials or any damage, and that's what I'd do
6 before -- a few times before the snagging started.

7 So when the snagging started, I was asked to inspect
8 the areas that I was told were ready for snagging, that
9 it was complete and all finished, and I remember the
10 first time they arranged and I arranged to meet, I went
11 up on the climber, mast climber, and I think we'd always
12 generally start -- the mast climber was -- there was two
13 mast climbers of that elevation, and I would go up on
14 the top -- to the top of the -- one of the elevations on
15 the mast climber, and initially would start the
16 inspections of the cladding for the snagging.

17 I remember the first inspection I did, there was
18 lots of scratches and the finished product wasn't very
19 good, and so I rejected it, I said, "I'm not inspecting
20 it until you look at it yourself and make sure that it's
21 a presentable finish".

22 Q. I see.

23 A. So I then came back at a later time, maybe a week later,
24 I can't remember, and that's when I started doing the
25 snagging, and I had -- I always had normally Ben with

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1 me, the cladder. I sometimes had a member of Rydon's
2 staff with me. But we would start -- normally
3 an elevation would be ready for me, so I would start on
4 a climber that would be right at the top and I would
5 work my way down the whole width of the climber, which
6 would be normally half an elevation.

7 So we would go from top to bottom, all the way down,
8 every -- checking every single floor. We wouldn't do
9 two floors; that would be impractical. We would do
10 every single floor all the way down to the third floor,
11 because that was where a lot of the works had been
12 finished. Three floors below, they were part of the
13 lower floor works and they weren't ready.

14 So we go from top to bottom down to the third floor,
15 and then we would go across to the next climber, go all
16 the way up and start again, going all the way down.

17 So I would be recording with my iPad all the snags,
18 and then I would make that list as a snagging list, and
19 then I would issue that to Rydons, who would issue it to
20 the cladding contractor.

21 Q. I see.

22 Just a few follow-up questions on that.

23 A. Yeah.

24 Q. Did you ever inspect the cladding before the cladding
25 panels had been installed?

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1 A. Not specifically. I mean, my general inspections I did,
2 but I was never asked to inspect anything specifically
3 before the cladding panels went on, no.

4 Q. So did you ever go up the mast climbers to look at
5 insulation and cavity barriers?

6 A. Yes, when I did my normal site inspections, I did, yes.

7 Q. You have said in your statement that you compiled 35
8 reports, I think.

9 A. Yes.

10 Q. Of those 35 inspection visits, how many times did you go
11 up the mast climbers?

12 A. I would say probably, including snagging and
13 de-snagging, I can only estimate, it was probably
14 between 10 and 12 times, maybe.

15 Q. So before the snagging inspections --

16 A. Yeah.

17 Q. -- and at the time you were observing insulation and
18 cavity barriers, what were you looking for?

19 A. Generally that the work was neat and tidy, it wasn't
20 damaged, that everything seemed to be the same,
21 you know, it was all fitted with the same detail, there
22 was no damage, and the insulation was -- there was no
23 holes in the insulation, the fixings were not loose.
24 Generally I was just checking that there was nothing
25 that stood out.

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1 Q. You say there it was all fitted with the same detail, so
2 you were looking for consistency?

3 A. Yes.

4 Q. Not checking against any drawings --

5 A. Yes.

6 Q. -- to see --

7 A. Yes.

8 Q. -- if it matched?

9 A. Yes.

10 Q. I see.

11 What value do you think you were adding to the
12 client by doing that?

13 A. I think if it was a job where it was very untidy or it
14 didn't appear to be fitted properly or there was
15 problems, I would notify that to her, and I think
16 because Building Control were regularly visiting and
17 they were checking for compliance, if they had any
18 issues then I would have looked at the cladding more.
19 I mean, I think when I started in January, I think it
20 was only a couple of months after that that
21 Building Control -- I got a notification that
22 Building Control had passed three floors of all the
23 windows, snagging -- sorry, windows, the cladding, the
24 firebreaks, and had approved it all.

25 So my immediate reaction that, you know, everything

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1 was fine with the compliance of the snagging.
 2 Q. I see. So because you were aware that Building Control
 3 had been and Building Control, you were told, had said
 4 the cladding was compliant --
 5 A. Yes.
 6 Q. -- you felt you didn't need to focus too much on it?
 7 A. Yes. I mean, I basically did what -- going back to
 8 before, I did what was required by the client. At this
 9 point of period also, I must say that Claire Williams
 10 wanted me to really focus on the residents, you know.
 11 You remember I had 120 flats that were being operated on
 12 and worked on, and her focus was to make sure the
 13 residents -- to me, she kept on telling me -- I mean,
 14 I was in close conversation with Claire Williams,
 15 you know, many days, and she often asked me specifically
 16 to go to flat such-and-such to see that resident. So
 17 a lot of my focus was really on what she wanted me to
 18 do, and that was to focus on the residents.
 19 Q. Did any residents ever raise any concerns with you about
 20 the cladding?
 21 A. Not with me. I think when I first -- I mean, remember,
 22 it's not only the cladding; it's everything else going
 23 on. I think I counted 18 items of work that went on in
 24 each flat. So 18 items of work plus times 120, you can
 25 imagine what work was going on.

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1 But when I first joined in February, when I first --
 2 there was a concern not that -- that was highlighted to
 3 me via Claire Williams that there was a rattling going
 4 on with some cladding outside, that a resident
 5 complained of, and that was an example of
 6 Claire Williams wanting me to check it, which I did, and
 7 what that was, there was a bracket that was fixed that
 8 was being fitted and, you know, it hadn't been fitted
 9 tight enough during the evening and then it was rattling
 10 in the night, so then I went up and checked.
 11 Q. If we could now go to {JRP00000147}. So that's another
 12 of your site visit reports, this time 12 November 2015,
 13 and again page 2 {JRP00000147/2} into the
 14 Building Control box.
 15 Now, just as a general question, whether you were
 16 filling in this Building Control box, how did you get
 17 the information to populate that?
 18 A. Mostly from asking the site staff from Rydons.
 19 Q. So it was Rydons telling you what Building Control had
 20 said and telling you when they'd visited?
 21 A. Yes, mostly, but I did get also -- there was also
 22 Building Control information on KCTMO newsletters, and
 23 there was also building inspection control information
 24 on Rydon's newsletters as well, and site progress
 25 meetings and reports. So there was other -- lots of

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1 information regarding Building Control.
 2 Q. But by and large it was second-hand?
 3 A. Yes. Yes.
 4 Q. Yes.
 5 So in that Building Control box, then, on page 2, it
 6 refers to Building Control inspecting two elevations of
 7 the cladding. Did you attend that inspection with
 8 Building Control on 12 November?
 9 A. No, I didn't, no.
 10 Q. But you did carry out an inspection on 11 November; is
 11 that right? You went up the cladding?
 12 A. Sorry, where does it say that?
 13 Q. We have that from -- Mr Hughes gave evidence to
 14 the Inquiry on {Day27/95:25}.
 15 (Pause)
 16 I'm sorry, that's a reference to what John Hoban
 17 would have seen in his inspection. I'll ask my question
 18 in a different way.
 19 In around November 2015, did you ever attend
 20 an inspection and go up the mast climbers with
 21 John Hoban?
 22 A. Not that I can remember.
 23 Q. Did you ever carry out an inspection with John Hoban
 24 there at the same time as you?
 25 A. No, not that I can remember.

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1 Q. Did you ever speak directly to John Hoban?
 2 A. Yes, I did meet him on site, yes.
 3 Q. Were you ever party to any conversations where you heard
 4 John Hoban being told that the cladding system had been
 5 fitted to many buildings throughout England and Wales to
 6 buildings of a similar height and construction?
 7 A. No, no.
 8 Q. Were you ever party to a conversation where John Hoban
 9 was told that the cladding would comply with the
 10 standards set out in Approved Document B?
 11 A. No.
 12 Q. Did you hear or were you party to discussions where
 13 John Hoban was told that cladding panels were class 0 or
 14 above?
 15 A. No, I was never involved in any meetings with
 16 Building Control, as I said, either. There was some
 17 meetings on site, I wasn't invited to that, and I only
 18 had a brief discussion with him.
 19 Q. I'm now going to move on and ask you some questions
 20 about cavity barriers.
 21 So in your general inspections of the cladding, when
 22 you were looking at cavity barriers, what defects and
 23 issues were you looking to pick up?
 24 A. Just to make sure they were fitted securely, there was
 25 no damage, they were consistent, and really, again, make

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1 sure that the people that were signing off compliance,
 2 which is Building Control, that they were happy with it.
 3 Q. Did you ever pick up on any issues such as that with the
 4 cavity barriers?
 5 A. No.
 6 Q. Could we go to {BLAS0000008/48}. It's figure 8.52, if
 7 we could zoom in on that a little bit.
 8 Now, what this shows here is a Siderise cavity
 9 barrier with the marking RH25. Can you see that blown
 10 up in a little box?
 11 A. Yes, I do, yeah.
 12 Q. Would you have been aware at the time that that signals
 13 that it's a horizontal cavity barrier?
 14 A. No, I wouldn't be aware of that.
 15 Q. But we see there it's installed in the vertical
 16 position.
 17 A. Mm-hm.
 18 Q. Were you aware that the vertical cavity barriers -- let
 19 me put that a different way.
 20 If we look at the green marking there, there's
 21 an intumescent strip on the outside of that which, when
 22 exposed to heat, would normally expand to fill the gap
 23 in a rainscreen cladding system. Were you aware of that
 24 feature of cavity barriers in rainscreen systems?
 25 A. Not specifically, no.

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1 Q. No, okay. So you wouldn't be aware, then, that vertical
 2 cavity barriers usually don't have that strip and are
 3 just a solid block of inert material?
 4 A. No.
 5 Q. Do you recall seeing any instances of that kind of
 6 installation, so the green-coloured strip type cavity
 7 barrier, in a vertical orientation?
 8 A. No, not that I could recall.
 9 Q. If we could go back to page 46 {BLAS0000008/46},
 10 figure 8.50, we see another example of cavity barrier
 11 installation here.
 12 Now, Dr Lane notes that that cavity barrier is
 13 poorly fitting, and you can see in the top picture the
 14 intumescent strip has come away from the material it's
 15 attached to.
 16 If you had seen that at the time, is that something
 17 you would have picked up?
 18 A. Yes, if it was obvious, I would have informed Rydon and
 19 put it on my report.
 20 Q. So you would have picked up poorly fitting cavity
 21 barriers?
 22 A. Yes. If it didn't look right, yes.
 23 Q. How would you know that it was poorly fitting or
 24 incorrectly installed if you hadn't checked the
 25 manufacturer's instructions?

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1 A. Only by what it looks like.
 2 Q. What would you expect a cavity barrier to look like if
 3 it was properly fitted?
 4 A. To make sure it's secure and there was no damage.
 5 Q. I see.
 6 Now, Ben Bailey of Harleys has said in his statement
 7 to the Inquiry that when he saw the photographs that
 8 Dr Lane has identified in her report -- and I've not
 9 taken you to all of them -- he was shocked, and if he
 10 had seen those issues on site, he would have instructed
 11 them to be corrected. The reference for the transcript
 12 for that is {HAR00010060/10}, paragraph 32.
 13 Would you have been similarly shocked?
 14 A. Yes, I mean, it doesn't look right and I would have --
 15 I would have taken a photograph and I would have put it
 16 in my report.
 17 Q. But as you said earlier, you didn't see any examples
 18 such as that?
 19 A. No, I was only there at a moment -- a snapshot of time.
 20 You know, when I went up, I was only there one day
 21 a week, so -- and I didn't go up the mast climbers every
 22 time, so, you know, I only saw a small amount of the
 23 works going up them really, apart from when I was doing
 24 the snagging.
 25 Q. What was your overall impression of the quality of the

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1 cladding installation?
 2 A. My impression -- it looked very neat, and when I first
 3 went up the mast climbers, I just observed what was
 4 going on, see if they were doing everything safely, and
 5 I spoke briefly to the men, they seemed very
 6 experienced, they'd done previous jobs with Rydons,
 7 rainscreen, this type of cladding, and they seemed very
 8 experienced, and what I noticed, what I saw -- normally
 9 if a job looks neat and tidy, normally it's a good way
 10 of thinking whether it's been done properly.
 11 Q. Moving on now to the window installation, we know you
 12 inspected flats internally. Did this include inspection
 13 of the windows before they were sort of covered up,
 14 decorated and finished?
 15 A. No.
 16 Q. So you wouldn't have seen, then, what was being
 17 installed in any gaps around the windows in terms of
 18 insulation?
 19 A. No. Again, I inspected all the works when I did the
 20 snagging.
 21 Q. Okay. So we can take it from that you weren't aware of
 22 the kind of insulation that was being installed --
 23 A. No.
 24 Q. -- in that location?
 25 Mr Martin of Rydon says that you would have seen

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1 that insulation installed around the windows. Do you
 2 have any comment on that?
 3 A. I was with Mr Martin doing all the snagging, and when
 4 I was doing all the snagging, all the works were
 5 finished, so I wouldn't be able to see the insulation.
 6 Q. We have already discussed Building Control in a little
 7 bit as we have gone through your questions this
 8 afternoon. My next topic covers that as well.
 9 So if we go back to your statement on page 7
 10 {JRP00000330/7}, paragraph 53, you say:
 11 "We understood that as [Building Control] were
 12 inspecting and signing off the building that it
 13 complied, this responsibility lay with them."
 14 Do you accept that just because Building Control has
 15 an obligation to check for compliance, that doesn't
 16 necessarily mean others on a project don't have their
 17 own obligations to check as well? And when I talk about
 18 compliance here, I mean with the Building Regulations.
 19 A. I mean, I would say the big responsibility lay with
 20 Rydons, the main contractor, and the people fitting it.
 21 Q. And why would involvement of Building Control mean that
 22 JRP didn't have to provide the full service, which we've
 23 looked at in the ITT, that it had contractually agreed
 24 to provide?
 25 A. Well, the full service was a clerk of works role, and we

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1 weren't there as a clerk of works, we were there as
 2 a site inspector, and our role was defined by what was
 3 discussed in the meeting with Claire Williams. She
 4 never asked us to check for compliance, and on the ITT
 5 it never said check for compliance.
 6 Q. We have been through that already --
 7 A. Yes.
 8 Q. -- Mr White. The ITT did say familiarise yourself with
 9 legal requirements.
 10 A. But it didn't say actually check for compliance.
 11 Q. We can come back to that later if we need to.
 12 A. Yeah.
 13 Q. If we go to {JRP00000148}, this is your site inspection
 14 report number 25 of 17 November. Again, if we go to
 15 page 2 {JRP00000148/2} in the Building Control box, it
 16 says there, if we scroll down, I think:
 17 "RBK Building Control was last on site today,
 18 looking at the cladding. Apart from the damaged panels,
 19 and bits of making good, he was generally happy."
 20 Was that information there obtained from a direct
 21 conversation you had with Building Control?
 22 A. No, it was from Rydons.
 23 Q. I see. So you wouldn't know, then, what was meant by
 24 generally happy?
 25 A. No.

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1 Q. If we go back to your statement, page 4 {JRP00000330/4},
 2 paragraph 31, you refer to updates reporting what
 3 Building Control had said coming from Claire Williams.
 4 You say you received updates via email from her.
 5 Do you have a record of those emails?
 6 A. Sorry, what number are we talking about?
 7 Q. Sorry, paragraph 31 says:
 8 "We were also sent updates via email by
 9 Claire Williams which would sometimes be the source of
 10 information in the reports (e.g. visits from
 11 Building Control)."
 12 A. Yeah, I think that was in relation to the KCTMO
 13 newsletter which had information on the
 14 Building Control.
 15 Q. I see. So Claire Williams wouldn't send you specific
 16 emails detailing discussions with Building Control or
 17 information about Building Control?
 18 A. No, but she obviously -- she sent me an email with the
 19 newsletter on which mentioned Building Control.
 20 Q. Could we now go to {JRP00000208/2}. This is an email
 21 chain. It's an email there from John Allen dated
 22 24 March 2016, and his email says:
 23 "1. Cladding nearly complete.
 24 "2. Ensure thermal insulation completely fills ...
 25 "3. Nursery ..."

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1 Hang on a second, sorry.
 2 (Pause)
 3 We might need to come back to that. I don't think
 4 that's quite the email I wanted to take you to.
 5 If we go further up back to page 1 {JRP00000208/1},
 6 we see an email from you which says:
 7 "Thanks for this David.
 8 "Can we make sure we tick off each item please."
 9 What further checks did you undertake to ensure each
 10 item had been checked off?
 11 A. Sorry, what's this in relation to? I can only see a bit
 12 of the email trail.
 13 Q. Yes, sorry, I probably went a little too fast there.
 14 If we go back to page 2 {JRP00000208/2}, we will see
 15 a list of things from John Allen. That's a much better
 16 quality than what I had seen previously. The thing
 17 I wanted to ask you about was item 2. It says:
 18 "Ensure thermal insulation completely fills voids."
 19 Do you know what that meant?
 20 A. Not specifically, but I would have thought that there
 21 was gaps in some of the insulation.
 22 Q. Then the email we looked at on page 1 is you asking
 23 Rydon to ensure each item is ticked off.
 24 A. Did I get that email?
 25 Q. You did, yes. So if you look at 24 March 2016 -- I'm

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1 aware the font is probably not that helpful for
 2 reading -- it says:
 3 "Hi Jon & Tony
 4 "Please see comments below from today's visit from
 5 Building Control.
 6 "Happy to discuss with both of you when you're next
 7 on site."
 8 A. Right, yeah.
 9 Q. You reply and say:
 10 "Thanks for this David.
 11 "Can we make sure we tick off each item please."
 12 A. Right.
 13 Q. Did you ever follow that up to check it had been done?
 14 A. I can't recall that email. However, I may have asked
 15 him by phone or by talking to him. But I always try to
 16 follow up items regarding Building Control and put it on
 17 my report. So I think if there was anything outstanding
 18 I would have put it on my report.
 19 Q. Now, Mr Hoban's evidence is that if he had any concerns
 20 after inspection, he would raise this with the site
 21 manager and the clerk of works, so that's you. Do you
 22 recall him raising any specific issues?
 23 A. No, he never -- as I said to you, apart from brief
 24 discussion, he never raised any issues with me at all.
 25 Q. He also says that he would raise matters with the site

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1 manager or person who was accompanying him on his
 2 visits, and the clerk of works when they did joint
 3 visits, and that's a reference to paragraph 58(b) of his
 4 second statement.
 5 Do you agree that you did joint visits with
 6 Mr Hoban?
 7 A. I can't remember ever doing a joint visit with him, as
 8 I said, but I do remember meeting him once on site.
 9 Q. Just the once?
 10 A. Yes, and speaking to him. I did see him other times,
 11 but I only actually met and spoke to him once.
 12 Q. When was that?
 13 A. I've no idea now, but I did record it somewhere in some
 14 of my emails.
 15 Q. In an email, you say?
 16 A. In some of my emails, yes, I did record it. I remember
 17 recording it, yes. Or it may be in my statement.
 18 I remember --
 19 Q. How long through the project was it, at the beginning,
 20 middle, end?
 21 A. I think it was sort of -- it may have been the end part
 22 of 2015, I think.
 23 Q. What did you discuss in that face-to-face conversation?
 24 A. Only a very brief discussion. I think I did say, "What
 25 do you think of the cladding?" And I think he said it

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1 was a good, tidy install, so there was no concerns, and
 2 he -- I remember specifically him mentioning he was very
 3 busy doing lots of basements in Kensington.
 4 Q. Moving on to a different topic, were you ever asked to
 5 check the O&M manual for the project?
 6 A. Not specifically, no. I remember the O&M manual being
 7 produced, but not -- no, I didn't -- I was never asked
 8 to specifically look at it or I can't recall looking at
 9 it, but I remember it being done.
 10 Q. If we could go to {JRP00000155}. This is your site
 11 inspection report of 3 February 2016, and if we go to
 12 page 2 {JRP00000155/2}, and if we could zoom in there on
 13 "Risk items (e.g. health & safety, etc)" at the bottom,
 14 it says:
 15 "Rydons are to submit revised Construction H&S plan
 16 to Claire of the KCTMO as a matter of urgency."
 17 Are you just reporting there what others had said or
 18 is that something that was on your list of things to
 19 worry about?
 20 A. Yeah, I was probably just reporting that that was
 21 something that Rydons had got to provide to Claire,
 22 because I think they were being very slow in doing it.
 23 Q. Did you check that it was done?
 24 A. It was an ongoing -- ongoing all the time. I mean, it
 25 was being updated every week. So, yes, I mean, I was

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1 monitoring it, and I knew that Claire wanted it.
 2 (Pause)
 3 I think also we discussed -- at that time, we went
 4 to a lot of the site meetings, so at that time that was
 5 discussed a lot at the site meetings.
 6 Q. I'm going to ask you now about your relationship with
 7 Rydon.
 8 If we could go to {JRP00000035}, this is an email
 9 from Simon Lawrence to Claire Williams, and you are
 10 copied in to it. It's dated 19 February 2015. He says
 11 there in the second paragraph:
 12 "One item I'd like to clarify is that reading
 13 a report in isolation doesn't always give a fair reflect
 14 of the overall works and what the end result will
 15 achieve."
 16 He is talking there about the clerk of works
 17 reports.
 18 A. Yes.
 19 Q. He says:
 20 "So in this case whilst the report is helpful in
 21 identifying areas of concern it is only a snap shot of
 22 the works on the day ... It would be more beneficial for
 23 my site team to co-ordinate with Tony/John so [clerk of
 24 works] inspections follow our own inspections ...
 25 Otherwise it will end up causing concern ..."

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1 Do you recall receiving that email at the time?
 2 A. Yes, I do remember this email and I do remember the
 3 incident. I think it was Tony Batty had an M&E query
 4 regarding the -- one of the new partitions, and he put
 5 it on his report, and later on we found out -- Tony
 6 found out that the -- it was regarding a detail of the
 7 fire partition, and we found out that it wasn't
 8 a firewall, so therefore he reported something that was
 9 not a problem. So we agreed amongst all of us that for
 10 future reports, if there was anything -- any problems we
 11 had, any concerns, we would check the drawings before we
 12 put it on our reports. So -- and that's what we did.
 13 If there was any issues, we used to go back down to the
 14 office and check the drawings.
 15 Q. Were you aware that at times Rydon thought that your
 16 presence was unhelpful?
 17 A. I think ... I think our relationship early doors with
 18 Rydons was difficult because we came not at the
 19 beginning of the job, we weren't part of the main team,
 20 we only started very late, and they weren't keen for us
 21 to be there, and they didn't really make us very
 22 welcome. However, when Dave Hughes started, he
 23 understood that we were there to also help, and we had
 24 a much better relationship.
 25 So I'd say one team particularly didn't want us to

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1 be there and weren't particularly helpful, where
 2 Dave Hughes was very helpful and we tried to work
 3 together.
 4 Q. If we could go now to {ART00006688}. The documents show
 5 that on 12 January 2016 you attended a meeting with
 6 Mr Hughes, Tony Batty, Andrew Malcolm of Artelia and
 7 Matt Smith of Max Fordham, and it was intended to be
 8 a clerk of works reports review. Do you recall that
 9 happening?
 10 A. Yes, I do.
 11 Q. In that meeting you sat down, went through all of your
 12 reports and noted all the outstanding items; is that
 13 right?
 14 A. Yes.
 15 Q. So if we go to page 5 {ART00006688/5} of those meeting
 16 minutes, please, we will see there, it starts on the
 17 previous page, but that's a list of "Jon White -
 18 Issues", so these are issues you had identified. Do you
 19 recognise those?
 20 (Pause)
 21 A. Yes.
 22 Q. Four from the bottom it says:
 23 "Fire proofing - all around the site ... needs to be
 24 done as per the Fire Strategy."
 25 Is that something you had identified yourself or is

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1 this reporting an issue picked up by somebody else?
 2 A. I think it's something that I felt needed to be checked,
 3 and I was just ensuring that Rydons were complying.
 4 Q. What fireproofing were you referring to?
 5 A. Fire strategy, that is. So I think there was some --
 6 I can't be specific, but there was some fire strategy
 7 discussion with Building Control and Rydons that I was
 8 no party of but I overheard, so I thought there's maybe
 9 a fire issue there that just needs to be resolved.
 10 Q. So you couldn't tell us specifically --
 11 A. No.
 12 Q. -- what it was about?
 13 A. I think it was -- it's certainly internal. I think it
 14 was -- could have been fire dampers in the boxing club,
 15 I seem to remember, but it was definitely internal.
 16 Q. I see.
 17 Following the fire, did you have any discussions
 18 with other people from JRP about JRP's involvement with
 19 the Grenfell refurbishment?
 20 A. What, you mean staff of JRP?
 21 Q. Yes.
 22 A. Yes, just my close colleagues, yes.
 23 Q. When did you have those discussions?
 24 A. Certainly a few weeks after the fire.
 25 Q. In his statement to the Inquiry, Mr Virdee has also said

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1 that you were not a clerk of works in a typical sense.
 2 Is that something you discussed with one another after
 3 the fire?
 4 A. No, it's just that's something we discussed throughout,
 5 I mean, that was -- I mean, for the last five or
 6 six years I have been doing site inspection, so,
 7 you know, that's what we were: site inspectors.
 8 MS GROGAN: Mr Chairman, I've reached the end of my
 9 questions.
 10 SIR MARTIN MOORE-BICK: Right.
 11 MS GROGAN: But I am aware there may be questions from
 12 others, so if we take a pause, and then --
 13 SIR MARTIN MOORE-BICK: In the usual way. All right. Do
 14 you think ten minutes is enough?
 15 MS GROGAN: Yes, I think that's fine, Mr Chairman.
 16 SIR MARTIN MOORE-BICK: Well, Mr White, Ms Grogan has got to
 17 the end of the questions she has prepared, but she needs
 18 an opportunity just to check that there aren't any
 19 things she has overlooked, and there may be questions
 20 from others that we may need to ask you.
 21 THE WITNESS: Okay.
 22 SIR MARTIN MOORE-BICK: We will stop now and come back at
 23 4.20, and then we'll see if there are any more questions
 24 for you at that stage. All right?
 25 THE WITNESS: Okay, thank you very much.

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1 SIR MARTIN MOORE-BICK: Again, please don't talk to anyone
 2 about your evidence while you're out of the room.
 3 THE WITNESS: Okay. Thank you very much.
 4 SIR MARTIN MOORE-BICK: Would you like to go with the usher,
 5 please. Thank you very much.
 6 (Pause)
 7 All right, 4.20. If you need more time, just let us
 8 know.
 9 MS GROGAN: Will do.
 10 (4.09 pm)
 11 (A short break)
 12 (4.20 pm)
 13 SIR MARTIN MOORE-BICK: Right, Mr White, we will see if
 14 there are any more questions for you.
 15 Ms Grogan, have you found any questions?
 16 MS GROGAN: I have found just the one and possibly
 17 a follow-up.
 18 So, Mr White, earlier this afternoon I asked you
 19 whether the ITT from KCTMO said that you needed to
 20 familiarise yourself with legal requirements, and you
 21 agreed that it did, but you said, "But it didn't
 22 actually say check for compliance".
 23 If we could go back to {JRP00000011/4}, you will see
 24 there again in the third bullet point from the bottom it
 25 does say:

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1 "Being familiar with legal requirements and checking
 2 that the work complies with them."
 3 A. Yes, and I believe I did that by checking that the work
 4 was signed off by the compliance person, which is
 5 Building Control.
 6 Q. Was there ever an occasion where Claire Williams said to
 7 you in terms, "You do not need to check for yourself
 8 that the works comply with the legal requirements"?
 9 A. No, never.
 10 Q. Was there ever an occasion where Claire Williams said to
 11 you in terms, "You do not need to be familiar with the
 12 drawings and check that they reflect what is installed
 13 on site"?
 14 A. No, I did not -- could you say that again?
 15 Q. Sorry, was there ever an occasion where Claire Williams
 16 said to you that you did not need to check that what was
 17 installed matched what was on the drawings?
 18 A. No, nor did she say check it either.
 19 Q. I see.
 20 SIR MARTIN MOORE-BICK: Can you help me with this: did she
 21 leave you with the understanding that it wasn't part of
 22 what she wanted you to do, to check work against
 23 drawings or requirements?
 24 A. No, she never requested that at all, that we do that.
 25 SIR MARTIN MOORE-BICK: Yes, but you see, counsel has asked

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1 you whether she said you weren't to do something, and
 2 you said, "Well, she didn't say I was to do it".
 3 A. Yes.
 4 SIR MARTIN MOORE-BICK: What I'm now asking you to help us
 5 with --
 6 A. Okay, no, she never --
 7 SIR MARTIN MOORE-BICK: -- is what understanding were you
 8 left with as a result of any particular conversation
 9 first?
 10 A. No, she never asked us not to.
 11 SIR MARTIN MOORE-BICK: I'm not quite sure you're --
 12 A. Getting the gist, okay.
 13 SIR MARTIN MOORE-BICK: Can you remember a particular
 14 conversation with Claire Williams where the scope of
 15 your work came up?
 16 A. Yes.
 17 SIR MARTIN MOORE-BICK: Can you remember when that was?
 18 A. Well, we discussed our role when we came to site on
 19 the -- in September.
 20 SIR MARTIN MOORE-BICK: Right.
 21 A. And we had an interview with her.
 22 SIR MARTIN MOORE-BICK: After you had finished that
 23 conversation discussing your role, what did you
 24 understand your role to be? What did you understand her
 25 to be asking you to do?

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1 A. To be her eyes and ears and to -- like we've recorded on
 2 the email, do KPIs, check quality, check health and
 3 safety, "Make sure you look at my residents", and that
 4 was her focus.
 5 SIR MARTIN MOORE-BICK: All right. Thank you.
 6 Do you want to follow that up at all?
 7 MS GROGAN: No, I think we have what we need. Thank you,
 8 Mr Chairman.
 9 SIR MARTIN MOORE-BICK: Those are all your questions?
 10 MS GROGAN: Yes.
 11 SIR MARTIN MOORE-BICK: Thank you very much.
 12 Well, Mr White, those are all the questions we have
 13 for you. Thank you very much for coming to give your
 14 evidence. It has been very useful to hear what you have
 15 to tell us, and you are now free to go.
 16 THE WITNESS: Thank you.
 17 Could I just say something?
 18 SIR MARTIN MOORE-BICK: Yes.
 19 THE WITNESS: I now -- I have two more years to retirement.
 20 I have been in this industry all my life. And I would
 21 just like to say, when I started this industry, all the
 22 responsibilities were clear. You had an architect who
 23 did the design, you had an M&E that did the design,
 24 a structural engineer that did all the calculations.
 25 The architect was the lead designer and he designed

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1	everything, and you had a builder to build.	1	INDEX	
2	Now it's all mixed up, and a builder is good at	2		PAGE
3	building, but a builder is not good at designing. So	3	MR ANDREW McQUATT (affirmed)1
4	I think -- I wish we could go back to what it was when	4		
5	I started.	5	Questions from COUNSEL TO THE INQUIRY1
6	SIR MARTIN MOORE-BICK: Well, you may not be alone in that,	6		
7	but that's as may be.	7	MR JONATHAN WHITE (affirmed)103
8	Anyway, thank you very much for your observation.	8		
9	THE WITNESS: Thank you.	9	Questions from COUNSEL TO THE INQUIRY103
10	SIR MARTIN MOORE-BICK: Thank you for coming to give your	10		
11	evidence, and you are now free to go. All right?	11		
12	THE WITNESS: Thank you.	12		
13	(The witness withdrew)	13		
14	SIR MARTIN MOORE-BICK: Thank you very much, Ms Grogan.	14		
15	That must be it for the day, I think.	15		
16	MS GROGAN: It is for the day, and then on Monday it's me	16		
17	again with Mr Virdee.	17		
18	SIR MARTIN MOORE-BICK: Right. Well, we will look forward	18		
19	to hearing you again on Monday.	19		
20	We will now break until 10 o'clock on Monday	20		
21	morning.	21		
22	MS GROGAN: Thank you.	22		
23	SIR MARTIN MOORE-BICK: Thank you very much.	23		
24	(4.27 pm)	24		
25	(The hearing adjourned until 10 am	25		

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1	on Monday, 28 September 2020)	200
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