SCOTTISH HOSPITALS INQUIRY

Royal Hospital for Children and Young People/ Department for Clinical Neurosciences ("RHCYP/DCN")

Witness Statement

of DAVID STILLIE

In response to Rule 21 Request dated 8 December 2022 (re-issued 13 December 2022)

I am unable to answer some of the questions raised in the section 21 notice because I was not involved in those matters. Those questions have therefore been omitted from this statement.

Role on the Royal Hospital for Children and Young People/Department of Clinical Neuroscience Project ("RHCYP/DCN project"); including particular area of expertise and the period engaged on the project

1. I am David Stillie, aged [redacted] years. I am a retired architect. I have a Batchelor of Architecture degree with honours from Heriot Watt University/ Edinburgh College of Art. I am a Fellow of the Royal Incorporation of Architects in Scotland and a Member of the Royal Institute of British Architects.

2. I started working at Mott MacDonald in January 1997 and remained with them until retirement. I retired at the end of March 2018 but continued working on the RHCYP/DCN project on a consultancy basis from June 2018.

3. I first became involved in the RHCYP/DCN project as a member of the team on the capital project as NEC Supervisor in Spring 2009. The appointment predated the construction phase of what was at that stage a capital funded design and build project. As the NEC Supervisor provides the compliance inspections during the construction phase it is important that the team has an in-depth understanding of the requirements. My own role was as supervisor for the architecture and building parts of the projects with further multi-disciplinary expertise drawn from Mott MacDonald's team of civil/structural

and building services engineers. I chaired the Delivery Group on the capital project and wrote the early drafts of the brief which, sometime later, after further amendment by others in the Mott MacDonald and NHSL teams, became the basis of the Board Construction Requirements for the NPD project. When the funding route was changed to NPD, NHSL appointed Mott MacDonald as Technical Advisors. Mott MacDonald appointed Davis Langdon to manage the preparation of the Reference Design and they in turn appointed the Reference Design Team. The Reference Design Team was managed by Davis Langdon, and I assisted Davis Langdon with facilitating the preparation of the architectural elements of the design. This included assisting NHSL with reviews of the developing design both between departments and within each department, to ensure that the required operational functionality was achieved, assisting with and minuting architectural reviews of key and generic rooms and chairing Design Team Meetings. I also attended Achieving Excellence Design Evaluation Toolkit ("AEDET") reviews as an observer and meetings with Architecture & Design Scotland ("A&DS") and City of Edinburgh Council ("CEC"). Immediately before the commencement of the procurement stage I collated the information which was available to Bidders in the Data Room as part of the Invitation to Participate in Dialogue ("ITPD") Volume 4.

4. During procurement I attended meetings with the three bidders and their designers and various NHSL teams, including the Clinical and Facilities Management Groups in an advisory capacity. At final tender stage, I prepared the evaluations of the architectural elements of each of the three bids prior to the appointment of the Preferred Bidder. I was only asked to provide an opinion and a score on the elements of the bid allocated to me, not the overall bid. My opinion was that we got three reasonable bids in terms of what I was evaluating. I was evaluating the architectural aspects of the project, of which I had to score approximately seven items. There were other architectural items which were pass or fail and I reviewed those items as well. The architectural elements included the layouts, external envelope, landscape and all the internal fittings and specifications for the architectural elements. I scored my elements of the bid out of 70 and all three bids were within 8 points of one another. The final scores ended up being quite different as weightings were

applied to my scores which were then consolidated to give a final score. I was not involved in any discussions regarding what the weightings should be, nor did I take part in discussions around the consolidation of the scores. I scored the bids against the sets of architectural criteria in the evaluation documents. I attended the competitive dialogue meetings on the architectural, clinical and FM side. My opinion is these meetings went reasonably well and there was no major disagreement. My experience of what was going on was that the only area for innovation from an architectural perspective. was on the design of the non-mandatory elements. This is because the Bidders were provided with the reference design and were expected to develop the interrelationships between the rooms and the departments within the layout of the building. The bids were evaluated for compliance with what we had as a reference design. Bidder C successfully reconfigured the layout illustrated in the reference design to suit their off-site prefabrication system. I am unable to comment on whether this approach was also adopted in relation to the Mechanical and Electrical (M&E) elements or what was said to Bidders regarding innovation on the M&E elements. Colin Macrae assisted with the technical M&E assessment/evaluation. Willie Stevenson and Paul Kelly also were involved towards the latter stages of the evaluation period.

5. Following the appointment of the Preferred Bidder I continued to attend meetings between the Clinical Team and the Bidder's Design Team. I also continued to attend meetings related to catering, equipment, security and CCTV, FM distribution, the helipad and the Arts programme, in all cases in an advisory capacity. I advised on the architectural elements within the Schedule of Derogations. I was aware that there were tensions at a high level, but I was not involved in any discussions between IHSL and the Board which made me think that relations were strained. The meetings which took place were split up by discipline. My meetings were with IHSL's design manager, and their architect and I did not observe any tensions beyond difficult negotiations which are not unusual. I was not aware as to whether the Board was seeking to make changes to the evaluation criteria stated in the procurement documents in the period from the preferred bidder being appointed too financial close.

6. Post-financial close/Construction I worked closely with the Clinical Team and users to complete the detailed requirements for specific rooms in terms of layout and equipment (the loaded 1:50 drawings). These requirements fell into two categories, those that were considered to be design development and those that were viewed as changes to the brief. This involved changes to the groupings of equipment in specific rooms. For example, if we had a worktop in a room and NHSL decided to change it to a desk this would require financial adjustment and would be considered a change as the worktop would be Group 1 (supplied and fixed by IHSL) and the desk would be Group 3 (supplied and placed in position by NHSL). However, if the worktop was moved to another part of the room, then that would be considered design development. I assisted NHSL in negotiating the final agreed position on each of these items.

7. In addition, I continued to attend meetings of other workstreams and assisted the NHSL teams in understanding the architectural construction information which they received for review from IHSL.

8. During construction I worked with NHSL and IHSL as the design continued to develop in terms of the detailed specifications for internal fixtures and fittings, including on the room mock-ups. As a briefing tool and in consultation with the Clinical team, I also provided free-hand sketch layouts for a few individual rooms and for the Haematology/Oncology Day Care Unit which took the place of the Laboratory Facilities. Later I assisted with quality reviews of the building works and assisted the NHSL team with their programme of room inspections. This group did not have the technical knowledge nor the equipment to test the building services installations. These installations were tested separately by suitably qualified building services engineers from NHSL and IHSL with engineers from Mott MacDonald in attendance. I continued to assist the NHSL room inspection team leading up to the time of the cancellation of the building occupation. Working closely with the clinical team and users I prepared the key suiting schedule and, on behalf of the NHSL Fire Officer, I carried out surveys of the locations of various fire alarm sounders, break glass points, smoke vents, fire extinguishers, fire doors etc. to allow comprehensive as-built

fire drawings to be prepared.

9. I retired in March 2018 and continued to work for Mott MacDonald as a Consultant on the RHCYP/DCN project, providing information to the MML team as and when required. Most recently I have been assisting MML in responding to questions from the Inquiry. I do not carry out any other architectural work.

Procurement Process – The ITPD

The assessment criteria were based on a mix of price and quality with a 60/40 split in terms of price/ quality. Did you or anyone else from Mott MacDonald express any concern as to the split with a focus on price?

10. When carrying out the review of bids I was told there was a breakdown of 40% for quality and 60% for costs. I cannot recall how much of the 40% was attributed to the architecture for the RHCYP/DCN project. I only evaluated a number of architectural items – approximately seven items. I recall there were discussions regarding the split. Richard Cantlay, Andy Duncan and Andrew Scott at Mott MacDonald spoke with NHSL and Davis Langdon about this. In my experience 60/40 splits were quite normal for other design/build and PFI contracts at the time; generally, the marketplace had a 60/40 split. I do not recall contributing towards discussions about the split and recall that the conversations I was involved in regarding the split tended to be high level rather than on a more detailed technical level.

The assessment criteria were based on a mix of price and quality with a 60/40 split in terms of price/ quality. In your experience was this usual?

11. 60/40 (price/quality) from my experience was normal at this time for PFI and for design build projects in other sectors and the RHCYP/DCN project was no different. I have been involved in various different contracts and 60/40 was a commonly seen split in design/build and PFI contracts that I saw as designer and in technical advisor roles for funders.

The Inquiry understands that it was for NHSL to determine the elements that would make up the overall Quality score during tender evaluation, as well as

the weightings given to the scored elements within the Quality score. Workshops were held involving the broader management team within NHSL, and the Project Team including NHSL's advisors. Were you or anyone else from Mott MacDonald involved in these workshops? If so, (a) can you describe what happened during these workshops? (b) Can you describe why M&E engineering was given a lower weighting than other elements.

12. I was not involved in weightings workshops. I was involved in evaluations given to scored elements insofar as I fed in the individual evaluations on the architectural side. I was not asked to contribute in any way towards the evaluation of the M&E engineering services.

Bundle item 20, page 1648 – 'Technical Risks for Financial Close' dated 25 August 2014 (A36308781 – Technical Risks for Financial Close – 25 August 2014)[1]. We have been advised by other witnesses this appears to be a Mott MacDonald generated risk register. Is that correct? Do you recognise this as a Mott MacDonald risk register?

13. I was aware the registers existed as I had put forward some of the items on the risk register to MML's project managers. I raised a few issues which related to architecture and construction which I thought needed to be resolved. I am unable to confirm whether this particular risk register is a Mott MacDonald document as it does not appear to be branded as a Mott MacDonald document.

There seemed to be real tensions between NHSL and IHSL in the last quarter of 2014 with the project not progressing smoothly or as quickly as anticipated. What is your understanding of the root cause of these tensions and when did you become aware of the situation?

14. A number of the Mott MacDonald team were working alongside NHSL in the same room, so we had awareness of what was going on in other workstreams, but this was not a detailed understanding. I recall the tension between NHSL and IHSL surrounded the level of detail that NHSL was asking IHSL to

[1] Bundle 10 – Miscellaneous Volume 1 (of 2), item 10, p.75

prepare, and IHSL was pushing back against these requests claiming that NHSL was asking them for far more detailed design than they had been asked for on other projects. I am not sure what level of detail IHSL had been asked to provide on other projects, but their perception was that they were being asked to provide more detail to NHSL than they had been asked for elsewhere in other projects. I don't recall IHSL saying the level of detail required by NHSL was more than appropriate, it was just more than they had been asked to provide in other projects and every project is different. It was in NHSL's interest to gain as much information as possible from the bidder prior to Financial Close as they had to be comfortable with what they were signing up to. I am unable to advise as to whether

NHSL were requesting information beyond what was stated in the procurement documentation as this is far broader than my remit on the project.

Many issues appeared to remain unresolved into early 2015. However, NHSL proceeded to sign a contract. Can you offer any insight as to why NHSL were comfortable with doing so given the significance of the project and the sums of money that were being committed? Were Mott MacDonald asked to provide input or advice in the period up to financial close in relation to issues with the preferred bidder, for example in relation to the failure to produce 100% of room data sheets by financial close?

15. I do not consider myself to be in a position to comment on NHSL's comfort levels when signing the contract. Mott MacDonald would have been asked for input in their role as technical advisor but again I cannot recall what advice was provided. NHSL may have been comfortable with the situation if there were sufficient risk mitigations in place.

16. The fact that 100% of the room data sheets were not available by Financial Close was a strategic decision as far as I am aware. A decision was made to proceed without 100% of room data sheets in place and I suspect that was negotiated between NHSL and IHSL as they could be submitted for review through the reviewable design data procedure. I was not involved in the decision to proceed without 100% room data sheets in place nor on advising NHSL on this matter. I was not involved in any discussions as to which rooms

would have room data sheets submitted. This question may be better directed towards Graeme Greer.

Problems with the Environmental Matrix (EM) that were highlighted before Financial Close

Discrepancies in the EM were identified by your colleague Colin Macrae before financial close (bundle item 11, p.1433) (A35614364 – G. Greer to Brian Currie – Single Room Ventilation (with attachment) 13 November 2014)[2]. These concerned single bed rooms rather than multi-bed rooms in critical care. However, the detail at this stage of who was involved and what was decided is hazy. The key point is that a problem had been identified yet there seems to be no wholesale reappraisal of the project. Rather, NHSL proceeded to sign a contract. This needs to be explored. What are your recollection of events? Should this mis- understanding have prompted a review/reappraisal of the project and more in-depth review of room data sheets to ascertain if any other misunderstandings had arisen in

relation to SHTM requirements or indeed whether the contract should have been signed at all?

17. I 'reported up' so these questions may be better directed towards Graeme Greer or Kamil Kolodziejczyk (also formerly of Mott MacDonald and now at NHSL) who discussed matters with Brian Currie of NHSL. I may have been copied into emails for information purposes but not for more than that. I was not involved in a strategic capacity as this would have been beyond the scope of my responsibility.

NHSL appear to wish the ventilation system not to rely on opening windows. However, throughout the procurement exercise a mixed mode system was promoted. The issue is flagged in a series of emails originating with Mott Macdonald, see bundle item 11. On 13 November 2014 Graeme Greer, (Mott MacDonald) forwarded an email to Brian Currie (NHSL) (A35614364 – Email – G. Greer to Brian Currie – Single Room Ventilation (with attachment) 13

[2] Bundle 8 - Scoring & Correspondence Regarding Issues, item 17.i), p.69

November 2014)[3]. Mr Greer stated: *"Further to the Environmental Matrix ….. Might be worth raising this again at the RDD meeting?"* What was the issue that was emerging here and what were your concerns/ NHSL's concerns? How were these issues resolved in the 3 month period leading up to signing of the contract/ Financial Close.

18. I was not involved in this. I was aware that NHSL was concerned from sharing an office with them. I recall the guidance did not allow for opening windows and also there was an issue with maximum temperatures in rooms during the summertime without opening windows. This was to be included in risk registers and reviewable design data. My understanding is that NHSL and IHSL came to a compromise position which allowed them to sign the contract. I was not aware of the other details of the compromise that was agreed but opening windows were installed.

The Inquiry has been provided with the following extract but not a full copy of minutes or detailed context. We understand a meeting took place on 19 November 2014 and related to a Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) ("HAI-Scribe") where the following was recorded:

2.2.	Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems?	Yes		No	x	N/A	
		Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk/issue					

Were you aware of this meeting? If so, to whom was the issue escalated and

[3] Bundle 8 - Scoring & Correspondence Regarding Issues, item 17.i), p.69

what was the result?

19. I attended that meeting on behalf of Mott MacDonald. The HAI-Scribe of 19 November 2014 **(A35615606 – HAI-SCRIBE report – 19 November 2014)**[4] was prepared by NHSL. It provides at item 2.2: "*Some concern has been raised in relation to a potential issue with ventilation with regard to negative / balanced pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk / issue.*" I understand this resulted in the TUV Sud/Wallace Whittle paper being produced, dated 12 January 2015. I do not consider myself to be in a position to provide MML's view on that document.

TUV Sud/Wallace Whittle (IHSL's sub-contractor) produced a draft report for air movement to single bedrooms dated 12 January 2015, titled "RHSC-DCN Edinburgh Air Movement Report For Single Bedrooms (Draft), (bundle item 18, p.1622) (A34225453 – Wallace Whittle – Air movement Report for Single Bedrooms (draft) – 12 January 2015)[5]**. Do you recall having sight of this report and providing comments? Were NHSL satisfied with TUV Sud/Wallace Whittle report?**

20. I was copied into an email from Ken Hall at Multiplex on 13 January 2015 (document 1 enclosed: 'Email from Ken Hall enclosing copy of air movement report') **(A42058269 – Ken Hall email enclosing copy of air movement report)**[6] where this report (documents 2 and 3 enclosed: 'TUV Sud / Wallace Whittle air movement report for single bedrooms (draft)' and 'Air flows and room pressures drawings') was sent to Janice MacKenzie at NHSL, with a request for it to be sent to Janette Richards who was the lead HAI-Scribe infection prevention and control nurse. I did not review the report nor provide feedback on its contents as it was being discussed separately by the M&E workstream. I cannot recall Janette Richards' views on the report and expect any comments on air movement/ventilation from Mott MacDonald would have

[4] Bundle 10 – Miscellaneous Volume 1 (of 2), item 17,p.283

[5] Bundle 8 - Scoring & Correspondence Regarding Issues, item 15, p.66

[6] Bundle 10 – Miscellaneous Volume 2 (of 2), item 30, p.902

been from Colin Macrae.

Risk Registers

According to the document entitled "Design risks to the Board at Financial Close", (bundle item 23, p.1751) (A36308801 – Design Risks to the Board to Financial Close)[7] the risks at 28 January 2015 included the first item which related to ventilation. The risk register bears the Mott MacDonald branding but does not state what the precise issue is nor how the issue would be resolved. The terms of the "current mitigation measures" indicate that this relates to NHSL's response to Wallace Whittle's proposed solution to single bedroom ventilation, which the Board felt was not compliant with SHTM 03-01. Can you expand on what the issues were? What advice did Mott MacDonald provide and what was the proposed approach to resolving?

21. I did not draft the risk register but believe that comments I made were fed into it. These related only to architectural issues. The items I was looking at were along the lines of "*we need the following information…*" and those information requests were inserted into the risk register and reviewable design data. The resolution and mitigation of risks was carried out at a higher level which I was not involved in. Ventilation issues were not part of my architectural input.

What is the purpose of this Risk Register, to whom was it to be shared/escalated?

22. In short, the purpose of the risk register was for NHSL and their governance. My understanding is it was to be shared within NHSL and their Board (and their advisors).

In the period from preferred bidder to financial close, the list of RDD became more extensive than expected, to the extent that it added new risks to the project. Can you explain your understanding of the risks related to RDD? What advice did Mott MacDonald provide to mitigate all of these new risks? Did NHSL take on board this advice to mitigate these risks?

[7] Bundle 10 – Miscellaneous Volume 1 (of 2), item 11, p.79

23. The risk register contains notes at the side listing the party with responsibility for resolving issues such as reviewable design data (submissions and reviews). These include responsibilities resting with NHSL and IHSL. I had limited involvement in this document. There were some things like specifications for doors that lacked detail which I recall asking for, but my requests generally included requests for further details on materials and quality. I am unaware of the precise advice provided to mitigate risks, but I was aware the risk register involved Mott MacDonald working closely with NHSL.

What was your role in respect of the AEDET and HAI-Scribe reviews? Whose responsibility was it to arrange the reviews?

24. The initial AEDET reviews on or about 12 August 2011 and 8 March 2012 **(A40162544 – AEDET Review – 08.03.2012)**[8] did not involve Mott MacDonald. I have been provided with a copy of AEDET reviews for bidders A, B and C from June 2013. These did not involve Mott MacDonald. In my role as chairing the reference design I was involved with Neil McLennan concerning arrangements for an AEDET review or NDAP that did not happen.

25. I attended the HAI-Scribe on 13 February 2015. Janice McKenzie chaired the meeting and NHSL arranged the meeting. I attach a copy of the records of the meeting (documents 4 and 5 enclosed 'HAI-Scribe meeting minutes of 13 January and 13 February 2015' **(A42058270 – HAI-Scribe meeting minutes of 13 January and 13 February 2015)**[9] and 'Signatures of attendees for HAI-Scribe meeting on 13 January 2015) **(A42058265 – Signatures of attendees for HAI-Scribe meeting on 13 January 2015)**.[10]

Did the AEDET assessments that took place before financial close include an assessment of engineering aspects? Was RIBA stage E reached before financial close? At what stage of a project would you expect RIBA stage E to be reached?

[8] Bundle 10 – Miscellaneous Volume 2 (of 2), item 34, p.922
[9] Bundle 10 – Miscellaneous Volume 2 (of 2), item 32, p.907
[10] Bundle 10 – Miscellaneous Volume 2 (of 2), item 33, p.921

26. The AEDET assessments are fairly broad-brush reviews in terms of engineering. There was more of a focus on spatial planning. The AEDET reviews I was involved in did not include people with expertise or a background in building services / M&E.

27. The RIBA Plan of Work Stage E relates to "Technical Design". We had a pretty good idea of what the design was going to look like before financial close although there were still risks attached to it. I cannot say for certain whether RIBA stage E was reached across all disciplines before financial close but in architectural terms I think it was.

Was a final AEDET assessment done to score engineering? If one was done, who attended?

28. I am not aware of a final AEDET assessment to score engineering. I do not consider myself to be in a position to comment on whether a final AEDET assessment should have been done. This question would be better answered by NHSL.

Can you explain the role of HAI-Scribe in the procurement phase of a project? Is it mandatory before project approval?

29. There are a number of HAI-Scribes during a project. For good management of a project, they would be conducted at various stages during the design stage. I am not certain if they are mandatory for PFI contracts, but I understand HAI-Scribes are required under Implementation Strategy Scottish Health Facilities Note (SHFN) 30: Part B.

Documentary evidence shows that a Stage 3 HAI-SCRIBE review was meant to take place before Financial Close but 'the right people weren't there' and so it didn't take place on the day it was meant to. Was this workshop rescheduled?

30. I believe this relates to the pre-financial close HAI-Scribe on 13 January 2015 that was rearranged for 13 February 2015 **(A42058270 – HAI-Scribe meeting minutes of 13 January and 13 February 2015)**, and which I attended. The other attendees were Janice Mackenzie and Janette Richard of NHSL and Ken Hall, Stewart McKechnie and Brian Rutherford of IHSL.

Is AEDET or HAI-Scribe required as part of the business case process? How do they fit into the overall assurance process? Do the results get reported up, or are they simply for design teams to get feedback and make improvements where required?

31. I do not know if they are required as part of the business case process as I have not been involved in that aspect of projects. The purpose of AEDETs and HAI-Scribes in my opinion are for design teams to receive feedback. NHSL also used them to inform users as to the broader aspects of the design. The users were focussed on generic and key rooms or 1:50 layouts of their own departments. To an extent it allowed the users to understand how their own aspects of the project fitted into the overall design.

We note that an NDAP was not required for the project due to transitional arrangements in place. Can you confirm whether equivalent or alternative design assessment took place?

32. I do not believe there was a formal equivalent or alternative design assessment carried out. I am aware there was the Atkins review report. The design was being reviewed by users and the operational functionality teams all the way through the project and the design was subject to regular meetings.

Amongst the requirements for NDAP is "Evidence that Activity Data Base (ADB) is being fully utilised during the preparation of the brief and throughout the design and commissioning process." Was an equivalent design assessment implemented to ensure compliance?

33. I believe ADB was used for the equipment lists by NHSL to create lists for the whole building. I do not consider it realistic that somebody would sit down and try to write equipment lists for rooms from scratch. I am unsure if room data sheets were created from ADB for the key and generic rooms. This question should be directed to whoever produced the RDS. If they were, then ADB would provide information like room areas, room functions, finishes, equipment lists and building services information. I am not aware of an equivalent design

assessment implemented to ensure compliance as part of NDAP. CEL19 (2010) allows the use of an equivalent to ADB, and a decision was made by NHSL regarding the use of the Environmental Matrix and the separate equipment list which I was not involved in. I am not aware of any advice being given regarding this point or of any specific assessment.

34. During the reference design phase of the project, prior to the issue of the ITPD, NHSL planned to produce a set of room data sheets to be provided to the bidders. Tribal, who later became Capita, were originally asked to produce these documents but the work was later moved to Hilltron. Prior to the ITPD being issued however, NHSL decided not to proceed with room data sheets at that stage of the project, and to set out the brief in other sources of information instead. This was recorded in an email I sent to Neil McLennan of NHSL on 15 August 2012, noting that NHSL were satisfied that there was a complete set of room information documents for briefing purposes, in the sources of information listed in my email. My email also notes that "the requirement to comply with NHS Scotland design guidance is contained within the D&C Output Specification". I understand that MML holds further documentation bearing on the background to the decision which I recorded in my email dated 15 August 2012.

Was any design assessment done in advance of the Full Business Case? If so, can you explain the format this took?

35. I am aware Atkins undertook a design assessment as an appendix to the Outline Business Case. A copy of their report is included in the May 2022 hearing bundle 3 - governance, volume 2, document 57 (pages 567 – 649).

The register of "design risk at Financial Close" [item 23] (A36308810 – Design Risks to the Board to Financial Close)[11] shows the mitigation proposed for the dispute that had emerged with IHSL, but does not actually flag the risk of non-compliance of single bedroom design proposal, or in fact that there was a differing interpretation of SHTM 03-01 between IHSL and NHSL. Can you

[11] Bundle 10 – Miscellaneous Volume 1 (of 2), item 11, p.79

provide any further insight to this?

36. I was not involved in this aspect of the project. The register provides a high-level overview of risks.

The Environmental Matrix

Who authorised the use of the Environmental Matrix?

37. NHSL was the ultimate decision maker in relation to the use of the Environmental Matrix. I wasn't involved in giving advice in relation to the Environmental Matrix or in discussions regarding CEL 19 (2010) or any requirement for room data sheets to be produced using ADB.

What are your thoughts on EM replacing Room data sheets?

38. My understanding is that there was to be both an Environmental Matrix and room data sheets with the Environmental Matrix being produced by the Board and the room data

    sheets being produced by the preferred bidder. I wasn't involved in any discussions regarding the fact that only a limited number of room data sheets had been provided by IHSL or the Environmental Matrix being included within the RDD.

Did any of the bidders raise this ambiguity [in the environmental matrix] during competitive dialogue?

39. I attended competitive dialogue meetings that were specific to architectural/clinical and facilities management discussions. I was not involved in the M&E competitive dialogue meetings or any meetings where the Environmental Matrix was discussed. I do not recall bidders raising this as an ambiguity.

Reference Design

To your knowledge, who within NHSL determined how much detail would be included within the reference design?

40. I do not know for certain but expect it would be the Project Director.

Was that decision taken by the Project Director, Project Board or Board of NHSL decision?

41. Again, I do not know for certain, but it would likely be the Project Director, subject to NHSL's governance procedures.

Where is this recorded?

42. I do not know where this decision was recorded.

Were NHSL and Mott MacDonald briefed on the Reference design prior to the departure of Reference Design Team?

43. To an extent this goes back to the number of review meetings we were involved in. I do not recall a formal briefing prior to departure. The design had changed little from that prepared

under the capital project and we had all been working with the reference design team for the best part of a further year. NHSL and Mott MacDonald worked closely with Davis Langdon (now AECOM) in monitoring the architectural and the M&E aspects of the design. Through numerous separate NHSL workstream meetings we were all up to date with what the reference design contained. That included floor plans illustrating the operational functionality requirements, sections and elevations, layouts for the key and generic rooms and structural and building services information. Broadly speaking the design had reached RIBA stage D, Detail Design. In terms of my involvement, it would be fair to say that with regard to the architectural aspects of the project the team was satisfied with the level of design information available at that stage and that both the mandatory and non-mandatory architectural design information defined in paragraph 2.5, paragraph 2.6 and in Appendix E of the ITPD document **(A34696936 – Draft ITPD Evaluation Criteria – 5 April 2012)**[12] was sufficiently detailed to allow bids

[12] Bundle 2 - Reference Design and Invitation to Participate in Dialogue (ITPD) Documents, item 9, p.578

to be invited and bidders designs to be developed. I was aware of the Environmental Matrix and its purpose, but I was not aware of its contents, nor did I have responsibility to review or comment on it at any stage.

Financial Close

The Project was due to complete in Summer 2014. This was not achieved. Can you explain why financial close was not achieved until February 2015? Was there a need to achieve Financial Close by February 2015? Are you aware of particular pressure being applied?

44. My understanding is that the delay was due to IHSL's designs not being approved by NHSL, but I was not involved in this myself. I am unaware of precise pressure being applied and consider this was an NHSL issue where they may be better positioned to comment.

By Financial Close, various risk registers recorded that there was a significant amount of Reviewable Design Data, raising a number of risks to the Board. RDD related items were contained in the document titled "Technical Risks to the Board at Financial Close" [item 24] dated 30 January 2015 (A36308801 – Technical Risks for Financial Close – 25 August 2014)[13]. To your knowledge did NHSL have any concerns in relation to the volume of RDD?

45. I cannot recall any particular people at NHSL who had concerns in relation to the volume of reviewable design data, but I believe there was a general feeling that there was a considerable volume of reviewable design data. I am not able to give MML's view on this. The RDD lists each drawing submitted to NHSL by IHSL and notes comments against each one. Many have a "no comment" status. Given the number of drawings submitted, I was not surprised by the volume of RDD.

Did you/Mott MacDonald have concerns over IHSL ventilation strategy?

46. I can only refer to the those recorded in the risk register and defer to Colin Macrae on this. As technical adviser for the architectural elements of the

[13] Bundle 10 – Miscellaneous Volume 1 (of 2), item 10, p.75

project I did not review the ventilation strategy, nor did I have detailed knowledge of the ventilation strategy as it was not part of my remit. It was a matter for the mechanical and electrical engineers.

The Project Agreement

The Project Agreement contains Room Data Sheets (appendix 1 of section 6 (Room Data Sheets) of schedule part 6 (Construction Matters) (A32505840 – Schedule Part 6: Construction matters, section 6 (Room Data Sheets), Appendix 1 (RDS Pack)[14]. The Board's Construction Requirements required Project Co to provide facilities which met the requirements specified in those Room Data Sheets (paragraph 3.6.3, section 3 of schedule part 6). They also required Project Co to provide, as Reviewable Design Data, Room Data Sheets which were not included in section 6 of schedule part 6 (ibid.) To what extent did the set of Room Data Sheets in section 6 of schedule part 6 fall short of a complete set?

47. To the best of my knowledge over 50% of the room data sheets were outstanding. The room data sheets we had covered only the key and generic rooms.

Who produced the Room Data Sheets which appear in section 6 of schedule part 6?

48. I was not involved and would not be able to comment with authority.

The Room Data Sheets in section 6 of schedule part 6 are preceded by lists of "Generic Rooms" and "Key Rooms". What is meant by each of these categories?

49. A key room is one that occurs once (i.e., one-off specialists) and its functionality is key. A generic room is a room which may exist in different locations throughout the

building. A good example is a domestic service room (DSR) as a generic room having the same fittings and equipment but in different configurations

[14] Bundle 5 - Contract Documents, item 8, p.882

depending on the shape of each individual space.

The lists provide a "Code" and a "Room Number" for each room description. What is the function of these codes and numbers?

50. I am not certain as I no longer have access to ADB, but the Code is likely to have been lifted from ADB. The Room Number is the room number related to the actual layouts (i.e., 1:200 layouts). Someone reviewing the sheets can see from the room number the department and then the number of the room, including which floor it is on.

Amongst the Board Comments are the following: "*The Environmental Matrix shall by [sic.] updated by Project Co to reflect all the rooms and room types in the proposed Facility, this should be based on an updated Schedule of Accommodation that has been commented on separately by the Board. This also needs to reflect the names and room numbers in the GSU table."* Please explain this comment.

51. I believe this relates to adjustments to room areas within the adjusted schedule of accommodation. This reflects adjustments from the reference design through to what was being developed by IHSL.

Please explain what is meant by the following:

(a) The "*updated Schedule of Accommodation that has been commented on separately by the Board"*

52. The schedule of accommodation was constantly being updated throughout that design development stage. These are generally minor adjustments but maintaining a correct and current schedule of accommodation is crucial.

***"Include the requirements contained in the Clinical Output Specification …"* What is meant by "*the Clinical Output Specification*"?**

53. This is part of the contract documents. It relates to the operational issues around the rooms and departments.

Is it a reference to the Clinical Output Based Specifications contained in Sub-

Section D (Specific Clinical Requirements) of Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters)? (A41179262 – Schedule Part 6: Construction matters, section 3 (Boards Construction Requirements), Subsection D Excerpt pages 360 to 780)[15]

54. Yes.

The following entry in the table states: "*Project Co shall update the Schedule of Accommodation to reflect all of the individual elements of the proposed Facilities in accordance with Good Industry Practice"* (in part 4 of section 5 of schedule part 6). Please explain this comment.

55. "Good Industry Practice" is a defined term under the project agreement. It is the cornerstone of the whole system of procurement and defined as "*using standards, practices, methods and procedures conforming to the Law and exercising that degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances*".

What impact, if any, would updating the Schedule of Accommodation to reflect individual elements for proposed facilities have on the Environmental Matrix?

56. It may change the areas of individual spaces and would only add extra lines to the matrix if all individual elements in the Schedule of Accommodation were not already included in the matrix. I would expect there to be no other impact on the matrix beyond that.

The environmental matrix is apparently divided into three sections: a set of Guidance Notes; a Room Function Reference Sheet; and a table of environmental parameters for particular rooms, organised by department. What was your understanding of the function of each of these parts?

57. I am not familiar with the first two parts of the EM but would expect the

[15] Bundle 5 - Contract Documents, item 4, p.341

Guidance Notes to provide an overview of how the matrix is to be read and the Room Function Schedule to provide information on the use/s for each room. I am more familiar with the Table of Room-by-Room Environmental Parameters which provides, amongst other things, details of the specific heating, lighting and ventilation requirements for each

room. I had only a passing knowledge of the specific contents of this part of the document until the commissioning period leading up to the aborted occupation date.

To what extent was this a complete and finalised list of all rooms in the hospital?

58. I was not close enough to the Environmental Matrix to say whether it was complete or not. I assume if it was updated regularly to reflect the changes to the schedule of accommodation then it would include all the rooms and spaces in the building.

Where did the data derive from (in particular, in relation to air changes and relative pressure)?

59. I am unaware from where Hulley & Kirkwood derived the data.

Who was responsible for the accuracy of those entries?

60. It would have been Hulley & Kirkwood initially and then IHSL as the design developed.

The table includes an ADB Code for each room. What was the purpose of that code?

61. This refers back to my comments at paragraph 49. The ADB Code would allow the designers to reference the requirements for each room.

Does it allow entries in the table to be cross-referred to the Room Data Sheets (such as those in section 6 of schedule part 6)?

62. Yes, it would. Albeit we did not have all room data sheets at the time.

Are there other discrepancies, material to the Inquiry's Terms of Reference, so

far as you are aware?

63. I am not aware of any discrepancies material to the Inquiry's Terms of Reference.

With reference to the Environmental Matrix Guidance Notes. How did you understand these to relate to the other parts of the Environmental Matrix?

64. I need to highlight that in my role as lead technical adviser for architecture I would not have any involvement in the preparation or review of the Environmental Matrix. In all

probability I would not even have seen it, though I may have had passing knowledge of it. My understanding is that the guidance notes provide an overview of how the information in the matrix should be read and if necessary should prompt the question as to "*which one are we working to*"? in terms of the standards.

The Guidance Notes include the following entries: "*This workbook is prepared for the Financial Close stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets"*. Please explain this Note.

65. The Environmental Matrix provided information to allow the room data sheets that actually applied to the new facility to be prepared. At that stage we were expecting IHSL to produce room data sheets as reviewable design data.

What did you understand to be the relationship between the Environmental Matrix and the Room Data Sheets (that is to say, both the Room Data Sheets in section 6 of schedule part 6, and those to be produced by Project Co after financial close as reviewable design data)?

66. The Environmental Matrix was to inform the room data sheets that we were expecting to receive. This meant as their design developed, IHSL had to update the Environmental Matrix in accordance with the Board's Construction Requirements and project specific Environmental Matrix Reviewable Design Data comments. IHSL also had a requirement to complete fully populated

room data sheets for all rooms which reflected their developed design and submit them through the review procedure. In preparing the updated Room Data Sheets, I would have expected the designers to have had regard not only to the Environmental Matrix, but also to the Activity Data Base and their own previous experience and expertise. In the event that there is a discrepancy between the Environmental Matrix and the room data sheets produced using ADB it should have been flagged for discussion by IHSL. The BCRs contain a clause that the most onerous guidance should take precedence.

"*The services matrices are produced from the Schedule of Accommodation Sheets".* Please explain this note. What is meant by "*the services matrices"* and "*the Schedule of Accommodation Sheets"*?

67. My understanding is that the services matrices are the room-by-room environmental parameters, and the schedule of accommodation sheets are the separate lists of all the rooms with their department and location within the building and includes their areas. The schedule of accommodation forms the basis for the spreadsheet to which the room- by-room environmental parameters are added.

With reference to the Room Function Reference sheet. How does this relate to the table of room-by-room environmental parameters? Do any entries in it bear upon the ventilation issues which later arose on the project? Do you agree that the Environmental Matrix, read together with paragraph 8 of the Board's Construction Requirements (requiring compliance with the Environmental Matrix) (A32623049 – Schedule Part 6: Construction Matters, section 6 (Room Data Sheets), Appendix 2 (Environmental Matrix)[16], constituted a requirement of the Board? If so, do you agree that it is qualitatively different from a survey report (being a matter of specification rather than information)?

68. In terms of the issues around the ventilation, I am unable to answer this question with any certainty and defer to Colin Macrae. With regard to the requirement to comply with the Environmental Matrix, I was not involved in setting out the contractual requirements and defer to Graeme Greer and the

[16] Bundle 5 - Contract Documents, item 9, p.1454

wider Mott MacDonald team on this issue.

Clause 12.5 of the Project Agreement refers to "*such of Project Co's Proposals as have been initialled by the Board*", and provides that those, subject to comments recorded in section 9 of schedule part 6, satisfied the Board's requirements in respect of Operational Functionality (A41179209 – Schedule Part 6: Construction matters, section 9 (Agreed Form Board's Qualifications / Comments in Respect of Operational Functionality Requirements)[17]. Where are those initialled proposals to be found?

69. These reflect the 'signed off' drawings by the Board.

Clause 12.6 of the Project Agreement provided for Project Co to develop and finalise the design and specification of the Works, and that the Board were to review the Reviewable Design Data. The review procedure was set out in Schedule Part 8 (A33405351 – Schedule Part 8: Review Procedure Excerpt pages 236 to 248)[18]. As at financial close, how did you anticipate this process would operate in relation to the Environmental Matrix and the Room Data Sheets? What outcome did you expect?

70. My understanding is that IHSL would update their designs and submit these for review by NHSL (and Mott MacDonald as their technical advisor).

I believe that the facts stated in this witness statement are true. I understand that this statement may form part of the evidence before the Inquiry and be published on the Inquiry's website.

Signed: [redacted]

Date: 22 February 2023

[17] Bundle 5 - Contract Documents, item 11, p.1482

[18] Bundle 5 - Contract Documents, item 12, p.1491