

OPUS2

Grenfell Tower Inquiry

Day 162

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(10.00 am)

SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to today's hearing. Today we're going to hear evidence from two people who were involved in the original refurbishment of the lifts at Grenfell Tower.

Yes, Mr Kinnier.

MR KINNIER: Sir, may I call Stephen Ellis.

SIR MARTIN MOORE-BICK: Good, thank you.

MR STEPHEN ELLIS (affirmed)

SIR MARTIN MOORE-BICK: Good, thank you very much indeed.

Now, do sit down.

THE WITNESS: Thank you.

SIR MARTIN MOORE-BICK: Make yourself comfortable.

(Pause)

Right. Yes, Mr Kinnier.

Questions from COUNSEL TO THE INQUIRY

MR KINNIER: Thank you, sir.

First of all, would you mind confirming your name for the record.

A. Stephen Ellis.

Q. Thank you. Good morning, Mr Ellis. Thank you for attending today.

Before we start, there are three things I should say.

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First of all, if at any time during your examination you require a break, that's not a problem, just say so.

Secondly, if at any time my questions are unclear or too long, please say so and I'll try to shorten it and make them clearer.

Thirdly, it's really important if you keep your voice up during the time you're giving evidence so that the shorthand writer can capture everything. Also, please don't nod or shake your head; just say "yes" or "no" as the case may be.

A. Yes.

Q. Now, you have given two statements to this Inquiry. The first one we can find at {BUT00000040} and is dated 23 September 2019. Is that it?

A. Yes, it is.

Q. I also note you provide a number of exhibits which can be found at {BUT00000039}. We don't need to go to them.

Your second statement can be found at {BUT00000055} and is dated 8 June 2021. Is that it?

A. Yes, that is it.

Q. You provide an exhibit to that, which is SBE/12, which can be found at {BUT00000053}. We don't need to go to it, though.

Have you read those statements recently?

A. I have.

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Q. Are their contents true?

A. Yes, they are.

Q. Have you discussed your evidence with anyone before coming here today?

A. No, but when I was first contacted by the Inquiry, I did discuss the project with some of my former colleagues to ascertain memory, really, what we could remember and what we couldn't remember about it.

Q. Thank you. One of the colleagues you contacted was Mr Ian Moorhouse; is that right?

A. It was.

Q. In his first statement -- we don't need to go to it, but the reference is {BUT00000023} -- he states at paragraph A1 this:

"On receipt of the email [from the Inquiry] and with the passage of time and events in my life, I had no recall or recollection of the project and I have since been totally reliant on Butler & Young documentation on disc and also on my former colleague S Ellis whilst investigating the issues and responding thereof."

Can you help us, what discussions did you have with Mr Moorhouse regarding the project at Grenfell?

A. The project in general terms, sir, really, just what it was, when it was. It was so long ago. We've been retired a long time, he more than me. But that was

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really just to establish the what, when and why of the scheme.

Q. Thank you.

Did you keep any handwritten notes in relation to your involvement in the Grenfell project?

A. No, sir.

Q. Now, can I first of all look at your background, your training, experience and qualifications. Helpfully, you have provided a CV, which can be found at {BUT00000041}, we don't need to go to it, but is it right that you worked at Otis Elevator Co from 1965 to 1988 as an apprentice and then a sales engineer?

A. As an apprentice, then an installation engineer, and then a test engineer, and then a sales engineer.

Q. Then you worked at M&E Design Services from 1988 to 1993 as an associate lift consultant; is that right?

A. Yes, sir.

Q. Then after that you worked at Pickering Lifts from 1993 to 1994 as a sales engineer?

A. Yes, sir.

Q. Then from 1995 until your retirement in 2014, you worked as an associate engineer at Butler & Young; is that right?

A. Yes, sir.

Q. There you were a lift consultant with responsibility for

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1 all aspects of lift contracts, from design, development,
 2 project management and commissioning; is that right?
 3 A. That's correct, sir.
 4 Q. And you carried out project management at the
 5 Barbican Estate and RBKC lift refurbishments?
 6 A. Yes, sir, amongst others.
 7 Q. In terms of your qualifications, have I summarised them
 8 correctly: first of all, you have an HNC in electrical
 9 and electronic engineering?
 10 A. Yes, sir.
 11 Q. You also have an HNC endorsement in computer
 12 engineering; is that right?
 13 A. That's correct, sir.
 14 Q. HND endorsements in electronics and mathematics?
 15 A. Yes, sir.
 16 Q. You're a member of the International Association of
 17 Elevator Engineers?
 18 A. I was.
 19 Q. Are you or were you a member of the Chartered
 20 Institution of Building Services Engineers?
 21 A. No, sir, never got there.
 22 Q. If we can look at your training, in particular your
 23 training in relation to the standards that were
 24 applicable to lifts at the time of the lifts project at
 25 Grenfell.

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1 Now, did you receive any training on the British or
 2 European standards relating to lifts?
 3 A. Not specific training, no.
 4 Q. Did you receive anything in terms of general awareness
 5 of the existence of the standards?
 6 A. Oh, yes, we were working with the standards in those
 7 days, sir.
 8 Q. Would it be fair to assume, therefore, that in the
 9 period with which we're concerned, so 2003/2004, you
 10 received no training on the principles and requirements
 11 of British Standard 5588-5:1991, which concerned fire
 12 precautions in the design, construction and use of
 13 buildings, part 5, code of practice for firefighting
 14 stairs and lifts?
 15 A. No specific training, no.
 16 Q. Would you nonetheless have described yourself as
 17 familiar with the requirements of BS 5588-5?
 18 A. Yes, I would, in those days, yes.
 19 Q. Did you have ready access to the British Standard
 20 itself?
 21 A. Yes, sir.
 22 Q. Would you have had a hard copy with you or was it
 23 available on other archive resources at Butler & Young?
 24 A. I haven't got a copy with me, no.
 25 Q. No, at the time. I'm talking about --

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1 A. Oh, yes, there were copies -- hard copies at the office
 2 of Butler & Young at that time, yes.
 3 Q. Is it fair, therefore, to assume that you had received
 4 no training on the principles and requirements of
 5 BS EN 81-72:2003, which concerned safety rules for the
 6 construction and installation of lifts, particular
 7 applications for passenger and goods passenger lifts,
 8 firefighter lifts?
 9 A. No specific training, external training, no.
 10 Q. Nonetheless, would you have described yourself as
 11 familiar with the requirements of BS EN 81-72:2003?
 12 A. At that time, yes.
 13 Q. Again, would you have had ready access to the standard
 14 itself?
 15 A. Yes.
 16 Q. Would it be also fair to assume that you had received no
 17 training on the substantive changes that were brought in
 18 in November 2004 to British Standard 5588-5?
 19 A. Yes, that would be correct.
 20 Q. Nonetheless, would you have described yourself as
 21 familiar with the changes that were brought in by that
 22 revision in November 2004?
 23 A. Yes, I was at the time.
 24 Q. Again, would you have had ready access to the revised
 25 British Standard 5588-5?

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1 A. Yes.
 2 Q. Would it be fair to assume, given your previous answers,
 3 that you received no training on the substance of
 4 Approved Document B, the 2000 edition, insofar as it
 5 related to lifts?
 6 A. Document B? I'm sorry, can you --
 7 Q. Have you ever heard of it?
 8 A. I can't recall Document B.
 9 Q. So you've never had cause to examine it?
 10 A. As far as I'm aware, no.
 11 SIR MARTIN MOORE-BICK: Just in case it prompts your memory,
 12 you may know that the Secretary of State issues guidance
 13 in relation to compliance with the Building Regulations,
 14 and they're called approved documents. Does that ring
 15 any bells? The one in particular we're interested in is
 16 Approved Document B.
 17 A. I must admit it's not familiar to me.
 18 SIR MARTIN MOORE-BICK: No, thank you, right.
 19 MR KINNIER: In relation to firefighting lifts, did you
 20 receive any specific training at all on the design
 21 requirements of a firefighting lift?
 22 A. No, not specific training. I'd been used to dealing
 23 with firefighting lifts since the M&E design days, that
 24 was ...
 25 Q. So you wouldn't have received any specific training on,

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1 for example, the purposes and functions of
 2 a firefighting lift ?
 3 A. Not specific training, no.
 4 Q. Is it fair to say, then, that your knowledge of the
 5 relevant standards was derived from practice and
 6 experience rather than specific training?
 7 A. Yes, sir, it would.
 8 Q. Thank you.
 9 Can I now turn to your specific position and
 10 responsibilities at Butler & Young.
 11 Now, as we've dealt with before, you were employed
 12 as an associate between 1995 and 2004.
 13 A. Yes, sir .
 14 Q. Your CV states that you were a lift consultant
 15 responsible for all aspects of lift contracts, from
 16 design all the way through to commissioning.
 17 Generally speaking, would that role involve you
 18 advising clients on the types of lift that were required
 19 for the buildings they were concerned with?
 20 A. Yes, it would, on occasion.
 21 Q. Now, where regulations did not expressly require
 22 a building to have a firefighting lift, but nonetheless
 23 it would be good industry practice to install
 24 a firefighting lift, for example, would Butler & Young
 25 advise the client accordingly?

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1 A. They certainly would have advised the client of the
 2 existence of the standard and the implications of the
 3 standard.
 4 Q. So would it be fair to assume that Butler & Young would
 5 advise clients as to whether and in what circumstances
 6 it was reasonably practicable to install a firefighting
 7 lift, for example?
 8 A. Yes, it would.
 9 Q. Had you ever had occasion yourself to provide such
 10 advice to clients?
 11 A. I believe so, but I can't really recall at what time.
 12 Q. Would Butler & Young be involved in the design of lifts,
 13 generally speaking?
 14 A. When you say design, the design of the scheme?
 15 Q. Yes.
 16 A. Yes, the design of the scheme would be our
 17 responsibility .
 18 Q. And the design of the lift car itself ?
 19 A. Yes.
 20 Q. Would you yourself have had the requisite knowledge and
 21 expertise and experience to have designed, for example,
 22 a firefighting lift ?
 23 A. Yes, sir .
 24 Q. And would you have felt yourself competent to design or
 25 to draft the specification for a firefighting lift ?

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1 A. Yes, sir .
 2 Q. Dealing with your previous high-rise residential
 3 building experience, before the Grenfell project in
 4 2003, what other experience did you have of lift
 5 projects in high-rise residential buildings?
 6 A. Erm ...
 7 (Pause)
 8 Some estates in Wandsworth, or an estate in
 9 Wandsworth should I say, and one in Birmingham.
 10 Q. And those are the two previous experiences that spring
 11 to mind?
 12 A. They spring to mind. There probably were others, but
 13 they spring to mind.
 14 Q. Can you remember whether either or both of those
 15 projects involved upgrading existing lifts to
 16 firefighting lifts ?
 17 A. No, they didn't.
 18 Q. Have you ever been involved or were you involved before
 19 you retired in 2014 in a project that involved upgrading
 20 existing lifts to firefighting lift standard?
 21 A. No.
 22 Q. Now, can I now turn to the relationship between RBKC,
 23 the TMO and Apex.
 24 Now, your CV states, as we've touched on, that you
 25 were involved in project management of the

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1 Barbican Estate and RBKC lift refurbishments, and in
 2 your second statement -- we don't need to go to it, but
 3 the reference is {BUT00000055/2} -- you notice that you
 4 carried out several projects for RBKC and the TMO,
 5 including the 2001 refurbishment of passenger lifts at
 6 Broadwood Terrace and Chesterton Square, and in 2003 the
 7 refurbishment of 12 passenger lifts in Kensington Town
 8 Hall, as well as a refurbishment in 2007 of one lift at
 9 the Chelsea Old Town Hall.
 10 Did any of those projects involve high-rise
 11 buildings?
 12 A. No, sir, they didn't.
 13 Q. In your experience, did staff at the TMO have
 14 professional knowledge of lifts, the design and the
 15 regulatory requirements?
 16 A. Yes, they did.
 17 Q. In your conversations with them, was it clear that the
 18 individuals concerned had sufficient knowledge of the
 19 British and European standards that applied to lifts?
 20 A. Yes.
 21 Q. With whom did you deal with at the TMO who had that
 22 experience?
 23 A. David Steppel, principally, and Robin Cahalarn to
 24 a lesser degree.
 25 Q. By lesser degree, do you mean your involvement with

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1 Mr Calaharn was to a lesser extent than that with
 2 Mr Steppel, or are you saying his knowledge was less?
 3 A. I think -- I believe his knowledge was less, yeah.
 4 I think David Steppel was very knowledgeable.
 5 Q. Had Butler & Young worked with Apex before the
 6 Grenfell Tower lift project?
 7 A. Yes, sir .
 8 Q. Can you give us an idea how many times, in broad terms,
 9 or if you prefer to say regularly , frequently or rarely ,
 10 as the case may be.
 11 A. Fairly frequently. They were one of our selected
 12 tenderers and contractors.
 13 Q. I appreciate you're a long time retired now, but can you
 14 remember how many of the projects upon which work was
 15 done with Apex involved high-rise residential buildings?
 16 A. Only that one, I think.
 17 Q. Now can I turn to firefighting lifts and the relevant
 18 standards.
 19 Now, given your previous answer, you may not have
 20 seen this before, but could we go to Approved
 21 Document B, section 18.11, which can be found at
 22 {BRE000005391/110}.
 23 Now, if we look on the right-hand column, just below
 24 the halfway point, you will see section 18.11, and that
 25 states that:

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1 "Firefighting shafts should be designed, constructed
 2 and installed in accordance with the recommendations of
 3 BS 5588-5:1991 ..."
 4 Even if you had not seen Approved Document B before,
 5 were you aware of that requirement?
 6 A. Yes.
 7 Q. Was that requirement well known in the industry, to the
 8 best of your recollection ?
 9 A. Yes, it would be, I would imagine.
 10 Q. Now, can I turn to BS 5588-5. It has a somewhat long
 11 title which, just for the record, is "Fire precautions
 12 in the design, construction and use of buildings -
 13 Part 5: Code of practice for firefighting stairs and
 14 lifts". If we can go to {BSI00001721}.
 15 Now, this was published in August 1991 and, as its
 16 title suggests, it's a code of practice.
 17 If we can go to page 7 within this document
 18 {BSI00001721/7}, and section 1, clause 1. There we go.
 19 At the top left-hand side you will see, under the
 20 heading "Scope", it says this:
 21 "This code of practice provides guidance for
 22 designers in providing firefighting stairs and lifts to
 23 assist the fire service in firefighting operations."
 24 Was that a document to which you had regard or
 25 reference during the course of the work at Grenfell?

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1 A. That scope part is not something we would have adhered
 2 to in the Grenfell Tower project.
 3 Q. Why is it not something to which you would have adhered
 4 for the Grenfell lift project?
 5 A. Because it was agreed that the lifts would not be
 6 firefighting , but would be -- remain as fireman's lifts
 7 from the discussions with David Steppel and John Rogers.
 8 Q. Okay, we'll come on to that in due course.
 9 Now, if we can stay on this page for the moment and
 10 look at clause 2.10, it's on the right-hand side under
 11 the heading " firefighting lift ", which is defined thus:
 12 "A lift designated to have additional protection,
 13 with controls that enable it to be used under the direct
 14 control of the fire service in fighting a fire."
 15 "NOTE The firefighting lift is a development of the
 16 type of lift known as a fireman's lift . Although
 17 existing firemen's lift installations may be replaced,
 18 firemen's lifts should not be used in new installations .
 19 Only lifts complying with this code of practice can be
 20 designated firefighting lifts ."
 21 Were you familiar with that definition ?
 22 A. Yes. Yes, sir .
 23 Q. Can you help us, what is the difference between
 24 a fireman's lift and a firefighting lift ?
 25 A. Well, the firefighting lift has all the attributes that

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1 are described in this standard and that I described in
 2 my witness statement of -- the second witness statement.
 3 The fireman's lift was notably just -- had to be --
 4 conform to dimensional requirements and have a switch at
 5 the fire service access level which would be turned over
 6 and isolate the lift for use by firefighters . But the
 7 control module of that lift would be something akin to
 8 what they call car preference control, and not the more
 9 sophisticated control that was included in the 5588.
 10 Q. Thank you.
 11 If we can stay on this page, right-hand column, and
 12 look at section 2.12, it defines a firefighting shaft
 13 thus:
 14 "A protected enclosure containing a firefighting
 15 stair, firefighting lobbies and, if provided,
 16 a firefighting lift together with its machine room."
 17 Were you familiar with that definition ?
 18 A. Yes. Yes, sir .
 19 Q. If we could now turn to page 10 within this document
 20 {BSI00001721/10}, and if we can look at the bottom
 21 right-hand corner at clause 3.6, or part 3.6, which is
 22 headed "Provision and number of firefighting shafts".
 23 It says this:
 24 "The criteria for the provision and number of
 25 firefighting shafts in many building types are given

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1 either in building regulations or in the relevant Part
 2 of BS 5588. However, where no such guidance is
 3 available the provision and number of firefighting
 4 shafts should be based on the following.
 5 "a) Buildings or parts of buildings where:
 6 "1) the height ... of the surface of the floor of
 7 the topmost storey (excluding any storey consisting
 8 exclusively of plant rooms) exceeds 15m ..."
 9 Now, stopping there, would you accept that, at least
 10 according to BS 5588-5, if a new building is built, the
 11 advice should be that it should have a firefighting
 12 shaft, which would include a firefighting lift?
 13 A. Yes, sir.
 14 Q. And the rationale for including a firefighting lift is
 15 simply this: that it would assist evacuation and
 16 firefighting efforts in the event of a fire?
 17 A. Firefighting efforts. I'm not so sure about evacuation,
 18 I think that's a different case.
 19 Q. But certainly firefighting efforts?
 20 A. Certainly firefighting.
 21 Q. Now, in your second statement at paragraph 17
 22 {BUT00000055/6} -- we don't need to go to it -- you
 23 state that the view at the time of project 1 -- one
 24 project you were involved in -- was that when
 25 refurbishing lifts, compliance with BS 5588 was not

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1 mandatory. However, in terms of existing buildings, the
 2 rationale for installing a firefighting lift would
 3 equally apply to an existing building, wouldn't it, ie
 4 it would assist firefighting efforts in the event of
 5 a fire?
 6 A. The problem with that is that to call the lift
 7 a firefighting lift, you have to comply with this
 8 standard or the latest standard in every aspect,
 9 otherwise you can't call it a firefighting lift. That's
 10 been one of the problems. I could go on a little bit if
 11 you like, but ...
 12 Q. No, it's really the central point being that you have
 13 a very good or a sound safety reason for, where the
 14 opportunity arises, installing a firefighting lift
 15 insofar as it's reasonably practical to do so, which is
 16 to enhance or to improve the prospects of firefighting
 17 efforts in the event of a fire. That rationale exists
 18 whether it's an existing building or a new building.
 19 Would you accept that as a proposition?
 20 A. Yes, I'll accept that as a proposition.
 21 Q. So would it follow -- and please say if you disagree
 22 with this -- that even though British Standard 5588-5
 23 does not expressly say whether lifts installed in
 24 existing tall buildings should be upgraded to
 25 a firefighting lift, there would be a very sound safety

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1 rationale for doing so, ie enhancing the prospects of
 2 firefighting efforts in the event of a fire?
 3 A. I can't really say on that. It's difficult to evaluate
 4 a set of circumstances where you can't comply with the
 5 whole standard and can't call the lift a firefighting
 6 lift.
 7 What I would say is that the building that we were
 8 reviewing, the TMO and ourselves, in 2003 was a very
 9 different edifice to what it became, in that it was
 10 recognised to be fire secure, with very little risk of
 11 fire spreading from flat to flat, let alone floor to
 12 floor, and that the application of the fireman's lift,
 13 as it was, would be more than an adequate tool.
 14 SIR MARTIN MOORE-BICK: I think the suggestion being made,
 15 Mr Ellis, is that if it were possible, given the
 16 physical limitations of the building, to replace
 17 fireman's lifts with firefighting lifts, there would be
 18 a good safety reason for doing that.
 19 A. If that could be completely achieved, yes.
 20 SIR MARTIN MOORE-BICK: Thank you.
 21 MR KINNIER: Could we turn on to a different standard now,
 22 which is BS EN 81-72:2003, and if we go to
 23 {BSI00001725}.
 24 Mr Ellis, can I apologise, there is a slightly odd
 25 noise off which I think --

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1 SIR MARTIN MOORE-BICK: We have a crackling noise from
 2 something over in that sort of corner of the room.
 3 MR KINNIER: It's subject to investigation, but I've seen
 4 Ms Brooks leave the room, so I suspect --
 5 SIR MARTIN MOORE-BICK: All right.
 6 MR KINNIER: It's just to apologise to Mr Ellis that there
 7 are noises off.
 8 SIR MARTIN MOORE-BICK: Yes, I'm sorry about that, Mr Ellis.
 9 We'll see if we can get it sorted out.
 10 THE WITNESS: I'm used to noises off, sir.
 11 MR KINNIER: Now, we have the standard up there. As you've
 12 indicated, you're familiar with its requirements. It's
 13 published on 22 July 2003.
 14 If we could go to page 7 within this standard
 15 {BSI00001725/7}, and again section 1, which defines
 16 scope, and in particular 1.2.
 17 Now, you can see there in the second and third dash
 18 points under 1.2 that the standard says it does not
 19 apply to lifts installed in existing buildings or to
 20 important modifications to existing lifts installed
 21 before the publication of the standard. It goes on to
 22 state that:
 23 "However, this standard may usefully be used as
 24 a basis."
 25 And that says that at the end of clause 1.2.

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1 Would it therefore follow that this standard could
 2 provide a basis for the design and requirements of
 3 a firefighting lift in an existing building?
 4 A. It could.
 5 Q. Could I turn now to a separate standard, which is
 6 BS 5588-5:2004, so the revision of the original
 7 standard, which can be found at {BSI00001723}.
 8 You've already indicated that you're familiar with
 9 its requirements. It was published on 26 November 2004.
 10 Obviously by that point, the lift project at Grenfell
 11 had started; is that right?
 12 A. Sorry, the date was ...?
 13 Q. 26 November 2004.
 14 A. It had started in the sense of off site. It hadn't
 15 started on site at that time.
 16 Q. If we could go to page 18 within this document
 17 {BSI00001725/18}, and the very bottom of that page, if
 18 possible.
 19 We see there at the bottom clause 7, "Fire-fighting
 20 facilities", 7.1, "Fire-fighting shafts", and 7.1.1,
 21 "Provision of fire-fighting shafts". The standard says
 22 this:
 23 "Fire-fighting shafts should be provided in tall
 24 buildings, buildings with deep basements, and buildings
 25 with large floor areas."

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1 If we could hold that in mind but turn over the page
 2 {BSI00001725/19}, we should see table 4, which is
 3 subtitled, "Provision of fire-fighting shafts".
 4 In the top row on the left-hand side, it says this:
 5 "Buildings or parts of buildings where the height of
 6 the surface of the floor of the topmost storey
 7 (excluding any storey consisting entirely of plant
 8 rooms) exceeds 18m."
 9 Should be provided with:
 10 "Fire-fighting stair.
 11 "Fire-fighting lobbies provided with a fire main.
 12 "Fire-fighting lift installation."
 13 Now, would you agree -- and please say if you do
 14 not -- that it is clear from this standard that new tall
 15 buildings, ie new buildings over 18 metres, should have
 16 a firefighting lift?
 17 A. Yes, sir.
 18 Q. Would you agree that the rationale for installing
 19 a firefighting lift would apply equally to an existing
 20 building too, ie that it facilitated the work of
 21 firefighters in the event of a fire?
 22 A. It's a difficult one to answer. It's not a thing that
 23 was the industry standard at the time to concern the
 24 design with changing what was there in that sense.
 25 Q. Now, if we could look at that a bit further, where you

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1 do have a building such as Grenfell, where you had
 2 an existing building, you had existing lifts, are you
 3 saying that the industry approach would have been not to
 4 enhance the existing lift facilities at all?
 5 A. I think in most cases that would be true. Again, we
 6 come back to this, unless you do everything, you can't
 7 call it a firefighting lift. So it can be -- there is
 8 a theory that it can be confusing. There are some
 9 publications that have said if you cherry-pick certain
 10 things that are appended to a fireman's lift, but not
 11 making it a firefighting -- it actually causes confusion
 12 to the fire service, and they're better off knowing that
 13 it's either a firefighting lift or it's a fireman's
 14 lift, or they haven't got one at all, one of those.
 15 Q. I hope I don't put this too crudely, but was it
 16 an all-or-nothing approach, therefore, that was adopted;
 17 if you couldn't provide all the features of
 18 a firefighting lift, you simply didn't do it, and kept
 19 the lifts as they were?
 20 A. Yes, that was basically it.
 21 Q. Although we'll come on to this -- and apologies, we're
 22 probably straying away from the standards at this
 23 point -- was that the attitude that Mr Steppel took when
 24 this question, on your evidence, was discussed in
 25 May 2003 or thereabouts?

23

1 A. Yes, as I remember that is exactly what it was.
 2 Q. Was he the one who volunteered that view, or was that
 3 view prompted by discussion between yourself and others
 4 at Butler & Young?
 5 A. No, that was his view. That was very definitely David's
 6 view.
 7 Q. You say very definitely his view; was it in the manner
 8 of an instruction or direction, or was there some
 9 discussion of the point?
 10 A. There was discussion, but in the end it was a direction
 11 from David, yeah.
 12 Q. Now, apologies for straying into that conversation.
 13 We'll come on to it in more detail later, but I thought
 14 it was useful there to deal with it.
 15 Could I stay on the technical side of matters and
 16 look at the requirements of a firefighting lift, and
 17 really exactly what was required for a lift to be
 18 classified as a firefighting lift in accordance with the
 19 relevant standards.
 20 Now, if I summarise matters incorrectly, please
 21 shout.
 22 A. Okay.
 23 Q. But am I right in understanding that the standards
 24 require, first of all, a lift car, certain dimensions,
 25 material of limited combustibility, and it must run its

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1 course in one minute?
 2 A. Yes.
 3 Q. Secondly, it should have a lift car trap door so that
 4 an individual trapped inside could escape?
 5 A. That is part of the standard, certainly, yes.
 6 Q. Water protection to protect the installation from water
 7 which might enter during a firefighting operation?
 8 A. Yes, two methods are required, I think, from my memory.
 9 Q. But in broad terms, I've summarised --
 10 A. Yes, indeed.
 11 Q. Fourthly, a fire control switch and associated system is
 12 required to bring the lift under the control of
 13 firefighters when required?
 14 A. Yes.
 15 Q. Fifthly, a fire service communication system,
 16 an intercom?
 17 A. Yes.
 18 Q. A secondary power supply?
 19 A. Yes.
 20 Q. Now, if we can look at certain specific elements of
 21 those requirements, and in particular the fire control
 22 switch.
 23 If for that purpose we could go to {BSI00001728}.
 24 Now, this is not a standard we've looked at yet, but
 25 it's another British Standard, it's 5655-11:1989, and it

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1 concerns, as it sets out there, the engineering and
 2 safety features to be incorporated when modernising
 3 electric lifts.
 4 If we could go to page 5 within this document
 5 {BSI00001728/5}, you see there on the right-hand column
 6 "2.4 Modernization by alterations, existing
 7 installations" -- apologies, the word "existing" is
 8 obliterated by the watermark.
 9 If we could turn over the page to page 6
 10 {BSI00001728/6}, we see at the very top left-hand corner
 11 it says this:
 12 "Where the controller of a fireman's lift ... is
 13 changed, the control system should comply with
 14 BS 5588: Part 5. This does not, however, imply
 15 compliance with all other requirements in that standard
 16 for a fire-fighting lift, especially with regard to the
 17 structural enclosure."
 18 Now, am I right in understanding that that meant
 19 that any new fire control system should comply with
 20 5588-5?
 21 A. Yes.
 22 Q. And that applied irrespective of whether the works were
 23 a modernisation or an installation of a new lift?
 24 A. Yes.
 25 Q. And there is no caveat anywhere in the standard

26

1 otherwise?
 2 A. No, I don't believe so.
 3 Q. Now, could I draw the various strands we've been
 4 discussing together, and please shout if I've got
 5 anything wrong or you feel it's too crudely summarised.
 6 First of all, at the time of project 1, in your
 7 view, did the relevant standards or any other
 8 legislation or guidance require the installation of
 9 firefighting lifts in new buildings?
 10 A. No -- oh, in new buildings?
 11 Q. In new buildings.
 12 A. Yes.
 13 Q. Secondly, at the time of project 1, in your view, did
 14 the relevant standards or any other legislation or
 15 guidance require the installation of firefighting lifts
 16 in existing buildings?
 17 A. No, they did not.
 18 Q. Did you consider that it was industry good practice to
 19 at least consider at the development and the design
 20 stage whether as many of the features of a full
 21 firefighting lift could be installed in existing tall
 22 buildings such as Grenfell?
 23 A. No, we did not.
 24 Q. Is your evidence that, as a matter of industry
 25 experience, there would have been no consideration of

27

1 such additional features, maybe not all of them, of
 2 a firefighting lift that could be incorporated so as to
 3 enhance the safety profile of the relevant lift?
 4 A. It didn't seem to be -- well, it wasn't an industry
 5 typical standard, it was the industry would either
 6 completely convert or install in new buildings
 7 a firefighting lift, or refurbishment would be just
 8 a repetition of the fireman's lift.
 9 Q. Now, one of the points which I should put to you in
 10 light of that evidence is that you're aware that
 11 the Inquiry's retained its own lift expert,
 12 Mr Roger Howkins.
 13 A. Yes, I am.
 14 Q. If we go to his report, it can be found at
 15 {RHO00000003/118}, and paragraph 248.
 16 He says this in the opening sentence:
 17 "... regardless of whether the lifts were considered
 18 'new' or 'modernized', good practice would have been to
 19 consider if the lifts could be fully upgraded to the
 20 firefighting standard, so far as was reasonably
 21 practicable."
 22 Is it fair to say that you disagree with that
 23 conclusion of Mr Howkins for the reasons you have just
 24 given?
 25 A. Yes, I do.

28

1 MR KINNIER: Can I now turn to a separate topic, which is
 2 the scale of the project at Grenfell with which you were
 3 involved.
 4 For this purpose, could I ask you to go to your
 5 first statement, which can be found at {BUT00000040} --
 6 SIR MARTIN MOORE--BICK: I'm sorry to interrupt you,
 7 Mr Kinnier.
 8 I think, if I've understood you correctly, Mr Ellis,
 9 what you're saying is whether Mr Howkins or anyone else
 10 would regard it as good practice, the industry didn't do
 11 it, and it wasn't industry practice?
 12 A. It wasn't generally industry practice, sir, no.
 13 SIR MARTIN MOORE--BICK: All right. Thank you.
 14 Sorry, Mr Kinnier.
 15 MR KINNIER: Thank you, sir.
 16 We were about to go to your first statement,
 17 {BUT00000040/4}, and paragraph A12.a, which is three
 18 rows down from the top of the page.
 19 You say this:
 20 "Butler & Young did not consider the two refurbished
 21 lifts as new lifts. Significant equipment was
 22 retained."
 23 At paragraph 14 of your second statement,
 24 {BUT00000055/5}, you say this:
 25 "[Butler & Young] considered that the two passenger

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1 lifts at Grenfell Tower comprised a refurbishment
 2 because significant equipment was retained. This
 3 retained equipment included guide rails, guide
 4 bracketry, counterweight and landing back boxes. From
 5 recollection the term 'refurbishment' was employed on
 6 every document throughout the Project."
 7 Now, probably useful to go to this. Could we go to
 8 paragraph 223 of Mr Howkins' report, which can be found
 9 at {RHO00000003/111}.
 10 He quotes there the section of 5655--11:2005, in
 11 which a new lift is defined as either where the lift is
 12 totally replaced or where only the guide rails are
 13 retained.
 14 Would you agree that that is the appropriate
 15 definition of a new lift to be deployed here?
 16 A. Sorry, can I review that again?
 17 Q. Yes, of course. I'll let you read paragraph 223, and
 18 this is Mr Howkins' report. I'll just let you read
 19 that.
 20 (Pause)
 21 A. Yeah, I understand that.
 22 Q. Yes. Would you accept that is the definition of a new
 23 lift that was relevant here?
 24 A. Yes, I would accept that.
 25 Q. Now, bearing in mind that definition, can we look at

30

1 what work was done to the lifts at Grenfell Tower and
 2 see whether and, if so, to what extent it satisfies that
 3 definition.
 4 Now, the project required the replacement of,
 5 amongst other things, the complete lift car; would you
 6 agree?
 7 A. Yes, it did.
 8 Q. The counterweight?
 9 A. I'm not sure of the counterweight, I can't remember.
 10 Apex in their returns claimed they were going to retain
 11 counterweight.
 12 Q. The car sling and platform?
 13 A. That was replaced.
 14 Q. Safety gear?
 15 A. Yes.
 16 Q. Door operator?
 17 A. Yes.
 18 Q. Car doors?
 19 A. Yes.
 20 Q. Landing doors?
 21 A. Yes.
 22 Q. The landing control system?
 23 A. By that, you mean the ... when you say landing control
 24 system, you mean the push buttons and the --
 25 Q. Yes.

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1 A. Yes.
 2 Q. Lift pit buffers?
 3 A. Yes.
 4 Q. Electrical wiring?
 5 A. Mostly, I think, yes.
 6 Q. The lift controller?
 7 A. Yes.
 8 Q. And the lift motor gearbox?
 9 A. Yes.
 10 Q. So I think the only doubt you entertained there was over
 11 the counterweight; is that a fair summary?
 12 A. And the landing back boxes, which were retained.
 13 Q. Now, just following on from that, if we could turn to
 14 the specification, which we'll discuss in further detail
 15 in due course, if we go to {BUT00000044/12}, and
 16 paragraph 1.3.1.
 17 Now, it summarised there the retained equipment as
 18 being essentially two-fold: first of all, guides and
 19 single riser of car guide brackets and landing back
 20 boxes. Is that a fair summary of what was retained?
 21 A. That is what we suggested would be retained in the
 22 specification, yes.
 23 Q. Am I right in understanding that even though the car
 24 guides were retained, they were relocated to accommodate
 25 a larger car size? Is that right?

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1 A. Yes, they were.
 2 Q. So certainly from the lay perspective, it would appear
 3 that the vast majority of the component parts of the
 4 lifts were actually replaced as part of project 1; would
 5 you accept that proposition?
 6 A. Yes, I would.
 7 Q. Would you therefore accept — and please shout if you do
 8 not — that the lifts ought to have been considered as
 9 new lifts, bearing in mind the definition we looked at
 10 earlier?
 11 A. I didn't think so.
 12 Q. Can you help us as to why you didn't think so, given the
 13 scale of the change to the lift apparatus?
 14 A. I always regarded it as a refurbishment. If the
 15 counterweight was retained and the guides and the
 16 bracketry and the landing back boxes, that was, in my
 17 opinion, a sensible definition of a refurbishment.
 18 Q. When you were looking at what the definition of
 19 a refurbishment was, is it fair to assume that you
 20 wouldn't have gone back to the relevant standard to see
 21 what the regulatory definition of a new lift was?
 22 A. No, I probably didn't.
 23 Q. And you would have relied upon your own expertise and
 24 experience in the field?
 25 A. I would.

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1 Q. Thank you.
 2 Given the extent of the change to if I can call it
 3 the lift apparatus, would you accept that there was the
 4 possibility of an opportunity to upgrade the lifts and
 5 make modifications so that they had more of the features
 6 of a firefighting lift?
 7 A. It might have been considered early on, but as we've
 8 already said, the discussions with the TMO went
 9 differently.
 10 Q. Just following on from that, just for the sake of
 11 completeness, given the scale of the works, given their
 12 duration, and I think given the contract value was
 13 £631,000—odd, would you have approached this project as
 14 being a major project?
 15 A. Oh, yes. Certainly.
 16 Q. Would that have been another factor which went into the
 17 mix to consider whether these lifts were new or not, and
 18 therefore whether their capacity or their safety
 19 capability should be enhanced?
 20 A. No, I don't think so.
 21 Q. By that you're saying you didn't view it in that way?
 22 A. No, I didn't view it that way.
 23 Q. If I can now turn to Butler & Young's initial
 24 involvement with the lift project and, first of all, the
 25 project brief itself.

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1 Now, in or about August 2002, the TMO produced
 2 a project brief for the potential lift consultants for
 3 the lift works at Grenfell.
 4 If we can go to {TMO00853783}, hopefully we see that
 5 document.
 6 We do not.
 7 A. That's an email.
 8 Q. Let's see. If we can go to {TMO00853783/12}. Better
 9 luck that time.
 10 Have you seen that before?
 11 A. Only recently.
 12 Q. So we can take it that you did not see it in 2002, 2003
 13 or 2004?
 14 A. No, I did not. I certainly can't remember seeing it in
 15 that time, and that was assumedly seen during the fee
 16 tender process.
 17 Q. If we could go back to page 2 in this document, please
 18 {TMO00853783/2}.
 19 That front page is fairly nondescript. Does that
 20 prompt any memories as to whether you saw that before or
 21 not? It's dated 27 August 2002.
 22 A. No.
 23 Q. Fair enough.
 24 Given that you hadn't seen the client brief before,
 25 on what basis were you informed about what the TMO

35

1 wanted the potential lift consultants to do for them?
 2 A. That would only have been derived from the project brief
 3 meeting that took place in, I believe, March 2003.
 4 Q. Were you given anything in writing at the time, can you
 5 remember?
 6 A. No.
 7 Q. So it's solely on the basis of verbal instructions?
 8 A. Yes. As I say, until recently I'd not seen that brief.
 9 I've seen it now, I've seen it in recent weeks, but
 10 I didn't see it at the time.
 11 Q. Given that this was a major project, was it unusual, in
 12 your experience, for there not to be a written document
 13 from the client setting out its instructions and
 14 expectations?
 15 A. I would say that's true.
 16 Q. So it was unusual?
 17 A. No, sorry, I mean, it would be usual —
 18 Q. Oh, usual.
 19 A. — for that to be presented to the tendering consultant.
 20 Q. Now, notwithstanding what you've said, could we go back
 21 to page 12 in this document {TMO00853783/12}, and we see
 22 there at paragraph 1.1:
 23 "The [TMO] and the Lancaster West Estate Management
 24 Board ... require a condition and feasibility report on
 25 the two traction passenger lifts serving Grenfell Tower

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1 and the single hydraulic passenger lift serving the
2 adjacent offices."

3 Now, bearing in mind that you haven't seen this
4 before, can you remember whether the feasibility report
5 was intended to address matters such as cost, length of
6 project and the building design?

7 A. Yes, they were.

8 Q. And so you were aware of the request for a feasibility
9 report?

10 A. Yes, indeed.

11 Q. The next sentence of that section says this:
12 "The report shall address the clients concerns in
13 respect to the immediate and medium term maintenance
14 viability of the existing installations given the
15 current levels of failures, availability of replacement
16 parts, compliance to latest British Standards and energy
17 conservation."

18 Now, looking at the last element of that quotation,
19 which concerns compliance with British Standards, did
20 you discuss with the TMO which particular
21 British Standards were likely to apply to the project?

22 A. I can't recall, to be absolutely honest, whether that
23 particular bit was discussed.

24 Q. Looking at it more broadly, was it your normal practice
25 to advise clients on what the relevant regulatory

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1 requirements were when considering works to existing
2 lifts?

3 A. Yes.

4 Q. So is it fair for the panel to assume that it's likely
5 that you would have discussed with the TMO the
6 applicable standards with them at some time?

7 A. Yes, it would be.

8 Q. With whom would you have discussed the applicable
9 standards?

10 A. David Steppel, principally, and John Rogers as the
11 project manager for the TMO.

12 Q. Can you remember when you first discussed the applicable
13 standards with Mr Steppel?

14 A. I'm afraid I can't. It was possibly before or after the
15 first project brief meeting, I can't really remember.

16 Q. But relatively early stages?

17 A. Very early stages, yes.

18 Q. Now, what were the conclusions of the discussions you
19 had in relation to the measures that would be required
20 to comply with applicable standards?

21 A. The discussions around fireman's/ firefighting lifts
22 resulted in the, if you like, instruction, as you called
23 it earlier, that we would not be upgrading to or
24 attempting to upgrade to firefighting standards, but
25 would repeat what was there, which was the fireman's

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1 lift with control.

2 Q. Now, bearing that in mind, can we go to page 15 within
3 this document {TMO00853783/15}. It's paragraph 4.10,
4 entitled "Standards", we see it on the page, and it says
5 this:
6 "(a) The installation shall comply with BS EN 81 [8
7 has been inserted in manuscript]: 1998 'Safety rules for
8 the construction and installation of lifts ' Part 1:
9 Electric lifts, the Health and Safety Statutory
10 Instrument No. 831 'The Lift Regulations' and
11 Electromagnetic Compatibility and IEE Regulations."
12 Is that a fair summary?

13 A. Yes.

14 Q. It goes on to say at (b):
15 "However, given the dimensional constraints
16 associated with an existing building, the report shall
17 identify any area where the new installation cannot meet
18 current recommendations or legislation and make
19 recommendations to reduce any potential risks."
20 Now, would you agree that the brief expressly
21 required the consultant to identify where the new
22 installation could not meet current recommendations or
23 legislation and make recommendations to reduce any
24 potential risks?

25 A. Yeah.

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1 Q. Bearing in mind your evidence that you say you have not
2 seen that, was that nonetheless an instruction that was
3 conveyed to you verbally?

4 A. I can't recall, to be absolutely honest, on that
5 particular issue.

6 Q. Can you remember whether you produced any document or
7 gave any form of briefing, verbal or otherwise, setting
8 out the extent to which the new installation may not
9 meet applicable standards and what could be done to
10 mitigate any risks arising?

11 A. I can't remember doing so, but the scheme did involve
12 the mitigation of such shortcomings as overtravel and
13 pit depth, because we were increasing speed.

14 Q. Looked at differently, was it your normal practice when
15 dealing with work to lifts in existing buildings, would
16 it have been your standard practice, to have advised the
17 client of the relevant standards and the extent to which
18 works may not meet the relevant standards?

19 A. I would say so, yes.

20 Q. And did you do that at this project?

21 A. I can't recall, to be absolutely honest.

22 Q. Looking at subparagraph (c) now:
23 "Given the height of Grenfell Tower together with
24 the existing physical building constraints, the report
25 should shall [sic] address the issues of Fire Fighting

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1 and Evacuation lift requirements and how they affect the
2 proposed works."

3 Looking at subparagraph (c), would you agree that
4 that is crystal clear that the brief required the
5 consultant's feasibility report to address the issue of
6 firefighting and evacuation lift requirements and how
7 they affected the proposed works?

8 A. Yes, I see that was the instruction on the brief for the
9 feasibility study, but, as I said, the discussions with
10 John Rogers and David Steppel resulted -- the outcome
11 was that we wouldn't even be reporting on that, and
12 evidenced by the feasibility study does not research it,
13 does not go to it, except to say --

14 Q. And because of that instruction?

15 A. Yes.

16 Q. Can we look at the tender process.

17 In terms of that process, if we can go to your first
18 statement, which is at {BUT00000040/2}, and at
19 paragraph A6. You say there you weren't involved in the
20 tender process.

21 Do you have any knowledge or recollection as to how
22 Butler & Young came to be involved in the project at
23 Grenfell?

24 A. By invitation by Janet Rhymes, I believe, to tender for
25 the consultancy services.

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1 Q. Who was Janet Rhymes?

2 A. She was the --

3 Q. Do you mean Janice Wray?

4 A. No, Janet Rhymes was the -- she was the consultant --
5 the consultant, in a way. She appointed consultants for
6 the TMO. That was her particular role.

7 Q. But you've got no direct knowledge that you can assist
8 the panel with?

9 A. No. Sorry.

10 Q. Looking at the appointment, in relation to your
11 involvement or Butler & Young's involvement in the tower
12 project, you state at paragraph A2, which is at page 1
13 of this statement {BUT00000040/1}:

14 "As far as I can ascertain Butler & Young
15 involvement was from early 2003 through to the Final
16 Account document dated February 2007."

17 A. Yes.

18 Q. Just picking up your reference to Janet Rhymes, if we
19 can go to {BUT00000005}.

20 We have here a letter from Mr Moorhouse to Ms Rhymes
21 dated 7 April 2003 in which he acknowledged receipt of
22 formal instructions. So it would appear that
23 Butler & Young's involvement at least started in or
24 about April 2003. Would you agree?

25 A. Yes, it would -- absolutely, yeah.

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1 Q. If we can now turn to Butler & Young's duties in
2 relation to the project at Grenfell.

3 If we could go back to {BUT00000040/1}, and
4 paragraph A2, you see set out there are the seven
5 elements of Butler & Young's responsibilities as part of
6 the project.

7 I'll give you just a brief opportunity to refresh
8 your memory of that paragraph.

9 (Pause)

10 Was that set of duties typical or similar to other
11 duties in other contracts between Butler & Young and
12 RBKC and the TMO?

13 A. Yes, I would say so.

14 Q. Now, we have been unable to find any written contract
15 between Butler & Young and RBKC or the TMO. Do you
16 remember whether there was in fact any written agreement
17 entered into between the parties?

18 A. I don't. Did that letter that you just highlighted not
19 demonstrate that? I don't know.

20 Q. We can go back to it.

21 First of all, can you remember seeing any written
22 agreement between the parties?

23 A. No, sir, I can't.

24 Q. If we just go back, because you have raised it, to
25 {BUT00000005}, all that is is a confirmation of

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1 instructions. But can you remember ever seeing
2 a written contract as such?

3 A. No, I can't.

4 Q. Can you remember ever seeing Butler & Young contracting
5 on standard terms? Can you remember ever seeing
6 a standard terms document produced by Butler & Young at
7 all?

8 A. I can't recall, to be honest.

9 Q. There's some reference in the documents to an entity
10 called Brodie Plant Goddard. What was their role in the
11 project?

12 A. They were appointed as proxy project managers by
13 John Rogers. John Rogers sort of retreated from project
14 management of the project at about the time the site
15 work started, and Brodie Plant Goddard were appointed as
16 project managers on the KCTMO's behalf.

17 Q. And if we go back to your first statement, so it's
18 {BUT00000040/1}, effectively their involvement did not
19 change, alter or qualify the obligations set out there?

20 A. No.

21 Q. Thank you.

22 If we can now look at your own individual duties and
23 responsibilities as part of this project.

24 You deal with this in your second statement which
25 can be found at {BUT00000055/4}. We see there, in the

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1 second sentence of paragraph 5, that you took over
 2 day-to-day administration of the project from
 3 November 2004 until its conclusion, presumably in
 4 April 2007; is that right?
 5 A. That's correct.
 6 Q. If we can go back to your first statement, which is at
 7 {BUT00000040/2}, and paragraph A3, there again you've
 8 set out the seven elements of your responsibilities at
 9 Grenfell; is that right?
 10 A. Yes, indeed.
 11 Q. Now, could I now turn to a discussion of the scope of
 12 the proposed works and discussions with the TMO on that
 13 subject.
 14 We've looked at briefly the project brief produced
 15 by the TMO in August 2002, which you hadn't seen until
 16 recently. Can we assume, therefore, that that brief did
 17 not form the basis of your discussions with the TMO as
 18 to scope of the works?
 19 A. Sorry, I don't think I understand the question quite
 20 there.
 21 Q. If you hadn't seen that project brief --
 22 A. Right.
 23 Q. -- am I right in assuming it didn't form the basis of
 24 your discussions with the TMO as to the proposed scope
 25 of the works?

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1 A. My discussions? I don't know if Mr Moorhouse saw that
 2 brief --
 3 Q. I'm just concerned with what you can speak to.
 4 A. I can't say that -- yes, I can only say that that brief
 5 did not form part of a basis for my discussions.
 6 Q. So the basis of your discussions were verbal
 7 conversations inevitably with Mr Steppel and Mr Rogers
 8 to a lesser extent?
 9 A. Yes.
 10 Q. And were Brodie Plant Goddard involved in any
 11 discussions involving the scope of the works?
 12 A. No, sir. They didn't appear until, I'd say, just about
 13 site start -- just before site start. I think the
 14 pre-start site meeting in November 2004 was attended by
 15 Brodie Plant Goddard, I believe, and that was the
 16 first -- I believe that's the first meeting they
 17 attended.
 18 Q. Can you now remember when you had your substantive
 19 discussions with Mr Steppel as to whether firefighting
 20 lifts should be installed at the tower or not?
 21 A. I believe those discussions took place in -- after,
 22 during or before the project brief meeting in -- was
 23 that March 2003? I can't recall the exact date. But it
 24 would have been around that time.
 25 Q. In broad terms, the first half of 2003?

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1 A. Yes, certainly.
 2 Q. If we can go to your first statement, which conveniently
 3 is on the screen, and turn to page 4 {BUT00000040/4},
 4 paragraph A12.c, which is at the bottom of the page, you
 5 say this:
 6 "My understanding is that it was considered at that
 7 time that, due to structural and environmental
 8 constraints, complete compliance with BS5588 would only
 9 be fully achieved by the installation of completely new
 10 lifts in new buildings. I believe these matters were
 11 discussed and agreed with KCTMO at an early stage."
 12 Those discussions that you're referring to here are
 13 those you're referring to there?
 14 A. Yes, indeed.
 15 Q. How detailed were the discussions you had with
 16 Mr Steppel regarding compliance with the firefighting
 17 lift requirements?
 18 A. I can't really recall how detailed they became. I can
 19 only really recall the outcome of those discussions,
 20 which, as I say, prevented us from addressing the
 21 section c issue in the feasibility study that was
 22 produced.
 23 Q. Just following on from this, can we go to a particular
 24 document, which is a minute of a meeting that took place
 25 on 8 May 2003. The minute can be found at

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1 {BUT00000010}.
 2 We see there "Lift refurbishment project briefing
 3 meeting" at Kensington Town Hall on Thursday, 8 May. We
 4 can see that you are present, you're last in the list of
 5 attendees, Mr Moorhouse was there, Mr Steppel was there,
 6 and Mr Rogers was there as well.
 7 Now, first of all, do you remember this meeting?
 8 A. Only by looking at it now.
 9 Q. Can you help the panel, was this the first meeting
 10 between Butler & Young and the client?
 11 A. I have a feeling it was the -- no, it might have been
 12 the first one, actually. Yes, it might have been the
 13 first. It's a project briefing meeting; therefore, yes,
 14 it would be the first one. There was another one in
 15 July, I believe.
 16 Q. So earlier on, when you thought the meeting may have
 17 been in March 2003, refreshing your memory and looking
 18 at this, it's more likely to have been in May?
 19 A. Yes, I think that's correct.
 20 Q. If we can just scroll down the minute but staying on
 21 this page.
 22 Section 2.0 deals with project objectives and scope
 23 of works, and if we look at paragraph 2.2, it says this:
 24 "The feasibility study would address the full
 25 requirements of the brief and the following issues in

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1 particular :

2 "i. Future serviceability of the lifts for a minimum

3 of 20 years.

4 "ii. Minimum disruption to the residents of

5 paramount importance.

6 "iii. Compliance with current standards, energy

7 efficiency and facilities for persons with a wide range

8 of disabilities .

9 "iv. The possibility of enhancing car dimensions and

10 lift speed."

11 Now, looking at that minute, which refers to the

12 full requirements of the brief, you're adamant, are you,

13 that you had not seen the written brief at any stage,

14 and certainly not at this meeting?

15 A. No, certainly I hadn't.

16 Q. But would you accept that compliance with current

17 standards was a requirement set out clearly in this

18 meeting as recorded in the minute?

19 A. Yes, I would.

20 Q. Now, the minutes do not document or record any

21 discussion of what standards applied and the extent to

22 which they could be complied with. Do you remember any

23 such discussion at this meeting?

24 A. I don't -- I remember discussions, but I can't remember

25 whether that was at this meeting.

1 Q. Now, Mr Moorhouse in his second statement -- and we

2 don't need to go to it -- refers to a meeting with

3 David Steppel and John Rogers, and he doesn't refer to

4 you, in which he stated that he, so Mr Moorhouse, raised

5 the issue of firefighting lifts at the meeting and was

6 told that consideration of firefighting lifts was not to

7 be part of the feasibility study.

8 Now, did that conversation take place at this

9 meeting or, to the best of your knowledge, was there

10 a later meeting only attended by Moorhouse, Steppel and

11 Rogers?

12 A. That could have been the case, certainly.

13 Q. But can you help the panel one way?

14 A. I can't recall whether that was after this meeting,

15 before this meeting or on another date. I really can't

16 recall that.

17 Q. But you're clear that, at an early stage of the project,

18 Mr Steppel gave you an instruction --

19 A. Gave --

20 Q. -- that firefighting lifts were not to be considered?

21 A. Gave Ian Moorhouse an instruction, yes.

22 Q. If that instruction were given at this meeting, that is

23 something which common sense and commercial prudence

24 suggests should have been recorded in the minutes; would

25 you accept that?

1 A. If it was at that meeting.

2 Q. Would you take it from me that there is no record of any

3 such instruction in this minute?

4 A. Yes, I can.

5 Q. Can you remember ever being briefed by Mr Moorhouse that

6 Mr Steppel had given the instruction that firefighting

7 lifts were not to be provided?

8 A. Yes, I can.

9 Q. Can you remember, first of all, when he gave you that

10 instruction?

11 A. I can't. I'm sorry, I can't.

12 Q. Is that something that, back in 2003, would have been

13 written down either in the form of a file note or in

14 a letter or anything like that? What would

15 Butler & Young do?

16 A. Certainly a file note would have been made, I would have

17 thought.

18 Q. And that would have been standard practice?

19 A. Yes, it would.

20 Q. Did you ever raise yourself at this meeting or

21 thereafter whether installation of a firefighting lift

22 should be considered or should have been considered by

23 the TMO?

24 A. I didn't personally, no.

25 Q. Do you know of anyone else who did?

1 A. I imagine to have the resultant discussion and

2 instruction and outcome that Ian Moorhouse and

3 David Steppel had, they must have discussed that. But

4 that's -- I'm speculating, really.

5 Q. Now, we can go to it if needs be, but in your first

6 statement, in response to a question asking about any

7 communications, verbal or written, regarding the

8 installation of a firefighting lift, you said, and the

9 reference is at A12.e {BUT00000040/5}:

10 "I am unable to recall any such communications."

11 Now, can you help the panel as to why you can now

12 remember an instruction given by Mr Steppel when you

13 were asked specifically about this point by the Inquiry?

14 A. Well, I referred in the earlier answer in that witness

15 statement to the discussions at an early stage. When

16 I was answering that question, in the sense that I could

17 not remember any discussion with any of those parties

18 where it was proposed that the lifts be upgraded to

19 firefighting status, that was what I meant by the

20 answer.

21 Q. Thank you.

22 A. I answered the wrong question, but that's what I meant

23 by the answer.

24 Q. Now, if we could turn to Mr Howkins' report,

25 {RHO00000003/121}, paragraph 259.

1 Mr Howkins here is reviewing these initial
 2 discussions, and what he says is:
 3 "As part of these discussions [around the
 4 achievement of the goals in the brief] I would have
 5 expected [Butler & Young] to have drawn TMO's attention
 6 to the relevant British Standards for firefighting
 7 lifts, their applicability and the feasibility of
 8 achieving compliance with the standards. This includes
 9 advising TMO that tall buildings should have
 10 a firefighting lift."

11 What would be your response to Mr Howkins' statement
 12 of opinion there?

13 (Pause)

14 A. My only answer that I can give to that is that
 15 Ian Moorhouse must have discussed those very
 16 requirements for David Steppel to have said what he
 17 said.

18 Q. But that is essentially speculation?

19 A. That is speculation.

20 Q. So is it fair to assume, therefore, you cannot help us
 21 as to whether a representative of Butler & Young raised
 22 these matters? Certainly you did not?

23 A. Certainly I did not.

24 Q. Thank you.

25 Now, you stated that — and it's at paragraph A12.c

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1 of your first witness statement {BUT00000040/4} —
 2 structural constraints were said to be a barrier to full
 3 compliance with firefighting lift requirements.

4 Can you help us, what did you mean? What did you
 5 have in mind when you referred to structural
 6 constraints?

7 A. Probably the — trying to achieve the two methods of
 8 water dispersal from the landings or from the pit.
 9 I imagine they would cause considerable difficulties in
 10 trying to achieve.

11 Q. Did you seek or receive advice from a structural
 12 engineer about the nature and extent of any relevant
 13 structural constraints?

14 A. No.

15 Q. Did you ever advise the TMO to seek the specialist
 16 advice of a structural engineer?

17 A. No, sir.

18 Q. Were any of the conversations between yourselves or any
 19 relevant structural engineers and the TMO documented?

20 A. No, sir.

21 Q. Could we go to {APX00005424}.

22 This is a letter from you to John Rogers, who, as
 23 you said, was the project manager on project 1. You
 24 note under the heading "Structural Engineers Duties", so
 25 it's the first substantive paragraph:

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1 "You are aware that during the course of the
 2 feasibility study it was evident that RBKC had no
 3 drawings or structural details of either the duplex
 4 lifts or the hydraulic lift and you did in fact issue
 5 a variation against the study for structural engineers
 6 duties in the sum of £1,300.00, my email 16th June 2003
 7 refers.

8 "Since the feasibility study the structural engineer
 9 has obviously been involved in determining the
 10 specification requirements, calculations and details for
 11 both projects.

12 "All contractors drawings are now approved ..."
 13 And you go on.

14 Bearing that in mind, if we could turn to an email,
 15 which can be found at {TMO00853865}.

16 This is an email from Mr Moorhouse, and it refers
 17 to, in the fourth paragraph down, needing structural
 18 advice to investigate the option of increasing lift car
 19 speed and possibly increasing speed.

20 Looking at those two documents together, your letter
 21 and Mr Moorhouse's email, both suggest that structural
 22 advice was sought from an engineer and that it was
 23 focused on the specific issue of increased lift car
 24 size; is that right?

25 A. Yes, it was.

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1 Q. Is it therefore, given your previous evidence, safe to
 2 assume that the structural engineer's advice was not
 3 sought as to the feasibility of installing
 4 a firefighting lift, or at least such features of
 5 a firefighting lift that were reasonably practicable?

6 A. That's correct.

7 Q. You also stated that environmental constraints were said
 8 to be a barrier to full compliance with the standard.
 9 Again, can you help the panel, what did you mean by
 10 environmental constraints in this context?

11 A. Probably smoke dispersal, lobby pressurisation, that
 12 sort of issue.

13 Q. Now, you stated that complete compliance with BS 5588
 14 would only be fully achieved by the installation of
 15 completely new lifts and new buildings.

16 Now, do you mean that, at the time, the considered
 17 view was that complete compliance with BS 5588 was
 18 effectively impossible or not reasonably practicable?

19 A. Not reasonably practicable, I would say.

20 Q. But it was possible?

21 A. It may have been possible. Without doing a feasibility,
 22 I wouldn't know.

23 Q. Is it fair to say that neither structural nor
 24 environmental constraints would have prevented partial
 25 compliance with firefighting lift standards?

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1 A. That's true to say, yes.
 2 SIR MARTIN MOORE—BICK: Well, that might depend on what
 3 parts you're going to comply with, mightn't it?
 4 A. Well, it might, yes, it depends what --
 5 SIR MARTIN MOORE—BICK: I mean, you could put in a hatch in
 6 the top of the lift car regardless of any structural
 7 constraints, I imagine.
 8 A. Yes, there would be, but that was, in fact, another
 9 caveat for the practicality of local authority housing.
 10 They were very, very nervous about --
 11 SIR MARTIN MOORE—BICK: Oh, yes, but perhaps I was really
 12 picking up Mr Kinnier, because to ask whether you can
 13 implement some of the requirements depends on which ones
 14 you're talking about.
 15 A. Yes, indeed.
 16 MR KINNIER: Probably it was a run-up to the next question,
 17 which involved costing.
 18 Mr Calaharn, who was obviously from the TMO, stated
 19 in the fifth line at paragraph 40 of his statement -- we
 20 don't need to go to it, but the reference is
 21 {TMO00866023/5} -- he estimated the cost of upgrading
 22 each lift to full firefighting standard to be £10,000
 23 per lift.
 24 Now, from the pure perspective of cost, would you
 25 agree with that estimate?

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1 A. No.
 2 Q. What would be your estimate of upgrading each of these
 3 lifts to full firefighting specification at Grenfell in
 4 2003/4?
 5 A. I would estimate, from what I wrote in my second witness
 6 statement, that that would be somewhere between £70,000
 7 and £100,000. I would imagine that the £20,000 that
 8 Robin was referring to would be unlikely to cover much
 9 more than the alternative main supply.
 10 Q. Just for clarity, when you refer to £70,000 to £100,000,
 11 is that the cost of upgrading all lifts or each
 12 individual lift?
 13 A. That's for two lifts.
 14 MR KINNIER: Thank you.
 15 Now, can we turn to the feasibility study itself --
 16 SIR MARTIN MOORE—BICK: Are we going to a slightly new
 17 topic?
 18 MR KINNIER: We are, and I was about to ask, given
 19 I realised it was a new topic, whether that might be
 20 an appropriate juncture for a break, sir.
 21 SIR MARTIN MOORE—BICK: I think it would, yes. Thank you
 22 very much.
 23 I think we warned you, Mr Ellis, we have a break
 24 during the morning, and this looks as though it's
 25 a convenient time to have it.

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1 THE WITNESS: Yes, sir.
 2 SIR MARTIN MOORE—BICK: So we will stop now and resume,
 3 please at 11.35. I have to ask you, please, not to
 4 discuss your evidence or anything relating to it with
 5 anyone while you're out of the room. All right? Thank
 6 you very much.
 7 If you would like to go with the usher, she'll look
 8 after you.
 9 THE WITNESS: Thank you.
 10 SIR MARTIN MOORE—BICK: Thank you.
 11 (Pause)
 12 Thank you, 11.35.
 13 MR KINNIER: Thank you, sir.
 14 (11.17 am)
 15 (A short break)
 16 (11.35 am)
 17 SIR MARTIN MOORE—BICK: All right, Mr Ellis, are you ready
 18 to carry on?
 19 THE WITNESS: Indeed.
 20 SIR MARTIN MOORE—BICK: Thank you very much.
 21 Yes, Mr Kinnier.
 22 MR KINNIER: Thank you, sir.
 23 Could we turn to the feasibility study, Mr Ellis,
 24 which can be found at {BUT00000002}.
 25 We see the date in the bottom left-hand corner,

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1 July 2003, so two months after the first project meeting
 2 at Kensington Town Hall.
 3 Have you seen this document before?
 4 A. Yes, sir.
 5 Q. Did you draft it or contribute to the drafting?
 6 A. I cannot recall.
 7 Q. Did you read the feasibility study at the time, ie
 8 summer 2003?
 9 A. Yes, I did.
 10 Q. If we go to page 5 {BUT00000002/5}, we see at
 11 paragraph 1.2 it says:
 12 "The principal areas covered [by the study] are ..."
 13 And they're identified, but looking at number 2, it
 14 says this:
 15 "Compliance with current Health and Safety at Work
 16 requirements, the recommendations of British Standards
 17 and EN81/1."
 18 Then if we could stay in this document but go to
 19 page 12 {BUT00000002/12}, and section 3.10, we see there
 20 the scope is reiterated, and it states:
 21 "This report has been principally concerned with
 22 establishing the relative merits of each of the three
 23 options with the following particular considerations:
 24 "1. Compliance with the Health and Safety at Work
 25 Act and BS7255, Safe Working on Lifts.

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1 "2. Compliance with the requirements of relevant
2 British Standards and EN81/1, where appropriate."
3 Would you agree, or at least take it from me, that
4 there is no reference in section 3.10 to BS 5588-5?
5 A. There is none, no, that's correct.
6 Q. And equally, there is no reference there to
7 BS EN 81-72:2003?
8 A. Also correct.
9 Q. Would you consider those to be significant omissions or,
10 in your view, do they reflect the instructions given by
11 Mr Steppel to your Mr Moorhouse?
12 A. They reflect those instructions exactly, even to the
13 option appraisal, which in a one-liner mentions
14 fireman's control.
15 Q. You can take it from me, there is no reference in the
16 feasibility report to an instruction from Mr Steppel
17 that firefighting lifts were not to be considered.
18 First of all, do you find that omission surprising,
19 given the clarity of the instruction that's said to have
20 been provided?
21 A. No, I think it was -- I think what will have happened,
22 had the instruction still been in place to complete the
23 feasibility study of upgrading, I think -- I'm pretty
24 sure that they would have thrown it back at us, that we
25 would have had that report rejected for not dealing with

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1 that aspect.
2 Q. Just flowing from that answer, and just to give you the
3 opportunity to answer a criticism that's made of
4 Butler & Young by Mr Howkins, could we go to his report,
5 which is at {RHO00000003/122}, paragraph 261.
6 Now, he is talking about the feasibility report
7 here:
8 "261. The report should have included an analysis of
9 whether it was reasonably practicable to bring the lifts
10 up to full firefighting lift standard and, if not, why
11 not. As part of this analysis, I would have expected
12 B&Y to have provided TMO with (i) the cost of bringing
13 the lifts up to full firefighting lift standard (ii) a
14 warning of any potential structural, electrical or
15 plumbing constraints and the relevant specialist from
16 whom further advice may need to be sought e.g.
17 a structural engineer (iii) to highlight the potential
18 risks arising from not installing firefighting lifts.
19 "262. Overall, I would have expected to see in the
20 report an option of bringing the lifts up to full
21 firefighting standard alongside other options and the
22 benefits/disadvantages of each (including considerations
23 such as cost, length of programme of works, need to
24 decant residents etc.)"
25 What would be your response to that statement of

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1 opinion?
2 A. Just in the same way that the previous answer. The
3 study which we may have carried out on that -- on those
4 aspects that he highlights there were discounted before
5 we even started the feasibility study.
6 Q. Thank you.
7 Could we go to {BUT00000006}.
8 Now, these are minutes of a lift refurbishment
9 meeting held on 9 July, the month unfortunately is
10 missing there on the title page, which you attended. Is
11 that right?
12 A. Yes, indeed.
13 Q. And that two-page minute contains no reference to any
14 firefighting lift standards; would you agree?
15 A. As far as I can remember, it does not.
16 Q. Now, if we can go to {TMO00869720/109}.
17 Now, this is a memorandum, 16 December 2003, sent by
18 John Rogers to Paul MacAinsh.
19 Who was Paul MacAinsh, do you know?
20 A. I don't know, I'm afraid.
21 Q. Now, if we look at the third paragraph there, you may
22 not have seen this before, but Mr Rogers sets out there
23 two options in the third paragraph for lift
24 refurbishment. The first is noted to be like-for-like
25 replacement. The second is referred to as:

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1 "Install larger, faster lifts and increase the car
2 entrance width. This would not provide a lift service
3 to current standards but would improve reliability and
4 significantly reduce waiting times."
5 The memo then goes on to refer to a feasibility
6 report from the lift consultant, and options 1 and 3B
7 set out in the feasibility report.
8 The memo suggests that John Rogers was aware that
9 neither lift refurbishment would bring the lift service
10 up to current standards.
11 Had you been involved in any advice to Mr Rogers
12 that lift works would not bring the lift service up to
13 current standards?
14 A. I can't recall whether I did or not. He's either
15 referring to the fact that the current standard, 5588,
16 would not be met, or he's referring to the fact that
17 possibly the overtravels and pit depths would be not to
18 British Standard because of the increased speed. I'm
19 not sure what he meant by that in that context.
20 Q. Thank you.
21 Could we now turn to the specification itself,
22 {BUT00000044}.
23 Now, so you can orientate yourself in time, you will
24 see in the bottom left-hand corner the date of the
25 specification is April 2004.

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1 Can you remember now who wrote that specification?
 2 A. I believe Ian Moorhouse drafted the specification, but
 3 I believe I also had a part in it.
 4 Q. Was it reviewing it or were you involved in some
 5 technical contribution?
 6 A. I think I was involved -- I seem to remember being
 7 involved towards the end when collection of information
 8 from architect, Mike Flynn, and the structural engineer,
 9 Jim Bryce, was being brought in to review.
 10 Q. If we can turn to page 20 within this document
 11 {BUT00000044/20}, we see there paragraph 2A.01, and if
 12 we can look at the fifth paragraph, which starts with
 13 the words "Should anything", it says:
 14 "Should anything be omitted from this specification,
 15 which is fitting and usually considered necessary for
 16 due and proper completion of the work, the Tenderer
 17 shall verbally bring this to the attention of the SO
 18 prior to tender submission with confirmation in a letter
 19 prior to submitting the Tender return."
 20 Can you help us, what do the initials "SO" indicate?
 21 Is it supervising officer?
 22 A. Supervising officer.
 23 Q. And were you the supervising officer?
 24 A. Well, Ian Moorhouse was the supervising officer in
 25 general terms, but I became the supervising officer.

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1 Q. Insofar as you can remember, the TMO never wrote to you
 2 saying, "Why aren't you advising us about firefighting
 3 lifts" ?
 4 A. No.
 5 Q. Did any tenderers bring the absence of firefighting lift
 6 features in the specification to your attention?
 7 A. No, sir, not that I can remember.
 8 Q. To the best of your knowledge, can you remember
 9 Mr Moorhouse saying that tenderers had raised the
 10 question of firefighting lifts ?
 11 A. I can't recall any such.
 12 Q. Could I ask you to stay in this document but go to
 13 page 22 {BUT00000044/22}, and it's really towards the
 14 bottom of the page at paragraph 2A.05, which is under
 15 the heading "Regulations". It says there:
 16 "It shall be understood that the equipment specified
 17 and that the characteristics of the site, particularly
 18 dimensions and clearances, may not fully comply with
 19 current British and European Standards and these shall
 20 be qualified by the Tenderer in the tender return."
 21 For those purposes, would the reference to British
 22 and European standards have included those concerned
 23 with firefighting lifts ?
 24 A. No, not necessarily, I believe. That was referring to
 25 what I spoke about earlier, was the dimensions and

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1 clearances, largely because of the increased speed.
 2 Q. Looking at the next paragraph in this section, it says:
 3 "Although it is recognised that the existing
 4 structural constraints shall prevent full compliance
 5 with harmonised European Standards, the requirement is
 6 for the lift installation to include all of those items
 7 and features that do comply, as far as is reasonably
 8 practicable."
 9 Now, would you accept that the specification
 10 required the lift installation to comply as far as was
 11 reasonably practicable --
 12 A. Yeah.
 13 Q. -- with harmonised European standards?
 14 A. Yes, I would.
 15 Q. And your evidence is that standards concerning
 16 firefighting lifts were excluded from the reference to
 17 harmonised European standards?
 18 A. Yes, indeed.
 19 Q. Although that's not mentioned here, is it?
 20 A. No.
 21 Q. Now, this part of paragraph 2A.05 refers to "existing
 22 structural constraints" preventing full compliance with
 23 standards.
 24 Were the structural constraints contemplated there
 25 any different to the structural constraints you

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1 discussed earlier in your evidence?
 2 A. In terms of -- sorry, I don't quite understand that,
 3 structural --
 4 Q. Put more simply, what are you talking about when you're
 5 talking with existing structural constraints here?
 6 A. Principally, they're talking about the overtravel at the
 7 top of the shaft, the stopping distances, and the pit
 8 depths.
 9 Q. Now, if we can turn over the page to page 23
 10 {BUT00000044/23}, we come to 2A.06, which concerned
 11 "Design Standards", you will see halfway down the page,
 12 and that section says:
 13 "The equipment and installation shall conform to
 14 this specification and to the relevant British Standards
 15 including Codes of Practice and, in particular, BS 5655,
 16 BS 7255 and EN81-1. Where this specification differs
 17 from those standards and codes, the provision of this
 18 specification shall prevail."
 19 It goes on to say:
 20 "Reference to British Standards and Codes of
 21 Practice shall mean the edition current three months
 22 prior to the date for return of tenders. A certificate
 23 of compliance with the relevant British Standards shall
 24 be provided to the SO on request."
 25 Then it goes on to say:

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1 "It shall be understood that the existing
2 characteristics , particularly dimensions and clearances,
3 may not comply with current British Standards and these
4 shall be qualified in the tender return."
5 Can you remember now, was a certificate of
6 compliance with relevant British Standards ever provided
7 to the supervising officer ?
8 A. Not that I can recall .
9 Q. Would you necessarily have seen that or would it have
10 been something really for Mr Moorhouse rather than you?
11 A. I really can't say. I didn't see that. I can't
12 remember seeing such a document.
13 Q. Could we turn over the page to page 24 {BUT00000044/24}.
14 Now, we see here in paragraph 2A.07, "Related
15 Documentation and References", and it says:
16 "This tender documentation shall be read in
17 conjunction with, and its requirements are in addition
18 to, the general conditions of contract and any drawings
19 and other documents issued with it and listed in this
20 invitation to tender and as set out below."
21 Now, what is set out below, in somewhat torrential
22 form, is a series of British Standards and, indeed,
23 references to various bodies, such as the London
24 Fire Brigade.
25 Would you accept that, by 2004, some of the

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1 legislation in this list had in fact been repealed,
2 for example the Factories Act 1961?
3 A. Yes, I would.
4 Q. If we can go to the bottom of the page and the fourth
5 entry up from the bottom.
6 Now, there is a reference there to 5588, "Fire
7 Precautions in the design, construction and use of
8 building". It doesn't specify which part and which
9 year, the edition of that standard, is being
10 referred to.
11 Would you accept, therefore, that the reference to
12 BS 5588 is unclear in that respect?
13 A. It is unclear, albeit the only component or element of
14 the specification that would need to comply with 5588
15 would be the control, which was specified in 2A.70,
16 I think, and that does, as far as I'm aware, comply with
17 5588, because the embedded software that the contractor
18 provides in his control panel will be suitable for
19 firefighting lifts , and therefore that's why we changed
20 our clause to reflect the fact that the control that was
21 being provided was compliant with 5588.
22 Q. I suppose the issue that immediately arises out of that
23 answer is that that narrow reading is not reflected
24 here, is it, in the broad reference to BS 5588?
25 A. No, to be fair .

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1 Q. And so absent any qualification, the broad reference to
2 BS 5588 implies that firefighting lift standards should
3 have been considered; would you accept that?
4 A. No, I don't think so, only in what was actually
5 specified in the — as you say, the specification takes
6 preference, and the specification defined it. So it was
7 only referring to having to comply with that standard as
8 far as the clause that was relevant was concerned, if
9 I — if that doesn't sound too silly .
10 Q. Would you accept that there is no reference there to
11 European Standard BS EN 81–72:2003?
12 A. No, there's not.
13 Q. Was that specifically considered and rejected or did you
14 not consider it because of the instruction given by
15 Mr Steppel?
16 A. That would be true, yes.
17 Q. Which one of those options?
18 A. The second one.
19 Q. Can you explain to the panel the purpose in simply
20 identifying bodies such as the London Fire Brigade, the
21 London Electricity Board?
22 A. The idea of the list of standards was that it was
23 all —encompassing, and whatever elements in the
24 specification , unless directed otherwise, would comply
25 with those standards.

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1 Q. But simply referring to, say, the London Fire Brigade
2 and the London Electricity Board isn't really
3 a direction towards standards, is it ?
4 A. No.
5 Q. You're simply identifying two separate bodies. So what
6 purpose was served by identifying those two entities ,
7 for example?
8 A. I think the idea of putting particularly the
9 Fire Brigade in, that the contractor would need to have
10 some discourse with the Fire Brigade about what they
11 were doing.
12 Similarly with the electricity board. If they
13 were — depending on what they were doing with the mains
14 supplies, there may be a requirement to actually get
15 certain things verified in terms of electrical supply.
16 Q. Would it be fair to say that the list of statutes,
17 regulations, codes of practice, et cetera, has the feel
18 of being cut and paste from previous specifications?
19 Would that be a fair or an unfair observation?
20 A. No, that would be a fair observation, I'd say.
21 Q. So it wasn't drafted specifically with Grenfell in mind?
22 A. No. In the main.
23 Q. Do you remember any specific discussions with the TMO
24 regarding the substance of the specification ?
25 A. I can't recall . I mean, there were exchanges with

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1 Robin Cahalarn about the specification.
 2 Q. Were those detailed exchanges?
 3 A. Yes. He wrote a couple of — I can't remember what it
 4 was. He did write a couple of comments. I can't
 5 remember what they were now.
 6 Q. Is it fair to say that he did not raise the question of
 7 firefighting lifts?
 8 A. No, he did not.
 9 Q. Can you remember discussing the specification with
 10 Janice Wray?
 11 A. No, I cannot.
 12 Q. Just see whether the email jogs your memory,
 13 {TMO00853777}. It's her email at the top half of that
 14 page, 13 May 2004.
 15 I recognise I'm asking you about events 15 years
 16 ago. Just looking at that email, can you remember, was
 17 that the sum total of your discussions with Janice Wray
 18 regarding the specification for the lift works?
 19 (Pause)
 20 A. Yes. I must admit I even now can't remember that.
 21 Q. Don't worry. If you're not able to assist us any
 22 further, don't worry.
 23 Can we now turn to the specific features of
 24 a firefighting lift, and it really flows from
 25 the Chairman's intervention before the morning break,

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1 and looking at each element of the firefighting lift.
 2 Now, in your second statement to the Inquiry, you
 3 comment — and we don't need to go to it, but it's at
 4 paragraph 12 and the sixth bullet point there, and can
 5 be found at {BUT00000055/5} — that:
 6 "Local authorities were generally concerned about
 7 trap doors [in lifts] in terms of safety and security of
 8 the building. This was particularly relevant to
 9 BS 5588—5 which required that a trap door be opened from
 10 within the lift creating a potentially hazardous
 11 situation in terms of misuse."
 12 Did you have cause to advise the TMO that trap doors
 13 were a safety feature and were therefore important?
 14 A. Having — again, harking back to the original
 15 discussions that Ian had with David Steppel and
 16 John Rogers, the detail was then missing from the
 17 feasibility study, the specification and everything else
 18 that followed. So whether we would have said anything,
 19 I can't remember, but I doubt it, whether we said
 20 anything about the trap door in the roof.
 21 Q. Now, one thing that Mr Howkins says — and we don't need
 22 to go to it, but the reference is paragraph 303 of his
 23 report at {RHO00000003/136} — is he said that the
 24 provision of an emergency trap door would have been
 25 straightforward and at little additional cost at the

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1 point when the lift cars were replaced with larger
 2 versions in project 1. Do you agree with that?
 3 A. Yes, that would have been a simple task, to include or
 4 incorporate a trap door into that. But as we see from
 5 even more recent statements from Janice Wray and others,
 6 they still don't approve of having trap doors in their
 7 lifts, and that I would fairly guesstimate was true of
 8 pretty much all the local authorities, certainly in
 9 London, that they are considered more of a hazard than
 10 they are a safety requirement.
 11 Q. When Mr Howkins refers to "at little additional cost" —
 12 I know it's difficult, given 15—odd years have passed,
 13 if not more — can you give the panel a rough and ready
 14 idea of what the cost of installing a trap door in one
 15 lift would have been at the time?
 16 A. I doubt it would have been — I doubt if it would have
 17 been £1,000 per lift.
 18 Q. In a very approximate —
 19 A. Yeah, very approximately, it might have been £1,000
 20 a lift. The EN 81—72 was slightly more onerous, in that
 21 they start talking about — and slightly more hazardous,
 22 in that they start talking about steps to get up to this
 23 trap at the back of the lift car, so it would become
 24 even more of a concern to the authorities.
 25 Q. Now, water protection is another feature of

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1 a firefighting lift.
 2 What would have been the advantages and the
 3 disadvantages of providing water protection in these
 4 lifts at Grenfell in 2003/4?
 5 A. The one — the protecting of car—top electrical
 6 equipment and suchlike by protection of ramps and tins,
 7 stuff like that, would have been relatively simple and
 8 not a huge cost again, probably £500, I don't know,
 9 a lift.
 10 Q. £500 per lift?
 11 A. Yeah, but that's the primary or secondary, whichever you
 12 like to call it, means. There has to be another means
 13 of deflecting water, either pit sumps or landing
 14 drainage or whatever.
 15 Q. So water protection of itself was a feasible measure
 16 that could have been incorporated?
 17 A. One element was, possibly.
 18 Q. Now, secondary power supply is another feature of
 19 a firefighting lift. Was it feasible to provide
 20 a secondary power supply?
 21 A. I don't know, to be honest, and I certainly don't know
 22 what it would have cost, but I imagine it would have
 23 been considerable.
 24 SIR MARTIN MOORE—BICK: Can we go back just for a moment to
 25 the water protection.

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1 What I had understood you to be suggesting is you
 2 can provide some sort of cover, if you like, over the
 3 top of the lift to protect the lift car from water
 4 flowing from above; is that right?
 5 A. Yes, there are IPO3 protection, as they call it, or
 6 APA54 protection to car and landing electrical
 7 components. That is one — is, say, one method of
 8 protecting, but there have to be — my understanding was
 9 there have to be two different —
 10 SIR MARTIN MOORE—BICK: Well, you then went on to mention
 11 something about a sump, and you seemed to be a little
 12 more doubtful as to whether you could provide that
 13 aspect of protection, which made me wonder: what happens
 14 if you have the protection over the lift, the water's
 15 got to go somewhere?
 16 A. Yeah.
 17 SIR MARTIN MOORE—BICK: So can you just explain, where does
 18 the water go and what steps do you have to take to deal
 19 with it?
 20 A. The water glancing — water pouring — if water were to
 21 pour down the lift shaft, it would end up in the pit,
 22 having maybe deflected from some of the equipment on top
 23 by the other protection we just talked about. But
 24 that's where they would end up, in the pit.
 25 SIR MARTIN MOORE—BICK: Then you have to provide for that to

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1 be drained away?
 2 A. Yeah. Yes, indeed.
 3 SIR MARTIN MOORE—BICK: Is that a difficult thing to do?
 4 A. It's difficult to say how difficult it might be. It's
 5 difficult to say what other landing action you would
 6 take to deflect water.
 7 SIR MARTIN MOORE—BICK: All right. Thank you very much.
 8 MR KINNIER: Was it feasible to have installed
 9 a fire service communication system?
 10 A. Yes.
 11 Q. Can you give the panel an idea of how costly it would
 12 have been to have done so?
 13 A. Not a huge amount, I'd say, maybe — again, maybe £2,000
 14 a lift.
 15 Q. Fire resistance landing doors. How feasible were they
 16 to have installed?
 17 A. They were there. The landing doors were two-hour fire
 18 assessed, as I remember.
 19 Q. That's useful.
 20 The reason I asked the question was the
 21 specification itself — and we can go to it, if that
 22 helps. If we go to {BUT00000044/55} and look at
 23 section 2A.61.
 24 This may well be my lay eye not picking up a point,
 25 Mr Ellis, so I apologise in advance if I'm missing

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1 something.
 2 We see at the bottom of the page there the
 3 specification starts, "The car and landing doors", and
 4 it goes over the page. There are some 16 individual
 5 features that are identified.
 6 A. Yeah.
 7 Q. None of which is prescribing that the doors be of
 8 a certain fire resistant quality and for how long.
 9 Now, was that something that was an assumption that
 10 such doors would be provided, so that it doesn't need
 11 setting out, or ...?
 12 A. It was probably my, if you like, concerns over how we
 13 would achieve the fire assessment. Fire rated doors or
 14 fire rated entrances, which were provided by Propbrook,
 15 with a small frame 50-mil trim, to obtain the natural
 16 fire certification of that door, you would have to butt
 17 the full depth architraves against these small frame
 18 trims, which is something that we didn't want to do
 19 because we considered it a pinch point or an attack
 20 point, as well as being possibly not so aesthetically
 21 pleasing. So the full depth architraves were wrapped
 22 round the small frame trims of the fire rated entrance,
 23 and then we required to get a letter of assessment from
 24 Warringtonfire, which I remember chasing Apex for and
 25 eventually finding they sent me a copy, or gave me

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1 a copy, I can't remember. That was, if you like,
 2 a development that we did with the successful
 3 contractor.
 4 Q. So although it's not mentioned in the specification, it
 5 was something that was installed because of concerns you
 6 entertained about fire resistance?
 7 A. Yeah.
 8 Q. Thank you.
 9 Can I now turn on to the question of the fire
 10 control switch itself.
 11 If we can stay in this document, the specification,
 12 but go on to page 60 {BUT00000044/60}, and clause 2A.70.
 13 Now, this deals with, as you can see, fireman's
 14 control, it's set out there.
 15 Am I right the switch was to be installed on the
 16 ground floor of the tower?
 17 A. Yes.
 18 Q. Can you explain for the panel and those listening how
 19 one fire control switch operated two lifts?
 20 A. Ah, well, yes, okay. What happens, if — this is from
 21 the best of my memory. When you operate the key, two
 22 things happen. First, both lifts return to the
 23 fire service access level, and the indicators then start
 24 to reflect the fact that the lifts are under fire
 25 control. So the indicators will scroll, "Lift under

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1 fire control", interspersed with the floor nomenclature.
 2 Once you get the lifts down, they are on the
 3 fire service access level, which is the ground floor in
 4 this case, the firefighter can take control of a lift,
 5 either lift. They're shared shafts, so it's moot that
 6 they should both operate. They can then operate the
 7 lift as a fireman's lift. In fact it is, as I said --
 8 that is actually more or less -- well, it is, it's
 9 firefighting control. That is the control that is 5588
 10 compliant. The idea being that if the other lift is the
 11 only one that turns up, because the other one has
 12 malfunctioned, then you could use that one. Once the
 13 firemen have taken one away, the other one will remain
 14 inactive, but until you get one down at the ground
 15 floor, then either could be the fireman's lift.
 16 Q. Just following on from that, can you help us as to what
 17 difference there is, if any, between on the one hand the
 18 fireman's control switch as defined in this
 19 specification, and on the other hand the fire control
 20 switch which is described in the relevant standards?
 21 A. Yes, the fireman's control switch was operated by the
 22 TMO and other local authority standards, which was the
 23 express drop key.
 24 Q. Following on from that express drop key, am I right in
 25 understanding that a fire control switch is operated

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1 with a Euro key, which has a triangular design?
 2 A. That's what the standard calls for. That's the British
 3 or the EN standard. The problem with a triangle key is
 4 that it's too easily obtainable, or it's very, very
 5 available to any miscreant that wants to mess about with
 6 a lift, and also the miscreant's number 1 weapon -- or
 7 not number 1 weapon, but one of their weapons is the
 8 famous tube of superglue, and it has been known for the
 9 sockets of the triangle key to be smeared with superglue
 10 and jammed solid, which you couldn't do with a drop key
 11 very easily.
 12 Q. One of the bits of evidence that came out in Phase 1 was
 13 that one of the firefighters who attended the fire said
 14 that he'd ordered his own express key directly from eBay
 15 and he had done that about three times in his career.
 16 Was there any real difference, therefore, between
 17 the competing availability of the two different types of
 18 keys that could be used to operate a fireman's control
 19 switch?
 20 A. Sorry, I'm not quite sure of the question there. Are
 21 you asking if there's --
 22 Q. Well, they both seem to be as readily available as the
 23 other is my point.
 24 A. Yeah, the genuine express drop key should be purchased
 25 normally from a company -- or were purchased normally

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1 from a company called LCL, which was the Express Lifts
 2 parts company, if you like.
 3 Q. Yes.
 4 A. It was the spares company. Only when I read the report
 5 of Roger Howkins did I realise that people were buying
 6 them from eBay and they could possibly have been of
 7 an incorrect dimension, but ...
 8 Q. But that's not something about which you were aware in
 9 2004?
 10 A. Certainly not.
 11 Q. Could we now turn to a separate topic, which is the
 12 automatic fire recall system.
 13 When I'm using this phrase, what I'm referring to is
 14 a system which, when a fire is detected, would
 15 automatically recall the lifts to a particular floor.
 16 Now, first of all, is that a fair and accurate
 17 definition to apply for our discussion?
 18 A. Yes, it is.
 19 Q. Now, before the lift works, do you know if there was
 20 an automatic fire recall system in place at Grenfell?
 21 A. I do not know. I don't believe so.
 22 Q. Now, the specification doesn't make any provision for
 23 an automatic fire recall system. Do you remember
 24 whether there were any discussions about whether to have
 25 one or not?

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1 A. Not before the contract started. It was raised at one
 2 of the periodic site meetings I had, the monthly site
 3 meetings I had.
 4 Q. Following on from that answer, if we can go to an email
 5 which can be found at {TMO00863276/2}.
 6 We see there on the bottom of the page the initial
 7 email is one from Janice Wray, 13 July 2005, sent at
 8 11.33. She suggests that you were asked if an automatic
 9 fire recall system was installed as part of the lift
 10 works. Is that what you're thinking about --
 11 A. Yes.
 12 Q. -- when it was raised some way into the contract?
 13 Now, do you remember this particular exchange?
 14 A. Hazily, yes.
 15 Q. If we scroll up, we have your response, which is
 16 immediately above her email, sent the same day at 14.25
 17 in the afternoon. You say that no such system was
 18 installed and you suggest that if a system were
 19 required, you may be able to install it.
 20 Now, I won't take you through all of them, but if
 21 you want to refresh your memory, the next three emails
 22 in the chain going forward, there is some discussion
 23 about the costs, followed by a final email which can be
 24 found at the top of page 1 {TMO00863276/1}, if we can go
 25 to it.

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1 It's from Janice Wray on 13 September 2005, so
2 exactly two months after the first email, confirming
3 that the costs had been agreed and the system was to be
4 installed.

5 Was that the sum total of the exchange that you
6 remember regarding installation of an automatic fire
7 recall system?

8 A. I think there were some other emails that came later
9 confirming it had been tested. I instructed, by
10 a variation order, Express to --- Express; Apex to
11 provide a box and set the volt free contacts on the wall
12 of the lift machine room for the fire alarm contractor
13 to connect to.

14 As I said in the earlier email, all the modern
15 control panels have that embedded in their software,
16 just like the fireman's control or firefighting control
17 protocol.

18 Q. Thank you.

19 Can you remember what type of automatic fire recall
20 system was installed?

21 A. No, I can't. It was actually completed by the
22 fire alarm contractor after we completed our lift works
23 on site. So I'd made --- I got Apex to provide the
24 provision, if you like, the box, with the volt free
25 contact, but I don't believe the fire alarm contractor

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1 connected up until, I don't know, February/March 2006.

2 Q. Can you help us as to how the automatic fire recall
3 system interacted, if at all, with the manual fire
4 control switch?

5 A. It would --- if the automatic fire alarm recall operated,
6 both lifts would do exactly what they would do when you
7 operate the fireman's switch, that is they would dive to
8 the fire service access level, if that was the selected
9 level, and the doors would open and they would remain
10 inoperative. The lifts would remain inoperative. If
11 the fire officer then operated the fireman's control
12 switch, the lift --- one of the lifts would become ---
13 operating for him would go on to fireman's service. The
14 indicators would scroll that, and he would have a lift
15 available to him.

16 Q. Can you remember why the system was installed in the
17 first place? What was the TMO's reasoning for asking
18 for it?

19 A. I cannot recall, to be absolutely honest, yeah. I can't
20 recall. I mean, it's probably quite a sensible thing to
21 do, but I can't recall who --- why --- well, Janice raised
22 it, didn't she? It was Janice who raised it.

23 Q. Can you help us as to why the system was eventually
24 disconnected?

25 A. Oh, that I can't, I'm afraid.

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1 Q. Thank you.

2 Can I now turn to a separate topic, which is the
3 relationship between Apex and Butler & Young.

4 Now, Apex were appointed as the lift contractors; is
5 that right?

6 A. Yes, they were.

7 Q. And we've got email correspondence from January 2004
8 which suggests that Ian Moorhouse approached
9 Warren Jenchner at Apex to inform him about the project
10 and encourage him to tender.

11 Do you know whether that was done frequently or
12 regularly?

13 A. I think if --- I think what happened there is that
14 they --- the TMO raised an OJEC notice of the project,
15 and I think Ian was just making sure that the various
16 contractors that we would like to tender were aware of
17 it.

18 Q. Had Apex and Butler & Young done a lot of work together
19 in the past?

20 A. Certainly some, yeah. Some work.

21 Q. Can I take it that Mr Moorhouse was keen that Apex bid
22 because, in his view, he could rely upon them?

23 A. They were one of several contractors we favoured,
24 thought would do a good job. I mean, Jackson Lifts,
25 Access Elevators, Guideline Lifts, Stannah, and others,

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1 and Titan Lifts, General Lifts, there were a number that
2 were, if you like, on our approved --- not exactly list,
3 but bunch, if you like.

4 Q. Had Butler & Young and Apex worked together previously
5 on a high-rise residential building project involving
6 lifts?

7 A. No.

8 Q. Can I now turn to contracts and roles and
9 responsibilities.

10 If we could go to {APX00005619}.

11 Now, this is the contract between Apex and
12 Butler & Young. It's 116 pages long.

13 A. Sorry, can I interrupt there?

14 Q. Yes.

15 A. There was no contract between Apex and Butler & Young.

16 Q. None?

17 A. No. Apex were appointed. We made the recommendations
18 for contract award after our tender analysis, but the
19 contract award would have been made by the TMO. The
20 contract was between KCTMO and Apex.

21 Q. Sorry. Allowing for that change, this is a contract
22 regarding --- actually, let's put it slightly
23 differently.

24 If we scroll further into this document, although
25 it's entitled "Contract documentation", it appears to

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1 replicate the specification itself .
 2 Now, would that be the normal way in which the lift
 3 contractor was told what it needed to do by
 4 Butler & Young?
 5 A. Yes, it would.
 6 Q. Can you help us as to what the appropriate division of
 7 responsibilities was between Apex on the one hand and
 8 Butler & Young on the other? Was it Apex did the work
 9 and Butler & Young supervised it?
 10 A. That's about the strength of it, yes, I think. Apex
 11 would design and draw the scheme. We would monitor the
 12 drawing process and the procurement process, and they
 13 would carry out the site works once the drawings and
 14 everything else and the procurement was approved.
 15 Q. Now, Apex were appointed in October 2004.
 16 A. Yes.
 17 Q. The specification had been finalised in April 2004.
 18 A. Yes.
 19 Q. Did Apex have any role in the design of the lifts ?
 20 A. Only the design of component co-ordination, in that
 21 sense, but the design, if you like, was the spec that we
 22 wrote. But they had to co-ordinate the control panel,
 23 the machine that you talked about earlier, and various
 24 other -- and the door operator and all these other
 25 components. So it was their design that co-ordinated

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1 and drew all that.
 2 Q. Did Apex, as part of that process or indeed at any time
 3 during their involvement, raise any concerns as to
 4 whether the lifts ought to have been firefighting lifts ?
 5 A. No, certainly not.
 6 Q. Now, in his first statement, Warren Jenchner -- who was,
 7 I think, the managing director of Apex Lifts --
 8 A. Certainly is.
 9 Q. -- states this, and the reference is at {APX00008774/5}.
 10 He says, fourth paragraph down:
 11 "The preparation of the contract and therefore the
 12 specification of the work was the responsibility of
 13 [Butler & Young], on the instruction of their client .
 14 Once completed and disseminated to Apex, there would be
 15 no scope for Apex to enter into any discussions
 16 regarding changes to the proposed work, design issues
 17 and suggestion for alternative plans."
 18 Now, in a supplementary statement, which can be
 19 found at {APX00008783/2}, Mr Jenchner clarified that
 20 once Apex had been awarded the contract and attended
 21 pre-start site meetings, any issues could have been
 22 raised at that point, but he maintained his view that --
 23 A. Sorry, I'm losing you there.
 24 Q. No, sorry, if you just listen to me.
 25 A. Okay, sorry.

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1 Q. So Mr Jenchner had set out the preparation of the
 2 contract and the specification was the responsibility of
 3 Butler & Young, and he went on to say once completed and
 4 disseminated to Apex, there would be no scope for Apex
 5 to enter into discussions.
 6 Stop there. I'll move on to another thing he said.
 7 In the supplementary statement, which we don't need
 8 to go to, he clarified that once Apex had been awarded
 9 the contract and attended pre-start site meetings, any
 10 issues could have been raised, but he maintained his
 11 view that issues of compliance with standards were for
 12 Butler & Young to consider.
 13 Now, do you agree that once the specification had
 14 been prepared and Apex had been awarded the lift
 15 contractor contract, they could have raised any issues
 16 with Butler & Young regarding the specification at
 17 pre-start site meetings?
 18 A. Yes, they could.
 19 Q. Do you agree that, despite this, the issue of compliance
 20 with standards was primarily a matter for Butler & Young
 21 and not for Apex to consider?
 22 A. Primarily it was for Butler & Young, yes.
 23 Q. I suppose, put slightly differently, did you ever have
 24 any experience of lift contractors saying to you, "We do
 25 not think that this proposed specification complies with

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1 relevant standards"?
 2 A. I've had them disagree with methodology in the past.
 3 I've had contractors tendering saying, "We think we've
 4 got a better way of doing it, we would like to use this
 5 method or that method", that does happen. But I don't
 6 think I can remember being told by or written to by
 7 a tendering contractor saying that they didn't consider
 8 a particular element to be non-compliant.
 9 Q. And certainly Apex never did, to your recollection?
 10 A. Not that -- no.
 11 Q. Now can I turn to the separate topic of completion of
 12 the lift project.
 13 Now, the first lift was completed in August 2005 and
 14 the second lift was completed in February 2006. To what
 15 extent did the final lifts as constructed and installed
 16 differ from the specification?
 17 A. I can't think of any way they did.
 18 Q. Now, if we can go to {APX00008692/65}.
 19 Now, if that could be amplified slightly, as it is
 20 somewhat difficult to see. Is that the test certificate
 21 for lift H091?
 22 A. Yes, right, that's the first one, yeah.
 23 Q. Now, if we go to {APX00008692/80}, if that could be
 24 amplified. If you need to scroll down, please do shout,
 25 but that form indicates that the lift was not

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1 a firefighting lift ; is that right?
 2 A. Erm ...
 3 Q. If you can de--amplify it, please.
 4 A. Where are we?
 5 Q. We're looking at (b).
 6 A. Yeah. That's correct.
 7 Q. The form also says that the emergency operation system
 8 had been demonstrated to you; is that a correct reading?
 9 A. Sorry, where are we?
 10 Q. If we look further down --
 11 A. Oh, right.
 12 Q. -- at (g), sorry:
 13 "Confirm that the emergency operation system(s)
 14 function correctly ... "
 15 A. Yes, indeed.
 16 Q. You said "Yes", and that had been demonstrated to you.
 17 A. Yes, indeed.
 18 Q. How would the system have been tested for these
 19 purposes?
 20 A. What I tended to do, during a witness test, I had to be
 21 very, if you like, methodical, mainly because my memory
 22 wasn't much better then than it is now. I would do --
 23 I would tend to ask for -- if you want me to go on, this
 24 could take a few minutes, if you don't mind.
 25 Q. Well, I suppose, putting it differently, your

1 recollection was it was demonstrated to you?
 2 A. Oh, yes. I mean, the safety gear, full load, overspeed,
 3 and lots of other elements of the gear.
 4 Q. And if there had been any problems or defects identified
 5 during the course of that demonstration, it would have
 6 been recorded on the form we're looking at at the
 7 moment?
 8 A. Yes.
 9 Q. Do you recall any defects, for example, or problems with
 10 the operation of the fire control switch?
 11 A. No, not at all.
 12 Q. After this demonstration had been carried out, did
 13 Butler & Young carry out any further tests on the
 14 completed lifts?
 15 A. No. One witness test was normally what we did. A lot
 16 of -- I mean, it's a lot more than what that statement
 17 says, it's a whole day's work.
 18 Q. But you don't recall any problems with the fire control
 19 switch?
 20 A. No, I tested all the functions, all the indicators, at
 21 every floor, floor-by-floor, all the -- and
 22 I remember -- funnily enough, I do remember testing the
 23 peekaboo system on the fireman's control, either at the
 24 end of both or at the end of the second one, I can't
 25 remember which, to be honest, but it was probably both.

1 Q. Peekaboo, that is as in the children's phrase,
 2 "peekaboo"?
 3 A. Yes, it's the way the 5588 compliant control works, in
 4 that when you arrive at a floor, the doors do not open
 5 as they used to on the old fireman's lift, they stay
 6 shut, you operate the "Door open" push, they will open
 7 only as long as you've got pressure on that "Door open"
 8 switch so that the firefighter can see that there is no
 9 flame or smoke or other hazards outside, and if there
 10 are, he can let that push go and the doors will shut
 11 again and he can go to another floor. It will only stay
 12 open, the door, once he has held his finger on the
 13 "Door open" button and the door is fully open.
 14 Q. Thank you.
 15 Now, at paragraph 7 of your second witness statement
 16 {BUT00000055/4}, you said this:
 17 "In my experience, there were always budgetary
 18 considerations when local authority refurbishments were
 19 being considered which, of course, had an influence on
 20 the scheme eventually selected."
 21 Did budgetary considerations affect the degree of
 22 compliance with the relevant standards here?
 23 A. I can't really answer that. Yes, they would have done,
 24 there would have been budgetary considerations in terms
 25 of upgrading the lifts to firefighting control, if

1 that's what you're asking. But the focus of our
 2 deliberations and our scheme was to improve the
 3 services, the size, the speed, the facilities, the
 4 facilities for disabled, all those things were the focus
 5 of the scheme at that time.
 6 Q. Put more crudely and bluntly, did Mr Steppel ever say
 7 words to the effect of, "We're not installing
 8 a firefighting lift because it's too expensive"?
 9 A. I don't recall what his conversation was fully with Ian,
 10 that was the conversation they had, so whether he
 11 mentioned cost or not, I don't -- I can't say.
 12 Q. Just staying in your second statement here and looking
 13 at paragraph 8 {BUT00000055/4}, you said this:
 14 "The scheme selected and undertaken at Grenfell
 15 Tower incorporated enhancements to the usual type of
 16 local authority residential refurbishment ... "
 17 What do you mean there by the phrase "the usual type
 18 of local authority refurbishment"?
 19 A. Well, the ones I had been involved in previously
 20 involved literally a straightforward refurbishment,
 21 where the car size stayed the same, the basic parameters
 22 of the lift stayed the same, it was just an upgrade of
 23 control equipment, drive equipment, door equipment, but
 24 the spec, if you like, for the lift, the one-page spec
 25 for the lift, wouldn't be any different.

1 This was a totally different animal, because it was,
 2 as I say, increasing -- they had a buggy problem, which
 3 was frequent towards the end of my working career.
 4 Buggies are not pushchairs like we remember, so they are
 5 life support systems, and what they found in
 6 Grenfell Tower was with small eight-person lifts, one
 7 mother with a buggy and a child would fill the lift, and
 8 so when the lift was on its way down hopefully to
 9 collect other people, it couldn't collect other people,
 10 but it made the stop because it can't trigger the load
 11 weighing bypass because it's not heavy enough, because
 12 you've only got three small people in the lift. So
 13 there was a lot of wasted time which added to the
 14 colossal wear there was on both lifts, because the lifts
 15 were stopping to collect people on the way down that it
 16 couldn't do, and then these people who couldn't get in
 17 the lift were calling the other lift, and somebody made
 18 the remark, I think, that the 18 years of the lift
 19 service was equivalent to 30 years in any other
 20 situation.
 21 So that was the reasons why that was put forward,
 22 that the car size would be enhanced, the entrance size
 23 would be enhanced, and that would help wheelchair users
 24 as well, and all the other facilities for the disabled,
 25 the bells and whistles, the indication, the sounds, and

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1 acknowledgments that people with disabilities expect
 2 nowadays.
 3 MR KINNIER: Mr Ellis, thank you very much.
 4 Sir, I have come to the end of my prepared
 5 questions.
 6 SIR MARTIN MOORE-BICK: Right.
 7 MR KINNIER: Might I have ten minutes to see if there is
 8 anything I ought to have asked which I didn't, and see
 9 if there are any further relevant suggested questions.
 10 SIR MARTIN MOORE-BICK: Right.
 11 Well, Mr Ellis, when counsel gets to the end of his
 12 questions, we always have a break, because it sometimes
 13 turns out that there are questions that have been
 14 omitted which ought to have been put to you, and there
 15 are other people following these proceedings from
 16 elsewhere who may have questions they want to suggest.
 17 THE WITNESS: Understood.
 18 SIR MARTIN MOORE-BICK: So we'll stop now.
 19 If I say 12.40, do you think that will give you long
 20 enough?
 21 MR KINNIER: Yes.
 22 SIR MARTIN MOORE-BICK: If not, you can indicate if you need
 23 more time.
 24 I am going to say we will resume at 12.40. If we
 25 need more time, well, it might be a bit longer. But

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1 anyway, we'll resume as soon as we can and see if there
 2 are more questions for you when you come back. All
 3 right?
 4 THE WITNESS: Thank you, sir.
 5 SIR MARTIN MOORE-BICK: Now please go with the usher, and
 6 don't talk to anyone about your evidence while you're
 7 out of the room, please.
 8 THE WITNESS: Certainly.
 9 SIR MARTIN MOORE-BICK: Thank you.
 10 (Pause)
 11 Right, Mr Kinnier. Well, I'm going to say 12.40,
 12 but it's a short ten minutes, so if you need more time,
 13 that will be all right.
 14 MR KINNIER: I'm grateful, thank you, sir.
 15 SIR MARTIN MOORE-BICK: Thank you.
 16 (12.32 pm)
 17 (A short break)
 18 (12.45 pm)
 19 SIR MARTIN MOORE-BICK: Right, Mr Ellis. Well, we'll see if
 20 there are any more questions for you, shall we?
 21 Yes, Mr Kinnier.
 22 MR KINNIER: There are no further questions, Mr Ellis. It
 23 just leaves me to say thank you very much for attending
 24 to give evidence today.
 25 THE WITNESS: Thank you, sir.

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1 SIR MARTIN MOORE-BICK: I would like to thank you very much,
 2 Mr Ellis, on behalf of all three of us on the panel.
 3 It's quite a serious request to ask people to remember
 4 what they were doing, what, ten years ago or more, isn't
 5 it?
 6 THE WITNESS: 15 years, I think, 17 years, most of it.
 7 SIR MARTIN MOORE-BICK: Yes, so thank you for racking your
 8 brains and giving us the benefit of your recollection.
 9 THE WITNESS: It was tricky, I have to say.
 10 SIR MARTIN MOORE-BICK: Well, it's been very useful for us
 11 to hear from you, and we're very grateful to you for
 12 coming to give your evidence.
 13 THE WITNESS: Thank you, Sir Martin.
 14 SIR MARTIN MOORE-BICK: Thank you very much, and now, of
 15 course, you're free to go.
 16 THE WITNESS: Thank you. Mr Kinnier.
 17 MR KINNIER: Thank you, Mr Ellis.
 18 (The witness withdrew)
 19 SIR MARTIN MOORE-BICK: Yes, Mr Kinnier. Now, we have
 20 another witness, but perhaps it would be better to start
 21 him at 2 o'clock, would it?
 22 MR KINNIER: It would.
 23 SIR MARTIN MOORE-BICK: Yes. Good.
 24 In that case, we'll break now and we'll resume at
 25 2 o'clock, please.

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1 MR KINNIER: Thank you, sir.
 2 SIR MARTIN MOORE—BICK: Thank you very much.
 3 (12.47 pm)
 4 (The short adjournment)
 5 (2.00 pm)
 6 SIR MARTIN MOORE—BICK: Yes, Mr Kinnier. Now, another
 7 witness?
 8 MR KINNIER: Yes, may I call Ian Moorhouse.
 9 SIR MARTIN MOORE—BICK: Good. Yes, please.
 10 MR IAN MOORHOUSE (affirmed)
 11 SIR MARTIN MOORE—BICK: Thank you very much.
 12 Yes, Mr Kinnier.
 13 Questions from COUNSEL TO THE INQUIRY
 14 MR KINNIER: Thank you, sir.
 15 Would you please confirm your name for the record.
 16 A. Ian Godfrey Moorhouse.
 17 Q. Mr Moorhouse, many thanks for attending today.
 18 Before we start, three things I should remind
 19 you of.
 20 First of all, if at any time you feel you need
 21 a break, please say so, that's not a problem at all.
 22 Secondly, if at any time my questions are unclear,
 23 or too long, please say, "Your question is unclear and
 24 too long and can you break it up for me", that's not
 25 a problem either.

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1 Thirdly and finally, could I ask you to keep your
 2 voice up whilst giving evidence. That's so that the
 3 shorthand writer can capture everything you say and
 4 accurately.
 5 Also, if you could not nod but use "yes" or "no" as
 6 the case requires, again so the transcriber can capture
 7 your answer.
 8 A. Right.
 9 Q. You have given two statements to this Inquiry.
 10 The first can be found at {BUT00000023}, and is
 11 dated 23 September 2019. Is that right?
 12 A. That is correct, yes.
 13 Q. The second statement is {BUT00000054} and is dated
 14 8 June of this year; is that right?
 15 A. That is correct.
 16 Q. Have you read both of your statements recently?
 17 A. I have.
 18 Q. And are their contents true?
 19 A. That is correct.
 20 Q. Thank you.
 21 Have you discussed your evidence with anyone else
 22 before coming here today?
 23 A. Right at the very start, on receipt of the initial
 24 letter advising me that I would be required to give oral
 25 evidence, yes, I did speak to people because it was many

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1 years since I had actually been involved in the project,
 2 some 18 years in actual fact from the start, and I had
 3 no memory or recollection of the project at all. So
 4 I found it necessary to speak to my former colleague,
 5 Stephen Ellis, and other members of Butler & Young, just
 6 to try and gain affirmation of what actually happened
 7 and get some transcripts of paperwork.
 8 Q. Thank you.
 9 Now, I would like to start by asking you some
 10 questions about your qualifications and your experience.
 11 Is it right that you started in the lifts industry
 12 in 1959 as an apprentice at the Otis Elevator Co?
 13 A. That is correct, yes.
 14 Q. You then worked in a range of roles for Keighley and
 15 Evans Lifts, Marryat & Scott, Gerald Honey Partnership
 16 and Stannah Lifts.
 17 A. That is correct also.
 18 Q. Between 1983 and 1989, you were the managing director of
 19 Leonard Lifts; is that right?
 20 A. Yes.
 21 Q. From 1989, you worked independently, setting up
 22 Butler & Young in April 1992; is that right?
 23 A. Yes, that is correct.
 24 Q. And you were a director at Butler & Young until
 25 May 2005, when you retired.

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1 A. Yes.
 2 Q. Thank you.
 3 Now, if I can turn to your training, and focusing on
 4 the education and relevant training section of your CV,
 5 over the course of your career, did you receive any
 6 training on British or European standards relating to
 7 lifts?
 8 A. I received training and instruction at various seminars
 9 that were held when there was perhaps a new standard
 10 coming out or one being enhanced, but generally your
 11 training was as and when you required, you would be
 12 reading up on the standard, for whatever might be
 13 applicable to that particular problem.
 14 Q. So self-directed learning in relation to particular
 15 projects; is that —
 16 A. Primarily.
 17 Q. Now, looking at the period 2003 and 2004 in particular,
 18 had you received any training on the principles and
 19 requirements of BS 5588—5:1991, entitled, "Fire
 20 precautions in the design, construction and use of
 21 buildings — Part 5: Code of practice for firefighting
 22 stairs and lifts"?
 23 A. I cannot in all certainty say that I had received
 24 specific training in that.
 25 Q. Nonetheless, would you have considered yourself familiar

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1 with the requirements of that standard?
 2 A. Yes, I would have done at that time.
 3 Q. And did you have access to the standard itself in hard
 4 copy form or otherwise?
 5 A. At that time, I did, yes.
 6 Q. Have you received any training on the principles and
 7 requirements of BS EN 81-72 published in 2003, which
 8 concerned safety rules for the construction and
 9 installation of lifts, particular applications for
 10 passenger and goods passenger lifts, firefighter lifts?
 11 A. I would have received but I can't say exactly when.
 12 Q. Nonetheless, would you have described yourself as
 13 familiar with the requirements of that standard?
 14 A. Yes, I would.
 15 Q. Had you received any training on the substantive changes
 16 brought in by the revision to BS 5588-5:1991 to the
 17 standard published in November 2004?
 18 A. I would believe that I did receive training, but
 19 I cannot honestly say when or in what form.
 20 Q. But would you have considered yourself familiar with the
 21 requirements of the revised code of practice?
 22 A. Yes.
 23 Q. Again, would you have had ready access at the time to
 24 the standard itself?
 25 A. Yes.

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1 Q. Have you heard of Approved Document B?
 2 A. I cannot recall. I cannot recall.
 3 Q. In relation to the specific question of firefighting
 4 lifts, did you receive any other specific training on
 5 the design requirements of that type of lift?
 6 A. I cannot recall receiving specific training. This would
 7 have been self-taught by the reading of the various
 8 standards at that time.
 9 Q. Now, turning to Butler & Young itself, am I right in
 10 understanding that it was a lift consultancy?
 11 A. That is correct, yes.
 12 Q. And in broad terms, what services did it provide to
 13 clients?
 14 A. Survey reports into the -- primarily actioned on
 15 refurbishments, survey reports into existing lifts,
 16 analysing problems with the lifts, the type of equipment
 17 that there was, and doing -- offering proposals that
 18 might be done to eradicate those particular problems.
 19 Then on to writing feasibility studies, specifications,
 20 tendering action. Then support of the project after the
 21 selected tender was nominated by whoever the client may
 22 be, running the projects right the way through.
 23 We also provided assistance in maintenance
 24 investigations and in preparing fully comprehensive
 25 maintenance contracts and then administering those

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1 contracts.
 2 Q. Thank you.
 3 As managing director, to what extent would you
 4 generally be involved in the detail of particular
 5 projects?
 6 A. I was quite involved in the detail of the projects that
 7 I was involved in, if you follow. Not every single
 8 project within the practice, but I was aware of most
 9 projects within the practice.
 10 Q. Would Butler & Young also be involved in the design of
 11 particular lifts?
 12 A. Yes, very much.
 13 Q. And did you have the requisite knowledge and expertise
 14 to design a firefighting lift, for example?
 15 A. Yes, I believe that we did, should that be necessary.
 16 Q. Would you have felt able and competent to draft
 17 a specification for a firefighting lift?
 18 A. Yes.
 19 Q. Before the Grenfell project in 2003, what other
 20 experience did you have of lift projects in high-rise
 21 residential buildings?
 22 A. If by high-rise you mean over 18 metres --
 23 Q. Yes.
 24 A. -- quite considerable.
 25 Q. Can you give the panel a broad summary of that

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1 experience?
 2 A. Barbican Estate, there were numerous lifts there that
 3 exceeded that height in travel. Wandsworth Borough
 4 Council, we had various projects that exceeded that
 5 height of travel.
 6 Q. How many of the projects involved a lift upgrade from,
 7 say, fireman's lifts to firefighting lifts?
 8 A. None of the projects.
 9 Q. Had you had any experience of upgrade projects to,
 10 for example, enhance a fireman's lift to a firefighting
 11 lift?
 12 A. It has never been necessary.
 13 Q. And why has it never been necessary?
 14 A. Because the client would say that he did not require
 15 that to be done.
 16 Q. Now, am I right in that, before the Grenfell Tower
 17 project, Butler & Young had carried out five or six lift
 18 modernisations for RBKCTMO?
 19 A. Yes, that's correct.
 20 Q. Were any of those projects in high-rise residential
 21 dwellings?
 22 A. No.
 23 Q. We don't need to go to it, but in the first sentence of
 24 paragraph A12.c of your first witness statement
 25 {BUT0000023/6}, you say that the TMO's project brief

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1 for the refurbishment was "developed, in part, with
 2 considerable lift knowledge".
 3 In paragraph 8 of your second witness statement,
 4 which can be found at {BUT00000054/4}, you note that
 5 virtually all local authorities had their own lift
 6 department who would handle maintenance and, in terms of
 7 lift modernisations, would act as a watching brief. You
 8 comment that the lift engineers employed in these
 9 departments would be experienced and familiar with the
 10 relevant codes and standards.
 11 Dealing first with the TMO, who had that degree of
 12 knowledge? Was Mr Steppel one of them?
 13 A. Yes, Mr Steppel was the -- he was the senior lift
 14 engineer and then subsequently promoted to the building
 15 services manager.
 16 Q. And how would you characterise the depth of his
 17 knowledge of the relevant standards and requirements?
 18 A. Very good. He had been a lift engineer for many years,
 19 had experience of an awful lot of projects, and that
 20 would obviously -- his knowledge would be enhanced by
 21 that.
 22 Q. Was Mr Calaharn one of those people who had knowledge of
 23 the relevant standards?
 24 A. Yes. Not to the same extent as David Steppel, but yes,
 25 he would.

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1 Q. Was there anyone else with whom you had dealings at the
 2 TMO who had detailed knowledge of the relevant
 3 standards?
 4 A. John Rogers would have had knowledge of the standards
 5 from those imparted to him by David Steppel and myself
 6 in our discussions.
 7 Q. Had Butler & Young worked with Apex before the
 8 Grenfell Tower project?
 9 A. Yes, they were on our approved tender list.
 10 Q. And on how many occasions, can you remember now?
 11 A. Oh ...
 12 Q. Is it fair to say a lot?
 13 A. I'd say a lot, yes.
 14 Q. Can you remember now whether any of those projects
 15 involved high-rise residential buildings?
 16 A. Over -- yes, yes, that is correct, yes, they would.
 17 Q. Now, at the time of the project with which we're
 18 concerned, project 1, in your view, did the relevant
 19 standards or any other legislation or guidance require
 20 the installation of firefighting lifts in existing
 21 buildings?
 22 A. Err ...
 23 (Pause)
 24 I do not believe that they required that at that
 25 time in existing buildings.

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1 Q. Did you consider that it was industry good practice to
 2 at least consider at the development and design stage
 3 whether as many of the features of a full firefighting
 4 lift could be installed in lifts in a tall building such
 5 as Grenfell?
 6 A. To be considered, yes.
 7 Q. Now, in view of the Inquiry's expert, that's
 8 Mr Roger Howkins, he said at paragraph 248 of his
 9 report, which can be found at {RHO00000003/118}, he said
 10 this:
 11 "... regardless of whether the lifts were considered
 12 'new' or 'modernized', good practice would have been to
 13 consider if the lifts could be fully upgraded to the
 14 firefighting standard so far as was reasonably
 15 practicable."
 16 Would you agree or disagree with that view?
 17 A. I believe that one would have considered that, but not
 18 necessarily have gone forward with that.
 19 Q. What would have been the factors that would have
 20 inhibited or impeded going forward with either
 21 enhancing, for example, a fireman's lift to a full
 22 firefighting lift, or including such features of
 23 a firefighting lifts as were reasonably practicable?
 24 A. In considering the various matters to do with
 25 firefighting lifts, that would be discussed with, in

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1 this case, David Steppel, and they were discussed with
 2 David Steppel at varying times, and it would be his
 3 decision on whether he wanted to proceed with those.
 4 When I say his decision, the final decision would have
 5 been John Rogers' as the project manager, but the two of
 6 them would have made the final decision.
 7 Q. Thank you.
 8 We'll come on to the detail of the project in due
 9 course, but first of all, could we discuss the scale of
 10 the project itself.
 11 Now, if we can go to your first statement at
 12 {BUT00000023/5}, paragraph A12.a, which is at the very
 13 bottom of that page, you say this:
 14 "Butler & Young did not consider the lifts to be new
 15 lifts but to be refurbished lifts, all in accordance
 16 with the Project Brief and the RBK C approved
 17 specification issued to tenderers by RBKC."
 18 Now, the first question which arises is: why did you
 19 consider the lifts to be refurbished and not new?
 20 A. Our interpretation of the standards at that time -- this
 21 is both myself and David Steppel -- was that the lifts
 22 were to be refurbished. We were retaining the guides
 23 and guide bracketry, and initially we were going to
 24 retain more equipment than that, but as the feasibility
 25 study progressed, and with surveys making things more

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1 evident to us, it was maintained that they would be
 2 refurbished, ie modernised, not new.
 3 Q. And it's the guides, is that the factor that weighs most
 4 heavily with you when deciding whether a lift is new or
 5 refurbished, whether they're retained or not?
 6 A. In this instance it was. It wouldn't be in all
 7 instances.
 8 Q. Now, could I ask us to go to paragraph 223 of
 9 Mr Howkins' report, and that can be found at
 10 {RHO00000003/111}.

11 Now, you will see at paragraph 223 there, it's in
 12 the bottom half of the page -- I'll just let you refresh
 13 your memory, if you've read it before, just read it,
 14 before I ask you any questions on it.

15 (Pause)

16 Now, there he says that BS 5655-11:2005, in which
 17 a new lift is defined, it was either where the lift is
 18 totally replaced or where only the guide rails are
 19 retained.
 20 Would you agree that that was the applicable
 21 definition of a new lift in 2003/2004?
 22 A. Yes, that is correct.
 23 Q. Now, looking at the nature of the project, could
 24 I summarise it thus, and if you disagree, please shout:
 25 first of all, it was an increase of lift capacity from

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1 8 to 12 people.
 2 A. Mm.
 3 Q. Secondly, an increase of lift speed; and, thirdly,
 4 an improvement in reliability of the lifts.
 5 A. Yes.
 6 Q. That work required the replacement of most of the
 7 components of the lift apparatus, if I can call it that;
 8 is that fair?
 9 A. Yes.
 10 Q. I took Mr Ellis through this, but it would be useful to
 11 go through this exercise with you. The work required
 12 the replacement of the complete lift car; is that
 13 correct?
 14 A. Yes, that's correct.
 15 Q. The counterweight?
 16 A. Yes.
 17 Q. The car sling and platform?
 18 A. Yes.
 19 Q. The safety gear?
 20 A. Yes.
 21 Q. The door operator?
 22 A. Yes.
 23 Q. Car doors?
 24 A. Yes.
 25 Q. Landing doors?

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1 A. Yes.
 2 Q. Landing control system?
 3 A. Yes.
 4 Q. Lift pit buffers?
 5 A. Yes.
 6 Q. Electrical wiring?
 7 A. Yes.
 8 Q. Lift controller?
 9 A. Yes.
 10 Q. And the lift motor gearbox?
 11 A. Yes.
 12 Q. Just to remind us, if we can go to the specification at
 13 {BUT00000044/12}, paragraph 1.3.1 at the top --
 14 A. Yes.
 15 Q. -- sets out the retained equipment. So everything else
 16 we've discussed was removed, but these two items were
 17 retained, namely guides and single riser of car guide
 18 brackets, and the landing back boxes. Does that accord
 19 with your recollection?
 20 A. That does.
 21 Q. Am I also right in understanding that the car guides
 22 were retained but they were relocated to accommodate the
 23 larger car size?
 24 A. In one of the -- yes, they were.
 25 Q. So, at least to my lay eye, it looks as if the vast

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1 majority of the component parts of the lift apparatus
 2 were new; is that a fair observation?
 3 A. Yes, that is.
 4 Q. Now, given the extent of the components that were
 5 removed, the limited extent of what was retained as set
 6 out in the spec, would you accept that the lifts were in
 7 fact new rather than refurbished, applying the
 8 definition contained in the standard?
 9 A. No, our interpretation of the standards at that time,
 10 what was being replaced and retained, was that the lifts
 11 would remain as modernisations.
 12 Q. For the avoidance of doubt, it was the retention of the
 13 guides that were an important factor in that evaluation?
 14 A. Very much so.
 15 SIR MARTIN MOORE-BICK: Could I just ask: we see these
 16 references to landing back boxes which were retained.
 17 A. Yes.
 18 SIR MARTIN MOORE-BICK: What's their function and how
 19 important are they?
 20 A. Removal of the landing back boxes would have involved
 21 a certain amount of structural work, cutting them out
 22 from the concrete, so they were part and parcel of being
 23 retained to accommodate the new fixtures and fittings
 24 for call -- these were push buttons and indicators on
 25 the landings.

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1 SIR MARTIN MOORE-BICK: Oh, right. Yes, thank you.
 2 MR KINNIER: Thank you, sir.
 3 I want to turn on now to Butler & Young's initial
 4 involvement in the project at Grenfell.
 5 A. Yes.
 6 Q. You explained in your first statement at paragraph A2 ---
 7 we don't need to go to it, but it can be found at
 8 {BUT00000023/2} --- that Butler & Young were appointed by
 9 the TMO for a full lift consultancy service in
 10 accordance with the project brief; is that a fair
 11 summary?
 12 A. That is correct, yes.
 13 Q. You also explain at paragraph A3 that your role was
 14 contract administrator, ensuring full lift consultancy
 15 services and adherence to the brief; is that a fair
 16 summary?
 17 A. That is correct, yes.
 18 Q. Can you help us as to what your precise duties and
 19 responsibilities were in relation to your role?
 20 A. I undertook the feasibility study, the surveys, the
 21 on-site --- the practical side of matters. I have
 22 considerable experience on the practical side of running
 23 other projects. I investigated what was necessary in
 24 order to come up with the various options on the
 25 feasibility study, to attending the meetings, to

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1 communicating with David Steppel or John Rogers where
 2 necessary or any clarification was required for any
 3 matter. On then being issued with instructions that
 4 option 3A would be proceeded with, and the contractor
 5 being awarded the contract, I then carried on writing ---
 6 my apologies, I then wrote the specification and went
 7 out to tender. Once that specification was approved by
 8 RBKC, they issued it for tender. I then received the
 9 tenders back. I undertook the tender investigations,
 10 the analysis, and recommended for contract award to
 11 RBKC. After contract award ---
 12 Q. To RBKC?
 13 A. I apologise, to TMO, my apologies. My apologies.
 14 I then administered the contract from that point
 15 with assistance of Steve Ellis, who was here this
 16 morning.
 17 Q. Thank you.
 18 Now, can we go to the client brief, and that can be
 19 found at {TMO00853783/12}.
 20 Am I right in assuming you've seen this before, if
 21 some time ago?
 22 A. Yes, that is correct, yes.
 23 Q. Now, if we can go to paragraph 1.1, you will see there
 24 it says this:
 25 "The Tenant Management Organisation ... and the

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1 Lancaster West Estate Management Board ... require
 2 a condition and feasibility report on the two traction
 3 passenger lifts serving Grenfell Tower and the single
 4 hydraulic passenger lift serving the adjacent offices."
 5 Did the feasibility report address matters such as
 6 cost, length of project and building design?
 7 A. Amongst other things, it did.
 8 Q. Now, turning back to paragraph 1.1, the next sentence of
 9 this paragraph says this:
 10 "The report shall address the clients concerns in
 11 respect to the immediate and medium term maintenance
 12 viability of the existing installations given the
 13 current levels of failures, availability of replacement
 14 parts, compliance to latest British Standards and energy
 15 conservation."
 16 Now, looking at the last element of that quotation,
 17 which concerns compliance with British Standards, on its
 18 face, at least, it seems from the project brief that the
 19 TMO wanted your feasibility report to address compliance
 20 of the lifts with British Standards; is that a fair
 21 reading of that paragraph of the client brief?
 22 A. That is, yes. That is. Where applicable, I would add
 23 to that, yes.
 24 Q. In your second statement you state that section 3.3 of
 25 the brief, which identified problems with the current

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1 lifts, including size and unreliability, was the primary
 2 focus of the refurbishment. Is that again a fair
 3 summary?
 4 A. Yes. Yes. They were major concerns but not all of the
 5 concerns.
 6 Q. You also note in your second statement at
 7 paragraph 19 --- and it may be useful if we go to it, at
 8 {BUT00000054/7}.
 9 You will see at paragraph 19 you say ---
 10 A. Yes.
 11 Q. --- that at paragraph 4.10 of the brief, in the section
 12 entitled "Standards", the following is noted
 13 {TMO00853783/15}:
 14 "The installation shall comply with BS EN [8]1:1998
 15 'Safety rules for the construction and installation of
 16 lifts' Part 1: Electric lifts, the Health and Safety
 17 Statutory Instrument No. 831 'The Lift Regulations' and
 18 Electromagnetic Compatibility and IEE Regulations."
 19 The brief then went on to say:
 20 "However, given the dimensional constraints
 21 associated with an existing building, the report shall
 22 identify any area where the new installation cannot meet
 23 current recommendations or legislation and make
 24 recommendations to reduce any potential risks."
 25 Would you agree, therefore, that the brief required

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1 the consultant to identify in the feasibility report
 2 where the new installation could not meet current
 3 standards and make recommendations to reduce any risks
 4 arising?
 5 A. To a certain degree, I would, yes.
 6 Q. If we go to {TMO00853783/15}, and if we look at 4.10(b),
 7 I'll let you just refresh your memory of it.
 8 (Pause)
 9 A. Yes.
 10 Q. On its face, at least, it appears to require the
 11 feasibility study to advise where the new installation
 12 couldn't meet current standards.
 13 Having refreshed your memory, is that a fair reading
 14 of subparagraph (b)?
 15 A. The feasibility study did not advise all areas where the
 16 lifts did not meet current standards.
 17 Q. Really looking at the previous question, though, to
 18 that, the expectation was that it would, would you
 19 accept that, but the fact is the feasibility study
 20 didn't deal with all respects in respect of the
 21 installation not meeting --
 22 A. Not all respects, no.
 23 Q. If we stay on this page but look at (c), it says this:
 24 "Given the height of Grenfell Tower together with
 25 the existing physical building constraints, the report

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1 should shall [sic] address the issues of Fire Fighting
 2 and Evacuation lift requirements and how they affect the
 3 proposed works."
 4 Now, would you agree with me that it's clear that
 5 the brief required the consultant's feasibility report
 6 to address the issue of firefighting and evacuation lift
 7 requirements and how they affected the proposed works?
 8 A. We did address that matter, and that was put to
 9 David Steppel on various occasions about firefighting
 10 lifts. His requirement was, at a meeting, that we were
 11 not to include consideration of firefighting lifts,
 12 okay, within the report.
 13 Q. Really what I wanted to do, though, first of all -- we
 14 will come on to what was discussed with Mr Steppel, but
 15 just looking at what the client brief required --
 16 A. Yes.
 17 Q. -- first of all, and then move on to what happened after
 18 the two separate stages.
 19 A. Yes.
 20 Q. Just looking at this stage, which is what the client
 21 brief said, would you accept that the report, at least
 22 according to the brief, required you to address the
 23 issues of firefighting and evacuation lift requirements?
 24 A. Initially, that is correct.
 25 Q. And now we'll come on to what happened next.

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1 A. Right.
 2 Q. Now, there was a meeting on 8 May 2003, wasn't there, of
 3 the lift refurbishment group.
 4 A. Yes.
 5 Q. If we go to the minutes, which can be found at
 6 {BUT00000010}.
 7 We can see your name there identified as
 8 an attendee, just at the bottom.
 9 A. Yes.
 10 Q. If we scroll down to item 2, we see there the project
 11 objective, and at point 2.2, it notes that the objective
 12 was to have Butler & Young to undertake a feasibility
 13 study and evaluate options for refurbishment of the
 14 lifts, and that that study would address the full
 15 requirements of the brief, and the following issues in
 16 particular, including compliance with current standards.
 17 Would you agree that's what's set out there?
 18 A. Yes, that is correct.
 19 Q. Now, would you assume that compliance with current
 20 standards would include firefighting lift standards as
 21 they applied as at May 2003?
 22 A. Yes, that's correct.
 23 Q. Now, in your second statement, and it's at paragraphs 21
 24 and 22 {BUT00000054/7}, you say that there was a later
 25 meeting on that day to discuss the TMO's requirements.

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1 In broad terms, is that a fair summary of the position?
 2 A. Yes. As far --
 3 Q. If we can take it step by step.
 4 A. Yes. As far as I can recall, it was later that day.
 5 This is a long, long time ago. There was a -- I was
 6 requested to attend another meeting with John Rogers and
 7 David Steppel. I do think it was following this
 8 meeting.
 9 Q. So irrespective of the date, the further meeting
 10 followed soon after this first --
 11 A. Yes, that is correct, yes.
 12 Q. Who were the people who attended? Was it just you,
 13 Steppel and Rogers, or was anyone else there?
 14 A. No, it was just the three of us.
 15 Q. Was it Mr Steppel who invited you to that meeting?
 16 A. It was Mr Steppel or Mr Rogers. It was one of the two.
 17 Q. Can you remember now who initiated a consideration of
 18 whether the lifts should be enhanced to firefighting
 19 lifts or not?
 20 A. I had already discussed firefighting lifts in phone
 21 calls with David Steppel when --
 22 Q. Stopping there.
 23 A. Yes.
 24 Q. What was his response to you raising firefighting lifts
 25 as a general topic?

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1 A. The general topic, that they did not meet TMO lift
 2 standards.
 3 Q. And during this meeting, what discussion was there of
 4 firefighting lifts and their appropriateness for this
 5 project?
 6 A. Well, David Steppel said that he did not wish to have
 7 firefighting lifts considered or remarked upon within
 8 the feasibility study. Fireman's lifts would be
 9 proceeded with in accordance with appendix A of the
 10 project brief.
 11 Q. Was there much of a discussion about that, or was
 12 David Steppel giving you your marching orders, as it
 13 were?
 14 A. There was not a lot of discussion around it, because he
 15 was quite emphatic that fireman's lifts were what were
 16 required, and the appendix A -- I can't recall the
 17 clause off the top of my head -- specifically states
 18 fireman's control, and that was what was to be applied.
 19 Q. When Mr Steppel gave you your instructions, did you
 20 proffer him any advice as to, for example, the
 21 advisability of enhanced safety features provided by
 22 a firefighting lift or such features as could be
 23 reasonably practicably incorporated?
 24 A. Yes, I offered consideration of that, because we had
 25 already viewed that ourselves in undertaking our initial

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1 surveys on the project.
 2 Q. Now, when you were first asked about this by
 3 the Inquiry, you said that you had no recollection of
 4 any discussions regarding these matters, but in your
 5 second statement you have a recollection of this
 6 meeting.
 7 Can you help the panel as to why, when you prepared
 8 your first statement, you couldn't remember this detail,
 9 and some months later, when you provided your second
 10 statement, you could?
 11 A. When I received my first request to provide a statement,
 12 I had been retired for some 16 years. They were
 13 referring to matters that were 18 years old and, with
 14 the passage of time, I had no recollection of anything
 15 to do with Grenfell. It's just one of those unfortunate
 16 things, I had no recollection of that at all.
 17 The comments made in my initial statement were what
 18 I could possibly remember at that time and from the
 19 paperwork that I have received from Butler & Young.
 20 That's really the summation of the matter at that stage.
 21 Subsequent to that, we received Roger Howkins' lift
 22 report, and that gave me further -- how shall I put
 23 it? -- further food for thought on many matters, and
 24 I think with that, plus the late availability of the
 25 project brief, which I had not seen up until, I think,

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1 two months ago, two and a half months ago, just before
 2 my second statement, that filled in an awful lot of the
 3 gaps in my memory. Not all of them, because, as I say,
 4 it's still a long, long time ago. I'm clutching at
 5 straws on a lot of things in that respect.
 6 Q. Don't. Thank you for that, Mr Moorhouse.
 7 Is it also right that you didn't make any notes of
 8 Mr Steppel's instruction at the time and it wasn't in
 9 any other way recorded in writing, whether in the form
 10 of a letter, minute or file note?
 11 A. I did make notes. My project files were full of copious
 12 notes relating to telephone calls, meetings that were
 13 ad hoc meetings rather than official meetings, and my
 14 project files recorded everything that was done and
 15 calls, dates, what was discussed. But these were all
 16 handwritten notes.
 17 The project file also included anything inwards from
 18 the client, and subsequently from others, but from the
 19 client, emails or faxes or whatever there might be. But
 20 I didn't have any of that information. As I've said,
 21 that was all destroyed in March 2016. So I had no
 22 notes, and I did not confirm in writing our discussion,
 23 I was not required to, and I do not believe that
 24 Mr Steppel wrote to me confirming that instruction.
 25 Q. Thank you.

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1 Now, out of fairness, could I put to you an extract
 2 from Mr Howkins' report so you can answer it.
 3 If we can go to paragraph 259 of that report, which
 4 can be found at {RHO00000003/121}.
 5 If we could amplify paragraph 259, it's really
 6 four lines up from the bottom that paragraph, Mr Howkins
 7 said this:
 8 "As part of these discussions [ie around the project
 9 brief] I would have expected B&Y to have drawn TMO's
 10 attention to the relevant British Standards for
 11 firefighting lifts, their applicability and the
 12 feasibility of achieving compliance with the standards.
 13 This includes advising TMO that tall buildings should
 14 have a firefighting lift."
 15 Now, do you disagree or agree with that statement?
 16 A. I agree with that statement.
 17 Q. Is your evidence, therefore, that you provided such
 18 advice to Mr Steppel?
 19 A. I did.
 20 Q. And what was his response to that advice?
 21 A. As I've already stated, he advised me that I was to
 22 proceed with fireman's lifts.
 23 Q. Did you discuss the substance of the meeting and indeed
 24 Mr Steppel's instruction with Mr Ellis?
 25 A. Yes, the substance, yes, not every -- well, possibly

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1 every detail. This is, again, a long time ago.
 2 I cannot recall how much I discussed with him, but I'm
 3 sure I advised Mr Ellis most matters that were
 4 discussed, including the fireman's lifts .
 5 Q. That's the particular thing I maybe should have asked
 6 you more directly.
 7 A. Yes.
 8 Q. Did you advise him that the instruction was there were
 9 to be no firefighting lifts ?
 10 A. That's correct, yes.
 11 Q. Did he raise any concerns or questions about the
 12 instruction that had been given by Mr Steppel?
 13 A. I cannot recall specific concerns. We both discussed
 14 the matter, and whilst it wasn't perhaps what one would
 15 have expected, we accepted that was the client's
 16 instruction .
 17 Q. Mr Calaharn took over the role of monitoring the project
 18 on a day-to-day basis, I think, from July 2003 onwards.
 19 A. Right.
 20 Q. Thereafter, did he ever raise the question of
 21 firefighting lifts with you?
 22 A. Never.
 23 Q. To the best of your knowledge, and mindful these are
 24 events some nearly 20 years ago, were you aware or did
 25 you sense that Mr Calaharn was aware of the meeting and

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1 Mr Steppel's instruction?
 2 A. I'm not aware of him being aware, no.
 3 Q. Stepping away slightly from the substance of the
 4 instruction itself , were there any structural or other
 5 constraints on installing full firefighting lifts at
 6 Grenfell? If so, what were they?
 7 A. I do not know the structural constraints. This was
 8 a building that was erected in the 1970s. I do know
 9 that from the project brief it makes that statement, and
 10 it advises that there could be possible structural
 11 constraints, and I do know from David Steppel that there
 12 were possible structural constraints, but I don't know
 13 exactly what they referred to because that was in actual
 14 fact outside of the lift . It may have been referring to
 15 corridors or the landings, whatever.
 16 Q. Can we take it from that that you yourself were not
 17 involved in any discussions with any structural
 18 engineers retained either by you or by TMO?
 19 A. No, not involved in that.
 20 My apologies, we did have our own structural
 21 engineer, but not relating to that.
 22 Q. He wasn't involved in this --
 23 A. Not in that, yes.
 24 Q. You referred or there is reference elsewhere in the
 25 evidence to other constraints on installing full

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1 firefighting lifts , ie other than structural ones.
 2 Could you help us as to what those other constraints
 3 might have been? Can you remember Mr Steppel raising
 4 anything?
 5 A. Well, only the fact that he wished to have fireman's
 6 lifts , he did not wish to have the other features of
 7 firefighting lifts . There were already a considerable
 8 amount of features that were addressed by both types of
 9 lift .
 10 Q. Thank you.
 11 Can we now turn to the feasibility study.
 12 A. Yes.
 13 Q. That can be found at {BUT00000002}.
 14 As we will see from the bottom left-hand corner,
 15 that's dated July 2003. Am I right in assuming you've
 16 seen this document before?
 17 A. Correct.
 18 Q. Who drafted it?
 19 A. I did.
 20 Q. Was anyone else involved in either drafting or the
 21 review of the draft?
 22 A. Stephen Ellis would have been there, essentially to
 23 proofread what I have written. With any document that
 24 went out, whether it was a feasibility study or
 25 specification or tender analysis, it would always be

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1 proofread by another member of Butler & Young.
 2 Q. If we could look at page 5 within this document
 3 {BUT00000002/5} and section 1.2. That deals with the
 4 principal areas to be covered by the study.
 5 Looking in particular at subparagraph 2, it says
 6 there:
 7 "Compliance with current Health and Safety at Work
 8 requirements, the recommendations of British Standards
 9 and EN81/1."
 10 Would you agree that the feasibility study nowhere
 11 records the instruction from Mr Steppel that
 12 firefighting lifts were not to be installed?
 13 A. Not at all, that was his requirement.
 14 Q. But this feasibility study doesn't mention that at all;
 15 is that right?
 16 A. No, it does not.
 17 Q. Can you help us as to why what appears to be a fairly
 18 significant departure from the client brief was not
 19 recorded here in the feasibility study?
 20 A. He did not want it recorded.
 21 Q. He gave you that express instruction, did he?
 22 A. Yes, that's correct.
 23 Q. When he gave you that instruction, what was your
 24 response?
 25 A. I accepted the instruction. That was his requirement.

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1 We were to follow the fireman's lift .
 2 Q. Now, again, just to give you the opportunity of
 3 answering a point that's made against Butler & Young,
 4 could I ask us to go to Mr Howkins' report at
 5 paragraph 261, which can be found at {RHO00000003/122}.
 6 Rather than me read it out again, might I invite you
 7 to read paragraph 261.
 8 A. Yes.
 9 (Pause)
 10 Yes.
 11 Q. If I asked you why doesn't the report deal with the
 12 matters there, your answer presumably is the one you
 13 have already given: because Mr Steppel told you not to?
 14 A. Yes. I think most of these matters were discussed,
 15 considered, but they were — I won't say rejected, but
 16 they were not required because David Steppel wanted no
 17 reference to firefighting lifts and for fireman's lifts
 18 to be the lift that we proceeded with.
 19 Q. In any of the discussions surrounding the feasibility
 20 report, were there any discussions concerning the
 21 feasibility of incorporating if not all of the features
 22 of a firefighting lift, then at least some of them?
 23 A. In the discussions in reference to the feasibility
 24 study, we — I put forward to David Steppel and to
 25 John Rogers my various thoughts. I was told to proceed

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1 as originally instructed.
 2 When the feasibility report was complete, it was
 3 then passed to members of the team for consideration,
 4 and there wasn't — there was never any question about
 5 firefighting lifts. It wasn't raised at all by any
 6 member of the team.
 7 Q. Thank you.
 8 Could we turn now to a memo which you may never have
 9 seen before, dated 16 December 2003, sent by John Rogers
 10 to a man called Paul MacAinsh. The reference is at
 11 {TMO00869720/109}.
 12 I'll just invite you to read the first three
 13 paragraphs of that memo.
 14 (Pause)
 15 A. Yes.
 16 Q. First of all, can you help us, do you know who
 17 Paul MacAinsh is?
 18 A. No.
 19 Q. Did you advise John Rogers that the lift works would not
 20 bring the lift service up to current standards?
 21 A. In my discussions in the meeting where I was instructed
 22 to proceed with fireman's lifts, I'm sure that that was
 23 discussed. Well, I cannot say 100%, but I'm sure that
 24 that was discussed.
 25 Q. Could I now turn to the specification itself, which can

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1 be found at {BUT00000044}, which hopefully should reveal
 2 the specification for lift works at Grenfell Tower dated
 3 April 2004. If we can look at the bottom left-hand
 4 corner, you see the date, April 2004.
 5 A. Yes.
 6 Q. Putting that into its full context again, can you
 7 remember who wrote the specification?
 8 A. I did.
 9 Q. And again, did Mr Ellis help you in terms of the
 10 drafting on the technical side or peer review it?
 11 A. Yes, yes.
 12 Q. Was the specification written explicitly for the project
 13 at Grenfell?
 14 A. Yes.
 15 Q. Or, put differently, was it a specification that had
 16 been used for previous jobs and had been re-purposed for
 17 the Grenfell job?
 18 A. No, there are elements of any specification that are
 19 drawn from other specifications, but much of this
 20 project — it was a very complex project — much of it
 21 was specific to Grenfell. But there were standard
 22 paragraphs and clauses that one would inject that would
 23 have been used elsewhere, undoubtedly.
 24 Q. Can I ask us to go to page 20 in this document
 25 {BUT00000044/20} and paragraph 2A.01.

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1 We see there, in the fifth paragraph down:
 2 "Should anything be omitted from this specification,
 3 which is fitting and usually considered necessary for
 4 due and proper completion of the work, the Tenderer
 5 shall verbally bring this to the attention of the
 6 SO ..."
 7 Supervising officer?
 8 A. Yes.
 9 Q. "... prior to tender submission with confirmation in
 10 a letter prior to submitting the Tender return."
 11 Now, did any tenderers bring the absence of
 12 firefighting lift features in the specification to your
 13 attention?
 14 A. None at all.
 15 Q. If we can now turn to page 22 {BUT00000044/22}, and if
 16 we can look at paragraph 2A.05 under the heading
 17 "Regulations", it says this:
 18 "It shall be understood that the equipment specified
 19 and that the characteristics of the site, particularly
 20 dimensions and clearances, may not fully comply with
 21 current British and European Standards and these shall
 22 be qualified by the Tenderer in the tender return."
 23 Now, do you agree that the specification required
 24 the lift installation to comply as far as was reasonably
 25 practicable to harmonised European standards, first of

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1 all?
 2 A. As far as reasonably practicable, yes, in accordance
 3 with the project brief as amended.
 4 Q. Now, absent any exception, would you accept that
 5 firefighting lift standards were included in the
 6 reference to harmonised European standards?
 7 A. Yes, that's correct.
 8 Q. Now, the specification refers to "existing structural
 9 constraints" preventing full compliance with standards.
 10 At this stage, do you remember what was meant by
 11 existing structural constraints?
 12 A. I cannot recall.
 13 Q. Can we turn over the page to page 23 {BUT00000044/23},
 14 and halfway down that page to paragraph 2A.06.
 15 You will see there, under the heading "Design
 16 Standards", it says this, and apologies for reading it
 17 out again:
 18 "The equipment and installation shall conform to
 19 this specification and to the relevant British Standards
 20 including Codes of Practice and, in particular, BS 5655,
 21 BS 7255 and EN81-1. Where this specification differs
 22 from those standards and codes, the provision of this
 23 specification shall prevail.
 24 "Reference to British Standards and Codes of
 25 Practice shall mean the edition current three months

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1 prior to the date for return of tenders. A certificate
 2 of compliance with the relevant British Standards shall
 3 be provided to the SO on request. Any changes during
 4 the course of the contract in the relevant British
 5 Standards and Codes of Practice shall be brought to the
 6 attention of the SO by the Contractor.
 7 "It shall be understood that the existing
 8 characteristics, particularly dimensions and clearances,
 9 may not comply with current British Standards and these
 10 shall be qualified in the tender return."
 11 Now, apologies, that is a long run—up to a simple
 12 question, which is: was a certificate of compliance with
 13 relevant British Standards ever provided to you in your
 14 capacity as a supervising officer?
 15 A. I cannot recall, and I do not have any documentary
 16 evidence. All tender returns were destroyed in
 17 March 2016.
 18 Q. Can I now leave the specification but turn to the TMO's
 19 contribution to the specification.
 20 Did the TMO have the opportunity to review the
 21 specification before it was published and provide
 22 comments?
 23 A. Yes.
 24 Q. Am I right in understanding that Robin Cahalarn, at
 25 least, provided detailed comments on the substance of

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1 the specification?
 2 A. As I understand it from the lift report. Could I also
 3 say that the specification was issued to all members of
 4 the team for any comment.
 5 Q. When you say the team, who are you talking about there?
 6 A. Damien Donnelly and the rest of the people that were
 7 attending the monthly meetings all received a copy of
 8 the specification, as they did the feasibility study.
 9 Q. Now, if we could go just as sort of an example to
 10 {TMO00853780}, which should be an email from you dated
 11 12 May 2004.
 12 Again, you refer there to considerable discussion
 13 between yourself, Steve Ellis and Robin Cahalarn
 14 regarding the specification.
 15 Is that a fair summary of the intensity and degree
 16 of discussions that were taking place regarding the
 17 substance of the spec at that time?
 18 A. Well, I must assume so because that is what I have
 19 confirmed by email.
 20 Q. Do you remember discussing the contents of the
 21 specification with Janice Wray?
 22 A. Not at all.
 23 Q. Can we go to {TMO00853777}.
 24 If we could expand the email at the top of this
 25 chain here, we see there reference to Damien Donnelly,

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1 who you referred to earlier, Robin Cahalarn and
 2 John Rogers has been copied in. Janice Wray has
 3 a number of comments there about the specification.
 4 Can you remember whether there was anything above
 5 and beyond what is set out in this email?
 6 (Pause)
 7 A. Not that I recall, no.
 8 Q. Thank you.
 9 Now, can we turn to a separate topic, which is to
 10 discuss particular features of the firefighting lifts
 11 and consider the feasibility of their inclusion in the
 12 lifts at Grenfell Tower.
 13 Now, first of all, the trap door.
 14 Would that have been, in your view, feasible? Would
 15 it have been reasonably practicable to have installed
 16 a trap door in the lifts at Grenfell Tower?
 17 A. It would have been feasible, practicable, but not
 18 advisable.
 19 Q. Why wouldn't they have been advisable?
 20 A. I believe that they present a security problem to the
 21 lift, that they can be misused and abused by people,
 22 unauthorised people, gaining access to the building, and
 23 there were a considerable amount of unauthorised people
 24 that gained access to the building. They could open
 25 that trap door from inside the lift, or if they had use

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1 of a Euro key, they could open it from on top of the
 2 lift . And so I would not have agreed to that, had it
 3 been put to me.
 4 Q. Put crudely, and I apologise to you if it's too crude,
 5 but effectively security considerations trumped such
 6 safety advantages as a trap door would bring?
 7 A. I believe one had to advise on that. I think that if
 8 particularly the public were put at risk, then security
 9 was the main cause of concern.
 10 Q. Water protection is another feature of a firefighting
 11 lift . Would it have been feasible to have included
 12 water protection as part of the work on the lifts at
 13 Grenfell?
 14 A. It would have been feasible. There would be
 15 a considerable amount of work that would be necessary to
 16 do such a thing, but it did not form part of
 17 David Steppel's instruction, which was that the further
 18 features of firefighting lifts would not be included.
 19 Q. A secondary power supply is another component of
 20 a firefighting lift . Again, would it have been feasible
 21 to have installed a secondary power supply?
 22 A. Exactly the same as my previous answer.
 23 Q. And would the works, in addition to being considerable,
 24 is it fair to assume they would also have been
 25 expensive?

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1 A. Very.
 2 Q. Are you able to give the panel -- it's difficult now,
 3 nearly 20 years after the event -- back in the day,
 4 giving a very rough and ready idea --
 5 A. Yes.
 6 Q. -- can you give the panel some idea --
 7 A. Yes.
 8 Q. -- however caveated, about how expensive that would have
 9 been?
 10 A. I cannot recall the exact amount at that time, but
 11 I would -- in looking at the matter as I have done
 12 subsequent to receiving the report and the project
 13 brief, I would estimate, perhaps guesstimate would be
 14 the right term here, it would be between £75,000, and
 15 £100,000.
 16 And one has to consider also that this project had
 17 already escalated from £220,000 to £600,000, and to
 18 suddenly impose a further figure of £75,000 to £100,000
 19 would have been very, very difficult to justify as far
 20 as Kensington and Chelsea are concerned, because every
 21 penny has to count.
 22 Q. So the £75,000 to £100,000 figure is in respect of both
 23 lifts ?
 24 A. Yes, that's correct, yes.
 25 Q. Turning to a fire service communication system, would it

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1 have been feasible to have installed one of those?
 2 A. I'm sorry, could you repeat that?
 3 Q. Yes. Would it have been feasible to install a fire
 4 service communication system?
 5 A. It would have been possible, if requested.
 6 Q. Would that have been expensive?
 7 A. As an individual item, I cannot tell you now, no.
 8 Q. I think, if I'm right, from this morning's evidence,
 9 Mr Ellis said £2,000 or £3,000, I think he said. Does
 10 that sound about right? Or if you can't help, say so.
 11 A. Probably in that region, yes.
 12 Q. Fire resistance landing doors.
 13 Were fire resistance landing doors provided?
 14 A. Yes.
 15 Q. Can I now turn to the separate subject of the fire
 16 control switch, and could I go to the specification for
 17 this purpose, which is at {BUT00000044/60},
 18 paragraph 2A.70. That deals with what's called the
 19 fireman's control switch there.
 20 First of all, I'm right, I hope, in thinking that
 21 the switch was to be installed on the ground floor at
 22 Grenfell Tower; is that right?
 23 A. That is correct.
 24 Q. I'm right in understanding that one switch can operate
 25 two lifts ?

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1 A. That is correct also.
 2 Q. And that the fireman's control switch set out in the
 3 specification is designed to be operated with an express
 4 drop release key; is that right?
 5 A. The anti-vandal drop key, yes.
 6 Q. And was that an express requirement of the TMO?
 7 A. Very much so.
 8 Q. And again, can you explain to the panel why that was
 9 very much, to use your words, a consideration on the
 10 part of the TMO?
 11 A. The BS and European Standard was for a Euro key. The
 12 triangular Euro key was very simply available, it could
 13 be purchased on eBay or Amazon. It was very, very
 14 simple for a miscreant to obtain and then use it for
 15 their own benefit. The express drop release key was
 16 a specifically designed key of very, very specialist
 17 dimensions that was manufactured by the Express Lift Co
 18 and was only available through one source of supply. It
 19 was used by a very large amount of local authorities as
 20 a secure key for both landing locks and for fireman's
 21 service. And I think -- I think -- in some places it
 22 was even used as an access by the fire service into
 23 areas within a building. Secure areas.
 24 Q. One thing which has emerged from evidence is that
 25 express keys were also obtainable on eBay and other such

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1 sites. Indeed, one fireman mentioned that he had bought
 2 three during the course of his career off eBay.
 3 Was that phenomenon something about which you were
 4 aware?
 5 A. I was not aware of that, but could I just say that that
 6 was considerably after our involvement with the project.
 7 At the time of the project, the key was only available
 8 from Express Lift Co, and they in turn made it available
 9 through a company called LCL, I do remember that,
 10 a simple reference. That was the only source of supply.
 11 If it -- I believe -- again, it's outside our
 12 involvement -- that these keys were manufactured
 13 elsewhere.
 14 Q. Thank you.
 15 Can I now turn to a completely different topic,
 16 which is the relationship between Apex and
 17 Butler & Young.
 18 A. Yes.
 19 Q. Now, Apex were appointed lift contractors for the lift
 20 works at Grenfell; is that right?
 21 A. Correct.
 22 Q. Now, if we go to {APX00005599}, I'll just invite you to
 23 refresh your memory.
 24 (Pause)
 25 A. Yes.

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1 Q. Now, that email suggests that you approached Mr Jenchner
 2 at Apex to inform him of the project and to encourage
 3 him to submit a tender; is that a fair reading?
 4 A. No, I didn't invite him to submit a tender --
 5 Q. Well, encourage him is what I said.
 6 A. Well, yes, I -- that is correct. I was requested by the
 7 project team to provide them with the names of the
 8 companies that I might approach with an OJEC notice, and
 9 that was quite specific because it was relative to the
 10 size of the project, and our previous experience in
 11 analysing and saying, "This company could approach this
 12 project, that company can't". From your tender approved
 13 tender list, you would select a given number of people.
 14 Q. Had Apex and Butler & Young worked a lot with each other
 15 before this project?
 16 A. A considerable amount, the same as the others within our
 17 tender list. This wasn't a huge tender list, it was
 18 seven or eight companies out of goodness knows --
 19 I can't even think of how many lift companies there were
 20 there. These were companies that we knew and trusted
 21 and had experience in this sort of work.
 22 Q. Can I now ask you to go to {APX00005619}.
 23 It's headed "Contract documentation for the
 24 refurbishment of two electric passenger lifts ... and
 25 replacement of one hydraulic passenger lift ... at

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1 Grenfell". You will see in the bottom left-hand corner,
 2 it's dated October 2004.
 3 First of all, do you remember seeing this document?
 4 A. Could I --
 5 Q. Do you want to scroll further in?
 6 A. Oh, contract documentation.
 7 (Pause)
 8 Well, I must have, but I don't actually recall it at
 9 this precise moment, no.
 10 Q. Don't worry.
 11 In essence, you can take it from me, it replicates
 12 the specification.
 13 A. Right.
 14 Q. Would a contract with the lift contractor usually simply
 15 replicate the specification and that would be the basis
 16 of their instructions about the scope of works to be
 17 carried out?
 18 A. Well, the contract for the project was issued by RBKC,
 19 and they would attach to it any other relevant paperwork
 20 or documentation that they believed necessary, including
 21 the contract terms and conditions, and anything else
 22 that they thought suitable.
 23 Q. Now, Apex were appointed in October 2004 --
 24 A. Yes.
 25 Q. -- as reflected there, and the specification had been

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1 written in April 2004. Did you advise Apex about the
 2 TMO's instruction that firefighting lifts were not to be
 3 installed?
 4 A. I didn't advise them of that. The specification would
 5 have made it clear that it wasn't required.
 6 Q. Did Apex have any role in relation to the design of the
 7 lifts?
 8 A. None whatsoever.
 9 Q. Did Apex ever raise concerns as to whether the lifts
 10 should be designed as firefighting lifts?
 11 A. No.
 12 Q. Now, Mr Jenchner, who is the managing director of
 13 Apex Lifts, said in his first statement to
 14 the Inquiry -- it's at {APX00008774/5}, and if we look
 15 at the fourth paragraph down from the top, he says this:
 16 "The preparation of the contract and therefore the
 17 specification of the work was the responsibility of
 18 [Butler & Young], on the instruction of their client.
 19 Once completed and disseminated to Apex, there would be
 20 no scope for Apex to enter into any discussions
 21 regarding changes to the proposed work, design issues
 22 and suggestion for alternative plans."
 23 Now, holding that paragraph there, and it might be
 24 useful to keep it on the screen and put another one up,
 25 which is his supplementary statement at {APX00008783/2},

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1 Mr Jenchner clarified that once Apex had been awarded
 2 the contract and attended pre-start site meetings, any
 3 issues could have been raised at that point, but he
 4 maintained his views that issues of compliance with
 5 standards were for Butler & Young to consider.
 6 Now, bearing in mind what Mr Jenchner has said
 7 there, would you agree that once the specification had
 8 been prepared and Apex awarded the contract as lift
 9 contractor, they could have raised any issues with you
 10 regarding the specification at pre-start site meetings?
 11 (Pause)
 12 A. They could have raised matters that gave them concern,
 13 but that would have been at tender stage, really, not
 14 once we were on site.
 15 Q. But --
 16 A. They may have made a suggestion that they thought may
 17 enhance the project in their installation, but not the
 18 specification itself.
 19 Q. And the reality is Apex raised no such concerns; is that
 20 right?
 21 A. No, not to my knowledge.
 22 Q. Would you agree that the issue of compliance with
 23 British and European standards was ultimately a matter
 24 for Butler & Young to consider rather than Apex?
 25 A. Yes.

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1 Q. Now, could we turn to the project itself, and just a few
 2 questions in respect of that.
 3 First of all, in respect of the project, did you
 4 supervise the works that were carried out by Apex?
 5 A. When you say -- you mean me personally or
 6 Butler & Young?
 7 Q. You.
 8 A. Personally I was involved to a certain extent, but once
 9 the project had been awarded, then Stephen Ellis started
 10 to take over the project even more so, and once it was
 11 on site, he took the whole project over. That was his
 12 role on many projects that we dealt with.
 13 MR KINNIER: Mr Moorhouse, I have reached the end of my
 14 prepared questions.
 15 Sir, might I have the usual ten minutes to check
 16 whether I have missed out anything I ought to ask?
 17 SIR MARTIN MOORE-BICK: Yes, in view of the time and the
 18 fact that last time ten minutes turned out to be
 19 a little less than what was actually required, I think
 20 we might give ourselves a little bit more time this
 21 time.
 22 Mr Moorhouse, we were going to have a break in the
 23 afternoon at around about this time anyway.
 24 THE WITNESS: Yes, sir.
 25 SIR MARTIN MOORE-BICK: But if counsel has reached the end

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1 of his questions, we usually have a break just to give
 2 him a chance to make sure he hasn't overlooked anything.
 3 THE WITNESS: Okay, yes.
 4 SIR MARTIN MOORE-BICK: And also to give others who are
 5 following the proceedings from other places the chance
 6 to make suggestions about questions as well.
 7 THE WITNESS: Yes, sir.
 8 SIR MARTIN MOORE-BICK: So we will break now, come back at
 9 3.30, and then we'll see at that stage if there are any
 10 more questions for you. All right?
 11 THE WITNESS: Yes, sir.
 12 SIR MARTIN MOORE-BICK: I have to ask you, please, as I have
 13 everyone else, while you're out of the room, please
 14 don't discuss your evidence --
 15 THE WITNESS: No, no.
 16 SIR MARTIN MOORE-BICK: -- or anything to do with it with
 17 anyone else. All right?
 18 THE WITNESS: Okay.
 19 SIR MARTIN MOORE-BICK: Would you like to go with the usher,
 20 please.
 21 (Pause)
 22 Right, Mr Kinnier. Well, 15 minutes ought to give
 23 you enough time. If you need more time, just let us
 24 know.
 25 MR KINNIER: Thank you, sir.

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1 SIR MARTIN MOORE-BICK: Good. 3.30, then, thank you.
 2 (3.12 pm)
 3 (A short break)
 4 (3.30 pm)
 5 SIR MARTIN MOORE-BICK: All right, Mr Moorhouse?
 6 THE WITNESS: Thank you very much.
 7 SIR MARTIN MOORE-BICK: We will see if there are more
 8 questions for you.
 9 Yes, Mr Kinnier.
 10 MR KINNIER: Mr Moorhouse, there are no further questions.
 11 THE WITNESS: Oh.
 12 SIR MARTIN MOORE-BICK: Disappointing, isn't it, after
 13 you've got back into the room?
 14 THE WITNESS: All that journey.
 15 MR KINNIER: I could think of some!
 16 Mr Moorhouse, the final thing, I really do want to
 17 say thank you very much for attending today, it's much
 18 appreciated.
 19 THE WITNESS: Okay, thank you.
 20 SIR MARTIN MOORE-BICK: I would like to thank you very much
 21 on behalf of all of us on the panel. I can understand,
 22 as I said to Mr Ellis, what a shock it must be to be
 23 asked to remember what you did 15 or nearly 20 years
 24 ago.
 25 THE WITNESS: Yes, very much.

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1 SIR MARTIN MOORE–BICK: But we are very grateful to you for
 2 making the effort to go over this and to tell us what
 3 you can now remember.
 4 THE WITNESS: Thank you.
 5 SIR MARTIN MOORE–BICK: It’s been very helpful and it’s been
 6 good to listen to you and hear what you have to say. So
 7 thank you very much indeed for coming to help us.
 8 THE WITNESS: Thank you. Thank you.
 9 SIR MARTIN MOORE–BICK: Now you can make your way off again.
 10 THE WITNESS: Thank you.
 11 SIR MARTIN MOORE–BICK: Thank you very much indeed. There
 12 is no rush, you take your time.
 13 THE WITNESS: Thank you.
 14 (The witness withdrew)
 15 SIR MARTIN MOORE–BICK: Well, thank you very much,
 16 Mr Kinnier. Now, any more for today?
 17 MR KINNIER: No, that concludes the evidence for today and
 18 indeed this week. On Monday you will be hearing from
 19 three more lift –related witnesses.
 20 SIR MARTIN MOORE–BICK: Right. Good.
 21 Well, thank you all very much. We will conclude
 22 there for today and we will resume at 10 o’clock on
 23 Monday of next week.
 24 MR KINNIER: I’m grateful. Thank you, sir.
 25 SIR MARTIN MOORE–BICK: Thank you very much.

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1 (3.35 pm)
 2 (The hearing adjourned until 10 am
 3 on Monday, 19 July 2021)
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