SCOTTISH HOSPITALS INQUIRY

Witness Statements bundle for the Oral hearing commencing on 9 May 2022

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Table of Contents

Written Statement

Janice MacKenzie

Introduction

1. My name is Janice MacKenzie. I retired from NHS Lothian in 2019. In my last post before retiring I was involved in supporting input from clinicians to the Royal Hospital for Children and Young People ("RHCYP") and the Department of Clinical Neuroscience ("DCN") ("the Project"). I provided clinical input in relation to the design, planning and construction. I have been asked to provide a written statement to the Scottish Hospitals Inquiry ("SHI") in relation to my involvement in the Project, and in particular decisions to design the RHCYP and DCN to include multi-bed rooms. I have been provided with a list of questions from the SHI and a bundle of documents from the SHI. NHS Lothian have provided me with additional documents for review. This statement seeks to answer the list of questions to the best of my recollection. Some of the events I've been asked about occurred fifteen or so years ago and, given the passage of time, I cannot recall all of the details of all the events.

Background

2. I started my General Nurse training in 1978 and qualified in 1981. After qualifying I worked as a staff nurse at the Victoria Infirmary, Glasgow for just under a year before going to Edinburgh to complete my children's nurse training. When I qualified as a registered children's nurse I went to London in 1983 and worked at Great Ormond Street Hospital for Children for 15 years in a variety of different roles, initially as a Staff Nurse and then as a Ward Sister before becoming a Nurse Manager/Senior Nurse.

3. I came back to The Royal Hospital for Sick Children Edinburgh (RHSCE) in 1998 as the Senior Nurse for Quality and Professional Development. I was in this role for 3 years before being promoted to the post of Principal Nurse for Children's and Associated Services and Operational Manager for Children's Community Services. I held this post for 4 years when in 2005 I was appointed as Chief Nurse for acute and community Children's Services in Lothian covering RHSCE and St John's Hospital

Children's Services. In the Chief Nurse role, I directed and managed the provision of all the nursing services and was part of the Children's Services Clinical Management Team, which had responsibility for the operational management of Children's Services and the core team comprised of the Director of Operations, Service Manager, Medical Director and myself. A key element of my role was to ensure that patients and their families received patient centred, safe and effective care. I worked closely with the Medical Director to ensure the effective working of the clinical governance framework.

4. In 2011, I was asked to join the project team for the RHCYP project on a part-time basis to provide clinical input. This was because the previous Project Director, Isabel McCallum, and one of the senior clinicians, Dave Simpson, had left the Project and the new Project Director, Brian Currie, recognised the need for direct clinical input and expertise within the project team. As well as working on the Project I continued to undertake the Chief Nurse role but on a part-time basis. As the Chief Nurse and a member of the Clinical Management Team, I was already involved in the Project and did provide clinical advice and supported staff in their involvement. In 2012 I became full-time on the project as Clinical Director until I retired in 2019. The key responsibilities of my role were to provide professional and clinical leadership and advice to a range of people including the project team, technical advisers and architects. I led the clinical input into the design of the new hospital working with a wide range of clinical and professional teams to ensure the clinical design of the wards/departments met the clinical requirements.

<u>Patient Focus and Public Involvement</u>

5. In 2006 the Project established a number of Project Groups: PG1 Core Project Team; PG2: Clinical Redesign; PG3: Steering Group Design & Construction; PG 4: Workforce; and PG5: Children & Young People's Advisory Board. These groups reported to the Project Board.

6. In the Chief Nurse role, I was asked by the then Project Director, Isabel McCallum, to lead on Patient Focus and Public Involvement and co-chair PG5 with a parent from the RHSCE Family Council. PG5 had its first meeting in October 2006, meeting monthly for the first 14 months and continued to meet until April 2009. The purpose of the group

was to ensure that there was effective consultation and engagement with patients and families and charity organisations for the planning of the new hospital. PG5 membership included staff, charity and parent representatives. The Family Council, which was already established, and Young People's Advisory Group (YPAG) which was formed in 2007, linked into PG5.

7. PG5 co-ordinated many consultation events and activities, including issuing questionnaires, to seek the views of children, young people and their families about a number of key elements in relation to the planning of the new hospital. A Record of Involvement was maintained and updated which shows the activities undertaken and who was consulted. The Record of Involvement (Bundle 4; Document number 2; Page 9) was updated regularly to allow us to demonstrate to the Scottish Health Council (SHC), which was established by the Scottish Executive, that we were meeting the Patient Focus and Public Involvement requirements. The SHC had an open invitation to attend the PG5 meetings, which a representative did on a few occasions, and they received agendas and papers for the meetings.

8. Around the time of the consultation events, I was aware through the Project Team that there were ongoing discussions at Scottish Government level about the benefits of single rooms in hospitals. PG5 were asked by the Project Team to seek the views of children, young people and their families about whether the patient areas should be all single rooms or a mixture of single rooms and 4/6 bedded bays. We therefore included this question in questionnaires ("Questionnaire score 1 to 5") (Bundle 4; Document number 3; Page 17) developed for children, young people and families to complete. YPAG in 2008 also provided their views on single room accommodation YPAG feedback on SRA131108 (Bundle 4; Document number 4; Page 19).

9. The feedback from the majority of children, young people and families who completed the questionnaires was that they would not always want to be in single rooms and that they felt that there should be a mixture of single rooms and bedded bays. At the same time the Project team sought the views of clinical staff who felt strongly that having 100% single rooms was not appropriate in a Children's Hospital for a variety of reasons.

This included patient safety, the need to be able to closely observe specific patients dependent upon their clinical condition, the impact on feelings of isolation and lack of social interaction. Many young children in the hospital also have respiratory conditions like bronchiolitis. From a patient safety perspective, the clinical view was that cohorting of patients with bronchiolitis in a 4 bedded bay was preferable as it allowed for greater observation. Also from a practical perspective, young children can't press a nurse call button and not all children have a parent/family member with them all the time. Children are generally more dependent on nursing staff than adults, particularly younger children and a high proportion of children in hospital are under 2 years of age. These were the main reasons for proposing a combination of single and multiple bedded rooms as the preferred option. There was however a recognition that the new hospital required more single rooms than it had at the existing RHSC hospital.

10. The outcome of the consultation is recorded in a paper called the Single Room Accommodation Report, which I drafted. The Single Accommodation report is Appendix 6.3 of the 2008 OBC (Bundle 3; Volume 1; Document number 12; Page 426).

11. It is also relevant to note that Infection Prevention and Control issued regular HAI reports for adult and children's services detailing HAI rates. On the basis of these reports and rates it was also acknowledged that hospital acquired infection rates amongst children at RHSCE were significantly lower than within adult services.

12. The proportion of single rooms within new builds was also discussed at the Association of Chief Children's Nurses, a group of Chief Nurses and Heads of Nursing for children's hospitals/units in the UK. Their remit was to shape and influence policy and share best practice. I was a member of the group and attended the meetings which occurred every few months. At the time that RHCYP was being planned there were also plans for new Children's Hospitals in Glasgow, Manchester and Liverpool and they were not planning to have 100% single rooms. This was a topical issue for senior children's nurses at this time. I would say that generally there was a consensus amongst the senior nurses that there should be a combination of single rooms and multi-bedded bays in children's units/hospitals.

13. There was also a wider consultation around 2007 by the Scottish Executive Nurse Directors Group, the NHS Lothian Board's Nurse Director was part of this group as were all the NHS Board Nurse Directors. This resulted in the Single Room Provision in Scotland Draft Nursing Report. I am aware that there were several draft versions of this report. The first version didn't specifically mention children. However, we were asked for input and the fifth version of the report (Bundle 4; Document number 5; Page 20) included NHS Lothian's findings in terms of children, young people and families and clinical views which were sought as part of the consultation for the new hospital (see page 5 of the report which is headed up "Children's Services") (Bundle 4; Document number 5; Page 25). I wasn't part of the Scottish Executive Nurse Directors group, but they did take extracts from the report I produced in 2007. I cannot recall who provided them with my report but the normal process for this would have been through either NHS Lothian's Nurse Director or the Project Director. As far as I was made aware this group seemed open to our findings and there was a recognition that children have differing needs from adults.

Single Room Policy

14. I do recall seeing the Scottish Government's Interim Guidance for NHS Scotland Provision of Single Room Accommodation dated 15 December 2006 (the Interim Guidance) (Bundle 3; Volume 1; Document number 5; Page 152) and have reviewed it for this statement. I note that it allowed for beds to be provided in an arrangement of 50%, 75% or 100% single occupancy rooms.

15. I do recall seeing the Guidance on the Provision of Single Room Accommodation in November 2008 (CEL 48) (Bundle 4; Document number 1; Page 5) and have reviewed it for this statement. I note that CEL 48 stated that for all new-build hospitals there should be a presumption that all patients will be accommodated in single rooms, unless there are clinical reasons for multi-bedded rooms to be available.

16. I do recall seeing a letter issued by the Scottish Government's Health Finance Directorate in July 2010 (CEL 27) (Bundle 4; Document number 10; Page 144) and have reviewed it for this statement. I note that that the presumption is that there should

be 100% single rooms in future hospital developments (CEL 27), unless there were clinical reasons for different arrangements.

17. I have been asked how I was made aware of CEL 48 (Bundle 4; Document number 1; Page 5) and 27 (Bundle 4; Document number 10; Page 144) Guidance when they were introduced. Guidance would normally be disseminated through the management line, it would have gone to the Board initially from the Scottish Government and the Board Executive Directors would cascade it down through the organisation to their management teams. I don't recall who I received it from but it would have come through one of three channels: either the project team; University Hospitals Division's Director of Nursing; or, the General Manager for Children's Services but I cannot say for certain which one it was.

18. I have been asked about the Scottish Government's Single Room Steering Group, the Delphi Consultation and the introduction of the Single Room Policy. I was not part of the Steering Group or the Delphi Consultation and cannot say why they were formed. I was not involved in the development of the single room policies CEL 48 (Bundle 4; Document number 1; Page 5) or CEL 27 (Bundle 4; Document number 10; Page 144). Similarly, I do not know whether the introduction of CEL 48 or CEL 27 lead to a review and update of the technical guidance. Those were matters for the Scottish Government.

19. I would have been involved in the decisions about the proportion of single rooms in each ward in the RHCYP from the perspective of giving my clinical nursing opinion. I remember being involved in many of the discussions with the different clinical teams that the project team led as well as discussions with my senior nursing team about this issue. I recall we considered the different clinical specialities and what the proportion of single rooms should be based on the clinical needs of the patients. This is an important point; it was not the same for every ward. It varied with each speciality depending on the children's clinical needs.

20. For example, taking account of the clinical needs the recommendation was for 100% single rooms within the Oncology ward and Child and Adolescent Mental Health Unit. In addition, the proportion of single rooms within the two medical wards, which admit

both planned and emergency admissions of children with a range of medical conditions, e.g. general paediatrics, respiratory, gastro-intestinal, diabetes, rheumatology and nephrology, was higher than within the surgical wards, due to the clinical conditions that children and young people admitted to these wards had, e.g. cystic fibrosis. The surgical wards, also admit both planned and emergency admissions for children requiring both general and specialist surgery, e.g. orthopaedics, trauma, ear, nose and throat, spinal and plastic surgery. The proposals for each ward came from the meetings and discussions between clinical teams and the project team.

21. To reach the decision about this issue a number of factors were considered which would have included clinical risks, patient mix of condition/disease, patient dependency, observational needs and age range of patients. This then allowed the clinical staff to consider the appropriate ratio of single rooms and four bedded bays within a ward area. At that time, as was still the case when I retired, a significant number of children admitted to hospital were under the age of 2. Children, especially younger children, feel isolated and alone when in a single room, they need social interaction as part of the mental and physical development and this is more difficult to achieve when in a single room particularly if a parent is not resident with the child and they are in hospital for longer period of time. Also, young children cannot raise an alarm or call for a nurse when they need help or are upset. Another important factor is that a child's condition can often deteriorate more quickly than an adult and many due to their age are not able to indicate this to staff. So the ability to closely observe children who are unstable is a key issue for clinical staff. Each child's needs are assessed on an individual basis with some children requiring one to one nursing care. The level of observation required is dependent upon the clinical condition of the child, and determines the ratio of patients to one nurse.

22. I would add that, in practice, clinical assessments involving Infection Prevention and Control are always made in relation to which patients should be admitted to a single room and which patients should be cohorted in a multi-bedded bays. NHS Lothian has its own guidance on this, namely Patient Isolation Prioritisation and Assistance with Isolation Prioritisation Risk Assessment (Bundle 4; Document number 6; Page 42) which took account of the National Infection and Prevention Control Manual, appendix

11 which details Best Practice and Optimal Placement in terms of room type (Bundle 4; Document number 7; Page 50).

Approval re Proportion of Single Rooms for July 2008 OBC

23. I have been asked whether the Chief Medical Offer and/or the Chief Nursing Officer was consulted in relation to the decision taken about the proportion of single rooms in the RHCYP both in the 2008 OBC (Bundle 3; Volume 1; Document number 12; Page 272) and any subsequent decision.

24. In my role as Chief Nurse I would not have been involved in discussing this with the Chief Medical Offer and/or the Chief Nursing Officer. My recollection is that NHS Lothian got approval from the Chief Medical Officer in relation to the proposals to have a mixture of single rooms and multi-bedded bays prior to the submission of the 2008 OBC (Bundle 3; Volume 1; Document number 12; Page 272). I cannot recall a specific conversation about it but think I would have been told this by either the Project Director, Isabel McCallum, and/or Project Sponsor, Jackie Sansbury. I knew that the Single Bed Accommodation Report was in the OBC (Appendix 6.3) (Bundle 3; Volume 1; Document number 12; Page 426) and I don't think that this would have been included if it hadn't been discussed with Scottish Government representatives prior to submission of the OBC. I believe that Jackie Sansbury in her role as Project Sponsor should be able to confirm the position. As I was not in the Project team at this stage I would not have expected to see any paperwork or documentation confirming approval.

Approval re Proportion of Single Rooms for 2012 OBC

RHCYP

25. In 2012 NHS Lothian had to submit an addendum to the July 2008 OBC to include DCN as part of the Project. I was asked to review the Single Room Accommodation Report which was at Appendix 6.3 of the July 2008 OBC (Bundle 3; Volume 1;

Document number 12; Page 426) to check that the assumptions we had made then were still valid.

26. I have been shown an email chain over 24, 25, 26 and 27 October 2011 (Bundle 4; Document number 14; Page 167) with colleagues in that regard. In that correspondence, I confirm that, whilst the paper was written in September 2007 and is 4 years old, the views expressed by staff at that time overall had not changed. I noted that we had not done any further consultation with children, young people and their families on this issue. I state that the paper is still relevant as the clinical reasons were still sound and the ability to cohort specific groups of children was very important.

27. I have been shown an Action Plan dated 29 November 2011 (Bundle 4; Document number 15; Page 171) relating to the Scottish Futures Trust ("SFT") Independent Design Review. Prior to being shown this paper I did not recall it, but on reading it I do now remember a design review being undertaken around this time and that I was involved in responding along with other members of the project team to some of the recommendations made. Point 5 of the Action Plan refers to a short paper explaining the rationale for the ratio of single bed provision.

28. I have been shown the paper the Rationale for the Proportion of Single Rooms (Bundle 4; Document number 16; Page 180) which is what is being referred to in the Action Plan, which I drafted. The clinical nurse managers along with their clinical teams were asked to review each of the wards and the proposed split of single rooms and 4 bedded bays and to confirm if there was any clinical justification for changing this. I then drafted that paper for submission to the Scottish Futures Trust. The rationale paper refers to the CEL 48 (Bundle 4; Document number 1; Page 5) and CEL 27 (Bundle 4; Document number 10; Page 144) Guidance and indicates that there was no change of view between 2007 and 2012 as regards the proportion for single room accommodation within RHCYP. This Rationale Paper (Bundle 4; Document number 16; Page 180) related to RHCYP only.

DCN

29. At the time of the 2012 OBC (Bundle 3; Volume 2; Document number 61; Page 672) I was not directly involved in the planning for DCN, this was being led by one of the Project Managers, Fiona Halcrow, and Project Clinical Lead, James Steers, for DCN. I was aware that as this was an adult facility it would have 100% single rooms. I was not involved in the discussions with the clinical teams in DCN about deviating from a 100% single rooms, this was led by the DCN Project Manager and Clinical Lead. I did review the paper that was produced providing the rationale for requesting two 4 bedded bays and supported the decision to seek a derogation in 2013 called the "Rationale for request for 2 x 4 bed ward and 16 Isolation/single bedrooms and en-suites within the new DCN Acute Ward" (Bundle 4; Document number 17; Page 182). At the time this paper was written I wasn't directly involved on a day to day basis with DCN but I did have an overview of what was happening in DCN as the Project Team worked very closely together. The Project Manager asked me to review the paper given my involvement with RHCYP in relation to single bedrooms and 4 bedded bays. I was informed that the derogation from the guidance had been approved by the Chief Medical Officer and Deputy Director (Capital and Facilities), Scottish Government and was aware of the email that was sent on 16th July 2013 (Bundle 4; Document number 19; Page 189).

SHTM 03-01

30. I have been asked about SHTM 03-01, Table A1 (and its predecessor SHTM 2025). At the time of the planning for the new hospital I was aware that there were a number of technical guidance documents which would have included ventilation, but I did not have the expertise or knowledge of them. Any considerations as to ventilation or other technical requirements would be a matter for the engineers and technical advisers and I do not specifically recall having any discussions with engineers or technical advisers prior to the commencement of the procurement exercise.

STATEMENT OF TRUTH [to be signed by witness once statement is finalised]

I, Janice MacKenzie , confirm that:

(i) The contents of this statement is the truth to the best of my knowledge and recollection;

(ii) I am willing for this statement to form part of the evidence before the Scottish Hospitals Inquiry.

(iii) I am willing for this statement to be published on the Scottish Hospitals Inquiry website.

Signature: Janice Mackenzie

Date: 20th April 2022

Statement of

Edward McLaughlan
MBA, BEng (Hons), CEng, MIHEEM

Experience and Expertise:

1. My name is Edward McLaughlan and my address is - c/o NHS National Services Scotland, 5 Cadogan Street, Glasgow. My date of birth is [redacted] and I am 59 years old. As of 19 April 2022 I have been seconded to NHS Lanarkshire to work on the project to replace Monklands hospital and my role will be to help the project team to provide assurance of compliance with all appropriate standards and guidance in scope for NHS Scotland Assure. Prior to this date I was an Assistant Director of Health Facilities Scotland, having held that post since 2006. Health Facilities Scotland provides support to the health service in Scotland in matters that relate to the design, operation, maintenance, and disposal of its buildings. It is part of NHS National Services Scotland ("NSS") which is a National Health Board providing support to the NHS in a diverse range of topics. NSS is part of the health service. Since the creation of NHS Scotland Assure in 2020, Health Facilities Scotland is now part of NHS Scotland Assure, which in turn is part of NSS. I led a team of approximately 40 national leads and advisors to deliver a diverse range of services including developing national strategies and change programmes to deliver safe, effective healthcare facilities. I was accountable for various services including estates elements of infection prevention in the built environment, research, statutory compliance, critical engineering services (water systems, ventilation etc), medical device safety and sustainability. To provide perspective on the level of resource available to support NHS boards during the period the Inquiry is considering, i.e. 2009 to the present, the resource available in engineering has been one member of staff across all health boards. I fulfilled a similar role to this during the 1990s, but not during the period the Inquiry is considering, i.e. 2009 to the present. At this time it was mainly filled by Ian Stewart and then Ian Storrar. Ian Stewart was a temporary member

of staff who fulfilled the role between two permanent members of staff; Lex Campbell, who left the role in 2011, and Ian Storrar who came into the role in 2015.

2. I was a member of the directorate management team for NHS Scotland Assure and have played a part in the development of that service from its inception. NHS Scotland Assure was formed to ensure that the buildings NHS Scotland builds and operates are compliant with appropriate standards and guidance. It was launched in shadow form in late 2019 and full form in Summer 2021. When NHS Scotland Assure launched, Health Facilities Scotland was encompassed in it and therefore my role with Health Facilities Scotland and with NHS Scotland Assure were one and the same thing.

3. Prior to my assistant director role I was a director of NHS Scotland Property & Environment Forum Executive from 2002 to 2006. This is the organisation that became Health Facilities Scotland. Before this, the same service was called the Healthcare Engineering & Environment Unit, where I was Principal Engineer, providing the Health Service with technical advice on engineering and environment issues. I came to the Health Service from Winton Caledonian, a ventilation and water hygiene consultancy, where I was a Principal Engineer from 1993 to 1995. Prior to that I held posts in the Property Services Agency, which managed the non-health government property portfolio, and in the British Merchant Navy, serving as an engineering officer. I have the following academic qualifications and membership:

   MBA - Master of Business Administration (1996)
   BEng (hons) - Bachelor of Engineering with Honours (1991)
   CEng - Chartered Engineer (1993)
   MIHEEM – Member of the Institute of Healthcare Engineering and Estate Management (1996)

4. I have a Bachelor’s degree in Environmental Engineering. Environmental in this case refers to the built environment and thus the degree is in building services such as heating, lighting and ventilation. Therefore, I have qualifications relevant to ventilation but I would not class myself as an expert in healthcare ventilation as I have not spent the majority of my career working on this topic.

General Principals of Hospital Ventilation:

5. Scottish Health Technical Memorandum ("SHTM") 2025 (superseded by SHTM 03-01), SHTM 00 and SHTM 03-01 are engineering guidance notes. The SHTMs are the Scottish version of UK guidance relating to healthcare engineering. They are there to support the people who provide these services. I understand that in both the projects under consideration by the inquiry, they were used as part of the briefing process for the design. They are issued to the health boards as guidance, but if they are specified in a contract then they become contractual requirements. It appears to me from early interactions relating to the Inquiry, that those not close to the issue might assume they are an instruction manual handed out by government. This is not the case; they are the health service's interpretation of the responsibilities it has under the applicable legislation, regulations, codes of practice and government policy. These obligations include those enabled under the Health and Safety at Work act and other instruments such as the Building (Scotland) regulations. The 03-01 series follows on from the 2025 series, which was guidance originally published in the early 1990s, which in turn built on earlier guidance. The elements and typical functions of a hospital ventilation system are set out in SHTM 03-01 (Bundle 1, document 9, page 618) at Paragraphs 1.40 to 1.56. I consider my view on what is meant by ventilation and why it is important to be in line with this as the guidance was issued to NHS Scotland under my remit.

6. I have been asked what features of a ventilation system are relevant to patient safety and care. The role of the ventilation system is set out in SHTM 03-01 Part A (Bundle 1, document 9, page 618) at paragraphs 1.1 to 1.56. The ventilation system, taken as a whole, is relevant to patient safety and care. It is best to approach it in that way, rather than trying to break down components of it as being relevant individually to patient safety and care. The ventilation system has implications for the safety of staff and visitors as well as patients. These implications are situation specific. Some examples include; if the filtration in the ventilation system was fitted wrongly it could allow particulate contamination into the space. If the air change rates in a space are not

sufficient then the contaminants in the air won't be diluted sufficiently. If the temperature in a space is wrong, the windows might be open when they are supposed to be closed or vice versa. Another example is if the humidity is wrong, it can promote mould growth in some circumstances. It should be noted here that ventilation is only one aspect of the protection of patients from harm.

7. The safety implications of the "parameters" that can be controlled are also situation specific. The way in which the guidance and the work arising from it affects a burns patient for instance will be different from the safety requirements relating to an infectious patient.

8. SHTM 03 01 Part A (2014) Paragraph 7.6 says "The supply of air to a room has four main functions: to dilute airborne contamination; to control air movement within such that the transfer of airborne contaminants from less clean to cleaner areas is minimized; to control the temperature and if necessary the humidity of the space; to assist the removal of and dilute waste gases where used."

9. It goes on to explain at 7.8 "There are four routes whereby airborne contaminants may appear in a room:- through the supply air; shed directly by the room occupants; arising as a result of the work activities; transferred from adjacent spaces."

10. Differential pressure will prevent contamination between areas when doors are closed. Information on air leakage through closed doors and hatches for a range of differential pressures is given in Table A3 of SHTM 03 01.

11. Whilst patients, staff and visitors can contract infections in any part of a hospital, as they can outwith a hospital, those at particular risk, because of immunocompromise or open wounds, are accommodated in specialised facilities as described in SHTM 03 01 Part a, section 7 "Specialised Ventilation Systems".

12. The parameters ventilation systems are intended to control are set out in section 1 of SHTM 03 01 Part a. These include comfort conditions, such as temperature, air movement, fresh air requirements, air cleanliness, odour dilution and in the case of air

conditioning, humidity. More specialised systems are intended to fulfil specific safety requirements including dilution or removal of harmful substances including microorganisms and gases, prevention of contamination to/from adjacent spaces, or the prevention of the introduction of contaminants through specialised filtration.

13. There are always conflicting requirements when designing, building, and operating a real hospital. It is important to say at this point that I have no direct experience in designing or building a hospital. The inputs that go into making a new healthcare facility are very numerous and each piece of guidance must be considered in 'the round'. Things like availability of staffing, location of the facility, height of building are all inputs that have to be considered. They all interface with each other in such a way that they can have impacts on each other, and decisions have to be taken with that in mind. In trying to deliver the best possible patient care, those responsible have to take in to account things other than ventilation, such as staff and costs. In this way, over engineering the building would detract from the balance of the best possible overall package of care. Some compromises might be required in the design and build involving for instance requirements of energy efficiency and space.

14. Compliance with the principles set out in SHTM 03-01 should, in my view, be achievable in most circumstances. Where a decision is made not to comply with guidance, those designing the facility should develop an appropriately safe design for agreement with those responsible for the facility. The guidance sets out a good approach to dealing with issues, which is peer reviewed. It may set out at times, more than one approach, and even within the guidance a choice between options may be available. Following a different approach that is not set out in the guidance is not necessarily wrong. If the Health and Safety Executive (HSE), for example, are considering a health and safety matter, they will likely look to see whether an approach taken outwith the guidance has been properly considered and assessed by the professionals responsible. I would not expect the SHTM guidance to be HSE's starting point. From my understanding, HSE will go in if there is a safety issue to investigate, they will look at legal requirements and the regulations enabled under legal requirements. If the specifics are not contained in those two levels, I would expect them to look for best practice guidance. I am not aware of better guidance than that issued by HFS and its UK

equivalents.

15. It may be that compliance with named guidance is specified in a contract. Where that is the case, a process is required to manage choices which have to be made within the guidance and to ensure that any derogation is controlled and agreed.

Technical Guidance:

16. The following is a list of the main categories of technical guidance, relevant to Scottish hospitals, produced for use by the NHS in Scotland:

a) Scottish Health Technical Memoranda – SHTM

These give comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare (for example medical gas pipeline systems, and ventilation systems). They are applicable to new and existing sites, and are for use at various stages during the inception, design, construction, refurbishment and maintenance of a building.

b) Scottish Health Facilities Notes – SHFN

These give comprehensive guidance on the operation of healthcare facilities. The topics within the group of guidance includes infection prevention and control, cleaning services frameworks, security, and health and safety.

c) Scottish Health Planning Notes – SHPN

These give comprehensive guidance on the operation of healthcare facilities. The topics within the group of guidance includes planning for in-patient facilities for both adults and children, accident and emergency facilities, and isolation facilities.

d) Scottish Health Technical Notes – SHTN

These provide comprehensive guidance on a range of healthcare specific standards, policies and current best practice.

e) Health Building Notes – HBN

Health Building Notes should be read in conjunction with the relevant parts of the Health Technical Memorandum series. Health Building Notes give best practice guidance on the design and planning of new healthcare buildings and on the adaptation or extension of existing facilities.

17. All of the above guidance, with the exception of Health Building Notes, is produced and maintained by HFS in collaboration with the NHS Scotland Health Boards. HBNs are produced by NHS Improvement in England, but may be approved by HFS for use in Scotland. Health building notes only apply in Scotland when they have been reviewed and approved for use, rather than producing a separate Scottish document.

18. Production of guidance is through peer support; it is not hierarchical. By this I mean it is not an instruction manual handed down by government for health boards to comply with. The health service works together to develop appropriate guidance for people who may be working on various aspects within a project, in order that they get a good comprehensive overview of a specific topic. When it comes to producing guidance, we recruit the best expertise both within and outwith the UK. When the guidance is produced the people who do the drafting tend to be authorising engineers, however, other disciplines are involved both in the drafting of the guidance and the production of source materials, such as research papers, clinical experts and construction experts. Authorising engineers are part of the external advice structure that sits within the engineering governance structure set out in SHTM 00. These are people who tend to spend the majority of their working time on one topic have a degree of expertise which makes them well suited to the production of guidance. Contributors also include educators, manufacturers, non-engineering roles such as infection control experts,

clinicians, and professional bodies. Consultation on the guidance is wide and multi layered. HFS works with the territorial health boards to facilitate production of the guidance. This approach goes back to before the time HFS was part of NSS, and follows the devolution of responsibility for all aspects of managing property from government to the NHS in the 1990s. The Healthcare Engineering and Environment Unit, which sat within West Lothian NHS Trust, was set up by the NHS Scotland Estates Environment Forum, a group of estates leads from each of the NHS Trusts in Scotland. In the mid 1990s, the Estates Environment Forum was chaired by the Chief Executive of West Lothian NHS Trust and concentrated on Environmental and engineering issues at that time. It subsequently moved, with the chair role of the forum, to Borders NHS Trust and over time its remit expanded to include property, fire, facilities management, decontamination and other topics.

19. Estates and Facilities guidance in NHS Scotland is developed jointly between NSS and the health boards. I have mentioned NSS specifically here because although the majority of the work is done by HFS, there are other parts of NSS that are relevant such as procurement and infection control. The sign off process for guidance is through stakeholder groups, representing the best expertise NHS Scotland has on each topic. The process is that a draft goes to stakeholder group of those who will use it from the service and is modified as necessary, before being put out to wider consultation. A finalised version is then put to the stakeholder group for their agreement.

20. These stakeholder groups do not need to contain one representative from each board. Rather it is a group whose representatives are nominated by the engineering lead for each board, through the Scottish Engineering Technology Advisory Group, to best represent the expertise in the service in that topic. The Scottish Engineering Technology Advisory Group is one of three advisory groups that are involved in the operation of HFS. The other two are in relation to property and capital planning, and facilities management. There could also be some non-health board people on the group if their expertise is seen as advantageous. The groups are at liberty to recruit anyone that they see fit. For example, the ventilation group currently has a seat for an external authorising engineer and an infection control representative. During the period in question there was not a specific seat for infection control on the national advisory

groups and collaboration was directly between HFS and Health Protection Scotland (HPS) Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) as most of what is discussed at these engineering meetings is not relevant to infection control.

21. There are currently four stakeholder groups: Heating and Ventilation; Water; Electrical; and Medical Gases. There have always been groups established for specific subjects such as those listed. From my memory these four advisory groups have been place for the majority of the time under consideration. Each reports to the Scottish Engineering Technology Advisory Group, which reports in turn to the Strategic Facilities Group. The Strategic Facilities Group is made up of Directors of Facilities from each of the health boards and is traditionally chaired by the director of HFS. This is the only group that is normally chaired by the HFS director, as the culture we promote is for the health boards to 'own' the groups. HFS are present at all the groups, but not normally chairing, as HFS' role is to support rather than direct the service.

22. The creation of NHS Scotland Assure will not change that relationship. NHS Scotland Assure's role is to support the territorial boards to provide assurance to government and others.

23. Most HFS guidance originates from HTMs, produced for the Department of Health in England. Four nations input is part of the process in the drafting of the HTMs. It is important to have a common approach to the thrust of the guidance across the UK, as patients should expect to be treated in facilities of a consistent standard and the engineering principles do not change depending where in the UK the building is. The contractors in the NHS supply chain also typically operate throughout the UK, so consistency of guidance reduces the risk of errors. In the process of developing SHTMs the drafting is primarily concerned with putting the HTM guidance into a Scottish context, referring to the relevant Scottish organisations, legislation and regulation. Where a need is identified in Scotland, HFS may take the lead in production and guidance produced in this way is then available to feed the production processes in England, Wales and Northern Ireland. There are several documents in the water guidance, SHTM 04 series, produced this way.

24. In the 1990s and earlier, guidance was produced UK wide, and a cover letter went out from Scottish Office, to deal with how it was to be adopted in Scotland. Northern Ireland and Wales take a similar approach, although each administration has taken variations on adopting or developing guidance at different times. For pragmatic reasons, we do not always adapt UK wide guidance for the Scottish context. We will sometimes advise boards to use a UK document as it is. This is more common with Health Building Notes than HTMs. My colleague Susan Grant can advise on examples if required.

25. The Inquiry are aware of all the guidance issued by the NHS that is relevant to ventilation systems in hospitals. Additional relevant guidance may be produced by organisations outwith the NHS such as the clinical associations. The Scottish Building Standards Agency issues Technical Standards that govern the air tightness of buildings. General guidance on ventilation systems, not specific to the NHS, will be found elsewhere, examples include the guides issued by The Chartered Institution of Building Services Engineers, the Building Services Research and Information Association, Building Research Establishment, Heating and Ventilating Contractors Association, Institute of Healthcare Engineering and Estate Management. Where NHS specific guidance does not cover an issue, the professionals involved will use their professional judgement and possibly refer to other guidance in resolving the issue.

26. To the best of my recollection, there has been no specific direction from SG in relation to any HFS guidance, other than mandating compliance with decontamination guidance in the wake of the BSE crisis in the early 2000s.

SHTM 00 Best Practice Guidance for Healthcare Engineering – Policies and Principals:

27. As assistant Director for the Engineering, Environment and Decontamination section of HFS, I was responsible for the department that published this guidance. The current version was published in February 2013. I am not sure of the date of first publication of this document in its original form. A search of our records has been undertaken but a copy of the original guidance from before February 2013 has not been found. The search was undertaken by two of my colleagues, our principal architect Susan Grant and

our research manager Geraldine O'Brien. Although NHS NSS has a document retention policy requiring documents disposed of to be recorded, we do not appear to have a record of when, or by whom, those documents were disposed of. In recognition of that, as part of Assure, we have created a computer based quality management system based records system.

28. I would not have been personally involved in the drafting of SHTM 00. That would have been undertaken by Ian Stewart (now unfortunately deceased). Ian Stewart was the principal engineer at the time. I would have read and discussed parts of the document with Ian. I was familiar with the document upon which it was based (HTM 00). The document would have been signed off by a stakeholder group and authorised for publication by myself. A specific Stakeholder Group may have been convened at the time and would have reported to the Scottish Engineering Technology Advisory Group.

29. The purpose of SHTM is explained in the executive summary of the document and in section 1 "scope". SHTM 00 states, on page 4, that it seeks to provide "*general guidance*".

30. SHTM 00 (and HTM 00 on which it is based) was introduced at the time the SHTM (and HTM) suite moved from the old four digit (e.g. 2025) numbering system to the new two and two digit format (e.g. 03 01), taking the numbering of ventilation documents as an example. It was recognised that, as the older documents had been developed at different times by different people, there were differences in how they each expressed the overarching management requirements, which could lead to confusion. SHTM 00 brought together and standardised the terminology and structures applicable to all SHTMs.

31. In the Executive Summary, SHTM 00 states that "The aim of Scottish Health Technical Memorandum 00 is to ensure that everyone concerned with the management, design, procurement and use of the healthcare facility understands the requirements of the specialist, critical building and engineering technology involved."

32. The document is provided as guidance for suitably qualified and experienced colleagues. It is general in as much as it cannot possibly cover every circumstance in which it might be used and comprehensive in that it covers all the key issues within its scope.

    SHTM 00 states, at page 8, that:

    a. *"Regardless of procurement route, whether by traditional means or through a Public Private Partnership (PPP), it is essential that, as part of the briefing process, those involved in the provision of the facility are advised that all relevant guidance published by Health Facilities Scotland (HFS) is available electronically for purchase from HFS. In selecting technical advisers and preferred bidders, it is strongly recommended that their healthcare experience or credentials are thoroughly verified by the NHS Board. References should be obtained and followed up.*

    b. *Only by having a knowledge of these requirements can the healthcare organisation's Board and senior managers understand their duty of care to provide safe, efficient, effective and reliable systems which are critical in supporting direct patient care. When this understanding is achieved, it is expected that (in line with integrated governance proposals) appropriate governance arrangements would be put in place, supported by access to suitably qualified staff to provide this 'informed client' role, which reflect these responsibilities."*

33. I am asked by the Inquiry team to explain why this statement was included in SHTM 00. We have no record of why those involved in the production of SHTM 00 chose to include this text, which is a modification of that found in the HTM. That said, the duty of care to protect the health safety and welfare of patients, staff and visitors is enshrined in the Health and Safety at Work Act and its regulations. I think it was relevant and appropriate for this statement to be included. The guidance was produced under my remit and, although I didn't write it, I will have read it before it went out and I share that view. My understanding is that the text is consistent to the legal requirements we

were working under and, in my view it is also good practice. HFS guidance documents have been provided free of charge, rather than being available for purchase, since shortly after the publication of this document. They have always been free to the NHS.

34. The legislative requirements listed on page 21 of SHTM 00 are the main legislative requirements, as they relate to engineering systems and activities. Paragraphs 3.5 and 3.6 state this.

35. SHTM 00 and 03-01 carries a disclaimer that *"the contents of this document are provided by way of general guidance only*. Etc" This disclaimer was originally introduced when the Healthcare Engineering Environment unit, which preceded HFS, was set up as an arms-length division of West Lothian NHS Trust, having been devolved from the Scottish Office. The purpose was to recognise that the guidance could be used in a number of ways, including commercial contracts, where any error might result in a claim against the NHS.

36. I have been referred specifically to regulation 9 of the Building (Scotland) Regulations 2004, and to paragraph 3.14 of schedule 5 to those regulations which, I am told, provides that "Every building must be designed and constructed in such a way that ventilation is provided so that the air quality inside the building is not a threat to the building or the health of the occupants. I have no input into the content of building standards, nor do I have any particular expertise in that field, other than knowing that the building regulations are amongst the requirements that apply to the provision of ventilation in buildings. The obligation to comply with relevant legislation lies with those managing the construction project, although SHTM 03-01 may be seen as an appropriate means of compliance.

37. Compliance with SHTMs is not mandatory. SHTMs are peer produced guidance and are there to support, rather than replace appropriate management and engineering expertise. As it is not mandated by government, there is no sanction from government for non-compliance. There may of course be sanctions for non-compliance where compliance with guidance is specified in a contract. It is also recognised that written

guidance cannot apply to all circumstances, and as long as sound management and appropriate expertise is applied, there is no reason why safety should be compromised.

SHTM 03-01 General Overview:

38. The following is the inquiry team's understanding of HFS ventilation guidance put to me for agreement, which I have slightly modified in paragraph 36

SHTM 03-01: General Overview

The Inquiry Team advised me that they understand that that this guidance replaced SHTM 2025 and is:

a) primarily intended to ensure that those responsible for developing and operating hospitals (such as health boards) meet their various legal obligations relating to ventilation;

b) that those legal obligations derive from various sources, some of which are specific about particular requirements for ventilation, and some of which take the form of more general (and less defined) duties of care (such as those arising at common law and from sources such as the Health and Safety at Work etc Act 1974);

c) that in attempting to define those duties and what should be done to fulfil them, the authors have drawn upon a variety of sources, including: statutes and statutory instruments; building standards; British standards; government publications; NHS publications, including Health Planning Notes and Health Technical Memoranda; industry publications by bodies such as CIBSE (Chartered Institution of Building Services Engineers) and HVCA (Heating & Ventilating Contractors' Association); the Health and Safety Executive; DIN (Deutsches Institut Fur Normung); and scientific research;

d) that the guidance is the outcome of collaboration by professionals from diverse technical backgrounds;

e) that it will have been intended to be consistent, so far as possible, with related guidance dealing with other aspects of hospital design, construction and operation;

f) that, whilst its primary function is to ensure that those developing and operating hospitals meet their obligations, it will in practice function as a source for health boards to define what they expect to be delivered by others whom they engage to design, construct and operate hospitals (and in that context may be used as, or at least to inform, a contractual specification); and as a source for those who have been engaged to design, construct and operate hospitals as evidence that their work reaches an objectively acceptable standard and is therefore likely to be compliant with the applicable legal obligations;

g) that, whilst some aspects of the guidance may reflect an underlying legal obligation which cannot be departed from without breaking the law, the guidance is not itself the source of those legal obligations and does not have any inherent legal status;

h) that in many other respects the guidance makes only recommendations, albeit ones which are informed by a wide range of appropriate technical knowledge and which represent a cross-disciplinary consensus, about ways in which legal obligations and duties might be met; but could not realistically, and does not in fact, seek to provide definitive rules to apply in all circumstances;

i) that it follows that appropriate professional judgment will still be required when designing, installing and operating ventilation in hospitals, and it should not therefore be assumed that slavishly following the letter of the guidance will be sufficient in all circumstances to produce an acceptable ventilation installation which is compliant with the law; and that, in any event, such judgment will be needed when ventilation is needed in circumstances for which the guidance does not provide;

j) that departures from the recommendations in the guidance may be justified in some circumstances, but this would have to be a matter of professional judgment

based on the prevailing circumstances, and be acceptable to whoever bore ultimate responsibility for the hospital.

39. I have been asked to comment on the inquiry's understanding of the guidance SHTM 03-01 that replaced SHTM 2025 above. Whilst I broadly agree with this understanding, there are some points I would add. In paragraph (a) I would say that it is important to note that that the guidance is the outcome of collaboration by professionals from diverse technical and clinical backgrounds. At paragraph (f) I would also add that the guidance will, in practice, function at times as a source for health boards to define what they expect to be delivered by others, who have been engaged to design, construct and operate hospitals, as partial evidence that their work reaches an objectively acceptable standard. Furthermore, where the inquiry's understanding states that the recommendations in the guidance are "informed by a wide range of appropriate technical knowledge", I would suggest this also includes clinical knowledge. Similarly, I would say that the guidance follows appropriate professional and clinical judgment (h). Finally, where the inquiry's understanding states "that departures from the recommendations in the guidance may be justified in some circumstances, but this would have to be a matter of professional judgment". I would add that this would also be a matter of clinical judgement in some circumstances. (i).

40. Unfortunately, a search of HFS records reveals that HFS has no record of when SHTM 03-01 was first published. That version was based on a document labelled SHTM 2025, which was published in 2001. This in turn was based on a document called HTM 2025. There is some doubt about when SHTM 03-01 came in to being. NSS cannot find records of the dates so these dates are largely from memory. HTM 03-01 was published in England prior to 2011. Part B of SHTM 03-01 was published in 2011 (Bundle 1, document 6, page 287) and Part A of SHTM 03-01 was published in 2013 (Bundle 1, document 8, page 433) then later reissued in 2014 (Bundle 1, document 9, page 618). I don't recall why it was reissued so soon after first being published. Part A and Part B refer to design and operation sections of the document. Part A is the most relevant part for construction contracts and Part B is relevant for the operation post construction.

41. As Assistant Director for HFS, my department contained a number of services, one of which is Engineering. HFS published this document in Scotland, having managed its development through a stakeholder group, representing the NHS Scotland Boards, named the National Heating and Ventilation Advisory Group.

42. The underlying HTM guidance was originally drafted under contract by Department of Health (of the UK Government) to a lead author with a large group of individuals in support. There would have been four nations input at that time. HTM guidance is currently published by NHS Improvement (and formerly by NHS Estates,) an agency of the Department of Health.

43. It was adapted for Scotland by HFS through the National Heating and Ventilation Advisory Group. The principle adopted is that any changes should be as limited as reasonably practicable, as the engineering aspects are generally as applicable in Scotland as elsewhere in the UK. What does change is the context, for instance references to Scottish Government and health boards, rather than trusts. There are also some areas where practice is different in Scotland. The majority of the document is consistent with the HTM.

44. SHTM 03 01 was developed from the HTM by HFS, in collaboration with the National Heating and Ventilation Advisory Group, which is a stakeholder group of senior engineers representing the NHS Scotland Boards, who are the principal users of the guidance. All members of the Advisory Group are practicing healthcare engineers with extensive operational experience of healthcare ventilation systems. They are however, likely to have less specialised expertise than those involved in the UK drafting process, many of whom would be Authorising Engineers, who spend most of their working time on healthcare ventilation. Decisions were made by discussion and agreement, and all involved agreed to publication of the final draft. I have no records, but I believe infection control colleagues would have been consulted. The Scottish stage follows on from the UK stage where there would also have been consultation with infection control, clinicians and professional bodies.

45. The document is intended to be used by health board staff and contractors as appropriate to each project. Its intended users are described in the introduction to the document, and in particular, paragraph 1.2, which says "This edition of Scottish Health Technical Memorandum 03 'Ventilation in healthcare premises' is published in two sections. It is equally applicable to both new and existing sites. It gives comprehensive advice and guidance to healthcare management, design engineers, estate managers and operations managers on the legal requirements, design implications, maintenance and operation of general and specialised ventilation in all types of healthcare premises"

46. The guidance is general in that it applies to a broad range of circumstances and needs to be interpreted in light of these. It is comprehensive in that it covers all the main specific healthcare aspects of the subject.

47. There have been various approaches to creating HTMs and SHTM's over the years. Most common is an England led agreement process for what the priorities for guidance are. NHS Improvement will produce around 10 document revisions a year over the whole sphere of facilities, which includes maybe one or two engineering documents. HFS has input to that process. When the English document is published, Scotland, Wales and Northern Ireland take that document and adapt it for their area. We normally look to change as little as possible, as the engineering doesn't change, but what changes for each country is terminology, bodies and sometimes clinical practice. Sometimes circumstances in Scotland dictate that we develop specific guidance for Scotland, different from other parts of UK. The review for Scotland is normally led by the HFS Principal Engineer for engineering guidance. Typically the document will have a number of rounds of consultation before it is published.

48. I am asked to what extent is it acceptable to depart from the terms of SHTM03-01 and to what extent does it leave room for professional judgment? The intention when developing guidance is that it is to support suitably qualified and experienced staff in both the health board and supply chain, to deliver their duties effectively. It is not a specification. The client chooses which guidance it wants used in its projects. It is my view that all applicable guidance should be applied to any project

unless circumstances dictate otherwise, and where guidance is not followed, those responsible should provide an appropriately safe alternative, but the decision is the responsibility of the health board. This view is based on an interpretation of HSE's approach to investigating health and safety incidents. Health boards often cite compliance with guidance in their contracts, which makes compliance a contractual requirement and, as guidance often contains choices, a process for managing derogations from the guidance is necessary.

49. The risks of not following the guidance will depend on the application, but might include things like infection of immunosuppressed patients through inadequate filtration, failure to adequately dilute contaminants in the ventilated space or failure to maintain pressure differentials allowing contaminants to pass from one space to another. The risks differ between areas of the hospital, for example, in an operating theatre the air is intended to be changed very frequently, around 25 changes per hour to be able to dilute particles. The relationship between air change rates and dilution of contaminants is not linear, i.e. 12.5 air changes per hour doesn't give half the dilution of 25 air changes per hour. Each increase in air change rates contributes less to dilution than the one before. It may be helpful to consider the areas of a hospital in two broad categories; general areas and specialised areas. For general wards, the patient might not be well, but they are not unusually susceptible to increased infection risk. Other than the legislative requirements under the Health and Safety at work act, through the Control of Substances Hazardous to Health Regulations, ventilation is also provided for comfort. The risks are higher in relation to specialised ventilation systems, such as those found in table 1A. In these areas the ventilation system is an integral part of controls for patient safety. An example would be isolation rooms to protect the patient from the surroundings or the surroundings from patient. In a critical care or intensive care area there is a barrier provided by ventilation that creates cascading air flows from cleaner areas to less clean areas.

50. I am asked what review/audit processes (if any) ought to be in place to check the compliance of a ventilation system with the guidance? The checks and tests for ventilation systems are set out in detail in section 8, validation of specialised

ventilation systems.

51. The guidance takes into account the key pieces of relevant legislation applicable at the time of drafting. Whilst it does not absolve users of the need to comply with legislation, it provides a partial means to compliance with legislative requirements. It is produced by, and consulted with, appropriate technical and clinical subject matter experts, and can thus be taken as good practice guidance. The guidance identifies the most relevant pieces of legislation to the primary functions of healthcare ventilation systems, however, it is not practical to list all legislation that might apply in all circumstances.

52. The Preface to SHTM 03-01 notes that it was not intended to repeat unnecessarily international and European standards, industry standards or UK legislation; but that, where appropriate, those would be referenced. Other pieces of legislation are likely to apply to issues which I believe would be outwith the scope of the inquiry, such as electrical wiring regulations, moving and handling or working at heights regulations.

53. Paragraph 2.60 of SHTM 03-01 (Bundle 1, document 9, page 618) refers to Activity Database A-Sheets as including specific requirements for individual spaces and departments. This is not my area of expertise, however, my understanding is that for the purposes of the RHCYP project, this function was performed by the environmental matrix. The environmental matrix specifies the client's requirement for the conditions to be maintained in each room.

54. Within HFS I would defer to my colleague Susan Grant, an Architect, in respect of questions with regard to the Environmental Matrix, Activity Data Base sheets, SHPNs that the inquiry is interested in and A Sheets. I would be straying outwith my competence if I was to provide detailed answers to the Inquiry' queries on such matters.

55. No one piece of guidance takes precedence over any other. The ultimate decision in the case of conflict rests with the health board team managing the project.

56. I have been asked to comment on paragraph 1.37 of SHTM 03-01 (Bundle 1, document 9, page 618) "In assessing the need for more specialised ventilation and the standards desired for patient care, managers will need to be guided by their medical colleagues and by information published by Health Facilities Scotland". I believe those who manage healthcare facilities have a duty of care to understand the risks that they are managing. Part of that is understanding the circumstances of the risks and that's why the guidance is relevant. It is important to note that the facility is only part of the risk management required, another major part is clinical care. For example, if a specialised unit has effective ventilation, there might still be a risk if the clinical care is not right, so the intention is that the decisions on what is provided and how it is provided are broadly based and all key stakeholders views should be considered.

Part A of SHTM03-01 Table A1

57. Whilst a definitive answer would require reference to the original authors, my understanding of the purpose of table A1 is to provide recommended performance parameters for specific applications.

58. Appendix 1 (Bundle 1, document 9, page 756) is headed up "Recommended air-change rates", without reference to the other parameters which Table A1 contains. I don't believe that is significant. It does not indicate air changes are more important than the other parameters. As with other aspects of the guidance there is a need for suitably qualified and experienced professionals to interpret it. Each parameter within table A1 has an impact on patient safety and care, and each has different implications.

59. Air change rates are specified, amongst other factors, for the ability to dilute contaminants. Pressure differentials are intended to control the direction of air flow to reduce the risk of contaminants being introduced to, or emitted from a space, depending on whether patients are susceptible or infectious. Temperatures are

intended to provide a suitable environment for treatment and recovery. Filtration is intended to reduce contaminants entering the space through the supply air.

60. These parameters were selected through the experience of experts in the field over many years, adapted over time to reflect changes in knowledge and practice.

61. The parameters, to the best of my knowledge, are based on a scientific consensus and on judgment. The isolation room and pressure differential models for example, are based on full scale models and computer simulations at the Building Services Research and Information Association (BSRIA). Operating theatre standards are based on tests carried out when each new model theatre was introduced, and modelling work has also been carried out at the University of Leeds. These origins are, however, irrelevant in my view, when compliance is a contractual requirement. The issue then becomes that these are the specified performance criteria required by the board and the contractor has a contractual obligation to deliver them.

62. The question of the extent to which the parameters can be departed from, without adversely impacting on patient safety and care is unanswerable in a general sense and will depend on the circumstances. This is why there is a need for appropriately skilled and qualified professionals to interpret the guidance in light of the circumstances.

63. It is understood that departures from the specified parameters might result from the design process. If the client specifies compliance with the guidance in the contract, any deviation becomes a change to the contract requirements (a derogation) and should be controlled and agreed in line with the requirements of the contract.

64. HFS does not have a record of how the different entries on the "applications" column on the table were selected. It is likely that these were through discussion amongst those involved in creating the HTM on which the SHTM is based. In some cases, I believe the information has been incorporated from other sources such as clinical bodies but the authors of the HTM would be better placed to advise.

65. UK practice is the practice described in UK guidance, i.e. the SHTM and HTM. UK and US guidance are used in many parts of the world, with many countries using these either direct, or as a basis for their own guidance. They take cognisance of each other and many parts of the world use one or the other.

66. The pressures reflect the application being served and the need to be able to maintain conditions in the space, whilst still being able to perform activities like keeping doors closed or being able to open them against the pressure.

67. The nomenclature in the filtration column is in common use in the ventilation industry and specifies the type and efficiency of filter required. The detail of filter grading is beyond my expertise, however, higher numbers generally relate to greater ability to arrest particles. These are described paragraph 4.116 onwards and in tables 4, 5 and 6.

68. The letters in the ventilation column signify whether the air is supplied to the space, extracted from it or natural, and will have implications for whether the room is at positive or negative pressure, relative to adjacent spaces. i.e. supplied air will exfiltrate from a space, whereas the extract of air will cause infiltration from adjacent spaces. This relates to whether the potential contaminant under consideration exists within the space (extract) or in the adjacent spaces (supply). Because natural ventilation is dependent on external factors such as wind pressure, it can positively or negatively pressurise the space, and as such is only applicable to spaces where pressures are not critical.

69. The types of accommodation listed in the table are in general use, however, different names may be used in different places to relate to the same, or similar applications. The decision about the types of patient to be accommodated and the performance requirements that patient group requires should be decided by the health board team at the time of specifying their requirements. The recommended performance parameters are set out in section 7 and Table 1a.

70. The guidance is intended to be followed where the application is directly relevant and, where there is a need to design for an area where there is no direct fit with an application described in the guidance, the judgement of appropriately qualified and experienced professionals should be relied upon, with the ultimate decision resting with the client, i.e. the health board. For the example cited by the inquiry team of how the guidance would be applied in particular contexts, such as multi bed rooms in general wards, would be expected to be treated like general wards in table 1a, unless there was a specific reason not to.

71. Any ambiguity/uncertainty should be resolved by appropriately qualified and experienced professionals and all relevant stakeholders, with the ultimate responsibility for accepting any solution lying with the health board.

72. Although I wasn't involved, I believe table 1a was added to the guidance to bring together ventilation requirements from a number of different sources. Some existed in previous iterations of the guidance and some were specific to the clinical application. The naming conventions in the table are typical, although other names might be used for the same, or similar applications. Clinical staff would decide the required level of protection for the patient group. Since Scottish specific guidance was first published in the 1990s this has been accepted by the NHS in Scotland as the applicable guidance for Scotland. That said, it is guidance, and those in charge of a project have the autonomy to choose to follow whatever guidance they judge best, and it is for them to justify their approach.

Table A2 "Hierarchy of cleanliness"

73. The hierarchy of cleanliness relates to operating theatre suites, where the essential principle is that clean air is supplied to the operating room and then passes to progressively less clean areas where less critical activities are carried out. Further information on operating suites can be provided as required, however detailed analysis will require specialist input.

Updates to the Guidance:

74. The version of SHTM 03 01 that I refer to throughout this statement was published in February 2014. It has recently been superseded by interim guidance published in February 2022. My colleague Ian Storrar is better placed than me to describe the process by which the new interim guidance was produced. It has been developed from the English guidance. It is issued in interim form because some of the staff resources necessary to complete it have been diverted to other national priorities, such as Covid and responding to public inquiry requests.

75. I am asked whether there have there been changes to the various sources on which the guidance is based. There may have been changes to guidance in other countries, legislation and Health and Safety Executive codes of practice amongst others, which may have been consulted during the drafting process of the HTM. HFS does not currently actively track changes to sources between updates to its guidance.

Children & Young People:

76. Ventilation requirements do not differ for children and young people.

Scottish Health Planning Note 04

77. SHPN 04 is relevant to inpatient accommodation. Within that guidance is isolation rooms, which is set out in supplement 1. SHPN 04 supplement 1 is guidance on the positive pressure ventilated lobby (PPVL) arrangement, which is a general purpose isolation room intended for source, or protective isolation (infectious or immunosuppressed patients) where a higher standard of isolation is not required. That supplement is specifically the publication of work done with the Building Services Research and Information Association (BSRIA). It was produced as UK guidance by NHS estates and was then adapted for Scotland.

Documentation for Tenderers

78. I am asked what technical guidance I would expect to be provided to tenderers involved in a procurement exercise for a new hospital in Scotland. The intention when developing guidance is that it is to support suitably qualified and experienced staff, in both the health board and supply chain, to deliver their duties effectively. It is not a specification, unless deemed so in a contract. The health board chooses which guidance it wants used in its projects. It is my view that all applicable guidance should be applied to any project, unless specific circumstances dictate otherwise, and where guidance is not followed, a suitably safe approach should be taken. Any decision not to follow guidance should be the responsibility of the health board, rather than their advisors, and should involve all relevant stakeholders. This view is based on an interpretation of the Health and Safety Executive's approach to investigating health and safety incidents, where I would expect them to use industry guidance as the standard to be met, and look for evidence that any deviation was properly managed in light of the circumstances. Health boards often cite compliance with guidance in their contracts, which makes compliance a contractual obligation.

As guidance may contain choices, a process for managing derogations from the guidance is necessary. The guidance is developed using a wide range of expertise from the UK and elsewhere and in that respect can be considered best practice guidance. It is not possible to produce guidance that is applicable to every circumstance; for example, the same guidance has to apply to a major acute hospital but also a health centre. It has to be processed through the judgement of appropriately skilled and qualified people. However, it is not a standard because there is no legislation that requires it to be complied with.

I believe that the facts stated in this statement are true. I confirm that I am willing for this statement to form part of the evidence before the Inquiry and to be published on the Scottish Hospital's Inquiry Website.

Edward McLaughlan
20 April 2022

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DRAFT STATEMENT OF IAN STORRAR

This witness statement is in draft form, is yet to be finalised by the witness due to staff absence and is distributed on the agreement that this draft version is not to be referred to or relied upon by core participants or any other party in correspondence or at future Hearings or in any submission/ statement to the Inquiry.

The final version of this witness statement will be circulated as soon as practicable.

Responses below unless otherwise provided follow the numbering provided in: Annex 1 - Request to Prepare a Draft Witness Statement Number 1 Addressed To Ian Storrar

Experience and expertise

1. My full name is Ian Storrar and I am 62 years old. My address is c/o NHS National Services Scotland, 1 South Gyle Crescent, Edinburgh, EH12 9EB.

2. I am currently employed as the Assistant Director Assurance of NHS Scotland Assure. I have been employed in this role since March 2021. The Assistant Director Assurance is responsible to the NHS Scotland Assure Director for all areas of NHS Engineering and NHS Scotland Assure Assurance service. This includes Building Services, Medical Gases, Assurance services (including operational aspects of infection prevention and control in relation to the healthcare built environment), and the preparation of national operational policy and guidance for NHS Scotland.

3. I am a Chartered Engineer with over forty three years' experience in the construction industry. Prior to March 2021 I was the Head of Engineering in Health Facilities Scotland ("HFS") from November 2018 to February 2021. From April 2014 to November 2018 I was the Principal Engineer in HFS. From April 2009 – April 2014, I was employed as the Contracts Monitoring and Efficiencies Officer at Falkirk Council. Prior to April 2009, I was employed as the Technical Services Manager with MITIE Engineering Services (Edinburgh) Ltd.

4. a) The following is a record of my academic and professional qualifications: -

   - HND in Electrical and Electronic Engineering
   - BSc in Electrical and Electronic Engineering
   - BSc (Hons) Management of Healthcare Engineering Technologies & Facilities

- Fellow of Chartered Institution of Building Services Engineers
- Fellow of Institute of Healthcare Engineering and Estates Management
- Member of Institution of Engineering and Technology
- Chartered Engineer (Engineering Council)
- ILM Diploma in Leadership and Management (Level 5)
- BIFM Diploma in Facilities Management (Level 5)
- IOSH Managing Safety
- NQA Internal Auditor
- BSI Internal Auditor
- The Built Environment (Infection Prevention and Control) CPD
- Mentor for Staffordshire University.

I am a committee member for the following standards and technical groups: -

- IEC TC 64 (Electrical Installations and Protection Against Electric Shock)
- IEC TC 64 Working Group 6 (Medical Locations).
- British Standard 7671: JPEL64
- British Standard 7671: Subcommittee D and Section 710 Working Group
- British Standard GEL/50 Low Voltage Direct Current for Electricity Access
- British Standard 8580-2 Risk Assessment for Pseudomonas et al.
- British Standard 8680 Water Quality. Water Safety Plans. Code of Practice.
- British Standard Technical Committee EH/3/4 – Water Quality - Microbiological Methods
- IET Building Infrastructure for Healthcare ICT
- CIBSE Healthcare Group (Committee Member and Vice Chairperson)
- IHEEM Ventilation Technical Platform (Committee Member)
- ISO Building Guideline of Emergency Medical Facility
- Specialist Ventilation in Healthcare Society
- <u>COVID response:</u>
    - SAGE EMG (MAIN)
    - SAGE EMG WG Hospitals
    - SAGE EMG Ventilation Sub Group
    - Ventilators and Oxygen Supply/Distribution

- NHS and Scottish Manufacturing Supply Chain Working Group
- Dental Ventilation SLWG (Co-Chair)
- Ventilation SLWG (Co-Chair)
- Covid Nosocomial Response Group

b) I consider hospital ventilation a recognised technical discipline supported by a distinct body of knowledge. There are a range of specific courses on hospital ventilation. There are specific courses for example, to become an authorising engineer in healthcare ventilation as well as other courses for specialist hospital ventilation. Authorising Engineer ventilation is a special accreditation that someone can apply for. I do not personally have that qualification. The Institute of Healthcare Engineering and Estates Management ("IHEEM") has a register of Authorising Engineers in the UK and I sit on the awarding committee, however there are other Authorising Engineers who are professionally qualified and competent that are not IHEEM registered as they may work for an organisation or be in a different sector to healthcare. IHEEM also hold an annual two day conference specifically for healthcare related topics and HFS also have an annual two day healthcare specific conference.

Ventilation is important in all industry sectors not just healthcare. There is a legal requirement to provide an adequate supply of fresh air. There are several methods of delivering ventilation, from natural to mechanical to a hybrid of both. The mechanics of designing and installing the ventilation system is undertaken by trained, competent individuals to ensure that the correct air change rate, pressure regimes, air distribution patterns, filtration, maintenance access etc. are provided correctly.

c) There are a number of professional and scientific disciplines that underpin the body of knowledge relevant to healthcare ventilation. There are a range of official professional institutions such as IHEEM, The Federation of European Heating, Ventilation and Air Conditioning associations (REHVA) and the Chartered Institution of Building Services Engineers (CIBSE). I am a Fellow of IHEEM and CIBSE. I can also point to specific areas of research. Examples of specific areas of research include:

Refaie R, Rushton P, McGovern P, et al. The effect of Operating Lights on Laminar Flow: An Experimental Study Using Neutrally Buoyant Helium Bubbles. *Bone & Joint*

Journal 2017; 99-B: 1061-1066[1].

Mousavi MS, Hadei M, Majlesi M, et al. Investigating the Effect of Several Factors on Concentrations of Bioaerosols in a Well-Ventilated Hospital Environment. *Environmental Monitoring and Assessment* 2019; 191[2]

Erichsen Andersson A, Petzold M, Bergh I, et al. Comparison Between Mixed and Laminar Airflow Systems in Operating Rooms and the Influence of Human Factors: Experiences from a Swedish Orthopedic Centre. *American Journal of Infection Control* 2014; 42: 665-669[3]

Seppänen, O.A., W.J. Fisk, and M.J. Mendell, Association of Ventilation Rates and CO_2 Concentrations with Health and Other Responses in Commercial and Institutional Buildings. *Indoor Air,* 1999. **9**(4): p. 226-52[4]

Li, Y., et al., Role of Ventilation in Airborne Transmission of Infectious Agents in the Built Environment - a Multidisciplinary Systematic Review. *Indoor Air,* 2007 [5]

SAGE EMG Role of Ventilation in Controlling SARS-CoV-2 Transmission SAGE-EMG[6]

Noakes, C. J. and Andrew Sleigh, P. (2009) 'Mathematical Models for Assessing the Role of Airflow on the Risk of Airborne Infection in Hospital Wards', *Journal of the Royal Society Interface*, 6(SUPPL. 6). doi: 10.1098/rsif.2009.0305.focus[7]

Du, C. R. et al. (2020) 'Effect of Ventilation Improvement During a Tuberculosis Outbreak in Underventilated University Buildings', *Indoor Air*, 30(3), pp. 422–432.

[1] IS/1- Refaie R, Rushton P, McGovern P, et al. The effect of Operating Lights on Laminar Flow: An Experimental Study Using Neutrally Buoyant Helium Bubbles. *Bone & Joint Journal* 2017; 99-B: 1061-1066
[2] IS/2 - Mousavi MS, Hadei M, Majlesi M, et al. Investigating the Effect of Several Factors on Concentrations of Bioaerosols in a Well-Ventilated Hospital Environment. *Environmental Monitoring and Assessment* 2019; 191
[3] IS/3 - Erichsen Andersson A, Petzold M, Bergh I, et al. Comparison Between Mixed and Laminar Airflow Systems in Operating Rooms and the Influence of Human Factors: Experiences from a Swedish Orthopedic Centre. *American Journal of Infection Control* 2014; 42: 665-669
[4] IS/4 - Seppänen, O.A., W.J. Fisk, and M.J. Mendell, Association of Ventilation Rates and CO_2 Concentrations with Health and Other Responses in Commercial and Institutional Buildings. *Indoor Air,* 1999. **9**(4): p. 226-52
[5] IS/5 - Li, Y., et al., Role of Ventilation in Airborne Transmission of Infectious Agents in the Built Environment - a Multidisciplinary Systematic Review. *Indoor Air,* 2007
[6] IS/6- SAGE EMG Role of Ventilation in Controlling SARS-CoV-2 Transmission SAGE-EMG[6]
[7] IS/7 - Noakes, C. J. and Andrew Sleigh, P. (2009) 'Mathematical Models for Assessing the Role of Airflow on the Risk of Airborne Infection in Hospital Wards', *Journal of the Royal Society Interface*, 6(SUPPL. 6). doi: 10.1098/rsif.2009.0305 focus

doi: 10.1111/ina.12639[8].

Zhang, B. Y. J. et al. (2020) 'Study of Viral Filtration Performance of Residential HVAC Filters', pp. 2–7[9].

The general principles of hospital ventilation

5 a) The purpose of ventilation is to provide fresh air into a space and remove stale air. Additionally, the role of ventilation in healthcare is to dilute odours and air borne pathogens. There are some specific ventilation areas such as theatres, isolation rooms and critical care units which have specific air change rates and pressure regimes to afford patients greater protection from airborne pathogens.

b) In relation to patient safety and care, work done by Leeds University (Noakes et al)[10] and others (Atkinson J, Chartier Y, Pessoa-Silva CL, et al., editors. Natural Ventilation for Infection Control in Health-Care Settings. Geneva: World Health Organization; 2009. 3, Infection and ventilation[11]) on respiratory disease such as tuberculosis indicates that the lower the air change rate - and in particular if it is less than 2.0 air changes per hour - then the chances of infection increase. The study by Leeds University is from 2009 with a presentation given at the HFS conference in November 2018[12].

c) SHTM 03-01 sets out the features of a ventilation system that are relevant to patient comfort, safety and care. There are also a few other relevant documents. One such document is called the "Illustrated Guide to Ventilation" BG2/2009[13] and another is BG31/2017[14] which is "Illustrated Guide to Mechanical Building Services." These both are published by Building Services Research and Information Association

[8] IS/8 - Du, C. R. et al. (2020) 'Effect of Ventilation Improvement During a Tuberculosis Outbreak in Underventilated University Buildings', *Indoor Air*, 30(3), pp. 422–432. doi: 10.1111/ina.12639
[9] IS/9 - Zhang, B. Y. J. et al. (2020) 'Study of Viral Filtration Performance of Residential HVAC Filters', pp. 2–7
[10] IS/10 - Catherine J Noakes, P Andrew Sleigh, Mathematical models for assessing the role of airflow on the risk of airborne infection in hospital wards 2009 Dec 6;6 Suppl 6
[11] IS/11 - Atkinson J, Chartier Y, Pessoa-Silva CL, et al., editors. Natural Ventilation for Infection Control in Health-Care Settings. Geneva: World Health Organization; 2009. 3, Infection and ventilation
[12] IS/12 - Professor Cath Noakes, Controlling Infection Risk through Ventilation Design, Health Facilities Scotland Conference, University of Leeds, 1-2 November 2018
[13] IS/13 - Illustrated Guide to Ventilation, A BRIASA Guide BG2/2009
[14] IS/14 - Illustrated Guide to Mechanical Building Services, 3rd Edition BG31/2017

("BSRIA") and provide an illustrated guide to ventilation amongst other things. They show the key components in a hospital ventilation system and the parameters which a ventilation system can control. The guides provide good visual representation of systems. I can share these guides with the Inquiry Team if that would assist.

i) In terms of the parameters that can be controlled, in general ward areas, there are pressure differentials and also temperature and filtration. Humidity is not controlled; this was originally required for some healthcare applications (theatres) to mitigate risk from flammable medical gases, the use of which is now discontinued.

Different patient cohorts require different control regimes. For critically ill patients the pressure regimes are more specialised and are designed to keep the pathogens away from the patient. In addition, there is general filtration in air handling units for general ward areas, but there are higher grades of filtration (to stop smaller particles) in specialist areas such as isolation rooms, theatres and paediatric units. Filtration increases in the specialist areas. Similarly, the pressure and ventilation flow goes from clean to dirty so the patient is always getting the cleanest air going across them in the specialist areas. In a general ward the ventilation flow is more neutral as the patients' are less susceptible to infection. A normal filter is relatively coarse, but by the time you get to the Paediatric Intensive Care Unit ("PICU") or theatre you will have finer mesh to capture much smaller dust particles and fungi. In a general ward the normal filter might not pick up as small particles.

ii) The key components in terms of patient safety, I would say are pressure regimes for theatre, PICU and isolation rooms as well as the ventilation rates for those areas. I would also state that the ventilation system in a hospital is not just patient safety and comfort. The provision of ventilation is for everyone, patients, staff and visitors.

iii) The key physical components of a hospital ventilation system are air handling units ("AHU"), duct work, dampers, and smoke/fire dampers. There are also components such as air diffusers, temperature sensors, pressure sensors, building management systems, interfaces to fire alarm systems, specialised theatre ventilation canopies and special extract systems in relation to isolation rooms. The list could go on and on and each component is important in their own way. SHTM 03-01 identifies the

key components and The Illustrated Guides to Ventilation[15] and Mechanical Building Services[16] referred to in paragraph 5 c) also show the key components.

d) In terms of achieving the objectives of a ventilation system for patient safety and care, ventilation is designed to make the environment as controlled as practicable. It is impossible to have a totally sterile hospital as the air itself is not sterile. It would be impossible to build a completely sterile hospital.

If designers are competent professional and knowledgeable, and those constructing it are competent, professional and knowledgeable and those operating it are competent, professional and knowledgeable, then the objectives can be achieved as far as is practicable. It is a holistic approach requiring input at all stages, not just the design.

However, challenges do arise that might necessitate compromise. There is a mechanism called a derogation which is possibly unique to healthcare which can provide a mechanism for stakeholders to agree any compromises on the solution to be implemented. Examples where derogations may arise is with regards to budget. One solution might not be affordable and so they may have to look to an alternative. Another challenge may be physical constraints, for example there may be 300mm of space in ceiling space but design suggests a 600 square duct which is clearly not going to go in. Then there has to be a discussion between stakeholders about the challenges of the physical environment.

Derogations are common on every healthcare project. The respective Board has responsibility and oversight for agreeing these. It may be that to achieve the output of the guidance a different methodology may be require to achieve the performance or technical intent or safety parameters. The number of derogations would depend on the specific project but on a large project may run into hundreds across different disciplines.

Technical Guidance

General

6) I agree that the summary given on Page 6 of Annex 1 heading *Technical Guidance*

[15] IS/13
[16] IS/14

subheading *General* is a fair summary of the technical guidance, made available by the NHS, which is relevant when a new Scottish hospital is being planned and implemented. HFS can produce these guidance documents with the exception of Health Technical Memorandum ("HTM") and Health Building Notes ("HBN") which are English documents. In Scotland we do have some of our own Scottish Health Building Notes ("SHBN"), but not many.

What tends to happen in practice is that England take the lead to produce their HTMs. There is then a four nation approach involving round table discussions and collaboration with some of the professional institutions and with the Health and Safety Executive ("HSE"). Input from Scotland includes the specialist National Advisory Groups. We then collectively agree the contents after many months of discussion and consultation with industry. At that point the output document is signed off. HFS then get a copy of that document and we make it unique for Scotland with minimal changes (these changes are mainly with respect to the legal reference documents). We tend not to change technical content but we may change some of the references. It is the same process for Health Facilities Notes ("HFN") and Health Planning Notes ("HPNs). The documents are not rewritten and changes are minimised as many of the contractors involved in healthcare operate across the whole of the UK.

7) In terms of who produces each category of guidance and who maintains it, I would comment as follows:

HFS produce Scottish Health Technical Memorandums ("SHTM") which can be taken from HTMs as noted above. HFS is also responsible for maintaining SHTMs on behalf of the Boards, but it might well be the case that England maintain before we do and we would then follow afterwards. Guidance is a collaborative effort between HFS and the Boards via The Scottish Engineering Technical Advisory Group ("SETAG") and the specialist National Advisory Groups ("NAG"). These stakeholders are involved in the guidance production. No guidance is issued unless these stakeholders have agreed. There are four NAG which meet normally every quarter (ventilation, water, electricity and medical gas).

There is a four nations group called Futures Standard Working Group which is chaired by NHS England. I am part of that group. The devolved administrations get together and agree the top ten pieces of guidance to be done or revised that year based on stakeholder input. We meet every 6-8 weeks and then there are working groups within that working on the

various pieces of guidance. We are separated off into our specialist areas. So for example, if it is guidance on door handles being looked at, then that is not one for me. If it is engineering based guidance, like medical gases, then I will get involved with that

The same process applies for all the different categories of guidance.

There might sometimes be Scottish guidance that might go UK wide and if that is the case then that needs to be adapted for non-Scotland use. For example, HFS are doing work on decontamination guidance at present. That work is ongoing at the moment and we have taken the lead and then England can take it over if they want and they will remove the Scottish references.

Once the group has finalised the new guidance, it is then put on our website and we advise our Boards and NAGs that this piece of guidance is complete. The NAGs know that the guidance is complete though as they and SETAG are both involved in development of guidance.

When HFS is maintaining guidance for the Boards the NAGs are involved. The National Advisory groups are made up of specialists from Health Boards and SETAG. SETAG is made of up senior estates people. Within NSS, HFS and Antimicrobial Resistance and Healthcare Acquired Infections ("ARHAI") are on many working groups together. I am also a member of other working groups like ARHAI's Infection Control Built Environments and Decontamination Group (ICBED), so I would advise that group what HFS are doing on water and ventilation for example, so that would be disseminated to clinical colleagues through that network.

8) NSS has also produced additional guidance on ventilation in healthcare not referred to above. For example, after the Cryptococcus outbreak in Glasgow, we produced interim guidance (Managing the Risk of Contamination of Ventilation Systems by Fungi from Bird Droppings) in March 2019[17]. The Inquiry Team has been provided with a copy of that guidance already. Other sources of guidance include (but not limited to) that produced by CIBSE, IHEEM, American Society of Heating, Refrigerating and Air Conditioning Engineers ("AHSRAE") and Specialist Ventilation for Healthcare Society (SVHSoc).

[17] IS/15 - Managing the Risk of Contamination of Ventilation Systems by Fungi from Bird Droppings Interim Guidance, Health Facilities Scotland, March 2019

Health Facilities Scotland

9) I agree that the summary on Page 7 of Annex 1 heading *Health Facilities Scotland* fairly summarises the basis on which HFS produced and/or maintains the SHTM series of guidance (including SHTM 00 and SHTM 03-01).

10) The other technical guidance referred to on Page 7 of Annex 1 heading *Health Facilities Scotland* is produced on the same basis subject to the method explained in paragraph 7 above with regards to the involvement of all four nations.

SHTM 00 "Best Practice Guidance for Healthcare Engineering – Policies and Principles" [18]

11) I was not involved in the development of SHTM 00.

12) My understanding is that the SHTM 00 was issued in February 2013.

13) I had no role in the development of SHTM 00.

14) The purpose of SHTM 00 is stated on Pages 8 and 9 of SHTM 00 heading "Aim of the guidance."

15) SHTM 00 is directed at those identified on Page 9 of SHTM 00 heading "Users of the Guidance".

16) Prior to SHTM 03-01 the relevant ventilation guidance would have been SHTM 2025. Prior to SHTM 00, I do not think there was a predecessor but Eddie McLaughlin may be able to clarify this point.

17) I suggest the best person to answer whether it has been updated is Eddie McLaughlin. The version that is current at the moment is February 2013, that is to say that the guidance has not been changed since 2013. I would accept that it does need a little bit of a refresh. The general principles are the same and will be the same but the exemplar procedures (which are set out in Appendix 2 from Page 82) might need be tweaked and the regulations might need tweaked.

Myself and other colleagues worked on a responsibility matrix document which I would like to see embedded in SHTM 00. The matrix basically sets out the structure Boards need

to have in place together with the Facilities Management ("FM") provider. Columns are provided for the board so that the designated person, responsible person, the authorised person and all the respective roles are shown in matrix form so that everyone knows their responsibilities. It would be part of my intent with the update to include that.

18) I do not believe that SHTM 00 had a predecessor. I believe it was drafted as new guidance.

19) SHTM 00 provides the overarching engineering standards expected to be applied throughout all the technical guidance to ensure safe preparation of the estate for hospital staff and visitors. SHTM 00 covers the management aspects of those standards. The same themes come out in the more technical documents, but the technical documents are more concerned about technical detail.

20) I am asked whether SHTM 00 seeks to provide "general guidance" or "comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare" I did not draft SHTM 00 so I do not think it is for me to say whether it was intended to provide general guidance or comprehensive advice. From my own perspective I do not really see a difference in the two expressions to be honest. They can both be true. I would say that the guidance is as comprehensive as it can be but it does not cover everything or every scenario in a healthcare building.

21) I am asked why the statement set out in Annex 1 page 8 paragraph 21 was included. I did not draft SHTM 00 so I do not think it is for me to say why this statement was included. For my own perspective, I agree with what is in the SHTM. I would however correct one thing which is that we no longer charge people for guidance anymore. It is now free to anyone who wants it via the NSS website (and previously on the HFS website). I would also comment that in addition to SHTM 00 requiring advisors to be thoroughly verified, this step is also required by the Construction Design and Management ("CDM") Regulations. The CDM Regulations put an onus on Boards requiring credentials of contractors and designers to be checked. I do not think there is any specific reason that the lines above are included other than it reflects the standards.

22) I would not expect HFS to provide any guidance specifically to anyone involved in a new hospital. Instead what I would expect to happen is for the Health Board to list all the necessary guidance that they require their supply chain to use in the building project in

their original construction document which is called the Board Contract Requirements ("BCR"). Then designers and contractors and anyone else can access the required guidance through HFS website for free.

23) Page 21 of SHTM 00 provides a list of statutory and legislative requirements. I do not think that it is entirely comprehensive. I would say it is as comprehensive a list of legislative requirements at that point in time as far as practicable but designers do need to check for amendments to the legislative process or any additions that might be published.

24) I am asked about the disclaimer set out in Annex 1 page 9 paragraph 24. I did not draft SHTM 00 so I would not like to say why it contains a disclaimer. I would defer to Eddie McLaughlin or others within HFS on this matter.

25) Compliance with SHTM is not mandatory however it may become part of contractual agreement between the Health Board and the supply chain. The provider might be in breach of contract if they do not follow that guidance if it is a contractual term.

26) There are no punitive consequences of failing to comply with SHTM guidance but Boards or their supply chain may run the risk of putting patients' safety and visitors' safety at risk and/or fail to comply with legal obligations. If there is a lack of compliance with statutory, legislative or good practice measures, then ultimately the building may not perform as it should do in the healthcare environment. If the guidance is included as part of the contractual process, then there may be contractual consequences of failing to comply.

NHS Scotland Assure has a wider remit. NHS Scotland Assure assists Health Boards to provide assurance to Scottish Government that for the defined elements of the engineering and infection control process, the Board has assured themselves that they have the correct project governance, stakeholders and design solutions in place. As part of NSS Scotland Assure's remit, we are challenging the Health Boards on instances where the guidance is not met and where they do not have a robust derogation process in place. What we now have in NHS Scotland Assure are a series of key stage assurance reviews ("KSAR") which we carry out at the project initial agreement stage ("IA"), outline business case ("OBC"), full business case ("FBC") as well as construction, commissioning and handover. NHS Scotland Assure assist the Boards to ensure they have satisfied themselves that the guidance is being met. Our KSAR reports are issued to the Board and also go to Scottish Government. This is a transparent process with the Board to ensure that all infection

prevention control, governance and engineering matters have been thoroughly discussed with stakeholders to arrive at a suitable outcome to meet the Board's briefing documents.

SHTM 03-01: General Overview

27) I agree that the summary set out in Annex 1 on Pages 9-11 heading *SHTM 03-01: General Overview* is a fair overview of the guidance

28) As I agree that the summary is a fair overview, I have no further comments on this.

SHTM 03-01: Particular questions

29) I believe SHTM 03-01 was originally drafted in 2011. The HTM seems to be dated from 2009.

30) I had no role in relation to SHTM 03-01 and any relevant predecessor documents concerned with ventilation in hospitals. I was not employed by NSS at that point in time. I believe that Ian Stewart (now deceased) was involved in the drafting of SHTM 03-01, but again Eddie McLaughlin might be able to assist.

31) The purposes/objectives of the SHTM 03-01 are as stated in SHTM03-01 in paragraph 1.2: "*It gives comprehensive advice and guidance to healthcare management, design engineers, estate managers and operations managers on the legal requirements, design implications, maintenance and operation of general and specialised ventilation in all types of healthcare premises*."

32) Ventilation is concerned with patient and staff comfort, safety and care. Specialist ventilation in particular is required for patient and staff safety by providing specific pressure cascades and ventilation rates in general and specialist areas to provide fresh air and dilution of pathogens.

33) I am asked who was involved in authoring SHTM 03-01. I do not know who was involved in authoring SHTM 03-01 other than any people that may be listed in the document itself.

34) As above I do not know the professional disciplines that the authors are from.

35) I was not involved in the process by which SHTM 03-01 was created.

36) I was not involved in decision making over SHTM 03-01.

37) I was not involved in the drafting of SHTM 03-01 so I do not know if there were any conflicts between the priorities of different professions. In my experience in drafting other documents, I would say that there can be conflict or differences of opinion which occur through the process. These matters are usually resolved by consensus, expert opinion or evidence. All stakeholders agree the final document which is prepared for publication.

38)

a. The purpose of HTM03-01 is as stated in the document as noted above in paragraph 31.

b. It says in HTM03-01 that it was produced by the Department of Health and that the lead author is Malcolm Thomas.

c. I was not involved in drafting SHTM 03-01 and so I do not know if HTM 03-01 was used as the basis.

d. As I was not involved, I have no comment on this. I would suggest Eddie McLaughlin or someone else within HFS would be best place to speak to this.

e. The National Heating & Ventilation Advisory Group is a group of ventilation authorised and competent persons all from Scottish Health Boards, chaired by a member of SETAG.

f. The members of the National Heating & Ventilation Advisory Group are not named in the SHTM. I am not sure if they would be named anywhere.

g. I was not involved in the drafting of SHTM 03-01 and so I do not know what role the National Heating & Ventilation Advisory Group had in the creation of SHTM03-01. In general I would say, and not specific to SHTM 03-01, that the National Heating & Ventilation Advisory Group would bring an operational perspective into the guidance that perhaps was not available at the time that the HTM was created.

39)

a. SHTM 03-01 was intended to be used by those named in the document

b. SHTM 03-01 sets out how the guidance is intended to be used.

40) As is stated in SHTM 03-01 it was intended both to provide general guidance and also to provide comprehensive guidance for the design installation and operation of a ventilation system in a hospital. It contains a suite of general guidance which I would say is as comprehensive as it can be but it is not exhaustive because it would be impossible to cover every single scenario of healthcare buildings and their evolution to accommodate legislation or clinical needs.

With regards to the extracts from SHTM 03-01 quoted in Annex 1 on Page 12 and 13 in paragraph 40, I agree when it says that the SHTM is designed to be general guidance at Page 12. However, I also agree that in terms of new installations in para 1.35 that we would expect new installations to be to the best standard they can be. I accept there can be challenges with refurbishment works for the reasons I have suggested before such as cost and the size of the space, but by and large the position is that the guidance should be applied in full (rather than pick-and-choose which elements to follow).

In paragraph 7.4 of SHTM 03-01 it says that the guidance is not definitive and that is because the guidance cannot possibly be exhaustive and cannot possibly cover every situation. In paragraph 7.5 of SHTM 03-01 it provides principles to apply where no guidance is given and that could be for various reason. For instance, it might be because the room shape is different from that provided in the guidance. It might also be that the board sets up its operating theatre or other specialist rooms not as to the standard set out in the guidance for clinical or operational reason but as long as the principles are applied the Board should have a no less safe installation. One reason given in paragraph 7.60 of the SHTM as relates to operating theatres is to do with room sizes and that has to be read with 7.5 in mind as then they would just have to apply the principles. Nothing prevents designers or a Health Board deviating from the guidance but if they deviate (with the derogation agreed by stakeholders) then they should still follow the principles.

41) It is acceptable to deviate from guidance and the process is known as a derogation. This should be done in consultation with stakeholders and the solution should be technically no less safe than that described in the guidance. At the end of the day it comes down to professional judgement in determining what is no less safe. Sometimes derogation can be put in to try to reduce costs. For example, a certain specification of pipe work may be

chosen, but a lesser quality cheaper product may be put forward. It is a judgement call for the competent persons designing or installing the building services in consultation with all the stakeholders as to what is technically no less safe.

It would not be a decision made, by say just the designers, in isolation. It should be all the stakeholders involved which would include colleagues from Capital Planning, estates, ICPN, clinicians, nursing, designer, contractor and authorising engineers etc.

I have been involved myself in discussions over derogations. I was involved in the NHS Louisa Jordan and I reviewed the derogations list produced by the design team which we had to consider and discuss with stakeholders. In normal hospital projects HFS would not typically get involved unless specifically requested in that process of considering what is technically no less safe and instead it is left to stakeholders, but for NHS Louisa Jordan and the Covid labs we were involved in the derogation process. For these projects the derogations included (for example) amendments to the nurse call system as this was to be provided in specific areas and omission of vacuum plant in specific areas as this was not required clinically.

42) If it was intended that a ventilation system depart from what is stated in SHTM 03-01 then the departure should be documented and ideally all stakeholders (technical, clinical, not technical) should be consulted regarding their opinion on the departure as there may be an unintended conflict in the proposal with, for example, clinical or cleaning procedure. Regardless if the departure is accepted or not the decision making process should be documented and agreed by all stakeholders.

43) I am asked about the risks that might arise if the standards specified in SHTM 03-01 are not followed. There are many levels of risk if guidance is not followed. The risk to patients, staff or visitors could range from significant harm or death if, for example, the specialist ventilation system did not prevent a pathogen from entering a space. If guidance is not followed with respect to ventilation rates and solar migrations there is a real risk of the hospital overheating which would cause staff and patient discomfort. There may also be an impact on the resilience of the system in the event of a power outage to recover or remain operational. A risk assessment should be carried out for any deviation to guidance.

44) I am asked about the review/audit process that ought to be in place to check the compliance of a ventilation system with the guidance. The design, installation and maintenance of

healthcare facilities should be carried out by competent, trained, knowledgeable individuals. The Board has engineering specialists who can comment on the design, however, if the system is large and complex the Board may decide to employ a technical adviser or shadow design team to provide a layer of checking.

In particular, to quote from SHTM 00 paragraph 4.1, it states: *"Managers of healthcare, property and services need technical and professional support across a range of specialist services. This support should be embedded into the structure and responsibility framework of the organisation to ensure an adequate approach for each of the areas covered by the healthcare specific technical engineering guidance."*

Boards may also decide to ask HFS or their independent Authorising Engineer for advice on a particular matter.

NHS Scotland Assure by contrast does have its own process to review projects (in terms of infection, prevention and control and key engineering topics) to seek assurance from Boards that they have designs in place which meet guidance and an appropriate level of governance.

The following ambition was outlined in the 2019/20 Programme for Government[19]:

"To ensure patient safety we will create a new national body to strengthen infection prevention and control in the built environment.

"The body will have oversight for the design, construction and maintenance of major infrastructure developments within the NHS and also play a crucial policy and guidance role regarding incidents and outbreaks across health and social care."

In Director's letter DL(2021)14 dated 27 May 2021[20] the following was noted

"NHS Scotland Assure has been co-designed with users to deliver a co-ordinated approach to the improvement of risk management in new builds and refurbishment projects across NHS Scotland. The new service will underpin a transformation in our approach to minimising risk in our healthcare buildings and environments, protecting patients from the risk of infection and supporting better outcomes for patients in

[19] IS/16 - Protecting Scotland's Future: the Government's Programme for Scotland 2019-2020
[20] IS/17 – Chief Executive Letter DL(2021) 14: NHS Scotland Assure: Quality in the Healthcare Environment

Scotland."

45) The guidance in SHTM 03-01 is not mandatory. It may however become a contractual document to be complied with if it is incorporated into a contract. The genesis of the guidance is Department of Health. The status of the guidance is that it is just guidance and that is the same across all four nations. We have our SHTMs, England has HTMs, Wales has WHTMs and Northern Ireland just uses HTMs. Their status is all the same and it is not mandatory.

46) Healthcare guidance derives from legislation, good practice, industry expertise and consensus and research. It is used to assist compliance with health and safety legislation and codes of practice and should be applied by competent, knowledgeable individuals.

47) I am asked whether the guidance identifies all the sources which the drafting committee considered relevant to ventilation in hospitals. I was not part of the drafting committee but in my view the Reference section (from page 181 in SHTM 03-01) seems appropriate at time of drafting

48) The main sources of references in my view have been included in SHTM 03-01.

There are other additional references not included which I have listed below but they may not all be relevant to SHTM 03-01. There are other more current references that would not be in SHTM 03-01 as they were published after 2014.

Current additional documents (specifically for ventilation) include:

1. HSE: Ventilation and Air Conditioning During the Coronavirus (COVID-19) Pandemic[21]
2. HSE: Ventilation Coronavirus (COVID-19): Update[22]
3. SAGE EMG Role of Ventilation in Controlling SARS-CoV-2 Transmission[23]
4. SAGE EMG Potential Application of Air Cleaning Devices and Personal Decontamination to Manage Transmission of COVID-19 [24]

[21] IS/18 - HSE: Ventilation and Air Conditioning During the Coronavirus (COVID-19) Pandemic
[22] IS/19 - HSE: Ventilation Coronavirus (COVID-19): Update
[23] IS/20 - SAGE EMG Role of Ventilation in Controlling SARS-CoV-2 Transmission
[24] IS/21 - SAGE EMG Potential Application of Air Cleaning Devices and Personal Decontamination to Manage Transmission of COVID-19

5. SAGE EMG Simple Summary of Ventilation Actions to Mitigate the Risk of COVID-19[25]
6. CIBSE Air Cleaning Technologies[26]
7. CIBSE Relative Exposure Index Calculator[27]
8. Documents produced by IHEEM[28]
10. Documents produced by the Specialised Ventilation for Healthcare Society[29]
11. ASHRAE standard 170 Ventilation of Healthcare Facilities[30]
12. WHO Natural Ventilation for Healthcare Settings[31]
13. SAGE EMG Application of CO2 Monitoring as an Approach to Managing Ventilation to Mitigate SARS-CoV-2 Transmission[32]
14. CIBSE KS17: Indoor Air Quality and Ventilation[33]
14. BS 5925: Code of Practice for Ventilation Principles and Designing for Natural Ventilation[34]

When the SHTM 03-01 guidance is updated it will include references to all of the above from an engineering side.

49) I am asked about other sources relevant when designing, installing and operating hospital ventilation. In particular, I am asked about:

a. Activity Database A-Sheets

Activity Database A-sheets is a briefing and design system that has been developed to assist in the construction, briefing, design and alteration of healthcare environments and facilities. It is based on current health building guidance. It is a resource that is accessed online.

[25] IS/22 - SAGE EMG Simple Summary of Ventilation Actions to Mitigate the Risk of COVID-19
[26] IS/23 - CIBSE Air Cleaning Technologies
[27] IS/24 - CIBSE Relative Exposure Index Calculator
[28] IS/25 – For example, Use of Air Conditioning systems (Permanent & Temporary) & Desk Fans during COVID-19 Pandemic IHEEM Ventilation Platform 21/08/2020 and Ventilation Technical Platform (VTP) Briefing Note: Potential Increased Risk of Aspergillus Infection due to COVID-19 & the Associated Essential Precautions & Control Measures to Consider
[29] IS/26 - Documents produced by the Specialised Ventilation for Healthcare Society
[30] IS/27 - ASHRAE standard 170 Ventilation of Healthcare Facilities
[31] IS/28 - WHO Natural Ventilation for Healthcare Settings
[32] IS/29 - SAGE EMG Application of CO2 Monitoring as an Approach to Managing Ventilation to Mitigate SARS-CoV-2 Transmission
[33] IS/30 - CIBSE KS17: Indoor Air Quality and Ventilation
[34] IS/31 - BS 5925: Code of Practice for Ventilation Principles and Designing for Natural Ventilation

Susan Grant, Principal Architect within HFS, would be the person best placed to answer questions on this.

I know that we are in the process of revising a piece currently on model rooms so that a single bed room, for example, is the same across the Health Boards and I think this is going to be updated in the A sheets.

i. I do not personally think A Sheets are relevant to this Inquiry but Susan Grant is best placed to provide further details.

ii. With reference to the paragraphs set out in Annex 1 page I would defer to Susan Grant as she is best placed to answer.

b. With regards to the documents listed in Annex 1 on Page 14 paragraph 49 (b) I would defer to Susan Grant.

None of the above are engineering documents. They are more architectural building documents which is more Susan Grant's or others within HFS' area of expertise.

50) In terms of how the above other sources (non-engineering) interact with SHTM 03-01, and with each other, I would say again that it is worth speaking with Susan Grant as she is best placed to answer.

From my perspective, if there are any conflicts between documents (which can happen if one document has been revised and another is still in the maintenance cycle), then this would be resolved by discussion at Board level with stakeholders and a risk based solution defined. No one source has greater authority than the other.

Part A of SHTM 03- 01, Table A1.

51) The purpose of Table A1 is to provide designers with a set of parameters to design the ventilation infrastructure for a healthcare building. It is as set out in paragraph 1.2 on page 10.

52) a) I am asked whether it is significant that Appendix 1 is headed up "Recommended air-

change rates", without reference to the other parameters which Table A1 contains. I do not think that is significant. Air changes are not more important than the other parameters.

Air change rates are required in buildings to control internal temperatures and to introduce clean, "fresh" air, remove stale or humid air and dilute contaminants. The requirements will vary depending on a number of factors including: the type of space, the level of occupation and usage and the geographical location. The guidance documents are meant for competent, trained, knowledgeable professionals who understand ventilation design. The main criteria for healthcare building design include health and comfort. The comfort aspect will include thermal and acoustic aspects as well as visual. There is also a requirement not stated in Table A1 to make the installation as energy efficient as possible (not withstanding Scottish Governments energy targets and the requirements of the Scottish Technical Handbook – Non Domestic).

53) The parameters in Table A that are concerned with patient safety and care depends on the patient cohort. Those who are in isolation rooms, theatres or an intensive care unit require higher air change rates to dilute any contaminants, but also pressure regimes which control the potential risk to or from the patient. The filtration applied to a particular area will also provide improved air quality compared to a standard ward.

Ac/hr or ACH is air change rate per hour and you would expect that number to be higher for more immunocompromised patients.

Pressure can be positive, negative or neutral. You would expect higher pressure to be in rooms where patients are more immunocompromised. A negative pressure rating will extract air from the room, In a positive air pressure isolation room for example, the air pressure is higher than that in the adjoining areas. Therefore, positive pressure isolation prevents airborne pathogens from entering the room to avoid the air becoming contaminated. These rooms are traditionally used for patients with immuno-compromised conditions.

The air pressure in a negative air pressure isolation room is lower than the air pressure outside the room. The negative air pressure prevents pathogens from flowing to adjoining areas when the door to the room is opened. This solution is used when caring for patients with highly infectious diseases. This system should also allow

uncontaminated air to flow into the isolation room when the door is opened as air flows from a high to a low-pressure space. Exhaust mechanisms and systems extract the air from the isolation room to above roof level.

The supply filter is a membrane and the supply systems draws air in through. The supply filters are of varying degrees that minimise participles getting in. Type G is a coarse filter. F7 is a better type of filter for critical areas and then for the sickest of patients you would utilise HEPA filters.

The noise level that the patient may be exposed to can have an impact on patient comfort and recovery. Studies suggest that in a noisy environment it takes a patient longer to recover. Therefore the ventilation system has to be designed with these noise parameters in mind.

54) a) These particular parameters (both the parameters themselves, and the particular values) were selected based on expert opinion, science and evidence. For example, when Scottish Health Planning Note ("SHPN") 4 Supplement 1[35] was being prepared physical tests were carried out in an isolation room simulation by Building Services Research and Information Association ("BSRIA") under the direction of the Department of Health. There has been a significant amount of research into ventilation over the last few years[36] particularly in relation to the pandemic

55) The extent to which these parameters can be departed from, without adversely impacting on patient safety and care depends on the patient cohort and their individual care needs. I do not think I can give a number of what that looks like as it depends on too many factors. The decision to change or depart from the parameters would have to be risk assessed by all stakeholders.

56) I cannot comment on whether it was expected/understood that departures from the specified parameters might result from the design process as I was not part of the design of the builds.

[35] IS/32 - Scottish Health Planning Note ("SHPN") 4 Supplement 1
[36] IS/33 – for example, Blanca Beato Arribas Catherine J Noakes P. Andrew Sleigh, Testing of a Downflow Ventilation System for High Risk Infectious Disease Isolation Rooms BSRIA,

57) I am asked about the contents of SHTM 03-01 Table A:

a. The different entries in the "Applications" column generally cover most of the rooms found in a hospital but it is not intended as an exhaustive list. There are other documents for example, SHPN 4 Supplement 1[37] which deals with isolation facilities and ventilation requirements thereof. There is also some general information provided in CIBSE Guide B[38] documents on healthcare. Guide B provides guidance on the practical design of heating, ventilation and air conditioning systems and is divided into six sections How the entries in the Applications column were selected I would suggest is best answered by the people who created the document.

b. I would suggest that different air change rates may have been chosen for different applications as there is a requirement for different dilution factors depending on the application. The amount of equipment required to ventilate an isolation room is significant and not every patient requires this level of protection.

c. Different pressures may have been chosen for different applications because the pressure regime is tailored for patient staff safety and the requirements of the particular individual.

d. The significance of the different filter types is that it reduces the air borne contaminant depending on patient cohort. HEPA filters which are used for the most vulnerable patients comes at a cost and are not required to be used for everyone. HEPA filters also create a larger pressure differential so the size of equipment needed to deal with the increased system pressures is also increased.

e. The significance of the different types of ventilation is that they are potential solutions for designers to use to achieve the desired conditions dependent on the patient cohort.

"S" stands for supply which means when you bring fresh air into a space. That

[37] IS/32
[38] IS/34 - CIBSE Guide B2 Ventilation and Ductwork (2016)

is achieved by a grill in a ceiling. This may be a square or circular ceiling mounted diffuser which is used to bring air into a space whilst others will extract the air out of a space. It may be depending on the patient cohort you have supply ducts providing air into a room or you might need a room for vulnerable patients that takes the air out.

"E" stands for extract. The designer may want negative extract in infectious rooms as that is the air being removed.

"N" stands for natural. This can be a bit more variable due to external prevailing conditions so for a general ward you may have a natural ventilation solution. That solution is not just opening windows, but instead a window and a hopper beside it so patients and staff can control louvers grills to get fresh air into space. By opening a window you get 1 or 2 air changes an hour but with the properly designed hopper it is greater.

58) a) In Table A1, a general ward means a standard clinical ward. That may be 1 or 4 or 6 bed. I would suggest that probably Susan Grant could give better definitions as this is more her area.

i. The number of beds present in a "general ward" would not have any impact on ventilation requirements in that the requirements themselves would not change.

b) Susan Grant is best placed to define a Neutropenic patient ward;

c) Susan Grant is best place to define Critical care areas,

59. SHTM sets out the requirements in terms of ventilation in A1 and the reasons are the same as I have stated before to protect the particular patient cohort.

60. The guidance applies the same way regardless of the particular room. The guidance should be followed unless there is a good clinical or technical reason that it cannot be.

61. In the event of ambiguity/uncertainty over the guidance arising in the design of parts of a hospital, the Board should discuss the areas of uncertainty/ambiguity with their technical and clinical colleagues.

NSS Scotland Assure does now have a specific remit in terms of its involvement when

there are derogations or uncertainties. It seeks evidence that the Boards have employed the correct governance and stakeholder engagement as part of the KSAR process.

62. a) Table A2 "Hierarchy of cleanliness" is relevant to the Inquiry's Terms of Reference as it discusses air flow from highly clean areas to clean areas. There is a pressure cascade that works in tandem with that. If we take a theatre, for instance, you can see that it goes from preparation to theatre space to outer rooms. The flow path is there to reduce the risk of Hospital Acquired Infections ("HAIs").

    b) The highly clean areas are the areas with the highest pressure. That relates to the required air change rates as the higher the air flow rate, the quicker the dilution of any contaminants. This in turn means the cleaner the room. The flow in and flow air is air into room and air out of room.

63. I do not know if the standard room layouts in Appendix 3 are relevant to the Inquiry's Terms of Reference. We – HFS - were not party to the designs.

    There are a lot of different potential layouts for theatres. It really depends on the operations they are doing or going to be doing and how the clinicians do their preparation. The room layouts are based in SHBN requirements. That is what these standard layouts reflect. It gives an indication of air change rates and pressure regimes in all the different rooms.

    LLE stands for low level extract. That refers to a duct in wall with a grill at low level and air supply comes in through a theatre canopy. The canopy provides a curtain of air blowing across to stop pathogens coming into space and the contaminants are taken away through the LLE.

    There are also pressure stabilisers on the doors which are differentials and they really just are there to control the flow once doors open.

    Not all rooms need to look like that sketch. If they go for standard layout then that is a solution and a way to ensure the guidance is followed but there is not just one way to skin a cat and it depends on what the Board layout is, the space available, the individual requirements and other factors.

Updates to the guidance

64. SHTM 03-01 was not revised or updated during the course of the hospital project. HFS issued an interim piece of guidance in January 2022[39] and the intention is to update this again this year

65. The interim piece of guidance issued in January 2022[40] defines additional areas and reflects lessons learnt from projects at Greater Glasgow Health Board and Lothian Health Board.

66. There are a number of updated references to the various sources on which the guidance is based. There are references published since SHTM 03-01 was published and I have set these out in paragraph 48. There is a larger body of evidence now and there is ongoing more work being done in relevant areas. The original guidance is now 10 years old, the technology has changed substantially, there have been updates to current standards as well as considering how we approach net zero hospital. The updates provide the same level at least of patient care and safety

Miscellaneous

67. In my experience the ventilation requirements do not differ for children and young people in general.

    In general terms I would say it does not differ, however, there may be specific circumstances for a neonate in an incubator which would have its own specific ventilation requirements as part of that unit. Having said that though, the PICU unit for example is the same as the Neonatal Intensive Care Unit ("NICU") in Edinburgh. Ultimately I would say it depends on patient cohort, as particularly immune compromised patients may have particular requirements.

68. In terms of all the documents other than the references and updates above which I will supply, I think the Inquiry Team has all the relevant documents. I do not think there is anything else at the moment but will reflect on this.

    I was thinking more specifics for Edinburgh because there the air handling units had to be

[39] IS/35 -SHTM 03-01 Ventilation for Healthcare Premises Part A v3 Feb 2022
[40] IS/35

cleaned, reconfigured and fire/smoke dampers installed.

SHTM03-01 Versions

The questions below provide responses to the questions on Page 1-4 of Annex 1 - Request to Prepare A Draft Witness Statement Number 1 Addressed To Ian Storrar. The numbering follows the numbering above but the cross reference with Annex 1 can be found in the footnote.

69. I can supply version 1 part B of SHTM 03-01[41] to the Scottish Hospitals Inquiry Team[42].

70. NSS does not have earlier versions of SHTM 00[43].

Health Facilities Scotland

71. I agree with the statement set out on Annex 1 Page 2 Paragraph 1 subheading "Health Facilities Scotland"

72. I agree with the statement set out in Annex 1 Page 2 Paragraph 2 subheading "Health Facilities Scotland."

73. I agree that with the statement set out in Annex 1 Page 2 Paragraph 3 subheading "Health Facilities Scotland."

74. I agree with the statement set out in Annex 1 Page 2 Paragraph 4 subheading "Health Facilities Scotland."

75. I agree with the statement set out in Annex 1 Page 2 Paragraph 5 subheading "Health Facilities Scotland."

76. I agree with the statement set out in Annex 1 Page 2 Paragraph 6 subheading "Health Facilities Scotland."

[41] IS/36 - SHTM 03-01 v1 Part B October 2011
[42] Annex 1 Page 1 Paragraph 1
[43] Annex 1 Page 1 Paragraph 2

77. I agree with the statement set out in Annex 1 Pages 2 and 3 Paragraph 7 subheading "Health Facilities Scotland."

78. I agree with the statement set out in Annex 1 Page 3 Paragraph 8 subheading "Health Facilities Scotland."

79. I agree with the statement set out in Annex 1 Page 3 Paragraph 9 subheading "Health Facilities Scotland."

80. I agree with the statement set out in Annex 1 Pages 3 and 4 Paragraph 10 subheading "Health Facilities Scotland."

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

Written Statement

Jacqueline Sansbury

Introduction

1. My name is Jacqueline Sansbury. I retired from NHS Lothian in 2019. I was involved in the project to plan, design, and construct the Royal Hospital for Children and Young People ("RHCYP") and the Department of Clinical Neuroscience ("DCN") ("the Project"). Initially, I was Project Sponsor as I was Director of Strategic Planning. I later moved into the team as Head of Commissioning. I have been asked to provide a written statement to the Scottish Hospitals Inquiry ("SHI") in relation to my involvement in the Project, and in particular decisions to design the RHCYP and DCN to include multi-bed rooms. I have been provided with a list of questions from the SHI and a bundle of documents. This statement seeks to answer the list of questions to the best of my recollection. Some of the events I've been asked about occurred fifteen or so years ago and, given the passage of time, I cannot recall all of the events and documents.

Background

2. I was employed by NHS Lothian as a registered nurse from 1979 – 1994; a Business Manager from 1994 – 1999; Service Development Manager from 1999 – 2001; Assistant Director of Planning from 2001 – 2003; and Director of Regional Planning for South East of Scotland and Tayside ("SEAT") Planning Group 2005 – 2008; Director of Strategic Planning from 2004 – 2010; Chief Operating Officer for the United Hospitals Division from July 2010 – July 2012; and Head of Commissioning

for the Project from 2013 onwards and stayed in that role until my retirement. I was also an Executive Director (2004 – 2008) and a member of NHS Lothian Health Board (2004 – 2012) and contributed to the corporate management and governance of NHS Lothian in those roles. As Head of Commissioning my role was to get the hospital equipped and ready, to support the staff in the old hospital getting them ready to move, to carry out the move and then to evaluate the move at the end. However, with the delays, I had retired before the services were due to move in.

The Project

3. I was involved in the Project from the outset in around 2006 in my role as Director of Strategic Planning. As the Director of Strategic Planning my portfolio included the Strategic Business Case for the new children's hospital. The need for a new children's hospital is outlined in the Initial Agreement (Bundle 3; Volume 1; Document number 3; Page 95) and also in the Outline Business Case ("OBC") (Bundle 3; Volume 1; Document number 12; Page 272). It includes factors such as the inadequacy and unsuitability of the hospital for the future, the need to provide facilities for older children given the policy to increase the age of children being cared for in children's hospitals, increasing activity levels and the need for additional modern diagnostics such as scanners.

4. In Scotland, health boards are required to follow the Scottish Capital Investment Manual (SCIM) (Bundle 3; Volume 2; Document number 33; Page 120) which includes a number of steps to follow in order to gain approval of a new project. The first step was the preparation of the Initial Agreement in 2006 (Bundle 3; Volume 1; Document number 3; Page 95), which had to be approved by the Scottish Government. The Initial Agreement is a high-level document outlining the case for change and seeking permission from the Scottish Government to move to the Business Case process. I was involved in writing the Initial Agreement. I cannot recall if I wrote it all myself or alongside someone else. The Initial Agreement would go firstly to the Executive Management Team and then to the Finance and Performance Review Committee of NHS Lothian. It would then go to the NHS Lothian Board for approval prior to

submission to the Scottish Government. Once the Scottish Government have reviewed and approved the Initial Agreement the outline business case process can commence.

5. After the Scottish Government approval of the Initial Agreement in 2006, the next step was to prepare the OBC (Bundle 3; Volume 1; Document number 12; Page 272) for their approval. The schedule of accommodation for the new hospital was one of many documents also prepared at this time following workshops with the clinical and non-clinical teams including parents. The clinical teams included people such as doctors and nurses whereas non-clinical teams are staff who have an important role in the hospital but are not clinically qualified e.g. domestic staff and porters. These groups agreed on the proposed model of care in the new hospital based on the needs of the patients and the strategic direction of services as outlined in National and Lothian strategies. At the time these strategy documents were what drove the direction of services. For example, shifting the balance of care as much as possible and increasing the age range. They are all outlined in the business case. The model of care is outlined in the OBC under appendix 6.2 'Report of proposed Redesign of Patient Pathways' (Bundle 3; Volume 1; Document number 12; Page 410)

6. I was the Project Sponsor for the Project and under SCIM guidance (Bundle 3; Volume 2; Document number 33; Page 120) this role is defined as the Senior Responsible Officer role. The two terms are used interchangeably. The Senior Responsible Officer is a senior person within the organisation with the status and authority to provide the necessary leadership and clear accountability for the project's success. They will have ultimate responsibility at Board / Executive level for delivery of the project's benefits and the appropriate allocation of resources to ensure its success.

7. As Project Sponsor I did not sit in the groups detailed at paragraph 5 above but took the output from them into the project and through NHS Lothian Committees e.g. Executive Management Team, Service Redesign, Finance and Performance Review. These are all committees that would review a business case in advance of it being presented to the NHS Board. The Finance and Performance Review Committee reviews the financial aspects and considers affordability. The Executive Management Team reviews the context, why is it needed and ensures the correct research has been done to ensure a robust business case.

8. The calculations for the bed numbers were based on modelling work from two external companies, Tribal and Capita. Doing so allowed us to bench mark our services against other children's hospitals across the country. Children's services are difficult to benchmark locally because there are very few children's hospitals in Scotland and none have the same specialities. These calculations were then subject to challenge by the clinical and management teams in Lothian and the regional planning group SEAT (South East and Tayside Planning Group). SEAT had a direct interest in the development of this new hospital as patients from their geographical board areas utilised the services of the Children's hospital. Regional Planning was the mechanism for health boards to collaborate where services were delivered across a number of health board areas. I was the Director of Planning for SEAT from 2005-2008, where my role was to support planning for the services that delivered for more than one health board. This included regional services such as cancer services and children's services. The other members who sat on SEAT were the Chief Executives and Directors of Planning from each health board. I also think there was a Medical Director, a Nurse Director and a Finance Director each from one of the participating health boards. SEAT remained involved throughout the Project because, as users, they sent patients to the service and would have to review and approve our business case to allow it to proceed.

The 2008 Outline Business Case for RHCYP

9. One of the issues considered from the outset was the most appropriate room configuration for the RHCYP, i.e. 100% single rooms or a mixture of single rooms and multi-bedded bays. The issue of moving to 100% single rooms in new hospital builds was being considered by the Scottish Government and also in other parts of the UK at the time so I was aware of it.

10. There were various clinical reasons why NHS Lothian considered that certain groups of patients should not be cared for in single bedrooms in the new hospital. NHS Lothian's findings were that the best room configuration to meet the patient needs was for RHCYP to have at least 50% single bedrooms. The decisions about the proportion of single rooms in the RHCYP were taken as a result of the consultation with the clinicians, families and nursing groups (see Appendix 6.3 of the OBC) (Bundle 3;

Volume 1; Document number 12; Page 426). The consultation with the public, clinical and nursing groups considered the clinical risks for patients arising from the proportion of single bedrooms and multi-bed bays in the RHCYP. This issue was also discussed with Morgan Jamieson and Mhari Macleod, who were members of the project team in Glasgow, as they were also building a new hospital and were considering the same issue so we liaised on this and a number of issues. There was a collaborative approach in considering whether or not to have 100% single rooms.

11. I am aware there was Interim Guidance for NHS Scotland on the Provision of Single Room Accommodation dated 15 December 2006 (Bundle 3; Volume 1; Document number 5; Page 152), and have reviewed it for this statement. I note that it was the Guidance in place at the time NHS Lothian submitted the OBC (Bundle 3; Volume 1; Document number 12; Page 272) for approval in July 2008. The Interim Guidance (Bundle 3; Volume 1; Document number 5; Page 152) allowed for beds to be provided in an arrangement of 50%, 75% or 100% single occupancy rooms.

12. On 13 February 2008 there was a Finance and Performance Review Committee meeting, at which I advised the Committee about the proposed changes re single rooms accommodation. It is minuted as follows on page 245 of the Finance and Performance Review Committee Minutes (Bundle 3; Volume 1; Document number 7; Page 244):

> 70.4.5 Mrs Sansbury advised proposed changes in regulations requiring the provision of single room accommodation was a challenge and significantly affected the accommodation foot print and cost. It was important to note that there were clinical challenge in some areas about not providing single room accommodation and some latitude might be allowed through a case made to the Scottish Government in respect of the Royal Hospital for Sick Children, although not to adult wards within the rest of the acute sector.

13. This minute indicates my thinking at the time that we would need to make a case to the Scottish Government to derogate from the proposed changes to single room accommodation.

14. On 28 April 2008 there was a SEAT meeting of the Joint Directors of Planning and Directors of Finance to discuss the RHSC OBC. I tabled the OBC and highlighted the

main areas for SEAT to note. In relation to single rooms, it is minuted that: (Bundle 3; Volume 1; Document number 8; Page 246)

i. "Despite pressure from the SGHD to plan for 100% single room provision, the OBC has been drafted to include approximately 56 [*sic*] single rooms following patient, parent and public consultation. The design will include the ability to flex space in order to maximize most efficient use."

15. I can't recall if any attendee at the SEAT meeting raised concerns about the move away from 100% single bed rooms. However, as members of their staff had been involved in the process throughout and they and their teams had approved the redesign report which was clear about the need for it would have been unlikely.

16. In light of the ongoing consideration of the single room issue at the time, I confirm that I had both written and verbal discussions with Harry Burns, the then Chief Medical Office (CMO), explaining the NHS Lothian position and the rationale as set out in Appendix 6.3 of the OBC (Bundle 3; Volume 1; Document number 12; Page 426) for seeking a derogation from 100% single rooms. I understand that NHS Lothian has conducted various searches but been unable to locate an email or letter from me to Harry Burns the Chief Medical Officer for Scotland (CMO), or a response from him approving the proposal for at least 50% single room accommodation, but I can confirm that I obtained CMO approval. I do not recall the exact date that I wrote to Harry Burns or when he responded, but I think it would have been before we submitted the OBC (Bundle 3; Volume 1; Document number 12; Page 272) because, had I not received the approval on behalf of NHS Lothian, the OBC (Bundle 3; Volume 1; Document number 12; Page 272) would have been rejected. It was my responsibility as Project Sponsor to obtain approval from the CMO. The approval was in writing although I cannot remember if this was in the form of email or formal letter.

17. The OBC was submitted by NHS Lothian in July 2008 and approved by the Scottish Government in August 2008. Paragraphs 6.5.1 – 6.5.3 of the OBC (Bundle 3; Volume 1; Document number 12; Page 311-312) discuss the question of single rooms as follows, however, they do not evidence the approval by the CMO:

6.5 Room Configurations

6.5.1 The question of single rooms or multiple bed bays has been specifically explored as part of the consultation for the initial plans for the new C&YP's Hospitals in Edinburgh and Glasgow. The main findings of both projects are that children, young people and their families want a mixture of single and four bedded bays. These findings were forwarded to the author of an early draft report on single room provision in Scotland produced by the Scottish Government Nurse Directors Group.

6.5.2 A report summarising the outcome of the Edinburgh project consultation is attached as appendix 6.3. The key points identified are:

- Children, young people and their families have stated a desire for a mixture of single and four bedded bays
- Children as part of their development require social interaction and for those unable to mobilise and confined to bed, particularly for long periods, benefit from being cared for with other children
- Nurse: patient ratio's would require to be higher with 100% single rooms due to the dependence of babies and young children for all of their care

6.5.3 This additional information has been taken account of in the recently circulated draft 5 of the report identified in point 6.5.1. The consensus of this more recent report is that 100% single rooms should be the starting point with a risk assessment undertaken to identify why this should not be the case in some specialities. Based on an initial assessment, feedback from clinical staff and from children, young people and their families, a working assumption of at least 50% single rooms is planned for the new C&YP's hospital.

18. For the reasons given at 6.5.1 – 6.5.3 (Bundle 3; Volume 1; Document number 12; Page 311-312) and Appendix 6.3 of the July 2008 OBC (Bundle 3; Volume 1; Document number 12; Page 426), it was planned (and approved) for the RHCYP to have at least 50% single rooms.

19. In November 2008, the Scottish Government's Chief Nursing Officer issued a letter containing updated Guidance on the provision of single room accommodation in November 2008 ("CEL 48") (Bundle 4; Document number 1; Page 5), which I have reviewed for this statement. CEL 48 stated that for all new-build hospitals there should be a presumption that all patients will be accommodated in single rooms, unless there are clinical reasons for multi-bedded rooms to be available.

20. CEL 48 (Bundle 4; Document number 1; Page 5) also stated that NHS Boards should implement the new guidance in all schemes that have not yet submitted Outline Business Cases. The OBC at paragraphs 6.5.1 – 6.5.3 (Bundle 3; Volume 1; Document

number 12; Page 311-312) and Appendix 6.3 (Bundle 3; Volume 1; Document number 12; Page 426) set out the clinical reasons for the multi-bedded rooms and the OBC had already been submitted (and approved) by the time CEL 48 (Bundle 4; Document number 1; Page 5) was issued. As already noted, I can confirm that I both spoke to and wrote to the CMO, Harry Burns, and obtained his approval for the room configuration of at least 50% single bedrooms.

21. On 26 November 2008 there was a meeting of the NHS Lothian Board. There was a discussion about single room accommodation raised in the context of the Royal Victoria Hospital, and I go on to reference "Representations" which had been made in respect of the RHSC. It is noted in the Board Minutes (Bundle 3; Volume 1; Document number 16; Page 580) as follows:

> 89.7 Mrs Douglas commented that at a recent visit to the Royal Victoria Hospital, discussions had suggested not everyone wanted single room accommodation as required by the Scottish Government. The Chair advised he recalled the discussion and a major issue had been about supervision levels.
>
> 89.8 Mrs Sansbury commented that a lot of work had been done by the Scottish Government looking at the benefits of single room accommodation with work having been commissioned within specialties to gauge the therapeutic benefits. She reminded the Board that national guidance had now been issued and would need to be complied with, albeit exceptions could be made if a strong enough case could be presented. Representations had been made in respect of the Royal Hospital for Sick Children. The challenge for the Royal Victoria Hospital team would be to manage work space and architectural design as well as using technology links like fall monitors to ensure the single room model worked effectively. Mrs Sansbury advised that evidence suggested most people preferred single rooms.

22. I believe that when I say "Representations" had been made in respect of the RHSC, that refers to my approach to and the approval from the CMO regarding the derogation to the national guidance.

23. I have been asked about The Single Room Steering Group formed in 2006. As far as I'm aware, this was a Scottish Government group so I do not have the knowledge to say why the Single Room Steering Group was formed, what role (if any) it had in the CEL 48 (Bundle 4; Document number 1; Page 5) and what the key reasons were for the introduction of CEL 48. I do not know whether the introduction of CEL 48 lead to a review and update of all relevant technical guidance by the Scottish Government.

24. I have also been referred to the Delphi Consultation Exercise. I do not have any recollection of the Delphi Consultation. Again, as far as I'm aware, this was a Scottish Government initiative so I do not have the knowledge to comment on it.

25. I have also been referred to a letter issued by the Scottish Government's Health Finance Directorate in July 2010 (CEL 27) (Bundle 4; Document number 10; Page 144) confirming the policy that the presumption is that there should be 100% single rooms in future hospital developments (CEL 27), unless there were clinical reasons for different arrangements, which should be clearly identified in the appropriate Business Case and agreed as part of the Business Case approval process. NHS Lothian remained of the view that 100% single rooms was inappropriate for children's services and we had already obtained a derogation and the OBC was approved, so there was no need to revert to 100% single rooms.

The 2012 Outline Business Case for RHCYP + DCN

26. In November 2010 the Scottish Government announced a change to the funding of the Project from capital funding to an NPD model. NHS Lothian had no knowledge of this change in funding until the day it was announced as part of the budget.

27. NHS Lothian had already agreed that the Department of Clinical Neurosciences (DCN) should move to the Little France site. Prior to the announcement re the change in funding, the Initial Agreement for the DCN had been approved by Scottish Government in 2008 and NHS Lothian were invited by Scottish Government to develop the OBC. NHS Lothian had an OBC for the DCN re-provision ready for submission towards the end of 2009 but was asked not to submit the business case to Scottish Government on the basis that no capital was available.

28. In 2012, an addendum was proposed to the existing July 2008 OBC for RHCYP to incorporate DCN (Bundle 3; Volume 2; Document number 61; Page 672). The substance of the 2012 OBC in relation to the RHCYP remained substantively the same as in the approved July 2008 OBC (Bundle 3; Volume 1; Document number 12; Page 272). On 18 September 2012 there is a letter from Derek Feeley at the Scottish

Government to NHS Lothian's Chief Executive at the time, Mr Tim Davison, approving the OBC (Bundle 3; Volume 2; Document number 70; Page 944).

Single rooms - DCN

29. In the 2012 OBC (Bundle 3; Volume 2; Document number 61; Page 679), it is stated at paragraph 1.26: *"All new inpatient accommodation in DCN will be provided in single rooms with en suite facilities, in accordance with Scottish Government policy."* There is then a footnote which contains reference to Scottish Government; CEL 48 (2008) (Bundle 4; Document number 1; Page 5) and CEL 27 (2010) (Bundle 4; Document number 10; Page 144) on Provision of Single Room Accommodation and Bed Spacing.

30. However, further to submission of the OBC in January 2012 (Bundle 3; Volume 2; Document number 61; Page 672), due to pressure from clinicians, NHS Lothian subsequently sought a derogation to the single bed provision.

31. On 15 July 2013 at 13:32, I emailed Mike Baxter with a short paper outlining the justification for requesting a derogation to the existing single bed guidance (Bundle 4; Document Number 18; Page 187). This derogation related to DCN only, which is a purely adult hospital. I state in my email that: *"The clinicians wish to have 2 four beds wards in this are [sic] to allow for greater observations of agitated patients. This document gives details of the case mix and required observations. As you know this change was supported by David Farquharson [Medical Director] and Melanie Hornett [Nurse Director]. It would be very helpful to have Harry's position on this as soon as this is an alteration to the reference design and has to be communicated to Bidders."* [explanatory text added]

32. The short paper I am referring to in my email is titled: "Rationale for request for 2 x 4 bed wards and 16 isolation/single bedrooms and en-suites within the DCN Acute Ward" and gives details of the case mix and required observations (Bundle 4; Document number 17; Page 182).

33. I did not hear from Mike Baxter on 15 July 2013 so I emailed Harry Burns directly attaching the same paper, and state: "*I also spoke again today to Prof Siddarthan*

Chandran who leads the redesign group in DCN along with James Steers. He (and James) strongly supports this and he wanted me to stress how much clinical buy in there is to this change. He feels he has the full support of the consultant and Nursing staff." (Bundle 4; Document number 21; Page 195)

34. On 16 July 2013 at 09:12, Harry Burns responded to say *"I've already been in touch with Mike Baxter to let him know of my support for the clinical arguments."* (Bundle 4; Document number 21; Page 195)

35. On 16 July 2013 at 09:13, Mike Baxter responded to my initial email to say that he had consulted the Chief Medical Officer (Harry Burns) and that "*He has confirmed that he is satisfied with the rationale underpinning the derogation request. The request is therefor approved."* (Bundle 4; Document number 19; Page 189)

Single rooms - RHCYP

36. It is clear from the OBC itself and some surrounding documents I've been shown (discussed below) that the position in relation to single bedrooms in RHCYP was reviewed by NHS Lothian as part of the submission of the 2012 OBC (Bundle 3; Volume 2; Document number 61; Page 672).

37. In 2011 Scottish Futures Trust ("SFT"), who had a role supporting NHS Boards with procurement projects including the RHCYP and DCN re-provision, undertook a review of the project. I have been shown an Action Plan dated 29 November 2011 relating to the SFT Independent Design Review (Bundle 4; Document 15; Page 171). Point 5 of the Action Plan refers to a short paper explaining the rationale for the proportion of single rooms.

38. I have been shown the paper re the "*Rationale for the Proportion of Single Rooms in RHCYP*", which is the paper referred to in the action plan (Bundle 4; Document number 16; Page 180). The Rationale paper would have been drafted by Janice Mackenzie, the Clinical Director, with the content mainly taken from Appendix 6.3 in the OBC dated 2008 (Bundle 3; Volume 1; Document number 12; Page 426). This indicates that she,

as the clinical lead on the project at the time, carried out a review of the single bed provision in RHCYP in around 2011/2012.

39. Appendix 6 of the 2012 OBC (Bundle 3; Volume 2; Document number 61; Page 761) is the Future Service Model for Children and Young People. It sets out the principles of redesign and the findings of the consultation of NHS Lothian with patients, families and the public. It is noted that one of the outcomes of the service redesign was identifying the following key principle: *"At least 50% of beds will be in single rooms.*" There is then reference to the NHSL Single Room Accommodation Report for Children and Young People's Services – 2007 (which was Appendix 6.3 of the July 2008 OBC) (Bundle 3; Volume 1; Document number 12; Page 426) and it is stated that: "*This paper has been reviewed by the clinical teams in 2011 and the recommendations remain unchanged*."

40. The position is also narrated in the body of the 2012 OBC at paragraphs 1.27 and 1.28 (Bundle 3; Volume 2; Document number 61; Page 679):

    a. 1.27 The previous OBC for RHSC was approved in 2008 with a mixture of single and shared accommodation for children following consultation with children and families, to meet the specific needs of this age group. 58% of inpatient beds, including all adolescent, mental health and oncology beds, will be in single rooms with en-suite toilet and shower facilities, and designed for a parent to stay with their child.

    b. 1.28 The national review of single room accommodation provision included a submission from NHSL on the views of clinical staff, patients and families on accommodation for children and young people's services. The NHSL review was quoted by the Scottish Government Steering Group in their 2008 report [Scottish Government (2008); *Single Room Provision Steering Group Report*].

41. Paragraph 2.8.2 of the RHCYP + DCN FBC (Bundle 3; Volume 3; Document number 76; Page 748) states that *"the model of care that was signed off at OBC has been reviewed and confirmed as valid."* It is then noted that in relation to further planning assumptions for children and young people's services include: "59% of inpatient beds, including all adolescent, mental health and oncology beds, will be in single rooms with en-suite". There is a footnote to this provision which states it is "*Approved by the Chief*

Medical Officer (2008)." This footnote is likely to be a reference to the approval I obtained from the CMO, Harry Burns, in 2008, but I cannot say for certain.

SHTM 03-31

42. I have been asked about the ventilation guidance, SHTM 03-01, Table A1 (and its predecessor SHTM 2025) The clinicians and families would not have given consideration to the ventilation guidance when making the case to derogate from single rooms either in RHCYP or DCN. That was the role of the technical advisors. I cannot recall what was said to potential bidders about how ventilation guidance should be applied to multi-bed rooms as this was part of the technical documentation. I was not personally involved in the preparation of this documentation.

STATEMENT OF TRUTH [to be signed by witness once statement is finalised]

I, Jaqueline Sansbury, confirm that:

(i) The contents of this statement is the truth to the best of my knowledge and recollection;

(ii) I am willing for this statement to form part of the evidence before the Scottish Hospitals Inquiry.

(iii) I am willing for this statement to be published on the Scottish Hospitals Inquiry website.

Signature: Jacqueline Sansbury

Date: 25th April 2022

SCOTTISH HOSPITALS INQUIRY

Witness Statement of
Michael Baxter ("Mike Baxter")

20 April 2022

Professional background

1. I am Mike Baxter, aged 55 years. My address for the purposes of this inquiry is c/o Harper Macleod LLP, 65 Haymarket Terrace, Edinburgh, EH12 5HD. I have been a qualified accountant since 1992, having qualified through the Chartered Institute of Public Finance and Accountancy (CIPFA). I also hold a BA (Hons) degree in business studies.

2. I am currently Director of Finance and Corporate Services at the Scottish Qualifications Authority (SQA). I previously held the role of Scottish Government Deputy Director (Capital Planning and Asset Management) within the Health and Social Care Directorates, having been appointed to that role on 16 February 2009, following the retirement of my predecessor in that role, David Hastie. I held the role of Deputy Director until end of December 2014, when I left to take up the role of Director of Finance (and subsequently Finance and Corporate Services) at Transport Scotland, an Executive Agency of the Scottish Government. I took up my appointment at the SQA on 6 January 2020. I am accordingly making this witness statement in my personal capacity.

3. During the period of my tenure as Deputy Director, I chaired the Scottish Government Capital Investment Group ("CIG") and in that role I had responsibility for the Scottish Government's infrastructure investment policy for the area of health and social care. That role included: -

    - Allocating and managing the capital resources made available to NHSScotland to invest in modern, fit for purpose assets.

- Oversight of business case and approval processes and monitoring the delivery of major investment projects developed by NHSScotland Boards (time and cost).

- Providing appropriate guidance to NHSScotland in relation to the above.

- Leading input to Government Spending Reviews and annual budget cycles for health infrastructure.

- Providing the policy context to support the strategic planning, acquisition, management and the efficient disposal of physical assets required to support the delivery of healthcare services by NHSScotland.

- Supporting the efficient delivery of capital investment through the development and implementation of effective and efficient procurement approaches.

- Establishing arrangements to support collaborative procurement of imaging equipment across NHSScotland.

- Supporting the development and delivery of major capital projects including those being developed through private finance, such as Non-Profit Distributing Model ("NPD"), a Scottish derivative of Public Private Partnership ("PPP").

- Providing advice internally to those within Scottish Government Health and Social Care Directorate ("SGHSCD"), Ministers and those on NHS boards on capital investment, asset management and related issues.

4. Prior to taking up the role of Deputy Director (Capital Planning and Asset Management), I held the role of Head of the Private Finance and Capital Unit within the SGHSCD from August 2002. I was in charge of the capital budget for the NHS and private finance policy and was a member of the CIG. Key responsibilities included:

- Preparing, allocating and monitoring the capital budget for the Health Directorates and NHSScotland.

- Leading on the development of Spending Review capital investment strategy input for health.
- Reviewing and approving capital investment plans within Local Delivery Plans.
- Development of appropriate procurement methodologies to support capital investment.
- Providing direct advice to Ministers and Senior Officers on capital and Public Private Partnerships ("PPP") related matters as they affect Health.
- Providing advice and support to NHSScotland in their development of infrastructure investment proposals and procurement in accordance with the Scottish Capital Investment Manual ("SCIM") https://www.pcpd.scot.nhs.uk/Capital/scimpilot.htm (Bundle 3, vol.2, doc 33, p.120).
- Developing and updating appropriate guidance in support of infrastructure investment.
- Reviewing Business Cases for Infrastructure investment and providing advice to the CIG on capital related matters.

5. My colleague, Norman Kinnear, was heavily involved at the earlier stages of both the RHCYP/DCN and QEUH projects. He was our PPP Facilitator and Major Capital Projects Advisor. He left Scottish Government in around December 2011 and sadly passed away a number of years ago. Norman used to attend Project Board meetings for all major investment projects including those in Edinburgh and Glasgow. When Norman became ill I started attending those in an observer capacity, however, cannot recollect specific dates. Scottish Government representatives attended project board meetings in an observer capacity given their roles in the approval of projects as members of the CIG.

Overview

6. In this statement I will address the undernoted themes: -

   a. The Scottish Government Health and Social Care Directorates ("SGHSC")
   b. The Scottish Public Finance Manual, the SCIM and Policy on Design Quality for NHSScotland
   c. SGHSC Capital Investment Group
   d. SGHSC Capital Investment Group – Business Case Review Process
   e. SGHSC Capital Investment Group – Business Case Scrutiny
   f. The need for a new hospital
   g. Governance and Decision Making
   h. Site constraints and contractual issues with Consort
   i. Switch to the Non Profit Distributing ("NPD") model
   j. Reference Design
   k. Design Assurance
   l. Health Facilities Scotland
   m. SHTMs
   n. Chief Executive Letters
   o. Status of other relevant guidance
   p. Decision to design the RHCYP/DCN to include multi-bed rooms
   q. Answers to questions posed in the Rule 8 request dated 10 February 2022

The Scottish Government Health and Social Care Directorates

7. SGHSCD is a group of 13 Scottish Government Directorates responsible for the NHS in Scotland. Each directorate has responsibility for a different function relative to NHS' delivery of health and social care in Scotland.

8. I was the Deputy Director (Capital Planning and Asset Management) within the Health Finance Directorate (now called the Directorate for Health Finance, Corporate Governance and Value), between February 2009 and December 2014, which covered the period of interest to the Inquiry. The Director at that time was Mr John Matheson, who was Director of Finance and Information within SGHSCD. My team was responsible for

Health Infrastructure, Investment and Public Private Partnerships, as they applied to NHSScotland.

9. As I explain more fully below, all relevant business cases in relation to healthcare capital projects in excess of NHS Board delegated limits were considered by CIG, which is contained within Annex C of CEL 32 (2010) (Bundle 4, doc 11, p.146), which I chaired in my role as Deputy Director and, which included my team in conjunction with colleagues from across Health and Social Care Directorates. Health boards are reliant upon funding approval from the Scottish Government. If the Scottish Government does not approve the business case then the capital project under contemplation will not be developed/ delivered.

The Scottish Public Finance Manual, Scottish Capital Investment Manual and Policy on Design Quality for NHSScotland

10. The Scottish Public Finance Manual ("SPFM") https://www.gov.scot/publications/scottish-public-finance-manual/background-and-applicability/background-and-applicability/ is issued by the Scottish Ministers to provide guidance to the Scottish Government and other relevant bodies on the proper handling and reporting of public funds.

11. The Scottish Ministers have also issued related guidance that is sector specific. SCIM provides guidance on the processes and techniques to be applied in the development of all infrastructure and investment programmes and projects within NHSScotland. The guidance applies to the process of project development from inception to post project evaluation. SCIM gives guidance on issues around investment appraisal, financial (capital and revenue) affordability and procurement, project management and governance arrangements required to support the development of programmes and projects.

12. SCIM is also linked to the "Policy on Design Quality for NHSScotland" issued under cover of HDL (2006) 58 on 23 October 2006 (Bundle 3, vol.1, doc 4, p.113) and which has been superseded by the updated policy issued under cover of CEL 19 (2010) on 2

June 2010 (Bundle 4, doc 9, p.99). This policy explicitly sets out at Annex A of the 2010 policy the mandatory requirements on health boards including the requirement to use the Activity Database ("ADB") developed by the Department of Health in England aligned to the relevant technical guidance. This was set out as mandatory requirement 5 of the 2006 policy and mandatory requirement 7 of the 2010 updated policy. The 2010 policy advises at Annex B that ADB is mandatory and that while based on Department of Health guidance in England care should be taken to ensure that outputs are consistent with the technical guidance produced by Health Facilities Scotland ("HFS").

13. The principles set out in SCIM and the Policy on Design Quality are applicable to all health boards in relation to the development of all infrastructure and investment schemes regardless of their size or complexity. These are designed to provide an audit trial and assurances that appropriate steps have been followed in the investment decision making process. Both SCIM and the policy should have been applicable during the business case and approval process for the Royal Hospital for Children and Young People ("RHCYP") and the Department of Clinical Neurosciences ("DCN") (together "the Project"),. The 2010 Design Policy introduced the NHSScotland Design Assessment Process ("NDAP") as an integral part of the SCIM and therefore the assessment of business cases. I have been asked if NDAP applied to the Project considering the timings of the various business cases. I cannot recall the details of this given the timing of the Policy on Design Quality and the approval of the various business cases, however, paragraph 1.70 of the Outline Business Case ("OBC") in relation to the Project submitted to CIG in 2012 refers to a range of processes undertaken prior to the OBC receiving approval. I would therefore assume that NDAP or equivalent processes had been applied.

14. All health infrastructure business cases submitted for consideration will be assessed against the guidance contained within the SCIM. If the business cases are non-compliant with the guidance they would not be approved without required revision/ amendment.

SGHSC Capital Investment Group

15. Up until 12 September 2019, CIG was responsible for approving, within defined limits as per Annex C of CEL 32 (2010), up to £5 million or recommending approval to Director

of Finance up to £10 million or DG Health and Social Care in excess of £10 million and monitoring the delivery of major capital investment projects developed by health boards (regardless of the ultimate funding route adopted by the procuring organisation)[1]. Aside from the subsequent updating of the delegated limits, as far as I am aware, the purpose of CIG and the business case approval process applicable to the Project remains applicable today. CIG is constituted by the following Directorates/Divisions/Branches of Scottish Government: Health Finance – Capital, Directorate of Delivery and Performance, Analytical Services (Economics), Health Finance, Information Management and Technology, Chief Medical Officer Directorate, Joint Improvement Team and the Chief Dental Officer. I was the chair of CIG between February 2009 and December 2014, when I then left Scottish Government Health and Social Care Directorates. CIG receives advice and support on planning, procurement, construction and facilities management issues from NHS National Services for Scotland ("NHS NSS") and the Scottish Futures Trust. CIG will also obtain advice from relevant clinical and policy colleagues where appropriate depending on the nature of the services to be provided from the facilities in question.

16. By approving (or by recommending approval subsequently granted) the business cases submitted to it, CIG gives health boards the assurance of SGHSC support for the strategic justification for progressing capital schemes whilst sending a clear indication to the private sector of the projects which are supported by SGHSC.

17. CIG also plays a vital role in providing the necessary assurances to both Scottish Ministers and SGHSC Management Board that proposals are robust, affordable and deliverable.

18. The CIG also acts as a forum for the development, promotion and distribution of best practice and guidance within capital planning and development whilst providing the SGHSC with an overview of the strategic direction of NHSScotland.

[1] The CEL (32) 2010 (Bundle 4, doc 11, p.146) had graduated delegated limits. The delegated limits for NHS Lothian and Glasgow were set at £5m – See Appendix C of the CEL. These limits were updated on 15 September 2019 by DL (2019) 5.

19. As I mention at paragraph 15, within the SGHSC for projects above Board delegated limits, the Chair of CIG has delegated authority to approve projects with a capital cost of up to £5 million. For projects between £5 million and £10 million CIG will, following the successful consideration of a Business Case, make a recommendation for approval to SGHSC Director of Finance and Information[2] who has delegated authority to approve. In the case of schemes with a capital cost in excess of £10 million CIG will make a recommendation to the Director General Health and Social Care. The RHCYP/DCN received a positive recommendation, and the Chief Executive of NHS Lothian would have been notified of this by DG Health and Social Care.

SGHSC Capital Investment Group – Business Case Review Process

20. I understand that the Inquiry, at this time, is not focussed on the detail of the particular business case reviews undertaken for the Project, so at this stage I describe below the general process by which a project was approved by CIG at the time in question in order to provide the Inquiry with a broad understanding of the different roles and responsibilities applicable to the parties involved in a business case review.

21. It is for health boards to develop the projects that they wish to deliver. SCIM 2011 (Bundle 3, vol.2, doc 33, p.141, para 3) makes clear that under no circumstances should responsibility for the direction and lead production of the business case be outsourced to external consultants.

22. The role of the Scottish Government is to consider those projects and to either approve or reject proposals. Projects within NHS Board delegated limits (as determined by extant Chief Executive Letters ("CELs"), named as such because they are issued by the Chief Executive of NHSScotland) do not require the approval of the Scottish Government.

23. When a health board wants to deliver a significant capital project (usually the upgrading of an older facility or the development of a new facility) it must first consider whether that is something that can be dealt with under the board's own delegated authority or

[2] Or equivalent post from time to time – post names have changed over the years

whether it requires reference to CIG. The determinative factor is the value of the project's capital expenditure. Annex C to the CEL dated 19 August 2010 (Bundle 4, doc 11, p.146) contained the delegated authority limits when I was in post. The delegated authority limits have since changed [see Director's Letter dated 12 September 2019] (Bundle 3, vol.3, doc 79, p.1,312).

24. Having identified the project as one falling outwith the delegated authority limit it is incumbent upon the health board to seek the Scottish Government's approval (via CIG). CIG encourages the early engagement of the health board and it is common for there to be several meetings between CIG and the health board prior to and during submission of the Initial Agreement, OBC and FBC (and any addendum thereto).

25. Having identified the parameters of the project the health board will submit an Initial Agreement to CIG for review and approval. The Initial Agreement sets out what the health board's proposal is about. It explains the current arrangements by which the health board is providing its services and why there is a need for change. The Initial Agreement will identify the proposed strategic/service solution(s) designed to meet the health board's need and should address the commercial, financial and management needs associated with the proposal which are to be more fully developed and subject to option appraisal within an OBC.

26. Once submitted, the Initial Agreement will be circulated amongst the members of CIG for review and comment. Any comments or questions would then be fed back to the NHS Board and subsequently NHS Board responses returned to CIG members to confirm whether issues had been closed out. Thereafter cases would be considered at a meeting of CIG. CIG will either approve or reject the initial agreement. CIG's consideration is guided by the advice contained in SPFM and SCIM. If the initial agreement is rejected the health board will be advised why with the health board either having the option to withdraw or revise the proposal. As with review at all stages, a rejection is likely to prompt the health board to revise its proposal and resubmit.

27. If the Initial Agreement is approved, the health board then prepares and submits an OBC to CIG for consideration (following approval of the OBC by the health board(s) concerned). The OBC is expected to reconfirm the objectives/ aims set out in the Initial

Agreement and, following an option appraisal, identify the preferred option for addressing the identified strategic/ service objectives. It is expected to demonstrate that the preferred option will deliver the necessary service change, optimise value for money, and be affordable and should set out the supporting commercial and management arrangements required for successful implementation of the option. A health board can only move on to procurement once it has received approval of its OBC.

28. Finally, the health board submits its FBC to CIG for consideration. The FBC should set out the agreed commercial arrangements for the project, confirm that it remains value for money, is affordable and that the organisation is ready to proceed towards implementation of the option. The FBC will be developed within the final procurement phase of the project and should record the detailed assessment and/or negotiations with potential service providers/ suppliers leading to the formal signing of contracts. A health board may also submit an addendum to its FBC if it requires further approval for matters not contained in (or derogated from) the FBC. In the case of a PPP/NPD project a FBC (Addendum) was a requirement to reflect the nature of the commercial agreement at financial close of the project given that there are a number of variables relating to the financing of the project that are only confirmed at the point of financial close (particularly in relation to the cost of debt).

29. The level of detail required in a business case review will depend upon the scale, risk and nature of the investment proposal. It will need to meet the expectations and information needs of CIG, who can be consulted at any time for advice on these expectations.

30. The business cases are circulated to the members of CIG to consider the content of the business case and the deliverability of the project. The CIG also examines the extent to which the project matches national, regional and local priorities set out in Local Delivery Plans and associated Property and Asset Management Strategies. Each CIG member focuses on their specialist specific area of the business case (e.g., financial or clinical aspects), and submits their comments to Health Finance & Infrastructure[3] in advance of the meeting. CIG members can also comment on other aspects of the business case if they consider it appropriate.

[3] This department was named 'Capital and Facilities' during my tenure.

31. CIG member comments are collated by Health Finance & Infrastructure, who may also seek further clarification from the health board if necessary, before the CIG meets to take a collective decision about the project. CIG members, acting as a group, decide whether to approve the project, and either seek the appropriate clarification from the health board(s) on issues to be resolved prior to making a recommendation for approval or, if endorsed, make the appropriate recommendation to the Director of Finance or Director General.

32. It is common for business cases to be subject to a process of development following initial review by CIG and updated drafts provided that address any issues/ queries/ concerns raised. It is also common for there to be an open dialogue between the health board and CIG as their business case progresses – in fact, this is encouraged. The process is designed to deliver affordable and effective solutions to health care needs across Scotland. It is in all parties' interests to see that that end goal is achieved.

33. The whole process from inception at health board level to approval of the Full Business Case by CIG can take many years depending on the nature and complexity of projects. There is also a requirement within the SCIM for NHS Boards to conduct Post Occupancy Evaluations and Post Project Evaluations. Scottish Ministers are involved throughout the Post Occupancy and Post Project evaluations. The Post Occupancy evaluation occurs six to eight months after opening looking at how the facility is operating. The Post Project evaluation is a longer-term review of how the service benefits are being met. I cannot comment on whether they were carried out in relation to the Project as I had left post by the time I would have expected these evaluations to be scheduled to take place.

34. The ongoing monitoring by Scottish Government post business case approval would be in relation to the financial profile and timescales for delivery on what had been agreed. This was exercised through ongoing financial monitoring of financial returns from NHS Boards to SGHSCD Finance.

The need for a new hospital

35. The requirement for a new hospital, which was originally to be named the Royal Hospital for Sick Children ("RHSC") and would later become known as the RHCYP was set out by NHS Lothian ("NHSL") in their Initial Agreement and then more fully in their OBC in 2008 and further developed regarding the DCN requirement in the addendum OBC in 2011. The need for the new hospital facilities was identified by NHSL and not driven by the Scottish Government.

36. The overview of the strategic case for the Project is set out in NHSL's OBC.

37. The role of the Scottish Ministers in the development and approval of business cases is set out at paragraphs 26 to 34 above.

38. The development of the business cases for the Project was ultimately a matter for NHSL. That said, I would describe the process as collaborative and myself, Norman Kinnear or other CIG members regularly made ourselves available to provide advice to NHSL with regards to the business case processes. As is often the case, much of this advice was provided in conversations both in person and over the telephone. Advice was given both in the run-up to the business cases being submitted to the SGHSCD for review and throughout the CIG review process. The last thing anyone wanted was for versions of business cases to be going backwards and forwards between health boards and SGHSCD when matters could have be resolved via a telephone conversation prior to submission of the business case. NHSL had appointed their own legal, technical and financial advisors for the Project, so would also have been taking advice from them too.

39. In addition, the Design Assessment process and Key Stage review (discussed further below) involved HFS, Architecture & Design Scotland ("A&DS") and the Scottish Futures Trust ("SFT"). These bodies did not form part of CIG but provided advice to the CIG. A&DS was also a statutory consultee in relation to applications for planning permission relative to the Project.

40. SFT sat on NHSL's Project Board once the decision to use the NPD funding route and to include DCN was confirmed. I explain this funding model further below. SFT provided advice on the commercial and financing aspects of the Project and undertook a Design Review shortly after the decision to switch the funding route of the project to assess the extent of the design work undertaken and the basis for the capital costs of the

Project. Key Stage Reviews were undertaken at defined points in the development/ procurement process as per the funding conditions set out in the Scottish Government Letter of 22 March 2011 (Bundle 3, vol.2, doc 43, p.376) and further comments at paragraph 140 below).

41. Detail on roles and responsibilities of NHSL's Project Board and various advisors were set out in Appendix 21 of the Final OBC dated 27 September 2012 (Bundle 3, vol.2, doc 55, p.502). Appendix 21 is a Project Execution Plan prepared by Davis Langdon (an AECOM company).

42. The role of NHSL's Project Board was Project Delivery Governance (see organogram at Bundle 3, vol.2, doc 55, p.501) and description of roles and responsibilities set out at p.501-510).

43. Mott Macdonald were engaged by NHSL as Project Manager and technical advisors to NHSL (Bundle 3, vol.2, doc 55, p.505) and provided NHSL with advice and input into their business case. Representatives of Mott Macdonald attended NHSL Project Board meetings, but not as Board members.

44. A range of advisors to NHS Lothian were involved in NHSL's development of the business case (Bundle 3, vol.2, doc 55, p.505) - legal and financial advisors as well as a significant range of professional interest within NHS Lothian.

45. In relation to the approval process, in addition to the members of the CIG considering the various iterations of the business cases, presentations were given at CIG meetings by NHSL (supported by NHSL's advisors). Again, Bundle 3, vol.2, doc 55, p.501-510) sets out range of bodies involved in workstreams, including external bodies that were part of process in relation to planning, etc.

46. The purpose of these presentations was to provide further context to the business case content around the planning and delivery of the Project, highlight areas for further discussion and offer an opportunity for CIG members to ask questions of aspects of the project including the information presented by NHSL.

47. Additionally, staff from SGHSCD were involved in the background in tracking progress against outstanding issues raised by CIG and liaising with NHSL on progress being made toward financial close.

48. I would describe the business case process as collaborative, with each party playing an important role (highlighting that each party had different roles). That was the approach encouraged by SGHSCD in providing advice and guidance through the development process to avoid unnecessary delays.

49. The process leading to the approval of business cases was iterative. There were a range of issues identified after submission of the business cases to SGHSCD that required resolution (including signing off Supplementary Agreement 6 ("SA6") prior to the commencement of procurement and, for the FBC, a range of issues identified by CIG).

50. NHSL had ultimate ownership of and responsibility for the preparation of business cases and their approval through their own governance structures prior to submission to Scottish Government.

Governance and Decision Making

51. NHSL are responsible for the provision of healthcare services sufficient to meet the needs of its health board area (and to contribute to the national provision of regional centres of excellence/specialism). For the most part, it is for NHSL to determine how those needs are met (as I explained above).

52. The need to build a replacement for the Sick Kids in Edinburgh was recommended by the expert Ministerial Advisory Group on child health, the Children and Young People's Health Support Group. The project sought to ensure that all acute inpatient children's services in Scotland would meet the gold standard of triple co-location of children, maternity and adult services. This complemented the existing children's hospital in Dundee, the new children's hospital in Aberdeen and the then planned new children's hospital development in Glasgow.

53. The decision to build a new hospital was made by NHSL, although, in accordance with the delegated authority limits that I referred to in this statement, the decision required the approval of the relevant Scottish Government Director General. The reasoning for NHSL's decision both on the need for and the proposed site for the hospital was further set out by NHSL in the Initial Agreement, developed in their OBC for RHCYP in 2008 and further developed regarding the DCN requirement in the addendum OBC for the DCN in 2011.

54. The decisions post-2010 in relation to the funding model to be used and the procurement process to be followed were taken by the Scottish Government as a direct response to the significant reduction in capital funding available from the UK Government. All major capital projects not yet legally committed were reviewed to assess options for deliverability through the NPD model in order that public capital funding could be best deployed against those projects and programmes for which the NPD model would have been unsuitable. This exercise was supported by SFT, at a Scottish Government level, as an input to the Scottish Parliament budget process. From this exercise, a £2.5 billion programme of NPD projects was developed, covering all major elements of the public sector, of which £750 million related to health (including RHSC/DCN). I provide further detail at paragraphs 65 onward below.

55. In relation to the system of governance in place at the Scottish Government for the Project in the period up until the start of the procurement process, I would first observe that the governance of the Project itself was a matter for NHSL.

56. SGHSCD's involvement was in relation to compliance with the SCIM, through CIG and Scottish Government more generally through the oversight of the Scottish Government's Infrastructure Investment Board (IIB) which had responsibility for monitoring the delivery of the wider Scottish Government supported infrastructure programme. The role of the IIB is covered further in paragraph 62 of my statement below, which I address in some detail.

57. In a wider sense however there was governance in place in relation to NHSL's performance and arrangements in place (financial and operational) to monitor that. This centred around financial and performance delivery against the objectives set in NHS Board Local Delivery Plans (LDP's) and supporting financial plans, which were

reviewed and agreed by the Scottish Government annually and monitored on an ongoing basis.

Site constraints and contractual issues with Consort

58. My understanding of the site constraints encountered by NHSL at the initial planning stages principally comes from the detail set out within SA6. NHSL would be best placed to address the site detail of the constraints they encountered and SFT and NHSL should be able to comment on the commercial arrangements.

59. The resolution of issues with the site and access were covered via SA6. SA6 documented an agreement between NHSL and Consort in relation to access to the land at the site, principles regarding enabling works and the interface between the new NPD facility and the existing Private Finance Initiative ("PFI") contract. This agreement was the basis of securing required support of the lenders on the Edinburgh Royal Infirmary (ERI) PFI contract for the changes to that contract on matters relating to the interface with the Project.

60. I believe there was a dispute between NHSL and Consort at the time unrelated to the Project, which related to maintenance within the ERI PFI contract. That dispute complicated the resolution of issues around SA6.

61. It was a commonly held position by SFT, SGHSC and Scottish Government's IIB, given the importance of de-risking the Project to avoid cost and delay, that it was important that issues associated with site boundaries and access were addressed to provide certainty to the project and to potential bidders. Scottish Government approval of the OBC, therefore, required that SA6 was resolved before a procurement could be launched in order to remove risk and uncertainty.

62. It might be helpful, at this stage, if I give a reference to the Inquiry to explain what the IIB's role was. The IIB's terms of reference are set out here: https://www.gov.scot/publications/infrastructure-investment-board-terms-of-reference/.

63. I cannot recall the Scottish Government providing direct advice to NHSL on the legal or technical aspects of the site constraints and the contractual dispute with Consort other than for the need for these matters to be resolved prior to the launching of the procurement exercise. NHSL were the client to the PFI contract and had legal advisors engaged to advise them in considering these issues. SFT were involved in the discussions in relation to SA6 and the contractual/commercial issues. The terms of SFT's involvement are captured in an SFT document provided by the Inquiry as document (Bundle 3, vol.2, doc 43(ii), p.388).

64. The Project was regarded as complex from the outset (see the IIB RHSC briefing at Bundle 3, vol.2, doc 54, p.484). That complexity was increased as a result of both the interface between the Project and the existing PFI neighbouring ERI hospital site and the change in funding route (to the NPD model – discussed below). If the funding changes had not been made, however, the RHSC would not have been affordable and neither it nor the DCN could have been delivered.

Switch to the Non-Profit Distribution Model ("NPD")

65. The RHSC Project was originally to be funded by way of public capital investment. This changed and an NPD model was ultimately used. The NPD model is a variant on previous private finance models, some of which were criticised due to the returns to the private sector being uncapped. The NPD model changed the financing structure to ensure that returns to the private sector were capped. The reason for the change to NPD, put simply, was a significant reduction in available capital funding available to the Scottish Government as a result of the 2007–2008 financial crisis. The UK Government had applied, at that time, a 36.5% cut in real terms over the Comprehensive Spending Review ("CSR") period, meaning difficult choices were required on the prioritisation of capital budgets not only as part of the ensuing year, but also for future budgets. The Scottish Government decided to use every lever to maintain capital investment – through the NPD model, tax incremental financing and the National Housing Trust. The Scottish Government's position was that these approaches sought to protect jobs and services. At the time of the announcement in late 2010 the aim was to minimise any delay on the

delivery of the Sick Kids preparing for procurement as quickly as possible and by providing support to NHS Lothian through the SFT.

66. The Scottish Government's funds are drawn from the Scottish Consolidated Fund ("SCF"). SCF is constituted by a block payment from Westminster as well as any revenue generated by the Scottish Government. In 2010 the payment from Westminster was significantly reduced. Accordingly, major developments required the investment of capital from the private sector. Consequently, and as I indicated above, decisions post-2010 were taken by the Scottish Government as a direct response to the significant reduction in capital funding available from the UK Government. Those decisions had to be made in relation to the funding of new projects against the background of already having significant capital funded commitments to other projects, including the Queensferry Crossing and the new Glasgow Hospital (subsequently named as the QEUH and RCH).

67. When looking at prioritisation within a capital funded programme, you consider which projects are legally committed. If a contract has been entered into, and you are seeking to halt that project, then that would mean breaking the contract and having to meet any penalties that came with that. With the Queensferry Crossing and the new Glasgow Hospital, there had also been very strong public commitments politically around both of these projects and, given their nature, the use of public capital was deemed to be appropriate rather than private finance. I am unable to recall what stage the procurements had reached for these projects at the time the funding routes were being proposed or if they were, at that stage, already legally committed. I believe that private finance was explored in respect of the new Glasgow Hospital (QEUH/RCH), but it was deemed undeliverable as the budgetary impact of the different accounting treatment between public capital and private finance would not have been financially sustainable for the NHS board (NHS Greater Glasgow and Clyde ("NHSGGC")).

68. As indicated above, the Scottish Government took the decision to switch to the NPD model. SFT were heavily involved, as the decision on RHCYP was part of a much wider review of planned projects, which led to the announcement of a pipeline of £2.5 billion of NPD investment across the public sector in Scotland that included health facilities, schools, housing etc.

69. The use of private finance (including NPD) is best suited to larger stand-alone new build facilities, generally in excess of £50 million, because of the relative costs of procurement and the risks are better understood. This is why private finance has been rarely used on existing buildings, where the risk profile is much higher and influenced by both the age and nature of the building as well as historic approaches to ongoing maintenance.

70. The project was assessed as being suitable for procurement under the NPD model due to a combination of factors. These factors included the scale of the Project and funding required to enable it to be developed; the known track record of hospital project delivery via private finance at the time; market appetite to take forward such projects; and the focus on using public capital for those projects/ uses that it was only suited to (for example, maintenance of facilities). Also, DCN had already been identified for delivery through NPD (albeit the DCN project had yet to be formally progressed), but by combining with RHSC/RHCYP there would be a single procurement given the siting of both facilities at Little France beside ERI.

71. SFT would be well-placed to explain in further detail the NPD model and factors that weighed in the balance as to its suitability for use for particular types of projects at the time that such decisions were taken. There were subsequent changes to the balance sheet classification of NPD projects as a result of the guidance on Managing Government Deficit and Debt ("MGDD") associated with the application of the European System of Accounts 95 ("ESA95"). This could not have been foreseen at the time that such decisions were taken.

72. NHSL was not consulted about the switch to NPD, prior to the decision being made. This decision was taken at a macro level across Scottish Government and as part of the Scottish Government's draft budget considerations. The budget still required parliamentary approval. I think it is somewhat unusual that NHSL was not consulted about the switch to NPD, prior to the decision being made; however, that was related to the situation with the draft budget that I have mentioned above. I cannot recall the exact timeline from when the decision was made and when NHSL were told of the change, however I believe this to be a matter of weeks rather than months. I believe Scottish Government and Scottish Futures Trust would be better placed to comment on this.

73. In relation to the statement at paragraph 67 of the Grant Thornton Report (Bundle 3, vol.1, doc 2, p.39) I cannot comment on a risk assessment as the decision to proceed with an NPD project was taken as part of wider budget considerations. SFT may be able to add to this. What I can say is that the alternative to NPD was that the Project would not have proceeded.

74. As SGHSCD operated in a collaborative manner with NHS Boards, ideally NHSL would have been consulted in relation to their preferred funding model. At the time, however, parliamentary processes had to be followed and, as I have said, the choice was between agreeing to a switch to the NPD model or having no funding to take the Project forward. There was simply insufficient capital budget available to fund the Project. The NPD model had been recommended to the Scottish Government by SFT, who had completed the development work on the finance model (having considered previous criticisms of private finance models). Had NHSL not wished to proceed with the Project or any part of it, NHSL could have withdrawn its business case at any stage of the process, although the project would not have been delivered.

75. In a briefing that I drafted for the DG Health and Social Care for the benefit of the First Minister dated 16 November 2010 (Bundle 3, vol.1, doc 29 (i), p.1120) I explained *"In moving to an NPD finance route the current procurement will require to be halted and a new procurement commenced as soon as possible. The Scottish Futures Trust have been requested to prepare a proposal, due within the next two days, on how it could support NHSL to develop an NPD procurement strategy as soon as possible. SFT have been given a clear brief to develop a proposal and strategy that minimises any delay in the delivery of the project. It is expected that, with appropriate input from both SFT and NHSL that a new procurement strategy could be ready within 4-6 weeks. An assessment of revised timescales would be possible at that point."*.

76. SFT were developing and advising on the particulars of the private finance model to be used. I am not aware of the NPD model itself having been used on any previous hospital project at that point; however, NPD was a variant on the established public-private partnership ("PPP") model with some changes in the funding structure with the aim of

capping returns to the private sector and reducing the overall cost of debt. PPP more generally was a well-established model in the health sector.

77. In relation to the DCN, Norman Kinnear was the lead Scottish Government official corresponding with NHSL in 2009 and again in 2011 on the options and OBC. I was Norman's line manager, so was sighted by him on the themes under discussion.

78. NHSL had, in November 2009, approved an OBC for submission to the Scottish Government regarding DCN, identifying a joint build with the RHSC/RHCYP funded through capital as NHSL's preferred option. At that time, I advised NHSL not to formally submit the business case to CIG at that time because the capital programme for NHSScotland was already fully committed over the period for development NHSL were proposing based on anticipated future funding available (note that this was also prior to the subsequent, significant reduction in capital budgets), meaning it would not be able to be ultimately approved at that time due to a lack of available capital.

79. In around December 2010 as part of the Scottish Government's wider review, with SFT, of planned projects (referred to above), the DCN was looked at again. As I said above, it would not in 2009 have been possible to fund the DCN through public capital funding given the forward profile of legally committed projects across NHSScotland and the projected funding envelope available, but a wide range of possible projects were being looked at again through the lens of possible NPD finance.

80. As of 11 January 2011, correspondence between Norman Kinnear and Jackie Sansbury, Chief Operating Officer of NHSL (Bundle 3, vol.2, doc 34, p.312), shows that NHSL's position was as follows:

> *"The position of NHS Lothian regarding DCN is that in Nov 2009 NHS Lothian approved an OBC for DCN identifying a joint build with RHSC funded through capital as our preferred option. At that time Mike asked us by email not to submit the business chase* [typo: case] *to CIG, indicating there was no capital available.*
>
> *The joint build remains our preferred option clinically, but you have advised that in order for us to proceed we must now redo the financial modelling demonstrating*

the costs under NPD (joint build with RHSC) and PFI (at the end of the ward arc) with some sort of alteration to the PFI contract.

This will not only delay the project due to the requirement to complete the modelling but on reflection this will also require some funding support from you for advisors as the posts can no longer be capitalised. I do know however Susan has already written to Mike re financial support for advisors.)."

81. I took from this that NHSL wished to progress the joint build of RHSC/RHCYP and DCN but were concerned that this would delay the Project (due to the requirement for them to complete/ update the financial modelling) as well as the larger project being more complex to deliver.

82. The decision to take forward the DCN as part of the Project was ultimately taken by NHSL when it decided to submit the addendum OBC for the DCN. The decision aligned with NHSL's preference to site both the RHSC/RHCYP and DCN at Little France.

83. The change in procurement route from capital funding to private finance did have an impact in terms of delay to the Project but it is impossible to quantify the time delay that arose simply because of the procurement route as there were other factors that led to timescale changes. The incorporation of DCN into the Project also had an impact on timescales, and again I cannot quantify the amount of delay. Overall, however, the question of how much delay arose from the change in procurement route is immaterial because if NPD had not been used for RHSC/RHCYP, that project could not have been delivered. Also, if RHSC/RHCYP and DCN had been separated, there would have had to have been separate procurements, leading potentially to three private finance contracts on the one site and all the complexities of the interfaces between them.

84. In relation to the question of whether the switch to NPD resulted in any increased costs to the Project, I cannot comment on the cost differential: there is no real comparator as public capital funding was not available to support the project.

85. Design work had been completed by BAM when RHSC was being developed under the Frameworks Scotland procurement approach to a level appropriate for OBC approval and delivered via public capital funding. Frameworks Scotland was the procurement

programme implemented by HFS to support NHSScotland at the time the original 2008 OBC for the RHSC was being developed, although this programme has been updated and amended twice since then. The Framework was an agreement with Principal Supply Chain Partners to enable NHS Boards and other NHS bodies to easily appoint contractors to progress the delivery of facilities without the need to undertake a full procurement process themselves. Frameworks Scotland was a further evolution of a procurement approach called "NHS ProCure21" which had previously been established in England successfully. Following the switch to NPD, the existing design work that had been completed by BAM was used to inform the reference design and scope of the Project. The decision to utilise the existing design work in this way was taken by NHS Lothian but supported by the Scottish Government and SFT. This was so that design work already undertaken was not wasted and would hopefully speed up procurement process rather than starting again.

Reference Design

86. My broad understanding of the difference between an exemplar design and a reference design is detailed below:

a) Reference Design

In public sector infrastructure procurement projects Reference Designs are detailed designs developed by the Procuring Authority, working with an architect or team of design consultants, before the tender bidding process. The resultant Reference Design is a close representation of the form of structure that the Authority is seeking at completion.

The Authority may allow some deviation from the Reference Design by the successful private sector tenderer but as the Reference Design is more detailed than an Exemplar Design (as described below) there will be less leeway to make significant changes to the Reference Design. The reference design does not include the technical or electrical requirements which would be developed by the

bidders as part of their tender response. The reference design was more to do with spatial configurations.

b) Exemplar Design

In public sector infrastructure procurement projects Exemplar Designs are prepared by the Authority, again often working with an architect or team of design consultants, before the tender bidding process and are a comprehensive, but conceptual, design brief that establishes the Authority specifications and requirements.

In response to the Authority's project specifications provided through the Exemplar Design, the private sector tenderer produces a detailed design to meet the design brief.

The Exemplar Design does not provide detailed construction information as to how the project is to be constructed, instead it provides what the Authority requires and the risk of 'how' to construct the project to meet the specifications of the Authority is transferred to the successful private sector bidder.

87. The Scottish Ministers did not make the decision to adopt the reference design, but the procurement approach that was taken by NHSL was agreed with Scottish Government and SFT. NHSL had not wanted to waste design work undertaken, and this was supported by SFT and Scottish Government on time and cost grounds. There was a balance to be struck as NHS Lothian had invested considerable time, effort and money into identifying what the service requirements for the RHSC were and how those were to be met under the previous Framework Scotland procurement. However, it was also important that bidders had sufficient scope for innovation. The balance of risk between NHS Lothian and the bidders also had to be considered, by applying accepted principles set out in extant accounting standards and HM Treasury Guidance

88. Various questions have been raised by the Inquiry in relation to mandatory and non-mandatory elements within the reference design. I was not directly involved in the development of the reference design. That was not the role of Scottish Government. The

reference design approach is described within the OBC submitted for the Project in 2012. NHS Boards routinely taken their own advice in the preparation of investment proposals and in developing business cases, as NHSL did here. Each member of the CIG had different areas of expertise and advice was also obtained from relevant bodies such as HFS, A&DS and SFT as necessary and appropriate. CIG relied upon all such input during the consideration of business cases.

89. Scottish Government's interaction with the reference design process was limited to the business case approvals process and as indicated above, facilitating contact with colleagues who had knowledge of the use of reference design within procurement in Northern Ireland. The reference design process (including the decision to adopt the reference design approach) was undertaken by NHSL. SFT undertook a design review in November 2011. Scottish Government's role was limited to the business case process and, via the analysis undertaken by SFT, the use of the reference design to establish the forecast capital and revenue costs of the proposal, not the detail of the reference design.

90. Appendix 5 of the OBC (makes clear that one of recommendations of the IIB to NHSL is that "preparing a "reference design" for the Project is likely to have benefits in this case, particularly considering the work undertaken to date, and recommends that the project team [NHSL] work closely with SFT to assess bids in relation to whole life costs, to ensure value-for-money."

91. The Grant Thornton report (Bundle 3, vol.1, doc 1, p.30), at paragraph 107, confirms that the decision to make use of the work produced by BAM was supported by the Scottish Government and SFT. At paragraph 117 it states: "The decision to make use of this work was supported by Scottish Government and Scottish Futures Trust. The benefit of this was set out in the project board minutes as being able to make the procurement timeline as short as possible." I agree with this synopsis.

92. I would also cross-refer to (Bundle 3, vol.2. doc 39, p. 354) where it is noted that at a project discussion of 1 February 2011 that I attended with Jackie Sansbury, Susan Goldsmith, Iain Graham, Norman Kinnear and Donna Stevenson, design development was discussed and I suggested that NHSL should make contact with someone (John Cole, the then Head of Health Estates in Northern Ireland) from Health Estates in Northern Ireland to learn from work done there in relation to reference design, given the use of

reference design as part of the established procurement process for health estates in Northern Ireland.

93. The Inquiry wishes to know if the adoption of the reference design approach was unusual, given the number of mandatory elements. Given the number of mandatory elements in a PPP procurement, greater discretion would usually have been given to bidders than was given for the Project. This was, however, the first NPD and the circumstances (switching from capital funding to NPD) had no precedent in Scotland. The use of reference design in health capital projects had however, been applied in Northern Ireland successfully and I advised HFS to engage with Mr John Cole, Head of Estates Planning at Health Estates Northern Ireland. Mr Cole had developed a procurement methodology in Northern Ireland which had used the reference design through PFI, I believe for example the South West Acute Hospital in Enniskillen.

94. My understanding of the driving factors behind the decision to adopt a reference design with so many mandatory elements was that there was sufficient clarity from NHSL on their service requirements, meaning that the additional costs of bidders each developing designs from scratch would have led to additional costs and delays. The reference design approach limited the level of innovation from potential bidders, but a balance had to be considered for innovation against NHSL being clear on their requirements and reducing the cost and time for the delivery of the project. That said, the approach made clear those areas where bidders would be required to innovate.

95. I am not able to describe what is meant by the term "operational functionality" with reference to design – that was not my area of expertise on the CIG. As I have already stated, each member of the CIG brought their own particular areas of expertise and relied upon the expertise of other members and external bodies such as SFT, HFS and A&DS for their expertise.

96. NHSL would have appointed healthcare planners as advisers under the Frameworks Scotland approach to assist with developing clinical service models and capacity planning. This would also have considered adjacencies of clinical specialisms. NHSL would be able to assist the Inquiry with the role healthcare planners that they appointed had in the development of the reference design.

97. My understanding of the role of NHSL in the decision to adopt the reference design approach was that considerable time (including that of clinical teams in developing service models) and cost had been committed to the development of the design and NHSL did not want to delay the project any longer than was necessary.

98. My understanding of the role of SFT in the decision to adopt the reference design approach is that SFT reviewed the procurement approach through both direct involvement and via the Key Stage Review process. I would refer the Inquiry to SFT's correspondence of December 2010 (Bundle 3, vol.2, doc 31, p.108).

99. I was not directly involved with Mott MacDonald directly (they were advising NHSL) so cannot comment upon their role in advising NHS Lothian on the decision to adopt the reference design approach.

100. I cannot assist the Inquiry on whether other parties were involved in the decision to adopt the reference design approach – this would be a question for NHSL. As I have indicated above, the reference design approach was endorsed by both Scottish Government and SFT for the reasons I have set out. The 2012 OBC sets out a preferred option and the design, at that point, would not be fully formed (as in this instance).

Design Assurance

101. As detailed in paragraph 1.2 of the SFT Report (Bundle 7, doc 14(ii), p.464) the arrangements for agreement of project scope included an independent design review (which was conducted on behalf of SFT by Atkins). It was the role of SFT to be satisfied that NHSL had appropriate design parameters and assumptions in place and report to CIG as to whether they were so satisfied. This was consistent with the terms of the funding conditions guidance issued by SGHSC. It was not Scottish Government's role to undertake design assurance or put in place design assurance processes as the project was the responsibility of NHSL.

102. Primary responsibility in respect of infrastructure planning rests with the NHS Board. Page 36 of the SCIM (2011) Business Case Guide states:

"The ownership and responsibility for the infrastructure investment planning process rests with the NHSScotland Body developing or leading the development of the programme/ project in question"

103. As part of this process, design assurance responsibility rests with the health board for the design and delivery of projects.

104. In relation to whether an NDAP assessment took place in respect of the Project, I would highlight that SFT undertook a design review at an early stage to assess the then status of design development relative to the procurement process. Also, A&DS was a statutory consultee in relation to planning permission for the Project. Any issues raised through the statutory consultation process would have required to have been addressed in order to secure planning permission. The responsibility for securing that planning permission rested with NHS Lothian. The FBC required to address whether planning permission had been confirmed prior to the Project proceeding.

105. I have no recollection of whether SFT, or any other party, provided advice to the Scottish Ministers with regards to whether an NDAP assessment should take place. The process, including independent design review, was agreed for NPD schemes and set out in the funding conditions letter (Bundle 3, vol.2, doc 43, p.376). The role of SFT in respect of design was establishing capital costs of the project, whether those were reasonable and the revenue consequences of that. With regards to SFT's role design assurance was also set out within that letter from Peter Reekie to Jackie Sansbury dated 1 June 2011 (Bundle 3, vol.2, doc 46, p.399). I agreed the terms of Peter Reekie's letter to Jackie Sansbury. With regards to whether an NDAP review was carried out alongside the Atkins review, I have only had sight of the Atkins review.

106. There were a number of design review processes undertaken as part of the project's development. These are summarised in paragraph 1.70 of the Outline Business Case (Bundle 3, vol.2, doc 61, p.685). In December 2011, I had requested the SFT Atkins Design Review Report to be shared with HFS and A&DS to ensure there was an

alignment of processes that had existed at the earlier stages of the RHSC project and those subsequently introduced as part of the Design Quality Policy for NHSScotland introduced via CEL (19) 2010. I have no recollection of the nature of the follow up to this request.

107. The role of the Mott MacDonald (if any) in respect of design assurance was directly agreed with and linked to NHSL, so I cannot comment further on that other than that the support of technical advisers was referenced by NHSL in paragraph 2.94 of the OBC. Paragraphs 2.94 to 2.97 (Bundle 3, vol.2, doc 61, p.700-701) set out the purpose of the reference design and this was part of the OBC approved by the Scottish Government.

108. The role of the NHS National Services Scotland ("NHS NSS") in respect of design assurance was as part of business case review and engagement with NHSL. There had been engagement between SFT, A&DS and HFS as to their respective roles in developing the project under Frameworks Scotland procurement and subsequently as part of the NPD as set out in paragraph 1.70 of the OBC. Given the respective roles of SFT, A&DS and HFS, I had requested that the SFT commissioned Atkins report be shared with HFS and A&DS and for a meeting to be convened to ensure there were no gaps.

109. In relation to what other parties were involved in the design assurance process, NHSL may have employed specialist technical advisors, but NHSL would have to provide any details to the Inquiry.

110. NHSL had ultimate responsibility for design assurance (see reference to overall accountability on page 36 of SCIM Business Case Guide) (Bundle 3, vol.2, doc 33, p.156).

Health Facilities Scotland

111. I understand that the Inquiry is interested in the technical standards applicable to the health services in Scotland. In particular, the Scottish Health Technical Memoranda ("SHTM").

112. NHS NSS provides services and advice to the NHS and public sector. NHS NSS is a non-departmental public body established under s10 of the National Health Service (Scotland) Act 1978. NHS NSS is independent of, but accountable to, the Scottish Government.

113. HFS is the division of NHS NSS that has particular responsibility for the provision of operational advice and guidance to health boards on a range of healthcare facilities topics. HFS is responsible for establishing professional and technical standards and best practices. In particular, HFS is responsible for the publication of the Scottish Health Technical Memoranda ("SHTM").

114. SHTM are directed at those NHS boards in Scotland providing healthcare services. The memoranda cover a range of technical practice areas and provide comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare. SHTM apply to new and existing healthcare sites and are for use at various stages during the lifecycle of a facility.

115. The Scottish Government are not responsible for the publication of SHTM (see paragraph 141). My role required me to be aware of SHTM and their importance, however, and as I explained above, the technical application of SHTM is a matter for those providing healthcare services.

116. NHS Boards are responsible for the facilities they operate, development of business cases and the application of the guidance set out within the relevant SHTMs. After 2010 and the introduction of the design assessment process and the involvement of HFS in that respect, there was a clear expectation that NHS boards had to ensure compliance of the projects they owned with SHTMs and technical standards.

SHTMs

117. HFS are responsible for the preparation and publication of SHTM and can provide information in regard to the powers and/or duties they act under. From knowledge I

believe the drafting of the SHTM is done through a committee of technical/health experts from across the UK.

118. SHTMs are directed to NHS Boards and more widely. It was important that contractors and advisers had access to the SHTMs. SHTM communication is a matter for HFS, and they would be able to advise as to how they did that, including using their networks.

119. Again, I would refer you to HFS in relation to the intended role and purpose of SHTMs and how they relate to other categories of guidance, such as:
    a. Scottish Health Facilities Notes
    b. Scottish Health Planning Notes
    c. Scottish Health Technical Notes
    d. Scottish Health Building Notes

120. HFS would also be able to explain those other categories of guidance (including who issues them, their broad purpose, their legal status and mandatory force (if any), and to whom they are directed).

121. In relation to the question of to what extent compliance with SHTMs is mandatory: SHTMs are guidance, but some aspects will flow from mandatory requirements set out elsewhere, such as in the Policy on Design Quality for NHSScotland (CEL 19 (2010)) (Bundle 4, doc 9, p.99), which includes 8 mandatory requirements for NHSScotland Health Bodies to do various things (e.g. comply with EU, UK and Scottish Government procurement policy and guidance; develop Design Statements when procuring new-build and refurbishing healthcare buildings; use ADB and Design Quality Indicator tools).

122. I expected any derogation or deviation from SHTMs to be highlighted as part of the NHS Board's business case. Whether any derogation or deviation was actually disclosed is a different question, but my clear view is that the obligation was upon the health board concerned to adhere to the guidance set out in SHTMs. There are layers of governance within the health boards around the development of these projects and the health boards interact with the bidder to be compliant.

123. It is possible to derogate from SHTMs. If a derogation was being sought, I would have expected the relevant health board to engage with HFS as technical experts in relation to any proposed derogation. I would also expect the relevant health board to provide a clinical justification and/or carry out a risk assessment dependant on the circumstances and for that to be reflected in the business case or as a specific request. The onus would be on the relevant health board to progress any derogation requests. To my knowledge I have not heard of a request for derogation from an SHTM being made. When I was Deputy Director, the only derogation I recollect is the one related to the move away from the single-room policy and that related to a CEL not a SHTM. I engaged with HFS and Jackie Sansbury on this matter in 2013 and this was deemed a reasonable request with clinical justification and was approved.

124. The NHS boards are responsible for the development and delivery of the project and for any contracts they enter in to. The assurance mechanisms that existed within the NHSL Board should have been sufficient to ensure they were compliant and meeting obligations. I do not think that those responsible for the design, planning, construction and operation of hospitals have discretion to unilaterally depart from SHTMs. I would expect NHSL Board to engage with HFS, both in relation to any proposed departure from SHTMs or in the case of a SHTM not covering a particular situation, being thought to be ambiguous or superseded by changes, for example in legislation or best practice (this happened in relation to fire codes and waterborne infections pseudomonas following an incident in a neo-natal unit in Wales). In such circumstances, HFS may look to update the SHTM. Again, HFS is best placed to address this.

125. I am not familiar with the detail of what SHTMs, or other similar documents, applied to the ventilation systems in the Project. Again, HFS would be able to address questions on this. No derogations were sought, to my knowledge.

126. I am asked about SHTM 03-01 Part A v. 2 (February 2014) (Bundle 1, doc 9, p.618) and SHTM 00 v. 2.1 (February 2013) (Bundle 1, doc 7, p.333) each containing a disclaimer (pages 5 and 4 respectively). HFS would be better placed to answer questions as whether to similar disclaimers appeared in earlier versions of the guidance and explain the disclaimer(s) and why it is (they are) present.

127. The Scottish Government does not have responsibility for the content of SHTMs in general, or in particular to the version(s) of SHTM 03-01 and SHTM 00 (and their predecessors) which applied to the Project. That responsibility rested with HFS. I am unable to comment on the consequences of failing to comply with SHTM requirements and not aware of any SHTMs not being complied with and derogation being sought.

128. The Scottish Government is responsible for the SCIM. HFS is responsible for technical guidance that supports the development and operation of facilities. My particular focus was the finance and funding and compliance with the SCIM in that respect. The revenue consequences would be reviewed by Scottish Government's Health Finance Division. In relation to RHCYP in particular, because it was a regional (and indeed in some respects national) facility, NHSL had to engage with other boards (in Tayside, Fife and South East Scotland) around the financial consequences for them of the new hospital and accessing its services. The Full Business Case contained approvals from relevant NHS boards that supported the decision to proceed.

129. The SHTM 03-01 Part A v. 2 (February 2014) (Bundle 1, doc 9, p.618) contains an acknowledgement thanking a Steering Group led by the Department of Health, and contributors, for producing HTM 03-01 Part A; (Bundle 1, doc 8, p.438) states that "*HTM 03-01 Part A has been updated and amended by Health Facilities Scotland for use in NHS Scotland as SHTM 03-01 Part A and the contribution from the National Heating & Ventilation Advisory Group is gratefully acknowledged"* (page 6). There is equivalent guidance that applies in England and Wales. There was engagement across the UK administrations to produce the guidance. I understand that there was some differentiation between the Welsh, Scottish and English guidance to take account of any differences in legislation in the different jurisdictions. This was not uncommon around technical guidance generally. HFS will be able to advise more fully on this as they were participants in the process but the Policy on Design Quality in NHSScotland and the requirement for use of ADB set out at Annex B of that document stresses the need for NHS Board to ensure that the requirements of Scottish specific guidance are taken into account.

Chief Executive Letters

130. A CEL is an instruction to the NHS by the Chief Executive of NHSScotland around what needs to be done and how it should be done. The contents and subject matter vary. The relevant policy division is responsible for drafting and advising, guided by the relevant director. CELs are not developed in isolation. CEL 48 for example was the consequence of wider engagement across the system via the Single Room Steering Group and the revision of Capital Planning arrangements via CEL 32 (2010) (Bundle 4, doc 11, p.146) a consequence of the work of the Capital Strategy Group.

131. The Scottish Government is responsible for (a) drafting and (b) issuing CELs. They are issued in accordance with the relevant established delegation of functions in terms of statute and established framework governing the relationship between SGHSC (acting under the Cabinet Secretary for Health and Social Care) and NHS Boards.

132. The process that is followed before a CEL is issued varies depending on the nature of the subject. In the case of the SCIM, Capital Planning Arrangements and Single Room Policy working groups had been established with interests from across NHSScotland participating in the development of policies and/ or guidance.

133. CELs are addressed to the Chief Executives of NHS Boards and, when issued, are copied to Directors within NHS Boards with responsibilities in relation to the subject matter of the particular CEL (e.g., Finance, Estates, etc.). In my time in post, there were also weekly bulletins that were put out to NHS Boards and accessible from the Scottish Government's website, which made others aware of CELs. Scottish Government expected that the recipients of CELs would cascade the information to all who should be referring to it. Technical advisers to NHS Boards should be aware of CELs both through engagement with their clients and through general public access to the information.

134. The intended purpose of CELs is contained within the narrative of each CEL.

135. In my view, CELs each set out their own requirements in respect of compliance: some will include mandatory requirements and others may not. I refer to the previous example I have given of CEL 19 (2010), (Bundle 4, doc 9, p.99), which includes 8 mandatory requirements. CELs are issued under the authority of the Scottish Government's Director

General for Health and Social Care, who is also the Chief Executive of the NHS in Scotland.

136. I am asked what the consequences (if any) of failure to comply with a CEL are. I would highlight that (at least in my time in post) neither the Scottish Ministers nor HFS are auditors of NHS Boards' compliance with legislation, regulation or guidance issued to them. NHS Boards have their own governance responsibilities and, at least in my time in post, were expected to manage their own responsibilities as appropriate. Broadly, I would say that any consequences will depend entirely upon on the terms of the CEL (which are widespread and varied) and the nature of and deviation from the guidance set out in the particular CEL.

137. In my opinion, those responsible for the design, planning, construction and operation of hospitals have no unilateral discretion to depart from CELs. As above, I would expect the NHS Board to engage with HFS both in relation to any proposed departure from CELs or in the case of a CEL not covering a particular situation, being thought to be ambiguous or superseded by changes, for example in legislation or best practice. I had regular engagement with HFS and I cannot recall any such issues being raised with me. If issues with CELs had been raised with HFS, I would have expected HFS to advise Scottish Government that the CEL should be reviewed with a view to updating it. Again, HFS is best placed to address this.

138. I am asked what Chief Executive Letters, if any, applied to the ventilation systems in the Project; were any derogations sought from their requirements? If yes, how and when, and for what reasons? Were they granted? And if yes, how and when? I can only answer, this far removed from my role as Deputy Director, that I cannot recall any specifics. I do not recall any derogation being applied for in relation to the ventilation systems. I can only recall general coverage in relation to the operation of the SCIM, the single-room policy – beyond that I cannot think of any occasion.

Status of other relevant guidance

139. As I have explained at paragraph 10, the Scottish Public Finance Manual (SPFM) sets out Scottish Government guidance on the proper handling and reporting of public funds and the sector specific SCIM provides Scottish Government guidance, in a NHS Scotland context, on the processes and techniques to be applied in the development of all infrastructure and investment programmes and projects within NHSScotland. SCIM guidance is clear that the ownership and responsibility for development of projects rests with NHS Boards. In regard to the Project NHSL would be responsible for setting out their requirements and ensuring that these are consistent with SHTMs and complied with by the contractor.

140. The Policy on Design Quality for NHSScotland and mandatory requirements in relation to the use of the Activity Database ("ADB") as well as the NDAP were introduced through the 2010 revision to SCIM. SCIM sets the expectation that SHTMs will be followed. Responsibility for compliance rests with the NHSScotland health boards, in this case NHSL. HFS are there to define and update standards and to provide technical advice and support to NHSL. The role of Scottish Ministers is to set the overall policy framework. They do not have a direct intervention role, however there is a requirement for them to have oversight via the assessment of the Initial Agreement, OBC and FBC relevant to projects and also via SFT were responsible for Key Stage Reviews which were a requirement as set out in the funding conditions letter issued by the Acting Director General for Health and Social Care on 22 March 2011 to NHSScotland (Bundle 3, vol.2, doc 43, p.376).

141. If we consider the phased development of a hospital and the business case process, there are three stages to it. The exception to this was the Project as we had to revisit the OBC to deal with the change of funding route and the incorporation of the DCN unit. The Initial Agreement sets out the strategic requirement for a project and identifies problems/issues that need to be resolved. The OBC then follows, which carries out an options appraisal and assesses cost benefits and risk. . Following this you have the FBC, where the preferred option for the project has been identified and the final costs, timetable and the procurement option are confirmed. Scottish Ministers are involved throughout all of these stages, and their involvement then continues via the Post Occupancy and Post Project evaluations. NHS Boards are responsible for compliance and should be on top of

their brief and are responsible for compliance through their own governance and assurance processes.

Decision to design the RHCYP/DCN to include multi-bed rooms

142. David Hastie was the Deputy Director for Property and Capital Planning in 2006. At this time the role still fell within the remit of the Scottish Executive. In 2007 the SNP came into Government and this title changed to Scottish Government. Norman Kinnear was the major capital projects advisor and a key interface with NHS boards in relation to developing projects. He was also heavily involved in the single rooms steering work. The Scottish Executive issued interim guidance in 2006 pending further studies.

143. The Single Room Steering Group was formed in 2006 to consider a number of factors relating to single/multiple occupancy rooms, including infection control, overall hospital design and wider health benefits within the hospital environment and develop a Scottish approach.

144. I cannot provide detail on the extent to which the November 2008 single-bed policy led to a review and update of all relevant technical guidance. HFS was responsible for updating technical guidance and would be best placed to comment.

145. I came to the issue of single/ multi-bed rooms in late 2008. I was aware of the interim policy position from 2006 and, in general terms, the work of the Single Rooms Steering Group. There had been a general move across the UK and beyond towards the use of single-bed rooms in hospitals. SG health directorates and HFS were members of the European Health Property Network and there was research being done (which is explicitly referred to in the Scottish Executive's Interim Guidance for NHSScotland Provision of Single Room Accommodation in 2006 (Bundle 3, vol.1, doc 5, p.152)) on the costs and benefits of single rooms across the world. That research was also linked to infection control and a range of other matters related to the impact of the patient environment on the effectiveness of healthcare. There had been a clear move away from mixed-sex accommodation and an important element was the fact we had multi-bedded bays on hospital wards. For example, if there was a 4-bed bay with 3 men in it, a health

board couldn't place a female in the empty fourth bed. NHSScotland also had an aging hospital stock, including within the DCN in Edinburgh where there were only 20% single rooms. There were a range of considerations to be taken into account, which were addressed by the work of the Single Room Steering Group (Bundle 4, doc 1, p.5) I am not sure of the date of the change, but the description 'HDL' ceased to be used for guidance issued and subsequent guidance was issued with the description of 'CEL'.

146. I am unable to recall, given the passage of time and the limited extent of my involvement in the issue in 2008, the detail of the decision-making regarding the quantity of single-bed rooms for RHSC beyond what was contained in the OBC, i.e., that 58% of rooms would be single (Bundle 3, vol.1, doc 12, p.321). I am aware of references in the subsequent OBC regarding agreement by the Chief Medical Officer ("CMO") to the position but have no recollection of that. I was a member of CIG prior to 2009 and had oversight of the SCIM process, but at the time of the submission of the OBC in 2008 the interface between CIG and the CMO for queries on business cases and the single-bed rooms would have been Norman Kinnear. I expect he would have linked in with the CMO and Chief Nursing Officer (CNO) and Paul Martin who had chaired the single-bed rooms steering group.

147. The nature of CELs varied dependant on the subject matter and each would set out the basis of requirements on NHSScotland bodies. Some included certain mandatory requirements (and I discuss this further below). The CEL dated 11 November 2008 (Bundle 4, doc 1, p.5) was the basis of an instruction to NHSScotland Boards as to what should be done from that date. In terms of single-bed rooms, I would expect a derogation to be applied for if there were to be deviation from the terms of the CEL that applied at the relevant time.

148. The Scottish Executive's Interim Guidance for NHSScotland Provision of Single Room Accommodation dated 15 December 2006 (Bundle 3, vol.1, doc 5, p.152) sets out the interim guidance in place in August 2008, when the OBC was approved. This provided that there needed to be a minimum proportion of single bedded rooms of 50%. The OBC for RHSC was submitted in July 2008 and was approved in August 2008. It complied with the interim guidance extant at the time. The introduction of the new 100% single-bed room policy, CEL 48 (11 November 2008) (Bundle 4, doc 1, p.5), did not require

reconsideration of the accommodation arrangements proposed for the RHSC/RHCYP. The CEL specifically stated that "NHS Boards should implement the new guidance in all schemes in excess of delegated limits that have not yet submitted Outline Business Cases". The RHSC/RHCYP accommodation requirements were, therefore, based upon the interim guidance that was extant at the time when the 2008 OBC was prepared and approved. NHSL submitted an addendum update business case for the DCN once the addition of the DCN was introduced in 2013, but that did not require a revisiting of the business case for the RHCYP.

149. The configuration of the Project was determined by NHSL, having reference to the guidance that pertained at the time. The role of Scottish Government was approval of the business case. The business case set out NHSL's approach to service configuration, addressing benefits and risks for patients. I would have expected that the business case would set out NHSL's approach to configuration having had regard to the relevant guidance and CELs. That is what it did in so far as it complied with the interim guidance specifying that there needed to be a minimum proportion of single bedded rooms of 50% for the RHSC/RHCYP and a derogation was sought (and approved) for a less than 100% single-room provision for DCN.

150. Decisions about the proposed configuration of the patient rooms in the Project were taken by NHSL based on their identified service requirements. I am aware of references in the updated Project OBC (Bundle 3, vol.2, doc 61, page 672) that refer to the bed modelling and research undertaken with stakeholders that derived the position taken in the 2008 OBC regarding the proportion of single-bed rooms. I do not recall being involved in the exchanges relating to that approval. Before a business case is prepared the relevant service models need to be understood. The updated service model detail is contained within the updated Project OBC (Bundle 3, vol.2, doc 61, page 672) reflecting on the further development of modelling between 2008 and 2012.

151. Business cases received by the Scottish Government Property Capital Planning division (part of SGHSCD) were circulated to members of the CIG, which included the CMO and CNO Directorates, for comments. When I was in post there were templates that were completed for each project and comments would be gathered and sent back to the NHS Board, keeping an audit trail of issues raised and what was addressed. This was an

administrative task and carried out by the Secretariat to CIG located in the then Property and Capital Planning Division within SGHSCD. .

152. CIG had a number of discussions with NHSL about the proposals in its business case – I cannot recollect how many and when, but it was common in complex projects for the NHS Board to engage regularly on points of process. NHS Boards including NHSL would be invited to present their project to CIG, giving CIG the opportunity to ask questions based on the presentation and business case if that had been received prior to the meeting. Equally NHS Boards would be able to ask CIG members questions on aspects of business case development.

153. The rationale from the NHSL Board for single-bed rooms for RHCYP is contained in the 2008 OBC (Bundle 3, vol.1, doc 12, p.272) the 2012 OBC (Bundle 3, vol.2, doc 61, p.672) and the FBC (Bundle 3, vol.3, doc 76, p.729). Different guidance applied as between the RHSC 2008 OBC and the subsequent DCN OBC and the FBC for the Project. For the avoidance of doubt, this means that 2006 guidance applied to the RHSC and 2008 guidance applied to the DCN.

154. Some of the rationale for multi-bedded rooms in RHSC related to the fact that it would not be beneficial for some children to be kept in isolation. Other factors included provision for family support and addressed the fact that this was a hospital that was to be a facility for local, regional and national needs. These issues were addressed in NHSL's business case, which set out rationale for rooms required (Bundle 3, vol.2, doc 61, p.672).

155. In relation to the DCN and the particular derogation from single rooms requested there, particular clinical needs in relation to neuroscience were addressed; in particular I recall one of the key reasons for the request for a derogation was based on clinical observation needs. I recall this being a particular factor in relation to this request for derogation being approved. The CMO was consulted in relation to these requests for derogations.

156. NHSL requested approval for a derogation in respect of the DCN in 2013. NHSL's rationale in respect thereof is produced (Bundle 4, doc 17, p.182). I received that request and, as it required the approval of the CMO, I wrote to the CMO, appending the detailed explanation for the derogation provided by NHSL. The CMO wrote back to me

confirming that he approved the derogation, and I wrote back to NHSL to confirm that (bundle 4, doc 19, p.189). The Inquiry is therefore correct in understanding that a derogation from the single-bed room requirements of CEL 48 was sought by NHSL and granted by the Scottish Government (upon receiving the approval of the CMO) for the DCN in 2013. NHSL having identified what they considered to be the correct specification to provide the service, the technical specification would flow from that (not the other way around).

157. I am asked about how, once the new single-bed room policy was introduced, those responsible for the accommodation arrangements in the RHCYP were made aware of it. CEL 48 (Bundle 4, doc 1, p.5) was issued to all NHS Chief Executives with the usual expectation that they would follow normal custom and practice and cascade the CEL down through their respective organisations.

158. I am told by the Inquiry that it understands that SHTM 03-01 Table A1 (and its predecessor SHTM 2025) do not make explicit provision for ventilation arrangements in multi-bed rooms and asked whether I agree and various follow-on questions in relation to this guidance. I am not able to answer these questions. They would be better directed to HFS, who are the producers of the guidance and are the technical experts on its development. NHSL and HFS would be able to answer the Inquiry's questions on how provision for ventilation in multi-bed rooms was understood and the extent to which it was taken into account, when (a) initially deciding the RHCYP should include multi-bed rooms, and (b) when the single-room policy was introduced. In relation to interpretation of the guidance and its application to the RHCYP it is the responsibility of NHSL and their technical advisers to consider the guidance in setting out their technical requirements

159. I do not know what, if anything, was said to potential bidders about how ventilation guidance was to be applied to multi-bed rooms for the DCN – those would be matters for NHSL, supported by their technical advisors and the bidders to assist the Inquiry with.

Answers to questions posed in the Rule 8 request dated 10 February 2022

160. I have been asked to confirm whether, to be the best of my knowledge and belief, certain understandings held by the Inquiry team are correct. I confirm that:

1. *In November 2008, the Scottish Government's Chief Nursing Officer issued a letter containing updated guidance on the provision of single room accommodation (CEL 48) (Bundle 4, doc 1, p.5). It directed NHS Boards to implement the new guidance in all schemes exceeding delegated limits in which Outline Business Cases had not yet been submitted. The guidance, insofar as relevant to the Inquiry, was that for all new-build hospital and other healthcare facilities with in-patient accommodation, there was a presumption that all patients were to be accommodated in single rooms, unless there were clinical reasons for the use of multi-bed rooms.*
2. *The first Outline Business Case for the RHCYP is dated 1 July 2008 (the "2008 OBC") (Bundle 3, vol.1, doc 12, p.272). It was submitted to and approved by the CIG before CEL 48 (Bundle 4, doc 1, p.5) was issued (the Scottish Government's approval being dated 15 August 2008), such that the new guidance would appear not to have applied to the RHCYP. The guidance applicable when the 2008 OBC was approved was the Interim Guidance for NHS Scotland Provision of Single Room Accommodation dated 15 December 2006 (Bundle 3, vol 1, doc5, p.152).*
3. *The 2008 OBC (Reprovision of Royal Hospital for Sick Children - OBC) (Bundle 3, vol.1, doc 12, p.272) states that a mix of single-bed and four-bed rooms was found to be most desirable, and that the working assumption for the RHCYP was that it would have at least 50% single-bed rooms (paragraphs 6.5.1 and 6.5.3). A footnote in the 2014 Final Business Case refers to an approval by the Chief Medical Officer in 2008 (paragraph 2.8.1), but does not otherwise explain what process (if any) led to that decision[4]. A Single Room Accommodation report was produced.*
4. *CEL 48 (Bundle 4, doc 1, p.5) noted that further work was needed on the suitability of multi-bed areas for specific patient groups and to identify clinical specialities where 100% single-bed rooms would be mandatory. A consultation*

[4] NB - In my role as Head of the PFCU in 2008 I was not involved in that directly and have no recollection of exchanges. If the Inquiry needs more information on this, I would suggest SG should be able to cover from correspondence and papers relating to OBC consideration at the time

exercise by Delphi was underway to that end. Separate advice was to follow. Health Facilities Scotland were to be asked to review and update all relevant technical guidance, and to lead work to develop a risk matrix tool in conjunction with others including the Single Room Provision Steering Group.

5. *The Delphi Consultation Exercise established that single rooms were clinically appropriate in most specialities but identified eleven specialities where that was not always so. Reasons were given. For such specialities, four-bedded bays which could be subdivided into single rooms were considered a more appropriate option. For children and adolescents, 100% single rooms were seen as best practice; specialist advisers in surgical and medical paediatrics considered 100% single rooms should be provided in those specialities.*
6. *In July 2010, the Scottish Government's Health Finance Directorate issued a letter confirming as policy for NHS Scotland the presumption that there should be 100% single rooms in future hospital developments (CEL 27) (Bundle 4, doc 10, p.144). Certain exceptions were identified, including where there were clinical reasons for different arrangements. The letter required that any such reasons should be clearly identified and articulated in the appropriate Business Case. Each case would be subject to Scottish Government agreement as part of the Business Case approval process.*
7. *A further Outline Business Case was published in 2012 (the "2012 OBC"). (Bundle 3, vol.2, doc 61, p.672). The purpose of this business case was, through an addendum, to deal with the re-provision of the DCN and to change the funding structure; and that the substance of the 2012 OBC in relation to the RHCYP remained as in the 2008 OBC (Bundle 3, vol.1, doc 12, p.272). The 2012 OBC referred to the approval of the 2008 business case, and its proposed mix of single and shared accommodation. It said that 58% of in-patient beds would be in single rooms.*
8. *The Scottish Government had confirmed in January 2011 that the clinical options appraisal did not need to be updated for the 2012 OBC.*
9. *The 2014 Full Business Case (Bundle 3, vol.3, doc 76, p.729) contained similar provision (paragraph 2.8.1) and noted that this had been approved by the Chief Medical Officer in 2008 (footnote 14, page 17).*
10. *Health Building Note 23 "Hospital Accommodation for Children and Young People" (23 October 2014) does not refer to CEL 48 or CEL 27, or to the need*

for Scottish Government approval of anything less than 100% single rooms. It states that 100% single-bed rooms offered maximum flexibility; 50% single rooms were considered best practice; and 20% single-bed rooms were considered a minimum requirement.

161. The Inquiry has identified certain guidance and Scottish Government correspondence as being relevant to its terms of reference. The Inquiry has indicated that these include Scottish Health Technical Memorandum 03-01 – Ventilation for Healthcare Premises Part A – Design and Validation ("SHTM 03-01 Part A") (Bundle 1, doc 8, p.433) and so-called "Chief Executive letters" including CEL 48 (November 2008) (Bundle 4, doc 1, p.5) and CEL 27 (July 2010) (Bundle 4, doc 10, p.144) on single-room accommodation. I have no personal knowledge of the narration given by the Inquiry as to the different versions of SHTM 03-01 or SHTM 00.

162. In relation to Health Facilities Scotland, I confirm broad agreement with the facts set out by the Inquiry as being:

1. *Both SHTM 03-01 and SHTM 00 were published by Health Facilities Scotland ("HFS").*
2. *HFS is part of the Procurement, Commissioning and Facilities division of NHS National Services Scotland ("NHS NSS"); that NHS NSS is the name given to the body established in statute as the Common Services Agency; and that the statutory basis for NHS NSS is currently section 10 of the National Health Service (Scotland) Act 1978 and the National Health Service (Functions of the Common Services Agency) (Scotland) Order 2008.*
3. *Under section 10(7) of the 1978 Act, NHS NSS is required to act "subject to, and in accordance with" directions given by the Scottish Ministers. Under section 10(3), the Scottish Ministers may delegate to NHS NSS such of their functions relating to the health service as they consider appropriate. (The 1978 Act refers to the Secretary of State but, following devolution, such references are to be read as meaning the Scottish Ministers: section 53 of the Scotland Act 1998.)*
4. *The functions delegated to NHS NSS under the 2008 Order include the provision of "information, advice and management services in support of*

the functions of Scottish Ministers, HIS, Health Boards and Special Health Boards" (2008 Order, article 2(f)).

5. *HFS "provides operational expertise and guidance on subjects related to healthcare facilities" and it "establishes professional and technical standards and best practice procedures".*
6. *HFS has formed part of NHS NSS since 2006, when the Property and Environment Forum and its executive body, the Property and Environment Forum Executive ("PEFEX"), became part of NHS NSS and were renamed HFS.*
7. *The Prefaces to SHTM 03-01 and SHTM 00 provide an introduction to SHTMs (pages 7 and 5 respectively). These state that SHTMs give comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare. They explain that the focus of SHTM guidance remains on healthcare-specific elements of standards, policies and up-to-date established best practice. They refer to healthcare providers having a duty of care to ensure that appropriate engineering governance arrangements are in place and are managed effectively. They state that the SHTM series "provides best practice engineering standards and policy to enable management of this duty of care". They explain that the suite is not intended to repeat unnecessarily international or European standards, industry standards or UK Government legislation, but that where appropriate those would be referenced. They state that SHTM guidance was the main source of specific healthcare-related guidance for estates and facilities professionals. They state that the suite provided access to guidance which was more streamlined and accessible; encapsulated the latest standards and best practice in healthcare engineering; and provided a structured reference for healthcare engineering.*
8. *The Executive Summary to SHTM 00 states that it is provided as a comprehensive guide to all issues relating to the management of engineering and technical service provision wherever NHS patients are treated. It states that, whilst it is not intended to cover every possible scenario, its standards and principles may be appropriate to follow in all locations where healthcare is provided. It states that the aim of SHTM 00*

was to ensure that everyone concerned with the management, design, procurement and use of a healthcare facility understood the requirements of the specialist, critical building and engineering technology involved. It states that, regardless of the procurement route, it is essential that, as part of the briefing process, those involved in the provision of the facility are advised that all relevant guidance published by HFS was available electronically for purchase[5] from HFS. It states that only by having knowledge of these requirements could a healthcare organisation's board and senior managers understand their duty of care to provide safe, efficient, effective and reliable systems which were critical in supporting direct patient care. It states that it was expected that appropriate governance arrangements would be put in place to reflect these responsibilities, supported by access to suitably qualified staff to provide the informed client role. It states that by locally interpreting and following the guidance, NHS boards and individual senior managers should be able to demonstrate compliance with their responsibilities.

9. *SHTM 00 recommends (page 9) that boards and chief executives, as accountable officers, use the guidance and references provided, inter alia: when planning and designing new healthcare facilities; and when developing governance systems which take account of risk. The Executive Summary concludes by stating that "Once NHS Boards and Chief Executives have embraced their principles set out within this document and taken the necessary actions, their duty of care responsibilities are more likely to be fulfilled".*

10. *Both SHTM 00 and SHTM 03-01 carry a disclaimer in the following terms:*

> *"The contents of this document are provided by way of general guidance only at the time of its publication. Any party making use thereof or placing any reliance thereon shall do so only upon exercise of that party's own judgment as to the adequacy of the contents in the particular*

[5] From memory there may have been a different approach for public bodies and for the private sector at one time - HFS would need to confirm this. The CEL in 2010 on Design Quality refers as a footnote to Annex B of the development of "Space For Health", which was a UK wide initiative to electronically host guidance material. I cannot recall when the development of this completed or how it was implemented.

circumstances of its use and application. No warranty is given as to the accuracy, relevance or completeness of the contents of this document and Health Facilities Scotland, a Division of NHS National Services Scotland, shall have no responsibility for any errors in or omissions therefrom, or any use made of, or reliance placed upon, any of the contents of this document."

163. 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.

By typing my name and the date below, I accept that this is my signature duly given.

Signed : MICHAEL BAXTER
Date: 20 APRIL 2022

SCOTTISH HOSPITALS INQUIRY

Witness Statement
of
Alan Morrison
In response to a Rule 8 Request dated 3 March 2022

11 April 2022

Professional Background

1. My name is Alan Morrison. My date of birth is [redacted]. I am 51 years old.

2. I am a civil servant employed by the Scottish Government as the Interim Deputy Director of Health Infrastructure. I have held this role since March 2020. My background is in accountancy and I have a professional accountancy qualification from the Chartered Institute of Public Finance and Accountancy which I obtained in 1998.

3. I provided a witness statement to the Inquiry on 11 April 2022 in response to a Rule 8 Request dated 10 February 2022 ("my First Statement"). This witness statement is presented in response to a Rule 8 Request dated 3 March 2022, in particular, questions 5.17 and 5.18 of that request as well as provision of evidence related to the NHSScotland Design Assurance Process ("NDAP"). The evidence provided in this witness statement supplements the evidence I provided in my First Statement.

The Use of the NPD Model in Scotland

4. In or around 2005 the Scottish Futures Trust ("SFT") developed the Non-Profit Distributing ("NPD") model as a replacement to the traditional Private Finance Initiative ("PFI") model then in use in capital infrastructure projects involving Public Private

Partnership ("PPP") i.e. those projects involving a collaboration between the public and private sectors.

5. I understand that the Inquiry is interested in whether the NPD model is still used for public sector capital projects. It is not. The Scottish Government has replaced the NPD model with the Mutual Investment Model ('MIM'), but it has not been used by the health portfolio for any project to date (and there are no immediate plans to use this option).

6. Eurostat, an organisation within the European Union that collects and collates statistical information related to member states, requires member states to compile specified statistical returns (accounts) on the basis of the European System of Accounts ("ESA"). ESA contains the rules and procedures for the compilation of national and regional accounts used by member states. It is an internationally compatible accounting framework that provides for the systematic and detailed description of an economy. The current version of ESA is ESA 2010. Since September 2014 (the effective date of ESA 2010), Scotland's economic statistics have been compiled in accordance with ESA 2010.

7. The Office for National Statistics ("ONS") is responsible for assessing public bodies and public transactions against ESA rules in order to determine how the bodies and transactions are to be treated in Statistical National Accounts (used to provide a simple and understandable description of production, income, consumption and accumulation of wealth across the UK). In July 2015, ONS published its assessment of a PPP project using an NPD model: the Aberdeen Western Peripheral Route ("AWPR")[1]. The assessment concluded, applying ESA 2010, that the Scottish Government had economic ownership of the asset. The ONS' assessment of AWPR as a public project (as opposed to a PPP project) resulted in a charge being made to the Scottish Government's Capital Departmental Expenditure Limit ("SGDEL") such that the value of the private investment is lost. The ONS' assessment of AWPR applies to all projects utilising the NPD Model.

1 https://www.ons.gov.uk/file?uri=%2Feconomy%2Fnationalaccounts%2Fuksectoraccounts%2Fdatasets%2Fpublicsectorclassificationguide%2Fseptember2015/publicsectorclassificationguidelatest_tcm77-418156.xls - Open file – click on 'historic updates' and the first line gives the rationale of the ONS

8. The purpose of PPP is to inject additional private finance into public projects (i.e. to share the capital burden across the public and private sectors). If that sharing of capital burden is lost (in real terms) by subsequent charges against SGDEL then that value (or part thereof) is lost. The ONS' assessment of AWPR means that it is no longer economically viable to use the NPD model in Scottish Capital Projects.

9. The United Kingdom's withdrawal from the European Union has not affected the ONS' use of ESA 2010 when preparing Statistical National Accounts.

NHSScotland Design Assurance Process

10. NDAP has formed part of the business case review process, undertaken by the Capital Investment Group ("CIG") since June 2010 (see NHS CEL 19 (2010) – Bundle 4, document 9, p.99). NDAP has been incorporated within the Scottish Capital Investment Manual ("SCIM") (Bundle 3, volume 2, document 33, p.120) since 1 July 2010.

11. The broad purpose of NDAP is to promote design quality and the service outcomes realised through good design. NDAP considers healthcare specific design as well as general good practice in design.

12. As I describe at paragraphs 19 to 32 of my First Statement, a business case is reviewed by CIG at a number of distinct stages. NDAP commences at Initial Agreement stage with the development of design standards that are used to provide the key criteria for future NDAP review. Thereafter, formal NDAP reports will be submitted to CIG prior to consideration of the Outline and Full Business Cases. Interim NDAP reports/responses may also be submitted to CIG (on request) at strategic design stages.

13. NDAP is undertaken by Health Facilities Scotland ("HFS") and Architecture and Design Scotland ("ADS"). HFS and ADS are best placed to describe the technical detail of the review they undertake. The outcomes of HFS and ADS' reviews are reported to CIG; and SCIM is clear that "*CIG approval is conditional on the level of support verified in the formal NDAP report sent at OBC or FBC submission*."

14. As I discussed at paragraph 13 above, HFS and ADS are best placed to discuss the technical detail of NDAP reviews. That said, and in so far as may be relevant to the Inquiry's terms of reference, the NDAP guidance contained in SCIM makes clear that it is for the health board to demonstrate compliance with "design guidance" and to list any derogations. Accordingly, there is an expectation that the health board will flag any known derogation from technical standards applicable to the project being delivered.

15. On 5 July 2019 I emailed Susan Grant of HFS in relation to NDAP. Susan responded to my email later that same afternoon (Bundle 3, volume 3, document 78, p.1,309). The purpose of my email was to better understand whether NDAP should have identified the problem with the ventilation system (at RHCYP) which had recently been discovered. If the answer was 'no, NDAP does not get into that level of detail', we would need to consider what we would have to put in place to identify issues before they became a problem. If the answer was 'yes, it should have spotted the problem', then we would need to consider why it did not and what we would need to change about the process. Susan's response was to explain that because NDAP is "*only a proportionate review*" she could not guarantee the process would detect problems (such as arose at RHCYP) in future projects. As I explained at paragraph 13 above, HFS and ADS are best placed to explain the technical details NDAP reviews, including what is meant by "*proportionate review*".

16. Susan's email was informative to the work undertaken in relation to the creation of NHSScotland Assure ("NHSSA"). I explain at paragraphs 48 to 56 of my First Statement, the Key Stage Assurance Review that is now undertaken by NHSSA.

17. 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.

SCOTTISH HOSPITALS INQUIRY

Witness Statement
of
Alan Morrison
In response to a Rule 8 Request dated 10 February 2022

11 April 2022

Professional Background

1. My name is Alan Morrison. My date of birth is [redacted]. I am 51 years old.

2. I am a civil servant employed by the Scottish Government as the Interim Deputy Director of Health Infrastructure. I have held this role since March 2020. My background is in accountancy and I have a professional accountancy qualification from the Chartered Institute of Public Finance and Accountancy which I obtained in 1998.

3. I have been employed by the Scottish Government since April 2003. During that time I have worked in the Health Finance Directorate in a number of different roles as a qualified finance professional. Between January 2015 and March 2020 I was the Capital Accounting and Policy Manager for Health Infrastructure. While my job title changed between January 2015 and the present day the duties have remained broadly the same since January 2015, the main duties of which are:-

    - Developing and delivering the Capital Investment Strategy for the Health Portfolio, ensuring that it aligns with the infrastructure priorities of the wider Scottish Government, including delivering sustainable economic growth and delivering a lower carbon economy.

- Managing the portfolio's capital budget of ~£0.5 billion, ensuring that a breakeven position is delivered each year, that the expenditure supports the portfolio's strategic priorities and that value for money is delivered.

- Chairing (from December 2015) the Scottish Government Health and Social Care ("SGHSC") Capital Investment Group ("CIG") which oversees the review and scrutiny of all business cases submitted to SGHSC, as well as being the lead official for the national infrastructure board.

- Interpreting HM Treasury and Scottish Government capital accounting and budgeting guidance and subsequent provision of advice to NHSScotland finance professionals through working groups and written guidance.

- Leading the development of strategic advice to Ministers on the options and opportunities for prioritising, financing and delivering infrastructure investment, including how it can help enable service reform and support clinical priorities.

- Managing and developing the capital accounting and policy framework for NHSScotland that ensures compliance with HM Treasury and Scottish Government accounting, budgeting and legislative requirements. This includes effective management of the capital investment programme and of property transactions, as well as performance management.

- Managing assurance processes in respect of major capital programmes of work by health boards: as well as engagement with internal stakeholders, one of my key responsibilities in this regard is to develop and maintain links with a range of external stakeholders including other national groups, applying specialist knowledge and skills to review, analyse and manage risks.

4. In January 2021, I assumed responsibility for pandemic Personal Protective Equipment ("PPE"). Prior to the pandemic, there was no need for a PPE team, therefore this was a new area of responsibility to manage.

5. I have been involved with the Royal Hospital for Children and Young People ("RHCYP") and Department of Clinical Neurosciences ("DCN") project (together "the Project") since starting my role as Capital Accounting and Policy Manager and subsequently as Interim Deputy Director for Health Infrastructure and Investment. None of the jobs I held prior to January 2015 had any involvement with the Project.

Overview

6. In this statement I will address the undernoted themes:-

   a. The Scottish Government Health and Social Care Directorates
   b. The Scottish Public Finance Manual and The Scottish Capital Investment Manual
   c. SGHSC Capital Investment Group
   d. SGHSC Capital Investment Group – Business Case Review Process
   e. Health Facilities Scotland
   f. NHSScotland Assure
   g. Answers to Rule 8 request dated 10 February 2022

The Scottish Government Health and Social Care Directorates

7. SGHSC is a group of Scottish Government Directorates responsible for Health and Social Care in Scotland. There are 13 directorates in the group and each directorate assumes responsibility for a different function of the NHS' delivery of health and social care in Scotland. The current directorates are:-

   - Chief Medical Officer;
   - Chief Nursing Officer;
   - COVID Public Health Directorate;
   - Digital Health and Care Directorate;
   - Health Finance, Corporate Governance and Value Directorate;
   - Health Performance and Delivery Directorate;
   - Health Workforce Directorate;

- Healthcare Quality and Improvement Directorate;
- Mental Health and Social Care Directorate;
- Population Health Directorate;
- Primary Care Directorate;
- Test and Protect; and
- Vaccine Strategy and Policy.

8. I am the Interim Deputy Director for Health Infrastructure. Health Infrastructure falls within the Directorate for Health Finance, Corporate Governance and Value. The director of the Health Finance, Corporate Governance and Value Directorate is Richard McCallum.

9. Since the beginning of my tenure in my current role, my team has been responsible for Health Infrastructure and Investment. Since the beginning of the pandemic, my team has also been responsible for PPE. The division is responsible for managing the overall NHSScotland capital budget, the co-ordination and management of the NHSScotland Infrastructure Investment Programme and for policy co-ordination in relation to pandemic personal protective equipment.

10. As I explain more fully below, all relevant business cases in relation to healthcare capital projects are considered by my team and supporting staff from across SGHSC. Health boards are reliant upon funding approval from the Scottish Government. If the Scottish Government does not approve the business case then the facility under contemplation cannot proceed.

<u>The Scottish Public Finance Manual and The Scottish Capital Investment Manual</u>

11. The Scottish Public Finance Manual ("SPFM") is issued by the Scottish Ministers to provide guidance to the Scottish Government and other relevant bodies on the proper handling and reporting of public funds.

12. The Scottish Ministers have also issued related guidance that is sector specific. The Scottish Capital Investment Manual ("SCIM") (Bundle 3, volume 2, document 33, p.120)

provides guidance, in an NHS context, on the processes and techniques to be applied in the development of all infrastructure and investment programmes and projects within NHSScotland. The guidance applies to the cyclical process of project development from inception (at the service planning stage) to post project evaluation of service benefits realised. The guidance not only covers issues around investment appraisal, financial (capital and revenue) affordability and procurement, but also the project management and governance arrangements required to support the development of such programmes and projects.

13. The principles set out in SCIM are applicable to all NHSScotland Bodies in relation to the development of all infrastructure and investment schemes, regardless of their size or complexity, and are designed to provide an audit trial and assurances that appropriate steps have been followed in the investment decision making process.

14. All health infrastructure business cases submitted for consideration will be assessed against the guidance contained within the SPFM and SCIM. If a business case is non-compliant it will not be approved.

SGHSC Capital Investment Group

15. The SGHSC Capital Investment Group ("CIG") is responsible for monitoring[1] the delivery of major capital investment projects developed by health boards (regardless of the ultimate funding route adopted by the procuring organisation) and recommending whether or not approval should be given by the Director General concerned. CIG is constituted by representatives from across SGHSC – I have noted a list of the current SGHSC Directorates at paragraph 7 above.

[1] "Monitoring" via the business case review process described at paragraphs 22-42 below as well as by consideration of post project evaluation. Post project evaluation is the process of assessing the impact of a project after it has come to an end. Two stages are defined; namely Project Monitoring and Service Benefits Evaluation. Project Monitoring will cover the technical aspects of the planning, implementation and completion phases of a project (i.e. generally, the construction phase), and the Service Benefits Evaluation will cover the impact of the project on service change and benefits realisation – the project's benefits register and realisation plan will form a significant part of this latter assessment.

16. I have been the chair of CIG since December 2015 and have been a member of it since November 2015.

17. The Chair of CIG has delegated authority to approve projects with a capital cost of up to £5 million. For projects between £5 million and £10 million, CIG will, following the successful consideration of a Business Case, make a recommendation for approval to SGHSC Director of Health Finance who has delegated authority to approve. Where a scheme has a capital cost in excess of £10 million CIG will make a recommendation to the Director General for Health and Social Care (the "Director General"). The delegated authority limits of CIG are published on the Scottish Government's website at https://www.pcpd.scot.nhs.uk/Capital/Approval.htm (under tab - "Delegation within SGHSC"). (Bundle 3, volume 3, document 79, p.1,312).

18. CIG receives advice and support on planning, procurement, construction and facilities management issues from NHS National Services for Scotland ("NHS NSS") and the Scottish Futures Trust. CIG will also obtain advice from relevant clinical and policy colleagues where appropriate.

19. By approving the business cases submitted to CIG, the Director General gives health boards the assurance of SGHSC support for the strategic justification for progressing capital schemes whilst sending a clear indication to the private sector that the projects are supported by the Scottish Government.

20. CIG also plays a vital role in providing the necessary assurances to both Scottish Ministers and SGHSC Management Board that proposals are robust, affordable and deliverable.

21. CIG also acts as a forum for the development, promotion and distribution of best practice and guidance within capital planning and development whilst providing SGHSC with an overview of the strategic direction of NHSScotland.

SGHSC Capital Investment Group – Business Case Review Process

22. I understand that the Inquiry, at this time, is not focussed on the detail of the particular business case reviews undertaken for the Project, so I describe below the general process by which a project is approved by CIG in order to provide the Inquiry with a broad understanding the different roles and responsibilities applicable to the parties involved in a business case review.

23. The Inquiry will, in due course, come to consider the journey of the Project's business case and the Scottish Government will be happy to provide evidence in relation thereto at a time that is considered appropriate by the Inquiry.

24. It is for the health board to develop the project that it wishes to deliver. SCIM makes clear that under no circumstances should responsibility for the direction and lead production of the business case be outsourced to external consultants.

25. The role of the Scottish Government is to consider whether the business case meets the requirements of SPFM and SCIM and to either approve or reject the proposal. Not all projects require the approval of the Scottish Government. When a health board wants to deliver a significant capital project (usually the upgrading of an older facility or the development of a new facility) they must first consider whether that is something that can be dealt with under the health board's own delegated authority or whether it requires reference to CIG. The determinative factor is the value of the project's capital expenditure. Annex C to the Chief Executive's Letter dated 19 August 2010 contains the delegated authority limits that were applicable to the Project (Bundle 4, document 11, p.146). The current limits are contained within a director's letter (from the Director of the Health Finance, Corporate Governance and Value Directorate) dated 12 September 2019 (Bundle 3, volume3, document 79, p.1,312).

26. Having identified the project as one falling outwith the delegated authority limit it is incumbent upon the health board to seek the Scottish Government's approval (via CIG). CIG encourages the early engagement of the health board and it is common for there to be several meetings between CIG and the health board prior to and during submission of the documents I explain below, namely (as named in SCIM) the "Initial Agreement" (so named but in reality a proposal), "Outline Business Case" and "Full Business Case" (and

any addendum thereto). The procedure for submission and content of these documents is regulated by SCIM.

27. Having identified the parameters of the project the health board should submit an Initial Agreement to CIG for review and approval. I would expect the Initial Agreement to set out what the health board's proposal is about. In particular it should explain the current arrangements by which the health board is providing its services and why there is a need for change. To comply with the principles outlined in SCIM, I would expect the Initial Agreement to identify the proposed strategic/service solution designed to meet the health board's need. Finally, I would expect the Initial Agreement to consider whether the health board is ready to proceed with its proposal, taking into consideration the commercial, financial and management needs associated with the proposal.

28. Once submitted, the initial agreement will be circulated amongst the members of CIG and, thereafter, considered at a meeting of CIG. CIG will either reject the initial agreement or recommend that the Director General approves it. CIG's consideration is guided by the advice contained in SPFM and SCIM, however, it employs a subjective approach to each assessment. If the initial agreement is rejected the health board will be advised why. As with review at all stages, a rejection usually prompts the health board to revise and resubmit its proposal.

29. If the Initial Agreement is approved, the health board submits an outline business case to CIG for consideration. To comply with the principles outlined in SCIM, the Outline Business Case will identify the preferred option for implementing the strategic/service solution approved at Initial Agreement stage. It will demonstrate that the preferred option will deliver the necessary service change, optimise value for money, and be affordable. It will also set out the supporting commercial and management arrangements to be put in place to successfully implement that option. A developer can only move on to procurement (by whatever means it considers appropriate) once it has received approval of its outline business case from the Scottish Government.

30. Finally, the health board submits its Full Business Case to CIG for consideration. The full business case will set out the agreed commercial arrangements for the project whilst also confirming that it remains value for money, is affordable, and that the organisation is ready to proceed towards implementation of that option. The Full Business Case will

be developed by the health board (essentially by revising and expanding upon the Outline Business Case) within the final procurement phase of the project and record the detailed assessment and/or negotiations with potential service providers/ suppliers prior to the formal signing of contracts but does not include the actual procurement documentation (such as an environmental matrix which forms part of the invitation to tender) utilised by the health board.

31. I would expect all issues to be resolved and agreed by the health board prior to it submitting the final business case to CIG. CIG needs to know what it is recommending to the Director General for approval. A health board may also submit an addendum to its final business case where it requires further approval for matters not contained in (or which would derogate from) the full business case.

32. The business case review process is intended to be scalable and flexible to ensure that the effort required in preparing the relevant documents is appropriate. The level of detail required will be dependent upon the scale, risk and nature of the investment proposal. It should, however, meet the expectations and information needs of CIG. The health board can consult CIG for further advice on these expectations.

33. All business cases are circulated to the members of CIG to consider not only the content of the business case but also the deliverability of the project. In that respect, CIG will be interested in the health board's Management Case, to look at whether the Board have a suitably resourced and experienced project team in place to deliver the project and also whether the health board's governance arrangements are appropriate. CIG also examines the extent to which the project is aligned with national, regional and local priorities (the last as articulated in Local Delivery Plans and associated Property and Asset Management Strategies). For example, I would look for health boards to mention the Quality Strategy relevant to its area or explain how more services could be delivered at home or in a community setting (which is a long established policy objective of the Scottish Government) or, where possible, link to the National Planning Framework, which is a long term plan for Scotland that sets out where development and infrastructure is needed. Each CIG member will focus on their specialist area of the business case, for example financial or clinical aspects, and submit their comments to Capital and Facilities in advance of the meeting. The CIG member can, however, comment on other aspects of the business case if he/she considers it appropriate. My own area of focus is finance.

34. Policy Leads from the Health Finance and Infrastructure Division will collate the comments, seeking further clarification from the health board if necessary, before CIG meet to take a collective decision about the project. CIG members, acting as a group (in consensus), decide whether or not to make the recommendation for approval to the Director General (or Director of Finance if delegated or due to particular circumstances, e.g. the Director General being on leave or otherwise unavailable). CIG may also seek the appropriate clarification from the health board on issues to be resolved prior to making any recommendation for approval. If CIG concludes that it cannot recommend approval at any given point, the health board will be advised of that and it will then be for the health board to decide whether to work further on the proposal and bring a further iteration of the proposal to CIG for further consideration.

35. The Health Finance and Infrastructure team retains some oversight of the project until it is completed. This will involve discussions on timeline and affordability and any challenges the project may be experiencing. Usually that involves relevant officials from the Scottish Government meeting with members of the project team and/or sitting on project boards (set up for delivery of the project) once business plans are approved.

36. CIG carefully scrutinises all stages of the business case review process. CIG is conscious to ensure that the business case is fully compliant with the SPFM and SCIM guidance and requirements. The review is detailed but undertaken at a reasonably high level. By that, I mean that CIG is concerned to note that all relevant requirements have been met (such as technical specifications) but CIG recognises that, ultimately, it is the health board who are delivering the project. Thus, if the health board undertakes that a certain element of its design is compliant with the relevant technical memorandum then CIG does not check that the actual design is, as a matter of fact, compliant.

37. If the health board did seek to derogate from the standards and guidance contained within SPFM, SCIM or elsewhere it would be for the board to identify the derogation and seek approval from CIG. In my experience, no derogations have in fact been brought to my attention, though I am aware that a derogation was (before my involvement with CIG) sought in relation to the policy as to the proportion of single beds in hospitals (in relation to the Project).

38. Projects involving private finance require the approval and commitment of private finance partners before CIG will issue a recommendation for approval of the full business case. It is the health board's responsibility to satisfy CIG of this. The private finance partners' commitment is often not reached until "financial close". In a Public Private Partnership ("PPP") project, financial close is usually the stage at which project agreements between the health board and project co (the consortium who is delivering the project) have been concluded. Until this stage is reached, or it is clear that this stage will be reached, CIG cannot be certain that the private finance required to deliver the development has been committed to it.

39. Accordingly, in a PPP project, such as the Project, CIG generally recommends approval of the final business case in two stages. Firstly, CIG satisfies itself that the business case can be approved but for the occurrence of financial close (and other minor matters) (stage one). At this stage, CIG may make a formal recommendation and a letter may be issued to the health board authorising the health board to proceed to financial close, however, this does not happen in all cases. Thereafter, CIG monitors the project as it approaches financial close (the health board is obliged to keep CIG up to date). Once CIG is satisfied that financial close will be reached then it will make a recommendation to approve the full business case (stage two).

40. It is common for business cases (particularly at the early stages) to be rejected by CIG. I would estimate that this happens in approximately 50% of all cases. The most common reason for rejection is that the proposed improvement in services has not been effectively articulated and there are too many unanswered questions. Unanswered questions could include matters such as whether the health board had consulted with regional partners on the possibility of delivering a regional service; whether there is adequate workforce available to staff the new facility; whether the revenue costs affordable; or whether the health board has maximised the use of digital options etc.

41. It is also common for there to be an open dialogue between the health board and CIG as its business case progresses – in fact, this is encouraged. The process is designed to deliver affordable and effective solutions to health care needs across Scotland. It is in all parties' interests to see that that end goal is achieved.

42. Finally, the whole process from inception at health board level to approval of the full business case by Scottish Government takes many years – often more than a decade.

Health Facilities Scotland

43. NHS NSS provides services and advice to the NHS and public sector. NHS NSS is a non-departmental public body established under s10 of the National Health Service (Scotland) Act 1978. NHS NSS is independent of, but accountable to, the Scottish Government. NHS NSS provides a wide range of services ranging from legal support (the Central Legal Office) to the facilitation of blood transfusion services (the Scottish National Blood Transfusion Service).

44. Health Facilities Scotland ("HFS") is the division of NHS NSS which has particular responsibility for the provision of operational advice and guidance to NHSScotland bodies on a range of healthcare facilities topics. HFS is responsible for establishing professional and technical standards and best practices. In particular, HFS is responsible for the publication of the Scottish Health Technical Memoranda ("SHTM").

45. SHTM are directed at those providing healthcare services. The memoranda cover a range of technical practice areas and provide comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare. SHTM apply to new and existing healthcare sites and are for use at various stages during the lifecycle of a facility.

46. The Scottish Government is not responsible for the publication of SHTM. My role requires me to be aware of the importance and general content of SHTM. However, and as I explained at paragraph 45 above, the technical application of SHTM is a matter for those providing healthcare services and I am not familiar with their technical content in any great detail.

47. CIG expects a business case presented to it to be compliant with the relevant SHTMs. It is for the health board to guarantee such compliance. If the health board seeks to derogate from SHTM it should make this clear in its business case and make the appropriate request to the relevant SGHSC, however this does not happen very often.

The content of an "appropriate request" will depend upon the standard being derogated from and the reasons therefore. Where derogation is sought from a "clinical" standard I would expect the health board to include a "clinical" justification for the derogation within its request.

NHSScotland Assure

48. In September 2019, the Scottish Government published the Programme for Government [Source: https://www.gov.scot/publications/protecting-scotlands-future-governments-programme-scotland-2019-20/] which included the following ambition '*To ensure patient safety we will create a new national body to strengthen infection prevention and control, including in the built environment. The body will have oversight for the design, construction and maintenance of major infrastructure developments within the NHS and also play a crucial policy and guidance role regarding incidents and outbreaks across health and social care'*. This addition to the Programme for Government arose from the Scottish Government's consideration of the issues and incidents identified in the built environment of the new hospitals at QEUH and RHCYP (throughout 2019).

49. Consequently, NHS NSS received a commission from the Scottish Government to support the creation of Quality in the Healthcare Built Environment – this later became known as NHSScotland Assure ("NHSSA"). The service was designed to improve the management of risk in the built environment across Scotland, providing greater confidence to stakeholders. The model was enabled by establishing robust relationships across the system, having joint accountability alongside health boards and will, in due course, provide a structured forum that will enable construction professionals and clinical colleagues to work in an integrated manner to ensure that the healthcare built environment is safe, fit for purpose, cost effective and capable of delivering sustainable services over the long term.

50. NHSSA was established in June 2021 (though an Interim Review Service had been running since early 2020). Like HFS, NHSSA is a division of NHS NSS. When NHSSA was launched, it was described by the Scottish Government as bringing together experts *"to improve quality and support the design, construction and maintenance of major healthcare developments. This world first interdisciplinary team will include*

microbiologists, infection prevention and control nurses, architects, planners, and engineers. Commissioned by the Scottish Government and established by NHS National Services Scotland, the service will work with Health Boards to ensure healthcare buildings are designed with infection prevention and control practice in mind, protecting patients and improving safety." [Source: https://www.gov.scot/news/nhs-scotland-assure/]

51. NHSSA seeks to align compliance with all relevant guidance and helps health boards demonstrate this at key review stages of a facility's build process. NHSSA focusses on new builds and major refurbishments within the healthcare estate. NHSSA will also consider projects that are identified as complex due to the needs of patients using the facilities.

52. At paragraphs 22 to 42 above I explained the business case review process undertaken by CIG. NHSSA work with the health board during the preparation and presentation of its business case. In particular, NHSSA will review business case proposals to ensure compliance with relevant technical standards and guidance. From 1 June 2021, all health board projects that require review and approval from CIG, will need to engage with NHSSA to undertake key stage assurance reviews ("KSAR"). Approval from CIG will only follow once the KSAR has been satisfactorily completed. The KSARs have been designed to provide assurance to the Scottish Government that guidance, such as SHTMs, has been followed. The Scottish Government may also commission NHSSA to undertake reviews on other healthcare built environment projects.

53. NHSSA's engagement does not change accountability for the projects: health boards remain accountable for their delivery and NHSSA will be accountable for the services it provides that support delivery of the health board's projects.

54. NHSSA will also work closely with health boards to identify where a KSAR may be required for projects under their Delegated Authority, utilising a triage system to assess risk and complexity of projects.

55. The KSAR focuses on key topics, specifically – IPC (infection control), water, ventilation, electrical, plumbing, medical gases installations and fire. The aim is to ensure

that projects are designed, installed and functioning from initial commissioning of a new facility and throughout its lifetime. Health boards are required to have appropriate governance in place at all stages of the construction procurement journey.

56. Each health board will be fully responsible for the delivery of all projects, and its own internal process and resources for carrying out internal reviews and audits of its activities. The KSAR is seen as a complementary independent review, and not as a replacement for the responsibilities of the health board.

Answers to Rule 8 request dated 10 February 2022

57. I have been asked to provide the Inquiry with certain evidence relating to my involvement in the design, planning and construction of the Project, in particular, in relation to the application of SHTM and other relevant guidance and the effect of Chief Executive Letters ("CELs"). The request for information was made by the Inquiry in a Rule 8 Request dated 10 February 2022 ("the Request"). The subheadings in bold below correspond with the subheadings contained in the Request.

58. I have carefully reviewed the section of the Request headed "Subject Matter", reproduced at the end of this statement (Appendix 1). I agree that the contents of this section of the Request, including those facts taken from the SHTMs, is accurate.

59. I have considered whether there is additional information for the Inquiry to understand about the respective roles of HFS, the Scottish Ministers and health boards in ensuring that ventilation in healthcare premises is compliant with all applicable standards. As I have explained at paragraph 53 above, health boards are responsible for ventilation (and all critical systems) across their healthcare estate. HFS provide guidance (and may provide support) to the health board but compliance with that guidance is a matter for the health board.

60. As I explained at paragraphs 43 to 47 I am familiar with HFS' guidance, including SHTMs, however, my current role does not require me to consult this guidance on a regular basis. Consequently, I am aware of their purpose and function (as I describe above) but not their technical content. I am also familiar with the class of document known as CELs. As I explain more fully below, these are letters issued by the Chief

Executive of NHSScotland to the Chief Executives of the health boards across Scotland (and other relevant persons). Since 2014, similar letters have been issued by SGHSC Directors, rather than the Chief Executive. I have been involved in drafting and issuing some of these letters, such as DL[2] 2019 (5) which updated NHS Boards' capital delegated limits (see paragraph 25 above), (Bundle 3, volume 3, document 79, p.1, 312).

SHTMs

61. As I explained at paragraph 44, HFS is responsible for preparing and publishing SHTMs. HFS approves draft SHTMs and authorise their publication. SHTMs are usually, drafted, revised and published after review by a relevant governance group (with expertise in the relevant subject matter). HFS is responsible for this process.

62. The aim of SHTMs is to ensure that everyone concerned with the management, design, procurement and use of healthcare facilities, understands the requirements of the specialist, critical building and engineering technology involved. SHTMs are one piece of guidance from a suite of technical guidance provided to healthcare providers (such as Scottish Health Facilities, Planning, Technical and Building Notes). HFS is best placed to advise the Inquiry as to the interrelationship between SHTMs and other guidance. I am not required to use Scottish Health Facilities, Planning, Technical and Building Notes in my role.

63. SHTM guidance is directed at estates and facilities professionals working to deliver healthcare services in Scotland, in particular, those that work in NHSScotland. HFS communicates SHTMs (and other guidance) via the NHS Strategic Facilities Group ("SFG") and the various technical sub-groups that report directly to it such as the Scottish Engineering Technology Advisory Group and Scottish Property Advisory Group. I have a general understanding of these groups, however, HFS would be would be best placed to provide the overview of the governance structure and various groups that report directly to SFG.

[2] "DL" is the acronym used to denote "Directors Letter" – a letter issued by a SGHSC Director.

64. HFS is a division of NHS NSS (a non-departmental public body). NHS NSS are accountable to the Scottish Ministers. NHS NSS' have a statutory mandate (per The National Health Service (Functions of the Common Services Agency) (Scotland) Order 1974) to provide national strategic support services and expert advice to Scotland's health sector whilst maximising health impacts and cost savings.

65. SHTM is guidance as to best practice. The Inquiry has asked whether compliance with SHTMs is mandatory. As I explained at paragraph 47 CIG expects business cases submitted to it for review to be compliant with SHTM and if they are not, expects health boards to seek approval for any derogations. In that regard, CIG would expect the health board to take a risk managed approach that involves relevant stakeholders, to be followed before there is any departure from SHTMs. The newly followed KSAR process (undertaken by NHSSA), examines what derogations have been requested and reviews the proposed local governance arrangements for derogations.

66. It is difficult to comment upon what will happen where a health board fails to comply with SHTM because the potential range of non-compliance is wide. Where there was egregious non-compliance (for example a disregard of fire safety standards) SGHSC are likely to intervene and take steps to remove a project board. Such a situation has never arisen and it is almost inconceivable that a health board would behave this way. SGHSC would expect less serious instances of non-compliance to be managed by health boards. HFS and the health boards would be best placed to comment on this.

67. As I explained a paragraph 47 it is possible to derogate from SHTMs. It will be for each health board to determine its own processes in so far as derogation is concerned and the Scottish Government would rarely get involved in this process. However, I would expect there to be an audit trail that explains what has been requested, why it has been requested, what decision has been taken and why. This process should be transparent and open and be flexible enough to deal proportionately with each request. For example, a relatively minor request (made during the construction phase of a project) could perhaps be dealt with by the project manager or project director; a more significant request would perhaps go to the Project Governance Board or even the Scottish Government. The only example of derogation from guidance (not an SHTM), of which I am aware, that involved the Scottish Government was the derogation from the single room policy (as contained in the

CEL dated 2 July 2010) that occurred during the business case review of the Project. (Bundle 4, document 10, p.144.

68. I understand the Inquiry is interested in what those who are required to consider and apply SHTM should do when the guidance does not cover a particular situation, is ambiguous or has been superseded by legislation or best practice. It is for health boards to consider how to apply SHTMs; the Scottish Government would not get involved in decisions concerning their application. However, the Scottish Government, and in particular CIG, is aware that during the design and build of a new hospital (which will take many years) it is inevitable that guidance and legislation will change over that time. Where it is possible to accommodate new best practice guidance with minimal disruption, CIG would expect a health board to implement these changes. If adoption of new guidance would lead to additional cost or create a delay, we would expect the project team responsible for delivery to follow the approach outlined at paragraph 47. An exception to this practice would be if there was a change in a Board's statutory duty e.g. fire safety guidance, then the Board would need to comply with the change.

69. NHS Lothian and HFS are best placed to advise on the SHTMs and other documents relevant to ventilation systems at the Project.

70. HFS would also be best placed to advise on the reason for the import of "disclaimers" to SHTM.

71. I am aware that when HFS is drafting SHTM they consult with the other administrations across the UK. I understand that HTM 03-01 is the guidance applicable in England and Wales that is equivalent to SHTM 03-01, however, HFS would be best placed to comment thereon. I am also aware that the National Heating & Ventilation Advisory Group reports to the Scottish Engineering Technology Advisory Group, which in turn reports to the SFG (as discussed at paragraph 63). However, HFS would be best placed to comment on the work of these advisory groups and the contribution made to specific reviews.

Chief Executive Letters

72. CELs are letters sent from the Chief Executive of NHSScotland and Director General of Health and Social Care ("the Director General"). As I explained at paragraph 60, since 2014 all letters issued from SGHSC have been issued by Directors rather than the Director General; these are known as Directors' Letters ("DLs"). This reflected the view of the then Director General, who thought CELs would only be used for the most important issues.

73. The Director General provides strategic direction to the NHS in Scotland and drives performance, efficiency, value for money and the delivery of sustainable safe, effective and person-centred services as well as a general responsibility for maintaining a high standard of care for the people of Scotland and for providing support to Scotland's health and social care professionals. The Director General, amongst others, discharges the Scottish Government's functions under ss1 and 1A of the NHS (Scotland) Act 1978. The statutory basis of a CEL will depend on the context of each letter. Some of the guidance issued to health boards may be considered as administrative instructions, not falling within section 2(5) of the 1978 Act. Alternatively, the wording of the guidance may be framed as imposing obligatory requirements under the statutory powers and direction of the Cabinet Secretary for Health and Social Care.

74. CELs are issued either (a) to impose mandatory requirements on NHS Boards or (b) on an advisory or "Best Practice" basis. For example, DL (2019) 23 confirms mandatory HCAI and AMR policy requirements but some elements of the guidance was given on a best practice basis (Bundle 3, volume 3, document 80, p.1,314).

75. In my experience, CELs and DLs are complied with by those to whom they are directed. If a health board refused to comply with the terms of a CEL then the Scottish Ministers may make a direction, obliging compliance, in accordance with s2(5) of NHS (Scotland) Act 1978. The consequences of non-compliance will depend on the contents of each letter and on what basis it has been issued. Guidance is not normally legally enforceable.

76. If a health board sought to derogate from the terms of a CEL when submitting a business case for review to CIG, I would expect that derogation to have been justified and approved by the relevant parties within SGHSC. My comments at paragraph 47 in relation to derogation from SHTM apply equally to CEL.

77. A failure by a health board to comply with the terms of a CEL may result in ministerial direction, however, I am unaware of this ever happening. Derogations from CELs are rare. The only derogation of which I am aware is the derogation from the CEL relating to single room policy during the business case review for the Project. I am not aware of the detail of what happened as this pre-dated my involvement with the Project. There is not a specific process for derogation, if a health board thought an issue was worthy of a derogation, then either their Chief Executive or an Executive Director of the Board would discuss the matter with a senior Scottish Government colleague (relevant to the subject matter of the derogation) – requests would be considered on a case by case basis.

78. CELs are drafted by the relevant policy leads at the Scottish Government. The letters cover a range of subjects, thus the drafting is department specific. Prior to being issued the relevant policy lead would agree the content of the CEL and obtain the support of the relevant SGHSC Director. Once drafted and approved by the relevant Director, the letter would be sent to the Director General's office for approval. All CELs are issued from the Director General's mailbox.

79. CELs are directed to relevant persons within health boards. Who is relevant depends on the subject matter of the letter. Typically, letters would be issued to NHS Board Chief Executives and NHS Board Chairs, they would also be copied to the Director at each Health Board who leads on the subject contained in the letter. For example, if the letter was about healthcare facilities, then it would go to Directors of Estates and Facilities, Finance issues would go to Directors of Finance etc.

80. I understand that the Inquiry is interested in the extent to which those responsible for the design planning, construction and operation of hospitals have discretion to depart from CELs. CELs cover a wide range of topics, however, with the exception of the single room policy, I am not aware of any CEL that covered any part of the design, planning, construction and operation of a new hospital. Accordingly, I cannot comment on whether or not it is advisable or common for such departure to take place. Likewise, I cannot comment on what the same parties are to do if a CEL does not cover a particular situation or is ambiguous.

81. As I explained at paragraph 78, the drafting of CEL and DL is department specific. My department has not drafted any CELs or DLs in relation to ventilation systems. The Scottish Government can provide the Inquiry with a list of any relevant CELs and/or DLs drafted by other SGHSC directorates if that would be of assistance to the Inquiry's ongoing investigations.

82. 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.

APPENDIX 1

Subject Matter

The Inquiry has identified certain guidance and Scottish Government correspondence as relevant to its terms of reference. These include Scottish Health Technical Memorandum 03-01 – Ventilation for Healthcare Premises Part A – Design and Validation ("SHTM 03-01 Part A") and so-called "Chief Executive letters" including CEL 48 (November 2008) and CEL 27 (July 2010) on single-room accommodation. The Inquiry is keen to understand the status and purpose of such documents insofar as they are relevant to its Terms of Reference.

Versions

1. The Inquiry has version 2 of SHTM 03-01 Part A dated February 2014. It does not presently have version 1. It understands that SHTM 03-01 version 1 was preceded by SHTM 2025. It is not clear to the Inquiry at present which version(s) applied to the RHCYP/DCN project or over what time periods.

2. SHTM 03-01 v.2 explains that it is part of a series of engineering-specific guidance in nine parts. The series is said to include SHTM 00: Policies and Principles, which is said to be applicable to all SHTMs in the series. SHTM 00 version 2.1, dating from February 2013, is available to the Inquiry. It has the fuller title SHTM 00: Best Practice Guidance for Healthcare Engineering: Policies and Principles. The Inquiry does not presently have earlier versions.

3. The questions which follow are based upon the versions of SHTM 00 and SHTM 03-01 which are presently available to the Inquiry, on the assumption that insofar as material to those questions those versions are substantially the same as the versions which applied to the RHCYP/DCN project. If that assumption is not correct, please notify the Inquiry team at the earliest opportunity and clearly reference which versions you refer to in your statement. We would, in any event, welcome confirmation of the version(s) of the guidance which applied to the RHCYP/DCN project, over which time periods. If they are available to you, please provide copies of all relevant versions of the guidance.

Health Facilities Scotland

1. The versions of both SHTM 03-01 and SHTM 00 presently available to the Inquiry bear to have been published by Health Facilities Scotland ("HFS").

2. The Inquiry understands that HFS is part of the Procurement, Commissioning and Facilities division of NHS National Services Scotland ("NHS NSS"); that NHS NSS is the name given to the body established in statute as the Common Services Agency; and that the statutory basis for NHS NSS is currently section 10 of the National Health Service (Scotland) Act 1978 and the National Health Service (Functions of the Common Services Agency) (Scotland) Order 2008.

3. Under section 10(7) of the 1978 Act, NHS NSS is required to act "*subject to, and in accordance with"* directions given by the Scottish Ministers. Under section 10(3), the Scottish Ministers may delegate to NHS NSS such of their functions relating to the health service as they consider appropriate. (The 1978 Act refers to the Secretary of State but, following devolution, such references are to be read as meaning the Scottish Ministers: section 53 of the Scotland Act 1998.)

4. The functions delegated to NHS NSS under the 2008 Order include the provision of "*information, advice and management services in support of the functions of Scottish Ministers, HIS, Health Boards and Special Health Boards"* (2008 Order, article 2(f)).

5. The Inquiry understands, based on information from NHS NSS, that HFS "*provides operational expertise and guidance on subjects related to healthcare facilities"* and that it "*establishes professional and technical standards and best practice procedures"* (source: NHS National Services Scotland Overview, paper to Inquiry).

6. NHS NSS has explained to the Inquiry that HFS has formed part of NHS NSS since 2006, when the Property and Environment Forum and its executive body, the Property and Environment Forum Executive ("PEFEX"), became part of NHS NSS and were renamed HFS.

7. The Prefaces to SHTM 03-01 and SHTM 00 provide an introduction to SHTMs (pages 7 and 5 respectively). These state that SHTMs give comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare. They explain that the focus of SHTM guidance remains on healthcare-specific elements of standards, policies and up-to-date established best practice. They refer to healthcare providers having a duty of care to ensure that appropriate engineering governance arrangements are in place and are managed effectively. They state that the SHTM series "*provides best practice engineering standards and policy to enable management of this duty of care"*. They explain that the suite is not intended to repeat unnecessarily international or European standards, industry standards or UK Government legislation, but that where appropriate those would be referenced. They state that SHTM guidance was the main source of specific healthcare-related guidance for estates and facilities professionals. They state that the suite provided access to guidance which was more streamlined and accessible; encapsulated the latest standards and best practice in healthcare engineering; and provided a structured reference for healthcare engineering.

8. The Executive Summary to SHTM 00 states that it is provided as a comprehensive guide to all issues relating to the management of engineering and technical service provision wherever NHS patients are treated. It states that, whilst it is not intended to cover every possible scenario, its standards and principles may be appropriate to follow in all locations where healthcare is provided. It states that the aim of SHTM 00 was to ensure that everyone concerned with the management, design, procurement and use of a healthcare facility understood the requirements of the specialist, critical building and engineering technology involved. It states that, regardless of the procurement route, it is essential that, as part of the briefing process, those involved in the provision of the facility are advised that all relevant guidance published by HFS was available electronically for purchase from HFS. It states that only by having knowledge of these requirements could a healthcare organisation's board and senior managers understand their duty of care to provide safe, efficient, effective and reliable systems which were critical in supporting direct patient care. It states that it was expected that appropriate governance arrangements would be put in place to reflect these responsibilities, supported by access to suitably qualified staff to provide the informed client role. It states that by locally interpreting and following the guidance, NHS boards and individual senior managers should be able to demonstrate compliance with their responsibilities.

9. SHTM 00 recommends (page 9) that boards and chief executives, as accountable officers, use the guidance and references provided, inter alia: when planning and designing new healthcare facilities; and when developing governance systems which take account of risk. The Executive Summary concludes by stating that "*Once NHS Boards and Chief Executives have embraced their principles set out within this document and taken the necessary actions, their duty of care responsibilities are more likely to be fulfilled".*

10. Both SHTM 00 and SHTM 03-01 carry a disclaimer in the following terms:

"*The contents of this document are provided by way of general guidance only at the time of its publication. Any party making use thereof or placing any reliance thereon shall do so only upon exercise of that party's own judgment as to the adequacy of the contents in the particular circumstances of its use and application. No warranty is given as to the accuracy, relevance or completeness of the contents of this document and Health Facilities Scotland, a Division of NHS National Services Scotland, shall have no responsibility for any errors in or omissions therefrom, or any use made of, or reliance placed upon, any of the contents of this document."*

Written Statement

Sorrel Cosens

Introduction

1. My name is Sorrel Cosens. I am currently employed as a Senior Programme Manager with NHS Lothian. I was involved in the project to plan, design, and construct the Royal Hospital for Children and Young People (RHCYP) and the Department of Clinical Neuroscience (DCN) ("the Project"). I have been asked to provide a written statement to the Scottish Hospitals Inquiry (SHI) in relation to my involvement in the Project from the commencement up to the start of the procurement exercise. I have been provided with a list of questions and a bundle of documents from the SHI. This statement seeks to answer the list of questions that are relevant to my role in the Project to the best of my recollection. Some of the events I've been asked about occurred twelve or so years ago and, given the passage of time, I cannot recall all of the events and documents.

Background

2. I graduated in 1999 with an MA Honours in English Literature and Language from the University of Edinburgh. I first joined NHS Lothian as a graduate in the role of Assistant Commissioning Manager (2001 – 2004), and then an Assistant Service Manager from 2004-2006. I then moved to the Scottish Government Health Directorate where I was a Deputy National Emergencies Planning Officer for NHSScotland (2006 – 2008). I moved back to NHS Lothian where I was the Project Manager for "Clinical Neurosciences: Vision 2012" (January 2008 – November 2010) where my focus was reviewing and consulting on the current DCN service and potential redesign and development of a future service model. In December 2010, following the Scottish Government announcement that DCN would be included in the RHCYP project, I then became a Project Manager for the re-provision of both RHCYP and DCN until November 2015. There were several other NHS Lothian Project Manager roles, for example for capital planning, equipment, facilities management, IT, and commissioning project managers for each of children's services, neurosciences services, child and adolescent mental health services.

3. My role as Project Manager for the Project principally involved: development of the £250m Business Case to secure Scottish Government approval; co-ordination of the procurement processes for £150m contract to design, build and maintain the hospital for 25 years; stakeholder engagement to secure approval and funding commitments from other NHS Boards; patient involvement through the Young People's Advisory Group and the Neurosciences Reference Group; co-ordination of charity / third sector contributions to the Project (value c.£10m); project governance and risk management. I reported to the Project Director (Isabel McCallum until August 2009, then Brian Currie). The Project Director reported to the Senior Responsible Owner (Jackie Sansbury, as Director of Strategic Planning then Chief Operational Officer to June 2012; Susan Goldsmith, Director of Finance, from July 2012; then Jim Crombie, Chief Officer, from February 2015).

The Need for a New Hospital

4. I have been asked why a new hospital was required. The answer to that is set out in the business case but, in summary, the existing Royal Hospital for Sick Children ("RHSC") (as it was called until 2020) and, separately, DCN, were not providing the best service possible due to a number of factors. Both RHSC and DCN provided safe and effective specialist clinical care, but the ongoing delivery and development of the services was limited by the challenges posed by geography, by limited space, and by outdated accommodation.

5. I have been asked to provide an overview of the strategic case for the Project. This is set out in detail in chapter 2 of the business case (The Strategic Case) (Bundle 3, Volume 2; Document number 61; Page 687) and describes the national and local context for the Project, the service model and scope of the Project, the objectives and benefits of the Project; and also highlights the constraints and dependencies of the Project. It is important to mention that one of the key drivers was to have one major trauma site in NHS Lothian and the addition of DCN meant that could be achieved.

6. I have been asked which individuals at NHS Lothian were involved in the development of the business cases for the Project. I would describe myself as the main editor of the

business cases for the RHSC and DCN in that I was collating, drafting, and editing the document but it was very much a collaborative effort, with input from various individuals and groups within NHS Lothian and externally. Within NHS Lothian, the individuals who were involved in the business cases for RHSC and DCN were: Jackie Sansbury (Senior Responsible Owner, "SRO" until June 2012, then Head of Commissioning and Service Redesign); Susan Goldsmith (SRO from July 2012); Brian Currie (Project Director); Janice MacKenzie (Project Clinical Director); Iain Graham (Commercial Lead); Carol Potter (Deputy Director of Finance); Moira Pringle (Head of Property and Asset Management Finance); Stuart Davidson (Contracts Manager); and Fiona Halcrow (Project Manager for DCN).

7. External organisations who were involved in the development of elements of the business case included: Ernst & Young provided financial models for the business case and financial advice on the procurement of the NPD contract; MacRoberts LLP acted as legal advisors with regards to securing the site from the RIE PFI provider, and the contract and procurement process for the NPD; Price Waterhouse Cooper (PWC) provided a review of the challenges and risks around the Project (appendix 4 of the outline business case (OBC)); Tribal Consulting provided bed modeling in 2008/2009 for RHSC; Capita Consulting provided bed modelling for DCN in 2010/2011 (appendix 8 of the OBC) (Bundle 3, Volume 2; Document number 61; Page 784); Davis Langdon provided project management support until 2011 when Mott MacDonald were appointed as technical advisors for the Project (for example, appendices 12,13, 19 & 21 of the OBC); and Thomson Gray were employed as cost consultants. This is a non-exhaustive list, there may well have been others.

8. Other external organisations were involved in the approval of the business case. These included: Scottish Futures Trust (SFT) through the Key Stage Review process, including their instructing of an independent design and cost review by WS Atkins (appendix 3 of the OBC); other Health Boards, namely Fife, Tayside and Borders who comprised the South East and Tayside Planning Group (SEAT) whom all had to be in agreement with the business case given that patients from their boards would use the service; plus NHS Dumfries and Galloway who referred to DCN but not RHSC; and the Scottish Government through the Directorate for Health and Social Care's Capital Investment Group.

The Scottish Ministers

9. I have been asked about the role of the Scottish Ministers (as part of the Scottish Executive or Scottish Government) in the development of the business cases. The circumstances were unusual in that we already had Scottish Government approval of capital funding for the OBC submitted for RHSC in 2008 when it was announced in 2010 that the funding route would be changed to an NPD model and, as a result, the procurement process to date had been abortive.

10. In the meantime, from 2008 to 2009, I had prepared and NHS Lothian Board had approved a separate OBC for replacing the DCN. The preferred option had been to integrate a new DCN build into the same site and project as the RHSC. This had not been submitted to Scottish Government at the time of their announcement in November 2010 about the funding change for RHSC, which also included that DCN was to be incorporated into the revised RHSC project. Following this announcement, we had to prepare a revised joint business case for RHSC and DCN for approval.

11. Rather than write a new OBC from scratch, the Scottish Government invited NHS Lothian to submit an addendum which updated the 2008 RHSC OBC with appraisal of the options for now including DCN, and under the only funding model available. On approval of this by Scottish Ministers in June 2011, NHS Lothian were invited to submit an Outline Business Case for a combined RHSC and DCN (as detailed in the letter from Derek Feeley to James Barbour dated 21 June 2011). This was to meet the requirements of the Scottish Capital Investment Manual (SCIM) Business Case Guide updated in 2011 (Bundle 3, Volume 2; Document number 33; Page 120). The introduction to SCIM explains that it provides guidance in a NHS context on the processes and techniques to be applied in the development of all infrastructure and investment programmes and projects within NHSScotland. SCIM provides guidance on the cyclical process of project development from inception at the service planning stage, to post project evaluation of service benefits realised once a new building is occupied. The guidance not only covers issues around investment appraisal, financial (capital and revenue) affordability and procurement, but also the project management and governance arrangements required to support the development of such programmes and projects.

12. In my view it made sense to utilise the significant amount of work undertaken and costs incurred on the RHSC project to date, and that is why the approach taken with the new scheme was to use work already completed as a reference design for procuring design and construction partners in the NPD project. There was still a significant amount of work involved in resubmitting the OBC because we had to go back through all the finance and procurement requirements, effectively starting those again. I would say that the business case process was a robust process in terms of governance and was in line with SCIM Guidance, despite the unique circumstances with the change of direction.

13. Our main point of contact at the Scottish Government was Mike Baxter. He directed (at a high level) what he wanted from NHS Lothian in the business case. After the change to the funding model and addition of DCN was announced, there was communication and discussion with Mike Baxter and Norman Kinnear to try and establish the best way forward.

14. Prior to the introduction of the NPD model and Key Stage Reviews (KSRs) by Scottish Futures Trust (SFT) the audit process for capital investment had been via the Gateway Review process undertaken by the Scottish Government's Centre of Expertise for Programme and Project Management. The Gateway Reviews offered a structure for projects to be subject to a series of independent peer reviews carried out at key stages to verify that projects should be allowed to progress to the next stage; they were also described as project 'health checks' in SCIM. There are two reports of the same Gateway Review stage (Stage 2: Delivery) for this project in the bundle, firstly for the RHSC-only capital procurement in March 2010 (Bundle 3, Volume 1; Document number 20; Page 797), and then for the transition of RHCYP and DCN to a revenue-funded NPD project in September 2011 (Bundle 3, Volume 2; Document number 53; Page 470). The purpose of these reviews is included in Appendix 1 of both of these reports.

Scottish Futures Trust

15. I have been asked about the role of the SFT in the development and approval of the business cases. As set out in the OBC at paragraph 1.59 (Bundle 3, Volume 2; Document number 61; Page 684), SFT's role was to provide support and advice to NHS

Lothian and to the Sottish Government in the procurement of the NPD project. They led Key Stage Reviews (KSRs) for assurance and approval to proceed at critical points in the Project. They provided support to NHS Lothian in project governance, business case development and the procurement process. The purpose of a KSR was to evidence NHS Lothian readiness to go to the next stage, for example inviting bidders to competitive dialogue, or readiness to appoint a preferred bidder.

16. SFT had to sign off on a KSR to allow us to progress to the next stage. SFT appointed an independent consultant, WS Atkins, to carry out design and cost reviews in August - November 2011 (Bundle 3, Volume 2; Document number 57; Page 567). The action plan from this review was central to progressing the Project to OBC and is included as appendix 3 of the OBCThere were 5 further KSRs completed and reported by SFT through the NPD procurement: (i) Approval of the Project pre OJEU stage (2012); (ii) Pre ITPD stage (March 2013); (iii) Pre-close of dialogue (December 2013); (iv) Pre-preferred bidder appointment (February 2014); and (v) Pre-financial close (February 2015). SFT also had an involvement in the review of the business case stages. They acted as a gate-keeper between NHS Lothian and the Scottish Government in that sense.

17. SFT established a close working relationship with NHS Lothian. The organisation's role is described in paragraph 15 above, the approach was for them to work alongside us as 'critical friends' to the project team. Gordon Shirreff, who was employed by SFT, came in to NHS Lothian offices to work with us a few days a week around the time of the OBC addendum (Spring/Summer 2011). Following that we worked closely with Donna Stevenson from SFT, holding weekly or fortnightly meetings with her on the design and cost review in 2011 and key stage reviews after that. These were to keep SFT appraised of what was happening and in preparation for KSRs. I don't know what the formal reporting structure was in SFT, but think that Gordon and Donna reported to Peter Reekie, Director of Finance.

Mott MacDonald Ltd

18. I have been asked about the role of Mott MacDonald Ltd (Motts) in the development and approval of the business cases. Motts were appointed as NHS Lothian's technical

advisors for the Project and their role in the business case stages included support and advice to NHS Lothian on design, facilities management, project management and procurement. This included contributing to Gateway Reviews and KSRs. Motts did not write the business case, however the work they completed for NHS Lothian underpinned the Project and therefore the case made. As an example, working with NHS Lothian they produced the Reference Design report at appendix 12 of the OBC, the Procurement Strategy at appendix 19, and the Project Execution Plan, appendix 21.

Other comments

19. I have been asked if I would describe the development and approval of the business case as collaborative and I would say that it is both an iterative process and a collaboration. Writing a business case is done alongside the workstreams and milestones of the Project, providing assurance and evidence for approval and governance of public spending. It is a highly collaborative process in terms of all the internal and external organisations and bodies that have to contribute, review and ultimately approve the business case.

20. The NHS Lothian Board had ultimate ownership of the business cases, with the Chief Executive, as Accountable Officer, submitting them to Scottish Government. This was James Barbour at the time of submitting the 2008 OBC for RHSC, then the revised 2011 OBC for RHCYP and DCN. Tim Davison was Chief Executive at the time of the FBC in 2014 and FBC Addendum in 2015. Scottish Government had ultimate approval of the business cases at each stage.

21. The purpose of the OBC is to summarise the information needed to secure funding to take the Project to market, it is not intended to describe the detail of a fully functioning hospital. However, there is a huge amount of necessary and detailed work undertaken in the background, such as patient pathways, demographic projections, anticipated changes in treatment and technology, all of which influence the planned service model. The OBC assesses the benefits and risks and models the cost of options for delivering the preferred service.

22. The final business case (FBC) set out the final costs of the Project to seek approval to conclude a contract. The FBC is a refinement of the case made in the OBC,

including the costs of the building design, engineering, construction methodologies and planning solutions all confirmed. It includes the projected running costs, or annual service charge, of the NPD contract and a description (but not full detail) of that contract. It summarised at a high level more detailed work on other revenue costs such as staffing, energy, supplies and pharmacy. In this way, the business case is not simply the capital cost (or related NPD revenue cost) of providing a new building. For governance, the FBC is needed to justify the public spend, to confirm the budget and demonstrate that thorough planning and due diligence have been undertaken. The FBC approval then allowed NHS Lothian to work towards financial close of the contract with IHS Lothian.

23. Financial close of the NPD contract in February 2015 led to a final business case stage, the FBC Addendum, which reported on the actual funding costs of the contract.

24. In summary, the business case journey starts out with the Initial Agreement, which sets out the strategic overview. Then the OBC reviews the options to confirm what you will do, the FBC is the basis on which you are allowed to enter into a contract, and the FBC Addendum completes the story of procuring the RHCYP and DCN.

Governance and Decisions Making

25. I have been asked to explain my understanding of how the key decisions were made in relation to the Project in the period up to the commencement of the procurement exercise.

26. In relation to the decision to build a new hospital, this had been under discussion for many years. When I first joined NHS Lothian in 2001 I was part of the Project to move the Royal Infirmary of Edinburgh to Little France and everyone knew, or at least anticipated, that a future major build for the organisation would be a new children's hospital.

27. In 2005, before I was involved in the RHCYP and DCN Project, during a restructuring of senior management in NHS Lothian a Project Director and Project Manager were

appointed to start working on the new RHSC. However, the actual decision to build the new hospital can be dated to approval through the OBC for a new RHSC by NHS Lothian and Scottish Government in 2008.

28. In relation to the preferred site for the hospital, this was subject to an Options Appraisal process. Generally, the options for these types of Projects tend to be to (i) do nothing and stay in the current building; (ii) refurbish the existing facilities; or (iii) build a new hospital. Option (iii) for a new RHSC included two possible sites: (a) near the Royal Infirmary on the Little France Campus, or (b) at St John's Hospital in Livingston. The outcome of appraising the benefits of these options, as well as financial assessment, both favoured a new build RHSC at Little France. The formal decision on location was made by the approval of the option appraisal and recommendation in the 2008 OBC.

29. In terms of the funding model and procurement process, again these are all set out in the business case, with decision making being at the point of approval of a business case stage. The capital funding model was described in the 2008 OBC by NHS Lothian and approved by the Scottish Government. The funding model and procurement options available changing in 2010 were accordingly revised in the 2012 OBC.

30. In relation to governance and decision making the Board proposes a business case for Scottish Government to approve. This is not written in isolation, but following the Scottish Capital Investment Manual (the relevant version to most of this Project being the 2011 update, in Bundle 3, Volume 2; Document number 33; Page 120). Before submission to Scottish Government, within NHS Lothian the business case went through (i) the Project Board which included the Project Director, Clinical Director and clinical service representatives, the leads for Finance and Commercial (on 20 June 2014); the Board sub-committee for (ii) Finance and Resources (on 14 March 2011, 14 December 2011, 9 July 2014 and 11 March 2015) and then (iii) NHS Lothian Board (on 23 March 2011, 25 January 2012, 6 August 2014 and 1 April 2015).

31. As the business case for RHSC and DCN described services to patients from Borders, Fife, Dumfries and Galloway, Fife, Forth Valley and Tayside, these NHS Boards also had to approved the elements that described the impact on their population and finances.

32. Developing the project plans that informed the business case also involved many other stakeholders. These included the RHSC Family Council and DCN patient representative groups for input and feedback; multidisciplinary staff groups; representation from HR and staff partnership / unions; third sector and charities; local authorities and elected representatives. There was a lot of engagement with stakeholders and this list is not exhaustive.

STATEMENT OF TRUTH [to be signed by witness once statement is finalised]

I, Sorrel Cosens, confirm that:

(i) The contents of this statement is the truth to the best of my knowledge and recollection;

(ii) I am willing for this statement to form part of the evidence before the Scottish Hospitals Inquiry.

(iii) I am willing for this statement to be published on the Scottish Hospitals Inquiry website.

Signature:

Date

Written Statement

Susan Goldsmith

Introduction

1. My name is Susan Goldsmith. I am currently employed as Director of Finance for NHS Lothian though I will retire in May 2022. I was involved in the project to plan, design and construct the Royal Hospital for Children and Young People (RHCYP) and the Department of Clinical Neuroscience (DCN) (the Project). I have been asked to provide a written statement to the Scottish Hospitals Inquiry (SHI) in relation to my involvement in the Project from the commencement up to the start of the procurement exercise. I have been provided with a list of questions and a bundle of documents from the SHI. This statement seeks to answer the list of questions that are relevant to my role in the Project to the best of my recollection. Some of the events I've been asked about occurred fifteen or so years ago and, given the passage of time, I cannot recall all of the events and documents.

Background

2. I first joined the NHS in 1982 as a graduate finance trainee working within the South East Thames Region. I returned to Scotland in 1991 to work in the (then) Management Executive supporting the establishment of NHS Trusts in Scotland, and eventually heading the Trust Finance Unit. During this time, I was employed by the NHS but was on secondment to the Scottish Office, which was part of the UK Government at the time. After leaving the Management Executive I held various NHS Trust Director of Finance posts in NHS Lothian and NHS Forth Valley. In 2005 I was appointed as Director of Finance at NHS Lanarkshire.

3. I have been in my current role as Director of Finance for NHS Lothian since November 2008. As Director, my primary responsibility is to support the financial stability of NHS Lothian ensuring that financial targets are met. This includes overseeing the financial planning and management of the revenue budget for NHS Lothian which is currently £1.7 billion. I am also responsible for Operational Financial Management including salaries and wages administration, financial services, corporate reporting and internal audit. I also oversee the capital programme and major capital projects, which

included the project for RHCYP and DCN. I was involved in the Project as soon as I started with NHS Lothian and was the Senior Responsible Officer (SRO) on the Project from July 2012 – Feb 2015. The Senior Responsible Officer has to be someone who is very senior in the organisation who can carry the principal responsibility and accountability for delivering a project on the Board's behalf. They chair the project board and make sure that they have the appropriate resources to deliver the project. However, their principal task is owning the service change which the project is supporting or enabling. Before I was in this role, Jacqueline Sansbury was SRO and Jim Crombie took over the role after me.

The need for a new hospital

4. I have been asked why a new hospital was required. The reasons are set out fully in the business case but it was well known that the Royal Hospital for Sick Children (RHSC) and DCN were old and tired buildings that were no longer suitable for the services required.

5. In July 2008, a few months before I joined NHS Lothian, the Board had approved the outline business case (OBC) for the re-provision of RHSC at the Royal Infirmary Edinburgh (RIE) at Little France. The OBC was approved by the Scottish Government in August 2008. It was originally to be funded with capital from the Scottish Government and procured via an established procurement framework, being the national Framework Scotland, which was procured and programme managed by Health Facilities Scotland (HFS). The business case had to be approved by the Scottish Government because it was outwith the Board's delegated authority due to its financial value. At the time the value was £5m, but currently any project over £10 million has to be approved by Scottish Government. Iain Graham will be able to speak to procurement framework in more detail. The previous major project that the Board delivered through the use of this framework was the Royal Victoria building on the site of the Western General Hospital.

6. In parallel, in around 2008/2009, NHS Lothian prepared a separate OBC for the reprovision of DCN from the Western General, to relocate the services to the Little France campus at the RIE. The preferred option of NHS Lothian was to integrate the

DCN build into the same site and re-provision project as the RHSC. The strategic case for a joint build was that it would bring both children's services and adults neurosciences together on to the same site at RIE, providing one major trauma site for NHS Lothian and other health boards who used the service. By joining the RHSC and DCN to the RIE Emergency Department, NHS Lothian could deliver integrated emergency services for all ages on the Little France site, including planning for major incidents and decontamination. With adult and paediatric neurosurgery on site, the combined facilities at Little France met the criteria of a major trauma centre.

7. The Board approved the business case for DCN in November 2009, however, the Scottish Government indicated it should not be submitted at that time. NHS Lothian therefore focussed on the re-provision of RHSC as a capital funded, standalone Project (separate to DCN). The Board had already appointed BAM Construction (BAM) as its Principal Supply Chain Partner (PSCP), Davis Langdon as Lead Advisor and Thomson Gray as Cost Consultant in April 2009, using the established procurement framework (national Framework Scotland, managed by Health Facilities Scotland (HFS)). By November 2010, the Project Team was at the point of submitting a planning application and finalising the contract with BAM for the construction of the hospital to be completed in 2013.

8. However, on 17 November 2010, the Scottish Government announced that there was no capital funding available and that the re-provision of the RHSC would be revenue funded. I had been aware that there was a challenge on the availability of capital funding and that the Scottish Government were considering other funding options but I did not know that this was going to impact on the funding available for the reprovision of RHSC until the public announcement. It was also announced that the new hospital would include DCN. This was welcome news for the Board because the inclusion of DCN completed the service requirement to deliver a full major trauma service at RIE. The Scottish Government were aware that in order to deliver a major trauma hospital site, we needed DCN to be integrated on the site. Prior to the announcement of the change in funding, there had been informal dialogue with Scottish Government colleagues about how to deliver DCN, given NHS Lothian's strategic intent to deliver a major trauma hospital on the RIE site. Although NHS Lothian

welcomed the news of the inclusion of DCN, the announcement of the change in funding also raised concerns about the practicalities of delivering a revenue funded (NPD) hospital project on an existing revenue funded (PFI) hospital site.

9. NHS Lothian were invited to submit an addendum to the existing (approved) OBC for the re-provision of RHSC to incorporate DCN with the preferred option of a combined development for the reasons noted above. The work we had done on the business case and design had to be revisited and redone, which took a considerable amount of time. This was mainly due to the fact that we now had to deliver an integrated building on the site. The business case which had been secured for the RHSC reprovision was always going to be built on car park B, but how the DCN was going to be built and delivered wasn't clear at this point. So the work mostly involved the physical design and infrastructure rather than the business case itself. The OBC for the re-provision of RHSC and DCN was approved by the Board in January 2012 and approved by the Scottish Government in September 2012.

10. I do not know why the Scottish Government changed the funding model but my understanding was that there was insufficient capital from the spending review to support the delivery of a capital funded hospital and that public sector capital was prioritised by Government for other projects, such as the new Glasgow hospital and the Queensferry Crossing.

11. It would not be usual for the Board to be formally consulted in relation to such decisions as it was a policy change determined by government. However, what is more unusual is that we were not given any advance (private) notice of the public announcement. If we were consulted, we would most likely have reiterated our concern about the additional complexities of delivering a revenue funded (NPD) project on a revenue funded (PFI) site, managed by Consort (although this was known by Scottish Government colleagues). These complexities were mainly in relation to the multiple stakeholders involved in a revenue funded project (whether PFI or NPD). In particular, the lenders, shareholders, and their advisers, and the assessment of the differing risk profiles adopted by all. An example is the issue of how the two sites were going to be joined together. Consort would not accept the risk of the new RHSC building being

joined to the exterior wall of the RIE, particularly as this meant breaking through the wall of their hospital. The eventual solution was a mini extension built (known as the "nib"/docking station) from the RIE to which the new RHSC could be adjoined.

12. This was further complicated during the negotiation of Supplemental Agreement 6 (SA6) and Supplemental Agreement 7 (SA7) (explained below) by the fact that we did not have an NPD partner at the time and so in essence NHS Lothian was alleviating Consort of risk, prior to procuring an NPD partner. I am not sure any party (including Scottish Government) anticipated the complexities of these negotiations, and as the statutory authority with the contractual rights and obligations in place with Consort it was our ultimate responsibility to ensure that the interests of the Board, and taxpayer, were protected as far as possible.

13. It would have been helpful to have had some dialogue about the change of funding with Scottish Government before it was announced to discuss some of the potential challenges this might pose for the Board. After the announcement, we did discuss our concerns with Scottish Government. This was largely through face to face conversations with Mike Baxter, who was our direct contact regarding Capital Investments, John Matheson as Director of Finance, and with SFT. These discussions were mainly to advise/consider the challenges that the change in funding brought in terms of complexity but also to ensure they were briefed on key issues/practical implications as they emerged. At the time I knew the project was going to be more difficult to deliver, but I had no idea just how difficult.

Site Constraints

14. There were significant site constraints identified by NHS Lothian during the process of developing its plan to deliver the Project. These constraints included the physical space available, the topography of the site, and the need to adjoin and physically integrate with the existing RIE. These site constraints existed when it was a standalone project for the re-provision of RHSC but the physical scale of the project was increased further by the inclusion of DCN in the Project, which added more pressure on an already constrained site. However, despite these constraints, it was the Board's view

that the benefits offered by delivering a major trauma centre, with its safety and quality benefits, adjacencies and proximity to University teaching facilities, outweighed the disadvantages of the constraints.

Enabling Works (SA7)

15. To overcome some of the site constraints, we identified that there should be a number of common interfaces between RIE and RHCYP and DCN. This has been achieved by a physical connection between the buildings by two linking corridors on the ground and first floor; clinical and operational connection via patient pathways and staff communications; and common infrastructure such as security/fire alarm systems and the pneumatic tube delivery system employed by NHS Lothian on the RIE site.

16. Given the limitations on the physical space and footprint of the site, there was also a need to integrate some of RHCYP and DCN services within the existing RIE, for example adult critical care for DCN patients (ITU/HDU) is provided in RIE (accessed via the linking corridor noted in the paragraph above). However, in order to create space for the additional beds required within critical care for DCN, RIE had to move some cardiology services elsewhere within the hospital. RIE also had to reconfigure its internal and external physical set up to create more space, in particular the entrance to the Emergency Department, to support emergency care services for DCN and Paediatrics. In addition, support services such as the pharmacy and laboratories are also provided by existing RIE departments rather than duplicating them in the RHCYP and DCN.

17. The majority of the enabling works were agreed via a further Supplemental Agreement (SA7) between the Board and Consort, however the works themselves were carried out by one of Consort's equity investors, Balfour Beatty. Some of the internal enabling works, for example RIE Critical Care, Renal and Pharmacy, were not part of SA7 but were delivered by Consort via the mechanism in the Project Agreement of Trust Additional Works Orders (TAWOs). The Project Director, Brian Currie, is better placed to comment on the technical site constraints and enabling works than me.

Supplemental Agreement 6 (SA6)

18. The intended site for the construction of RHCYP and DCN was on Car Park B (as it had previously been allocated for the RHSC as a standalone project) and the crèche adjacent to the existing RIE. In order to secure the land for the construction of the RHCYP and DCN, a variation to the existing PFI Project Agreement had to be agreed with Consort. As part of the existing PFI arrangement, the land was leased by the Scottish Ministers to Consort.

19. In addition, building the RHCYP and DCN on car park B meant that additional (new) car parking had to be provided for RIE before construction could commence. A new car park for RIE was approved to be built on Plots 14 – 16 (referred to as car park F). The plots were part of what is known as the Edinburgh Bio Quarter, with land owned by both Edinburgh University, and Scottish Enterprise, and with a Development Agreement in place with Alexandria Real Estate (ARE). In very simple terms, one aspect of SA6 was a "like for like" swap of car park B for car park F. However, the acquisition by NHS Lothian of car park F was very difficult and negotiations were protracted and complex and took around 2 years from initial approval of the Finance and Performance Review committee in August 2008 to completion of the purchase in July 2010.

20. Once the purchase of the car park was complete, the construction of the car park was required. The construction of the car park was tendered in October 2010 and completed by June 2011.

21. I have been asked whether the negotiations surrounding the purchase of car park F and SA6 and SA7 became my focus (Bundle 3; volume 1; document number 2; page 39, para 64). Plots 14-16 for Car Park F had already been secured but in terms of SA6 and SA7 the answer to that is yes, in relation to the project. Without securing the land, and associated rights, and without delivery of the enabling works we would have had no project. So from both a Board and Executive team perspective my role was to secure SA6 to allow the Board to commence the procurement of the NPD, and SA7 to facilitate the required infrastructure for the Project. This was a priority for me during

a large part of 2011 and 2012, notwithstanding my other responsibilities as Director of Finance. Throughout, my intent was to ensure that the interests of the Board were protected as far as possible, given the imperative to deliver the Project, and to achieve this within a reasonable timescale. The latter objective was not always within my gift.

Impact of negotiations with Consort

22. NHS Lothian were reliant on securing legal and commercial agreement with Consort to provide the land via SA6, and the associated access and interface issues, and securing the enabling works required in SA7, before SFT would endorse NHS Lothian moving to the procurement stage of the Project. This would have been attached to SFTs Key Stage Review (KSR) process. This agreement was also reliant on the conclusion of the reference design incorporating DCN given the requirement to specify the access and interface issues, in addition to the scope of the enabling works required for SA7.

23. I think the fact that there was to be another PFI provider (albeit via a NPD model) introduced more commercial issues for Consort to be resolved. I have no doubt that the legal and commercial issues with Consort would have been more difficult than we initially assumed for the re-provision of RHSC using a capital funded model, however we would have been able to use the national Framework Scotland contracts to deliver the works more quickly, and it is likely that we would have progressed the requirements of Consort incrementally. Consort's own due diligence process with their Lenders took a significant amount of time, and despite agreement of both parties on the key terms of SA6, agreement of one of the Lenders was difficult to secure. I discuss the impact of the negotiations with Consort on the timescales below. A small example of the commercial considerations for Consort was the likely impact of footfall from the new hospital through the RIE and what this might mean for their profile of maintenance and lifecycle investment.

Scottish Futures Trust

24. A couple of months after the change in funding was announced, I co-authored an RHSC & DCN provision project update for the Finance & Performance Review

Committee (F&PR) meeting on 12 January 2011 (the project update) (Bundle 3; volume 2; document 34(i); page 314), along with Jackie Sansbury (Chief Operating Officer). The project update sets out an overview of the progress made since the announcement.

25. Scottish Futures Trust (SFT) were to take a central role in the capital infrastructure programme across Scotland. One of the key matters that was still to be clarified at that time was the explicit roles and responsibility of SFT and the distinct Board appointed technical, legal and/or financial advisors. The project update notes that immediately following the announcement I made contact with SFT, and a meeting took place with the Chief Executive (Barry White) of SFT on 23 November 2010. This covered a range of issues which required to be resolved/considered following the announcement of NPD, including: scope of the Project; interface with the existing PFI contract with Consort; the impact on the enabling works with the inclusion of DCN; work to date with the PSCP; the team and resources required; process and governance; and, fees and revenue support. This was subsequently followed with a number of meetings with representatives from Scottish Government Health Finance Directorate and SFT, as well as ongoing dialogue with our legal advisors and HFS as managers of Framework Scotland.

26. The SGHD letter of 22 March 2011 (Bundle 3; volume 2; document 43(i); page 377) provided "key conditions and guidance" for how we were to develop and deliver of the Project. This was the only document (as far as I can recall) that defined the scope of SFT's role. An early clarification was that SFT were not in a position to provide formal legal, technical, or financial advice to the Board as the statutory authority ultimately being the contractual partner with the Special Purpose Vehicle (SPV) delivering the NPD funded project. The Board required to appoint their own advisers for this. In summary, we were to be supported by SFT, who were to provide the "expertise and advice on the development, funding, structuring, procurement and management of the project". We were asked by the Scottish Government to work closely with SFT throughout the development of the Project, which we did. The input from SFT at this stage of the Project, was instrumental in determining the scope of SA6, and what was required for SA7. SFT's approval was required at

specific points to proceed to the next stage in delivery of the Project (key stage reviews), including the point at which we could proceed to procurement. In essence this introduced a level of oversight beyond that for a capital funded project (at that time), and we engaged fully with key individuals in SFT.

27. The main impact of the change in funding was the change in procurement route available to us and so initially we spent time considering the options available to us. As set out in the project update, our objective was: to minimise both the delay to the programme and the abortive and on-going costs; to ensure operational effectiveness going forward; and, also to manage the overall site consistent with the aims of the Bio Quarter development. To achieve this, we explored the procurement options with both SFT and SGHD for an NPD model to deliver RHSC and DCN, utilising the existing design team to complete the design process. We also considered an option for a Joint Venture with Consort on the delivery of DCN as an extension to the RIE PFI. We took specialist legal and technical advice on these issues (Bundle 3; volume 2; document 34(i); page 318). The Project Director, Brian Currie, is best placed to speak to the reference design.

28. I wrote to the Regional Director of Consort Healthcare, Stephen Gordon, on 2 June 2011 summarising the position in relation to the "Key Enabling Requirement for Delivery of the Project at Little France" (Bundle 7; Document number 6; Page 285). The letter sets out that we had advice from SFT borne out by our advisors that the procurement of the Project must take place via a competitive dialogue process, since no other options were deemed possible, having fully considered and discounted the Joint Venture (JV) proposals tabled by Consort. The letter continued to set out the key issues required going forward, including: land, access, enabling works, and other project and operational management issues.

29. There is a letter from Peter Reekie at SFT to Jackie Sansbury, the then Chief Operating Officer for NHS Lothian (Bundle 3; volume 2; document 46; page 399) dated 1 June 2011, which sets out further details regarding the role of SFT in the Project. Notwithstanding this there had been significant engagement with SFT on

all these matters prior to the issue of this letter. SFT brought a level of expertise to the Project which we welcomed, particularly in relation to the scoping of SA6 and the subsequent negotiations with Consort. This was mainly in relation to their knowledge of revenue funded projects for infrastructure investment and the fact that SFT had essentially designed the new NPD model for Scottish Government. We had experience of delivering revenue funded projects, using the PFI model, however the NPD model was a revised version of a revenue funded model. Our main contacts were Peter Reekie, the Director of Finance, Donna Stevenson, lawyer, and Andrew Bruce, a PFI finance expert. With the appointment of the Board's legal, technical and financial advisers we did have access to our own support for these matters, as we would for the delivery any revenue funded model. These advisers are appointed for their expertise and, importantly, their formal professional advice to the Board. SFT, as an agent of Scottish Government, owned the application of the new NPD model working with both the public and private sectors. SFT advised that we could not finalise the OBC (and hence proceed to procurement) prior to SA6 being concluded in order that the Project was attractive to potential bidders.

30. The engagement with SFT, through meetings and correspondence was initially with Peter Reekie, as SFT's Director of Finance. He attended our Finance and Resources committee at one point to give an overview of what the NPD model was and how it was to be delivered, although this may have been at a much later stage in the project. If there were any issues or complexities, then as Director of Finance and then SRO for the project, I would phone/meet with Peter for advice. I probably had more engagement throughout the project with Peter than anyone else. At the early stages, Donna Stevenson was very involved and attended many meetings with the team and indeed contributed as part of the team. SFT also seconded an individual, Gordon Shirreff, to the NHS Lothian Project Team for a few days a week for a short period. He was asked to come in to support and be part of the project team because he had PFI experience. After this short period, it became clear that the team, with advisers, already had a sufficient mix of experience and his role was no longer required.

31. If we had continued with the capital funded model, the Board's accountability for delivery of the Project would have been directly to Scottish Government Health. The

introduction of the NPD model for delivery meant that there was an additional level of scrutiny and challenge from SFT as a non-departmental public body of the Scottish Government through the conditions set as part of the key stage review process, and in particular the access to funding for the Project. However, as we were the first major acute hospital to utilise the NPD model, and although Dumfries Hospital ultimately completed before us, the Board's knowledge and experience of the requirements for a complex acute tertiary hospital were equally important. This had to be translated into our ask of the NPD model and so SFT were also reliant on us to ensure that the NPD model was effectively adapted for an acute hospital. In essence we worked together to deliver the project.

Delays

32. I have been asked whether the switch to NPD resulted in delays to the Project. It is my conclusion that it did. Regardless of which funding model was used, NHS Lothian would have had to secure the legal and commercial agreement of Consort to SA6 and SA7, and the enabling works associated with the development of the RHSC. Both SA6 and SA7 with Consort were concluded and signed by the end of 2012 (August 2012 and December 2012 respectively) at which point the Board was able to commence the procurement of an NPD partner. The enabling works then took around 18 months from spring 2013 to autumn 2014.

33. However, there are a number of factors that I believe had an impact on the timeline. The first was the time taken to understand more fully the impact of utilising an NPD vehicle for procuring RHCYP and DCN, the contractual implications for our PSCP, and the utilisation of the reference design; secondly the requirement to redevelop the reference design to incorporate DCN, and fully understand the impact on the requirements of Consort: and finally the requirement to resolve all interface, access issues and enabling works with Consort prior to commencing procurement of the NPD partner was extremely time consuming and difficult.

34. There was more work for the Board and principally the Project team as a result of the change in funding. Indeed, the letter from SFT to NHS Lothian dated 1 June

2011 Bundle 3; volume 2; document 46; page 399 makes the point that delivering revenue funded projects brings significant additional demands on the Project team and that would be our experience. Some specific examples that added to the complexity of delivery was the need for both expert legal and financial input on our specific requirements for the Project Agreement, and the associated Financial model; and the requirement to review and prepare for a new procurement process. We also had to plan our requirements for a 25-year period in relation to the ongoing Facilities Management with the contract that would be in place with the successful SPV, and in particular we had to enter a structured, but time consuming, process of dialogue with 3 bidders prior to selecting a preferred bidder.

35. However, I would also acknowledge that, prior to the announcement in 2010, although we were ready to finalise our contract with BAM, I had not appreciated the significant amount of negotiations we still had to undertake with Consort re SA6 and SA7. These negotiations with Consort took in excess of 18 months but I believe were more complicated, and hence took longer, due to the novel nature of delivering an NPD hospital on an existing PFI site and associated commercial implications assessed by Consort.

36. The other main delay was the unexpected inclusion of DCN in the Project. That required the preparation of an addendum to the business case and a revised reference design. All of the work on the business case and design had to be revisited and redone, which took a considerable amount of time.

37. I have been asked whether this Project was particularly complex from the outset and I would confirm that it was, for all of the reasons set out above.

Costs

38. We have not undertaken a financial evaluation of the impact of delivering the Project through NPD as this was the only route available to us. Notwithstanding the inclusion of DCN which had an impact on the construction cost (via the Unitary charge) and associated enabling works required there were other cost implications.

This includes the cost of technical, financial and legal advisers, the increased Project team costs because of the impact on the programme, Consort's legal and technical costs associated with a more complex Supplemental Agreement, which the Board was required to fund, and the time associated with the input required from a number of senior individuals in the Board. This was very significant over a long period of time.

STATEMENT OF TRUTH [to be signed by witness once statement is finalised]

I, Susan Goldsmith, confirm that:

(i) The contents of this statement is the truth to the best of my knowledge and recollection;

(ii) I am willing for this statement to form part of the evidence before the Scottish Hospitals Inquiry.

(iii) I am willing for this statement to be published on the Scottish Hospitals Inquiry website.

Signature:

Date

Written Statement

Iain Graham

Introduction

1. My name is Iain Graham. I am currently employed as Director of Capital Planning and Projects with NHS Lothian. I was involved in the project to plan, procure, design, and construct the Royal Hospital for Children and Young People (RHCYP) and the Department of Clinical Neuroscience (DCN) ('the Project'). I have been asked to provide a written statement to the Scottish Hospitals Inquiry (SHI) in relation to my involvement in the Project from the commencement up to the start of the procurement exercise. I have been provided with a list of questions and a bundle of documents from the SHI. This statement seeks to answer the list of questions that are relevant to my role in the Project to the best of my recollection. Some of the events I've been asked about occurred fifteen or so years ago and, given the passage of time, I cannot recall all of the events and documents.

Background

2. I worked with City of Edinburgh Council as a trainee chartered surveyor (1984-1989) and then moved to a private property development company as Property Manager around the time I qualified as chartered surveyor (1989 – 1996). I then moved to a property consultancy firm where I was responsible for public sector property and facilities management including the development of a new campus developments in the further education sector (1996-2006). I joined NHS Lothian as Head of Capital Planning and Premises Development on 8 January 2007 and I became Director of Capital Planning and Projects on 1 June 2009 where I am responsible for the delivery of NHS Lothian's overall capital development programme which includes acute and community hospitals, primary care and support premises across Lothian delivered through a variety of capital and revenue funded procurement. I was elected a Fellow of the Royal Institution of Chartered Surveyors in May 2015.

3. I have been involved in the Project since the beginning of my career in the NHS. My role was initially to provide support from a capital planning/ built environment project management perspective for the Project, oversight of the relevant resources and to

support the work being done on the early business cases. My role was mainly to support the Project Director (who at the time was Isabel McCallum), the NHS Lothian Board and the Executive Directors of NHS Lothian on project governance through regular reporting, either directly or through the Project Sponsor (at the time the Project Sponsor would have been Jackie Sansbury) and sponsor departments. Sponsor departments are the internal NHS Lothian client departments which were to be reprovided at the new facility through the Project. I reported by preparing written reports, attending monthly and quarterly meetings and contributing to any briefings to the Project Sponsor to support them in any meetings that they were required to attend. Additionally, part of my overall role was interacting with various departments in the Scottish Government from a financial planning and construction programming perspective, namely the Health, Capital Planning and Capital Finance Departments. My contacts within the Scottish Government were generally Mike Baxter, Norman Kinnear and Alan Morrison. My engagement with these departments was related to the Project, however it went beyond that and I was involved in the wider NHS Lothian capital programme. The Scottish Government require to understand what NHS Lothian needs in order to programme and plan any funding requirements. If there is a change in project timescales, or there is funding available, projects in the programme may be moved. I was also on the Scottish Government's working group for the Scottish Capital Investment Manual (SCIM) refresh between 2014 – 2017(Bundle 3; Volume 3; Document number 77; Page 893). In addition, I supported Health Facilities Scotland ("HFS") (part of NHS National Services Scotland) in the initial procurement for the Principal Supply Chain Partners to the national Framework Scotland programme. This work pre-dated the Project. HFS, on behalf of the NHS in Scotland, sought to procure a framework of design and build contractors to support the pipeline of projects throughout Scotland. The initial procurement Principal Supply Chain Partners ("PSCP") drew on people from a number of health boards. As a result, HFS procured five principal supply chain partners available for use in capital projects by all of the health boards in Scotland. When NHS Lothian undertook the Project, NHS Lothian used the framework to appoint the PSCP.

4. In Lothian, in 2008 to early 2009, I was involved in the procurement for the re-provision of the Royal Hospital for Sick Children ("RHSC") of the initial Professional Services Consultants ("PSC"). These were the technical advisors, who were appointed in terms

of various frameworks covering project management functions, cost advisors and other supervisors. Davis Langdon were appointed in the principal advisory role and Thomson Gray were appointed to advise on costs. I was also involved in the procurement of the PSCP and BAM, through the Framework Scotland. The PSCP, as the design and build contractor, were a construction contracting-led team comprising various professionals such as architects, engineers, and a design team. I was not involved in the day to day design development. I stepped back from more direct project management involvement when the Project Director (Brian Currie) was appointed in August 2009. From 2009 and 2010, my role was to support Brian in his new role and we jointly reported to the Finance and Performance Review Committee and, if necessary, the Board. Following the change of procurement route in November 2010, I took the lead during the procurement for the legal and commercial workstream of the Project, together with support from the Board's Capital Finance team which included Carol Potter. As part of the legal and commercial workstream, we were required to take steps to facilitate the new procurement route, such reach an agreement with Consort and produce Supplemental Agreement 6 and 7 (more fully detailed below from paragraph 29). There was a requirement to draft a Project Agreement that would go out to procurement; a Project Agreement is a standard form contract which is tailored to be project specific. Post-procurement I led the negotiation with each bidder.

Governance and Decision Making

5. I have been asked to explain my understanding of how the key decisions were made in relation to the Project in the period up to the commencement of the NPD procurement exercise.

6. The system of governance in place at NHS Lothian for the Project in the period up until the start of the procurement process was generally consistent throughout the early stages of the project development with the key pillars of governance being Lothian Health Board, one of its committee's responsible for considering capital project business cases (Finance & Performance Review Committee), a Senior Responsible Officer ("SRO")/ Executive Director lead, and a Project or Programme Board. The SRO's reporting and briefings would also include the senior or executive management

team, led by the Chief Executive, prior to going to Lothian Health Board.

7. Each Project Board/Programme Board was the key programme management committee for approving business cases and monitoring project performance and any variations required. Each Project Board/Programme Board reported to the Finance and Performance Review Committee. In the initial stages, the Project Board had a significant focus on the engagement with the wider stakeholder groups and therefore included many external representatives on it. The Project Board reviewed the detailed project and programme governance for the project delivery, and was also required to:

   - Establish project organisation
   - Authorise the allocation of programme funds
   - Monitor project performance against strategic objectives
   - Resolve strategic issues which need the agreement of senior stakeholders to ensure progress of programme
   - Maintain commitment to the programme
   - Manage the project management structure
   - Produce the FBC document
   - Prepare for transition to operational phase

8. The Finance and Performance Review Committee (which changed to Finance and Resources Committee from 2012) had an overall remit to seek assurance that there are systems of control to meet the 'Duty of Best Value in Public Services', which was:

   - To make arrangements to secure continuous improvement in performance whilst maintaining an appropriate balance between quality and cost; and in making those arrangements and securing that balance,
   - to have regard to economy, efficiency, effectiveness, the equal opportunities requirements, and to contribute to the achievement of sustainable development (as all detailed in the terms of reference).

   The Finance and Performance Review Committee would receive updates from the

Project Board/ Project Sponsor and monitor progress of the Project. The committee would report to Lothian Health Board.

9. Lothian Health Board's role in the Project was as the investment decision maker. The Board oversaw the Project and, once operational, the performance of the facility. The Board approved the final contract award which was within the Board's delegated authority. Lothian Health Board reports to Scottish Government Health Department.

10. Additional groups would review other aspects of the Project such as the service changes and redesign was supported through a programme management group, the Improving Care, Investing in Change (or 'ICIC' Executive). External review of the Project was obtained through engagement with Scottish Government's Gateway Review process. Further changes at the project level and associated wider corporate learning were required with the implementation of the Framework Scotland procurement for capital funded projects, of which the reprovision of RHSC was an early adopter project in early 2009. This included the procurement of advisers through the Framework Scotland, training on the NEC form of contract for the project managers, and then procurement of the Principal Supply Chain Partners. Simplified organograms of the project governance were included in each of the Business Cases

11. Jackie Sansbury was the Senior Reporting Officer / Executive Director / project owner therefore internally owned the decision making process to build the new hospital in her role as Director of Strategic Planning. She was the executive responsible and accountable to the Chief Executive for the programme for re-provision and presented the reports taken to the Board but ultimately the decision was made by NHS Lothian under a programme lead by ICIC.

12. The decision with regards to the location of the re-provision of RHSC (and separately the Department of Clinical Neurosciences) was part of the Lothian wide strategic decision making approved before I joined NHS Lothian and I was therefore not part of the process.

13. The site of the new hospital was re-affirmed through the Initial Agreement (Bundle 3;

Volume 1; Document number 3; Page 95) with Scottish Government, and reconfirmed as part of the outline business case (OBC) process (Bundle 3; Volume 1; Document number 12; Page 272). The driving factors for the location remained consistent throughout – namely, close proximity to adult care and emergency department in particular in line with Scottish Government guidance as outline in the Business Cases. Additionally, the existing facilities did not meet current standards given their age and layout.

14. The initial funding model for the new hospital was agreed to be through capital funding. The funding route in all the business cases were reconfirming capital procurement as the best choice for the re-provision of RHSC at Royal Infirmary of Edinburgh (RIE). The capital route was included in the Scottish Government's capital planning as a capital project which allowed NHS Lothian to select and procure BAM through the national Frameworks Scotland in March 2009.

Framework Scotland

15. Health Facilities Scotland (HFS), as part of NHS Scotland National Services, procured Principal Supply Chain Partners (PSCP) (made up of construction contractors in the lead, with their design teams and supply chain) and Professional Services Consultants (PSC) (a series of framework agreements for NHS Board technical advisers for delivery of capital projects). This was known as Framework Scotland and was available to all health boards across Scotland and on a level, national, basis. Therefore, when a health board needed to appoint a consultant for a project, they would go through a mini tender process as detailed in the framework. It utilised the NEC3 suite of construction and services contracts which espoused a collaborative or partnering approach and required everything to be defined in programmes. Each PSPC or PSC was contracted to an overarching 'scheme contract' with HFS.

16. Each Health Board would draw on the Framework Scotland for a capital project with "mini tender" exercises (for PSCs and the PSCP), supported by advisors from HFS. Then each Health Board would enter into a contract with each of the PSC and PSPC in stages, generally aligned to the business case stages, so the commercial commitments

were only as far as the business case and approved funding covered.

17. NHS Lothian completed the procurement exercise for the RHSC capital build with the selection of the PSCP, BAM, from the five on the Framework Scotland in March 2009. The later elements of the contract are Stage 3 – Works Information, and Stage 4 - Construction. The near completed design outputs in the Works Information comes from the work the PSCP has collaboratively undertaken with the Health Board's project team to develop the specifications and requirements in the earlier stages of their appointment. The Project got to the stage that the Works Information stage had nearly been completed, when the Scottish Government decided the Project should proceed under the NPD model; and that this works information had been the product of work between BAM and the NHS Lothian project team.

18. To get to the completion of Stage 3 and the commencement of Stage 4, a "Target Price" is agreed between the health board and PSCP, with a proportion of supply chain packages having been priced up for the contractor and design finalisation, any statutory consents obtained, etc. NHS Lothian and BAM were in the final stages of Stage 3, with packages out for pricing and planning consent about to be applied for when the funding route was changed to be NPD. The Framework Scotland was not designed to deliver revenue funded projects and the collaborative risk sharing approach of NEC has not generally been acceptable to the commercial funders in PPP contracts who seek a fixed price and fixed risk construction contract.

Change in Funding Model

19. The Scottish Government announced in November 2010 that the funding model was to change to NPD (non-profit distribution) which is a revenue funded financing model with a different risk profile to a capital project.

20. Following the Scottish Government announcement, Scottish Futures Trust (SFT) were introduced to NHS Lothian. Effectively this was a requirement imposed by the Scottish Government as SFT were the programme leads for the national NPD model. Initially there were discussions around the project team and resources required to deliver the procurement through a NPD contract as well as the governance and assurance

arrangements SFT were putting in place as NPD programme managers for Scottish Government. The first requirement was to undertake a design assessment as that set the financial parameters for the Project under NPD as formalised in the letter from Peter Reekie dated 1 June 2011 (Bundle 3; Volume 2; Document number 46; Page 399). SFT appointed WS Atkins to carry out the design assessment as SFT required to know that delivery of the NPD programme would be within their budget and present value for money.

21. SFT established Key Stage Reviews (KSR) at milestones for the Project's development which involved detailed interviews with NHS Lothian and its advisors, review within SFT and sign off by NHS Lothian's Senior Responsible Officer. Scottish Government would not approve any of the business cases without an agreed KSR. The KSR process was being developed on the Project as this was the first acute health care NPD project with the additional complication of the existing PFI (private finance initiative) on site with Consort Healthcare Ltd (Consort) which I explain more fully below. However, NHS Lothian's programme from the point of initial engagement with SFT had to be fully in line with SFT's NPD programme requirements.

22. The Board required to consider the approval process for the NPD funding model and procurement as well as reassessing the commercial contract positions with PSCP and Consort. The Board also had to consider the development opportunities for DCN which was previously being considered as a separate business case and project.

23. My role in the governance process was to give detailed presentations to the NHS Lothian Board/Committees and the reports would be submitted under either Jackie Sansbury as Director of Strategic Planning or Susan Goldsmith as Director of Finance. I also became the relationship lead for the legal dialogue and NPD programme actions with SFT once the NPD funding process was developed.

<u>Department of Clinical Neurosciences (DCN)</u>

24. The strategic intent of NHS Lothian, covered in an Initial Agreement business case for the re-provision of DCN from the Western General, was to relocate the services to the campus at the Royal Infirmary of Edinburgh (RIE) from the Western General Hospital. The strategic drivers were similar to those of the re-provision of RHSC, namely colocation with the acute adult services at the RIE and improved facilities. Imaging, critical care and theatres were key components which were being explored as part of the development planning.

25. There were three interlinked and parallel considerations as part of the planning for DCN. Firstly, the business case and funding; secondly, the development of the clinical brief and resultant options for design (layout and scale); and finally the commercial and contract relationships with the RIE PFI provider (Consort) and then also the PSCP, BAM. The timelines criss-crossed so decisions were made against one or more drivers at that point in time.

26. Initially, the vision to extend the "ward arc of the RIE" was developed by Consort as part of work they did on site master planning and this could be funded through a capital injection or by revenue funding through the existing PFI arrangement. However, ultimately, this was not attractive due to insufficient space for the DCN components, and procurement challenges as the existing PFI contract value would be too high for an automatic award.

27. The option to extend the brief for capital build re-provision of RHSC to include the DCN was explored and options appraisal found that to be a preferred option but at that time the DCN components were not as fully developed as the re-provision of RHSC so there would be an impact on programming for both separate business cases. Ultimately, the viability of this option ceased as Scottish Government indicated that the DCN outline business case could not be considered due to the lack of capital funding available. Therefore, the DCN proposals were removed from the re-provision of the RHSC design development.

Site Constraints

28. There were significant constraints identified by NHS Lothian during the process of developing its plan to deliver the Project. These were made up of three interlinked aspects, namely: physical site constraints; legal and commercial agreements with the PFI provider of RIE (Consort); and the positioning of these against the forthcoming procurement of a NPD provider for the Project.

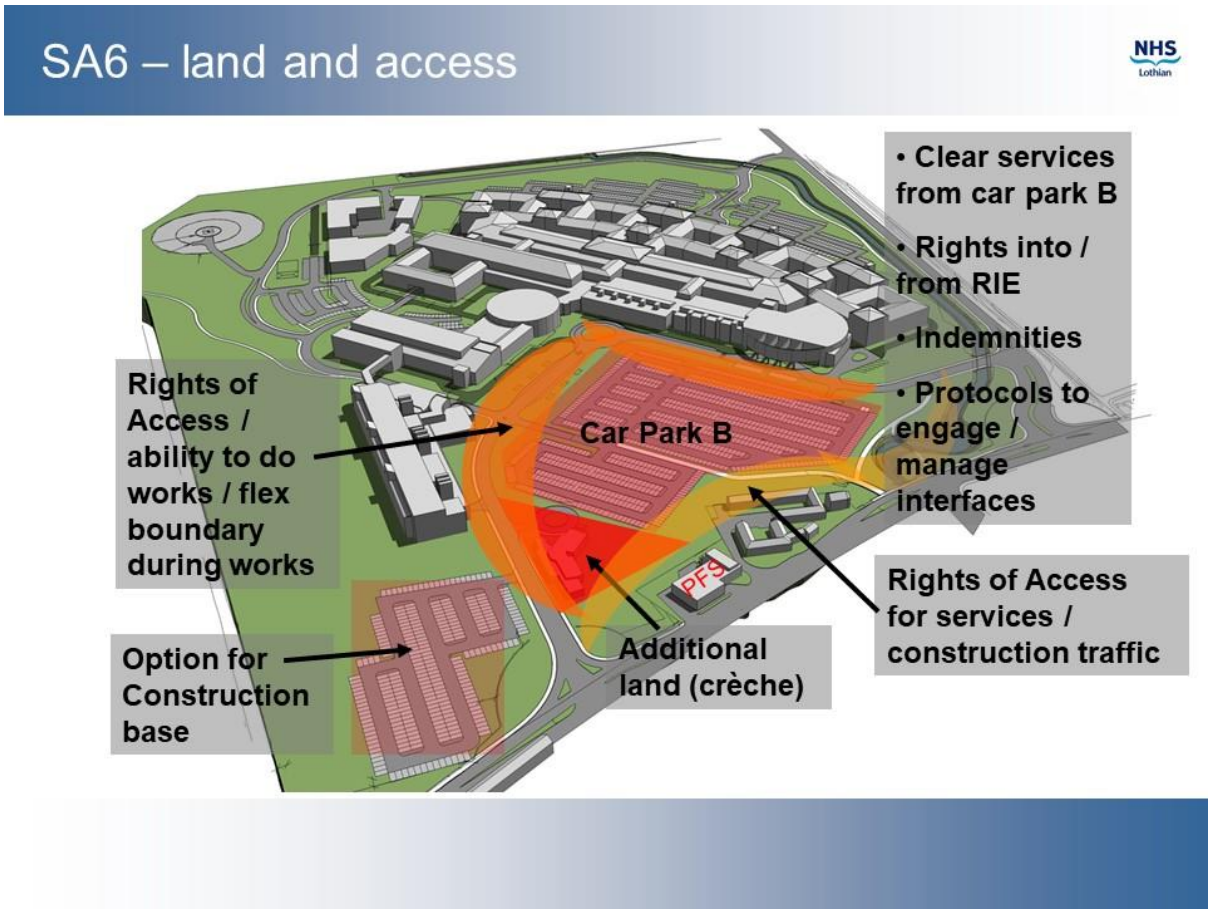
Consort

29. In order to resolve the site constraints NHS Lothian entered into discussions with Consort to address the physical constraints and infrastructure requirements for the new hospital which ultimately resulted in entering into two supplementary agreements to the existing RIE Project Agreement, known as Supplemental Agreement 6 (SA6) and Supplemental Agreement 7 (SA7) and then a reciprocal arrangement included in the new draft NPD Project Agreement (prepared for the commencement of procurement). This included obtaining statutory consents, such as Town Planning approval from City of Edinburgh Council, Drainage approvals from SEPA and Scottish Water, gas main diversions etc. I was directly involved in the legal and commercial negotiations, with other colleagues progressing the technical specifications which were appended to the Supplemental Agreements. The Board of NHS Lothian was kept informed through reports or presentations to the Finance and Performance Review Committee.

30. The Project was going to be built on the old car park B at RIE for proximity to accident & emergency department. Car park B was the existing main hospital carpark (see diagram below). Therefore, in order to operationally have sufficient car parking, which was also a requirement of planning consent, and to ensure the existing PFI arrangement was financially kept whole in relation to car parking provisions, NHS Lothian acquired from Scottish Enterprise the adjacent land east of RIE, known as Plots 14-16 of the Edinburgh BioQuarter, in 2008 to build a replacement car park as a separately tendered capital project tendered 10/2010, completed 6/2011). This was a requirement for the capital proposals for the re-provision of RHSC and had been in progress for some time in advance of the change to NPD. The terms for the car parking arrangement were included in a Memorandum of Understanding with Consort in late 2010.

Supplemental Agreement 6 (SA6)

31.

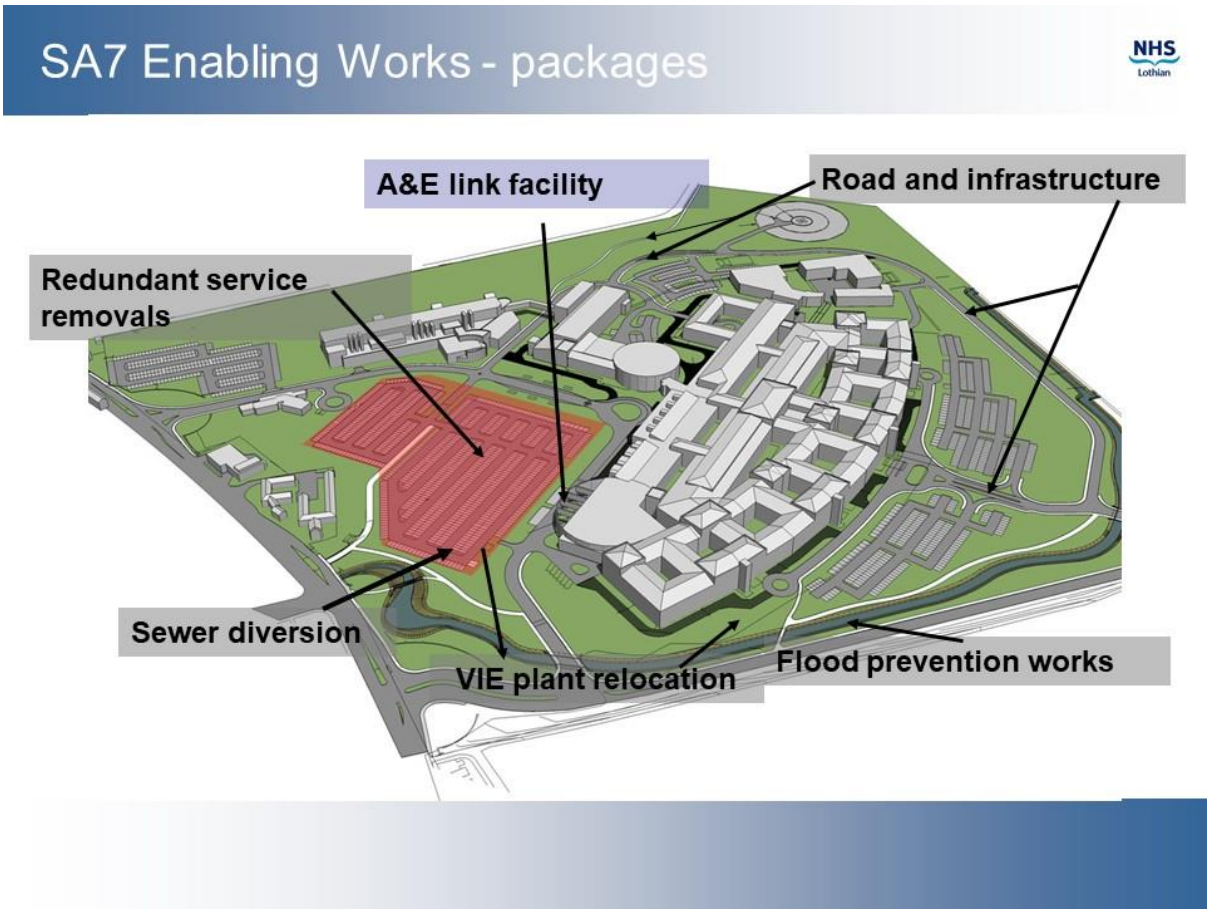


32. After the change of funding from capital to revenue through the NPD model, SFT required that in order to take the Project to the market a commercial "level playing field for bidders" had to be created with the project clear of dependencies and risks outwith the control of bidders. SFT participated in the dialogue with Consort and attended NHS Lothian committee meetings regarding the negotiations with Consort. Addressing the need to excise the land from the control of Consort (through leases and existing Project Agreement) and providing sufficient rights of access and egress (roads and infrastructure services) necessitated a Supplemental Agreement – referred to as SA6. The key aspects of SA6 are shown in the above diagram, extracted from a presentation to Finance & Performance Review Committee on 14 December 2011. Coincidentally, the privately operated nursery, leased from Consort, was closing and this land was incorporated into the development site for RHYCP and DCN in early 2012, with SA6 being signed in August 2012.

Enabling Works – SA7

33. There were a number of interface issues that required to be resolved between the existing hospital and the new Project such as the expansion of critical care to allow for DCN, works at the pharmacy and the 'docking station' to join RIE to the new hospital. Externally, a range of significant infrastructure works were also needed, such as improved flood protection to meet Town Planning requirements, and moving the bus stop hub to accommodate the new road network. All the enabling works were agreed under SA7, with the external elements as illustrated in the diagram below.

34.



35. The decision to add an NPD model together with DCN brought further complexities to the Project. A situation was created where we were putting a Public Private Partnership ('PPP') inside a PPP which, as far as we could ascertain, had never been done before and therefore the understanding and risk profile and assurance processes were being

explored by SFT as much as NHS Lothian. In order to achieve the level playing field and risk profile assessed by SFT for the NPD project at the time, the Project ended up with separate energy centres rather than plugging into the existing energy sector at RIE. We also had to ensure separate rights of access beyond those included in SA6 to accommodate potential bidders' requirements. Under the capital scheme we had envisaged expanding the RIE catering provision, but separate catering, loading bays etc. would be contractually required in the NPD brief. I would add that creating a PPP inside another PPP contract with risk averse lenders created a drag on the programme and additional complexity on the site.

36. I have been asked how NHS Lothian concluded that the benefits offered by the new facilities outweighed the disadvantages of the site constraints. There was still a strategic requirement and a need for a new children's hospital which under policy was to be located with an acute adult hospital. There were options appraisals done and the output of those included in the business cases. There was a risk management workshop held with the resultant options appraisal completed by Davis Langdon the predecessor of Mott MacDonald to confirm the position to progress with the Project. The output of which is detailed in Appendix 8 of the Outline Business Case Addendum.

37. The issues on the site were resolved by negotiating and agreeing what became SA6 and SA7 where NHS Lothian had to accept contract liabilities between an NPD contractor, not yet selected through a procurement, and the existing PFI contractor, Consort, who may also yet bid for the NPD contract.

38. Consort, their shareholders and funders had an expectation to be "kept whole" including, for example, cover for loss of income from car parking following the removal of the PFI controlled main car park to make way for the new hospital. Removing this meant that NHS Lothian became the owners of it in terms of both land but also ensuring NHS Lothian kept Consort and the Royal Infirmary PFI "whole" in terms of contract liabilities and risks. NHS Lothian also had to accept additional commercial points such as not creating a separate profit-making staff canteen in the children's hospital, and retail units there could only be for a charitable purpose not in commercial competition to the units in the Royal Infirmary of Edinburgh.

39. By undertaking additional repairs and improvements to the road network and car parks to accommodate the new children's hospital and an altered bus route, they mitigated Consort's life cycle costs; probably saving monies which were due to be expended by Consort under the PFI contract. At the time there was an argument put forward by SFT that NHS Lothian would have had to accept commercial risk transfers had we progressed with a capital project. But NHS Lothian's project team and advisors identified that there were now two additional factors brought in as a result of the switch to NPD procurement.

40. Firstly, we had to create a new Project Agreement for the NPD, based on the standard form contract prepared by SFT, tailored for an acute hospital use but also for the site specifics. This would then be taken to the market through procurement and therefore needed to be "bankable" – having a suitable position for contractors, lenders and funders, to understand with all risks quantifiable and elicit their support for bidding for the project against other potentially competing projects. This would in due course be negotiated with three separate bidding consortia, their advisers and ultimately funders for the preferred bidder.

41. Secondly, linked to the proposed new NPD Project Agreement, we had to negotiate and agree terms with Consort; and them with their advisers, shareholders, funders; which created the site suitable for development of the new hospital, linking into the existing RIE, and utilising the existing roads, services etc. Whilst there was always a requirement to have such linkages, NHS Lothian would no longer be the contracting party AND the ultimate beneficiary of the provisions. Consort and their backers recognised that an incoming NPD operator could seek to offload their risks onto NHS Lothian and thereby increase the likelihood of claims or challenges against Consort. Therefore, the proposed NPD created 'a piggy in the middle' risk profile for NHS Lothian now to be operating between two different PPP Project Agreements, their 'Special Purpose Vehicles' (SPV), shareholders and funders. In this context, risk is something that impacts the financial models of the respective projects (RHSC / DCN and RIE) and therefore the interests of multiple parties. Each respective SPV had obligations to, and rights from, NHS Lothian, but not directly between those SPVs alone. One SPV operating for several years on an old style of PFI contract, and one still to be procured on a new NPD contract.

42. In practical terms, the NPD contract was drawn up before procurement with a set of constraints and procedures based on the current understanding of the potential building form and designed to mitigate risks to the operation of the current RIE services, the PFI SPV and wider community. The SPV limitations included NHS Lothian liabilities for issues created at the RIE by the NPD SPV during construction, mitigated by procedures put into the NPD Project Agreement for that SPV to follow. Fixed connection points were agreed with Consort and included in the draft NPD project agreement. This included, for example, Consort building a new section out from the RIE, described as a "link facility" - designed specifically for the NPD contractor to connect to, rather than the existing RIE fabric which they would not need to touch. Given that the final building form for the new children's hospital had not yet been designed, there had to be a limited degree of flexibility – or a mechanism to agree changes – within the documentation. All these elements had to be legally bound into contracts, SA6 and SA7, and agreed with Consort, their advisers, shareholders and funders before NHS Lothian could go to procurement. The reciprocal rights and procedures were also created in the new NPD Project Agreement too with those also being agreed by SFT to ensure that the NPD terms would not deter the interest of the PPP market or add further risks to the profile of the project.

43. One outturn of this was a necessity to provide a separate energy centre for the new hospital rather than seek to link to the existing, but poorly performing, RIE energy centre. This was felt to have implications in running costs and carbon reduction targets but instead allowed for separation of risks between the respective PPP contracts.

<u>Impact of negotiations with Consort</u>

44. NHS Lothian were very much reliant on reaching an agreed position with Consort on SA6 and SA7. There were commercial challenges and the process was time consuming especially in relation to getting the funders of the existing PFI to agree to the changes. I would consider the negotiations to be more difficult because there were so many parties that NHS Lothian had no visibility of their commercial options or ability to influence. For example, there were 11 lenders on the PFI, some of which were closed banks who had limited involvement/resources into approving the required changes. If it was a commercial negotiation with just one contactor NHS Lothian would have

known their commercial drivers. We also had an ongoing operational PFI at the site which meant Consort had a significant leverage in the negotiations.

45. In terms of timescales, SA6 completed in August 2012 and SA7 completed in December 2012. The enabling works then took Consort and Balfour Beatty around 18 months to complete, from spring 2013 to autumn 2014. SA6 and SA7 would have been needed regardless of the funding, however, due to the issues described above, the negotiations around SA6 and SA7 were prolonged and challenging because NHS Lothian had no leverage therefore it did have an impact on time and costs.

46. I have been asked whether the negotiations surrounding the purchase of car park F and then SA6 and SA7 became my focus (Bundle 3; Volume 1; Document number 2; Page 39. The answer to that is yes. NHS Lothian couldn't start the NPD procurement until SA6 and SA7 had been agreed.

47. SFT advised and NHS Lothian agreed that we shouldn't start the procurement until the risk profile had been agreed so there was only negotiation with bidders as opposed to having multi-headed negotiations with Consort and bidders. Part of the concern was Consort or its entities could also be potential bidders for the Project then in order not to distort the tender NHS Lothian had to go to the market with the agreed position. As far as NHS Lothian were aware at the time, Consort was 50% owned by Balfour Beatty and the investors and lenders may form a bidding party. In order to ensure we had other bidders equally motivated to bid we had to fix all those points. This explains why there was a lot of focus by NHS Lothian at the time to agree SA6 and SA7 from a commercial and legal perspective. Brian Currie, the Project Director, took an interest in the enabling works from a technical perspective in terms of the impact on the Project. Capital Planning seconded a senior project manager to Brian Currie's team to manage the Board's interests in the projects covered by SA7.

48. I have been asked whether this Project was particularly complex from the outset and I would say that it was, for all of the reasons set out above as the level of complexity kept getting ratcheted up rather than eased as we got to procurement stage.

Switch to the NPD model

49. The Scottish Government announced in November 2010 that the model of funding was going to change from capital funded to an NPD model. I do not know why the Scottish Government changed the funding model but my understanding was financial limitations in capital availability and the application of government policy which resulted in the change in funding model.

50. NHS Lothian were not consulted about the switch to NPD prior to the decision being made. The original OBC for the RHSC drafted by NHS Lothian identified that PFI was not the preferred option. (Bundle 3; Volume 1; Document number 12; Page 272)

51. I do not know why we were not consulted. There were some statements around the DCN project about capital constraints and limitations but nothing so specific to indicate that there was to be a fundamental change of funding to NPD. It is unusual that we were not consulted as there normally would be dialogue around substantial projects, funding, and procurement in advance of the submission of a business case.

52. I think it would have been helpful if NHS Lothian had been consulted because there were contractual and operational issues we knew about and had details of which would have informed any risk profile/assessment. In this context operational issues for NHS Lothian includes both the clinical services but also the facilities or support arrangements on site. The service efficiencies from the co-location of RHSC and DCN services with the RIE included a single adult Critical Care Unit serving both RIE and DCN patients, a single location for pharmacy and laboratory, etc. As such, staff, patients and materials would require ready access between the facilities seamlessly. The Facilities Management of the site with two different PPP SPV establishments could lead to added cost as separation of service provision is needed. This, along with NHS Lothian's own responsibilities and resources, increases the number of parties involved on site delivering for NHS patients and staff.
53. After the announcement, I understand that NHS Lothian did raise concerns with Scottish Government and Scottish Futures Trust via NHS Lothian's Director of Finance.

54. To my knowledge, an NPD model had not been used by NHS Lothian on any previous project. At that time, there was only one NPD project underway in NHS Scotland – a mental health development in NHS Tayside. This would be the first acute hospital NPD project.

55. I have been asked if the switch to NPD resulted in delays to the project and I think that it did. There were also additional costs associated with the creation of additional advisory input from lawyers, technical and financial advisers. There was also construction delay, inflationary cost and ultimately increased cost because of the inclusion of DCN but this was fortuitous as it allowed us to develop that project.

56. The switch to NPD did increase the workload of NHS Lothian as it required a new procurement exercise and additional resources for the new style of contract and competitive dialogue procurement process. The in house project team, clinicians and other stakeholders were all engaged with effectively 3 bidders as well as any internal and stakeholder engagements, and commercial and legal negotiations with Consort, the project teams were working across five dialogues simultaneously. This applied in the period up to the approval of the OBC (Bundle 3; Volume 2; Document number 61; Page 672) / FBC (Bundle 3; Volume 3; Document number 76; Page 729) and thereafter this continued with the preferred bidder. My role, along with other members of the project team, changed. My time on the Project increased to the point where I was attributing more than half my time to the Project.

57. There were previous discussions about DCN being associated with the re-provision of RHSC but the decision to include DCN as part of the NPD was made by the Scottish Government. This was very much welcomed by NHS Lothian as we were getting a new facility aligned with our strategy to relocate DCN clinical services to RIE.

STATEMENT OF TRUTH [to be signed by witness once statement is finalised]

I, Iain Graham, confirm that:

(i) The contents of this statement is the truth to the best of my knowledge and recollection;

(ii) I am willing for this statement to form part of the evidence before the Scottish Hospitals Inquiry.

(iii) I am willing for this statement to be published on the Scottish Hospitals Inquiry website.

Signature:

Date

Written Statement

Brian Currie

Introduction

1. My name is Brian Currie. I am the currently employed as the Senior Programme Director for NHS Lothian. My role involves overseeing the three major projects that NHS Lothian currently have underway. Those projects are the new Edinburgh Cancer Centre at the Western Gerneral Hospital, the reprovision of the eye hospital, known as the Princess Alexandra Eye Pavilion and also the National Treatment Centre Lothian. They are all major projects with the latter two costing well in excess of £100 million each. I was appointed to oversee these projects on behalf of my line report, which is currently Susan Goldsmith as Director of Finance and also on behalf of the Senior Responsible Officer for those projects, which is currently Jim Crombie.

2. I was involved as the Project Director in the planning, design, and construction of the Royal Hospital for Children and Young People (RHCYP) and the Department of Clinical Neuroscience (DCN) ("the Project") on behalf of NHS Lothian. My role in the project was Project Director. I have been asked to provide a written statement to the Scottish Hospitals Inquiry (SHI) in relation to my involvement in the Project from the commencement up to the start of the procurement exercise. I have been provided with a list of questions and a bundle of documents from the SHI. This statement seeks to answer the list of questions that are relevant to my role in the Project to the best of my recollection. Some of the events I've been asked about occurred fifteen or so years ago and, given the passage of time, I cannot recall all of the events and documents.

Background

3. I graduated in 1978 with a degree in Architecture and was awarded a Diploma in Advanced Architectural Studies in 1980. I worked as an Architect in private practice for around 8 years before moving on to Project, Construction and Design Management roles in the construction industry across a broad spectrum of sectors. Immediately prior to the Project Director role in NHS Lothian, I was Regional Director for Scotland and NE

England for Lendlease Projects and was managing a variety of construction projects with a total construction value in excess of £450million. I have significant experience of delivering high value and complex construction projects including the RBS Edinburgh Property Strategy and RBS Gogarburn Campus.

4. In my role as Project Director I was responsible for aspects of project delivery on behalf of NHS Lothian within the defined scope, quality and timescale of the Project. I led NHS Lothian Project Team of twelve managers across various disciplines. I was involved with the procurement and management of technical, legal and financial advisors. I liaised with a variety of internal and external stakeholders. I led the redirection of the Project from a capital funded procurement route utilising a national established procurement framework (Framework Scotland) and NEC 3 form contract to a revenue funded NPD (non-profit distributing) project from November 2010 onwards. I led the Project Team through the development of the reference design process utilising a full external design and management team. I led the Project Team on the NPD procurement processes through PQQ (pre-qualification questionnaire), Competitive Dialogue, Preferred Bidder and Financial Close stages. I then led on the construction and commissioning phase to complete a phased operational handover in March 2021.

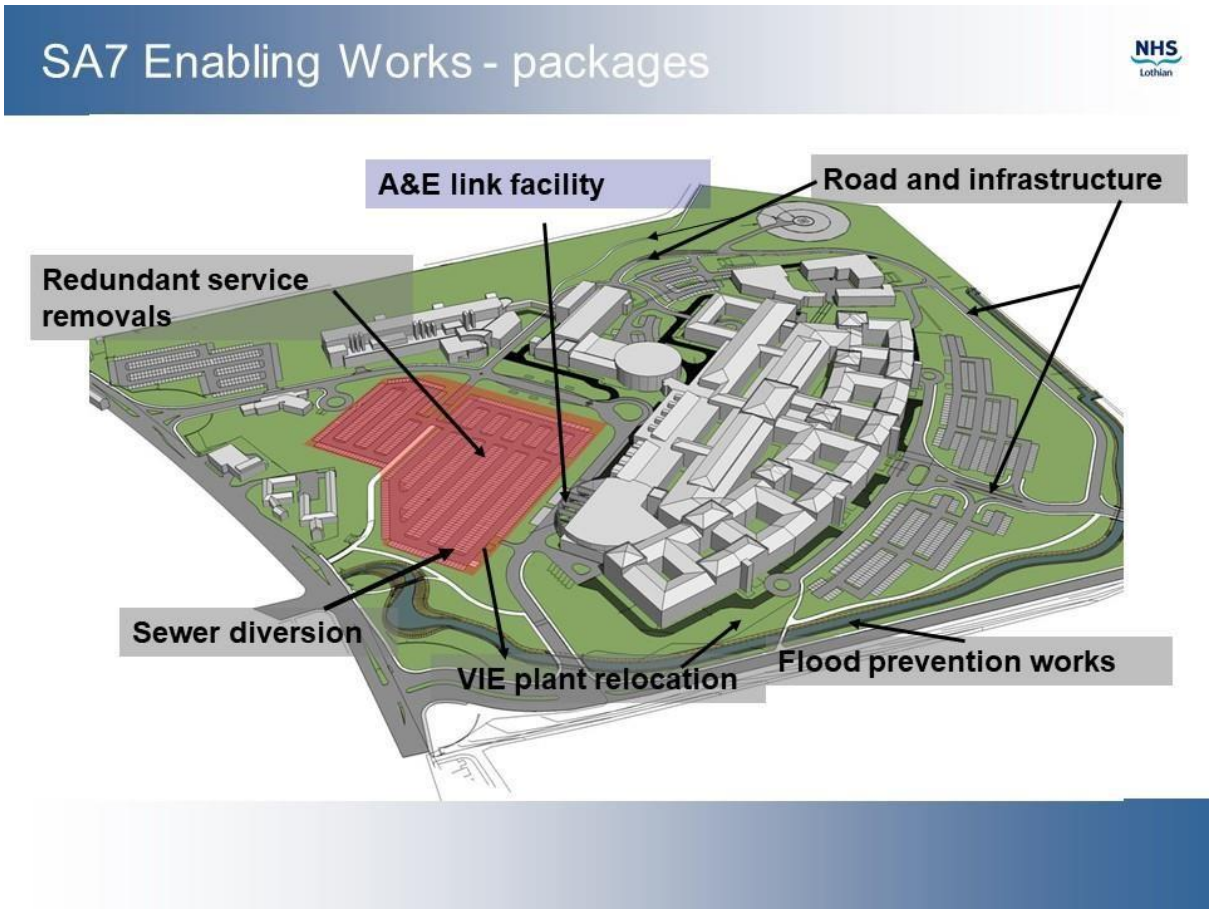
<u>The need for a new hospital</u>

5. I have been asked why a new hospital was required. The business case for the reprovision of the RHSC (Royal Hospital for Sick Children) (Bundle 3; Volume 1; Document number 12; Page 272) had already been approved by the Scottish Government when I joined NHS Lothian in August 2009. My brief was to manage and develop the build of the new hospital. Although I was not involved in considering the need for a new hospital, it was generally known that the old RHSC was a tired and old building, as was DCN at the Western General. In addition, there was a desire on the part of NHS Lothian to have DCN built on the same site as the re-provision of the RHSC so that the Board could provide a major trauma centre for all of NHS Lothian and realise the benefits of co-locating a children's hospital with clinical neurosciences, maternity, emergency department and a university teaching hospital.

Site Constraints

6. There were significant site constraints which we had to work through. What added to the complexity of the site constraints was that Royal Infirmary Edinburgh (RIE) which is situated at Little France, Edinburgh, was an existing PFI (public finance initiative) site run by Consort Healthcare ("Consort") and Balfour Beatty who were an equity holder in Consort. The introduction of an NPD project to an existing PFI campus presented challenges technically as well as legally and commercially. This was due to the fact that we would have two PFI operators on the same campus. The complications came from separating and clearly defining services, utilities and responsibility for those. We had to create a separation and try to make one autonomous from the other in the technical sense. In the operational sense, the challenges were in relation to things such as groundskeeping and snow clearing. The competing demands of two private operators on one campus was the principal reason for the challenges. The re-provision of RHSC and DCN was to be as autonomous as possible from RIE in the way it was funded and serviced to simplify legal and commercial considerations albeit there had to be physical and clinical connections between the buildings.

Enabling Works – SA7



7. The diagram above shows an illustration of the enabling works that were carried out on both the site of the project and the immediate RIE Campus. I often thought of the "A&E link facility", being the connection between the RHCYP/DCN and the RIE, as a "docking station". As Consort were in control of the RIE, it was their building, so they undertook the works to create the docking station. That included demolitions and creating a new building as an extension to the existing RIE. Project Co (IHSL) could then plug into that, without directly interfering with Consort's building.

8. As part of the A&E Link Facility, there are two link corridors between the RHCYP/DCN and RIE, one on the ground floor and one on the first floor. One of the corridors linked DCN patients directly through to critical care and theatres in RIE. This was needed because it was determined that it was not viable to have a critical care centre for DCN patients in the new facility and that the existing critical care in RIE should be expanded to accommodate DCN patients instead. Enlarging the area for critical care resulted in reconfiguration works for other areas/services within RIE, namely the relocation of renal. Other clinical enabling works also took place in relation to pharmacy and

reconfiguration of the Emergency Department following the creation of the "docking station".

9. The VIE plant is for medical oxygen. The road and infrastructure relates to the rerouting of buses to the new bus hub. Flood prevention works were required because upgrading was needed since RIE's design in the 1990s to match new flood risk requirements. There were other external works such as new flood defences (on and off site) and road infrastructure around RIE campus. A gas mains and twin trunk sewer also required diversion.

10. Below ground, we also had significant diversion works (redirection of water, drainage and other utilities from underneath the proposed footprint of the new facility in car park B).

11. The majority of the enabling works were agreed via a Supplemental Agreement (SA7) between the Board and Consort. As Project Director, I was involved in the negotiation of SA7 to the extent that the physical works necessary were appropriate to enable the eventual proposed development. Once SA7 was agreed, the enabling works were carried out by Balfour Beatty on behalf of Consort. SA7 covered the following works which were implemented by Consort via Trust Additional Works Orders (TAWOs):
    - TAWO 158 – Medical Oxygen Plant or VIE (Vacuum Insulated Evaporator)
    - TAWO 160 – Sewer Diversion
    - TAWO 57 – Road
    - TAWO 159 – A+E Link (*the Docking Station*)
    - TAWO 161 – Services Diversions - TAWO 156 – Flood Defences

12. The following were not included in SA7 but were also delivered by Consort via TAWOs:
    - TAWO 165 – RIE Critical Care and Renal - TAWO 180 – Pharmacy

13. As above, Consort and Balfour Beatty were undertaking the works but we had an interest in them as the ultimate client and paymaster so kept an eye on progress and were involved to the extent that a project manager from Capital Planning represented the Board at meetings and acted in a liaison role between the Board and Consort. Capital

Planning are responsible for placing project managers to projects. Iain Graham is responsible for this department, he will be able to speak in more detail about this.

Supplemental Agreement 6 (SA6)

14. Before the procurement process could commence, the Board had to enter in to negotiations with Consort to secure the land required by NHS Lothian for construction of the new RHCYP and DCN (on car park B). We needed to acquire a new car park for RIE (car park F) to swap for car park B. It was not straightforward because the plots for the new car park (car park F) were owned by Scottish Enterprise and a third party based in the USA, Alexandria Real Estate, had rights to the plots so the negotiations were difficult. The Director of Finance, Susan Goldsmith, led on these negotiations and she is better placed to speak to them than me.

15. We used car park E for our site offices from June 2017 in a co-located manner with IHSL and their supply chain following IHSL's and our move from the original colocated site establishment/ offices situated on the actual construction site of the new hospital. Then when the site offices were no longer required, car park E became a functional car park again.. As part of the planning consent, we were given 230-240 spaces. However, to build the hospital, we had to build on an existing car park (car park B). We therefore created Car Park F to the east of the new hospital. That was done as quickly as possible so that the site could be available to Project Co. By creating Car Park F we maintained the same level of car parking numbers at the Royal, even though we were building on the site. When we cleared out of Car Park E, that became the 200 or so spaces that was the net addition to the overall car parking once the hospital became live.

Switch to NPD model

16. I had no awareness of the change in funding until it was announced by the Scottish Government on 10 November 2010. As Project Director, I would not have expected to be consulted on this matter however I would have expected NHS Lothian to be consulted in some capacity. I do not know why the decision was made. I can only comment on what I read in the press at the time, which was that there was a tightening on the financial

budget following on from the 2007/2008 financial crisis and funds had to be raised by private finance initiatives such as the NPD model. Before this change in postion we were well advanced in our negotiations with the principal supply chain partner, BAM Construction. We were pushing towards what's called the agreed target price. We were just about to make a planning application to the council, so the design was well developed. The announcement on the 10 November 2010 brought that to a halt.

17. I have been asked whether the change in funding and also the SA6 and SA7 negotiations had an impact on timescale and cost. It is difficult to separate these issues out. I have been referred to paragraph 3.1 of Finance and Performance Review Committee (F&PR) Minutes dated 9 August 2010 (Bundle 7; Document number 31; Page 685). In summary, issues around SA6 at that time (i.e. before the change in funding) were adding up to 4 months' delay and so the January 2011 start date for construction was no longer possible. The revised date for the hospital being fully operational was mid 2014 (rather than late 2013).

18. However, any delay to a start date did not play out because, between this F&PR Committee meeting in August 2009 and the original start date of January 2011, the Scottish Government announced the change to funding model and the addition of DCN, which caused delays to the start date independent of the SA6 (land transfer, access during construction, wayleaves for utilities, land provision for anew sub station, oversail rights and right to connect to the RIE) and SA7 (Enabling Works) negotiations. As a by-product of the announcement, we had more time for SA6 and SA7 to be finalised. However, it is very difficult to say when we would have been in a position to commence construction had we proceeded with the capital funded project as planned. I think the SA6 and SA7 negotiations eventually took around two years, with SA6 completing in August 2012 and SA7 completing in December 2012. The enabling works took around 18 months, starting in the spring of 2013 and finishing in the autumn of 2014. So although the capital funding scheme would have endured a delay due to the protracted negotiations with Consort, the introduction of NPD definitely made those negotiations more difficult and, in my opinion, most likely longer.

19. The switch to NPD definitely increased costs and an increased workload for NHS Lothian. We had to prepare a revised business case, prepare for a new procurement

model and consider how best to utilise the design work already done. This involved liaising with internal and external stakeholders and independent advisors. We had numerous meetings with lawyers and technical advisors which were costly and time consuming.

20. I have been asked whether this was a particularly complex project form the outset. Healthcare projects are always complex, however, this Project was extremely difficult from the start, particularly due to: the site constraints; undertaking works on a site that was a live major acute hospital; dealing with various internal and external stakeholders; and the need to acquire land where a third party had rights. However, in my experience, all major and high value projects have significant complexities. What added an additional layer of complexity to this Project was the change in funding to NPD and the technical, legal and commercial challenges that came with trying to join an NPD project to an existing PFI site. In addition, the reintroduction of DCN added further complexity.

21. To clarify, the inclusion of DCN was welcome in that it met NHS Lothian's desire to build a major trauma site, but the lateness of that announcement and the change of funding model, particularly given how advanced we were with the re-provision of RHSC as a standalone project, brought with it further complexities and delays to timescales. It meant that we had to rewind again in terms of some of the design processes and look at the integration of DCN as a significant part of the build. The two areas that particularly took a lot of time were theatres and imaging facilities. We had to try and create services and support areas common to both RHSC and DCN serving these two clinical facilities and achieve economies of scale.

<u>The Reference Design</u>

22. By the time the NPD funding route was announced by the Scottish Government in November 2010, the Board had already developed a detailed design for the re-provision of RHSC ready to be submitted as a detailed planning application. The Board had to consider (i) if/how to use the design team and/or the design work already undertaken by BAM (BAM were appointed the principal supply chain partner ("PSCP") to support the Capital Design project in around April 2009 and (ii) how to present the information to bidders in a new procurement process.

23. Following a review meeting including Scottish Futures Trust (SFT), Scottish Government Healthcare Directorate (SGHD) and MacRoberts LLP (NHS Lothian's legal advisors) on 23 December 2010, it was concluded that it would be beneficial to take a "reference design" to the market. This was not just a case of taking BAM's design and re-badging it as a reference design. We had to break down BAM's design into the component parts then retain and salvage the design principles already agreed through discussion and agreement with clinical teams. Essentially what we did was take the hard-won components and principles of the design such as patient pathways, clinical models and the relationship of spaces to one another and then utilise these as the design principles and building blocks for the NPD process and competitive dialogue.

24. It is important to understand that the reference design was nowhere near what the final design of the Project would be and was never intended to be. We were just providing the bidders with an architectural representation of one possible concept design but which critically illustrated the mandatory requirements imposed on the Board by Consort as a result of the SA6 negotiations. These requirements included constraints on us on a practical, technical, legal and commercial level. Our operational functionality requirements remained a design responsibility of the Board. We were always clear that the reference design was to be replaced with the Preferred Bidder's full design solution. We had an open day for bidders and this was explained to them then as part of the presentation (see Speakers' Notes provided). I have reviewed and included my Notes from the presentation at the open day for bidders and have copied the relevant sections as an Appendix to this statement. It is noted that:

"*Following the close of Competitive Dialogue, and the appointment of the Preferred Bidder, the Reference Design will be replaced with the Preferred Bidder's affordable and commercially acceptable design solution."*

25. I consider these Speakers' Notes demonstrate that NHS Lothian had a clear and articulated strategy and approach which we communicated to the bidders from the outset. We also laboured the point that the rerference design was to be replaced by with the Preferred Bidder's design throughout the competitive dialogue process.

26. One of the key driving factors in adopting a reference design, which was set by everyone involved, was to salvage as much of the time, effort and cost that had already been incurred. It was the sensible thing to do. We did not want to throw out what had been hard-won clinical input, for example disucssions around clinical models and pathways. To repeat the process would eat into precious clinical time for the clinicians and medics.

27. In summary, the benefits of a reference design were: (i) enhanced cost certainly at the outline business case (OBC)(Bundle 3; Volume 2; Document number 61); Page 672; (ii) fundamentals of the clinical design were complete to the extent that there would be very limited future engagement of scarce clinical resource; (iii) it would shorten the competitive dialogue phase; (iv) utilise available programme time in that it would run in parallel with Consort negotiations to minimise delay to the strategic programme; and (v) it would minimise abortive design cost and tendering risk for unsuccessful bidders.

28. The Project Team initially intended to complete the reference design within 12 months based on three rounds of consultation with clinical staff (Bundle 7; Document number 32; Page 687). The Project Board immediately sought to reduce this period to eight months with two rounds of clinical engagement. My recollection is that it was SFT (who sat on the Project Board) who were keen to shorten the the programme of activities in relation to the reference design production, competitive dialogue and between preferred bidder and financial close, rather than NHS Lothian.

29. SFT supported the reference design approach because they were keen to minimise prospective bidders tendering costs by reducing the length of tender process and interaction between them and clinicians (three bidders, as it transpired, each having lengthy design dialogue with clinicians). The Board was also conscious of the additional demand on clinicians' time this would bring. This is not to say that there wasn't clinical dialogue during competitive dialogue, just less than there would have been had there not been a reference design. This is because we didn't have to start from scratch. We had the principles in clinical terms sorted out through the reference design and, as such, we did not have to go through the same process with three differnet bidders during dialogue. This saved a huge amount of time.

30. We also had to take advice in relation to the procurement process and, in particular, how to present the reference design to bidders. This advice was sought from Davis Langdon, Mott Macdonald, SFT and Macroberts. As set out in section 6 of the project update to the Finance and Performance Review Committee in January 2011(Bundle 3; Volume 2; Document number 34 i); Page 318), we explored a variety of procurement options with variations of the reference design approach with external advisors. This resulted in the Procurement Options Paper dated June 2011 (Bundle 3; Volume 2; Document number 47; Page 409) and a strategic programme prepared illustrating potential delivery timelines (Bundle 3; Volume 2; Document number 44; Page 395).

31. We instructed our advisors, Davis Langdon and Mott MacDonald Ltd (Motts), to prepare a report on the Approach to the Reference Design. The first version of this is dated January 2012, with various iterations until the version dated May 2012. (Bundle 3; Volume 2; Document number 68; Page 898) I authored a paper (the "Reference Design paper") for the Project Steering Board Meeting on 11 May 2012 (Bundle 3; Volume 2; Document number 66; Page 892), which recommended that the Approach to the Reference Design report (being an earlier version dated March 2012) was used as the basis for accurately conveying NHS Lothian's intentions to bidders in relation to mandatory and non-mandatory elements. The Approach to the Reference Design report by Motts outlines and recommends the approach which the Board ultimately adopted (see Project Board Action Minutes dated 11 May 2012 Bundle 3; Volume 2; Document number 67; Page 896).

Operational Functionality

32. The reference design needs to be understood in the context of operational functionality. I have been asked by the SHI to refer specifically to contractual provisions in the Project Agreement between NHS Lothian and IHSL (Project Co) dated 13 February 2015 and have consulted with NHS Lothian's legal team in this regard. The following represents my understanding of the contractual position but I fully appreciate that there are other interpretations.

33. My understanding is that Project Co had to design and build the Project in line with the Board's Construction Requirements (BCRs) (clause 12.1). The BCRs provided that Project Co had to comply with the requirements of SHTM and adopt them as mandatory

(clause 2.3 (v) generally and elsewhere). Where there was a contradiction in standards, the BCRs provide at clause 2.5 that the most onerous shall take precedence.

34. Overall responability for the design sat with Project Co (clause 12.3). Project Co had to develop and finalise the design and specification of the Works and the Board had to review the Reviewable Design Data (clause 12.6), insofar as it related to operational functionality.

35. The only element of design that was retained by the Board was operational functionality. Operational functionality is narrowly defined in the Project Agreement and, most importantly, did not encompass matters such as ventilation and pressure regimes within wards and rooms. In summary, it comprised the information as indicated in interdepartmental layouts (1:500); Depratmental Layouts (1:200) and Room Layouts (1:50) for Key and Generic Rooms and depratmental corridor layouts. We referred to Operational Functionality as opposed to Clinical Functionality because some of the mandatory areas of the Reference Design covered non-clinical functions such as Supplies, Storage, Distribution and Waste Management (Soft FM) and ICT Requirements).

36. Operational Functionality means the point of access to and within the development, buildings and departments; the adjacencies between different departments; the adjacencies between rooms within the departments; the quantity, description and areas of those rooms and spaces shown on the Schedule of Accommodation. It is about the geography of a room or department and the geography of equipment within such a room or department. It considers practical questions that the Board needs to consider in relation to room layouts to ensure that they were operationally functional. For example, could medical staff approach patients from both sides of a room? Could catering trolleys enter and exit a room? Operational functionality did not include consideration of design requirements such as ventilation and pressure regimes within wards and rooms.

37. That said, if NHS Lothian identified any errors beyond issues with operational functionality, it would bring those errors to Multiplex/IHSL's attention. I personally was acutely aware that I had obligations in respect of the health and safety of the occupants of the new facility, professionally as a Chartered Architect and a responsibility, as an

officer of the Board, to the Accountable Officer to enable him to fulfil his responsibilities. The Accountable Officer is the Chief Executive of NHS Lothian.

Mandatory Elements

38. I have been asked to explain my understanding of the mandatory elements within the reference design. This comprises the information that defines Operational Functionality as already noted above, i.e .Interdepartmental Layouts (1:500; Departmental Layouts (1:200) and Room Layouts (1:50) for Key and Generic Rooms

39. There are also Compulsory Requirements:

- Planning in Principle as granted by The City of Edinburgh Council.
- Interface, access/egress and infrastructure provisions enshrined in (SA6 + SA 7)

Clinical, D+C and FM Output Specs.

40. To clarify, the Reference Design drawings are a diagram or graphical representation of these requirements. We were always clear that the Board's Construction Requirements would always take precedence over the Reference Design for matters which do not define Operational Functionality.

Non-Mandatory Elements

41. I have been asked to provide a description of the non-mandatory elements of the reference design. The non-mandatory or indicative elements were information that had been developed to verify the feasibility of the reference design in terms of architecture and engineering (e.g. the Environmental Matrix (EM)) and information developed for issue to Bidders in regard to site and servicing information (e.g. the borehole logs). Bidders response to the non-mandatory and indicative elements, which they had to develop through their design, still had to be in compliance with mandatory guidance such as SHTM 03-01. The premise of the indicative elements was to allow bidders to introduce innovation in their response. Whilst bidders still had to comply with the mandatory guidance, it enabled the bidders to bring private sector innovation to the table. My impression and understanding was that this approach was strongly promoted by SFT.

42. I have been refererd to paragraph 2.5.3 of the ITPD, which relates to Room Data Sheets (RDS)(Bundle 3; Volume 3; Document number 74; Page 200). RDS give a detailed description of the activities, personnel, planning relationships, space data, environmental performance, clinical risk category, finishes and equipment that will be required for each room or space in a project. Paragraph 2.5.3 of the ITPD states that RDS had not been prepared by the Board for the Project. It was for bidders to develop their own RDS to form part of their proposals. The Room Information at para 2.5.3 of the ITPD provided to inform the bidders' development of the RDS included the Environmental Matrix. It is my understanding that the only element of RDS which NHS Lothian retained any design responsibility for was in the context of operational functionality.

43. Paragraph 2.6 of the ITPD (Bundle 3; Volume 3; Document number 74; Page 200201)sets out the Indicative Elements of the Reference Design, and describes it as other information that has been generated both as a by-product of preparing the reference design and as a general Project requirement. One such indicative element in Section 2.6 is "building services engineering solutions". This was issued "for information only" to assist the bidders in understanding the intent of the reference design and they were advised to refer to the BCRs.

44. It has always been my understanding that the EM issued within the ITPD suite of documentation was one such indicative element and as such fell into the category of "disclosed data" in a similar way to the geotechnical reports or ground bore holes' surveys carried out previously by BAM in the capital funded scheme. I have been asked by the SHI for a definition of disclosed data. Disclosed Data is defined in the Project Agreement as any Design Data and any other written information, data and documents made available or issued to Project Co or any Project Co Party in connection with the Project by or on behalf of the Board. Clause 7.2 of the Project Agreement provides that the Board gives no warranty in respect of the Disclosed Data and it should not be relied upon for accuracy.

45. It might assist the Inquiry if, at this stage, I provide some more detail on my understanding of the design function and relevance of the EM, which is a document I understand may be of particular interest to the Inquiry. I do so here because it may assist to place the EM in its contractual and design context. The EM is a table which sets out

the environmental design parameters for each space within the hospital. The sole purpose of an EM is taking the environmental criteria that exists in room data sheets and putting them in to an Excel spreadsheet. There could be hundreds or thousands of room data sheets so rather than designers having to go through every room data sheet it is all in the EM. It is a summary of environmental performance and environmental requirements. It is used whether the project's capital funded or private finance funding. The EM was generated by Hulley & Kirkwood (a sub consultant to BAM) during the initial design stages when the project was to be capital funded. After the change to NPD, Motts appointed Hulley & Kirkwood as a sub-consultant. and Hulley & Kirkwood produced a further version of the EM which was issued with the ITPD. It was considered that whilst this information was not warranted by the Board and should not be relied upon for accuracy (clause 7.2 of the Project Agreement), it may prove useful to engineers employed by the bidders in any initial design assessments and in informing further investigations and studies they may care to undertake.

46. To explain the relevance, the EM issued at ITPD stated 4 Ac/hr for the single-bed rooms and 4 Ac/hr for the multi-bed rooms in relation to critical care rooms. However, the EM was prefaced with guidance note 15 which prescribed a ventilation rate of 10 Ac/hr for critical care rooms. There was, therefore, a conflict in the EM. The EM was to be revised as necessary by the successful bidder (IHSL/Multiplex) as the design and construction developed. The EM was no different from other technical data that was given to the bidders to assist them. It was intended to give design teams an idea as to where they should be going. It's not guaranteed or warranted in any way (clause 7.2 of the Proejct Agreement) but it was to assist them and enable them to have a head start. The successful bidder was responsible for the final design and had to their own studies as well. Although an EM is not part of standard form contractual documentation, it was (and still is) a widely used procurement mechanism on NPD/PPP projects. It is still used because the theory is that it helps the engineers. They get one document with all the information, rather than sifting through hundreds or thousands of other documents. In my experience it is not unusual for clients to share previous prepared information pertaining to the site or parts of any earlier design exercises with those that will design and build the proposed facility.

47. I have been asked whether the adoption of the reference design approach was unusual given the number of mandatory elements. I would say that it probably was but we were working with an unusual set of circumstances. I advised the Project Steering Board in the Reference Design paper (para 3.3) that, because of the particular and unique issues surrounding the Project, greater input and a more mature reference design had been necessary than may have been the case in other Healthcare NPD projects because of, for example: the site constraints; the connections required to the existing RIE building; the site being part of an existing PFI/PPP site; and, the interface and access requirements with the existing RIE/PFI service provider. Due to these specific constraints that we were tied to, there was not the latitude for the bidders to digress from that. We had to communicate that to them clearly and succinctly, which we did at the open day for bidders and throughout the competitive dialogue process. This differs from other projects, where the term "exemplar design" is probably used, which is not as prescriptive as "reference design". Reference design goes beyond exemplar design because of the specifics that we had to adhere to in this case.

48. Importantly, and as discussed above, I advised the Project Steering Board in the Reference Design paper (para 3.4) that following the close of Competitive Dialogue and the appointment of the Preferred Bidder, the reference design will be replaced with the Preferred Bidder's full design solution(Bundle 3; Volume 2; Document number 66; Page 893) This was a fundamental point that we communicated to bidders.

49. I have been asked what the difference is between an Exemplar Design and a Reference Design. A reference design is more prescriptive. That was necessary in this Project due to the constraints imposed on the Board by Consort. The use of the reference design went beyond what is usually provided to bidders, known as an exemplar design. However, both a reference design and an exemplar design, whilst communicating mandatory and indicative requirements to a lesser or greater extent, manifest themselves visually as one possible architectural representation amongst many.

50. I have been asked whether the Scottish Ministers supported the reference design approach. I refer to paragraph 2.5 of the ITPD (Bundle 3; Volume 3; Document number 74; Page 198) prepared by Motts for use by NHS Lothian. It is stated there that the use

of reference design in NPD projects is being promoted by the SFT and Scottish Government.

51. I have been asked about the role, if any, of healthcare planners. I do not recall this issue specifically but note that at paragraph 4.2 of the Reference Design paper it is stated that *"Given the previous Healthcare planning input to the project from an external Healthcare Planner and NHSL's extensive internal resource, the lack of an appointed advisor as Healthcare planner during procurement is deemed to be a minor and manageable risk".* Nevertheless, I'm aware that Tribal, a healthcare planner, was employed during the development of the reference design to assist with bed modelling.

52. We also received advice from Ernst & Young in relation to the cost, time and risk elements of the procurement process and from MacRoberts LLP in relation to the legal aspects. Architectural and engineering input was provided by BMJ Architects / Nightingales, Hulley and Kirkwood and Arup to the reference design process as sub consultants of Motts.

Design Assurance

53. I was not involved at the initial planning and design stages of the Project.

54. By the time I was appointed as Project Director in August 2009, the RHSC project had formally commenced as a capital funded project in April 2009 following the appointment of a Principal Supply Chain Partner (BAM Construction), Lead Adviser (Davis Langdon) and Cost Consultant (Thomson Gray). These organisations were procured by mini competition from a framework established by HFS in January, 2008 (Bundle 3; Volume 1; Document number 6; Page 154) A Q+A document issued by HFS in July 2008 outlines the preferred partnering approach to procurement of building contractors and professional services advocated by HFS(Bundle 3; Volume 1; Document number 11; Page 265).

55. A project overview document in October, 2009 (Bundle 3; Volume 1; Document number 14; Page 572) and clinical design structure diagram in August 2009 (Bundle 3; Volume 1; Document number 13; Page 571) describe the status of the project and extent of

clinical engagement in the design process respectively. The Board confirmed to Davis Langdon in November 2009 (Bundle 3; Volume 1; Document number 15; Page 575) that they and the PSCP were to continue to develop a design for a joint RHSC + DCN whilst also preparing a "shadow" design for a RHSC only facility.

56. A programme of briefing activities for 2010 (Bundle 3; Volume 1; Document number 17; Page 581) sets out the extent of engagement and range of topics discussed in conjunction with a note of the clinical representation (Bundle 3; Volume 1; Document number 18; Page 582) in these activities and meetings. Clinical input would not have referred to SHTM 03-01 and other parameters such as air changes per hour.

57. The NEC3 contract mandated by HFS defines a collaborative process between the parties to develop jointly and agree the "works information" for the final building contract. An unsigned version of a Stage 3 contract was prepared in June 2010 which illustrates this approach (Bundle 3; Volume 1; Document number 23; Page 860)In general terms and had the project continued along a capital funded / NEC3 route this collaborative process would have involved the PSCP responding to the Board's initial "Employers Requirements" (Bundle 3; Volume 1; Document number 19; Page 583) with their "Contractor's Proposals" which eventually, following continuous engagement with the Board and design development, result in the agreed "Works Information". Unless specific derogations are agreed and documented in the "Works Information" all design responsibility for compliance with recognised and current healthcare requirements rests solely with the PSCP.

58. Two Gateway Reviews were undertaken. The first was in 2008 before I was appointed as Project Director (Bundle 3; Volume 1; Document number 9; Page 249) (Bundle 3; Volume 1; Document number 10; Page 263) and the second in 2010 (Bundle 3; Volume 1; Document number 20; Page 797) (Bundle 3; Volume 1; Document number 21; Page 813) This Scottish Government review process (Bundle 3; Volume 1; Document number 1; Page 4) applies to all organisations covered by the terms of the Scottish Public Finance Manual that have a budget of £5 million in value or over (anything which meets the definition of Mission Critical being automatically considered as High Risk).

59. Capital funding was withdrawn by Scottish Government in November 2010. The Board commissioned a report from Davis Langdon in December 2010 on the viability of combining the RHSC requirement with the DCN requirement (Bundle 3; Volume 2; Document number 30; Page 5)

60. Motts were appointed as Lead Consultant and Technical Adviser via the OGC Buying Solutions Framework in March 2011 to provide NPD procurement, Facilities Management and Design and Construction advice.

61. On 22 March 2011 the Scottish Government Health Directorates ('SGHD') sent a letter to all NHS Board Chief Executives regarding funding conditions for delivering projects through the NPD model, which made it clear that a project scope needed to be agreed with SGHD and SFT (Bundle 3; Volume 2; Document number 43(i); Page 377) It is my understanding that the process of independent project review and subsequent approval of the outline business case was how SFT agreed with the SGHD the scope of the construction of the Project, and the other acute health projects within the NPD programme.

62. On 21 June 2011, Scottish Government Health Directorate gave approval for an updated business case to be developed under Non-Profit Distribution (NPD) funding route in which the DCN project was to be incorporated alongside the RHSC (see letter from SGHD to NHS Lothian dated 21 June 2011) (Bundle 7; Document number 7; Page 292).

63. Motts and Davis Langdon (sub consultant to Motts) prepared a "Procurement Strategy" paper in November 2012 which formed an appendix in the approved OBC (Bundle 3; Volume 2; Document number 71; Page 946)

64. Two Achieving Excellence Design Evaluation Toolkit (AEDET) Reviews were undertaken on 12 August 2011 and 8 March 2012 however I was not directly involved in the AEDET reviews. In order to avoid bias, the Project Team were detached from the process and it was Nightingales architects who led the reviews. My understanding of the process of these reviews is that it's a testing proposition from all user group angles. For example, is the entrance in a visible and obvious place? What are the distances from entrances and from car parking? What are the walking distances to bus stops? Then for example, from inside the building it tests if you can see a stair from the main entrance

or if people know how to get to other floors. It focuses on orientations throughout the building. It then goes in to more specific departmental detail. This is a UK wide accepted design evaluation process.

65. One aspect of design assurance was clinical engagement and in particular IPCT (infection prevention control team) engagement to assure the Board that the performance specifications had gone through a process of negotiation and agreement in relation to operational functionality. My understanding is that the Project Agreement and BCRs relied on SHTMs being mandatory and the fundamental basis of Project Co's ventilation design. Ultimately, our design assurance was that Project Co would deliver a final product in line with those requirements.

66. I have been asked whether an NHS Design Assessment process (NDAP) ever took place in respect of the Project. It did not because we had already secured business case approval. There was so much else happening in terms of the reviews and KSRs introduced by SFT. From memory it was never highlighted as an essential review process. I have been referred to an email chain between Susan Grant (Health Facilities Scotland) and Alan Morrison (Scottish Government) dated 5 July 2019 (Bundle 3; Volume 3; Document number 78; Page 1309) which discusses whether, if a new hospital was being designed and the ventilation system in critical care unit had a non-compliant number of air changes per hour, would NDAP pick that up, and the answer from Susan Grant is that "*As you know, NDAP is only a proportionate review… and we may or may not catch the many many details in each project".*

67. I have been asked specifically about the role of HFS. I don't think the role of HFS changed significantly from when the process was capital funded to the NPD process in that they were the engineering and infection control specialists that we could have consulted as/when necessary. However, the gateway process performed by HFS was taken over by SFT after the switch to NPD, who then replaced it with their KSR process.

68. As detailed above, the EM is a table which sets out the environmental design parameters for each space within the hospital. There was undoubtedly a conflict in the EM regarding the number of air changes required in critical care. Whether or not an NDAP would have picked up that conflict is very difficult to say. They would have had to go through the

EM line by line. It is a 2350-line document each line representing a room with detailed information so the likelihood of them doing that is slim. It may be they would have reviewed the contract documents in the first instance and noted the mandatory requirement to comply with SHTM 03-01 and felt that provided sufficient assurance, but it's not for me to say. Susan Grant in her email seems to recognise that they may or may not have, given the many details in such projects.

69. I have been asked about the role of SFT in respect of design assurance. I cannot recall SFT providing advice to NHS Lothian as regards whether an NDAP assessment should take place or not. I cannot recall whether SFT provided any particular advice on what guidance should be followed for the OBC process as regards the NDAP process. Oversight and review was carried out by SFT by way of their KSR process. SFT also commissioned WS Atkins to undertake a design review of the Project which made various recommendations as laid out in SFT's Project Review of December 2011.

70. I have been referred to a letter from SFT to NHS Lothian (Jackie Sansbury, chief operating officer) dated 1 June 2011 (Bundle 3; Volume 2; Document number 46; Page 399) which sets out their role. In relation to Assurance and Approvals it sets out the SFT will review and provide support to the CIG (Capital Investment Group at Scottish Government) in consideration of both the OBC and full business case (FBC) for the Project and work with us in relation to the development of these documents.

71. It also sets out that they will introduce a Key Stage Review (KSR) process which negated the need for further Gateway reviews. There were 5 further KSRs completed and reported by SFT through the NPD procurement: (i) Approval of the Project pre OJEU stage (2012); (ii) Pre ITPD stage (March 2013); (iii) Pre-close of dialogue (December 2013); (iv) Pre-preferred bidder appointment (February 2014); and (v) Pre-financial close (February 2015).

72. SFT described themselves as our "critical friend". We formally reported to SFT via the KSRs which were managed by Donna Stevenson. Donna was the principle point of contact with SFT as far as the Project Team were concerned. We also had an SFT employee, Gordon Sheriff, embedded within the Project Team for a few days a week in

the Spring of 2011. Subsequently, when the Project became operational, Tony Rose from SFT became the public interest director sitting on the IHSL Main Board. Tony had also acted as the final signatory for SFT for all KSRs.

73. I have been asked about the role of the Scottish Ministers in design assurance. Their role was to approve the business case and they had to be satisfied with all aspects of it, which included elements of design. Mike Baxter was the contact at Scottish Government who we dealt with in relation to the business case process. I do recall one or two meetings with the national infrastructure group where they looked at the risks of NPD but I cannot recall particular discussions around design assurance.

74. I have been asked about the role of Motts in the design assurance process. Motts were appointed as our technical advisor and played a key role in design assurance. They prepared the Approach to Reference Design report which made recommendations the Board ultimately adopted. Motts were the prime author of the ITPD (invitation to participate in dialogue) (Bundle 3; Volume 3; Document number 72; Page 3) and prepared the suite of documents issued to bidders, which included the EM on the basis it was disclosable data. They prepared the performance specifications for NHS Lothian, including the references to SHTM 03-01 re ventilation guidance. They put the ITPD package together which offered significant design assurance to NHS Lothian.

75. I have been asked whether the design assurance processes in place throughout this Project were adequate. Whether a more robust design assurance process at the outset would have caught the error in the EM is very difficult to say. Ultimately, and irrespective of the error in the EM, Project Co (IHSL / Multiplex) had responsibility for the design. NHS Lothian were relying on Project Co (IHSL / Multiplex) operating the Project in accordance with the Project Agreement which included mandatory guidance SHTM 03-01 for ventilation requirements.

STATEMENT OF TRUTH [to be signed by witness once statement is finalised]

I, Brian Currie, confirm that:

(i) The contents of this statement is the truth to the best of my knowledge and

recollection;

(ii) I am willing for this statement to form part of the evidence before the Scottish Hospitals Inquiry.

(iii) I am willing for this statement to be published on the Scottish Hospitals Inquiry website.

Signature:
Date:

Appendix 1

Extract from Speaker's Notes for NHS Lothian's Presentation at the Open Day for Bidders

Brian Currie, Project Director

The Project – Slides 27 – 49

Slide 27 – The Project

- Almost unique in the UK, as far as we know, where the intention is to develop a new NPD/PPP hospital within an existing PFI hospital and campus.
- Determined to normalise this situation and provide a site and Project and an opportunity which does not present challenges beyond what would be typically expected.
- Prior to going to market.
- Reached that point evidenced by our compliance with a rigorous governance process both internally and externally to the Board.

Presentation will highlight aspects of IM/PQQ documentation emphasising the importance of:

- Enabling and Interface Works
- Reference Design
- Sustainability + Community Benefits
- Operations (not of the medical kind!)

Presentation will expand on the programme, process and project management aspects of the project.

Slide 28 – Wider site

-
  North to top
- Dalkeith Road – A7 leading to A68 and The Borders
- SE Wedge – one of last remaining development zones
- Residential – Niddrie + Craigmillar to North. Moredun to South
- Emerging Bio Quarter + further housing to East
- Little France Drive – cross connection
- The Tram
- Site nestling in valley of Niddrie Burn
- Craigmiller Castle prominent to North

Slides 29 & 30 – The site

- “normalisation” process - determined to create equal opportunity for all bidders to compete on a “level playing field”.
- proposition where no one bidder is either advantaged or disadvantaged has been achieved - by specifying that although there will be a physical link between the new facility and the RIE at ground and first floor levels, in all other respects the development will be delivered as a standalone new build facility.
- links, driven by necessity, will ensure clinical functionality and efficiencies, particularly between the emergency departments, theatres and critical care departments on site.
- minor operational links between the new facility and the RIE in respect of connecting services mainly in terms of infrastructure associated with ICT, pneumatic tube system and fire alarm systems.
- in all other respects the facility is fully autonomous with a dedicated energy centre, standby power generation and FM goods yard. Public utilities are also independent of the existing RIE PFI facility.

Slides 31-36 – Enabling Works

RIE Campus also needs enabled to accommodate the new facility. Consort Healthcare, on behalf of the Board, is undertaking certain ‘enabling’ works on the Little France site in preparation of the Project.

External enabling works relate to the following and are due to be substantially complete prior to financial close.

- Enhancement to Existing Flood Defences within and out with RIE
  Revision of Road Infrastructure and creation of new Bus Terminus
- Relocation of Medical Gas Plant (VIE – Vacuum Insulated Evaporator)
- Creation of Link Building to the current RIE and alterations to Existing Emergency Dept.
- Diversion of existing Trunk Sewer
- Disconnection and Removal of existing services in Car Park B.

Slide 37 – Clinical enabling

- Clinical enabling works within the RIE include changes in critical care, pharmacy and laboratory services and will be completed prior to the new facility opening.
- All required the completion of a Supplemental Agreement to modify the existing Project Agreement at the RIE with Consort Healthcare.
- This remains to be completed.

Slide 38 – Interface Works

- The new facility will interact with its neighbours both during and after construction
- The existing RIE was procured as a PFI contract (1st Generation) between the former Royal Infirmary of Edinburgh NHS Trust and Consort Healthcare (ERI) Ltd.
- The Project Agreement for the RIE was signed in August 1998 and covers a 25 year operational period until February 2028.
- The RIE was financed, designed and built by Consort Healthcare, and a range of soft and hard facilities management services are provided through the RIE Project Agreement.
- The site is leased from Scottish Ministers to Consort Healthcare for a term of 130 years, thus any site development requires Consort Healthcare approval together with appropriate changes to the RIE Project Agreement.
- The Board has concluded negotiations on a Supplemental Agreement (SA6) to the RIE Project Agreement which includes the land transfer of the site earmarked for the Project and also covers:

- access during construction
- wayleaves for utilities
- land provision associated with a new sub station

- oversail rights
- right to connect to the RIE

The DBFM contract will reflect these provisions.

Slide 39 – Reference design

To clarify what we really mean by a Reference Design.

What were the attractions given the departure from previous PPP/PFI projects where an "exemplar" design was the norm?:

- assists with the OBC and accuracy of pre-procurement costing.
- provides greater certainty over the final design solution.
- assists significantly in defining a quality threshold.
- optimises the input required from stakeholders and in particular clinicians and clinical management teams.
- utilises programme time available as a result of essential parallel activities prior to commencement of procurement.
- reduces risk and bidding costs to bidders, we would contend.
- shortens the competitive dialogue phase.

Slide 40 – Ground Floor site plan

A glass half full (not half empty)

Half full part is the Mandatory and Compulsory requirements, the other, empty part, the Indicative or Non Prescriptive requirements which the bidders will require to fill.

Mandatory Requirements

Comprises the information that defines Operational Functionality* and is indicated in:

- Interdepartmental Layouts (1:500)
- Departmental Layouts (1:200)
- Room Layouts (1:50) for Key and Generic Rooms

Compulsory Requirements

- Planning in Principle as granted by The City of Edinburgh Council.

- Interface, access/egress and infrastructure provisions enshrined in (SA6 + SA Enabling)
- Clinical, D+C and FM Output Specs.

The Reference Design drawings are a diagram or graphical representation of these requirements.

**We refer to Operational Functionality as opposed to Clinical Functionality since some of the mandatory areas of the Reference Design will cover non-clinical functions such as Supplies, Storage, Distribution and Waste Management (Soft FM) and ICT Requirements).*

Operational Functionality means:

- *The point of access to and within the development, buildings and departments.*
- *The adjacencies between different departments.*
- *The adjacencies between rooms within the departments.*
- *The quantity, description and areas of those rooms and spaces shown on the Schedule of Accommodation.*

Slide 41 – sections

The level of design development can be described as approximating to **RIBA Plan of Work Stage C +** (Concept Design) and covers 52% of all spaces at 1:50 scale including the key and generic rooms.

Bidders will be required to generate up to 10 other room types at 1:50 scale for final tender with the remainder being concluded before Financial Close.

Room Data Sheets

Standard format Room Data Sheets have not been prepared by the Board for the Project instead specific room requirements are detailed in a combination of the following documents:

- General Requirements
- Clinical Output Spec
- Environmental Matrix
- Schedule of Operational/Design Notes
- Equipment Schedule
- Schedule of Accommodation
- Operational Functionality elements of the Reference Design

Note: Bidders will be required to develop Room Data Sheets as part of their proposals. The full set of RDS will be completed from appointment of Preferred Bidder to Financial Close.

Schedule of Accommodation

The Schedule of Accommodation, based on the Reference Design drawn layouts, along with the Target or Model (Minimum) Schedule of Accommodation will be issued to Bidders.

This “Drawn” Schedule of Accommodation for Plant Rooms and Hard FM Rooms is indicative only and should certain other rooms vary in area terms from the Model Schedule this is acceptable on a specific room only basis.

Slide 42 – *Stacking Diagram*

Indicative Requirements

Bidders will be encouraged to propose innovative solutions in response to:

- Information that has been developed to verify the feasibility of the Reference Design in terms of architecture and engineering.
- Information developed for issue to Bidders in regard to site and servicing information.

Bidders must however refer to the Board’s Construction Requirements for the detailed requirements for all such indicative elements of the Reference Design for which they may ultimately carry the risk.

Note: The Board’s Construction Requirements will always take precedence over the Reference Design for matters which do not define Operational Functionality.

Innovation

Whilst there is an absolute requirement to maintain Operational Functionality, Bidders will have latitude and will be encouraged to develop innovative solutions for the external and internal architectural expression and site layout for the facility promoting their unique approach to an appropriate architectural language and ambition.

We would hope this would consider:

- expression and representation
- order
- conformity and contrast
- integrity and honesty
- detailing and materials etc.

whilst complying with mandatory and compulsory requirements.

This should apply equally to the:

- layout and disposition of facilities
- pattern of site planning
- scale of the pieces
- relationships with differing site boundaries

but again within the mandatory and compulsory design requirements.

As an example, features such as curved walls and the external landscaping forming part of the Reference Design are indicative only given that these have no influence on the Operational Functionality.

Other Indicative elements are:

- Circulation and Communication space (however minimum dimensions specified will be treated as mandatory).
- Structural engineering solutions.
- Building Services engineering solutions.
- Architectural Expression
- Hard FM solutions and space allocations.

Bidders will be encouraged to apply a unique design strategy founded on sound architectural principles whilst complying with the mandatory elements of the Reference Design and other Compulsory Requirements.

Following the close of Competitive Dialogue, and the appointment of the Preferred Bidder, the Reference Design will be replaced with the Preferred Bidder’s affordable and commercially acceptable design solution.

SCOTTISH HOSPITALS INQUIRY

Witness Statement of

Peter Reekie

In response to Rule 8 Request dated 1 March 2022

28 April 2022

Professional background

1. My name is Peter Reekie. I am the Chief Executive Officer (**CEO**) of the Scottish Futures Trust (**SFT**). SFT is a company wholly owned by Scottish Government, working with organisations across the public and private sectors to plan infrastructure investment; innovate in the funding, financing and delivery of social and economic infrastructure; deliver major investment programmes and improve the management and effective use of existing assets.

2. I have held leading roles in SFT since its inception in 2008 initially as its first Director of Finance & Structures and then as Deputy CEO and Director of Investments from 2014. I have held the role of CEO since 10 January 2018. During the time of the pre-procurement phase of the Royal Hospital for Children and Young People (**RHCYP**) / Department of Clinical Neuroscience (**DCN**) Project (**Project**), that is the phase to which this witness statement relates, I was the Director of Finance & Structures and led SFT's work on the NPD Programme. Prior to my involvement in the Project and my role at SFT, I worked in an advisory role at PricewaterhouseCoopers (PwC), including acting as Financial Advisor on PPP hospital procurement. I worked at PwC for 9 years prior to joining SFT and prior to that worked in a civil engineering consultancy.

3. I have a Masters of Engineering Degree in Engineering Science and a Diploma in Organisational Leadership from the University of Oxford. I am a Fellow of the Institution of Civil Engineers and sit on SFT's Board.

4. SFT is an executive Non Departmental Public Body of the Scottish Government. It is a company limited by shares and wholly owned by the Scottish Ministers. Its activities are overseen by a board appointed by the Scottish Ministers. SFT was established by the Scottish Government in 2008. The Management Statement and Financial Memorandum dated 26 October 2009, agreed between Scottish Government and SFT, (Bundle 7, doc 1 p.9) provided that:

"The aim of the Scottish Futures Trust is to improve the efficiency and effectiveness of infrastructure investment in Scotland by working collaboratively with public bodies and commercial enterprises, leading to better value for money and providing the opportunity to maximise the investment in the fabric of Scotland and hence contribute to the Scottish Government's single overarching purpose to increase sustainable economic growth.

The SFT will act across all phases of the infrastructure investment cycle: needs identification, options investigation, investment appraisal, procurement, financing, design, construction, life cycle management / maintenance and disposal with a particular focus on planning financing and procurement."

SFT's activities are mainly funded by a grant from the Scottish Government.

5. Barry White was SFT's Chief Executive until December 2017, when I replaced him.

Summary of Role of SFT

6. A programme of investment using the non-profit distributing public private partnership model (**NPD model**) was introduced in the Scottish Government's draft 2011-12 budget (Bundle 7, doc 2 p.51) following recommendations of the Independent Budget Review group (**IBRG**). The IBRG was commissioned by the Scottish Government to inform decision-making in relation to the Scottish budget in the face of anticipated reductions in the available resources.

7. The IBRG report recommended:

- an enhanced role for SFT; and
- use of alternative financing models, including the NPD model.

8. Following the IBRG's recommendations, Scottish Government requested that SFT support the delivery of the £2.5bn revenue funded NPD Programme.

9. In leading the NPD programme, SFT performed two distinct roles: (i) a project assurance role; and (ii) a guidance and advice role.

10. These roles were performed at three distinct levels:

- Programme Level: Support to Scottish Ministers and to the Capital and Risk Division of Scottish Government at a strategic programme level;

- Portfolio Level: Support to sponsor departments in the delivery of revenue funded projects; and

- Project Level: Support to individual project teams.

11. SFT is also responsible for appointing the Public Interest Director to each project.

Overview

12. In this statement I will provide answers to questions posed in the Rule 8 request dated 1 March 2022, as follows:

1. SFT's Role - Governance and decision making;
2. Overview of SFT role in development/approval of Outline Business Cases (**OBC**);
3. Individuals from SFT involved in development of OBC;
4. Overview of Key Stage Review (**KSR**) process;
5. Site constraints and contractual dispute with Consort;
6. Switch to NPD Model;
7. Reference Design;
8. Design Assurance; and
9. NHS Design Assessment Process (**NDAP**).

SFT's Role - Governance and decision making

13. SFT was the NPD programme lead for the Scottish Government. The Project formed part of the NPD Programme. The SFT team for the Project was led by myself and at that time I reported to the then Chief Executive, Barry White, who was accountable to SFT's Board.

14. In terms of the governance between SFT and NHS Lothian, it was stated in the attachment to an email issued by Barry White to James Barbour, Chief Executive of NHS Lothian, on 22 July 2011 that SFT would perform a dual role in relation to the Project. SFT's note entitled, "*Role of SFT in Project Delivery – RHSC/ DCN Project*" dated 21 July 2011 states at paragraph 1.1(Bundle 7, doc 8 p.293):

"*Scottish Futures Trust has a dual role in relation to the Project. It has been established as a national centre of expertise in infrastructure procurement and it is in this role that SFT will seek to provide advice to NHS Lothian ('the Support Role'). This role is generally fulfilled through attendance at key project meetings as part of the governance*

process of the Project (we currently attend both the Working Group and Project Board), as well as ad hoc support on other tasks agreed with NHS Lothian.

It also has an oversight role for the Project in acting as a guardian of value for money for Scottish Government ('the Oversight Role'). This role is generally fulfilled through the carrying out of key stage reviews ('KSR') for the Project and by providing input to SG's Capital Investment Group when they are considering the approval of the Outline Business Case and Full Business Case for the Project. SFT also sits on the Infrastructure Investment Board (IIB), which has an oversight role over all infrastructure procurement in Scotland.

There are 4 KSRs being proposed for the Project and the objective of these reviews is to check that organisationally and commercially the Project is ready to progress to the next stage in the procurement process. These KSRs will take place pre OBC, pre OJEU, pre Invitation for Final Tenders and pre Financial Close. It is possible that any of these KSRs may indicate that certain identified issues should be addressed before the project can progress. Each KSR as a matter of course will be distributed to the Project Team and to the Capital Investment Group.

SFT's Oversight Role also extends to the terms of the standard NPD project agreement and the financing terms agreed with the preferred bidder. SFT will discuss with the project team any changes requested by bidders to the standard contract and indicate whether these are acceptable. With regard to the financing terms, we reserve the right to call for a debt funding competition during the preferred bidder period and would expect to approve the terms of the interest rate swap at financial close.

We expect that most of these matters, arising either from the Support Role or Oversight Role, are of sufficient importance to the Project that they would be resolved at project team level between NHS Lothian and SFT. This has certainly been our experience elsewhere. Where such agreement doesn't exist, a dialogue between the Chief Executives of SFT and NHS Lothian should take place to attempt to address any issues.

In the unlikely event that agreement on key issues cannot be reached then a three way discussion would take place between the Chief Executives of SFT and NHS Lothian and the Finance Director of NHS Scotland. Beyond that, referral to firstly the Infrastructure Investment Board and secondly Ministers remain as options should very significant issues remain unresolved.

The benefit of SFT's dual role is to reduce the chances of significant issues being raised during the approvals process or elsewhere and therefore reduce the chances of delay to the Project. We aim to undertake these roles as part of a cooperative and respectful relationship between SFT and NHS Lothian and in so doing improve the chances of a successful delivery of the Project."

SFT's role was also clearly set out in a number of additional documents, including:

(i) the letter from the Scottish Government to the NHS Health Board dated 22 March 2011; (Bundle 3, vol.2, doc 43(i), p.377)

(ii) the letter from me, on behalf of SFT, to Jackie Sansbury, of NHS Lothian, dated 1 June 2011; (Bundle 3, vol.2, doc 46, p.399);

(iii) the email exchange referred to in this paragraph above between Barry White (SFT Chief Executive) and James Barbour (Chief Executive of NHS Lothian) on 22 July 2011; (Bundle 7, doc 9 p.295);

(iv) the SFT note entitled "Role of SFT in Project Delivery – RHSC/DCN Project" dated 21 July 2011(Bundle 7, doc 8, p.293); and

(v) in the Revenue Funded Projects guidance. (Bundle 3, vol.2, doc 43, p.388)

I do not recall any stakeholders raising substantive concerns at the time about the dual roles performed by SFT. Similarly, I do not recall any stakeholders raising such concerns with Scottish Government, on whose behalf SFT was managing the NPD programme. SFT put in place an escalation route for NHS Lothian at an early stage in the process in relation to its dual roles. That escalation route is set out in the "*Role of SFT in Project Delivery – RHSC/DCN Project*" note dated 21 July 2011. I have no recollection of the escalation routes ever being used.

15. I have been asked to comment upon the Grant Thornton Report, at paragraph 315, (Bundle 3, vol.1, doc 2, p.63) which states:

"*Between 2010 and 2014 Scottish Futures Trust were represented on the NHS Lothian project board providing advice and supporting decision making. Alongside this role, they were providing independent assurance. Whilst each key stage report has a second reviewer, there may remain a potential conflict in fulfilling both roles*".

In response to this, I would refer you in general to the shared understanding of SFT's dual role established at the outset and set out above, and specifically for the KSR process, to SFT's guidance titled "*Project Assurance*" dated May 2013. This document sets out SFT's approach to resourcing of KSRs and preserving the integrity of the independent assurance. That document states as paragraph 7 (Bundle 7, doc 30, p.684);

"7. ***SFT Resourcing of KSRs***

As outlined above, KSRs provide a formal checklist for project teams to consider in relation to their project and also provide a benchmarking opportunity to test the readiness of projects in advance of key milestones in the procurement process. They are designed to require the reviewer, as well as the reviewee, to consider whether the project teams: a) have sufficient clarity over the requirements of the competitive dialogue process, b) have the necessary information and resources available for the tender process to be run efficiently and c) are satisfied that the project will produce a good

value for money outcome. In order to ensure a degree of separation between the immediate project team and project sponsoring department and to incorporate external commercial expertise, KSRs were traditionally undertaken by PUK based on the review of paper submissions completed by the project team.

Following its establishment in late 2008, SFT has grown into a fully resourced organisation and now directly employs a dedicated team with both commercial and technical expertise previously unavailable within the public sector. As a result the need to bring in external expertise (at additional cost) as part of the KSRs has disappeared and instead SFT resources KSRs by assembling a small team internally to undertake each review. These review teams normally consist of individuals not directly involved with the specific project. This approach ensures that KSRs are carried out with no external cost to SFT or the project sponsor. In addition, in line with SFT's evolving approach to supporting the revenue funded investment programme the approach to carrying out validation was remodelled during 2011 to remove the burden on project teams in providing additional background information together with completed KSR checklists to reviewers unfamiliar with the specific circumstances of each project. These KSR checklists are now completed by the relevant SFT staff member as part of his or her ongoing project support role. This reduces the overall delay impact of reviews and ensures that the review process is integrated into the overall project development. It also allows relevant aspects of the review to be considered on an ongoing basis. In order to preserve the integrity of independent assurance each KSR report is separately reviewed and signed off by a member of the SFT senior management team unconnected with the project. Consequently, the KSR pro-forma checklists have been updated and relevant guidance made available to project teams as well as SFT staff members undertaking KSRs.

The approach has now been fully operational for 12 months and feedback from project teams and sponsors has been entirely positive."

In my view there was no actual or potential conflict of interest arising from SFT's dual roles in the Project. For an actual or potential conflict of interest to arise, one must be

able to define and identify two separate interests that were or could potentially be seen to be in conflict with one another. SFT had a single interest in the Project, which was to maximise value for money and deliver a workable programme.

16. In general, the "support" element of SFT's role was more significant for the Project than for many others in the NPD programme, and I would point to three reasons for that.

i) The Project was the first acute healthcare project in the NPD programme and, therefore, certain aspects such as the payment mechanism within the contract were being refined for the healthcare sector;

ii) The site already identified for the Project overlapped the site of the existing Royal Infirmary of Edinburgh (**RIE**) which was a PFI project, and SFT's expertise in projects of that nature was used to support NHS Lothian in resolving those project-specific site issues (see paragraphs 54 to 70 (Site constraints and contractual dispute with Consort) below).

iii) SFT set out in my letter to Jackie Sansbury of NHS Lothian of 1 June 2011 (Bundle 3, vol.2, doc 46, p.399) that we did not consider the project team for the Project to have "*sufficient experience of PPP project delivery*". We advised that the "*skills and experience of the Project Director and the wider project team are of vital importance in delivering the Project successfully. A key part of this is experience in delivering revenue funded projects, as this brings significant additional demands on the project team over and above those required on capitally funded construction projects*".

In the short-term this led to the informal secondment of a member of SFT's team to support the project (paragraph 34 below) and in the longer-term, SFT provided more support on this Project than perhaps would otherwise have been the case.

Overview of SFT role in development/approval of the OBCs

17. For major capital projects, such as the building of a new hospital, organisations in the public sector require budget allocations in order to deliver the project and there must be governance around approvals to proceed. Accordingly, there has to be a governmental process of allocating those budgets and giving approvals. The central process of allocating budgets for major capital projects and governing approval to proceed is done through the business case process. Once the business cases are approved, the necessary budget will be allocated to undertake the project. Approvals are managed in stages with the OBC evaluating options and leading to an approval to proceed to procurement and the Full Business Case (**FBC**) setting out the finalised parameters of the investment leading to an approval to enter into a contract.

18. In my view, an OBC process falls into three phases: (i) development; (ii) evaluation; and (iii) approval.

19. SFT had a supporting role in the OBC process, providing comment to Scottish Government as part of the evaluation phase. This was set out by Scottish Government generically for all health NPD projects in the '*Scottish Government Funding Conditions for Delivering Projects through the Non Profit Distributing ("NPD") Model'*, issued to NHS Scotland Board Chief Executives and Directors of Finance, dated 22 March 2011 (Bundle 3, vol.2, doc 43, p.376).

20. The SFT's role during the OBC was clarified to NHS Lothian in a letter from me, on behalf of SFT, to Jackie Sansbury of NHS Lothian dated 1 June 2011, (Bundle 3, vol.2, doc 46, p.399), which confirmed that SFT would review and provide support to the Scottish Government's Capital Investment Group (**CIG**) in its evaluation of the OBC and that such comments would include whether, from SFT's perspective, there were any issues that should be rectified prior to the approval of the business case. This letter further confirmed that, ahead of the formal submission of the business case, SFT was willing to work with NHS Lothian in the development of those documents. SFT "*discussed the contents of this*

letter with the Scottish Government Health Directorate" as stated within that letter (page 1 of 10, para 1).

i) OBC Development

21. Part of our role was to help and support procuring authorities at the project level. In the development of the OBC, this help and support was given, in particular, with regards to NPD-specific elements. The main area in which SFT provided assistance was in the development of the shadow bid model, which is used to understand the affordability of the Project. That shadow bid model was an Excel-based financial model produced by NHS Lothian's Financial Advisors. It contained a number of financial assumptions and had to be structured in such a way as to make it as accurate as possible when calculating the shadow unitary charge, being the amount which the shadow bid model estimated that the procuring authority would pay each year for the hospital. The majority of SFT's work with NHS Lothian at that stage was to help them structure what, in the end, would be seen as an acceptable shadow bid model which would accurately represent the affordability of the NPD project. The shadow bid model included costs for the construction and operational phases and financing assumptions used to calculate the unitary charge, payable over the 25-year contract term. SFT, as managers of the NPD programme, particularly in relation to the financing aspects, provided NHS Lothian with some of those assumptions and provided some help in the approach to modelling. NHS Lothian would have then used its own financial advisors to utilise those assumptions to finalise its model.

22. Involvement of SFT team members during the development of the business case by NHS Lothian and its team was to provide early challenge and guidance with a view to streamlining the appraisal stage, in which increased re-work by NHS Lothian would have been likely to be required had SFT only become engaged at that later stage. The organisation with overall ownership of and responsibility for the business case was NHS Lothian, as the procuring authority.

ii) OBC Evaluation

23. Another part of SFT's role was to support the Scottish Government Health Directorate (**SGHD**) at the portfolio level. In respect of the OBC, this involved providing input on NPD-specific elements to the Scottish Government's evaluation of the OBC.

Mike Baxter (Deputy Director (Capital and Facilities), Directorate for Health, Finance and Information Scottish Government Health Directorate and the then chair of CIG), prepared a paper entitled, "*Scottish Government Governance arrangements for Royal Hospital for Sick Children / Department of Clinical Neurosciences (RHSC/DCN) – Outline Business Case*" dated 7 October 2011 (Bundle 7, doc 13, p.455). That paper set out the arrangements within Scottish Government for the evaluation of the OBC that was, at that time, being prepared for the Project and set out the interface with other organisations, including SFT, in that process. This document confirmed that SFT's response to the OBC would, in addition to feeding into the design review process, also cover the areas within SFT's remit within the context of both the 22 March 2011 and 1 June 2011 letters, noted at paragraphs 40 and 20 respectively. The design review process formed part of the OBC process in order to validate the capex cost of the Project which would be funded by Scottish Government.

24. Donna Stevenson (then Associate Director, now Senior Associate Director, of SFT) provided comments and appraisal on the OBC. This included the preparation of a list of issues (Bundle 7, doc 16, p.480) to be covered in SFT's comments on the OBC, which confirmed what SFT would do as part of the evaluation process.

25. Donna Stevenson also prepared a letter to be sent to Mike Baxter, in relation to the Project's OBC, ahead of the CIG's meeting of 31 January 2012 (Bundle 7, doc 19, p.493) (This letter contained SFT's comments and issues requiring clarification in relation to the OBC as submitted by NHS Lothian to SGHD on 22 December 2011).

26. That letter was circulated in draft to me on 24 January 2012, together with a paper entitled "*NHS Lothian, RHSC/DCN Project Outline Business Case Comments and Issues for Clarification*" (Bundle 7, doc 15, p.475). The letter set out SFT's comments and recommendations on the OBC. The accompanying note set out the comments and issues for clarification by NHS Lothian on the OBC.

27. The issues raised as part of that note fall under the following headings; (i) Negotiations with Consort; (ii) Project Review; (iii) Governance; (iv) Resourcing; (v) Unitary Charge; (vi) Letters of Support; (vii) Planning Permission in Principle; and (viii) Market Interest.

28. A member of SFT's staff, Colin Proctor, sat as a member of CIG, which led on the evaluation of the OBC on behalf of Scottish Ministers, and he fed his comments into the CIG evaluation process.

29. On 16 January 2012, Colin Proctor (as a member of CIG) provided comments on the OBC to Mike Baxter, SGHD by email (Bundle 7, doc 17, p.482). He attached a paper with NHS Lothian's comments and clarification requests in relation to the OBC, together with an updated action plan relating to SFT's project review, provided as Appendix 2 of the OBC (Bundle 7, doc 12 p.441). He also confirmed within that email that Donna Stevenson would be in touch to discuss SFT's written response commenting on the OBC, with particular reference to the draft 'Funding Conditions' in relation to the provision of revenue support for health NPD projects.

30. Donna Stevenson's input included liaising with Iain Graham (Bundle 7, doc 18 p.483), Director of Capital Planning and Projects at NHS Lothian, on a number of clarification points in relation to the OBC and liaising with both Kenneth Ngai, whose role at NHS Lothian I cannot recall, and Brian Currie, Project Director, at NHS Lothian.

31. On 8 March 2012, Donna Stevenson provided Brian Currie with an update in relation to the various clarification issues and noted where, in her view, there were no further updates required prior to OBC approval (Bundle 7, doc 23 p.534). On 9 February 2012,

she also provided Mike Baxter with a paper containing SFT's comments on NHS Lothian's comments and clarification requests in relation to the OBC (Bundle 7, docs 20 & 21, pp.515 & 520) .

iii) OBC Approval

32. SFT had no role in the approval of the OBC. The OBC required to be approved by both NHS Lothian prior to its submission, and ultimately the Scottish Ministers, to enable the project to proceed to the procurement stage.

33. I was asked whether or not I considered the business case process to be a collaborative process. The business case process can be described as collaborative, in the sense that each of the parties involved in the business case process (its preparation, appraisal and approval) was working with the others with the common purpose of progressing the Project. However, in my view, a collaborative activity involves the parties having a common interest and working hand-in hand on the specific task in which they are engaged, for example drafting a section of the business case or evaluating the case. In that way, I view NHS Lothian and its advisors as collaborating on the production of the business case, and SFT collaborating with Scottish Government on its appraisal. Scottish Ministers were responsible for approval of the OBC. However, as I have described, there was a close working relationship between SFT and the other parties, certainly with regards to NPD-specific elements of the OBC.

Individuals from SFT involved in development of OBC

34. At one stage during the project, Gordon Shirreff, a SFT employee, was briefly informally seconded to NHS Lothian on a part-time basis (in or around June 2011) to provide an additional resource with PPP procurement experience to NHS Lothian's team. Whilst on that secondment, he provided input as a member of the project team to the development of the OBC.

35. Gordon Shirreff acted under the direction of Brian Currie during the period of his informal secondment and any contributions provided by him to the management and administration of the project, in whatever form, were not in any way to be taken as the SFT view. This was acknowledged by Brian Currie of NHS Lothian in his email to Andrew Bruce, SFT, dated 24 June 2011 (Bundle 3, vol.2, doc 48, p.422). Gordon Shirreff was a member of the "*RHSC + DCN - Little France: Business Case Working Group*", during the short period whilst he was on informal secondment.

36. The SFT input into NHS Lothian's development of the OBC was carried out principally by Andrew Bruce and supported by Donna Stevenson. Andrew provided the financing assumptions for the shadow bid model as described at paragraph 21 above.

Overview of KSR process

37. At the time that the Project was procured, it was a condition of Scottish Government funding support that all projects in the NPD Programme were, in addition to any existing project approvals processes, externally validated by SFT. This was set out in the letter from the Scottish Government to NHS Board Chief Executives dated 22 March 2011 (Bundle 3, vol.2, doc 43(i), p.377).

38. SFT undertook that validation by carrying out KSRs of projects at key stages of the procurement. Please see document entitled, "*Validation of Revenue Funded Projects: The Key Stage Review Process Information Note to Projects*" dated December 2011. (Bundle 3, vol.2, doc 58, p.650) The KSR process was designed to support the successful delivery of revenue funded projects by providing an assessment of the readiness and application of best practice (including SFT Value for Money (**VfM**) guidance) of projects before they moved onto the next stage in the procurement process.

39. The KSR process was a tool for assessing a project's readiness to commence and

proceed through the various stages of procurement. It was also used to periodically verify compliance with or satisfaction of the conditions of Scottish Government revenue funding support, as contained in the OBC approval or funding award letter.

40. In the letter from the Scottish Government to the NHS Board Chief Executives dated 22 March 2011 titled, "*Scottish Government Funding Conditions for Delivering Projects Through the Non-Profit Distributing Model*", (Bundle 3, vol.2, doc 43(i), p.377), the NPD model is explained. Under the heading, "*Project Assurance*" it states:

"*Both the procuring body and the Scottish Government require assurance about the robustness of project management and the prospects for successful procurement, delivery and operating Key Stage Review provides a structured, independent "due diligence" review of projects, supporting Project Managers and Sponsors at commercially critical procurement stages. Key Stage Reviews help to ensure that procuring authorities are sufficiently advanced in their project development and have put in the place the necessary delivery arrangements and documentation in order to secure high quality sustainable bids. They also ensure that authorities are adequately resourced to effectively and efficiently carry out the procurement, construction and operational stages of the projects. Key Stage Reviews are a formal requirement for all projects delivered through the NPD model and will be conducted by SFT*."

41. For NPD projects, the KSR process involved reviews at the following stages:

(i) Pre-issue of Official Journal of the European Union (**OJEU**) notice;

(ii) Pre-issue of Invitation to Participate in Dialogue (**ITPD**);

(iii) Pre-Close of Dialogue;

(iv) Pre-Preferred Bidder Appointment; and

(v) Pre-Financial Close

These were carried out by SFT in relation to the Project as follows:

Key Milestone	KSR	Date	Second Reviewer
Issue of OJEU Notice	Pre-OJEU Key Stage Review NPD KSR1 – Pre-OJEU	4 December 2012	Tony Rose
Issue of Invitation to Participate in Dialogue	Pre-ITPD Key Stage Review – Pre-ITPD KSR	7 March 2013	Tony Rose
Close of Dialogue	Pre- Close of Dialogue Key Stage Review NPD KSR 2 – Pre-CoD	11 December 2013	Tony Rose
Preferred Bidder Appointment	Pre-Preferred Bidder Appointment Key Stage Review	28 February 2014	Tony Rose
Financial Close	Pre-Financial Close Key Stage Review NPD KSR 4– Pre FC	11 February 2015	Colin Proctor

42. Each review was an assessment of whether the project was suitably developed in terms of "Project Readiness"; "Affordability"; "Value for Money"; and "Commercial robustness".

43. The KSRs were carried out at no cost to the procuring authority by the member of the SFT team who normally provided support to the Project (**Reviewer**).

44. The KSR process involved the assessment of the readiness of projects against a pro-forma list of questions at each key stage of the procurement. In the run up to each review point, the Reviewer considered the status of the Project against the relevant pro-forma list on the basis of information obtained in his/her day to day dealings with the project and sought, where required, contributions from the project team to allow completion of the list and prepare a written draft report with comments and recommendations.

45. The process of undertaking the KSR was designed to be the right balance of providing external assurance and minimising imposition on the project team to provide the evidence for the review. These sorts of reviews had been undertaken previously in PPP-type projects, where it had been the responsibility of the procuring authorities to complete a lot of the paperwork which provided evidence to the reviewers. SFT was trying to make that a lighter touch activity for the procuring authorities by requiring the SFT team member with the greatest knowledge of the Project to gather evidence from the project team and to complete the documentation alongside the procuring authority. The review was then done separately by a senior member of the SFT team who had not been involved in the Project (**Second Reviewer**). The alternative to that approach would have been to require the project team to collate evidence and complete the KSR documentation and it would then have gone to someone who was not involved in the project to review it. That would have placed more demand on time and resources of the project team who, in the best interests of the project, I thought were best dedicated to continuing to do their work rather than to complete KSR documentation.

46. Although there was no formal submission required from the procuring authority, the project team was required to provide the Reviewer with information to allow him/her to complete the list and compile his/her report. The Reviewer could also ask the project manager to specifically confirm certain points or that there were no outstanding issues that would impede the progress of the project to the next stage of the procurement process.

47. The Reviewer also prepared a short report and made recommendations as to whether in his or her view the Project was ready to proceed to the next stage of procurement and what actions were required to achieve the appropriate state of readiness either to proceed to the next stage or in advance of the next review.

48. Once completed by the Reviewer the draft report was scrutinised by a member of SFT's senior management team as Second Reviewer before being issued to the relevant Project Sponsor / Scottish Government and copied to the procuring authority. The relevant Project Sponsor and/or Scottish Government would, as part of its overall sign-off, determine whether and on what basis the Project should proceed to the next stage taking into consideration any recommendations made in the KSR report.

49. The precise timeframe for completing the review and submission of SFT's report was prepared with the Project Sponsor and/or Scottish Government to integrate with other project approvals processes.

50. The Reviewer for each of the 5 KSRs for the Project was Donna Stevenson. The Second Reviewer for each of the KSRs is noted in the table provided above at paragraph 41, being either Tony Rose, Director or Colin Proctor, Director.

51. The Second Reviewer was a senior member of the SFT management team who did not have a direct role in supporting the Project during the procurement. Their role was to review and challenge the contents of each KSR and sign it off before it was issued.

52. The dates of each of the 5 KSRs for the Project are noted in the table provided above at paragraph 41.

53. In summary, the key finding from each KSR was that the Project was ready to proceed to the next stage of the procurement, subject to the recommendations noted, which

required to be addressed by the Project Team within the timescales specified.

Site constraints and contractual dispute with Consort

54. SFT was not involved in identifying the site for the Project. The decision had already been made to build the RHCYP at Little France and NHS Lothian had already decided that the Project interacted with the redline boundary of the existing RIE hospital. It was clear from the Project Dashboard Report dated 12 November 2010 (Bundle 3, vol.1, doc 27, p.1102) that the issue of interface with the RIE project had been identified before the Project was included in the NPD programme, but SFT is not aware of when this identification occurred.

55. On 8th December 2010, immediately following the announcement that the Project was to be part of the NPD programme, SFT sent a letter to Iain Graham, (Bundle 3, vol.2, doc 31, p.108), which stated:

"*Interface with Existing PFI Contract*

We agreed that SFT would start to assemble some of the key issues associated with Consort and the existing PFI contract, for further discussion with the Health Board. We understand these to include resolution of a car park land swap, the potential removal of soft services from the contract, decisions with regard to any potential time extension to the contract and any reconfiguration of the contract required to accommodate the Project. All of these issues potentially do not require to be resolved ahead of the start of the procurement of the new contract, but as discussed, we firmly believe that the land swap does require early resolution and a full agreement with Consort should be pursued as a matter of priority. Proceeding to a procurement of the Project without full Health Board control of the land required could compromise the procurement, especially given the role of Consort as a potential bidder for the Project".

56. Given that the hospital was to be sited within the confines of land that had already been leased to a PFI contractor under the RIE's PFI contract, it was the view of SFT that NHS Lothian had to procure the necessary rights to enable the development of the RHCYP / DCN within that site, to connect into the existing RIE hospital and for all enabling works to be carried out before proceeding to procurement. This was to allow for open competition in the Project and to ensure there were no hold-ups either during or after procurement. Not least because the funders of the existing PFI Contract required to give their consent to a variation to that contract and the potential compromise to the procurement given the role of Consort, the PFI Contractor under the existing RIE PFI Contract, as a potential bidder for the project.

57. Whilst SFT did provide NHS Lothian with assistance with the development of a strategy to deal with Consort about the variation, the approach and negotiation were for NHS Lothian, which I believe were carried out by Susan Goldsmith. (Bundle 3, vol.1, doc 28(i), p.1111)

58. SFT advised NHS Lothian that the issues with the site should be resolved with the PFI Contractor, Consort, prior to the Project launching to procurement. The Scottish Government also advised NHS Lothian that the OBC could not be considered until the land transaction was concluded. (Bundle 3, vol.2, doc 39, p.354)

59. Ultimately, the procurement was launched prior to the issues being resolved on the condition that they would be resolved prior to the ITPD stage on the basis that giving clarity to the market that this would be the case would manage the impact on bidder confidence discussed above. The Pre-OJEU KSR confirmed that NHS Lothian should finalise the Supplemental Agreement for signing by NHS Lothian and Consort during December 2012.

60. It is my recollection that the Supplemental Agreement (**SA6)** negotiated between NHS Lothian and Consort (and its funders) reflecting all the amendments required to the

existing PFI Contract was signed prior to the issue of the ITPD. NHS Lothian should be able to confirm this.

61. The SA6 was a contract variation to the RIE PFI Contract which was required to enable the land to be released, enabling works to be completed and connection to be made to the building, to allow the Project to proceed. Whilst there were prolonged discussions and negotiations around the terms of SA6, including with the funders (as their consent was required), I was not aware of there being a formal dispute requiring resolution under the dispute resolution procedure within the existing RIE PFI Contract.

62. For clarity, the decision to build on the Little France site was made independent of the funding route. Accordingly, the necessary rights to the land required to be obtained regardless of the funding route.

63. I do not recall whether or not the time it took to negotiate the variation was ever on the critical path for the NPD delivery route programme, as the activity was undertaken in parallel with other project development and procurement activities, including the development of the reference design and the pre-qualification stage as noted above. It was certainly one of the time- critical activities being undertaken at that time.

64. Separately, the Project Dashboard Report dated 12 November 2010 (Bundle 3, vol.1, doc 27, p 1,104) suggests that the activity may have been on the critical path for the delivery of the RHCYP as a capital project, which was in development prior to November 2010. Reviewing that document, which I do not believe I have seen previously (prior to it being provided to me in Inquiry documentation), suggests that if all other activities under that delivery route had progressed as planned, resolving the SA6 with Consort would have led to a delay from the programme in place at that time. Negotiating the SA6 with Consort required substantial internal resource from NHS Lothian and input from its advisors. I cannot not say whether there was a wider cost impact on the Project.

65. I supported the negotiations with Consort's funders, whose consent was required in accordance with the RIE PFI Contract, in order for any variation to be effected. I know that, at one stage, I wrote a letter to at least one of the funders to try to assist to resolve this and I think I had conversations with at least one of the funders, but I do not recall any more than that. My colleague, Donna Stevenson, gave guidance with regard to the discussions with NHS Lothian and Consort, and also provided commercial support on the variations required to the existing RIE PFI Contract.

66. I have been asked if the Project was particularly complex. I believe any project to build an acute hospital is a particularly complex project. In my experience there are a number of factors which contribute to the complexity of a project including:

(i) Scale: – the scale of a project (generally measured as capital cost) affects its complexity, as larger projects require a greater volume of activity at all stages to be effectively coordinated. As a capital project, this Project was larger than most, but was not the largest acute hospital project in the NPD programme, and in other sectors, such as roads, there were other projects in the programme which were larger by some margin.

(ii) Sector: – some building sectors are generally accepted to imply more technical complexity than others. My view is that healthcare buildings are generally more technically complex than education buildings, which was the other main sub-sector of buildings in the NPD programme, and there are different but similarly significant complicating factors in roads projects.

(iii) Stakeholders: – the internal and external stakeholder environment in the procuring organisation affects complexity. In this case, NHS Lothian was a single and stable procuring organisation within a well-established overall set of organisational arrangements – the NHS – so not particularly complex. Internally, the stakeholder complexity would come from the number of clinical specialities to be dealt with. The Project was for a children's hospital and DCN

rather than a general hospital, with a wide range of specialities meaning, I expect, that less interaction across different specialities and departments would have been required compared to some other healthcare projects.

(iv) Regulatory environment: - undertaking a project subject to external regulation adds complexity as there is a third party undertaking scrutiny and often providing opinion at key stages. Whilst the Project was delivered with the sector-specific standards and guidance, there was no external regulatory involvement.

(v) Location, Land and site constraints: – by the time of SFT's involvement, it had been decided to deliver the Project at Little France. As such, there was no need for a site search or acquisition of land in the market, which avoided a significant complexity faced by some projects. The Project was also undertaken on a single site which avoided the multiplication of issues across sites which adds complexity to some projects and was in a reasonably accessible location removing some logistic complexities. There was, however, a known interface with the RIE site and a relatively constrained operational site on which to deliver the Project, which added complexity.

(vi) Physical Interfaces: - the Project had a physical interface with the existing RIE building which added complexity compared to many other building projects, but did not present as many interfaces as say a roads project which requires linking into a wider network.

(vii) Planning: - I was not involved in town planning issues for the Project, but as it was delivered on a single site, which was already in use as a hospital by NHS Lothian, that does not seem to suggest comparative complexity with other projects.

(viii) Utilities: - in some projects, clearing utilities from the site, or getting required utilities to the site present very significant enabling projects in their own rights.

I was not close to the detail of utilities issues on the Project but was not aware of any that would be considered particularly out of the ordinary or complex.

(ix) Ground Conditions: - the ground conditions at the site can create additional complexity and I was not close to the detail of whether the Project faced any unusual complexity in that regard.

(x) Funding / commercial arrangements: - NPD and other forms of PPP funding arrangement involve contracting for a 25-30 year life cycle of an asset and for the provision of finance. This adds complexity to the technical work streams as the requirements for services over the life cycle require to be defined along with the requirements for the building itself. The legal and financial work streams are more complex as the NPD Project Agreement and associated documentation is more extensive than for a capital procurement and a financial model for the asset life cycle is required.

67. Overall, the Project was a major and complex project. It had a number of features that I felt generally added complexity, and every project has a unique combination of those characteristics. However, I did not consider that overall it was "particularly" complex.

68. As stated, the NPD structure did add complexity, but it was probably the simplest of a number of the options which were considered by NHS Lothian, given that the project was no longer able to be capitally funded. The options that NHS Lothian considered were summarised within paragraph 3 of the letter from SFT to Iain Graham of NHS Lothian dated 8 December 2010 (Bundle 3, vol.2, doc 31, p.109), as follows:

"Procurement Options

We discussed a number of options when we met:

3.1. Susan confirmed at the meeting that a capital funded route is not an option, given budgetary pressures.

3.2. For the reasons we discussed (e.g. scope of the existing procurement and the nature of the project) incorporating the project within the South East hub is not an option.

3.3. You mentioned the possibility of retaining the existing PSCP for construction (with a revised scope to include the DCN), NHSL providing the lifecycle and ongoing maintenance and seeking to procure financing through an SPV (Option 6). As we said at the meeting, in order for the project not to be classified as a government asset (and hence count against the Scottish Government's capital budget) the requirements of European System of Accounts (ESA 95) need to be met. In short this involves the transfer of construction and one of demand or availability risk to the private sector. We do not see how this proposal would meet those tests, though if you wish to pursue this option we suggest that you take advice from your financial advisor.

3.4. Another proposed option was the retention of the existing PSCP for construction (with a revised scope to include the DCN) and the introduction of finance (Option 3) or finance and maintenance/operation (Option 4). We discussed this briefly and ruled both options out given the scope of the original OJEU for the Health Framework.

3.5. A further option concerned the retention of the existing PSCP for construction (with a revised scope to include the DCN) which you suggested would involve the PSCP being novated to an SPV which would contract with NHSL to provide the NPD DBFM solution (Option 5). In the first instance we agreed that NHSL would seek advice as to whether it would be legally possible and we attach at Annex 2, for discussion, our suggested questions for your legal advisers in that regard. Given the differences in the underlying construction contracts envisaged in the Health Framework and within an NPD contract structure, our strong view

is that a further party would need to be introduced who would take on the risks associated with a D&B contract required for the NPD procurement and subcontract with the PSCP for the Health Framework construction contract (i.e. 'wrap' the Health Framework contract). Beyond the legal issues associated, we believe this could cause commercial issues in receiving strong value for money proposals from the private sector. We would be happy to discuss this further if appropriate.

3.6. There is the option of concluding the existing PSCP arrangements and tendering the RHSC/DCN project using a traditional NPD DBFM procurement route. (Option 1) In that case NHSL could provide bidders with an exemplar design to show the adjacencies etc which it has worked through internally including with clinicians to date. NHSL will want to be satisfied from its legal advisers that, as was indicated yesterday, the existing framework arrangements can be concluded without penalty, except for payment for work to date.

3.7. As discussed yesterday, Option 1 appears the most likely route, but the other options need to be further considered further, in consultation with legal advisers along with any options not currently listed. As discussed, this needs to be done as a matter of urgency such that a recommendation can be made to a Committee Meeting on 12th January 2011."

69. The options put forward by NHS Lothian were hybrid funding models, which were more complicated than the NPD model. The NPD model had been used previously and was familiar to the market. NPD shared similar characteristics to other PPP approaches. Paragraph 5.1 of SFT's document titled "*Revenue Financing Opportunities for Infrastructure Investment*" (Bundle 3, vol.1, doc 25, p.1,082 states);

"Scotland has a long and successful history in the delivery of PPP healthcare projects, including acute; community; mental health and ACADs, 31 in total."

70. There was an active and mature market for PPP healthcare and the NPD structure had been market tested in health via the Tayside Mental Health Development Project; and deliverability had been previously demonstrated for the wider PPP healthcare projects in Scotland.

Switch to NPD Model

71. A large part of the scope of what latterly became the Project, formerly the Royal Hospital for Sick Children, was under development as a capital project. It is my understanding that the Department for Clinical Neurosciences was under consideration as a separate capital project and others will be better placed to answer what its position in the capital programme was at that time.

72. I have been asked to explain why the change was made from a capital funded project to the NPD model and the driving factors behind the decision. The change was made in the context of the funding position at the time, as set out in Scotland's Spending Plans and Draft Budget 2011-2012 published by the Scottish Government in November 2010 ("**Draft Budget**"). (Bundle 7, doc 2 pp.55&89)That Draft Budget stated that:

"This is a Budget set against the most dramatic reduction in public spending imposed on Scotland by any UK Government. The Comprehensive Spending Review confirmed that the Scottish Budget will be cut by £1.3 billion next year compared to this. Within that, Scotland's revenue budget has been cut by more than £500 million and our capital budget, which is so vital to our efforts to support economic recovery, has been cut by around £800 million (or about 24 per cent in cash terms)."

It goes on to state that:

"[the] Budget also takes steps to leverage additional private sector investment to maintain levels of aggregate investment in the Scottish economy. In the absence of borrowing powers, the Scottish Government will work with the Scottish Futures Trust and local authorities to generate additional funding to support higher levels of capital investment than would be possible through the capital budget alone. In addition to the planned capital investments in 2011-12 and future years, the Scottish Government will use all available levers to: take forward a new pipeline of revenue financed investment, worth up to £2.5 billion, to be delivered through the Non Profit Distribution (NPD) model".

73. In the context of the July 2010 Independent Budget Review Group report (para 4 and 5) and the October 2010 UK Spending Review (para 70), SFT assisted the Scottish Government to identify priority projects which were suitable for procurement using the NPD revenue funded model. SFT provided potential options to the Scottish Government for revenue financed investment to deliver "*additionality*" over the capital budgets in October 2010 prior to the publication of the Draft Budget on 17 November 2010.

74. The "*CSR Options – Revenue Financed Investment*" document was drafted on or around 13 October 2010. (Bundle 3, vol.1, doc 24, p.1075). The "*Revenue Financing Opportunities for Infrastructure Investment*" document (Bundle 3, vol.1, doc 25, p.1,082) was provided to Scottish Ministers on 20 October 2010 which, amongst other sectors and projects, suggested four health capital plan projects that could be potentially suitable for revenue funding, which included the Project.

75. I assume that the Scottish Government's Capital and Risk division provided advice to Scottish Ministers relative to the change of the funding basis of the Project. I do not know whether any other party provided advice to the Scottish Ministers regarding this decision.

76. Each of the projects and programmes considered by SFT, including the Project, were evaluated at pace against a set of suitability criteria in assessing whether they were suitable for procurement under the NPD model. These criteria are reflected within

Appendix A of the Value for Money Assessment Guidance: Capital Programmes and Projects dated October 2011 (Bundle 7, doc 11 p.353) :

"

- *a major capital investment programme, requiring effective management of risks associated with construction and delivery;*
- *the private sector has the expertise to deliver and there is good reason to think it will offer value for money;*
- *there is significant constraint upon capital budget availability at either Government or Directorate level;*
- *proven track record in delivery;*
- *the structure of the service is appropriate, allowing the public sector to define its needs as service outputs;*
- *the nature of the assets and services identified as part of the projects are capable of being costed on a whole-of-life, long term basis;*
- *the value of the projects/programme is sufficiently large to ensure that procurement costs are not disproportionate;*
- *the technology and other aspects of the sector are stable, and not susceptible to fast paced change;*
- *planning horizons are long terms, with assets intended to be used over long periods into the future; and*
- *there are robust incentives on the private sector to perform."*

77. The NPD model had previously been used on the £95 million Tayside Mental Health Development Project, the first non-education PPP procured under the NPD model, which reached financial close in June 2010. SFT advised in the "*NPD – Way Forward*" document (Bundle 3, vol.1, doc 28(i), p.1,111) that the NPD project documentation had been used in the health sector at Tayside and that there should be consideration of any lessons learned from that use.

78. The NPD model is, in many ways, similar to other forms of revenue funded PPP projects of which there had been 31 in total at that time (including acute hospitals, community hospitals, mental health and ACADs). NHS Lothian was familiar with those other forms of PPP projects, including NHS Lothian's use of the Private Finance Initiative in respect of the design, build, finance and operation of the RIE PFI Project. The critical differences in NPD in comparison to other forms of PPP do not materially affect the specification of technical requirements (with which they will have been familiar given the RIE PFI).

79. As stated above, the private sector had proven expertise and track record in PPP and other NPD projects to deliver health projects and there was already an established portfolio of revenue-funded health projects in Scotland. In reviewing the suitability of the Project for the NPD model, SFT concluded that the Project met the criteria and was, therefore, suitable for procurement under the NPD model.

80. The decision that the Project should be included in the NPD programme was taken by the Scottish Ministers as part of Scotland's Spending Plans and Draft Budget. That document names the Royal Sick Children's Hospital and Department of Clinical Neurosciences in Edinburgh (c.£250 million) as one of the projects in the new pipeline of NPD investments to help support key projects across core public services. That document states that the "*new pipeline of NPD projects is being targeted to provide the maximum support for the wider capital programme and for Scotland's key public service*". It goes on to state: "*We will also ensure the delivery of a range of other health projects, including the Royal Sick Children's Hospital and Department of Clinical Neurosciences in Edinburgh through the NPD approach*."

81. Due to this unprecedented and significant cut in capital budgets, not all planned capitally funded projects would have been able to go ahead. It is far from clear whether the RHCYP project would have been able to go ahead as a capital funded project, far less the DCN, which was at an earlier stage of development.

82. The capital constraints were recognised by NHS Lothian, along with the fact that the Project could not go ahead under capital procurement. Susan Goldsmith (Director of Finance) acknowledged that at a meeting which SFT and NHS Lothian attended in early December 2010, as reflected within paragraph 3.1 of the letter from SFT to Iain Graham dated 8 December 2010, (Bundle 3, vol.2, doc 31, p.109), which stated: "*Susan confirmed at the meeting that a capital funded route is not an option, given budgetary pressures*".

83. NHS Lothian briefly considered a number of alternative suggestions but was aware that capital funding route was not an option, given budgetary pressures. For the reasons stated within the letter from SFT to Iain Graham dated 8 December 2010, referred to above at paragraph 68, it was considered that Option 1 (the NPD route) was the most likely route but that NHS Lothian should consult with their legal advisers on all of the routes discussed and any other potential routes as a matter of urgency so that a recommendation could be made to the Committee meeting on 12 January 2011.

84. The use of the NPD model as the only available option was also stressed by John Matheson, Head of Health Finance at the Scottish Government, at a meeting on 12 July 2011 attended by NHS Lothian, SGHD and SFT (Bundle 3, vol.2, doc 50, 434).

85. NHS Lothian noted at the meeting on 12 January 2011 (Bundle 3, vol.2, doc 34(i), p.315) that NPD had previously been used in the health sector in the Tayside Mental Health NPD project and the minute confirmed that "*dialogue was already underway with colleagues in NHS Tayside, in particular to highlight any lessons learned*".

86. I have been asked if NHS Lothian was consulted about the switch to NPD prior to decision being made. I do not have any recollection of SFT consulting with NHS Lothian in relation to this decision. SFT's advice to government was part of confidential advice in relation to a pre-budget consideration which stated that "*The paper is the work of Scottish Futures Trust alone and presents our views. It gives a high level view of opportunities from our perspective and does not include assessment of deliverability from*

officials with portfolio responsibilities'. (Bundle 3, vol.1, doc 25, p.1077) I do not know whether Scottish Government consulted with NHS Lothian.

87. I have been asked why NHS Lothian were not consulted on the switch to NPD and if this was unusual. As stated in paragraph 86 above, SFT did not consult with any of the projects which it identified as suitable for NPD, as we were working confidentially with the Scottish Government in relation to the development of the Draft Budget and were required to confirm to the Scottish Government what projects (across a range of sectors) may be suitable for delivery using the NPD model.

88. SFT was required to provide the Scottish Government with a rapid assessment and in that context, it was not possible for SFT to consult with all of the potential projects stated as being suitable regarding their potential to be taken forward as a revenue funded investment. I do not know whether Scottish Government consulted with NHS Lothian. If it was not discussed, then in a different set of circumstances, with more time available, I would perhaps have expected it to have been discussed with NHS Lothian by the Scottish Government prior to the announcement of the switch to NPD, although the processes around the confidentiality of budget announcements are a matter for Scottish Government.

89. At the time of the switch to NPD funding, the Project was re-scoped to include the DCN to deliver an integrated facility incorporating both the RHCYP and the DCN in one building to meet NHS Lothian's clinical requirements. (Bundle 3, vol.2, doc 31, p.108)

90. I have been asked, following the switch to NPD model, who was responsible for the decision to reincorporate the DCN. Whilst SFT identified within the "*Revenue Financing Opportunities for Infrastructure Investment*" document (Bundle 3, vol.1, doc 25, p.1,077) provided to Scottish Ministers on 20 October 2010, that it would seem appropriate to combine the RHCYP and DCN projects at the ERI site and to procure this as an individual NPD project, it was not SFT's decision whether or not the DCN should be incorporated into the Project.

91. SFT's letter to Iain Graham at NHS Lothian dated 8 December 2010, (Bundle 3, vol.2, doc 31, p.109), confirmed that NHS Lothian's preferred option for meeting its clinical requirements was an integrated facility incorporating both the RHCYP and the DCN in one building. In the minute of an NHS Lothian meeting on 12 January 2011 (Bundle 3, vol.2, doc 34(i), p.316) it stated that:

"*The Business Case for the DCN development, approved by the Board in the November 2009 recommended the preferred and best clinical option as a combined build with RHSC. This has been reaffirmed by the outcome of a non-financial benefits appraisal undertaken on 16th* December 2010".

92. This was also later noted by the Infrastructure Investment Board (**IIB**) at their meeting on 26 September 2011 (Bundle 3, vol.2, doc 54, p.484):

"the integrated project allows the generation of a number of physical and operational synergies that would not have been possible had the developments been taken forward separately (e.g. the ability to deliver paediatric and adult neurosurgery in the same theatre suite)".

93. I assumed that the decision was welcomed by NHS Lothian as the integration of the DCN was a preferred option put forward by them.

94. The switch to NPD funding also required a change in procurement approach for the Project. NHS Lothian had available frameworks for the delivery of capital projects, and I understand that they were utilising one of those frameworks to deliver the project as a capital build, or elements of what turned out to be the RHCYP project as a capital project. However, procurement of an NPD Project was not covered by these frameworks. It is not the custom and practice to procure NPD-type projects or other PPP-type projects, of that scale through framework arrangements. When the project switched to NPD, it had

to use the procurement route that is appropriate for NPD projects, which had previously been the 'negotiated procedure' under the European procurement directives. The 'competitive dialogue' procedure was introduced in 2006 and was regarded as the appropriate procurement route to procure a standalone NPD project of that scale.

95. Frameworks tend to be set up for types of procurement where an organisation or organisations are going to be buying multiple products / items that are broadly similar over a long period of time. Accordingly, every time you are looking for something new, you do not have to go to the whole market - you have a framework of people/firms and you can deal directly with those. If you are going to be buying broadly similar products / items over a three or four-year period of time, then it makes more sense for efficiency and effectiveness to pre-select a group of those people/firms within your framework. The drawback to this option is that you do not get access to everything that the whole market potentially has to offer for each and every project.

96. There were 10 NPD projects in the programme at the time. The nature of these projects was varied, for example, some were colleges, some were hospitals and some were roads. It is a different market for each of these different types of project. There are also different layers to NPD project provision, such as the facilities management, the contractor who will build it, and the special purpose company which will provide the equity and bring it all together. Ultimately, open procurement, through the EU competitive dialogue processes for each individual project in the programme, was considered to be the best way to deliver value for money.

97. I have been asked if the switch to NPD model resulted in delays to the Project. There was insufficient capital to complete the capital project at that time. I am unable to speculate as to if, or when, further capital would have become available and therefore when, or if, that project could have ever actually been completed due to the capital constraints. The switch to the NPD model gave the project a route to completion.

98. As noted at that time, there were still land issues that needed to be resolved between NHS Lothian and the PFI Contractor under the RIE PFI Project Agreement, regardless of the funding and procurement model.

99. Noting the substantial uncertainty around the delivery programme for the RHCYP project as a capital project, it was the case that the change in scope of the project discussed in paragraph 89 above and the change in procurement route, including the preparation of the reference design for the revised project scope discussed took time. The switch to NPD, therefore, led to a later completion date than that which was programmed for the RHCYP project as a capital project at the time of the switch.

100. I have been asked if the switch to NPD model resulted in increased costs for the Project. The scope of the Project changed with the inclusion of the DCN and so there would have been an increased cost. In addition, there were advisory costs associated with NPD procurement which in my experience are generally higher than advisory costs under capital procurement. There was an additional cost of financing the Project as a result of the NPD funding route and NPD includes costs for the whole lifecycle of the building including facilities management service. Setting the cost of finance, life-cycle and advisory element aside, it is not possible to say whether there were any “increased costs” in the capital build cost element of the project given that the scope changed.

101. I have been asked if the existing design work which had been completed by BAM was retained following the switch to NPD model. It is my understanding that elements were retained and taken forward as the reference design. This was a decision taken by NHS Lothian. This decision was addressed at NHS Lothian's Finance and Review Committee Meeting on 12 January 2011 (Bundle 3, vol.2, doc 35, p.323).

102. The committee was invited to "*Approve the continuation of Stage 3 of the BAM contract, under Frameworks Scotland, to develop the reference design for the joint facility for the Royal Hospital for Sick Children and Department of Clinical Neurosciences"*.

103. In a later meeting of the RHCYP / DCN Project Working Group (Bundle 7, doc 5 p.283, Brian Currie advised that "*NHSL is making progress re the reference design. BAM had stated that using their existing design team to produce the reference design might preclude BAM from being a bidder. MacRoberts has advised that as long as the design team's work is strictly limited to the reference design this will not be an issue*." I understand that MacRoberts were legal advisers to NHS Lothian.

104. It was my understanding that NHS Lothian was keen to avoid losing the work that had been carried out to date on the capital project development by BAM and its design sub-contractors and to avoid any delay associated with re-procuring a separate design team.

105. I have been asked if the NPD model is still used for public sector capital projects. The NPD model is no longer used. It was developed to deliver additionality of capital investment capacity, i.e. in any year to deliver a value of new projects greater than the Scottish Government's overall capital budget. This additionality depends on the project being classified to the private sector under national accounting rules which followed European statistical guidelines. This meant that the Project could be paid for from revenue budgets over the 25-year life of the NPD contract, rather than capital budgets in the years in which it was built. These rules were set by Eurostat and changed from "ESA95" to "ESA10" in 2014. Following a detailed analysis of one of the NPD projects, Eurostat ruled that NPD projects should be classified to the public sector, meaning that capital budget would be required in the years in which they were built and they would, therefore, not meet the objective of delivering additional capital investment. No new projects were added to the NPD programme following that decision.

<u>Reference Design</u>

106. I have been asked to explain my understanding of the difference between an exemplar design and a reference design. I do not believe there to be prescriptive definitions of exemplar design and reference design, however in the context of the Project, I understand the term reference design was used to signify a more detailed stage in design development

than an exemplar design. The definition and the meaning that should be attached to those words will depend upon the status and definition they are given in the context of the whole procurement process and in the ITPD for any particular project.

107. In the context of the Project, it is noted from an extract of a draft NHS Lothian Committee paper from around February 2011 (Bundle 3, vol.2, doc 42, p.374) that there is a comparison table of the issues being considered comparing a traditional PPP procurement with a reference design approach. That table notes:

Traditional PPP procurement	**Reference Design**
Exemplar design undertaken by Board's technical advisers to Stage C – Concept Design	Detailed design work to Stage D – Design Development (or even into Stage E – Technical design).

108. On reading the above table, I agree with the premise that the level of pre-procurement design under the reference design approach was more detailed than had been the norm for previous generations of PPP building procurement.

109. SFT promoted the adoption of the reference design believing that it would reduce procurement timescales and procurement costs, particularly for bidders as it would reduce the need for multiple designs to be produced by multiple bidders during the bid period. It would also minimise the extent to which the clinical teams required to be involved with multiple bidders during the procurement as key aspects of the building lay-out, room adjacencies etc. were resolved in the reference design prior to the procurement phase. It had also been made clear through national accounting guidance issued by HM Treasury in September 2009 that the classification of the Project to the private sector, which was required to deliver additionality of investment, did not require the design risk

to be fully transferred to the private sector contractor. SFT considered that all of these benefits were of value and therefore promoted and supported the adoption of the reference design approach. This was set out in a letter I drafted to Iain Graham dated 8 December 2010, (Bundle 3, vol.2, doc 31, p.111), which states at paragraph 5.1:

"*Consideration will be needed at an early stage of how much the design should be progressed in-house and how much in competition through the NPD procurement. There is an opportunity with recent accounting rules changes to undertake more design especially overall massing, adjacencies and even layouts in-house; with the preferred bidder taking on detailed design for construction. Such a move will involve more design work ahead of the procurement, but is overall likely to save time to a start on site*."

110. Further comments on the reasons for adopting a reference design were included within the following documents:

- The Infrastructure Investment Board Paper: RHSC briefing for 26 September 2011, (Bundle 3, vol.2, doc 54, p.486), which states:

  "*NHS Lothian is developing a "reference design" for an integrated RHSC/DCN in order to facilitate a speedy delivery and minimise the up-front costs for bidders. This means that most of the design development (except in relation to mechanical and electrical design) will be done before the project enters procurement, rather than bidding contractors preparing detailed designs themselves. Although it potentially limits innovation, this approach should increase the attractiveness of the project to bidders and allow for a more certain overall cost for the project at Outline Business Case stage. As part of a 'needs not wants' challenge SFT is undertaking an independent review of the design*."

- NHS Lothian Paper for Project Steering Board Meeting titled "*RHSC + DCN Little France – Reference Design*" dated 11 May 2012 (Bundle 3, vol.2, doc 66, p.893):

"*Discussion of Key Issues*

3.1 The Reference Design has been concluded following the Project Steering Board's approval in July 2011 of the strategy for its development given the benefits arising. These remain as previously reported:

- *Enhanced cost certainty at OBC*
- *Clinical Design complete – very limited future engagement of scarce clinical resource*
- *Shortens Competitive Dialogue Phase*
- *Utilises available programme time – parallel with Consort Negotiations i.e. no overall delay to strategic programme*
- *Minimises abortive design cost for unsuccessful bidders".*

- The Mott MacDonald report of May 2012 states at paragraph 2.1 (Bundle 3, vol.2, doc 68, p.909) that*:*

"The benefits offered by the use of Reference Designs in NPD projects in the health sector are as follows:

- *To give greater certainty in OBC costings;*
- *Since Operational Functionality design risk sits with the Procuring Authority anyway, this can be developed by the Procuring Authority to inform the procurement process;*

- *To give greater certainty over final design – to reduce the risk of the Board ending up with a design it does not wholly favour;*
- *To avoid detailed input being required from Clinicians during the Competitive Dialogue process where the Clinicians would have to consider in detail, three solutions with three separate Bidders;*
- *Very limited engagement of a scarce clinical resource being required during the Competitive Dialogue process*
- *Capitalises use of available programme time. At RHSC + DCN, design development running parallel with Consort Negotiations i.e. no overall delay to strategic programme;*
- *Minimises abortive design cost for unsuccessful bidders; and,*
- *To streamline the NPD procurement process thus reducing the cost and programme to both the Procuring Authority and Bidders*."

111. I have been asked to describe the role of NHS Lothian with regards to the decision to adopt the reference design approach. I am of the view that NHS Lothian was in favour of the decision to adopt the reference design approach, given all of the previous design work that it had undertaken and invested in prior to the decision being made that the Project would be revenue funded. This is reflected in the NHS Board Meeting minute of 26 January 2011, (Bundle 3, vol.2 doc 38, p.351), which states under the heading "*Procurement Options*" that NHS Lothian had an objective, amongst others, to minimise both the delay to the programme and any abortive and on-going costs and that to achieve that, NHS Lothian's ideal "*being to have utilised the exiting design work completed to date, build on the market testing of packages already undertaken and construct the new building*".

112. I also note from an email exchange on 27 September 2011 to 22 October 2011 (Bundle 7, doc 10 p.299) between Victoria Bruce (Scottish Government), Andrew Bruce (SFT), Susan Goldsmith (NHS Lothian), Brian Currie (NHS Lothian), Jackie Sansbury (NHS Lothian) and Mike Baxter (Scottish Government) that the reference design also allowed the NHS to *"ensure that some of the investment in the detailed design for a standalone*

Children's hospital was not lost following the announcement that the project would be funded through NPD".

113. I believe that the Scottish Government was supportive of the decision to adopt the reference design approach. The reference design approach was discussed at the Scottish Government Infrastructure Investment Board meeting on 26 September 2011 (Bundle 3, vol.2, doc 54, p.484) and the Scottish Government knew it was happening and agreed to it in principle.

114. I am aware that Mott MacDonald were advisors to NHS Lothian, and that on the instruction of NHS Lothian, they prepared a report titled "*RHSC+DCN Approach to Reference Design*" (Bundle 3, vol.2 doc 68, p.898). However, I do not know what role was played by Mott MacDonald, if any, with regards to the decision to adopt the reference design approach.

115. I do not know what other parties, if any, were involved in the decision to adopt the reference design approach. However, the Minute of Meeting of NHS Lothian's Board for their Finance and Performance Review Committee dated 12 January 2011 (Bundle 3, vol.2, doc 34(i), p.314) reflects the fact that NHS Lothian was in discussion with its technical and legal teams in relation to the decision. I understand that NHS Lothian's legal advisors at the time were MacRoberts LLP, as mentioned in paragraph 103 above.

116. I have been asked as to my knowledge of when the decision to adopt the reference design approach was made. On 12 January 2011, a meeting of NHS Lothian's Finance & Performance Committee 2011 (Bundle 3, vol.2, doc 34(i), p.314) considered a paper drafted by the Director of Finance and the Chief Operating Officer, which invited the Committee to:

"*Approve progressing with a detailed reference design for a combined project as a key component of the NPD procurement route utilising either the current Framework*

Contract with BAM or by procuring the design team through the Office of Government Commerce (OGC) procurement solution."

It was also noted within that meeting paper that a "*recommendation based on legal advice for procuring the Reference Design will be available for Committee members at the meeting".*

117. This reference to a recommendation to the Finance and Performance Committee appears to align in timing but not in relation to the decision making party with the statement at paragraph 105 of the Grant Thornton Report, (Bundle 3, vol.1, doc 2, p.43), which states:

"*105. In January 2011 it was decided by the Project Director and project board to use the completed early design work through the creation of a reference design. This was to recognise early work completed including involvement of clinicians in design and the costs NHS Lothian incurred between 2008 and 2010 on the project*."

118. The above referenced documents would suggest that NHS Lothian's Finance and Performance Committee was invited to take the decision. However, SFT does not have a Minute for that meeting so I cannot confirm whether the decision was taken by that body at that time. NHS Lothian made the decision to adopt the reference design approach, which was promoted by SFT and it is my understanding that it was supported by the Scottish Government.

119. The reference design approach was thereafter developed during the course of 2011 and 2012.

120. I have been asked to describe the role of healthcare planners in the development of the reference design. Other than what was included in the Mott MacDonald Report and the Grant Thornton Report, I do not know the extent to which, if at all, healthcare planners

were involved. I note that the Grant Thornton Report (Bundle 3, vol.1, doc 2, p.50) states;

"*173. Healthcare planners were commissioned by NHS Lothian in 2011 to support with the preparation of the COS.*

The remit was to review the COS's focused on ensuring that single clinical solutions were not presented in error, and incorrectly transferring risk to NHS Lothian which should rest as Project Co risk."

121. I further note that within the Mott MacDonald Report it states;

"*It is recognised that Bidders are likely to suggest revisiting the Reference Design during the Competitive Dialogue in order to differentiate themselves from other Bidders. NHSL will resist any such suggestions on the basis that the Reference Design represents the operational and clinical solution agreed by NHSL and Stakeholders. The absence of an external Healthcare Planner on NHSL's advisory team during procurement could be perceived as a risk. Given however the previous healthcare planning input to the project and NHSL's internal resource, this is deemed by NHSL to be a minor and manageable risk".*

122. On or around 26 May 2011, SFT raised a concern with NHS Lothian in relation to the reference design team arrangements. The concern related to bidders gaining a competitive advantage if members of the reference design team joined organisations bidding on the procurement. This is specifically set out in a letter from myself to Jackie Sansbury dated 01 June 2011, (Bundle 3, vol. 2, doc 46, p.406) in which I stated:

"*With regard to current advisory appointments we do not believe it is sensible to appoint advisors with significantly overlapping remits (as appears to be the case with regard to technical advisory appointments). Our experience is that this leads to excessive levels of*

advisory costs and more internal management time to handle this situation. We are also concerned that the architects employed to carry out the reference design for the Project are not restricted from working for one of the bidders once this stage is complete. This will make it difficult to create a level playing field amongst bidders for the Project, as at least the perception will be that whichever bidder employs this architect will be at a significant advantage. We would welcome a dialogue with you as to how these issues are resolved."

123. I have been asked about my understanding of "mandatory" and "non-mandatory" elements of a reference design. My understanding of the mandatory elements in the reference design is that bidders would be non-compliant if they did not include mandatory elements in their tender submission.

124. If the mandatory elements of a reference design are too detailed, it can stifle the ability of bidders to innovate. It is, therefore, important to strike a balance. If a design feature is specified as a mandatory element and a procuring authority expects to have that included in the final design, then it hampers the ability of the bidders to come up with different solutions which could potentially deliver better value for money and might create competitive advantage. For example, one architectural solution may include curved walls which could add cost to the building, whereas another may include straight walls, with both designs delivering the same '*Operational Functionality'*. Bidders should be free to determine their design solution to the greatest extent possible whilst meeting NHS Lothian's requirements for Operational Functionality. The different solutions offered would be evaluated through the competitive process. The process is designed to deliver the best solution through competition

125. In light of this it is important to understand what items were listed as mandatory within the reference design and the implications of being mandatory.

126. The Mott MacDonald report dated May 2012 set out to NHS Lothian how the former intended to develop the reference design work which would inform the ITPD instructions

to bidders. The Mott MacDonald "RHSC + DCN Approach to Reference Design" Report (Bundle 3, vol.2, doc 68, p.913) defined mandatory elements as follows:

"4.1 Reference Design Mandatory Elements

The Operational Functionality requirements for the RHSC + DCN will be outlined in the Clinical Output Specification, Schedule of Accommodation and the Adjacency Matrix.

The ITPD will state that it is mandatory that Bidders develop proposals that comply with the Operational Functionality solution as detailed in the Reference Design.

The Operational Functionality will be defined in the following constituents of the Reference Design:

- *1:500 Interdepartmental Layouts;*
- *1:200 Layouts; and*
- *1:50 Generic and Key Room layouts…"*

127. At the NHS Lothian Project Steering Board Meeting held on 11 May 2012 (Bundle 3, vol.2, doc 67, p.896), the Board was recommended to;

"2.1 Approve the implementation of the following as described in Section 7 Conclusions of the report "RHSC + DCN – Approach to Reference Design dated March 2012":

2.2 Mandatory Elements - comprising the information that defines Operational Functionality and as indicated in Interdepartmental Layouts (1:500), Departmental Layouts (1:200) and Room Layouts (1:50) for Key and Generic Rooms. As a consequence

of the particular project and site issues, departmental corridor layouts are also mandated as a result."

128. The Information Memorandum and Pre-Qualification Questionnaire issued to bidders stated at 1.6 and 3.2.1 (Bundle 7, doc 25 pp. 543 & 548) that:

"*The Board has, in conjunction with experienced private sector organisations, undertaken a significant amount of work to develop a reference design for the Project, parts of which will be mandated within the Invitation to Participate in Dialogue (ITPD).*"

…

"The Board welcomes and encourages Candidates to bring innovation, and expertise from within the UK and/or overseas to develop their own design proposals but it should be noted that elements of the design as they relate to operational functionality will be mandatory; as will be more fully set out in the ITPD."

129. In the draft ITPD Vol 1 (Bundle 3, vol.3, doc 74, p.178) (we have a copy of Rev K but not the final version of the ITPD), paragraph 2.5 states:

"*The mandatory elements of the Reference Design (the "Mandatory Reference Design Requirements") are those elements of the Reference Design relating to Operational Functionality. The agreed Operational Functionality is generally set out in the following constituents of the Reference Design:*

- *1:500 Departmental Adjacency Layouts;*
- *1:200 Departmental Layouts;*
- *1:50 Generic and Key Room Layouts*

…"

130. The mandatory elements of the reference design were therefore to be referred to those that defined "*Operational Functionality*". The definition of "*Operational Functionality*", related to spatial elements of the design as set out in paragraph 131 below, as opposed to any environmental or engineering aspects, such as ventilation.

131. The term "*Operational Functionality*" is a defined term within Schedule Part 1 of the Project Agreement and is as follows (Bundle 7, doc 26 p.589) :

"Operational Functionality"	means (a) the following matters as shown on the 1:500 scale development control plan and site plans; (i) the point of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; and (iii) the adjacencies between different hospital departments within the Facilities, as indicated on the following drawings in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* • HLM-Z0-00-PL-700-020 Rev 6; • HLM-SZ-B1-PL-400-400 Rev 2; • HLM-SZ-00-PL-400-400 Rev 3;

	• HLM-SZ-01-PL-400-400 Rev 2; • HLM-SZ-02-PL-400-400 Rev 2; • HLM-SZ-03-PL-400-400 Rev 2; • HLM-SZ-04-PL-400-400 Rev 2; (b) the following matters as shown on the 1:200 scale plans: (i) the points of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; (iii) the adjacencies between different hospital departments within the Facilities; and (iv) the adjacencies between rooms within the hospital departments within the Facilities, as indicated on the following drawings in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* • HLM-SZ-00-PL-220-001 Rev 6; • HLM-SZ-01-PL-220-001 Rev 6; • HLM–SZ–02–PL–220–001 Rev 6; • HLM-SZ-03-PL-220-001 Rev 6;

	• HLM-SZ-04-PL-220-001 Rev 6; • HLM-SZ-06-PL-240-001 Rev 5; • HLM-SZ-B1-PL-220-001 Rev 7; • HLM-Z5-SL-PL-220-001 Rev 6; (c) the quantity, description and areas (in square metres) and minimum critical dimensions of those rooms and spaces as indicated on the following drawings in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* • HLM-SZ-00-PL-220-001 Rev 6; • HLM-SZ-01-PL-220-001 Rev 6; • HLM-SZ-02-PL-220-001 Rev 6; • HLM-SZ-03-PL-220-001 Rev 6; • HLM-SZ-04-PL-220-001 Rev 6; • HLM-SZ-06-PL-240-001 Rev 5; • HLM-SZ-B1-PL-220-001 Rev 7; • HLM-Z5-SL-PL-220-001 Rev 6; (d) the location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans in respect of: (i) all bed and trolley positions;

	(ii) internal room elevations; (iii) actual ceiling layouts; (iv) the Non-Clinical Services supplies, storage, distribution and waste management spaces; and (v) the ICT requirements; (e) the location of and the inter-relationships between rooms within the departments within the Facilities, as indicated on the following drawings in Section 4 *(ProjectCo's Proposals)* of Schedule Part 6 *(Construction Matters)* • HLM-SZ-00-PL-220-001 Rev 6; • HLM-SZ-01-PL-220-001 Rev 6; • HLM-SZ-02-PL-220-001 Rev 6; • HLM–SZ–03–PL–220–001 REV 6; • HLM-SZ-04-PL-220-001 Rev 6; • HLM-SZ-06-PL-240-001 Rev 5; • HLM-SZ-B1-PL-220-001 Rev 7; • HLM-Z5-SL-PL-220-001 Rev 6; but only insofar as each of the matters listed in (a) to (e) above relate to or affect Operational Use;

132. The Mott McDonald Report states (Bundle 3, vol.2, doc 68 pp.907-908) :

"1.*2 Definition of Functionality*

To date, reference has been made to Reference Design in relation to Clinical Functionality. The following note extracted from the Design Development Protocol indicates how this could lead to some confusion:

Clinical functionality refers to, and only to, the project's capacity for use by the Board or its staff for carrying out the trust's clinical functions and non-clinical functions. The Board's non-clinical functions are deemed to include all hard and soft Facilities Management services retained by the Board that are out-with the bidder's responsibility.

Since 'Clinical Functionality' refers to both clinical functions and nonclinical functions, we should refer to Operational Functionality as opposed to Clinical Functionality since some of the mandatory areas of the Reference Design will cover non-clinical functions. This is in line with the SFT Standard Form Project Agreement (NPD Model) where the reference is to Operational Functionality (See Appendix A) – largely because the standard form will also be adopted in non- healthcare projects. (Note that Operational Functionality is not defined in the Standard Form as noted in the extract in the SGHD Standard Form also indicated at Appendix A. This will need to be considered by the Procurement Workstream when developing the draft PA for inclusion in the ITPD.)."

133. For this Project, there were some additional elements of mandatory requirement in the reference design due to the particular site constraints and interfaces.

134. The NHS Lothian Paper for Project Steering Board Meeting titled "*RHSC + DCN Little France –Reference Design*" (Bundle 3, vol.2, doc 66, p.893) states:

"3.3 *The Project Steering Board are reminded that because of the particular and unique issues surrounding the development of this facility on this site, greater input and a more mature Reference Design has been necessary than may be the case in other Healthcare NPD projects.*

These issues include:

- *The connections required to the existing RIE building – predetermined by the location of the existing A&E department and Critical Care.*
- *The restricted nature of the site bounded on all sides as it is by existing road and services infrastructure and key access/egress points.*
- *Height and massing restrictions imposed by the local planning authority.*
- *Flood protection measures and Public Transport Infrastructure requirements.*
- *The site being part of an existing PFI / PPP site*
- *Interface and Access requirements with the existing RIE PFI service provider*".

135. Similarly, the Mott MacDonald Report states:

"The level of development of the Reference Design is predicated upon the definition of Operational Functionality defined in the Project Agreement. This is based on the Standard Form definition outlined in Appendix A. The constituents of the Reference Design are detailed in the matrix of Reference Design Deliverables at Appendix B. The level of development can be described as approximating the RIBA Plan of Work, Stage C – Concept Design (See Appendix C).

On the RHSC + DCN project greater input is required in the preparation of the Reference Design than would normally be the case. This is because of the particular and unique issues surrounding the development of this facility on this site. These issues include:

- *The connections required to the existing RIE building – predetermined by the location of the existing A&E department;*
- *The restricted nature of the site bounded on all sides as it is by existing road and services infrastructure;*
- *Height restrictions imposed by the local planning authority*
- *Flood protection measures required;*
- *The site being part of an existing PFI / PPP site; and*
- *Interfaces required with the existing RIE PFI service provider*

The requirement however to prepare and detail services interfaces, detailed site information, 1:50 layout drawings and attendant equipment requirements goes beyond the normal Stage C level of development thus the Reference Design should be described as being at RIBA Stage C+.

These issues have combined to make the development of the RHSC + DCN Reference Design considerably more complicated and resource intensive exercise than would normally be required in other NPD projects of this scale.

The Reference Design can be described as a graphic representation of NHSL's accepted design solution to the requirements of:

- *The Clinical Output Specification;*
- *The Board's Construction Requirements;*
- *The Soft FM Specification;*

- *The Schedule of Accommodation; and*
- *The Adjacency Matrix.*

To achieve this the 1:500 scale departmental adjacency layouts, the 1:200 scale department layouts and 1:50 scale generic and key room layouts were developed in conjunction with and signed-off by NHSL."

136. SFT raised issues in respect of the "mandatory" also known as "non-negotiable" elements of the reference design, which related to spatial considerations and building layout. SFT raised issues that could reflect on value for money considerations, consistent with SFT's role and interest in maximising the value for money of the Project. In an internal email from Donna Stevenson to Grant Robertson of SFT on 8 February 2011 (Bundle 7, doc 3 p.273), attaching the "*RHSC DCN Update extract Reference Design*" document (prepared by NHS Lothian), Donna stated;

"NHS Lothian have provided more information as to what it envisages in relation to its reference design (in a draft Committee paper upon which we were asked to comment). The relevant extracts are attached.

As you see the degree of prescription is greater than we have advised, though NHSL is saying the scope is to be finalised and Mike Baxter has issues on cost and timescale. There is a project specific issue concerning the interfaces with the existing RIE and the RIE PFI contract, which I will explain when we meet"

137. On 17 February 2012, as part of the OBC process, Donna Stevenson prepared a note (Bundle 7, doc 22 p.531) , which was shared with NHS Lothian on or around the same date, recommending that "*the Funding Conditions Template be completed to reflect the following recommendations so as to enable certain information to be completed and to set out issues which require to be delay with prior to the issue of OJEU, the ITPD documentation or on an ongoing basis as the case may be".*

138. Under the heading "Reference Design. Recommendation 4" Donna Stevenson's note stated:

"That the extent of negotiable and non-negotiable elements is developed by the Board on the basis that bidders should be provided with maximum flexibility to propose their own design and engineering solution, within defined parameters, and avoiding the need to open up the clinical adjacencies which has been settled with the Board's clinicians to date and reflecting the constraints in the site as reflected in SA6. The final position is to be reviewed by SFT as part of the Pre ITPD KSR".

139. On 26 April 2012, members of SFT met with NHS Lothian to discuss the Mott MacDonald Report "RHSC + DCN – Approach to Reference Design" dated March 2012 (Bundle 3, vol.2 doc 68, p.898), which had been instructed by NHS Lothian. In advance of that meeting, my colleague Donna Stevenson prepared a note of topics to be discussed and circulated those internally at SFT by email on 26 April 2012 (Bundle 3, vol.2, doc 65, p.889). That list included queries relative to the mandatory and non-mandatory aspects of the design. On 30 April 2012 Donna Stevenson emailed Brian Currie (Bundle 3, vol.2, doc 69, p.941) stating:

"Further to the useful meeting on reference design, as arranged, I note below the actions which we agreed.

1. You confirmed that bidders will be able to change the shape of the building eg to change curved walls or corridors to straight lines and that you will revise the paper and consider the wording to be included in the ITPD documentation to make this clear. You said that you would also look at my suggested wording in the IM/PQQ."

When Donna Stevenson references "*IM/PQQ*" above, she is referring to the "*Information Memorandum*" and the "*Pre-qualification Questionnaire*".

140. Donna Stevenson's comments in that regard were ultimately reflected in the Mott MacDonald Report, particularly at paragraph 4.1 (Bundle 3, vol.2, doc 68 p.913-914) which states;

"In *the ITPD, Bidders will be advised that features such as curved walls and the external landscaping forming part of the Reference Design are indicative only given that these have no influence on the Operational Functionality. Bidders will therefore be encouraged to apply a unique design strategy founded on sound architectural principles whilst complying with the mandatory elements of the Reference Design".*

141. On 4 December 2012, in the Pre-OJEU Key Stage Review "*Section 2: project Requirements*" number 7 (Bundle 7, doc 28 p.606) of the table states:

"SFT has raised issues as to the extent to which the Reference Design is to be mandatory and has commented on this issue in the context of the draft ITPD that clarity is required in relation to this issue.

The Funding Conditions provide that "the extent of negotiable and non- negotiable elements is developed by the Board on the basis that bidders should be provided with flexibility to propose their own design and engineering solution, within defined parameters, and avoiding the need to open up the clinical adjacencies which has been settled with the Board's clinicians to date and reflecting the constraints in the site as reflected in SA6. The final position is to be reviewed by SFT as part of the Pre ITPD SR." Accordingly the finalisation of this issue will be considered as part of the pre ITPD KSR."

142. On or around 11 February 2013 (Bundle 7, doc 4 p.275) , Donna Stevenson sent an email to Brian Currie, attaching "Volume 1 of the draft ITPD" upon which she had noted her comments. She highlighted SFT's key points in the body of the email, including comments on the reference design as follows:

"2. Reference Design: I raised again yesterday the issue which I had highlighted in my email of 25 October when I commented on the original draft, namely:

"...it would be useful to understand where the reformulation of the options available to bidders even in relation to items which are described as mandatory elements such as the layouts of the departments. The example which we gave when we met some months ago was the ability to make curved walls and corridors straight and in my email of 9 August we suggested "something along the lines of a statement that the Reference Design achieves the Operational Functionality required but the Board and that there has been full engagement with clinicians. While this represents the preferred layout, there is scope to change the layout provided the same [or an equivalent] Operational Functionality is achieved. The example of the non mandatory nature of the curved walls and corridors could be stated. Any changes would need to be evaluated by the team, including its members with clinical expertise, and the evaluation basis made clear."

143. This issue was addressed in the ITPD, as noted in SFT's KSRs.

144. SFT signed off the pre-ITPD KSR as it was comfortable with the position reached by NHS Lothian on the number of mandatory elements. My recollection is that initially NHS Lothian had wished the majority of the architectural design completed in the reference design phase to be mandatory, including elements such as curvature of particular elements of the building lay-out, which are a feature of a specific design solution rather than representing Operational Functionality. In the end, the definition of the spatial mandatory elements followed the definition of Operational Functionality, with which SFT was content.

145. SFT did not provide technical advice nor was it involved in technical decision making. The discussions SFT had with NHS Lothian as to the mandatory elements of reference design was in relation to those impacting on "*Operational Functionality*" i.e. the spatial elements as set out above.

146. In addition to the Operational Functionality definition of Mandatory Reference Design Requirements set out above, paragraph 2.5 of the draft ITPD (rev K) goes on to state (Bundle 7, doc 27 p.593):

"Other areas of Operational Functionality are contained in other deliverables within the Reference Design. Full details of the Mandatory Reference Design Requirements are set out in Appendix E (Reference Design Deliverables).

147. In the version of the ITPD (Rev K) that we have, the list of Deliverables in Appendix E that were stated to be mandatory included the environmental matrix even though it was not included within the definition of Operational Functionality.

148. The draft ITPD (Rev K) makes it clear that bidders were required to develop proposals which complied with the Mandatory Reference Design Requirements. It was the bidders' responsibility to satisfy themselves that the Mandatory Reference Design Requirements complied with the Board's Construction Requirements which included relevant technical standards:

"*Bidders are required to develop design proposals which comply with the Mandatory Reference Design Requirements.*

For the avoidance of doubt, the Board will not enter into any Dialogue on alternative solutions to the Mandatory Reference Design Requirements. Bidders proposals must be developed to reflect these Mandatory Reference Design Requirements and Bidders will be fully responsible for all elements of the design and construction of the Facilities including being responsible for verifying and satisfying themselves that the Mandatory Reference Design Requirements can be designed, built, and operated to meet the Board's Construction Requirements."

149. The Pre-ITPD KSR "*Validation of Revenue Funded Projects: NPD Programme Pre-ITPD Key Stage Review*" (Bundle 3, vol.2, doc 58, p.650) (Pre-ITPD KSR) re-iterates SFT's understanding of the approach to mandatory elements of the reference design being spatial elements relating to Operational Functionality:

"The ITPD, Volume 1 section 2.5 and Appendix E sets out the elements of the Reference Design which is being provided to bidders are mandatory. These relate to the Operational Functionality as defined in the Project Agreement and there are elements of flexibility in relation to non mandatory elements of the Reference Design."

150. The non-mandatory elements of the reference design were all of the design elements that were not specified as mandatory. The bidders could choose, subject to remaining compliant with the Board's construction requirements, whether or not they wished to include these elements within their Tender submission. The draft ITPD stated that the Board's Construction Requirements would always take precedence over the reference design for matters which do not define Operational Functionality.

151. The Mott MacDonald report states at paragraph 4.2 under the heading "*Non-mandatory elements of the Reference Design"*

"Outwith those mandated elements of the Reference Design, Bidders will have freedom to develop proposals constrained only by the requirements of the Board's Construction Requirements. Bidders will be positively encouraged to develop innovative solutions in those areas not prescribed by the Reference Design. Notwithstanding this, the information forming the Reference Design also includes elements that Bidders must address during the bidding process as follows.

As noted above, only certain elements of the information included in the Reference Design will be mandatory; those that define the Operational Functionality."

152. The draft ITPD refers to the non-mandatory elements as *"Indicative Elements of the Reference Design"* and section 2.6 of the ITPD states (Bundle 7, doc 27 p.595)*:*

"During the preparation of the Mandatory Reference Design Requirements, other information has been generated both as a by-product of preparing the Reference Design itself and as a general Project requirement as follows:

(i) FM goods handling and distribution;

(ii)Structural engineering solutions;

(iii) Building services engineering solutions;

(iv) Servicing strategies and space allocations; and

(v) Hard FM solutions and space allocations.

*This constitutes the "**Indicative Elements of the Reference Design**"*

Such information is issued to the Bidders for "information only" so that they may understand the intent of the Reference Design. Bidders must however refer to the Board's Construction Requirements for the detailed requirements for all such Indicative Elements of the Reference Design for which they will ultimately carry the risk. Bidders are advised that the Board's Construction Requirements will always take precedence over the Reference Design for matters which do not define Operational Functionality. The full distinction between Mandatory Reference Design Requirements and Indicative Elements of the Reference Design are set out in Appendix E (Reference Design Deliverables)."

153. At the NHS Lothian Project Steering Board Meeting held on 11 May 2012, (Bundle 3, vol.2 doc 66, p.893) the Board was recommended to note:

"2.3 Non Mandatory Elements - Information that has been developed to verify the feasibility of the Reference Design in terms of architecture and engineering and information developed for issue to Bidders in regard to site and servicing information".

154. I have been asked if the adoption of the reference design approach was unusual given the number of mandatory elements. SFT promoted the use of the reference design as part of the NPD programme and therefore did not deem the use of the reference design as unusual for the programme, although the difference from previous PPP projects is noted in paragraph 107.

155. I would say that the Operational Functionality and project specific spatial aspects of the reference design were reasonable to have as mandatory. Whilst I have not gone back to compare directly with other projects I have worked on, I would say that the number of mandatory elements would align with what was mandatory on other projects in the NPD programme, in my experience. However, it was unusual to have the environmental matrix included as a mandatory element (discussed paragraph 147 above), given that it was not within the definition of "Operational Functionality".

156. I believe that it is important to consider the extent to which anyone knew or understood at the time that the environmental / ventilation aspects had become mandatory. I think the process of having aspects in relation to Operational Functionality as mandatory was well understood. With regards to the environmental matrix, I think that is a different thing. I do not know what processes were in place to check that particular element. Although, ultimately, NHS Lothian and their advisors take responsibility for what was included within their ITPD.

<u>Design Assurance</u>

157. I have been asked to describe the role of SFT in respect of design assurance in the period up to the commencement of the procurement exercise. It is important to understand that design review is different to design assurance. The role that SFT played was not an

assurance role; it was not any form of assurance demonstrating that technically the design would work. The review was a value for money assessment of whether the amount of space looked right for the level of clinical activity required and whether the cost per square metre look reasonable. The end product of SFT's design review, prepared by Atkins on behalf of SFT, was not an assurance document.

158. As is stated under the "*Summary and Recommendations*" heading of the report prepared by Atkins dated 12 December 2011 (Bundle 3, vol.2, doc 57, p.571):

"*The purpose of this Independent Review was to assess the design brief for the project to replace the Royal Hospital for Sick Children and the Department of Clinical Neurosciences (RHSC/DCN) on the Little France site. The review assessed the capacity of the project to deliver value for money by meeting the strategic aims of the programme; by making best use of space and opportunities for maximising sharing with other assets; and by minimising the whole-life costs.*

The recommendations are intended to indicate actions which will help to de-risk the specification and the reference design as the project progresses towards OBC and the preparation of tender documentation and to improve value for money."

159. SFT drafted the standard form NPD contract and undertook a detailed process regarding derogations to the standard form, whereby SFT signed-off on the contractual amendments to ensure that the standard form contract was retained unless there were project specific reasons to derogate from that. SFT therefore had a ‘hands on’ approach with the contractual position relating to the standard form NPD contract. However, SFT did not, in any way, provide technical support in relation to the design and did not review, or input into, the technical parts of the ITPD and contract documents. It is my understanding that NHS Lothian had its own external advisers to advise on this. As stated in Donna Stevenson's email to Brian Currie of 30 April 2012: (Bundle 3, vol.2, doc 69, p.941)

"I attach the table of recommendations from the Project Review. As you will appreciate, SFT is not signing off on the design. Rather at the Pre ITPD KSR, we will look to the Board to confirm that it has taken account of and implemented the recommendations. Given that the reference design is now completed it would be useful at this stage if you could return the table confirming the implementation of the recommendations. "

160. SFT's design review formed part of the pre-ITPD KSR. I made Jackie Sansbury aware of this in a letter dated 01 June 2011 (Bundle 3, vol.2, doc 46, p.400), which stated:

"As *part of an updated Key Stage Review process, that will be applied uniformly on NPD projects in the health sector, we propose to engage in the ongoing design process of the Project to provide an independent review and challenge to the overall size of the facility and its specification on behalf of the ultimate funder of the project. To do this we are likely to employ an external adviser. This should provide independent validation of some of the key high level metrics of the proposed design and a valuable external benchmark on value for money*."

NHS Design Assessment Process (**NDAP**)

161. I have been asked if, to my knowledge, a NHS Design Assessment (NDAP) took place in respect of the Project. SFT's role was not associated with the NDAP process and comprised the design review process discussed in paragraphs 157 to 160 above as part of its role in assessing value for money in the NPD programme.

162. In respect of the Project, the design review which was prepared by Atkins on behalf of SFT was for the purpose of assessing and measuring value for money. SFT did not, as part of this design review, provide any input or views as to the technical accuracy of the design or the ability for it to be deliverable.

163. My colleague Donna Stevenson of SFT met with Health Facilities Scotland (**HFS**) and Architectural and Design Scotland (**A&DS**) in August 2011. The outcome from that meeting was that A&DS and HFS were to review the design review report prepared by Atkins and consider whether there were any gaps from that design review which still need be covered. On 28 December 2011, Donna Stevenson emailed Mike Baxter (Bundle 3, vol.2, doc 59, p.655) to advise that she did not know whether or not matters had developed with A&DS or HFS. She stated:

" *In August Colin, Viv and I met with Bettina and Heather of A&DS and Peter Henderson of HFS to discuss the relationship between the SFT design review and the input of A&DS and HFS to the project review. At the meeting we agreed that we would send A&DS and HFS the independent design review report once it was completed and they will consider the gaps which still need to be covered. At the time we sent on the remit of the review to Heather.*

In view of the time which has elapsed since then (as the costing information became available) I do not know whether matters have developed. Perhaps when you are back after the festive season you could let me know whether you wish me to send on the report or whether you wish to do so in the context of any other discussions which may have taken place."

Mike Baxter replied stating:

"*Thanks. I would suggest the report is sent on and that we convene a discussion early in the new year to ensure all review activity fits together. I was discussing this with Bettina last week and we will pick up in the new year.*

Mariane - Can you organise a meeting involving me, Bettina, Norman, Donna Stevenson, Pete Henderson (HFS) and Heather Chapple (A&DS) to discuss project reviews please."

164. I can see from a meeting diary invite with the subject "*Updated: RHSC/DCN Project SFT Design Review A&DS*", issued to Donna Stevenson, Peter Henderson (HFS), Norman Kinnear, Bettina Sizeland (A&DS), Heather Chapple (A&DS) and Andrew Bruce, that the meeting mentioned by Mike Baxter above was scheduled for 20 January 2012. Whilst I cannot locate any Minutes or notes of that meeting, it appears from the email correspondence that followed the week after, that the meeting did take place. On 27 January 2012, Peter Henderson of HFS sent an email to Donna Stevenson, (Bundle 3, vol.2, doc 62, p.880) referring to the meeting of the week before, attaching a document which contained HFS's comments on the Atkins Report. The majority of the comments suggest that HFS supported the conclusions of the Atkins report.

165. On 31 January 2012, in an email sent by Heather Chapple of A&DS to Donna Stevenson and Peter Henderson (HFS), (Bundle 3, vol.2, doc 62, p.880) A&DS provide its comments on the Atkins Report. The email goes on to state:

"We understand it is expected that the recommendations in relation to the reference design and the brief will be addressed by the Board prior to the ITPD. We would be happy to:

- *help the Board capture design quality standards to be incorporated into the brief*
- *and/or help the pre-ITPD KSR consider if the 'design' recommendations (16-19 & 20 'design shape' being those most within our area) have been addressed before the reference scheme and briefing documents are presented to bidders; and Pete has suggested that HFS can carry out a high level check of the reference scheme against guidance at this point if this is not being done out by others.*
- *help with evaluating the bidders' responses to the developed design brief: for our part in relation to the design quality standards etc & HFS could carry out a high level check against guidance if this is not being done out by others.*

Once NHSL come back with their response to the recommendations please let us know how/ when we can help move forward briefing for improvements and evaluating the design responses."

166. I have been asked to comment upon a document shown to me by the Inquiry. This is a meeting minute from a meeting of the "*RHSC & DCN Reference Design Team*" of 10 January 2012. (Bundle 3, vol.2, doc 60, p.667) SFT was not in attendance at that meeting. The minute notes at paragraph 7.05:

"*NDAP Review - MML confirmed that a meeting is scheduled to take place on 20th Jan between SFT/HfS/A&DS/Scottish Government. The outcome of this meeting will determine if the NDAP review is required for NPD contracts*".

167. As is noted above, it seems a meeting did take place between SFT, HFS, A&DS and the Scottish Government on 20 January 2012. However, I have not seen any documentation or subsequent correspondence to suggest that those at the meeting discussed the requirement of a NDAP review. I do not know whether an NDAP or any other design review was carried out by HFS and A&DS. If HFS and A&DS, or any other party, reached a decision that they did not require to do an NDAP or any other design review, this was a decision which was made independently of SFT and in relation to which SFT did not provide any input.

168. I have been asked to describe the role of NHS Lothian in respect of design assurance. NHS Lothian undertook the reference design with its advisors and the reference design formed part of the ITPD. It was their project and their reference design and I assume that NHS Lothian had internal assurance processes around the material that was to be included within the ITPD. I do not know what those NHS Lothian internal processes were.

169. 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.

SCOTTISH HOSPITALS INQUIRY

Witness Statement of

RICHARD CANTLAY

In response to Rule 8 Request dated 7 March 2022

28 March 2022

Preamble

The Inquiry has agreed I will present evidence as a witness for Mott MacDonald Limited that includes incorporating answers provided to the Inquiry's written questions to witnesses. This has involved incorporating sections of both David Stillie and Andrew Scott's responses into my statement where applicable.

Professional background

1. I am Richard Cantlay, aged 47 years. My address for the purposes of this inquiry is c/o Clyde & Co (Scotland) LLP, Albany House, Albany Street, Edinburgh, EH1 3QR. I graduated from Aberdeen University in 1996 with BEng degree in Civil Engineering and upon leaving university, began employment with a Civil Engineering contractor in Glasgow. In 1998 I left that company and took up employment at Mott MacDonald Ltd, where I have remained ever since. I have been a chartered civil engineer since 2001.

2. On commencing employment at Mott MacDonald I undertook three years working in engineering design and other areas of engineering work. I worked on a whole range of engineering projects such as power stations in Dubai and road surveys in Argyll and Bute.

3. In 2001, I became involved in Public-Private Partnership ("PPP") projects, working in an advisory capacity. I worked on a whole range of projects as a technical advisor for procuring

bodies. The main focus of my work ultimately became healthcare PPP projects. I carried out work in England and also on the Forth Valley Royal Hospital, which opened in 2010 under Private Finance Initiative ("PFI"). When I started working on the Royal Hospital for Children and Young People and Department of Clinical Neurosciences (RHCYP/DCN) project in 2011, I had had 10 years of experience working on PPP projects as a technical advisor behind me.

Overview

4. In this statement I will provide answers to questions posed in the Rule 8 request dated 7 March 2022 and adopt the headings set out in the 28 March 2022 Rule 8 request, as follows:
    1. Overview of Mott MacDonald role in project
    2. Individuals involved, working on behalf Mott MacDonald
    3. Parties sub-contracted by Mott MacDonald
    4. Mott MacDonald role in business case
    5. Technical advice provided by Mott MacDonald
    6. Governance and decision making
    7. Site constraints
    8. Switch to Non-Profit Distribution Model ("NPD")
    9. Reference Design
    10. Design Assurance / NHS Design Assessment Process ("NDAP")
    11. Other relevant issues

Overview of Mott MacDonald role in project

5. My understanding of the role played by Mott MacDonald Limited (MML) in the project is set out below;

2.1 Project Background

In order to answer this question, it is thought useful to explain, at a high level, the chronology of the project and the MML contracts. In responding to this request the answers given are necessarily limited to MML's own knowledge and documents in its possession. MML may, when other parties have provided documentation, wish the opportunity to provide supplementary information and answers. Copies of the contracts referred to below have been provided to the Inquiry. However, MML may not hold complete copies of all documents. The versions provided are those held by MML.

2.1.1 Chronology

2008 NHSL Board approved a capital funded business case for a Children's Hospital

04-Feb-10 MML Supervisor appointment (first appointment)

17-Nov-10 Removal of capital funding Jan 2011 Move to NPD

08-Mar-11 BAM Capital Design Team retained

22-Mar-11 MML NPD appointment (second appointment)

14-Apr-11 TG Sub Consultancy Agreement issued for Signature

14-Apr-11 TT Sub Consultancy Agreement issued for Signature

27-Apr-11 DL Sub Consultancy Agreement issued for Signature

11-Jul-11 Change Control Order issued to appoint Reference Design Team

23-Mar-12 Reference Design Complete

12-Mar-13 Invitation to Participate in Dialogue ("ITPD") under Contract Notice Ref: 386758-2012 issued to Bidders

13-Jan-14 Final Tender Submission

05-Mar-14 Appointment of IHSL as Preferred Bidder

13-Feb-15 Financial Close

2.1.2 First Appointment - MML / NHSL Supervisor Contract (NEC3)

MML's appointment is dated 04 February 2010 and is known as The Agreement, Contract and Scope of Services for the appointment of a Supervisor, between Lothian Health Board and Mott MacDonald Limited ("the First Appointment").

During the capital phase concept design, MML's role was as NEC supervisor. This role would typically occur in the construction phase to check for compliance in accordance with the Scope and check for Defects. During the early design phase, MML undertook additional duties such as supporting the production of the Works and Site information and supporting the development of the Employer's Works Information.

In addition to the MML NEC Supervisor role, MML understands that Davis Langdon was appointed separately by NHSL as the NEC Project Managers. MML also understands that BAM were appointed as the Principal Supply Chain Partner, and the following were involved as BAM's design team:

- *Nightingale Associates (Concept Architects)*
- *BMJ Architects (Clinical Architect)*
- *Hulley & Kirkwood (Services Engineer)*
- *Arup (Civils, Structural, Traffic and Transport, Acoustics and Fire Engineering)*
- *Tribal (Health Planners).*

MML had started to provide services under the First Appointment when, in 2011, capital funding for the project was removed, and the project migrated to an NPD procurement model. Thereafter the second appointment was entered into.

2.1.3 Second Appointment - MML / NHSL Advisory Service Contracts (NPD)

MML's appointment is known as RHSC DCN Contract between Lothian Health Board and Mott MacDonald Limited – Order Number NM66866 dated 22 March 2011 ("the Second Appointment")." Reference to the Second Appointment can be found in Annex 1 – Part 2 (Ref 11).

MML entered into a sub-contract with Davis & Langdon as Project Managers, who in turn subcontracted the Reference Design Team which included:

- *Nightingale Associates (Concept Architects)*
- *BMJ Architects (Clinical Architect)*
- *Hulley & Kirkwood (Services Engineer)*
- *Arup (Civils, Structural, Traffic and Transport, Acoustics and Fire Engineering)*
- *Tribal (Health Planners). In relation to Tribal/Capita, they were contracted directly to MML as per 2.3.2. of the Project Execution Plan (and the organisational chart provided to MML's witnesses in the Inquiry's bundle.*

In addition to the above, MML also entered into a sub-contract with Thomson Gray for cost advisory services, and Turner and Townsend for health and safety advisory services.

During the pre-procurement phase, MML's role initially involved developing technical components of the OJEU Notice and Pre-Qualification Questionnaire Evaluation; developing the technical components of the Invitation to Participate in Dialogue ("ITPD"); and participating in the Competitive Dialogue process. MML's role is expanded further in the sections below.

Under the MML Contract, MML was appointed as Technical Advisor (TA). In MML's experience, the role of a procuring body TA in an NPD / PFI contract does not typically involve undertaking any design, or assuming any design responsibility. This is dependent on the definition of 'design' as a procuring body TA may carry out exemplar designs but these are provided for information purposes only.

On this particular contract, MML's sub-consultants did undertake some outline design services in relation to the Reference Design only, during the pre-procurement stage. Those outline design services are discussed in more detail in section below. MML did at times carry out a limited review of elements of the design as and when required. However MML was not the project designer, nor

did MML provide any design audit service. MML did not undertake a shadow design, or validate or approve the design by others. At the end of the MML Contract is a spreadsheet entitled Technical Advisor Scope 17 March 2011 – v12. This sets out the roles up to financial close of:

- *MML*
- *Davis Langdon*
- *Thomson Gray; and*
- *Turner & Townsend.*

The spreadsheet stipulates which party was leading, supporting, or reviewing. There were also some services listed in the MML Contract that MML did not provide through agreement with NHSL.

Contract Control Orders ("CCOs") were agreed throughout the duration of MML's involvement to update the services to be provided by MML to NHSL under the MML Contract. The CCOs were classified as additional work; clarification of present scope of work; variation of existing work; or release of work previously on hold. Copies of the CCOs have already been provided to the Inquiry in (Bundle 5, doc 1, doc 5, doc 15)

Individuals involved, working on behalf Mott MacDonald

6. The Project Execution Plan (Bundle 3, vol.2, doc 55, p.488) sets out the roles of people within the project. A table of key personnel was also provided on page 3 and Annex 1 of MML's response to Part B of the Inquiry's First Request for Information which is exhibited below. I agree with the list of personnel in the exhibit.

- Capital Project Stage (From Feb 2010)-
    - MML Project Manager: Andrew Duncan
    - MML Project Director: Andrew Oldfield
    - MML Technical Advisor: N/A
- MML's Appointment as Technical Adviser (from June 2011)
    - MML Project Manager: Andrew Scott (Retired) then Kenny Falconer (Left MML) from August 2012 until he left MML in 2013

- MML Project Director: Alistair Cowan (Retired)
- MML Technical Advisor: Andrew Scott (Lead Technical Adviser), David Stillie (Technical Adviser)
- MML Lead NPD Procurement Adviser: Richard Cantlay

- MML's Appointment as Technical Adviser / Tender Evaluation (from June 2013)
  - MML Project Manager: Graham Greer
  - MML Project Director: Richard Peace
  - MML Technical Advisor: Andrew Scott (Lead Technical Adviser), David Stillie (Technical Adviser)

7. David Stillie has confirmed the following to me: MML were involved in writing the initial brief for the capital project. It was design/build contract and this initial brief eventually became the basis for the construction output specification for NPD. The Project Manager ("PM") on the capital project was Fraser McQuarrie of Davis Langdon, who were sub-contracted by MML. It is important to note that Davis Langdon were only sub-contracted by MML once it became a NPD project. Fraser continued through the reference design stage and later joined MML.

Parties sub-contracted by Mott MacDonald

8. As set out at paragraph 2.3.2 of the Project Execution Plan (Bundle 3, vol.2, doc 55, p.502), the following parties were sub-contracted by MML:

- Davis Langdon - Project management, reference design, facilities management and procurement.
- Turner & Townsend - Construction and Design Management (CDM) coordinator.
- Thomson Gray Partnership - Costs consultants
- Capita - Health planner.

9. In particular, Davis Langdon were responsible for the reference design management and coordination (as confirmed in the Project Execution Plan, at paragraph 2.5.1.3) (Bundle 3, vol.2, doc 55, p.505). They were also Project Manager, responsible for the overall management and coordination of the workstreams (Project Execution Plan, at paragraph 4.1) (Bundle 3, vol.2, doc 55, p.517).

10. The reference design team were not party to any commercial discussions. As set out in the Project Execution Plan at paragraph 2.6.2 (Bundle 3, vol.2, doc 55, p.507) their activities were "ring fenced" by an ethical barrier. This was to mitigate the risk of the reference design organisations joining bidders' teams and having knowledge around the commercial or procurement components of the project, which other designers not involved in the reference design would not have.

11. The reference design team was appointed by means of Contract Control Order 2, dated 11 July 2011 (Bundle 5, doc 1, p.4)], and was comprised of a number of parties, sub-contracted to Davis Langdon as follows:

    - Boswell Mitchell Johnson - Architectural services.
    - Nightingale Associates - Architectural services.
    - Hulley & Kirkwood - Building services engineering.
    - Arup – Civil and structural engineering services.
    - Montagu Evans – Planning.

    These are set out in the organograms at paragraph 2.4 of the Project Execution Plan (Bundle 3, vol.2, doc 55, p.502).

Mott MacDonald role in business case

12. MML did not draft the business cases, but in the course of fulfilling their contractual obligations, MML provided technical input which might ultimately have been used in the Outline Business Case (OBC) and Final Business Case (FBC). For instance some sections in the business case might be copied or drafted from other documents we had been involved in producing. By way of example, Section 1.71 might have pulled the key dates from a programme we had developed; Section 2.94 may have pulled text from some of our technical reports; and Sections 6.8 to 6.27 might have pulled in text from some procurement papers we had drafted or contributed to.

13. A number of the appendices to the OBC are documents we fed into, such as the Draft OJEU Notice (Appendix 20), OB forms (Appendix 17). These were documents prepared for the project but are then included in the OBC as supporting information. As set out in Section 2.6.9 of the Project Execution Plan (Bundle 3, doc 55, p.511) the Business Case workstream comprised the NHSL Finance Project Manager, NHSL Capital Planning Project Manager and EY Financial Adviser, who would call on Technical Advisor workstream leads as required.

14. Therefore, MML was not drafting the OBC, however, information MML had produced may have ended up being used by the business case authors. I'm not aware of MML having any role in reviewing the OBC. NHSL had ultimate ownership of and responsibility for the business case.

15. Davis Langdon undertook specific drafting in respect of the business cases, having been appointed to do so by means of Contract Control Order 8 dated 9 August 2011 (Bundle 5, doc 5, p.43), this was limited to specific risk, contractual and project management sections and a minimal input.

Technical advice provided by Mott MacDonald in the period up to the commencement of the procurement exercise

16. MML were the appointed Technical Advisors and their role up to the commencement of procurement. The role of MML which can be summarised as:

    1. technical input to the procurement process preparation including advice on how to design the procurement from a technical perspective (e.g. technical dialogue requirements, technical evaluation criteria etc.) and drafting of technical components of the procurement documents; and
    2. drafting of the technical components of the contract documentation including the output specification ((Board's Construction Requirements) for which MML were the lead author for Sections A-C and E.

17. Following the decision to use a reference design, which was a decision taken by NHSL, MML also provided technical advice regarding the use of the reference design. This included MML's advisory paper on Reference Design Development, drafts of which are included in the Inquiry Bundle (Bundle 3, vol.2, doc 40, p.356). The aims of these papers (Bundle 3, vol.2, doc 40, p. 359-371) included setting out the reasons for preparing and the purpose of a reference design; outlining the level of detail required for a reference design; outlining the distinctions between mandatory and non-mandatory elements of the reference design; the application of reference design during competitive dialogue; and outlining the development of the reference design.

18. MML provided some limited advice to NHSL on the NPD/PPE/PFI procurement process as mentioned in paragraphs 10 and 16. As MML were involved in discussions about evaluation criteria and how the tender process would be run, an ethical barrier was put in place between the reference design team and the rest of the Mott MacDonald team advising on the procurement process since we didn’t want any of the design team being exposed to these conversations as they were potentially going to be joining bidding consortia and it would be inappropriate to have inside knowledge of procurement process.

19. David Stillie confirmed to me that, with input from MML Building Services team, he prepared the initial brief for the capital project and this was still in development with NHSL and BAM

when capital funding was withdrawn. It became the basis of the Board's Construction Requirements (BCRs) and was developed by other members of the MML team including, Andy Duncan. David Stillie also assisted with reviews of the floor plans and managed the sign-off of the architectural (layouts and equipment) for the Key and Generic Rooms.

20. The adoption of the reference design was part of the requirements for the NPD model and NHSL were adopting SFT guidance. As Technical Advisors MML worked collaboratively in identifying how to use the reference design as a procurement tool and present it in a way that wouldn't cut across PPP/NPD procurement processes and risk profile.

21. I would describe the business case process as collaborative, however, would stress that NHSL had ultimate ownership and responsibility for the business cases.

22. David Stillie was asked to confirm any involvement on the part of the Scottish Government for technical advice up to the procurement exercise but he confirmed he does not recall any. He believes there was involvement from Scottish Futures Trust ("SFT") at different stages but not at a level in which he was involved since the technical workstreams were developed quite separately from the procurement, administrative and contractual side of things.

Governance and Decision making

23. I understand that NHSL made the decision to build the new hospital. I do not have any further knowledge of the background as this decision was taken many years before I was involved in the project. I also understand it to be the case that NHSL were responsible for selecting the site. Again, this was a decision made years before my involvement in the project.

24. I understand that the Scottish Futures Trust ("SFT") took the decision over which funding model should be utilised. SFT and the Scottish Government were responsible for making decisions relative to procurement, such as the decision to move from a capital funded to a revenue funded model of procurement. MML were not involved in the decision making process

25. SFT and NHSL were responsible for making the decision to proceed with the reference design approach. The use of reference designs in NPD procurement was a policy decision by SFT in order to change the previous approach used for revenue funded projects under PFI/PPP model. I do not recall how this was communicated to MML but presume it was a verbal briefing. This aligned with NHSL's desire to ensure that the prior two years of design work on the project, which had been completed by BAM, was not wasted in its entirety. NHSL asked MML to consider how the work could be used, that is to say how the work which had been done by BAM could be finalised and turned into a Reference Design. MML provided this advice via advisory papers – an initial early draft is contained at ("Advisory Paper 02: Reference Design Development", dated 7 February 2011) (Bundle 3, vol.2, doc 40, p356). The issue of how to use the Reference Design was debated at length over many months and was finalised as Version H in May 2012 (Bundle 3, vol.2, doc 68, p.898). The paper was evolved through a number of iterations and a final version.

26. The governance arrangements for the delivery of the project are set out in line with MML's externally accredited Business Management System. I am obliged to add the caveat that this only relates to MML's service delivery and not the overall project. Every commission MML undertakes has a Project Director and a Project Manager, who are responsible for the application of the Business Management System. Andrew Scott has confirmed the MML Project Director was Alistair Cowan and subsequently Andrew Oldfield. The Project manager was initially Andrew Scott, then, Kenny Falconer and later Graeme Greer. I acted as liaison and Strategic Technical Adviser at a senior level in the project. Below was a virtual army of bodies. I refer again to paragraph 6 of my statement.

With regards the governance procedures of NHSL my understanding is that as a public body they have their own internal governance clearly set out. MML's understanding of that in relation to how it was applied to the project is set out in MML's Project Execution Plan, (Bundle 3, vol.2, doc 55, p.501). The governance procedures for the Scottish Government is through the business case process. I am aware of discussions around the need for NHSScotland Design

Assessment Process ("NDAP") reviews given the timing of the project and there was a meeting to discuss the matter held on 20 January 2012 which was attended by SFT, HfS, A+DS and the Scottish Government. No clear way forward came out of the meeting.

27. David Stillie has confirmed the following to me: there were also design checks undertaken via the AEDET process. AEDET is an acronym for Achieving Excellence Design Evaluation Toolkit, and is a review undertaken by users of the design. The first AEDET Review was undertaken on 12 August 2011, as referred to in the minutes of the design team meeting dated 2 August 2011 (Bundle 5, doc 3, p.35). This was referenced in the Atkins report, which was a design review carried out by SFT, of 12 December 2011 included in (Bundle 3, vol.2, doc 57, p.636). Details of a further AEDET Review in March 2012 are attached at (Bundle 5, doc 14, p.82). A workshop (Workshop 2 in the SFT Protocol), led by SFT, was held on 24 August 2011 and is referenced in the Atkin's Report Item 1.3.4 in (Bundle 3, vol.2, doc 57, p.580).

28. SFT and the Scottish Government were responsible for making decisions relative to procurement, such as the decision to move from a capital funded to a revenue funded model of procurement. MML was not involved in the decision to migrate to the NPD revenue funded contract from a capital funded NEC 3 contract. MML did not draft the Initial Agreement or the business cases, but in the course of fulfilling their contractual obligations, MML provided technical input which might ultimately have been used in the Outline Business Case and Final Business Case.

29. MML understands that Davis Langdon (now AECOM) provided initial drafting and review of the Risk, Contractual, and Project Management sections of the Outline Business Case. This was agreed in email correspondence between Davis Langdon and NHSL on 4 July 2011 and formalised in Contract Control Order 8 dated 9 August 2011 (Bundle 5, doc 5, p.43).

30. In regards to the decision making on proceeding with the reference design approach, these decisions were made by SFT and NHSL. The use of the reference design approach in NPD procurement was a policy decision by SFT in order to change the previous approach used for

revenue funded projects under PFI/PPP model. This aligned with NHSL's desire to ensure that the prior two years of design work on the project, which had been completed by BAM, was not wasted in its entirety. NHSL asked MML to consider how the work could be used, that is to say how the work which had been done by BAM could be finalised and turned into a reference design. MML provided this advice via advisory papers – an initial early draft is contained at (Bundle 3, vol.2, doc 40, p356) ("Advisory Paper 02: Reference Design Development", dated 7 February 2011). The issue of how to use the Reference Design was debated at length over many months and was finalised as Version H in May 2012 (Bundle 3, vol.2, p.898). The paper was evolved through a number of iterations following the agreement to adopt the reference design. I have been asked why this continued to be adapted after the decision was made to adopt the reference design. Although the decision had been made there was then the task of presenting the design and this evolved a number of times prior to submission of finalised version.

Site constraints

31. I am aware of the fact that there were site constraints encountered by NHSL at the initial planning stages, however the project was developed for a number of years before I was involved. These site constraints were progressed through the reference design team during my time working on the project, however, there was an ethical barrier in place between myself and the design team. I was not involved in discussions around site constraints or contractual issues with Consort and therefore my understanding is around the principles only. I understood that the problems included the site being on an operational hospital site; a requirement for alterations to the existing operational site to accommodate the new build and the need for a physical connection and the existing hospital having a PFI operator. I have no knowledge on how the issues were ultimately resolved between NHSL and Consort. From my own viewpoint this was one of the most complicated projects I have ever seen attempted, due in part to the operational site, PFI operator and alterations that were needed.

Switch to Non-Profit Distribution Model ("NPD")

32. The decision to switch to the NPD model of funding was taken by Scottish Futures Trust ("SFT") and the Scottish Government. The decision to incorporate the Department of Clinical Neurosciences ("DCN") as part of the project was taken by either NHSL or SFT.

33. In January 2011 following the switch to NPD and adoption of the reference design, MML were tasked by NHSL with amending the design that BAM had prepared to reflect the new scope (inclusion of DCN), which was carried out via a subcontracting arrangement with the BAM design team. This was a further iteration of BAM's work. This approach was taken to avoid losing the value of the design which NHSL had paid for and to be able to present a reference design to the bidders to avoid them starting from the start of the design process. SFT wished for NPD procurement to utilize the use of a reference design as an evolution of how PPP/PFI projects were procured.

34. MML were not involved in the decision to switch to NPD, in any capacity.

Reference Design

35. I have been asked to explain the difference between an exemplar design and a reference design. An exemplar design is an example of a solution. A reference design is where certain aspects of the design will be retained. It applies a mandatory component. The difference is set out in MML's draft Advisory Paper 02: Reference Design Development (Bundle 3, vol.2 doc 40, p.360) as follows:

Design type	Definition
Exemplar design	A design developed by the procuring authority that represents one example or solution to the output specification.
Reference design	A design developed by the procuring Authority that represents a specific solution to the output specification, the key features

	(potentially other areas) which the procuring authority wish to see in the final design.

36. An exemplar design and a reference design represent a springboard for the bidders to develop their own designs, however the level of fixity and prescription in the case of a Reference Design is greater. Sections 4.1 and 7.3 of MML's paper “Approach for Reference Design” (Bundle 3, vol.2 doc 68, p.913 and p.925) set out the aspects of the reference design which NHSL wished to see in the final design as the mandatory elements, those relating to the operational functionality of the facility (as defined in 1:500 interdepartmental layouts, 1:200 layouts and 1:50 generic and key room layouts).

37. The decision to adopt a reference design approach was taken in or around January 2011, following the decision to switch to the NPD model. MML was not involved in the decision to adopt the reference design. NHSL made that decision, which aligned with SFT guidance for the use of reference designs in NPD procurement.

38. MML entered into a sub-contract with Davis Langdon to undertake the reference design, and Davis Langdon in turn sub-contracted the designers from the Capital phase of the project. The Reference Design Team was appointed in Contract Control Order 2 dated 11 July 2011 (Bundle 5, doc 1, p.4).

39. MML’s role in the development of the reference design was limited to contractually facilitating the appointments, and then, from a project management perspective, including the information produced in the ITPD with a description of how the reference design was to be used by bidders.

40. MML had a role in respect of facilitating production of the reference design by the reference design team. In terms of facilitating production of the reference design by the reference design team, David Stillie confirmed to me that he chaired meetings, and was present at Edinburgh Council planning meetings as well as other meetings on key and generic rooms from an architectural point of view. David Stillie does not think any MML personnel chaired design team

meetings or were present at equipment meetings. David Stillie confirmed to me that the architectural design was undertaken by Nightingales and BMJ, the structural design by Arup and the M&E design work was done by Hulley + Kirkwood. David Stillie's remit was the architectural inputs (not design nor approval). His role was to ensure that the preparation of the reference design proceeded on programme and on a day to day basis to advise the NHSL team on any architectural issues as the design progressed.

41. The decision to utilise the reference design for the project was made by NHSL as this was a requirement of the NPD funding model and of SFT. MML's first task was to assist NHSL in considering how to use the design and advising them accordingly. The second task was to advise them on what further work was needed to the BAM design to turn it into the design required. The third task was developing the design further. This was a pathfinder NPD project, and the use of a reference design was a new approach in Scotland, though it was being used in other areas of the UK such as Northern Ireland. The Reference Design Advisory paper sets out the further work required on the design and why it was needed, being the fact that the BAM design was incomplete and reflected only part of the project, it had a strong design and build emphasis and it reflected BAM construction preferences.

42. It is my understanding that a firm called Tribal contributed healthcare planning during the BAM contract although I was not involved in that. This firm later became part of Capita who were retained as healthcare planners by NHSL up to the commencement of the procurement process. At this stage of the process, where the majority of the healthcare planning had been done, the ongoing role was to provide any advice in relation to healthcare planning issues as they arose.

43. MML later produced the Approach to Reference to Design paper, as set out at paragraph 30 which set out which aspects of the Reference Design would be mandatory and which would be indicative, relevant to risk allocation in the overall project agreement. It is important to note the advisory paper was about how to use the Reference Design in the procurement process.

The approach to Reference Design was how to use it and the Reference Design could pre-date it. The two things are unrelated.

44. The adoption of the reference design was a new approach in Scotland as normally, under PFI/PPP projects, an exemplar design is prepared. However it was already happening in some UK areas and it was not unusual in my experience. The industry had been using PPP since 2000 and had gone through this journey with some projects taking too long, or the situation where you had three bidders developing designs with only one bidder being selected. The use of the reference design would look to speed up and reduce costs in revenue funded procurement and seen as a natural evolution of the PPP process. By adopting a reference design with mandatory elements it would shorten the procurement process, reducing costs and avoiding confusion for stakeholders.

45. I have been asked to explain my understanding of the mandatory elements within the reference design. Mandatory elements of the design mean that they must be adopted. For the purposes of RHCYP/ DCN, the mandatory elements were all information which defined Operational Functionality, as indicated in Interdepartmental Layouts (1:500), Departmental Layouts (1:200) and Room Layouts (1:50) for Key and Generic Rooms. The ITPD definition states: Mandatory Reference Design Requirements has the meaning given to it in paragraph 2.5 (Reference Design and Mandatory Reference Design Requirements) of Volume 1 of the ITPD. The bidders were responsible for confirming whether the mandatory requirements complied with the BCR's (see page bundle 3; volume 3; page 198) and appendix E of the ITPD does not specify the Environmental Matrix as mandatory. Paragraph 2.6 of the ITPD (bundle 3; volume 3; pages 200-201) contains the indicative elements of the Reference Design. It describes it as a by-product of information from preparing the reference design and as a general project requirement. At the building services engineering solutions section it expressly states it is for information purposes only and intended to assist the bidders to inform the intent of the reference design and the bidders were advised to refer to the BCR's.

46. Operational Functionality was defined in the Project Agreement as follows:

1) the following matters as shown on the 1:500 scale development control plan and site plans;
   a) the point of access to and within the Site and the Facilities;
   b) the relationship between one or more buildings that comprise the Facilities; and
   c) the adjacencies between different hospital departments within the Facilities, as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

   - HLM-Z0-00-PL-700-020 Rev 6;
   - HLM-SZ-B1-PL-400-400 Rev 2;
   - HLM-SZ-00-PL-400-400 Rev 3;
   - HLM-SZ-01-PL-400-400 Rev 2;
   - HLM-SZ-02-PL-400-400 Rev 2;
   - HLM-SZ-03-PL-400-400 Rev 2;
   - HLM-SZ-04-PL-400-400 Rev 2;

2) the following matters as shown on the 1:200 scale plans:
   a) the points of access to and within the Site and the Facilities;
   b) the relationship between one or more buildings that comprise the Facilities;
   c) the adjacencies between different hospital departments within the Facilities; and
   d) the adjacencies between rooms within the hospital departments within the Facilities, as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

   - HLM-SZ-00-PL-220-001 Rev 6;
   - HLM-SZ-01-PL-220-001 Rev 6;
   - HLM-SZ-02-PL-220-001 Rev 6;
   - HLM-SZ-03-PL-220-001 Rev 6;
   - HLM-SZ-04-PL-220-001 Rev 6;
   - HLM-SZ-06-PL-240-001 Rev 5;

- HLM-SZ-B1-PL-220-001 Rev 7;
- HLM-Z5-SL-PL-220-001 Rev 6;

3) the quantity, description and areas (in square metres) and minimum critical dimensions of those rooms and spaces as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

- HLM-SZ-00-PL-220-001 Rev 6;
- HLM-SZ-01-PL-220-001 Rev 6;
- HLM-SZ-02-PL-220-001 Rev 6;
- HLM-SZ-03-PL-220-001 Rev 6;
- HLM-SZ-04-PL-220-001 Rev 6;
- HLM-SZ-06-PL-240-001 Rev 5;
- HLM-SZ-B1-PL-220-001 Rev 7;
- HLM-Z5-SL-PL-220-001 Rev 6;

4) the location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans in respect of:
   a) all bed and trolley positions;
   b) internal room elevations;
   c) actual ceiling layouts;
   d) the Non-Clinical Services supplies, storage, distribution and waste management spaces; and
   e) the ICT requirements;

5) the location of and the inter-relationships between rooms within the departments within the Facilities, as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

- HLM-SZ-00-PL-220-001 Rev 6;

- HLM-SZ-01-PL-220-001 Rev 6;
- HLM-SZ-02-PL-220-001 Rev 6;
- HLM-SZ-03-PL-220-001 Rev 6;
- HLM-SZ-04-PL-220-001 Rev 6;
- HLM-SZ-06-PL-240-001 Rev 5;
- HLM-SZ-B1-PL-220-001 Rev 7;
- HLM-Z5-SL-PL-220-001 Rev 6;

but only insofar as each of the matters listed in (a) to (e) above relate to or affect Operational Use".

This would not include the specific ventilation requirements. Bidders would have to comply with the BCRs.

47. This would not include the specific ventilation requirements. Bidders would have to comply with the BCRs

48. Within the reference design you would also have the non-mandatory elements. My understanding of this aligns with Section 4.2 of MML paper "Approach to reference Design" (Bundle 3, vol.2, doc 68, p.916).

49. The following were ultimately categorised as non-mandatory requirements at Section 2.6 of the ITPD and for Project Co, IHSL, to develop, including:
    - FM goods handling and distribution
    - Structural engineering solutions
    - Building services engineering solutions
    - Servicing strategies and space allocations; and
    - Hard FM solutions and space allocations

50. The reference design approach was new in Scotland. Normally, under PFI/PPP, an exemplar design is prepared. However, the adoption of the reference design approach was already happening in some UK areas, such as Norther Ireland, and so I would not describe the approach as unusual.

51. The main driving factor behind the decision to adopt a reference design approach with so many mandatory elements was to shorten the PPP procurement process and reduce the money spent on having three bidders developing a different design. It reduced costs and avoided confusion for stakeholders. This was the first NDP project and therefore we were utilising the new approach of using a reference design – the intention of which was to mandate more elements. Each NPD project adopted a different approach depending on status of design and acceptability of it.

Design Assurance / NHS Design Assessment Process (NDAP)

52. In regards design assurance, which suggests that someone is independently checking the work of the design team, this does not happen through PPP/NPD model. As the whole point of this model is the transfer of the design risk through the contract. Therefore the only part of the design risk for NHSL would have been the Operational Functionality. Despite reviews undertaken by NHSL and SFT, the design responsibility and risk would sit with private sector partner. SFT did commission an independent design review, which was conducted by Atkins. I was aware of their involvement as per Andrew Scott's email of 23 August 2011 (Bundle 5, doc 6, p.47).

53. The reference design team had an obligation to check the reference design against the applicable guidance. To my knowledge Andrew Duncan at MML sent an email to Thomas Brady at Davis Langdon on 28 February 2012 (Bundle 5, doc 12, p.78) that stated *"There is an action on the Reference design team to confirm that the Reference Design complies with NHS guidance and key legislation. I attach the requirement schedule for each of the Reference Designers to respond to. We require a statement from each designer to confirm that the*

Reference Design complies with the Requirements Schedule. Should it not fully comply then each designer shall confirm that the Reference Design complies with the Requirements Schedule with a schedule of derogations." This email was forwarded on by Thomas Brady at Davis Langdon to the various sub-consultants asking them to provide a statement of compliance. This request was chased up the following day by Andrew Duncan at MML who asked for the statements of confirmation by 5 March 2012. This was again followed up by Andrew Duncan by email on 13 March 2012 (Bundle 5, doc 13, p.80). This in turn led to the derogations list prepared by the sub- consultants, dated 16 March 2012 (Bundle 5, doc 17, p.107).

54. This request was linked to the need for the reference design team to confirm compliance before they were freed up to join bidders (as set out in the Approach to Reference Design document) (Bundle 3, vol.2, doc 68, p.906). I have seen a copy of this compliance statement (dated 16 March 2012) (Bundle 5, doc 17, p.107) as issued via email from the reference design team to MML on 19 March 2012 (Thomas Brady to Andrew Duncan) (Bundle 5, doc 20, p.113). This compliance statement was a joint document from Nightingales, BMJ, Hulley & Kirkwood and Arup.

55. MML asked the reference design team to certify that their design complied, and identify any derogations. This had to be chased up and MML were told it was taking a while, however they did eventually receive certification on 16 March 2012. The designers would all have been responsible for their own design. The reference design team provided a statement of compliance but Project Co (IHSL) would be responsible for the final design since all design risk sits with them (with exception of those elements relating to Operational Functionality).

56. Following on from all of this, towards the end of the project MML requested confirmation from IHSL that the project complied with the relevant SHTMS and there were no derogations. This was provided to MML (via Brian Currie) from Wallace Weir, Project Co representative, on an IHSL headed letter dated 31 January 2019 (Bundle 5, doc 24, p.123) that stated: *"Construction: - All ventilation systems have been designed, installed and commissioned in line with SHTM*

03-01 as required, systems are maintained in such a manner which allows handover at actual completion to meet SHTM 03/01 standards. Operations: - All critical ventilation systems will be inspected and maintained in line with Scottish Health technical Memorandum 03-01: Ventilation for Healthcare premises"

57. I have been asked if a NHS Design Assessment Process (NDAP) assessment took place in respect of this project. MML had no involvement on providing any advice to NHSL in respect of NDAP process. I recollect prolonged discussion between July 2011 and February 2012 as to whether or not a NDAP was to be carried out on the project. The last correspondence I recollect seeing on the matter was an email dated 6 February 2012 from Thomas Brady (Davis Langdon), (Bundle 5, doc 8, p.61), which referred to a meeting between SFT / HfS / A+DS / Scottish Government on 20 January 2012 to discuss the NDAP assessment. From an email I received, dated 06 February 2012, David Stillie, MML, did make me aware that the meeting did take place however no clear way forward had come out of the meeting. He had spoken to Peter Henderson (Architect HFS) on 23 January 2012 who advised that everyone at the meeting appreciated that the project had been reviewed "to death". The next action was for NHSL to agree a final position with SFT and I am not aware what the final position agreed was or whether a NDAP was carried out or not.

58. David Stillie has confirmed he has seen the minutes of meeting, dated 21 February 2012, (Bundle 5, doc 11, p.69) that states *"NDAP Review : MML confirmed that the meeting between SFT/HfS/A&DS/Scottish Government and that no clear way forward came out of the meeting. NHSL to move this forward with SFT."*

59. David Stillie has confirmed on 2 May 2012 he sent an email to Denise Kelly at Davis Langdon on 2 May 2012 (Bundle 5, doc 23, p.121), which stated: *"I have spoken with Peter Henderson at HFS who confirmed that the requirement for NDAP review on NPD projects has still to be discussed with SFT. However, he was of the opinion that, given the review by Atkins at OBC stage, there is no likelihood of further review until at least FBC stage and even that at the moment is doubtful. He agreed to take this up with SFT and A&DS but the focus at the moment*

is on the Community Care Facilities and the NPD Projects have not featured on recent agendas. Not sure this helps us put this to bed!" In response to this Brian Currie at NHSL stated on the same date by return: *"It does align with our own internal discussions with SFT".* (Bundle 5, doc 22, p.119)

60. David Stillie has confirmed the first AEDET review took place on 12 August 2011; item 7.2.2 of the Atkins Repot (Bundle 3, vol.2, doc 57, p.636). A second review took place in March 2012 and David Stillie has a report of that review (Bundle 5, doc 14, p.82). This shows the 16 people involved in the review meeting across NHSL, Nightingale and BMJ along with the results summary.

61. MML did not provide advice on whether an NDAP should take place.

62. I have been asked who had ultimate responsibility for design assurance. It is the IHSL's team's designers who were responsible for their own design assurance. The designers would all have been responsible for their own design. IHSL would be responsible for the final design since all design risk sits with NPD Co (with exception of those elements relating to Operational Functionality).

63. 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: 28/4/22

SCOTTISH HOSPITALS INQUIRY

Witness Statements bundle for the Oral hearing commencing on 9 May 2022