

SCOTTISH HOSPITALS INQUIRY

**Hearing commencing 24 April 2023
Bundle 3 - Invitation to Submit Final Tender (“ISFT”) Documents**

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A bright new future: A project to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France

“Re-provision of RHSC and DCN at Little France”

INVITATION TO SUBMIT FINAL TENDER

Volume 1

Revision A

Contract Notice Ref: 386758-2012 (2012/S 235-386758)

Lothian Health Board

Waverley Gate

2-4 Waterloo Place

Edinburgh

EH1 3EG

www.nhslothian.scot.nhs.co.uk

Issue and Revision Record:

Version	Date	Description
A	16 December 2013	ISFT issue

IMPORTANT NOTICE

The Invitation to Submit Final Tender (the “**Invitation**”) has been prepared for the purpose of providing certain information to Bidders invited to submit their final tenders in the competition for the design, build, finance and maintenance of a project to enable the re-provision of services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France (“**the Project**”).

In no circumstances shall the Board or their advisers, consultants, contractors, servants or agents incur any liability or responsibility arising out of or in respect of the issue of the Invitation.

Nothing in the Invitation shall be construed as legal, financial or tax advice.

Any summaries or descriptions of documents or contractual arrangements contained in any part of the Invitation cannot be and are not intended to be comprehensive, nor any substitute for the underlying documentation (whether existing or to be concluded in the future), and are in all respects qualified in their entirety by reference to them.

No legal relationship or other obligation shall arise between any Bidder and the Board unless and until the NPD Project Agreement has been formally executed in writing by the Board and the successful Bidder and any conditions precedent to its effectiveness have been fulfilled.

In this notice, references to the Invitation shall include all information contained herein and any other information (whether written, oral or in machine-readable form) or opinions made available by or on behalf of the Board, their advisers, consultants, contractors, servants or agents in connection with the Invitation or the Project including, without limitation, any additional information made available by the Board throughout the Dialogue Period.

Scots law shall be applicable to the Invitation and the Scottish Courts shall have exclusive jurisdiction.

Each Bidder's acceptance of delivery of the Invitation constitutes its agreement to, and acceptance of, the terms set forth in this Important Notice.

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1 INTRODUCTION

1.1 Purpose of Invitation to Submit Final Tender

This Invitation to Submit Final Tender (ISFT) is being issued in relation to the Official Journal of European Union (OJEU) notice *ref.386758-2012 (2012/S 235-386758)* published on 5 December 2012. The three Bidders shortlisted by the Board following completion of the Pre-Qualification Questionnaire and subsequent completion of Competitive Dialogue are invited to submit Final Tenders.

The ISFT describes the Board's needs and requirements and sets out how Final Tender will be conducted.

1.2 Structure of the Invitation to Submit Final Tender

The ISFT comprises four volumes of information as follows:

1.2.1 Volume 1 contains background information on the Project, the conditions of participation, Final Tender requirements and how the Board intends to evaluate the Final Tender, award the Project and communicate with Bidders. The requirements are broadly set out in Appendices A, B and C of Volume 1.

1.2.2 Volume 2 contains the contractual requirements which are set out in the NPD Project Agreement and schedules, (which include the draft Payment Mechanism) and Articles of Association and the Final Tender (Bidder Specific) NPD Project Agreement.

1.2.3 Volume 3 contains the specific technical requirements of the Board for the Project including construction (clinical and non-clinical) requirements and Facilities standards, equipping requirements and facilities management requirements.

1.2.4 Volume 4 comprises of details of the Data Room available to Bidders during the Tender Period.

1.3 Definitions within Invitation to Submit Final Tender

1.3.1 In terms of the interpretation of the ISFT, unless the context otherwise requires:

- (a) The masculine includes the feminine and vice-versa;
- (b) The singular includes the plural and vice versa;
- (c) The words "include" and "including" shall be construed without limitation;
- (d) Any reference to a person includes a reference to an individual, company, authority, board, association or other legal entity;
- (e) Any reference to any directive, statute or statutory provision shall include any directive, statute, or statutory provision which amends or replaces or has amended, replaced consolidated or re-enacted it and shall include any subordinate legislation made under any directive or statute;
- (f) Save as otherwise provided herein, any reference to a Volume shall be a reference to a Volume of the ISFT to; and

(g) Save as otherwise provided herein, any reference in this Volume 1 to a section shall be a reference to a section of this Volume 1.

1.3.2 The terms used in these instructions to Bidders shall, where the same have been defined in the NPD Project Agreement, bear the same meaning as in the NPD Project Agreement unless otherwise defined hereunder:

Additional Documentation Submission has the meaning given to it in Appendix C (ii) of Volume 1 of the ISFT;

Ancillary Agreements means the Memorandum and the Articles of Association;

Annual Service Payment has the meaning given to it in the NPD Project Agreement;

Bidder means each of

- B3;
- Integrated Health Solutions (Lothian) ; *and*
- Mosaic

and **Bidders** shall be construed accordingly;

Bioquarter Site has the meaning given to it in the NPD Project Agreement;

Board has the meaning given to it in the NPD Project Agreement;

Board's Construction Requirements has the meaning given to it in the NPD Project Agreement;

Board Services has the meaning given to it in the NPD Project Agreement;

CAMHS means the Child and Adolescent Mental Health Service currently provided from the Royal Edinburgh Hospital, Morningside Place, Edinburgh.

Campus Facilities has the meaning given to it in the NPD Project Agreement;

Campus Site has the meaning given to it in the NPD Project Agreement;

Certificate of Non-Collusion and Non-Canvassing means the certificate of that name set out in Appendix H of Volume 1 of the ISFT;

CEC means the City of Edinburgh Council;

City Development means the department of City Development within the City of Edinburgh Council;

Conject means the Conject information channel, , provided by Conject Ltd, a web based construction collaboration portal utilised on the project by the Board.

Conject User Manual means the user manual for Conject set out in Volume 4 of the ISFT;

Consort has the meaning given to it in the NPD Project Agreement;

Core Evaluation Team means the principal assessment body for procurement, for Pre-Qualification Questionnaire, Dialogue and evaluation of the Final Tender;

Data room means the secure electronic data storage room that will be provided via Conject;

DCN means the Department of Clinical Neurosciences currently provided from the Western General Hospital on Crewe Road South, Edinburgh;

Dialogue Period Bulletin means a communication during the Final Tender Period of that name described in paragraph 4.5.2 (Communication Protocol) of Volume 1 of the ISFT;

Dialogue Period Query means a communication during the Final Tender Period of that name described in paragraph 4.5.2 (Communication Protocol) of Volume 1 of the ISFT;

Dialogue Period Query Proformas means the document provided within Appendix D of Volume 1 of the ISFT;

Draft Final Tender means the submission made by a Bidder during the Dialogue Period in accordance with Appendices A, B and C of Volume 1 of the ITPD;

Draft Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ISFT;

Enabling Works has the meaning given to it in paragraph 2.7.5 (Enabling Works) of Volume 1 of the ISFT;

Economic Cost has the meaning defined in paragraph 5.7.1 (Economic Cost) of Volume 1 of the ISFT;

Energy Centre means a dedicated autonomous energy centre to be provided as part of the Project;

Expiry Date has the meaning given to it in the NPD Project Agreement;

Environmental Matrix means the matrix contained in ISFT Volume 3, Schedule Part 6, Section 3, Appendix C;

Equalisation Adjustment has the meaning described at paragraph 5.7.1 (c) (Economic Cost) of Volume 1 of the ISFT;

Equipment Schedule means the document named such in Volume 3 of the ISFT;

Equipment Responsibility Matrix means the document named such in Volume 3 of the ISFT;

Facilities has the meaning given to it in the NPD Project Agreement;

Family Hotel has the meaning given to it in Schedule Part 6, Section 3, Sub-section D (Specific Clinical Requirements);

FOISA has the meaning given to it in the NPD Project Agreement;

Full Business Case or FBC means full business case of the Board;

Financial Close has the meaning given to it in the NPD Project Agreement;

Financial Model means an electronic model used for the purposes of this procurement as produced by a Bidder in support of the Bidder's Financial Submission (or by the Board in the case of the Shadow Bid Financial Model), having the attributes defined at paragraph 3.9 of this document;

Financial Proformas means the contents of Appendix B (ii) of Volume 1 of the ISFT;

Financial Submission means the elements of a Bidders proposals relating to financial issues as defined in Appendix B of Volume 1 of the ISFT and as relating to the Final Tender

Final Tender means a submission made by a Bidder in response to an Invitation to Submit Final Tender;

Final Tender (Bidder Specific) NPD Project Agreement means the Bidder specific NPD Project Agreement agreed with each Bidder during the Dialogue Period;

Final Tender Period means the period between the date of issue of the ISFT and the date of the Final Tender;

Generic Rooms has the meaning given to it in paragraph 2.5.2 (Room Layouts) of Volume 1 of the ISFT;

GICs means guaranteed investment certificates

Group 1 Equipment has the meaning given to it in the NPD Project Agreement;

Group 2A Equipment has the meaning given to it in the NPD Project Agreement;

Group 2B Equipment has the meaning given to it in the NPD Project Agreement;

Group 3 Equipment has the meaning given to it in the NPD Project Agreement;

Gross Internal Floor Area means the area of a building measured to the internal face of the perimeter walls at each floor level. The rules of measurement of gross internal floor area are defined in the latest edition of the RICS Code of Measuring Practice;

Hard FM has the meaning given to it in paragraph 2.11 (Facilities Management: Services to be provided by Project Co) of Volume 1 of the ISFT;

Helpdesk has the meaning given to it in the Service Level Specification contained in Volume 3 of the ISFT;

Indicative Elements of the Reference Design has the meaning given to it in paragraph 2.6 (Indicative Elements of the Reference Design) of Volume 1 of the ISFT;

Information Provided means the information provided to the Bidders by the Board or its advisers during the Final Tender Period;

Interface Proposals has the meaning given to it in the NPD Project Agreement;

Invitation to Participate in Dialogue or ITPD means the document(s) issued on the 11th March 2013 to successful PQQ candidates

Invitation to Submit Final Tender or ISFT means this document as more particularly described in paragraph 4.1 of Volume 1 of the ISFT as updated by the Board from time to time and issued by the Board to any shortlisted Bidders inviting them to submit their Final Tender;

IRR means internal rate of return;

Key Rooms has the meaning given to it in paragraph 2.5.2 (Rooms Layouts) of Volume 1 of the ISFT;

Key Stage Review the validation to be carried out by the Scottish Futures Trust on behalf of the Scottish Government at key stages of the procurement process;

Link Building has the meaning given to it in the NPD Project Agreement;

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 ISFT;

Medical School means the University of Edinburgh Medical School, Chancellor's Building, 49 Little France Crescent, Edinburgh, EH16 4SB;

MLA means mandatory liquid assets;

NPD means non-profit distributing;

NPD Articles of Association means the mandatory articles of association of Project Co, which are prescribed by the SFT;

NPD Model means the non-profit distributing model ascribed by the Scottish Government which represents a development of the traditional PFI model;

NPD Project Agreement means either the base NPD Project Agreement and/or the Final Tender (Bidder Specific) NPD Project Agreement (as the context requires), both as more fully described in paragraph 3.3, as set out in Volume 2 of the ISFT and issued to each Bidder as part of the ISFT;;

NPV means net present value;

OBC means Outline Business Case of the Board relating to the Project;

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 in the Reference Design;

- (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 in the Reference Design;

- (c) the quantity, description and areas (in square metres) and minimum critical dimensions of those rooms and spaces shown on the Draft Schedule of Accommodation, excluding Project Co spaces;
- (d) the location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal elevations; and
- (e) the location of and the inter-relationships between rooms within the departments within the Facilities, as indicated in the Reference Design;

but only insofar as each of the matters listed in (a) to (e) above relate to or affect Operational Use (with the exception of Non-Clinical Services);

Operational Use means the use of a room or space to the extent that it is used by the Board or its employees, tenants, agents and/or contractors (but not to avoid doubt Project Co staff) for carrying out the Board Services;

Payment Mechanism has the meaning given to it in the NPD Project Agreement;

Non-Clinical Services has the meaning given to it in the NPD Project Agreement;

NPD Project Agreement Submission has the meaning given to it in Appendix C(ii) of Volume 1 of the ISFT;

Petrol Station Site has the meaning given to it in the NPD Project Agreement;

Plan 2 has the meaning given to it in the NPD Project Agreement;

Plan 4 has the meaning given to it in the NPD Project Agreement;

Planning Permission in Principle or PPIp means planning permission in principle granted to the Board by CEC in relation to the Site;

Preferred Bidder means the Bidder identified by the Board after evaluation of each of the Final Tenders with which the Board wishes to enter into the NPD Project Agreement;

Pre-Qualification Questionnaire means the document of that name issued on 5 December 2012;

Price Evaluation means the process set out in paragraph 5.7 (Price Evaluation) of Volume 1 of the ISFT;

Price Evaluation Mark has the meaning given to it in paragraph 5.7.2 (Price Evaluation Mark) of Volume 1 of the ISFT;

Project has the meaning given to it in the NPD Project Agreement;

Public Interest Director has the meaning given to it in paragraph 3.2.1(b) (Public Interest Director) of Volume 1 of the ISFT;

Quality Evaluation Mark has the meaning given to it in paragraph 5.6.3 (Quality Evaluation Criteria) of Volume 1 of the ISFT;

Reference Design means the preliminary designs prepared by the Board and their advisers and contained in the Data Room;

Reference Design Elements means the documents referred to within Appendix E of Volume 1 of the ISFT;

Reference Design Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ISFT;

Regulations mean The Public Contracts (Scotland) Regulations 2012;

RIE Facilities has the meaning given to it in the NPD Project Agreement;

RIE Project Agreement has the meaning given to it in the NPD Project Agreement;

Royal Hospital for Sick Children and Department of Clinical Neurosciences means the premises and associated infrastructure proposed to be constructed as part of the Project and includes CAMHS;

RHSC means the Royal Hospital for Sick Children currently located at 9 Sciennes Road, Edinburgh EH9 1LF;

Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ISFT;

Schedule of Operational/Design Notes means document contained in Volume 4 of the ISFT (Data Room);

Service Strip has the meaning given to it in the NPD Project Agreement;

SFT means the Scottish Futures Trust;

SFT's Standard Form NPD Project Agreement means the form of project agreement issued by SFT in June 2012, and as amended by SFT from time to time;

Site Survey means the survey of the Site procured by the Board and set out in paragraph 2.16 (Surveys and Dialogue Period Ground Investigations) of Volume 1 of the ISFT;

Soft FM Interface Specification means the specification contained in Volume 3 of the ISFT, Part 6, Section 3;

Solution means a solution developed by each Bidder in regard to the Project during the Dialogue Period;

Submission means the Final Tender Submission

Surplus has the meaning given to it in the NPD Project Agreement;

Technical Cost Proformas means the proformas included in Appendix A (v) of Volume 1 of the ISFT;

Tender Period means the Final Tender Period;

User Guide means the SFT user guide in relation to standard project agreements (hub DBFM and NPD Model); version 2 dated June 2012 as amended from time to time;

VAT means value added tax;

VFM means value for money;

VIE means vacuum insulated evaporator.

1.4 Overview of Project

The Project shall be to design, build, finance and maintain a new facility to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France.

In accordance with the Scottish Government's NPD initiative, the Board is seeking to procure a partner who will form a NPD company (the "**Project Co**") for the delivery of the Project. With the completion of the Dialogue Period, the Board is now issuing this ISFT.

The Project shall be based at the Campus Site. The Campus Site shall comprise the Retained Site (i.e. the site of the existing hospital and university buildings) and the Site (i.e. the site for the new Facilities) together with the Retained Estate (i.e. the existing hospital and university buildings) and the Facilities (i.e. the new hospital). The Retained Estate and Retained Site form part of an earlier PFI project entered into between the Board and Consort in 1998. Consort therefore operate (on behalf of the Board) the Retained Estate and the Retained Site.

The intention is that the Project shall construct standalone Facilities on the Site within the Campus Site at Little France as far as is practically possible. However, there shall be a physical link between the Facilities and the Retained Estate via a Link Building between the Facilities and the RIE Facilities at ground and first floor levels.

The Project will co-locate services currently provided at the RHSC located at Sciennes Road, Edinburgh, CAMHS at the Royal Edinburgh Hospital and DCN at the Western General Hospital, Edinburgh. Planning Permission in Principle has been received in respect of the Project.

This Project is regulated and governed by the Public Contracts (Scotland) Regulations 2012 and any contract awarded shall be to the Bidder who can offer the most economically advantageous tender in accordance with the Dialogue procedure.

1.5 Project Objectives and Drivers

1.5.1 The Board has developed a strategic clinical framework to underpin its approach to delivering Scotland's vision for sustainable, quality health care services and a healthier future for everyone.

The framework sets out the Board's principles for planning and delivering services and care in Lothian, and identifies how, through integrated working with partners and redesigning service around and with people, the Board will promote good health and deliver safer, more effective, person-centre healthcare.

The key principles are to:

1. focus on prevention and early intervention to help people keep well and anticipate care needs;
2. take a whole system approach to planning and managing integrated pathways of care, working with partner agencies in local authorities and voluntary sector;
3. reduce unnecessary variation in the way patients are cared for;
4. deliver services with the appropriate mix of staff skills, ensuring viable clinical staff rotas;
5. reduce spend on property and buildings as hospital stays reduce, to release money for direct patient services;
6. question active treatment which will not extend life or quality of life;
7. identify services that are not sustainable in the longer term and proactively plan a new way of delivering care;
8. make sure we stop procedures and treatments which add no clinical value; and
9. maximise the opportunities for use of new technologies to support health and healthcare.

The framework focuses on six strategic aims:

1. prioritise prevention, reduce inequalities and promote longer healthier lives for all;
2. put in place robust systems to deliver the best model of integrated care for our population – across primary, secondary and social care;
3. ensure that care is evidence based, incorporates best practice and innovation, and achieves sustainable care pathways for patients;
4. design healthcare systems to reliably and efficiently deliver the right care at the right time in the most appropriate setting;
5. involve patients and carers as equal partners, enabling individuals to manage their own health and wellbeing and that of their families; and
6. use resources – skilled people, technology, buildings and equipment - efficiently and effectively.

1.5.2 The Board is committed to increasing social capital and addressing inequalities, deriving benefit for the communities, such as through proactive application of community benefits clauses in its procurement processes.

1.5.3 Specific factors driving the need for change in children's and young people's services and clinical neurosciences are:

- (a) The age and limitations of the current premises;
- (b) The increase in age range of patients to be seen in the RHSC, up to age 16 years old, or 18 in some specialities.
- (c) The need to deliver sustainable specialist services whilst meeting the challenge of relatively small numbers of patients and small numbers of clinical experts;
- (d) The national policy for Paediatric Intensive Care Units in Scotland, which have been commissioned under NHS National Services since 2007, sited in two hospitals for children and young people;
- (e) The need to deliver neurosurgery on the same site as adult and children's emergency departments; and
- (f) The need to maintain strong links with the University of Edinburgh's Division of Clinical Neuroscience and their planned Institute of Neuroscience at Little France.

1.5.4 Clinical benefits of integrating the services into one building, supporting the Board's and national strategic ambitions include:

- (a) The ability to deliver paediatric and adult neurosurgery in the same theatre suite, maximising the utilisation of specialist equipment (e.g. intra-operative MRI) and expert staff, with direct internal access to age-appropriate critical care and wards;
- (b) Mental health services on the same site as acute hospital services for children and young people, supporting their physical as well as psychological care;
- (c) Joint-working and economies of scale in high-cost specialist clinical areas such as theatres and radiology; and
- (d) The opportunity to improve emergency access to services by incorporating a helipad on the roof of the Facilities.

1.6 Project Governance

1.6.1 The terminology used to describe project governance arrangements is as defined by the "Scottish Capital Investment Manual Programme and Project Organisation Guide".

1.6.2 The Investment Decision-Maker is Lothian Health Board, which is ultimately accountable for the Project.

1.6.3 The Board's Finance and Resources Committee (F&RC) has established a Project Steering Board, chaired by the Project Owner, who is NHS Lothian's Director of Finance.

1.6.4 The Project Owner has the executive responsibility for decision-making relating to the project. All decisions must be consistent with Board strategies, policies and procedures and delegated budgets or in line with any agreed derogations.

1.6.5 The Project Director has responsibility for delivering the project within the governance parameters set out.

1.6.6 The Project Steering Board remit shall be:

- To assist the Project Owner and Project Director in the decision-making process for issues relating to the Project;
- To support the Project Owner and Project Director in preparing submissions to the F&RC, to satisfy that Committee's assurance needs on governance and internal control and monitoring of key performance milestones;

- To serve as the Capital Management Group, with delegated authority to approve capital enabling works for the Project up to £250k, and will be the first place to review schemes higher than £250k; and
- To be the arbiter of matters arising from the implementation of the Project Design and the Strategic Delivery Programme.

1.6.7 Project Steering Board Membership:

- Project Owner (chair)
- Project Director
- Medical Director
- Non-executive member(s) of Lothian NHS Board
- Director of Operations for children's services and neuroscience services
- Project Clinical Director
- Director of Capital Planning and Projects
- Project Head of Commissioning and Service Redesign
- Head of Communications
- Employee Director
- A representative from the South-East & Tayside Regional Planning Group (SEAT)
- A representative from the Scottish Government
- A representative from the Scottish Futures Trust

1.6.8 The Project Director is supported by a project team comprising clinical experts and experienced NHS managers from capital planning, service management, finance and communications. Staff representation is fully integrated into the project with a full-time Partnership member of the team.

1.6.9 The Board's team are supplemented by specialist expertise from external financial, legal and technical advisers.

1.7 Programme

The following table sets out the key target milestones for the Project.

Task	Date
Invitation to Submit Final Tenders	16/12/13
Final Tender submission	13/01/14
Identify Preferred Bidder	17/03/14
Commercial and Financial Close	02/10/14
Construction commences	03/10/14
Completion date (target)	17/02/17
Hospital opening date	15/05/17

2 TECHNICAL OVERVIEW

2.1 Introduction

This section provides an overview of the technical requirements of the Project. In relation to all technical information provided by the Board, the Board reserves the right to amend all such information during the Final Tender, including without limitation the Mandatory Reference Design Requirements, Board's Construction Requirements and Equipment provisions.

2.2 The Site

The planned location for the new Facilities is at Little France, in the south east of Edinburgh, home to the RIE Facilities and the University of Edinburgh Medical School and adjacent to the Edinburgh Bioquarter Site development.

The site is bounded on the north by the Medical School, on the east by the RIE Facilities, to the south by existing residential buildings on Old Dalkeith Road and to the west by the Queen's Medical Research Institute and the main entrance road serving the Campus Site at Little France.

Also to the west of the Campus Site is an area of rising ground which slopes up to Craigmillar Castle. The view from the south-east over the site to the castle, with Arthur's Seat in the distance, is considered by City of Edinburgh Council (CEC) to be an important view on the southern approach to the city. The Site of the new Facilities is wholly within the red line boundary set out in Plan 1.

2.2.1 The Royal Infirmary of Edinburgh

The RIE Facilities is a major acute teaching hospital and has more than 900 inpatient beds. As described above the RIE Facilities were procured under a PFI contract between the Board and Consort in 1998 and was opened in 2003.

It is home to Scotland's busiest maternity unit – some 6000 babies are born at the RIE Facilities' "Simpson Centre for Reproductive Health" each year – and to Scotland's busiest emergency department.

With a 24-hour emergency department, it provides a wide range of acute medical and surgical services for patients from across the Lothian region and specialist services for people throughout the south east of Scotland and beyond.

2.2.2 University of Edinburgh

The Chancellor's Building, adjoining the RIE Facilities, is part of the University of Edinburgh Medical School and houses teaching facilities, the medical library and research laboratories. It is currently home to the Multiple Sclerosis and Euan MacDonald Motor Neurone Disease research centres. The Chancellor's Building was constructed by Consort under the terms of the RIE Project Agreement.

The University opened its Queen's Medical Research Institute in 2005 which represented a major milestone in the history of biomedical research in Edinburgh. The Queen's Medical Research Institute houses over 600 researchers and aims to tackle a wide range of diseases at the most fundamental cellular level. Facilities include MRI and other modern imaging technologies and supporting infrastructure.

The University's Scottish Centre for Regenerative Medicine was opened in the Edinburgh Bioquarter Site in 2011. The Anne Rowling Building is the most recent addition to the University's facilities and lies between the Chancellor's Building and the site proposed for the new Facilities

2.3 Stand Alone Requirements

Subject to Clause 9 (Nature of Land Interests) including without limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement, Appendix A of the Board's Construction Requirements and/or the Interface Proposals all buildings, facilities, services and associated works required to deliver the Project shall be contained within the Facilities and/or the Site and shall not be reliant upon any other buildings, facilities or services on the Retained Facilities and/or Retained Site (the "**Stand Alone Requirements**"). For the avoidance of doubt the following dedicated and autonomous elements shall be provided on the Site as part of the Project;

- (a) an Energy Centre;
- (b) the FM goods service yard; and
- (c) Hard FM spaces.

2.4 Design and construction elements

2.4.1 Overview

The specific requirements for the Facilities to be provided are set out in the Board's Construction Requirements. This comprises: -

- General Requirements;
- Specific Clinical Requirements; and
- Specific Non-Clinical Requirements.

The Board's Construction Requirements are set out in Section 3 of Volume 3 of the ISFT and will ultimately form Section 3 of Schedule Part 6 (Board's Construction Requirements) of the NPD Project Agreement.

Using the work undertaken to date, the Board is seeking innovative proposals to meet its requirements.

The focus must be on providing age appropriate Facilities in a safe, caring and healing environment. This includes suitable Facilities for babies and young children, an adolescent inpatients zone, and accommodation for the adult population of DCN.

Areas for children, young people and adults should have their own identity within the integrated Facilities. At all times, the ethos, environment and needs of these different specialist areas has been considered in planning departmental relationships and patient pathways and this must be maintained.

Effective delivery of clinical services relies on close adjacencies between related specialties and disciplines. The design brief specifies that routes between departments should minimise travel time and distances for patients and staff in order to maximise clinical safety and efficiency.

The design will incorporate clearly identifiable, friendly and secure children's entrances to their outpatient and ward areas. There will be a separate main entrance to the DCN facilities. Recreation space and public facilities outside the wards will also be segregated as far as is practical.

The Board welcomes and will encourage Bidders to bring innovation, and expertise from within the UK and/or overseas to develop their own design proposals but it should be noted that certain elements of the design as they relate to aspects of Operational Functionality are mandatory, as described below and in Appendix E (Reference Design Elements) of Volume 1 of the ISFT.

2.4.2 Facilities to be provided

Facilities required for the Project include:

- (a) inpatient wards;
- (b) day case facilities;
- (c) outpatient clinics;
- (d) emergency department;
- (e) operating theatres;
- (f) radiology and physiology departments;
- (g) rehabilitation facilities;
- (h) laboratory facilities;
- (i) support department;
- (j) roof top helipad; and
- (k) dedicated energy centre and goods delivery yard.

2.5 Reference Design and Mandatory Reference Design Requirements

The use of Reference Design in NPD projects is being promoted by the SFT and the Scottish Government.

A Reference Design for the Project has been developed and comprises mandatory elements and indicative elements. Procurement is proceeding on the basis of a Reference Design that the Board spent some time developing with significant clinical and stakeholder input prior to commencement of the Procurement. However, as set out in the ITPD, the Board reserves the right to amend the technical information provided. That Reference Design comprises mandatory elements and indicative elements.

The mandatory elements of the Reference Design (the “**Mandatory Reference Design Requirements**”) are those elements of the Reference Design relating to Operational Functionality. The definition used in the NPD Project Agreement is being applied to define the agreed Operational Functionality included in the Reference Design and is generally set out in the following constituents of the Reference Design:

- 1:500 Departmental Adjacency Layouts;
- 1:200 Departmental Layouts; and
- 1:50 Generic and Key Room Layouts.

Other areas of Operational Functionality are contained in other components within the Reference Design. Full details of the Mandatory Reference Design Requirements are set out in Appendix E (Reference Design Elements).

Bidders are required to develop design proposals which comply with the Mandatory Reference Design Requirements.

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.

The Board will consider, and may accept, changes to the Mandatory Reference Design Requirements (i.e. those elements relating to Operational Functionality) where a Bidder considers that those Mandatory Reference Design Requirements are not capable of meeting the Board's requirements (as described in paragraph 5.2.2 of Volume 1 of the ITPD).

Bidders are reminded of the definition of Operational Functionality which is the process to be adopted by Bidders in this regard is as follows:

- in the event that a Bidder considers that the Board's requirements cannot be delivered as a result of a specific Mandatory Reference Design Requirement, then the Bidder should notify the Board as to the specific element of the Reference Design where this is the case. Bidders must explain why the Board's requirements cannot be delivered and provide supporting information. In addition, alternative design proposals to comply with the Board's requirements shall be submitted by the Bidders as part of their Informal Submission for the next Dialogue Meeting;
- the Board will review whether they agree that the Reference Design does not comply with the Board's requirements and if so whether the alternative design proposals are acceptable (or any comments they have on the alternative design proposals);
- the Board will confirm to the relevant Bidder whether they agree and, if so, any comments the Board have on the alternative design proposals. In the event that this is agreed then the mandatory status of this element of the Reference Design will be relaxed.

The Board confirms that the drafting in the ITPD around Operational Functionality is not intended to mandate elements of the Reference Design which demonstrably do not affect or impact Operational Use (excluding Non-Clinical Services). For example, this would mean that consequential adjacencies could be amended. Consequential adjacencies are those adjacencies which occur in the Reference Design but not for any intentional operational reason.

For the avoidance of doubt, Bidders are advised that the Board shall be entitled to reject any proposed change which it considers does affect Operational Use (excluding Non-Clinical Services).

Following completion of the Reference Design some further adjustments were developed by the Board. These are set out in the Schedule of Proposed Adjustments contained in Volume 4 of the ISFT. Bidders are expected to incorporate these adjustments in their Final Tender. Bidders are required to provide a full breakdown of all costs (capex and opex) relating to item U1 "RHSC Specialist Paediatric Biochemistry Laboratory" included in the schedule.

2.5.1 Schedule of Accommodation and Reference Design Schedule of Accommodation

A schedule of accommodation has been developed by the Board to meet their requirements (the "**Draft Schedule of Accommodation**"). During the Dialogue Period a separate Draft Schedule of Accommodation was issued for the RHSC Specialist Paediatric Biochemistry Laboratories. While the Draft Schedule of Accommodation is not mandatory in itself, the areas set out within them are considered to be minimum areas. These minimum areas will only apply to elements which affect the Operational Functionality and Non-Clinical Services areas. Areas such as service spaces (including risers) and Hard FM spaces will be for the Bidders to determine since responsibility and risk for these non operational spaces will ultimately rest with Project Co.

A further schedule of accommodation is included as part of the Reference Design; this has been developed based on the room areas achieved, as drawn, in the Reference Design (the "**Reference**

Design Schedule of Accommodation”). Bidders are required to meet the minimum floor areas specified in the Draft Schedule of Accommodation however the Reference Design Schedule of Accommodation contains rooms where the area is less than the minimum requirements set out in the Draft Schedule of Accommodation. If Bidders cannot achieve the minimum floor areas for these rooms then it is acceptable, subject to agreement with the Board, for the rooms to be provided at the size achieved in the Reference Design. For the avoidance of doubt this will only apply to those individual rooms and not rooms of the same type or designation.

Bidders will be expected to develop a schedule of accommodation which will form part of their proposals (the “**Schedule of Accommodation**”). The basis of measurement of floor areas within that schedule shall be as set out in SHPN 04-01, Adult Inpatient Facilities, Figure 12: Diagram indicating communication, circulation and net floor areas.

This is considered by the Board to be an integral part of compliance with Quality Evaluation Criteria C12 and Bidders are required to confirm that the net areas within their designs have been measured in accordance with that SHPN.

Notwithstanding the foregoing, it has been agreed that the net area of Bedrooms within the Family Hotel will include the short length of entrance hall which gives access to the En-suite facilities.

Circulation and communication space indicated in the Reference Design is also considered to be indicative but any corridor widths specified will be treated as minimum requirements. This is also outlined paragraph 5.10 (Corridor Widths and Heights) of the Board’s Construction Requirements. Therefore minimum corridor widths set out in the Reference Design are considered to be Mandatory Reference Design Requirements.

Any courtyards and terrace spaces are to be treated as communications spaces. These should be indicated on the Schedule of Accommodation submitted by Bidders but excluded from the measure of Gross Internal Floor Area.

2.5.2 Room Layouts

The 1:50 layout drawings included in the Reference Design cover the generic and key rooms only. Generic rooms are those rooms that are replicated more than four times across the Facilities (“**Generic Room**”). Key rooms are those that have critical operational requirements which the Board has identified for more detailed consideration and development at this early stage (“**Key Room**”). These include major spaces in the emergency department, operating theatre, radiology and outpatients departments. There are:

- 1839 rooms in total;
- 222 are covered under 88 Key Room types; and
- 756 are covered by 31 Generic Room types.

The Reference Design is developed in full at 1:500 and 1:200 scales. At 1:50 scale, where individual room layouts are detailed, the coverage is 53% of the total number of rooms (equating to 43% of the net floor area).

During Dialogue Bidders were required to develop 1:50 layout drawings for a selection of rooms. The Preferred Bidder will be required to develop 1:50 layout drawings for all remaining rooms prior to Financial Close.

2.5.3 Room Data Sheets

Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the “**Room Information**”) are detailed in a combination of the following documents:

- The Board’s Construction Requirements;
- The Environmental Matrix;
- The Schedule of Operational Design Notes;
- The Equipment Schedule;
- The Equipment Responsibility Matrix;
- The Draft Schedule of Accommodation; and
- The Operational Functionality elements of the Reference Design.

Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings were prepared in dialogue, as well as all Key Rooms and Generic Rooms. The Room Data Sheets will form part of the Bidders proposals.

The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close.

2.6 Indicative Elements of the Reference Design

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 Elements).

2.7 Interface and Enabling Works

Introduction

The section is an overview of:

1. General background and information about the Works – see paragraph 2.7.1;

2. Works to be designed, constructed and replaced, repaired, renewed and maintained by Project Co as part of the Project. Sometimes these works are on the Site or on the RIE Site or Campus Site or even off the Campus Site – see paragraphs 2.7.2 and 2.7.3;
3. Works to be designed and constructed by Project Co as part of the Project but not intended to be replaced, repaired, renewed and maintained by Project Co – see paragraph 2.7.4;
4. Works which are being carried out by others and not intended to form part of the Project but are taking place at the Campus Site or off the Campus Site but which are nevertheless pertinent to the operations at the Campus Site as a whole – see paragraph 2.7.5;

2.7.1 General information relevant to the Works

The permanent and temporary Works and all construction operations for the Project should, save where expressly provided otherwise, generally be designed and constructed to enable them to be carried out and where appropriate replaced, repaired, renewed and maintained on and from within the Site.

The Site is part of the Campus Site and Project Co has to be aware of and plan and programme the Works having regard to the other activities and operations ongoing at the Campus Site.

At some points it may be necessary temporarily for Project Co to enter or have access across other parts of the Campus Site for construction activities and the Board has secured a number of rights for Project Co in respect of such other parts of the Campus Site.

As well as operations on the Site, Project Co will be entitled to use Car Park E for a site compound during the Construction Phase for the Works, subject to a number of restrictions on use as detailed in Section 3 (Site Compound/Car Park E) of Appendix A of the Board's Construction Requirements and Clause 9 (Nature of Land Interests) including with limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement. Further, in the event any activities on the Site involve oversailing any part of the Retained Site and/or the Retained Facilities then Project Co will require to develop an Oversail Strategy as detailed in Section 4 (Oversail) of Appendix A of the Board's Construction Requirements.

Where any construction and/or replacement, repair, renewal or maintenance activities are permitted at the Campus Site but off the Site then these activities are restricted to and must be carried out in accordance with the rights secured for such activities which rights are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement and such rights are subject to a number of conditions being met which conditions are further detailed in Appendix A (Interface with Campus Site and/or Campus Facilities) of the Board's Construction Requirements. Further restrictions on conditions and other information governing design, construction and replacement, repair, renewal and maintenance activities are detailed in the Board's Construction Requirements and Services Requirements.

Bidder should refer to section C (iv) on Interface Proposals.

2.7.2 Links with RIE

(a) Link Building

As set out in paragraph 2.3 (Stand Alone Requirements) the new Facilities shall be delivered as a standalone new build. However, the Facilities will be physically linked to the RIE Facilities at ground

and first floor levels. The part of the RIE Facilities to which the Facilities will be linked is called the Link Building.

The Link Building is being constructed as part of the key enabling works described in paragraph 2.7.5 (Enabling Works). Its construction is not intended to be part of the Project and it is intended to be completed prior to the Works commencing on Site. The Link Building shall ensure improved clinical functionality and service delivery, particularly between the emergency departments, operating theatres and critical care departments in the RIE Facilities and the Facilities. Project Co will be responsible for designing and constructing the Facilities to physically link to the RIE Facilities at the Link Building interface point as set out in Appendix B (Interface Output Specification) of the Board's Construction Requirements.

(b) RIE Works within the Campus Site but outside the Site boundary and maintained by Project Co

There shall also be building services links between the new Facilities and the RIE Facilities in respect of building services and other connections in terms of: -

- infrastructure associated with ICT;
- a pneumatic tube system (PTS);
- fire alarm system; and
- surface water drainage connections.

A new PTS will be designed and built which will run from the Facilities to the pharmacy and laboratories within the RIE Facilities. An ICT system will be designed and built which will run from the Facilities to link to the Board's ICT equipment/systems within the RIE Facilities. The Board will advise Project Co of the route for the PTS and ICT within the RIE Facilities. The Board will procure that Project Co will be given access to the RIE Facilities for the installation of the PTS and ICT and Project Co will be responsible for replacing, repairing, renewing and maintaining the PTS and ICT which have been installed as part of the Works. The Board will procure access for constructing, replacing, repairing, renewing and maintaining, PTS and ICT within the RIE Facilities, such rights of access are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement but are subject to design, construction and other information being provided to and approved by the Board and Consort about the PTS and ICT systems as detailed in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see sections Appendix A of the Board's Construction Requirements.

The fire system for the Facilities will have to be designed and constructed and replaced, repaired, renewed and maintained such that they will be connected to, communicate and operate with the fire system at RIE Facilities. It is envisaged that such connections and a control box will be proximate to or within the Link Building. The rights to make and replace, repair, renew and maintain such connections are subject to design, construction and other information being provided to and approved by the Board and Consort about the fire system for the Facilities as detailed in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see paragraph 4 of the Board's Construction Requirements.

(c) Service Strip / Foul Drainage

There may also be connections into some existing infrastructure for foul drainage. If Project Co requires to connect the foul drainage systems for the Facilities into the existing foul and surface

water drainage systems for RIE Facilities then foul drainage systems must be designed and constructed by Project Co such that they may be connected to foul drainage systems only at the agreed connection points in the Initial Drainage Proposal or within the Foul Service Strip shown shaded yellow and hatched black on Plan 2A serving the RIE Facilities. The Board will procure that Project Co will be given access to specified places and connections points on the RIE Site. Project Co will be responsible for replacing, repairing, renewing and maintaining the foul drainage systems serving the Facilities and the connections. The Board will procure access for Project Co constructing, replacing, repairing, renewing and maintaining the foul drainage systems serving the Facilities and connections as are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement, but are subject to design, construction and other information being provided to and approved by the Board and Consort about the foul drainage systems serving the Facilities as detailed in Section 6 (Service Strip and foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see paragraphs 4, 6 and 8 of the Board's Construction Requirements and the Initial Drainage Proposal

A list of Interface Proposals from Bidders is required for those elements of the new Facility which will have to interface with the existing RIE Facilities and infrastructure serving RIE. These are detailed in Appendix A of the Board's Construction Requirements and summarised in Appendix C (iv) (Interface Proposals) of Volume 1 of the ISFT.

As regards design and construction of any electrical, gas and water connections these must all be independent services serving the Facilities and are not intended to connect into any such services serving RIE Facilities or the rest of the Campus Site and/or Campus Facilities. However wherever any such services have to be installed on the RIE Site, the locations for such services are restricted to certain areas, including the Service Strip which is shown shaded yellow and hatched black on Plan 2. Project Co will be responsible for design and construction and replacing, repairing, renewing and maintaining such services serving the Facilities. The Board will procure for Project Co access for such rights of access for constructing replacing, repairing, renewing and maintaining such services as are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement but are subject to design, construction and other information being provided to and approved by the Board and Consort about the services as detailed in Section 6 (Service Strip and Foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix. For more information about these systems please also paragraphs 4, 6 and 8 of the Board's Construction Requirements.

2.7.3 Other Works outside Campus Site

The Board has identified other works (the Off Site Works on the Bioquarter Site) which will be required to be carried out, by Project Co, outwith the Campus Site. This may include the provision of a dedicated Scottish Power Substation for the Project which may be located adjacent to Car Park F at the Campus Site in the area outlined in blue on Plan 4 although Project Co is invited to suggest alternative locations for any suitable power source outwith the Campus Site. If required, access to the Substation, if constructed adjacent to Car Park F detailed above, for construction and ongoing maintenance may be via the area shaded blue and hatched black on Plan 4. The cable route to the Facilities will be agreed with the Board and must enter the Site via the Service Strip (shown shaded yellow and hatched in black on Plan 2) and the cable route may not cross the RIE Site at any other point.

2.7.4 Retained Estate Handback Infrastructure

The Board has identified the following RIE Works which will be required to be carried out on the Campus Site but outwith the Site boundary. These works shall result in the Retained Estate

Handback Infrastructure and shall be Works carried out by Project Co but upon completion will not be maintained by Project Co but by or on behalf of the Board by or on behalf of Consort. These Works include the design and construction of:

- (a) Hospital Square Infrastructure;
- (b) Cycle Path Infrastructure;
- (c) Petrol Station Site; and
- (d) Drainage Infrastructure.

The Retained Estate Handback Infrastructure is more fully described in paragraph 4 of the Board's Construction Requirements.

For a summary of the proposed Petrol Station Works, the Petrol Station provisional sum and relevant background reports, Bidders should refer to Appendix L (Petrol Station Site) of the Volume 1 of the ISFT. This should be read in conjunction with the relevant updates to Volume 2 and Volume 3 of the ISFT.

2.7.5 Enabling Works

(a) RIE Enabling Works

The Board has identified the following enabling works (the “**RIE Enabling Works**”) which will be required to be carried out on the Campus Site to meet planning requirements for the Project. These key enabling works will be carried out by or on behalf of the Board by or on behalf of Consort. These works are not intended to form part of the Project and it is intended they are completed or substantially completed prior to any part of the Works commencing on Site. The key enabling works, and their programmed completion dates, are described here for information purposes only.

- (i) Flood Protection Works: which means the enhancement of existing flood protection measures at the Campus Site, to be completed October 2014;
- (ii) Road Infrastructure Works: which means changes to the road and transport infrastructure at the Campus Site, including but not limited to the creation of a public transport terminus to the east of RIE Facilities, new bus stances and revision of existing car parking, to be completed March 2015;
- (iii) VIE Relocation Works: which means relocation of the existing VIE plant serving RIE Facilities to another location on the RIE Site. Separate VIE plant is required for the Facilities to be completed December 2013;
- (iv) Link Building Works: which means the building which is to be part of RIE Facilities to which the new Facilities will be connected at ground and first floor levels described in paragraph 2.7.1(a) above, to be completed December 2014;
- (v) Service Diversion Works: which means the diversion of certain services such as electricity, water, gas, that serve RIE Facilities and are currently located on under or over the Site to positions outwith the Site to new positions within the RIE Site. However Project Co should note that not all redundant services are being removed and grubbing up of any diverted and redundant services will be the responsibility of Project Co as part of the Works. For the avoidance of doubt there shall be no diversion of the County sewer, the crèche's sewer and connection, the crèche's storm water sewer which it is believed run under the Site, to be completed October 2014;

- (vi) Sewer Diversion Works: which means the diversion of trunk sewers currently located in the Site to positions on the perimeter but still within the Site to new positions within the RIE Site, to be completed March 2014;
- (vii) Clinical Facilities: Reconfiguration/alteration of a number of clinical facilities within RIE Facilities; and
- (viii) Way Finding: which means the installation of new comprehensive way-finding measures across the Campus at Little France (new signage and directional indicators as necessary).

(b) Flood Works

Off-Site Flood Protection Works – It is proposed to construct flood defence walls (approximately 1000mm high) to both sides of the Niddrie Burn in the Nether Craigour area upstream of the Old Dalkeith Road bridge to provide improved flood protection to the Campus Site. These works will be procured under a separate contract and do not form part of the Project.

2.8 BREEAM

Bidder's designs must achieve, as minimum, a "Very Good" BREEAM rating in line with the requirements for healthcare facilities as set out in the BREEAM Scheme Document for New Construction (SD5073) 2011. The designs must also achieve as a minimum, an "Excellent" level of performance for credit ENE 01 *Reduction of Emissions* in accordance with the requirements in the BREEAM Scheme Document for New Construction (SD5073).

2.9 Sustainable Design and Quality

Bidders are required to promote sustainable development by demonstrating an integrated approach to the social, environmental and economic well-being of the area served, now and for future generations. The Facilities will reflect the objectives of any local agenda strategy supported by the CEC and also satisfy the requirements of all health and social care guidance notes, as set out in Board's Construction Requirements associated with sustainability and environmental performance.

2.10 Community Benefits

The Board recognises the importance of sustaining the community and delivering against social considerations. As well as providing significant training and employment opportunities for the full Project Term, the Project also has the potential to drive significant initiatives relating to regeneration, sustainability and social benefits, aligning with the Board's strategic objectives.

Community Benefits clauses set out within Clause 73 (Community Benefits) of the NPD Project Agreement support this agenda. Provisions relevant to training and appropriate measures regarding supply chain contracts and engagement with small and medium sized enterprises and supported businesses are recognised as examples of the elements that may be taken into account.

Project Co will work in partnership with the Board and where appropriate, the Edinburgh Partnership and the agencies listed in paragraph 3.6 of Appendix I (Community Benefits) to deliver the Board's requirements in respect of both the Construction Phase and Operational Term of the Project.

Please refer to Appendix I and criteria B6 of Appendix A (ii) which set out the Board's approach to social considerations/Community Benefits and how Bidder proposals in these areas will be taken into account.

2.11 Facilities Management - Services to be provided by Project Co

The interface of facilities management (FM) services provided across the Campus Site will be addressed through the Little France Campus Working Group.

Project Co will be required to provide the Services which shall be a proactive facilities management and lifecycle replacement service. The key elements of the Services shall include, but not be limited to:

- Contract management;
- Performance management and monitoring via a helpdesk facility;
- Programmed and unprogrammed maintenance work of the mechanical, electrical and building fabric components of the Facilities;
- Procurement and management of Utilities;
- Lifecycle replacement of the mechanical, electrical and building fabric components of the Facilities, including all floor coverings;
- Hard landscaping maintenance;
- External façade cleaning / window cleaning; and
- Periodic cleaning of vents, extractors and luminaires.

For the avoidance of doubt, Bidders should note that the following items are excluded from the Services and will be delivered by the Board (or third party providers):

- Portable Appliance Testing; and
- Redecoration of walls and ceilings.

The detailed requirements for above are set out in Volume 3 of the ISFT and will ultimately become Schedule Part 12 (Service Requirements) of the NPD Project Agreement.

2.12 Services to be provided by the Board

Delivery of all Clinical Services in the Facilities will be the responsibility of the Board.

It is anticipated that soft FM services will be provided by a combination of the Board and third party providers contracted with the Board. There will be a number of operational interfaces not only with the Board's team but also the FM staff working within the RIE Facilities and so Project Co shall be required to adopt a collaborative approach to interfaces so that hard and soft facilities services are provided by Project Co, the Board and the RIE FM team effectively and in adherence with Board policies. Key to the success of that relationship will be the quality of the team and clarity of the agreement between the parties.

To assist Bidders in developing their proposals and understanding the interfaces with the Board and third party providers, information on the Board's proposed delivery strategies has been provided within Schedule Part 6 (Board's Construction Requirements), section 3, Sub-section E (Specific Non-Clinical Requirements) of the NPD Project Agreement covering items such as but not limited to:

- Linen Services;
- Waste Management/ Disposal;
- Materials Management;
- Porterage Services;
- Catering Services;
- Routine, Periodic and Specialist cleaning;

- Domestic Services; and
- Delivery Area.

In addition the Board will be responsible for the maintenance and lifecycle replacement of Equipment that the Board is responsible for as set out in paragraph 2.15 (Equipment) and the Board Services.

2.13 ICT

The Project includes the design, construction and maintenance of comprehensive and robust infrastructure (e.g. containment, cabling and node rooms) for the Facilities in accordance with the requirements of the Board's Construction Requirements.

The Board will install hardware (e.g. servers, PCs, printers, scanners), make the final connections (at the application and in computer rooms) and commission the operational system. Future management of the telephone system and IT helpdesk will not form part of Project Co's scope of the Services. Instead, the telephone system and switchboard will be managed by the Board. The IT helpdesk service will also be provided by the Board.

A responsibility matrix relating to the ICT installations is contained in the Board's Construction Requirements.

2.14 Retail opportunities

The provision of catering and retail services within the Facilities does not form part of the Project. Catering and retail services shall be provided by the Board and associated parties (such as voluntary and/ or charitable organisations). These will be part of the Board Services.

2.15 Equipment

2.15.1 Equipment documentation

The following documents are contained within Volume 3 of the ISFT, which outline the Board's requirements in relation to Equipment and associated responsibilities:

- (a) Equipment Schedule which shows all Equipment (Group 1, Group 2A, Group 2B and Group 3) which will be installed or anticipated to be installed in the Facilities presented on a room by room basis;
- (b) Supplemental Equipment Schedule for U1 – RHSC Specialist Paediatric Biochemistry Laboratories: and
- (c) Equipment Responsibility Matrix which shows for each different item of Equipment, the split of responsibilities between Project Co and the Board.

2.15.2 Groups of Equipment

Equipment included for the Project will include new equipment replacement, transfer and fit out of existing equipment, upgrade of existing equipment and new equipment included in developments.

(a) Group 1 Equipment

This is Equipment fixed to the building fabric (including fixed furniture e.g. cabinets, boards, blinds, brackets, shelves, TV brackets and illuminators) and/or attached to, or forming part of the building services (e.g. sanitary ware, sockets, outlets IT and medical, theatre lights, luminaries and pendants etc).

Project Co will generally be responsible for all Group 1 Equipment including specification, procurement, installation, maintenance and Lifecycle Replacement. However, the Board shall specify the details (both quantities and specification) for certain key items of Group 1 Equipment which are more clinical in nature (e.g. pendants in theatres and critical care).

The quantities specified for Group 1 Equipment in the Equipment Schedule are considered to be indicative by the Board. However, such quantities of Group 1 Equipment represent the minimum quantities acceptable to the Board. The exception to this are those items of Group 1 Equipment which the Board wish to specify – these are identified on the Equipment Schedule and will be considered to be mandatory.

(b) Group 2A Equipment

Project Co will only be responsible for the installation of Group 2A Equipment (and the installation of the replacement equipment at lifecycle intervals). The Board will be responsible for all other aspects of Group 2A Equipment (such as specification, procurement, maintenance and Lifecycle Replacement). Project Co will be responsible for designing Facilities which allow the Board to carry out their obligations in relation to Group 2A Equipment (including operation).

(c) Group 2B and Group 3 Equipment

The Board will be wholly responsible for all Group 2B and Group 3 Equipment including specification, procurement, installation, maintenance and Lifecycle Replacement. Project Co will not be responsible for any aspect of Group 2B or Group 3 Equipment however Project Co will be responsible for designing Facilities which allow the Board to carry out their obligations in relation to Group 2B and Group 3 Equipment (including operation).

Equipment included for the Project will include new Equipment replacement, transfer and fit out of existing equipment, upgrade of existing Equipment and new Equipment included in developments.

2.16 Surveys and Dialogue Period Ground Investigations

The ground investigation surveys which have been carried out to date are summarised in Volume 4 Data Room Contents. Warranties are not provided for these surveys.

The Board procured a Site Survey, the results of which were made available through the issue of the Factual Report via CLAR-00133 to all bidders. The Site Survey incorporated the agreed Bidder comments.

The Board shall not warrant this Site Survey. However, the Board shall procure that the party engaged to carry out the Site Survey provides a reliance letter to the Preferred Bidder in respect of the Site Survey.

2.17 Planning

An application for Planning Permission in Principle (PPiP) for the "erection of a Children's Hospital, including Department for Clinical Neurosciences (DCN) and ancillary facilities, helipad, associated enabling development including energy centre, Vacuum Insulated Evaporator (VIE), car parking, revised access and public transport arrangements, public realm works and landscaping, (car

parking, access and public transport arrangements in detail)" at Edinburgh Royal Infirmary, 51 Little France Crescent, Edinburgh, EH16 4SA was submitted to the CEC on the 29th July 2011.

The application (Reference 11/02454/PPP) was approved by CEC on 5th April 2012, subject to a number of conditions, and the conclusion of a Section 75 legal agreement.

The application was supported by a suite of information including a Design and Access Statement, which included the principles of design, sustainability, scale and massing. The application was also accompanied by an Environmental Statement in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011.

A subsequent stand alone permission (Reference 12/00479/FUL) was granted by CEC on 4 June 2012, for development of revised public access and revised public transport arrangements, associated car park remodelling, public realm works and landscaping. This followed the conclusion of a separate Section 75 legal agreement.

Various background papers relating to the application for PPIP and the application for Planning Permission, including Section 75 legal agreements are available within the Data Room.

The Preferred Bidder, once appointed, will be responsible for obtaining approval of the detailed scheme, in compliance with the conditions of the PPIP. This will require approval of matters specified in conditions. This will be required prior to Financial Close. The Board expects Bidders to have satisfied themselves before submitting their Solutions that their proposals will secure detailed planning consent.

2.17.1 Archaeology – Watching Brief

Bidders are advised that following negotiations with City of Edinburgh Council, a Written Scheme of Investigation for the archaeological watching brief has now been drafted (Condition 10 of the granted Planning in Principal 11/02454/PPP dated 5th April refers)

The Board has obtained prior agreement to the Written Scheme of Investigation from the City of Edinburgh Council Archaeology Service and formal written confirmation is awaited from the Principal Planner.

AOC Archaeology Group will be employed by the Board to undertake this service.

2.18 Artwork

The integration of art into the architecture and landscape to enhance the hospital environment is an essential requirement of the design. The Board welcomes innovative proposals for interactive art and wayfinding throughout the Facilities. Project Co will appoint artists to work with the Board on developing an arts strategy for the Project. Project Co shall carefully consider the arts strategy for the Board, including artworks and artefacts from the existing buildings that have been identified for transfer, and outputs from the 2010-2014 charitably funded Artists in Residence Programme within the RHSC and CAMHS.

The Board will be responsible for approving the whole art content in the Project and Project Co shall engage the Board fully in this process before any art work is commissioned.

2.19 Family Hotel

The Family Hotel is to provide "home away from home" accommodation for the families of children receiving inpatient care in hospital. This accommodation is free of charge to families at the point of

delivery, and aims to provide a supportive environment, and enable the whole family to be able to spend time together and close to their sick child.

It will provide overnight accommodation for families as well as facilities for parents whose children are resident on the wards, as outlined in the Specific Clinical Requirements section K2 (Family Hotel) of Sub Section D (Specific Clinical Requirements).

2.20 Achieving Excellence Design Evaluation Toolkit (AEDET)

Project Co will be required to provide design information for an AEDET assessment within one month of appointment as Preferred Bidder. The AEDET assessment will be facilitated by the Board with the assistance of Project Co, and carried out by key project stakeholders. The outcome of the process will assist Project Co to develop their proposals. Bidders are, however, reminded that their proposals shall ultimately be evaluated by the Board in accordance with the design deliverables and requirements laid out in the Invitation to Submit Final Tender.

A final AEDET review will be carried out on the design following the completion of construction and handover of the building to the Board.

3 COMMERCIAL OVERVIEW

3.1 Introduction

This section provides an overview of the commercial aspects of the Project.

3.2 NPD Structure

The Project will be delivered using the Scottish Government's NPD Model. The NPD Model was developed and introduced as an alternative to, and has since superseded, the traditional private finance initiative or "PFI" model in Scotland. It has been used in the education (schools) and health sectors. The NPD Model is defined by three core principles:

- Enhanced stakeholder involvement in the management of projects;
- No dividend bearing equity; and
- Capped private sector returns.

Projects funded using NPD Model principles will pay a fixed return to the holders of the junior or risk-bearing debt of the Project Co. All other distributions to equity (i.e. the holders of the shares and junior debt of the Project Co) will be prohibited. Surpluses arising after satisfying all precedent lines in the cash cascade, subject to any agreed buffer, will be payable to the Board as a rebate against Annual Service Payments. In this way, returns to investors are capped at the level bid during the procurement process.

Although contractors and funders are expected to earn a normal market rate of return as in any other form of privately-finance PPP deal, the NPD Model seeks to eliminate uncapped equity returns associated with the traditional PFI model and limit these returns to a reasonable rate set in competition.

3.2.1 Key features of the NPD Model:

These key features include:

- (a) **Corporate structure:** The Board will contract with a special purpose vehicle (referred to in the NPD Project Agreement as "**Project Co**") which will be majority owned and controlled by the private sector investors. The Board will own a "golden share" in the Project Co which gives it certain controls over the corporate, governance and management structures within the Project Co. Project Co's articles of association must incorporate the mandatory NPD articles, produced by the SFT, that enshrine the fundamental principles of the NPD Model;
- (b) **Public Interest Director:** One of the Project Co's directors will be nominated by the SFT and will bring an independent voice to Project Co's board and shall ensure a greater degree of transparency and accountability to stakeholders (the "**Public Interest Director**");
- (c) **Refinancing:** Under the NPD Model the Public Interest Director has the right to instigate a refinancing on the same basis as the Board may instigate a refinancing under SoPC4 guidance;
- (d) **Capped Returns:** This shall ensure that a "normal" level of investment return is made by the private sector and that these returns are transparent;

- (e) **Surpluses:** Surpluses generated by Project Co shall be reinvested in the public sector; and
- (f) **Transparency:** The public interest shall be represented in the governance of the NPD structure, which increases transparency and accountability and facilitates a more proactive and stable partnership between public and private sector parties.

SFT provided a suite of contractual documents, comprising a NPD Project Agreement and articles to be adopted for use in this Project, appropriately amended for project and NHS-specific issues. These documents formed the basis of commercial dialogue from March to December 2013.

Further information on the NPD Model is available from the SFT website: www.scottishfuturetrust.org.uk.

3.2.2 Benefits of NPD Model

The NPD Model retains the benefits of traditional PFI structures, such as:

- (a) optimum risk allocation;
- (b) whole-life costing;
- (c) maximised design efficiencies;
- (d) robust programming of lifecycle maintenance and facilities management;
- (e) performance-based payments to the private sector;
- (f) single point delivery system, reducing interface risk for the public sector client; and
- (g) improved service provision.

Also produces additional benefits, as set out in paragraph 3.2.1 above.

3.3 Overview of NPD Project Agreement

In terms of Volume 2 of the ISFT, this sets out the following documentation:

3.3.1 The Board's base NPD Project Agreement which reflects SFT's Standard Form NPD Project Agreement, as amended to reflect additional project specific amendments which have been agreed by SFT. In terms of these project specific amendments, please refer to paragraph 3.6 (Project Specific Changes) below;

3.3.2 A Final Tender (Bidder Specific) NPD Project Agreement which reflects all Bidder specific amendments agreed between the Board, SFT and each Bidder during the Dialogue Period. The Final Tender (Bidder Specific) NPD Project Agreement and its schedules shall regulate the relationship between the Board and Project Co.

3.4 General Approach in relation to NPD Project Agreement

The Preferred Bidder will be expected to enter into the Final Tender (Bidder Specific) NPD Project Agreement with the Board in the form set out in Volume 2 of the ISFT.

Only matters in relation to fine tuning and clarification of the Final Tender (Bidder Specific) NPD Project Agreement shall be addressed once the Dialogue Period has closed. Other than fine tuning and clarification issues, any issues not raised during the Dialogue Period will not be considered by

the Board if they involve changes to the basic features of the Final Tender Submission or the Project that are likely to distort competition or have a discriminatory effect.

The Board will also require the Direct Agreements to be substantially in the form set out in the Final Tender (Bidder Specific) NPD Project Agreement

To the extent that Bidders, their potential Funders, diligence teams and/or Sub-contractors had concerns about the terms of the Final Tender (Bidder Specific) NPD Project Agreement or any of the other key project documents including the Ancillary Agreements, these should have been raised with the Board during the Dialogue Period.

3.5 Derogation Procedure

The Board has raised all Bidder specific derogations with SFT during the Dialogue Period and has provided feedback to Bidders during the Dialogue Period as to whether such derogations have been either accepted or rejected by SFT.

3.6 Project Specific Changes to NPD Project Agreement

3.6.1 A number of project/sector specific amendments were agreed with SFT and were set out in the Board's base NPD Project Agreement for the ITPD.

The key project specific amendments included for the ITPD were:

- a) **Lifecycle** Additional lifecycle drafting has been added at Clause 23A (Lifecycle Replacement) of the NPD Project Agreement to provide the Board with greater visibility in terms of lifecycle replacement.
- b) **TUPE** The Board does not envisage that the Transfer of Undertaking (Protection of Employment) Regulations 2006 (TUPE) will apply to the Project or to any current Board staff. SFT's alternative drafting set out in Form 2 of Appendix 2 of the User Guide has therefore been added at Clause 25 (No Employee Transfer) of the NPD Project Agreement. In addition, Clause 26 (Pensions) of the NPD Project Agreement has been deleted.
- c) **Board's right to stop Project Operations** In terms of Clause 13A, a new clause has been added permitting the Board to instruct Project Co to stop performing the Project Operations in the event of a (i) Stop Incident; (ii) potential impact upon Clinical Services, and/or (iii) the occurrence of a Major Incident. In terms of (ii) and (iii) a Compensation Event shall be available to Project Co if the Board instructs stopping the Project Operations on one of these grounds. In terms of (i), the consequences of this Board instruction shall be treated in a similar way to Clause 13 in relation to opening up of the Works.
- d) **Indemnities** Additional limbs of the indemnity have been added in relation to breach of the Interface Proposals and/or breach of Appendix A of the Board's Construction Requirements and a breach of certain Reserved Rights. These are project specific requirements of the Board and primarily relate to Site issues which may have a wider impact upon the operation of the Campus Site.

- e) **Insurance** The Board has undertaken a review of the insurable and uninsurable risks that may emanate from the Project. The insurance provisions and minimum requirements have been set out in Clause 53 (Insurance) and Schedule Part 15 (Insurance Requirements) of the NPD Project. In addition, waiver of subrogation option has been added at Clause 53.6 (Subrogation and Vitiation) of the NPD Project Agreement. Bidders shall be required to price this option as part of its Draft Final Tender and Final Tender as indicated in Financial Proformas 1a and 4.
- f) **Community Benefits** SFT's drafting set out in Form 5 (Community Benefits) of the User Guide has been added at Clause 73 (Community Benefits) of the NPD Project Agreement (see 2.10, Appendix I and section B6 of Appendix A(ii) for further detail on how the Board is taking social considerations/Community Benefits into account in this procurement.
- g) **Interface**
- (i) *Interface*: Appendix A of the Board's Construction Requirements sets out the specific interface issues between the Facilities and the Retained Estate. Appendix A of the Board's Construction Requirements also requires Bidders to prepare certain Interface Proposals to address these specific interface issues.
- (ii) *Interface Proposals*: The Interface Proposals shall include Bidder's proposals relating to construction access, operational access, oversail strategy, access areas strategy, drainage and substation proposals, service strip and foul service strip proposals and connection to the Link Building proposals. These Interface Proposals shall form part of Bidders Submissions and shall also form part of both the Draft Final Tender and Final Tender. The requirements for the Interface Proposals are more fully described in Appendix A of the Board's Construction Requirements, but shall be subject to conditions set out in Schedule Part 5 (Land Matters) of the NPD Project Agreement. However, for ease of reference, a list of Interface Proposals has been set out in Appendix C (iv) (Interface Proposals) of Volume 1 of the ISFT.
- (iii) *Little France Campus Working Group*: The Board has established a Little France Campus Working Group in which Project Co will be required participate in. The purpose of this group is to support all parties on the Campus Site in order that they can work in partnership to deliver their responsibilities under Health and Safety legislation and the Construction (Design and Management) Regulations 2007 to ensure the safety of patients, staff and visitors and the operation of services on the Campus Site.
- h) **Payment Mechanism** The NPD Project Agreement schedule has been amended to reflect the acute healthcare nature of the accommodation and incorporates the use of sessions as opposed to days as an element of the deduction formula for unavailability, in addition to the application of a gearing mechanism to the derivation of

Service Unit values.

3.7 Articles of Association

Project Co will be a private company limited by shares with the Articles of Association contained in Volume 2 of the ISFT which sets out the mandatory NPD provisions including membership of Project Co, the rights of the members, voting rights and controls on how revenue is to be used. As part of the Final Tender, Bidders are requested to populate paragraph 4.1.5 of the Articles of Association in order that the Board is made aware of the amount of any cash buffer within the Financial Model.

3.8 Financial Aspects of the Project

In this Section, the ISFT sets out the following:

- (a) key financial aspects of the Project that the Board considers to be of fundamental importance; and
- (b) financial assumptions to be made by Bidders.

3.8.1 Affordability

The Board has developed a shadow bid Financial Model that produces an Annual Service Payment as derived from technical cost inputs that reflect the project scope and a set of assumptions that reflects current economic factors and funding market conditions. This model has been used to ensure that the Project is affordable to the Board.

The Board will be responsible for meeting the proportion of the Annual Service Payment related to Hard Facilities Management (Hard FM) services and 50% of the lifecycle maintenance expenditure. The Scottish Government will meet the remaining proportion of the Annual Service Payment via revenue support.

The Board will be responsible for meeting other costs such as soft facilities management services, utility costs and rates.

Scottish Government support for a proportion of the Annual Service Payment continues to be capped in relation to the construction cost of the project, including all construction related costs, including design fees. It has been set at an uninflated amount of £137,757,000 (based on a Q3 2011 base date) plus an inflation allowance calculated by reference to the BCIS All-in Tender Price Index from the base date of Q3 2011 to the index forecast at the assumed construction mid-point of Q4 2015. The indices at 27 November 2013 are Q3 2011 220 and Q4 2015 255 giving a current inflation of allowance of £21,283,457 and a total construction cap of £159,040,567.

This figure is the final cap level, which from this point forward is fixed and will not be adjusted further. All figures are net of VAT.

The table below summarises the key drivers of the Board's affordability position. The Board's expectation is that Bidders will seek to deliver financial proposals that remain within these constraints. The Board reserves the right to set aside any proposals from Bidders which are unaffordable.

Element	Notes	Amount
Capital cost	Scottish Government cap	£159,040,567
Annual real life cycle maintenance	None	£27 / sq m
Annual real hard FM	None	£29 / sq m
Capitalised bid development costs (excluding design fees)	As a percentage of construction costs	3%

3.8.2 Funding Approach

The Board requires a Funding Competition to be undertaken once a Preferred Bidder has been appointed. EIB have now confirmed that they would, subject to satisfactory due diligence, be willing to provide funding for the Project up to a value of £98.81 million. Further, EIB have indicated that they are willing to enter into discussions with Bidders, to sign confidentiality agreements and provide letters of support should these be required. A letter confirming EIB's willingness to fund the Project is included in Appendix B.

The Board has a strong preference that EIB funding is used to support the Preferred Bidder's proposals given the value for money that it will offer. However, the use of EIB funding is not mandatory - Bidders may continue to explore funding solutions that do not incorporate EIB funding should these have the potential to offer better value for money.

A set of funding terms that Bidders should use in developing their Draft Final Tenders and Final Tenders is appended to this document at Appendix B (iv). The terms provided are based on a combination of commercial bank and EIB funding provided on a 50/50 basis.

Where a Bidder proposes to utilise an Equity Bridge Loan, the same terms should be assumed as for the senior debt, that is, the relevant assumptions as to the pricing of the Loan should be extracted from Appendix B (iv)

3.8.3 Security package

Bidders are required to incorporate a fully priced security package into their bids. This package should be compatible with the funding structure and terms provided by the Board, at this stage assumed to be a commercial bank and EIB funded approach. Details of the pricing of this package should be inserted into the table included at Appendix B (v)

Bidders will be required to take the full risk of the pricing of the security package relating to commercial bank and EIB debt. If Bidders have not adequately priced the security package, they must bear the cost of any enhancement required.

In discussion with SFT, the Board has identified the likely security package requirement associated with a capital market funding solution. Bidders should populate the table at Appendix B (v) in relation to the pricing of such a package. The prices provided would be used in the case of a capital market solution being adopted following the post Preferred Bidder Funding Competition.

For the avoidance of doubt, the Board would expect to receive the benefit of any cost reduction arising from lower security package sizing requirements and would bear the risk of the cost

implications of a capital market solution requiring higher security package sizing requirements than those included in the table. Bidders will be expected to bear the risk of any variation in the actual pricing of the security package.

3.8.4 Due Diligence

Bidders are required to demonstrate that they have carried out a full due diligence exercise over their submission which would be accepted by potential Funders. Bidders must submit copies of completed due diligence reports as part of Final Tender submission.

3.8.5 Surpluses

In developing the Project the Board has assumed no prescribed levels of Surpluses are required to be paid during the concession period. Bidders should assume that any and all Surpluses that are generated will be paid to the Board as a rebate against the Annual Service Payment. Bidders should follow the accounting and tax advice, in relation to surpluses, as detailed below.

Any Surpluses produced by a Bidder's financial model will be included in the evaluation of price by applying 7% nominal discount rate in calculating the NPV of such Surpluses. Bidders should note that this discount rate is higher than that which will be used to evaluate the Annual Service Payment (6.0875%). This approach reflects the Board's strong preference for a lower and certain Annual Service Payment as opposed to an equivalent and less certain Surplus.

Any Surpluses forecast in Bidders' Financial Models should reflect the level of cash buffer that has been bid (see below) and the full impact of the terms of the Senior Funding Agreements, as these will affect the likelihood and timing of Surplus Payments actually being made to the Board.

Bidders may retain a cash buffer (over and above Senior Funders' reserves and covenants) in their Financial Models in order to deal with unexpected events that arise during the Project. Surpluses are required to be paid out only to the extent that these exceed the cash buffer. The cash buffer should be set at a level that is no higher than two months' worth of the indexing element of the monthly Annual Service Payment. The cash buffer itself should index. Bidders are free to propose a lower level of cash buffer, as this will allow an earlier release of surpluses which will be evaluated more favourably through the NPV calculation described above.

Bidders' Financial Submissions should clearly identify Surpluses available for distribution to the Board. Such Surpluses should be defined as:

- (a) any Surpluses bid and included in the Financial Model over the operational period, including the period post repayment of debt;
- (b) positive cash balances forecast in the Financial Model at the Expiry Date; and
- (c) any Debt Service Reserve Account (DSRA) or Maintenance Reserve Account (MRA) balance released on repayment of debt (if not used to retire debt).

Payments of Surpluses to the Board should be assumed to take place on the last day of the relevant accounting period applicable.

3.8.7 SFT Policy on Accounting and Tax Treatment of Surpluses

In terms of the treatment of surpluses, Bidders should adopt the new Non Profit Distributing rebate of Annual Service Payment model advocated by the Scottish Futures Trust, whereby additional costs are accrued throughout each year of the project in order to reduce trading profits each year, reflecting the fact that profits are not distributed. This is a significantly more tax efficient method than

the previous approach commonly used of returning surpluses to the public sector under the gift aid relief method.

The tax and accounting treatment of surpluses is an evolving technical area for accounting and tax experts, whose accounting advice (and hence tax treatment), as provided to Bidders for NPD projects, is advancing rapidly. There is a range of treatments that accounting experts consider could be used to model the rebate structure. Whilst maintaining the principle of moving to a rebate model and seeking tax efficient proposals, Bidders should determine their own specific accounting, and hence taxation, approach in their final submissions with reference to the Board's submission requirement F12. It is not possible or desirable for the Board to mandate an accounting and tax approach at this time.

Bidders are required to include all costs associated with delivering the proposed treatment, including but not limited to advisory costs incurred in seeking clearances if considered necessary by the Bidder. Bidders are also expected to have undertaken diligence on behalf of funders and submit a tender, taking into account the accounting and tax treatment of surpluses, that is acceptable to the funding market.

It is not considered likely that HMRC will provide a clearance for tax treatment adopted as this will be dependent on the accounting treatment and standards adopted by the SPV in discussion with its auditors. However, Bidders must make their own decisions as to whether or not to seek advance tax clearance from the HMRC for any proposed treatments in respect of surpluses.

If the Bidder is to apply to HMRC for a non-statutory clearance regarding any other tax treatment applied, the Board will require such clearance to be obtained before Financial Close.

3.8.8 Interest Rate Risk

The Scottish Government will take the risk of changes in the reference interest rate (e.g. either the underlying London Interbank Borrowing Rate (LIBOR) rate or UK Government Gilt rate) up to Financial Close.

3.8.9 Foreign Exchange Risk

The Board will not accept any foreign exchange risk. Such risks should be absorbed entirely by Bidders.

3.8.10 Third party income

The Board does not anticipate that any third party income will be available within the Project and none should be assumed within Financial Submissions.

3.8.11 Capital and charitable contributions

For the purposes of the Final Tender, Bidders should assume that the Board will not inject any capital contributions into the Project, nor will there be any charitable contributions. This position may be reviewed at Preferred Bidder stage.

3.8.12 Validity of Submission

Bidders are required to price their Submissions anticipating a Financial Close of 2 October 2014. Bidders are required to maintain underlying construction, operating, FM and Project Co's costs for a period of three months from the target Financial Close date with no adjustment for inflation, meaning that should Financial Close be reached prior to 2 January 2015, the bid price will not be adjusted for the effects of inflation.

Bidders are also obliged to use all reasonable endeavours to mitigate the impact of any cost increases post validity period.

Bidders must confirm that the following cost indexes will apply in the post validity period:

- (a) Construction costs – BCIS All in TPI
- (b) Facilities management, lifecycle and SPV costs – RPI

3.8.13 Indexation

The Annual Service Payment will be indexed on an annual basis. The Payment Mechanism contains the formula for applying the inflation adjustment.

The Authority does not expect that a Bidder's funding solution will require the use of RPI hedging instruments. Any relevant financial submission should clearly demonstrate the proportion of costs that are fixed and the proportion subject to inflation. Bidders should set a rate of Annual Service Payment indexation that creates a natural hedge position given their cost structure. Bidders are required to develop their proposals on the basis of the use this natural hedge and to provide inflation sensitivities that demonstrate this as set out in the Financial Proformas.

3.8.14 Pass Through Costs

The Board will retain price risk associated with the defined pass through costs, those being insurance, rates and utility costs, as set out in the NPD Project Agreement. However, Bidders should note that the Board will review such costs in each Bidder's solution and allow for these in the Equalisation Adjustment as part of the Price evaluation process.

3.9 Financial Model

3.9.1 Key assumptions

Bidders are requested to note the following assumptions within their Financial Models, in addition to those noted above:

- (a) For the purposes of their Submission, Bidders are provided with a LIBOR swap rate assumption as part of the Term Sheets included in Appendix B.
- (b) Indexation of the Annual Service Payment should be based on RPI and not RPIx. RPI should be assumed as 2.5%.
- (c) The Financial Model should be prepared in accordance with UK GAAP or IFRS.
- (d) The date of Financial Close should be assumed to be 2 October 2014.
- (e) The Financial Model should cover an operational period of twenty-five (25) years plus the construction period, with each year end assumed to be 31 March.
- (f) The discount rate to be used in calculating all NPV figures should be 3.5% real and 6.0875% nominal, with the exception of the discounting of surpluses, which should be discounted at 7% nominal.
- (g) All costs in the Financial Model should assume a price base date as at Financial Close with a first indexation point of the 1 April subsequent to Financial Close.

- (h) The Bidders NPV calculation should discount cash flows back to the base date as at Financial Close.
 - (i) The NPV should be based on values at the mid-point of each financial period.
 - (j) Bidders should assume corporation tax rates which have been included in the Finance Act 2012 and announcements in the 2012 Autumn Statement;
 - (k) Annual Service Payment payments should assume 100% performance.
 - (l) Surpluses are as defined in Section 3.8.5 of this document and should be treated as indicated.
 - (m) Public Interest Director fees are to be included in the financial submission of £15,000 per annum, subject to indexation, and clearly shown in a separate row in the Financial Model and proformas.
 - (n) Construction insurance costs are to be included within the Financial Model.
 - (o) Pass-through costs (operational insurance costs, utilities costs and rates) are to be excluded from the Financial Model but should be shown separately within the Bidder's Financial Submission in Proforma FP1a. In the case of energy costs, Bidders should use the input unit price assumptions provided in the Proforma to generate the pass through cost, based on the projected energy usage inherent in the Bidder's proposals. For Non-Domestic Rates, Bidders should populate the Proforma FP1a using the calculator at Proforma FP1b. All such pass-through costs will be evaluated as part of the Equalisation Adjustment.
- For a summary of the potential Equalisation Adjustment relating to Appendices to Schedule Part 16 – Change Protocol, Bidders should refer to Appendix A (vi) (Change Protocol) of the Volume 1 of the ISFT.
- (p) All assets will revert to the Board on expiry for nil consideration.
 - (q) Debtor Days relating to revenue in the model should be assumed to be zero.
 - (r) No capital contributions should be assumed unless otherwise informed.

3.9.2 Financial model Format

Bidders must submit financial projections for each year of the NPD Project Agreement in the form of a computer Financial Model, which will become the Financial Model as defined in the Draft NPD Project Agreement.

The Financial Model must adhere to the following requirements:

- (a) The Financial Model must be prepared using Microsoft Excel (2003 or later)
- (b) The Financial Model should be free of error, including circular references or hard-coded values in non-input areas
- (c) The Financial Model should be transparent, with the logic of all calculations capable of being followed through the model, with no hidden macros or password protected areas
- (d) Financial projections should be presented on a monthly basis during the construction period and on a semi annual basis during operations (for each period ending 30 September and 31 March)

- (e) All values should be expressed in £ sterling and to £'000's
- (f) The Financial Model should identify input capital expenditure and operating costs which should be referenced to costs in the Technical Cost Proformas as required under Appendix A (v) and Financial Proformas as required under Appendix B (ii)
- (g) The Financial Model should incorporate all of the Financial Proformas provided at Appendix B (ii), linked to worksheets in the Bidder's Financial Model so that the Proforma contents update automatically and can be reconciled to worksheets in which model calculations are performed
- (h) The Financial Model should be capable of running sensitivities in all the key areas of risk that funders are likely to focus on. As a minimum this should include the following:
- (i) Delay to Financial Close;
 - (ii) Capital cost increases;
 - (iii) Construction programme delays;
 - (iv) Operational cost increases;
 - (v) Lifecycle cost increases;
 - (vi) Insurance cost increases;
 - (vii) Interest rate changes;
 - (viii) Inflation rate changes;
 - (ix) Corporation tax and VAT rate changes;
 - (x) Deductions relating to the Payment Mechanism.

It is assumed that the Financial Model will be independently verified by the Bidder/Senior Funder as part of the process leading to Financial Close. Bidders are required to accept the risk that the model audit may prove the Annual Service Payment to be incorrect, and that they may not pass any additional costs on to the Board.

The Board will require sight of the Financial Model auditor's opinion letter that Bidder will obtain prior to Financial Close. For the avoidance of doubt the Board does not require a duty of care from the model auditors.

The Financial Model must include a print option macro.

3.9.3 Model Databook

The Bidder is required to provide a databook and user guide supporting the Financial Model for any relevant Submission. The databook should include the following details as a minimum:

- Summary of the content of the Financial Model, on a sheet by sheet basis;
- A table of location of inputs to the Financial Model with the cell/sheet reference and source;
- Copies of source documents (e.g. construction cashflow);

- An explanation of the methodology used to generate the financial projections;
- A definition of how the financial ratios are calculated;
- Details of the mechanisms contained in the Financial Model and an explanation of how key tasks in the Financial Model are carried out;
- A statement of the accounting policies applied to the Financial Model and their compliance with the relevant accounting standards;
- A detailed statement of the assumptions used in relation to tax.

3.10 Insurance

3.10.1 The Board has undertaken a review of the insurable and uninsurable risks that may emanate from the Project. Insurance provisions and minimum requirements have been set out in the NPD Project Agreement (at Clause 53 (Insurance), Schedule Part 15 (Insurance Requirements)) and Schedule Part 25 (Insurance Proceeds Account Agreement) in accordance with NHS Board requirements relative to NPD Projects in Scotland.

3.10.2 Insurances required under the Project will be reviewed and may be revised by the Board in line with Board strategy towards treatment of insurable risks in the Project, Project technical solutions and commercial considerations. Any such revision will form part of the Equalisation Adjustment made in relation to insurance pass-through costs.

3.10.3 A waiver of subrogation option has been added at Clause 53.6 (Subrogation and Vitiating) of the NPD Project Agreement. Bidders are asked to identify separately the costs associated with this waiver in Part C (Waiver of subrogation for Consort and Consort Parties) of Appendix G (Insurance Response Matrix) of Volume 1 of the ISFT.

Insurance Response Requirements

3.10.4 For the purposes of demonstrating compliance with the Board's requirements, and to assist in evaluation, Bidders are required to provide completed versions of the insurance matrices set out in Part 1 (Insurance Cost Matrix) and Part 2 (Insurance Technical Matrix) of Appendix G (Insurance Response Matrix) of Volume 1 of the ISFT, clearly identifying where:

- (i) there will be full compliance with the Board's insurance requirements; and
- (ii) the Bidder proposes alternative solutions to satisfy the Board's requirements and the rationale for these.

3.10.5 Bidders should ensure transparency in both the Financial Model and ISFT Submission. Bidders are required to provide detailed Required Insurances premium calculations and full details of associated Project insurance related costs in accordance with the format set out in Part 1 (Insurance Cost Matrix) of Appendix G (Insurance Response Matrix) of Volume 1 of the ISFT. Bidders are required to complete the Part 2 (Insurance Technical Matrix) of Appendix G (Insurance Response Matrix) of Volume 1 of the ISFT in a manner which is consistent with their mark-up of the NPD Project Agreement. Costs presented in the Matrices should reconcile to the insurance pass-through cost values entered into Financial Proforma PF1a.

4 FINAL TENDER SUBMISSION

4.1 Final Tender

4.1.1 A Final Tender must not contain proposals which:

- a. Materially differ from proposals presented / submitted to the Board in respect of matters which the Bidder was required to present / submit to the Board during the Dialogue Period;
- b. Include key information that has not been presented and specified by Bidders during the Dialogue Period; or
- c. The Board has previously confirmed as not capable of meeting its requirements; and
- d. Include changes to the Final Tender (Bidder Specific) NPD Project Agreement.

4.1.2 The Preferred Bidder shall only be permitted to fine tune and clarify aspects of its Final Tender in line with the requirements of procurement law.

4.2 Board Evaluation Team

4.2.1 The Core Evaluation Team consists of the following members, representing various Board interests in evaluation:

- Brian Currie (Project Director)
- Iain Graham (Commercial and Legal)
- Janice MacKenzie (Clinical and Service Users)
- Jackie Sansbury (Operations and Commissioning)

4.2.2 The evaluation of each criteria will be led by a member of the Core Evaluation Team and will include members of the NHS Lothian project team and advisers.

4.3 Submission requirements for the Final Tender

4.3.1 Each Bidder shall ensure that its Submissions are provided using UK English, with all values expressed in UK Sterling/GB Pounds, using formats as specified in Submission Requirements.

4.3.2 The Final Tender shall be submitted no later than noon on the date for the relevant submission set out in the programme at paragraph 1.7 or such other date as notified by the Board to the Bidders.

4.3.3 Submissions or requests received after specified dates and times shall not be accepted for consideration and shall be returned unopened to the sender unless there are extenuating circumstances beyond the control of the Bidder in which case on being satisfied that such extenuating circumstances existed, the Board may at their discretion accept such submission.

4.3.4 Bidders shall ensure that one (1) electronic copy of the Final Tender are delivered electronically via Conject in accordance with the filing structure set up in Conject.

4.3.5 The filing structure on Conject will require a separate document for each criteria and each requirement outlined in ISFT Volume 1 Appendices.

- a) Quality evaluation submissions: *No commercial / financial information should be submitted via these folders*
- Technical submission part A – executive summary (*excluding the overview of the Final Tender from a financial perspective*)
 - Technical submission part B – strategic and management: separate folders for each of 15 criteria with supporting appendices
 - Technical submission part C – design and construction: separate folders for each of 30 criteria with supporting appendices – *excluding C29*
 - Technical submission part D – facilities management: separate folders for each of 14 criteria and any supporting appendices – *excluding D13*
 - Technical submission appendix 1.1 – design deliverables
 - Technical submission appendix 1.2 – specifications
 - Appendix C (iv) Interface Proposals

b) All commercial / financial information should be contained in the following folders;

- Executive Summary (including the overview of the Final Tender from a financial perspective, including a summary of capital costs, Annual Service Payment and funding structures)
- Technical submissions – costs criteria files for C29 & D13 and appendices
- Financial Submission
- Legal submission

4.3.6 The electronically submitted final tender will take precedence over the hard copy.

4.3.7 Final Tender submissions shall not be accepted by email or facsimile unless otherwise instructed by the Board.

4.3.8 Bidders shall ensure that two (2) hard copies of the Final Tender, with a further two (2) hard copies of the response to Appendix A (ii) – Technical Submission Requirements are delivered by receipted mail or by hand to:

RHSC and DCN Project Offices
NHS Lothian
56 Canaan Lane
Edinburgh
EH10 4SG

4.3.8 The packages shall be clearly marked for the attention of the Project Director, Re-provision of RHSC and DCN at Little France.

4.3.9 No package should bear any mark indicating the Bidder's identity. If more than one package is delivered, they all shall carry some random unifying code number and an indication of the number of packages in total (e.g. 1 of 2, 2 of 2).

4.3.10 Each Bidder shall obtain a signed receipt acknowledging delivery of the Submission.

4.3.11 Each Bidders' Final Tender shall be presented in three volumes – volume 1: Technical response; volume 2: Financial response; and volume 3: Legal response. The content required in each section is defined in the following appendices to Volume 1 of the ISFT:

- (a) Appendix A (i) (Not Used);
- (b) Appendix A (ii) (Technical Submission Requirements);

- (c) Appendix A (iii) (Design Deliverables);
 - (d) Appendix A (iv) (Specifications);
 - (e) Appendix A (v) (Technical Cost Proformas);
 - (f) Appendix A (vi) (Change Protocol);
 - (g) Appendix B (i) (Financial Submission Requirements);
 - (h) Appendix C (ii) (Legal Submission Requirements and Evaluation); and
 - (i) Appendix G (Insurance Response Matrix).
- 4.3.12 Each hard copy volume of a Bidders' Final Tender shall be filed in a separate folder with its contents clearly marked on the outside with Bidder's name, volume number, folder number and copy number for example Volume 2, folder 1 of 3, copy 1.
- 4.3.13 Hard copy submissions should be bound in a way that responses to each Quality Evaluation Criterion (as set out in the ISFT) can be extracted separately.
- 4.3.14 Each folder shall contain an index list for that folder which shall be bound immediately inside the cover, including the page numbers of each folder.
- 4.3.16 Each page of each volume shall be numbered clearly and sequentially.
- 4.3.17 Submissions shall not include any loose pages.
- 4.3.18 Drawings shall be numbered and a drawing list shall be included as part of the index list under the appropriate heading.
- 4.3.19 Drawings shall not be larger than A0 size and shall be clearly referenced, folded and inserted into pockets within the appropriate volume.
- 4.3.20 Each Bidder shall nominate and mark one copy of the Final Tender as the master copy. The master copy of the Submission shall be used as the primary source of reference during the evaluation process.
- 4.3.21 Bidders shall provide Final Tender Submissions that contain all the elements required and necessary for the performance of the NPD Project Agreement on the basis of the Solution presented and specified by Bidders during the Dialogue Period and accepted by the Board and SFT under the derogations process.
- 4.3.22 Final Tenders must be completed under the headings, using the tables and information supplied by the Board, and shall follow the order and numbering contained in Appendices A, B and C of this Volume 1 of the ISFT.
- 4.3.23 Final Tenders that include key information that has not been presented and specified by Bidders during the Dialogue Period and/or the Board has previously confirmed is not capable of meeting the mandatory requirements will not be accepted by the Board.
- 4.3.24 Bidders should provide such information as is necessary to enable the Board to evaluate whether a Final Tender is capable of meeting the Board's requirements.
- 4.3.25 The Board are entitled to modify Appendices A, B and C, of Volume 1 of the ISFT, the Board's requirements set out in Volume 1 of the ISFT generally, and/or require Bidders to omit specific aspects of a Solution at their absolute discretion where not agreed by the Board during the Dialogue Period pursuant to the parameters set out in the NPD Project

Agreement, the Board's Construction Requirements and/or SFT under the derogations process subject to ensuring equality of treatment amongst all Bidders.

- 4.3.26 General information such as marketing and promotional information will not be accepted by the Board and all information provided by Bidders must be specific to the information that is requested.
- 4.3.27 Bidders are required to provide a Final Tender that are acceptable to all legal entities (including, where relevant, any Senior Funders and relevant subcontractors) that are involved in the development of a Solution and the preparation of Final Tenders.
- 4.3.28 Bidders shall note that the Board shall reserve its position on the acceptability or otherwise of the Final Tender.

4.4 Conject

- 4.4.1 The Project will continue to use Conject during the Final Tender process. Conject, is a web-based construction collaboration portal. Procedures utilising Conject shall include:
 - (a) Data room access;
 - (b) Dialogue queries and Dialogue Period bulletin responses;
 - (c) Submitting completed Final Tenders.

4.5 Communication Protocol

- 4.5.1 All information and communication flows between the Board and Bidders during the Final Tender Period will be via Conject. The process for information and communication flows between the Board and Bidders including queries, bulletins, and request for clarifications is set out in paragraph 4.6.
- 4.5.2 Information and communication flows between the Board and Bidders will be categorised as follows:
 - (a) Dialogue Period Query (Confidential/Not Confidential – see paragraph 4.6.1) prepared by a Bidder and communicated to the Board relating to an ISFT process query only;
 - (b) Dialogue Period Bulletin prepared by the Board and communicated to a Bidder (in response to an ISFT process query only);
 - (c) Request for clarification prepared by the Board and communicated to a Bidder in response to a Final Tender Submission.
- 4.5.3 Please refer to Appendix D of Volume 1 of the ISFT for template form to be used by Bidders when sending a Dialogue Period Query.
- 4.5.4 The Board is entitled to decline to respond to any other form of information and communication flow sent by a Bidder.
- 4.5.5 Bidders may communicate a Dialogue Period Query to the Board no later than four (4) Business Days after the issue of ISFT.

- 4.5.6 The Board will endeavour to provide a Dialogue Period Bulletin in response to a Dialogue Period Query by no later than four (4) Business Days before the date of submission of Final Tenders.
- 4.5.7 Receipt of information and communications flows between the Board and Bidders will be recorded in accordance with Conject User Manual.
- 4.5.8 Additionally, the Board reserve the right to issue additional information at any time during the Final Tender Period. The Board may exercise the option to postpone the return of the Final Tender in the event that additional information is issued which has a bearing on the Final Tender.

4.6 Commercially sensitive and confidential information

- 4.6.1 If a Bidder considers a communication or any part of its submission to be commercially sensitive and wishes it to be treated by the Board as confidential they should make it clear in the relevant section of the Dialogue Period Query template form and explain in concise terms what harm may result from its disclosure.
- 4.6.2 If the Board does not agree that a communication is commercially sensitive, the Bidder will be invited to withdraw this communication. In the event that this invitation is declined, the Board will distribute a response to all Bidders.
- 4.6.3 If the Board agrees that a communication is commercially sensitive it will be treated in the strictest confidence by the Board subject to an entitlement to share such communication with the relevant members of the Board's Project team including advisers and key stakeholders for the purposes of preparing a confidential response.

4.7 Building Information Modelling (BIM)

Building Information Modelling (BIM) is being increasingly used within the industry. The use of BIM is being encouraged by central government and the Board expect that Bidders will use BIM for the development and implementation of their proposals.

Bidders shall prepare a BIM execution plan for review by, and agreement with, the Board. The BIM execution plan must be prepared in accordance with BS1192 and shall be submitted as part of their Final Tender. Appendix J contains further details of the Board's BIM requirements for the Project.

5 TENDER EVALUATION AND CONTRACT AWARD CRITERIA

5.1 Introduction

- 5.1.1 This section outlines the approach to the evaluation methodology for the Final Tenders.
- 5.1.2 Contract award will be on the basis of the offer, contained in the Final Tender, which is the most economically advantageous as set out in paragraphs 5.6 (Quality Evaluation Criteria), 5.7 (Price Evaluation) and 5.8 (Combining Price and Quality Evaluation), also in accordance with Part 5 of the Regulations.

5.2 Overview of Evaluation Process

- 5.2.1 The Final Tender evaluation will comprise the following steps:
- (a) Completeness and compliance check – as more fully set out in paragraph 5.3 (Compliance and Completeness);
 - (b) Compliance with the Stand Alone Requirements – as more fully set out in paragraph 5.4 (Compliance with Stand Alone Requirements);
 - (c) Evaluation of all of the Quality Evaluation Criteria on a pass/fail basis - as more fully set out in paragraph 5.6.2 (Quality Evaluation Criteria)
 - (d) Evaluation of those Quality Evaluation Criteria that are evaluated on a scored basis - as more fully set out in paragraphs 5.6.3 (Quality Evaluation Criteria) which will result in a mark out of 40 being awarded to each Bidder;
 - (e) Price Evaluation (including commercial aspects) – as more fully set out in paragraph 5.7 (Price Evaluation), which will result in a mark out of 60 being awarded to each Bidder; and
 - (f) Combination of Price Evaluation Mark and Quality Evaluation Mark, resulting in a mark out of 100 being awarded to each Bidder, as more fully set out in paragraph 5.8 (Combining Price and Quality Evaluation).

Should a Final Tender fail any of the steps set out in paragraphs 5.2.1 (a), (b), or (c) above then the Final Tender will be deemed to be non-compliant and no further evaluation will be carried out.

- 5.2.2 Bidders should note that Board's requirements as referred to in Table B and Table C of paragraph 5.6 (Quality Evaluation Criteria) means all requirements of the Board as set out in Volume 2 and Volume 3 of (and any requirements referred to within) this ISFT.

5.3 Compliance and Completeness

- 5.3.1 The Board will check each Final Tender for compliance and completeness to establish if it has been prepared and submitted in accordance with and meets the requirements set out in the ISFT.

- 5.3.2 The Board is entitled to disqualify a Bidder if a Final Tender is not prepared and submitted in accordance with the requirements set out in the ISFT. The Board's decision on this matter will be final.
- 5.3.3 The Board is entitled, but not obliged, to seek clarification from Bidders at any time in respect of incomplete and ambiguous information contained in a Final Tender.
- 5.3.4 In the event the Board receives incomplete or ambiguous information in a Final Tender or response to a request for clarification the Board is entitled to disqualify a Bidder and the Board's decision on this matter will be final.
- 5.3.5 The Board may request a Bidder to clarify a Final Tender received, but such clarification, specification and/or fine tuning shall not involve material changes to a Final Tender when such clarifications, specifications or fine tuning are likely to distort competition or have a discriminatory effect.

5.4 Compliance with Stand Alone Requirements

- 5.4.1 The Board will check each Final Tender for compliance with the Stand Alone Requirements as identified in paragraph 2.3 (Stand Alone Requirements). Non-compliance with the Stand Alone Requirements will result in the Final Tender being deemed to be non-compliant.

5.6 Quality Evaluation Criteria

- 5.6.1 The Quality Evaluation Criteria (QEC), the basis for evaluation and, where relevant, their weightings are included in Table A below. Bidder's should note that Appendix A (ii) (Technical Submission Requirements) of the Volume 1 of the ISFT sets out for Bidder's (under the column "Submission Requirement") a description of technical aspects which the Board require, or where indicated anticipate Bidders should provide in their Submissions. Please note, however, that the individual submission requirements (for example, the bulleted points) are not and should not be treated by Bidders as sub-evaluation criteria. Bidders are reminded that the QEC are as set out in Table A (duplicated in the first, second and third columns of Appendix A (ii) (Technical Submission Requirements) of the Volume 1 of the ISFT for ease of reference) and responses to each QEC will be evaluated only in accordance with this paragraph 5 and no other basis.
- 5.6.2 The Board are keen to ensure that the Bidder appointed Preferred Bidder is able to deliver the highest quality in respect of all of its requirements. Therefore in the first instance, all QEC will be evaluated on a pass/fail basis. Primarily the QEC will be evaluated in accordance with the pass/fail criteria set out in Table B of this paragraph 5.6.2 However, in some instances the Board's requirements for a QEC are not set out in Volume 2 and Volume 3 of the ISFT and as such Table B shall not apply. In those cases the QEC shall be evaluated by the Board based on the pass/fail criteria set out in the column headed "Pass / Fail Guidance" (where relevant) in Appendix A(ii) of the ISFT. Bidders were made aware, pursuant to submission of Draft Final Tenders, of specific areas in which their draft proposals submitted at that stage did not constitute a pass.
- 5.6.3 Following the pass/fail evaluation the Board will then carry out a detailed assessment of the remaining Final Tenders to evaluate some of the QEC based on a scored evaluation. The scored assessment shall only apply to those QEC flagged as "scored" in Table A of this paragraph 5.6. Each of these scored QEC shall be given a score of between 5 and 10 in accordance with the scoring system set out in Table C of this paragraph 5.6. The score for each QEC will then be multiplied by the QEC Weighting and divided by 10 to give a weighted

score. The weighted score for each QEC will be added to give a total score for Quality out of 40 (the **Quality Evaluation Mark**).

Table A – Evaluation Basis and Weightings for Quality Evaluation Criteria

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
A – Executive Summary			Not Scored	
B – Strategic and Management Approach (5%)				
	B1	Clarity, robustness and quality of understanding of policy framework and approach to addressing these.	Scored	0.16
	B2	Clarity, robustness and quality of approach to contribution to delivering the Board's 'vision' and associated performance management regime.	Scored	0.32
	B3	Clarity, robustness and quality of understanding of Project outcomes and approach to contribution of delivering these.	Scored	0.56
	B4	Clarity, robustness and quality of approach to partnership and collaborative working with the Board and its partners.	Scored	0.81
	B5	Clarity, robustness and quality of approach to staff development including recruitment, training, induction and HR issues.	Scored	0.32
	B6	Clarity, robustness and quality of approach to delivering community benefits.	Scored	0.32
	B7	Clarity, robustness and quality of approach to integration of design with facilities management considerations.	Scored	0.32
	B8	Clarity, robustness and quality of approach to consortia management arrangements including approach to sub contractors.	Scored	0.57
	B9	Quality of proposed personnel.	Scored	0.32
	B10	Clarity, robustness and quality of approach to continuity throughout the Project.	Scored	0.32
	B11	Acceptable organisational diagrams for each stage of	Pass/Fail	

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		Project.		
	B12	Clarity, robustness and quality of approach to health and safety.	Scored	0.81
	B13	Acceptable approach to environmental, quality and health and safety management systems.	Pass/Fail	
	B14	Clarity, robustness and quality of approach to management of design development including integration with the Board and its partners.	Scored	0.16
	B15	Acceptable programme from appointment as Preferred Bidder to Financial Close.	Pass/Fail	
C – Approach to Design & Construction (23%)				
	C1	Clarity, robustness and quality of approach to meeting the stakeholders requirements in their design.	Scored	2.64
	C2	Clarity, robustness and quality of approach to design quality.	Scored	1.85
	C3	Clarity, robustness and quality of architectural and landscape design.	Scored	2.64
	C4	Clarity, robustness and quality of approach to delivering innovation.	Scored	2.64
	C5	Clarity, robustness, and quality of approach to adaptability and flexibility.	Scored	2.64
	C6	Clarity, robustness and quality of way finding and signage proposals.	Scored	1.06
	C7	Clarity, robustness and quality of interior design proposals.	Scored	2.64
	C8	Clarity, robustness and quality of M&E engineering design proposals.	Scored	1.06
	C9	Clarity, robustness and quality of natural and artificial lighting proposals.	Scored	1.06
	C10	Clarity, robustness and quality of energy management proposals.	Scored	1.85
	C11	Clarity, robustness and quality of equipment proposals.	Scored	1.06

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
	C11A	Compliance with Minimum Level of Group 1 Equipment.	Pass/Fail	
	C12	Compliance With Mandatory Reference Design Requirements.	Pass/ Fail	
	C13	Acceptable approach to achieving planning permission.	Pass/ Fail	
	C14	Acceptable vertical and horizontal movement strategy.	Pass/ Fail	
	C15	Acceptable ICT strategy.	Pass/ Fail	
	C16	Acceptable fire planning strategy.	Pass/ Fail	
	C17	Acceptable structural design proposals.	Pass/ Fail	
	C18	Acceptable services, utilities and infrastructure proposals.	Pass/ Fail	
	C19	Acceptable approach to achieving required BREEAM rating.	Pass/ Fail	
	C20	Acceptable post Preferred Bidder stage design development proposals and design programme.	Pass/ Fail	
	C21	Compliance with Board's Construction Requirements.	Pass/ Fail	
	C22	Acceptable design life proposals.	Pass/ Fail	
	C23	Acceptable construction programme and approach to monitoring.	Pass/ Fail	
	C24	Clarity, robustness and quality of construction methodology.	Scored	1.85
	C25	Acceptable approach to commissioning and handover.	Pass/ Fail	
	C26	Acceptable approach to quality and environmental management systems.	Pass/ Fail	
	C27	Acceptable approach to health and safety management.	Pass/ Fail	
	C28	Acceptable approach to compliance with CDM regulations.	Pass/ Fail	
	C29	Robustness of technical costs.	Pass/ Fail	
	C30	Acceptable list of summary assumptions, clarifications and derogations.	Not Scored	
	C31	Acceptable Interface Proposals.	Pass / Fail	
D – Approach to Facilities Management (12%)				
	D1	Clarity, robustness and quality	Scored	2.50

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		of approach to management and administration of the Services and Contract.		
	D2	Acceptable approach to integration with Board policies and operation.	Pass/ Fail	
	D3	Acceptable approach to ensuring quality management.	Pass/ Fail	
	D4	Acceptable approach to ensuring environmental management.	Pass/ Fail	
	D5	Acceptable approach to ensuring health and safety management.	Pass/ Fail	
	D6	Acceptable approach to interfacing with the Board for undertaking works outside of access times.	Pass/ Fail	
	D7	Clarity, robustness and quality of approach to partnership and resources including liaison, resources and supply chain management.	Scored	2.50
	D8	Acceptable approach to business continuity planning.	Pass/ Fail	
	D9	Acceptable fire safety policies and procedures.	Pass/ Fail	
	D10	Clarity, robustness and quality of approach to performance and information management including; Helpdesk, programme maintenance lifecycle, performance monitoring, monitoring and records, regular reports and information requests, building services and statutory testing.	Scored	4.50
	D11	Acceptable approach to un-programmed maintenance.	Pass/ Fail	
	D12	Clarity, robustness and quality of approach to service elements including; utilities management and grounds maintenance services.	Scored	2.50
	D13	Robustness of technical costs.	Pass/ Fail	
	D14	Acceptable list of summary assumptions, clarifications and derogations.	Not Scored	
	D15	Acceptable approach to mobilisation of Facilities	Pass/ Fail	

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		Management services.		

Table B – Pass / Fail Criteria for Quality Evaluation Criteria

	Pass / Fail Criteria
Pass	<p>The Bidders approach:</p> <ul style="list-style-type: none"> demonstrates a satisfactory understanding of the Board's requirements; and delivers a satisfactory level of compliance with the Board's requirements.
Fail	<p>The Bidders approach:</p> <ul style="list-style-type: none"> fails to demonstrate a satisfactory understanding of the Board's requirements; or fails to deliver a satisfactory level of compliance with the Board's requirements.

Table C – Scoring System for Quality Evaluation Criteria

Scoring Range	Categorisation	Description
5 – 10		
5	Satisfactory	<p>The Bidder's approach:</p> <ul style="list-style-type: none"> demonstrates a satisfactory understanding of all aspects of the Board's requirements; and/or proposes a solution which performs satisfactorily in complying with the Board's requirements.
6-7	Good	<p>The Bidder's approach:</p> <ul style="list-style-type: none"> demonstrates a satisfactory understanding of all aspects of the Board's requirements and a detailed and good understanding of some aspects of the Board's requirements; and/or proposes a solution which performs well against the Board's requirements.

Scoring Range 5 – 10	Categorisation	Description
8-9	Very Good	The Bidder's approach: <ul style="list-style-type: none"> • demonstrates a detailed and very good understanding of all aspects of the Board's requirements; and/or • proposes a solution which, performs very well against the Board's requirements.
10	Excellent	The Bidder's approach: <ul style="list-style-type: none"> • demonstrates an exceptional understanding of all aspects of the Board's requirements; and/or • proposes a solution which performs very well in complying with the Board's requirements and excels in complying with some of the Board's requirements.

5.7 Price Evaluation

5.7.1 Economic Cost

The Economic Cost of the Submission will be determined by calculating the Net Present Value (NPV) of each Financial Submission over the period of the NPD Project Agreement using the following components:

- (a) NPV of Annual Service Payment - The proposed total Annual Service Payment stream in the Bidder's Financial Model, taken from Financial Pro-forma 1 and verified against the Financial Model, prepared using the assumptions and specifications set out in paragraphs 3.8 and 3.9. The NPV will be calculated using the Treasury real discount rate of 3.5% (6.0875% nominal);
- (b) NPV of Surpluses - The forecast level of surpluses in the Bidder's Financial Model, as presented in Financial Proforma 2 and verified against the Financial Model will be deducted from the NPV of the total Annual Service Payment. Due to the more uncertain nature of the surplus payments the NPV will be calculated using a real discount rate of 4.39% (7.0% nominal);
- (c) Equalisation Adjustment - Any additional material related costs and revenues to be borne by the Board as a result of any Financial Submission, including the pass-through costs of energy and utilities, rates and insurance costs as set out in Financial Pro-forma 1. The impact of such costs will be estimated by the Board and expressed as an NPV of the adjustments made, discounted at a real rate of 3.5%. Where an Equalisation Adjustment (other than the pass-through costs) has been made, the nature of and rationale for the adjustment will be disclosed to the Bidder; and
- (d) Quantifiable Bidder Amendments - The Economic Cost will include an amount that reflects the deemed value (whether positive or negative) of any (i) amendments, caveats or qualifications to the NPD Project Agreement or specification that affect the risk profile of the Project or (ii) elements of the Financial Submission, that have or, in the reasonable opinion of the Board may have, a significant and quantifiable financial impact on the

Board (a '**Quantifiable Bidder Amendment**'). For this purpose, the deemed value of the Quantifiable Bidder Amendment will be the estimated financial impact to the Board of the risk occurring multiplied by the estimated probability of that risk being realised. Such values will be converted to an NPV using the 3.5% real discount rate.

Where any such Quantifiable Bidder Amendments and/or Equalisation Adjustments are identified, these were discussed and the deemed value shared with each Bidder during Dialogue.

5.7.2 Price Evaluation Mark

The Economic Cost derived from the components described in paragraph 5.7.1 will be scored as shown in the table below, with the Bidder with the lowest Economic Cost scoring the maximum 60 (the **Price Evaluation Mark**).

Deviation from lowest Economic Cost	Price Evaluation Mark
$\leq 0.25\%$	60
$> 0.25\%, \leq 0.50\%$	59.75
$> 0.50\%, \leq 0.75\%$	59.625
$> 0.75\%, \leq 1.00\%$	59.5
$> 1.00\%, \leq 1.50\%$	59.25
$> 1.50\%, \leq 2\%$	59
$> 2\%, \leq 3\%$	58.5
$> 3\%, \leq 4\%$	58
$> 4\%, \leq 5\%$	57.5
$> 5\%, \leq 6\%$	56.5
$> 6\%, \leq 7\%$	55.5
$> 7\%, \leq 8\%$	54.5
$> 8\%, \leq 9\%$	53.5
$> 9\%, \leq 10\%$	52.5
$> 10\%, \leq 11\%$	50.5
$> 11\%, \leq 12\%$	48.5
$> 12\%, \leq 13\%$	46.5
$> 13\%, \leq 14\%$	44.5
$> 14\%, \leq 15\%$	42.5

Deviation from lowest Economic Cost	Price Evaluation Mark
> 15%, </= 16%	40.5
> 16%, </= 17%	37.5
> 17%, </= 18%	34.5
> 18%, </= 19%	31.5
> 19%, </= 20%	28.5
> 20%, </= 21%	24.5
> 21%, </= 22%	20.5
> 22%, </= 23%	16.5
> 23%, </= 24%	12.5
> 24%, </= 25%	8.5
> 25%	0

5.7.3 Evaluation of Funding Approach

The Board will evaluate Bidders' submissions in relation to funding on a scored basis. The areas of the submission that will be evaluated for this purpose are, primarily, the responses to questions F1-F7. However, responses to questions F8-F17 will also be taken into account where these would have a bearing on the deliverability of funding. Such scoring would be applied as an adjustment to the Price Evaluation Mark only and would not form part of the Qualitative appraisal.

The scoring scheme to be applied is set out in the table below:

Adequacy of response	Overall deduction from Price Evaluation Mark
All required information is provided, with no omission or qualification, and provides strong evidence that the eventual funding package adopted will be deliverable	No deduction
Required information is largely provided, with answers present for all questions, with only minor and insignificant omission or qualification, and provides reasonable evidence that the eventual funding package adopted will be deliverable	Deduction of 1 Mark
Information provided contains significant omissions and qualifications, with only some evidence provided that the eventual funding package adopted will be deliverable	Deduction of 2 Marks
Information provided is insufficient and contains multiple significant omissions and qualifications, with several questions not answered	Deduction of 3 Marks

adequately, with little evidence that that the eventual funding package adopted will be deliverable	
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By way of example, the lowest priced Final Tender would be awarded the maximum Price Evaluation Mark of 60, but should that Bidder's responses in relation to funding be inadequate, the Bidder may sustain a deduction that could reduce this Mark to 57.

Bidders were made aware, pursuant to submission of Draft Final Tenders, of how their Draft Final Tender submissions would be scored under the above mechanism". The purpose of adding this wording is to reduce risk of arguments that bidders were unaware of how this process would operate

5.8 Combining Price and Quality Evaluation

For each Bidder, the Price Evaluation Mark (out of 60) will be added to the mark for the Quality Evaluation Mark (out of 40) to give a total mark out of 100. The Final Tender with the highest combined mark will be deemed by the Board to be the most economically advantageous tender.

6 GENERAL PROCUREMENT RULES

6.1 Introduction

This section outlines the general procurement rules applying to the Project competition relevant to submission requirements and elsewhere within the ISFT.

6.2 Information provided to Bidders – Confidentiality and Crown Copyright

By receiving the ISFT, each Bidder agrees to keep confidential the ISFT and all of the Information Provided.

Bidders shall not reproduce the ISFT in any form (including photocopying or storing by electronic means) or any other Information Provided for any purpose other than that specifically necessary to submit a Final Tender without the specific written permission of the Board.

The ISFT and Information Provided may be made available to a Bidder's members, employees and professional advisers directly involved in the appraisal of such information (who must be made aware of the obligation of confidentiality) but shall not, either in whole or in part, be copied, reproduced, distributed or otherwise made available to any other party in any circumstances without the prior written consent of the Board, nor may it be used for any other purposes than that for which it is intended.

The ISFT (including any copies and or any supplemental or referenced documents) and any Information Provided is and shall always remain the property of the Board who is entitled to demand their return and/or destruction at any time.

6.3 Information provided to Bidders - Warnings / Disclaimers

While the Information Provided has been prepared in good faith, it does not purport to be comprehensive nor to have been verified by the Board or any of their advisers. Neither the Board nor any of their agents or advisers accept any liability or responsibility for the accuracy, adequacy or completeness of any opinions, commentary, information and documentation contained in the ISFT or of any other opinions, commentary, information and documentation made available during the Tender Period or in respect of any Final Tender. No representation or warranty, express or implied, is or will be given by the Board or any of their agents or advisers with respect to such opinions, commentary, information and documentation. Any liability therefore is hereby expressly disclaimed.

It is not warranted that the Information Provided shall identify or provide Bidders with Solutions for the attainment of the Board's requirements. It is the responsibility of each Bidder to develop their proposals to ensure that they satisfy the Board's requirements.

Bidders must obtain for themselves at their own responsibility and expense all information necessary for the preparation of their Final Tender.

Bidders must complete and provide all information in accordance with the conditions and requirements of the ISFT.

6.4 Restrictions on the Use of the Invitation to Submit Final Tender

The ISFT and subsequent Information provided should not be considered as an investment recommendation made by the Board or any of its advisers or agents to any of the Bidders. Each person to whom the ISFT is issued should make its own independent assessment of the Project

competition and all matters relevant to that competition and to the Project after making such investigation and taking such professional advice as it deems necessary.

Nothing in the ISFT is, or should be, relied upon as a promise or representation as to the Board's ultimate decision in relation to the Project competition and/or the award of a public contract.

6.5 The Board's Right to Terminate

Bidders' attention is drawn to the fact that, by issuing the ISFT, the Board is in no way committed to accepting any Final Tender or identifying a Preferred Bidder.

The Board reserves the right, in its absolute discretion, to terminate, cancel or abandon the Project competition at any time before the execution of the NPD Project Agreement without giving prior notice to Bidders. In the event that the Project competition is so terminated, the Board will have no liability whatsoever to a Bidder, their subcontractor(s), their funders, the advisers to the Bidder or adviser(s) to any subcontractor(s) or funders for any costs incurred in connection with the Project competition.

6.6 Board's right to vary the process

The Board reserves the right, at its discretion, and subject to compliance with procurement law requirements:

- 6.6.1 to change the basis of, terms of or the procedure for, the process, including the timing, form and substance of the procedure of the Project competition. Under no circumstances shall the Board incur any liability in respect thereof.
- 6.6.2 to issue supplementary documentation at any time during the Project competition in order to clarify any matter and/or amend any aspect of the Information Provided.
- 6.6.3 amend the Board's requirements, Mandatory Reference Design Requirements, NPD Project Agreement and/or any other aspect of the Board's procurement documentation.

Any changes shall be communicated to Bidders as quickly as possible.

6.7 Conduct and Conflicts of interest

The Board wishes to avoid or resolve any conflicts of interest or other matters which may compromise its legal obligations relevant to conducting an open, transparent, fair and non-discriminatory competitive procurement. A Bidder must, accordingly, ensure that its participation in the Project competition that may lead to the award of a contract does not in any way compromise the Board's performance of its obligations.

A Bidder must consider these matters carefully on an ongoing basis and ensure that its actions are not capable of compromising the Board's ability to meet its obligations.

If in doubt, a Bidder must declare a potential conflict of interest and inform the Board of the measures the Bidder intends to implement to avoid it occurring.

The Board and Bidders will seek to agree the measures that are necessary to avoid any conflicts of interest or potential conflicts of interest arising.

In the event that an agreement cannot be reached and the Board considers its obligations in relation to the procurement are compromised, the Board reserves the right to disqualify a Bidder from the Project competition. The Board's decision on this matter will be final.

Each Bidder shall ensure that all relevant entities involved in its participation in the Project competition, including, without limitation, consortia members, subcontractors and all relevant technical, financial and legal advisers, are aware of the provisions of this paragraph 6 and do not breach any of the provisions set-out herein

6.8 Canvassing and contacts

Except as provided in the ISFT, Bidders shall not approach staff of the Board or staff of the Board's advisers or contractors with a view to obtaining information or clarification in respect of any part of their Submission or solution or attempting to support or enhance their prospect of being identified as the Preferred Bidder. Any such approach or attempted approach by a Bidder may lead to the Bidder's disqualification.

Bidders are required to complete a Certificate of Non-Collusion and Non-Canvassing as part of their Final Tender.

6.9 Disqualification/Rejection of Bidders

In accepting delivery of the ISFT, each Bidder agrees to abide by the provisions and conditions that it contains, or which are set out in any subsequent Information Provided in relation to the Project competition, in all and any dealings or communications, during the Final Tender or otherwise in relation to the Project.

The acceptance of the ISFT by a Bidder will imply acceptance of its provisions by Bidders without qualification. Any attempt to qualify provisions, either expressly or impliedly, may result in the Bidder being disqualified.

The Board reserves the right to reject or disqualify a Bidder where:

- 6.9.1 a Bidder's Submission is submitted late, completed incorrectly, incomplete or fails to include a Solution capable of meeting the Board's requirements; and/or
- 6.9.2 the Bidder or any person or entity involved with the Bidder's participation in the Project competition is guilty of serious misrepresentation in relation to any aspect of the Project competition; and/or
- 6.9.3 there is a change in identity, control, financial standing or other factor impacting on the selection and/or evaluation process affecting the Bidder including, where the Bidder is a consortium, changes relevant to Consortium membership and members, and such changes shall be addressed in accordance with paragraph 6.13; and/or
- 6.9.4 the Bidder or any person or entity involved with the Bidder's participation in the Project competition contravenes any of the terms of the ISFT or terms set out in any subsequent Information Provided, including within the Invitation to Submit Final Tenders; and/or
- 6.9.5 the Board becomes aware that information provided by the Bidder or any person or entity involved with the Bidder's participation in the Project competition is intentionally or unintentionally false, misleading or incorrect; and/or
- 6.9.6 the Bidder or any entity involved with the Bidder's participation in the Project competition prejudices the Project competition by failing to take steps to address a conflict of interest or

other matters which impact negatively on the Board's ability to meet its procurement law obligations.

6.10 Costs

All work undertaken and costs incurred by Bidders in relation to any stage of the Tender Period and any Final Tender, or otherwise in relation to the Project, shall be at each Bidder's own risk and expense.

6.11 Freedom of Information

FOISA and the Environmental Information (Scotland) Regulations provide significant and important rights to access information and the Board supports FOISA's and the Environmental Information (Scotland) Regulations' underpinning principles by encouraging behaviour which is open, transparent and increases public participation. Accordingly, all information submitted to the Board may be disclosed by the Board in response to a request under FOISA and the Environmental Information (Scotland) Regulations or in response to Legislation requiring the disclosure of information by the Board. The decisions of the Board in the interpretation thereof shall be final and conclusive in any dispute, difference or question arising in respect of disclosure. The Board may also decide to include certain information in the publication scheme which it maintains under FOISA and the Environmental Information (Scotland) Regulations.

Further, the Board may also disclose all information submitted to them to the Scottish or United Kingdom Parliament or any other department, office or agency of Her Majesty's Government in Scotland or the United Kingdom, and their servants or agents.

If a Bidder considers that any of the information to be provided is commercially sensitive, it shall be obliged to identify it and explain to the Board (in broad terms) what harm may result from its disclosure. Bidders should be aware that, even where it has indicated that information is commercially sensitive, the Board may be required to disclose it and as such reserves the right to do so. Bidders should be further aware that the basis of the preferred bid will be included within the Full Business Case that the Board requires to complete. The Full Business Case will be made a public document.

Bidders should also note that the receipt of any material marked 'confidential' or equivalent by the Board should not be taken to mean that the Board accept any duty of confidence by virtue of that marking.

The Board may publish, on the Scottish Government and the Board's websites, the names and contact details of Bidders who have been issued with the ISFT.

6.12 Collusion

Any collusion between Bidders, their subcontractors or advisers will lead to the exclusion of the Bidders involved at the discretion of the Board.

Bidders shall be required to sign the Certificate of Non-Collusion and Non-Canvassing and to submit it no later than five (5) Business Days from the date of issue of the ISFT.

6.13 Changes in Bidder Circumstances

Each Bidder is required immediately to bring to the Board's notice any change in the identity of any organisation, consortium member or entity identified and evaluated in its pre-qualification submission since the submission of the Pre-Qualification Questionnaire and such change may only be made with the prior written agreement of the Board. Any additional information provided by a Bidder pursuant to the requirements of this section will be evaluated in accordance with the selection criteria in respect of such information in the Pre-Qualification Questionnaire. The Board has selected the Bidders on the basis of information provided by them concerning their eligibility, the economic and financial standing, technical and professional ability. The Board reserve the right to withdraw the selection of a Bidder at any time if the Board concludes that a Bidder is ineligible, no longer satisfies the minimum standards of economic and financial standing or technical and professional ability or is otherwise required by its procurement law obligations to reject the Bidder.

6.14 Non Compliance

Any Submission provided without the Bidder complying with the requirements of the ISFT may be rejected by the Board.

6.15 Publicity and Media Statements

Bidders shall obtain the Board's specific written permission (on form, content and purpose) before any statements or other disclosures regarding their involvement in the procurement of the Project are made public (media, seminars, websites, conferences, promotional material etc).

6.16 Variant Bids

In accordance with the OJEU Notice, Bidders should be aware that no variant bids will be permitted.

Appendix A (i) – Not used

Appendix A (ii) – Technical Submission Requirements

The technical Submissions submitted by the Bidders shall be structured following the same numbering reference system as set out in the “Quality Evaluation Criteria and Reference” and the “Submission Requirement Reference” in the table below.

In relation to the technical Submission Requirements for C (Approach to Design and Construction), subject to the requirements of paragraph 4 of Volume 1 of the ITPD and to encourage and facilitate innovative technical solutions, Bidders are permitted to submit its responses in a format (e.g. written responses, drawings or other representations) which they consider most appropriate to best demonstrate an understanding of the Board's requirements and/or a solution which complies with the Board's requirements. However, as a minimum, the Board would require all design deliverables set out in AP1.1 and AP1.2 to be submitted as part of the Submission Requirements for C (Approach to Design and Construction) and each response (C1 to C31) should refer to which Design Deliverables within AP1.1 and AP1.2 support the response.

The technical submission requirements submitted by the Bidders in response to section C (Approach to Design and Construction) below will ultimately form part of Project Co's Proposals in accordance with the NPD Project Agreement.

The technical submission requirements submitted by the Bidders in response to section D (Approach to Facilities Management) below will ultimately form part of the Method Statements in accordance with the NPD Project Agreement.

The technical submission requirements submitted by the Bidders in response to section B (Strategic and Management Approach) below will form part of Project Co's Proposals and/or the Method Statements in accordance with the NPD Project Agreement.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
A. Executive Summary					
A1	Not Scored	n/a	A1.1	<p>Bidders must submit an Executive Summary of their Final Tender. The Executive Summary shall include:</p> <ul style="list-style-type: none"> • An overview of the Bidders' approach to the Project; • The Bidders' understanding of the Project, key Board requirements and 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>the main factors, as determined by the Bidder that will influence the deliverability of the Project. In addition a concise statement describing the Bidders' approach to address the factors identified;</p> <ul style="list-style-type: none"> • An indication of what the Bidders bring to the Project by way of skills or innovative solutions to meet their own criteria for success; • An overview of the Bidders' accepted list of key assumptions or clarifications • An overview of the Bidders' proposed design solution and integration with the Site; and • An overview of the Final Tender from a financial perspective, including a summary of capital costs, the Unitary Payment and funding structures. 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B. Strategic and Management Approach					
B1. Clarity, robustness and quality of understanding of policy framework and approach to addressing these.	Scored	0.16	B1.1	Bidders must submit proposals setting out their understanding of the relevant local and national health policies and describe how these strategic issues have been included within the Bidders' Final Tender submission, in particular with respect to the delivery of solutions specific to this Project.	To Pass, Bidders will be required to demonstrate a clear understanding of national health policies specific to the Project.
B2. Clarity, robustness and quality of approach to contribution to delivering the Board's 'vision' and associated performance management regime	Scored	0.32	B2.1	Bidders must submit proposals setting out how their proposals will enhance and contribute to the Board's vision. Bidders should explain their role in delivering the Board's vision, and include proposed performance management mechanisms for demonstrating Project Co's contribution to the achievement of this vision.	To Pass, Bidders will be required to demonstrate that they will contribute to the Board's vision.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B3. Clarity, robustness and quality of understanding of Project outcomes and approach to contribution of delivering these	Scored	0.57	B3.1	Bidders must submit proposal setting out their understanding of the Project outcomes (as outlined in the Boards benefits realisation plan) and how their proposals will contribute to the delivery of outcomes/benefits with specific details of how the Bidder has already addressed these in their Final Tender submission, or how they will be addressed after Final Tender submission. Bidders must also outline what they offer by way of skills and/or innovative solutions to deliver these outcomes/benefits.	To Pass, Bidders will be required to demonstrate that they understand the Project outcomes and will contribute to these.
B4. Clarity, robustness and quality, of approach to partnership and collaborative working with the Board and its partners	Scored	0.81	B4.1	<p>Bidders must submit a method statement outlining their approach to collaborative working and developing and maintaining a successful long term partnership with the Board and its partners, (i) in the period from Preferred Bidder appointment to Financial Close; (ii) throughout the construction period; and (iii) operational period of the contract confirming in their proposals:</p> <ul style="list-style-type: none"> • What they believe to be the factors critical to achieving a successful relationship (both short term and long term); 	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to collaborative working.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<ul style="list-style-type: none"> • Their understanding of the key interface issues and how they intend to manage these and integrate with the existing relationships; • How they will develop and maintain a full understanding of the Boards' objectives including matters identified during Dialogue; • How their objectives can reflect and adapt to the Board's goals as they evolve over time; and • The manner in which they will conduct themselves that accords with the culture of the Board, local communities and other key stakeholders to the Project. 	
B5. Clarity, robustness and quality of approach to staff development including recruitment, training, induction and HR issues	Scored	0.32	B5.1	<p>Recruitment The Bidders must submit proposals setting out details of the following:</p> <ul style="list-style-type: none"> • Approach to recruitment and vetting of staff, including as appropriate relevant security clearances (e.g. Disclosure Scotland, Protection of Vulnerable Groups Scheme etc); • Procedures for working in areas with children or vulnerable persons; and 	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to staff development.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			<p>B5.2</p> <p>B5.3</p>	<ul style="list-style-type: none"> • Details of its employment policy and evidence that employees and prospective employees are treated fairly irrespective of race, gender, religion, disability or background. <p>Human Resources Issues</p> <p>The Bidders must submit proposals setting out:</p> <ul style="list-style-type: none"> • Details of their Occupational Health approach for staff having come into contact with high risk person or areas. <p>Training and Induction</p> <p>The Bidders must submit proposals setting out:</p> <ul style="list-style-type: none"> • Details of any achievement in relation to the Investors In People initiative (or equivalent); • Details of the Bidder's employee development and appraisal system; • Details of its own and its supply chain's training policy and procedures, including an indication of the training to be offered to the on-site staff specific to this Contract and a statement of the percentage of their annual turnover which is spent on staff training; 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<ul style="list-style-type: none"> • Details of induction programme and ongoing training for staff, specifically working with HV systems and Legionella control; and • Details of induction programme for sub-contractors. 	
B6. Clarity, robustness and quality of approach to delivering community benefits	Scored	0.32	B6.1	Bidders must submit their proposals to deliver community benefits as part of the Project in accordance with Clause 73 (Community Benefits) of the NPD Project Agreement and Appendix I of Volume 1 of the ITPD. These should include specific proposals covering economic, environmental and social benefits related to the Project during both the construction and operational stages of the Project.	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to community benefits (including complying with the minimum targeted recruitment numbers set out in Appendix I Section 2.1).
B7. Clarity, robustness and quality of approach to integration of design with facilities management considerations	Scored	0.32	B7.1	Bidders must submit proposals demonstrating how a consistent and a coordinated approach will be developed and assured between the building design and FM solutions. Bidders shall take account of the hard FM site interface issues and integration with the soft FM which will be provided by the Board. Bidders responses shall include specific	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to integration of design with facilities management.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>proposals on:</p> <ul style="list-style-type: none"> • How their design development process will consider and incorporate the FM aspects at each stage of the process from pre financial close through to construction; and • The method by which design coordination issues will be managed and FM interface issues raised with the Board and its partners. 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B8. Clarity, robustness and quality of approach to consortia management arrangements including approach to sub contractors	Scored	0.57	B8.1	<p>Bidders must submit proposals setting out details of how its consortium will be managed, setting out the key roles and their responsibilities including technical roles within their consortium they have identified as key to the Project during contract finalisation, construction and operational stages and Project Co's role in leading the project management. This shall include team leaders for all principal disciplines, both before and after financial close, and may include but not be limited to the following:</p> <ul style="list-style-type: none"> • Project and programme management; • Risk management; • Design; • Works; • Services; and • Quality, safety and environmental management including HAISCRIBE and BREEAM. 	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to consortia management proposals.
		B8.2	<p>Where any element of the Works and/or Services are to be provided by subcontractors other than the Contractor or Service Provider(s) Bidders must submit details of:</p> <ul style="list-style-type: none"> • The selection process undertaken for such sub contractors that are confirmed at the time of submitting Final Tender, and/or the selection process (including timescales) that will be undertaken for 		

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>those subcontractors yet to be confirmed; and</p> <ul style="list-style-type: none"> The manner in which performance of the sub contractors will be secured and integrated within the overall performance requirements of the Board's output specifications. 	
B9. Quality of proposed personnel	Scored	0.32	B9.1	Bidders must submit a summary curriculum vitae (maximum of two pages per person) of the personnel proposed for the roles identified in B8 above which shall include (as a minimum) details of key experience, education and professional status.	To Pass, Bidders will be required to demonstrate that their key personnel have satisfactory levels of experience.
B10. Clarity, robustness and quality of approach to continuity throughout the Project	Scored	0.32	B10.1	<p>Bidders must submit proposals setting out their continuity plan for all stages of the project. The key matters to be addressed will include:</p> <ul style="list-style-type: none"> how any changes in personnel between their pre and post financial close teams will be managed and communicated; describe how as part of the design development process they view Project Co's role in ensuring design continuity and knowledge transfer. This will include how they will achieve design team continuity throughout the whole design development, construction and operational phases considering the consortium team and design organisations, and the key personnel 	To Pass, Bidders will be required to demonstrate that there will be continuity throughout the Project.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>working within each of those organisations. The continuity plan shall address proposals for the role of design staff on-site during the development and the Works phase; and</p> <ul style="list-style-type: none"> the submission should particularly address the issue of consistency of personnel throughout the project and the need for procedures to deal with knowledge transfer to ensure smooth transition when required. 	
B11. Acceptable organisational diagrams for each stage of Project	Pass/Fail	n/a	B11.1	<p>Bidders must submit organisation diagrams for the consortium including the lines of communication with the Board and other key stakeholders for each of the phases of the project including:</p> <ul style="list-style-type: none"> contract finalisation (appointment of Preferred Bidder to Financial Close); construction and commissioning period; and operational term. 	To Pass, Bidders will be required to demonstrate a clear organisational structure for each stage of the Project.
B12. Clarity, robustness and quality of approach to health and safety	Scored	0.81	B12.1	<p>Bidders must submit a detailed health and safety strategy which the Bidder proposes to adopt to comply with in fulfilling their health and safety obligations throughout the project, covering the following phases:</p> <ul style="list-style-type: none"> contract finalisation (appointment of 	To Pass, Bidders will be required to demonstrate they will adopt a robust approach to health and safety.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>Preferred Bidder to Financial Close);</p> <ul style="list-style-type: none"> • construction and commissioning period; and • operational term. <p>In particular, the proposals should address Project Co's leadership role and key project roles throughout and particularly in the delivery and management of the Project on a 24/7 operational site, addressing key issues such as:</p> <ul style="list-style-type: none"> • The Boards requirements; • Operational continuity requirements of the RIE Facilities; • Obligations to connect to and maintain critical service connections; • Traffic management – construction and operational access/ egress; • Compliance with HaiScribe requirements; • Construction activity; • Linking to a live operational major health facility; • Proximity to live operational general hospital facility (24/7) and medical school; • Security issues; • Access and maintenance requirements of the project; • Pollution control; • Noise, dust, water egress, and vibration issues and the like; and 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<ul style="list-style-type: none">• Details of business continuity plans.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			B13.3	<p>a statement of how and when design changes will be reviewed and commented on by Project Co/ Service Provider.</p> <p>Bidders must submit proposals demonstrating that they operate an accredited Health and Safety management system complying with the OHAS 18001 standard.</p>	
B14. Clarity, robustness and quality of approach to management of design development including integration with the Board and its partners	Scored	0.16	B14.1	<p>Bidders must submit proposals setting out :</p> <ul style="list-style-type: none"> • Their approach to managing the Project's design development, with particular emphasis on development post Final Tender, including proposals for interface with specific sub-groups harmonising with the current Board Project structure. The submission should include a description of the procedures to co-ordinate and manage the design process and to interface with key stakeholders, including document management, verification of design, change control during design development and design reviews; and • The management and review structures and procedures that will be put in place by the Bidder to manage potential conflicts, delays, changes in the Board's goals and other issues at each key design stage of the Project. 	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to management of design development including a commitment to working with the Board.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B15. Acceptable programme from appointment as Preferred Bidder to Financial Close	Pass/Fail	n/a	B15.1	<p>Bidders must submit a week by week programme covering the contract finalisation period from appointment of Preferred Bidder until Financial Close with a detailed breakdown of the key tasks to be completed by the end of each week with the critical path and key milestones shown. Bidders shall supplement the programme with commentary on, as a minimum, the following matters:</p> <ul style="list-style-type: none"> • Mechanisms that will be adopted to ensure that the critical path for the technical, legal and commercial activities will remain on programme, and therefore that the overall Project programme is maintained; • Confirmation of key inputs, timescales and required by dates for the Board to review/approve Bidder submissions during contract finalisation; • Confirmation that their overall programme to Financial Close, is achievable; and • Key risks to the Project proceeding on programme shall also be identified, with a brief commentary on how the Bidder proposes to mitigate each risk. 	To Pass, Bidders will be required to submit a logical and deliverable programme.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C. Approach to Design & Construction					
C1. Clarity, robustness and quality of approach to meeting the stakeholders requirements in their design	Scored	2.64	C1.1	<p>The Bidders must submit proposals setting out their approach to meeting the stakeholders requirements in their design.</p> <p>For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. Evidence that they are sensitive to the co-location of the RHSC and DCN and that they will take advantage of this arrangement to maximise their design; ii. Evidence that they are aware of the wide range of stakeholders associated with these departments and that they understand and will cater for all their requirements in their design; iii. Evidence that their bid will deliver a nurturing, engaged and safe community that supports the well being of all patients, carers, families, visitors and staff; iv. Evidence that their design will provide 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>a healing environment that will assist the Board in its core obligation to deliver clinical care to users of both the RHSC and DCN;</p> <ul style="list-style-type: none"> v. Evidence that their design will include particular consideration of the proposed external spaces, therapy gardens and landscaping, communal patient areas for example quiet and television rooms, public areas; vi. Evidence that their design will adequately address security requirements; vii. Evidence that their design will fully incorporate infection control requirements and HAI Scribe; and viii. In particular for the RHSC and CAMHS, we would expect the Bidders to demonstrate how the design will be developed to achieve: <ul style="list-style-type: none"> i. Facilities that are a beautiful place with children and young people at the centre of a nurturing, engaged and safe community; ii. Facilities that are reassuring, relaxing, convenient and safe with the needs of children and 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>young people and those with disabilities expressly addressed; and</p> <p>iii. Facilities that provide an appropriate balance of internal and external play areas.</p> <p>In relation to the DCN, we would anticipate Bidders shall demonstrate how similar qualities to the above (i – iii) but also in addition, how the design will be developed to achieve a nurturing, quiet and relaxing environment for its patients.</p>	
C2. Clarity, robustness and quality of approach to design quality	Scored	1.85	C2.1	<p>Bidders must submit proposals setting out their approach to achieving design quality. This must be provided as set out in C2.1 – C2.3 below:</p> <p>Bidders must submit proposals setting out how the design will be developed to integrate the architectural, mechanical, electrical and civil and structural engineering aspects of the design to present a cohesive innovative design which meets all the Board's construction and stakeholders' requirements (including infection control and HAI Scribe</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			<p>C2.2</p> <p>C2.3</p>	<p>requirements). The submission shall utilise all Mandatory Reference Design Requirements to deliver a solution across all disciplines.</p> <p>Bidders must submit proposals setting out their design analysis of both the site and the Board's requirements as depicted in the Board's Construction Requirements. The review of the site shall identify, as a minimum, opportunities, constraints and access and planning issues.</p> <p>Bidders must submit proposals setting out a clear statement summarising what they understand to be the key strategic issues relating to the project and demonstrate how the design proposals have dealt with these specific project issues, and any impact their proposals will have on such matters.</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C3. Clarity, robustness and quality of architectural and landscape design	Scored	2.64	C3.1	<p>Bidders must submit proposals setting out their approach to architecture and landscape design. This should be provided as set out in C3.1 – C3.3 below:</p> <p>Bidders must submit proposals setting out their approach to architecture design. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. How the design will deliver world class architectural design practice in delivering Facilities that support the Board's clinical needs and a design which provides a high level of creativity; ii. How the design will provide an ordered composition of building elements in a stimulating form that successfully combines good standards of space, height, form, scale and use of materials and colours / images with associated functional requirements and the surroundings; iii. How the design will address the interests of stakeholders, including (but not limited to) clinicians, patients (and their representatives, families 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C3.2	<p>and carers), health commissioners, Local Government, and the local community;</p> <ul style="list-style-type: none"> iv. How the design will deliver architectural quality and demonstrates how this will be provided; v. How the design will deliver the lines of sight and views from windows which are suitable for children and young people; vi. How the design will provide age and ability appropriate art and way finding design which is integrated into the design solution; vii. How the design will fully consider all aspects of safety in all areas and a description of how risks have been removed through design innovations; viii. How the design will fully address control of infection and HAI Scribe; and ix. How the design will minimise cleaning and maintenance of all elements of the Facilities by choice of materials, layout and orientation and shows how such activities can be carried out safety and without disruption to clinical activities. <p>Bidders must submit proposals demonstrating how they will deliver high</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C3.3	<p>quality architectural buildings, and high quality finishes and component parts. As well as the architectural drawings and supporting information, Bidders shall provide specific details in detailed specification format to include the following:</p> <ul style="list-style-type: none"> i. Internal and external doors and door furniture, also showing proposed pattern of vision panels; ii. Washing and toilet facilities; iii. Reception desks and touchdown bases; iv. Communal patient areas, which include spaces such as playrooms, television rooms and quiet rooms v. External therapy gardens and external covered play and seating areas vi. Floor and wall coverings; vii. Natural and artificial lighting particularly in key public areas, artwork and key clinical areas such as theatres; viii. Samples of worktops and wall cupboards shall be provided for approval by the Board; and ix. Juxtaposition of main external finishes / cladding. <p>Bidders must submit proposals setting out</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>their approach to external hard and soft landscaping (including courtyards and therapy gardens) which shows how the design will be developed for therapeutic use and how it provides patient and staff access and how it enhances the environment of the Facilities. The proposals should demonstrate how the principle elements of external landscaping will be designed. to:</p> <ul style="list-style-type: none"> i. Complement the RHSC and DCN buildings and the neighbouring RIE; ii. Minimise the risk of vandalism and crime; iii. Facilitate security of pedestrians and avoided 'no-go' areas in their design. Ensure site safety and link with the Green Travel Plan; iv. Minimise maintenance and operation costs; v. Ensure easy maintenance and cleaning whilst minimising health and safety issues; vi. Provide appropriate fire safety routes for all users; vii. Incorporate SUDS and other sustainable features; viii. Incorporate art work; and ix. Incorporate lighting, heating, seating, canopy and wind protection arrangements which are appropriate 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>for young children and less disabled people.</p> <p>For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) those items listed in (i) – (ix) above.</p>	
C4. Clarity, robustness and quality of approach to delivering innovation	Scored	2.64	C4.1	<p>Bidders must submit proposals setting out their approach to delivering innovation. This should be provided as set out in C4.1 – C4.4 below:</p> <p>Bidders must submit proposals setting out where it will be, or has been possible to provide innovative solutions to meet the Board’s requirements. Innovation in design can range from whole concepts of hospital planning, distribution of functions etc to the building solution (e.g. use of prefabricated units) to detail design of components, materials, spaces, use of technology and art</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C4.2 C4.3 C4.4	<p>etc. Bidders must show how their design reflects current and developing innovations in healthcare delivery and construction generally and translate these into an innovative building solution.</p> <p>Bidders must submit proposals setting out how their design, using innovation, will optimise the sustainability of the Facilities. Bidders must provide details of their strategy to show how it will optimise energy, water and utility consumption, minimise waste production, implements a strategy to meet the Board's BREEAM requirements including carbon reduction and other positive activities described in the Board's Construction Requirements to provide a sustainable development.</p> <p>Bidders must submit proposals setting out how an innovative approach to the provision of ICT in the Facilities in line with the Board's Construction Requirements and FM Output Specifications has been delivered.</p> <p>Where areas of innovation are identified Bidders must submit supporting evidence, where possible, with examples from other schemes where this has proved successful. Bidders must provide information to show</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. How the interior spaces may be re-arranged in future if a change of use were to occur; ii. How the building's services and external infrastructure have been designed to allow this adaptability; iii. How the building structure and envelope, services, partitioning, ceiling, and flooring systems and construction technique has been designed to allow this adaptability; iv. How the main electrical installations can accommodate changes over and above the 25% capacity increase (requested in Section 3 Board's Construction Requirements) with minimal structure disruption; and v. How the environmental services strategy will co-ordinate with the adaptability and flexibility strategy. 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C6. Clarity, robustness and quality of way finding and signage proposals	Scored	1.06	C6.1	<p>Bidders must submit proposals demonstrating their way finding strategy. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) how it has been developed to:</p> <ul style="list-style-type: none"> i. Suit the needs of the particular patient mix for the Facilities i.e. children, young people and adults using different services, as well as staff and visitors; ii. Include internal and external signage and signage outside the site boundary relevant to the Facilities. External signage shall include proposals for the wider RIE site, pedestrians, vehicles and street signage; iii. Integrate with the art strategy and lighting strategy for the Facilities; iv. Take cognisance of patient journey times and take steps to minimise such journey times; v. Minimise the transmission of micro-organisms and separates clean and contaminated traffic and material streams; vi. Include hand hygiene signage; vii. Include no smoking signage; viii. Make reference to sample or exemplar 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				site information provided by The Board; and ix. Make use of signage in the floor.	
C7. Clarity, robustness and quality of interior design proposals	Scored	2.64	C7.1	Bidders shall submit their interior design proposals. This must be provided as set out in C7.1 and C7.2 below: For both the RHSC and DCN sectors of the Facilities Bidders must submit proposals setting out how their design has been developed to include: <ul style="list-style-type: none"> i. Interior design proposals and illustrations for each distinct area of the Facilities, paying particular attention to the interior design solutions for public, patient and key staff areas; ii. Communal patient areas that are light, spacious and provide a welcoming atmosphere and which are domestic in design and ambience with the main entrance being immediately apparent; iii. Public areas which are restful, open and well lit with natural light and have views out to landscaped spaces that add quality and orientation; iv. An open and friendly environment, that 	

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				<p>shall ensure privacy and dignity for patients, family members and visitors when required;</p> <ul style="list-style-type: none"> v. The incorporation of art in the proposals. Bidders shall provide the name(s) of the artists whom will undertake the work; vi. Integration with their lighting strategy and equipment strategy; vii. Integration with maintenance, cleaning, operation and sustainability; viii. Integration with way finding and signage proposals and how the way finding and signage within the RHSC and DCN links with the way finding within the existing RIE; ix. How the interior materials within the Facilities match the furniture, furnishings and equipment being procured by the Board; and x. Facilities which have a safe and secure environment which is not created via visible security features e.g. security cameras. Safety in design shall also take consideration of anti-ligature, child safety, and Child and Adolescent Mental Health Service whilst maintaining access and ambience. <p>For indicative purposes only it is anticipated</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C8.2	<p>the engineering services design for each element of the scheme in sufficient detail to demonstrate compliance with the Board's Construction Requirements. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. An engineering design, control and operational philosophy statement; ii. Details of principal M&E system selections; iii. The definition of plant areas and zones both internal and external to the Facilities; and iv. Schematics and written proposals for major plant provision. <p>Bidders must submit proposals setting out how their design will be developed to include the following:</p> <ul style="list-style-type: none"> i. Building services which support the Board's business, safety and security and life critical services under supply failure scenarios. Specific details shall be provided relating to standby facilities and mains service redundancy; ii. An autonomous energy centre and associated plant; iii. How temperature, ventilation and 	

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				<p>comfort for occupants will be maintained in accordance with the minimum criteria and how, if possible, these criteria will be improved;</p> <ul style="list-style-type: none"> iv. How the quality of the environment and prevention of sick building syndrome shall be ensured; v. How mechanical and electrical design is integrated with architectural, structural and civil aspects as outlined above in C2 and C4; vi. How sustainability has been incorporated into their design, including details of the maintenance and operation philosophy for all mechanical and electrical equipment; vii. Proposals for external services, including details of the main routes (including proposed connections to existing services), intakes and off-site reliance of these services and how this interfaces with adjacent sites (this is also discussed in C18 below); viii. Details of the main source of heating energy; and ix. Details of mechanical and electrical innovations including costs as described in C4. <p>The following information should be also be</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C8.3	<p>provided to help demonstrate the design proposals noted above, including:</p> <ul style="list-style-type: none"> x. An environmental conditions / room provisions matrix for both mechanical and electrical services for each room in the Facilities; and xi. Major plant life cycle statements and design life, including an explanation of the Bidder's lifecycle philosophy to support the lifecycle costing analysis completed in the technical costs proforma; <p>Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis.</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C9. Clarity, robustness and quality of natural and artificial lighting proposals	Scored	1.06	C9.1	<p>Bidders must submit proposals setting out their approach to natural and artificial lighting within the Facilities. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. The balance of natural and artificial light; ii. How the environment created by the lighting design will support the well being of patients, carers, visitors and staff; iii. How it will be functional for clinical use; iv. How it will produce an aesthetically pleasing environment; v. How it will be co-ordinated with the building structure and how it will integrate with other areas e.g. mechanical and electrical design, interior design and architecture; vi. How it will include sustainability and energy efficiency; vii. How the interior lighting philosophy will include room usage and warning signs, night lighting, security emergency signage and emergency lighting, lighting control and wiring philosophy, standby lighting; and 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				viii. How the external lighting philosophy will minimise light pollution for the neighbours including the RIE, assist to minimise vandalism, assist to improve security, and take account of local residents' needs.	
C10. Clarity, robustness and quality of energy management proposals	Scored	1.85	C10.1	<p>Bidders must submit proposals setting out their approach to energy management. This should be provided as set out in C10.1 and C10.2 below.</p> <p>Bidders must submit an energy model, complete with supporting information, demonstrating how their design solution will achieve an optimum level of energy and utility conservation (linked with the requirement for a sustainable development in C4) and show that their design fulfils the following:</p> <ul style="list-style-type: none"> i. The building energy performance will achieve a minimum of 6 credits for ENE.01 in the BREEAM assessment. ii. The water consumption for the Facilities will not exceed 170,000 	

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			C10.2	<p>litres/bed/annum (Part 6 Section 3: The Board's Construction Requirements);</p> <p>iii. 20% of energy is provided by renewable energy sources (Part 6 Section 3: The Board's Construction Requirements); and</p> <p>iv. The inclusion of passive design strategies for ventilation and thermal control. The environmental control system is to be co-ordinated and integrated with the design of the structure and the occupied areas in order to maximise the control and flexibility of the installations.</p> <p>In addition Bidders must submit an analysis of their design solution which demonstrates energy consumption proposals along with cost estimates of specific measures or innovations to be introduced.</p> <p>For information purposes only in addition to the model referred to above a dynamic thermal energy model is to be submitted which should comply with the parameters set out in Appendix F of the ITPD Volume 1.</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C11. Clarity, robustness and quality of equipment proposals	Scored	1.06	C11.1	<p>Bidders must submit proposals setting out their approach to equipment. This must be provided as set out in C11.1 and C11.2 below.</p> <p>Bidders must submit the following: :</p> <ul style="list-style-type: none"> i. A commentary showing how the Group 1 Equipment scheduled by the Board varies from their own assessment of Group 1 Equipment needs. This shall be done by providing a mark-up of the Group 1 Equipment included in Equipment Schedule contained in Volume 3 of the ITPD. It should be noted that the quantity of Group 1 Equipment specified by the Board is considered to be a minimum; ii. A commentary on any aspect of the proposed equipment responsibilities regime suggested in paragraph 2.15 (Equipment) of the ITPD Volume 1. that is not considered to represent best value to the Board, and suggestions as to alternative profiles of responsibility, if any, that may enhance this; iii. A commentary setting out their proposals to select equipment suppliers and how the required level of 	

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			C11.2	<p>quality is to be achieved in the equipment for which they will be responsible for supplying and any improvement in the level of quality being proposed. Samples of worktops and wall cupboards shall be provided for approval by the Board to support this; and</p> <p>iv. Their approach to working alongside the Board to allow the Groups 2A, 2B and 3 Equipment to be installed and how this process will be managed.</p> <p>Bidders must submit a fully priced Schedule of Group 1 Equipment, the total sum for which should be clearly identifiable in the Technical Cost Proforma requested at C29 below.</p>	
C11A Compliance with minimum level of Group 1 Equipment	Pass / Fail	n/a	C11A.1	Bidders must provide confirmation that they will comply with the minimum level of Group 1 Equipment as set out in the Equipment Schedule and Equipment Responsibility Matrix.	
C12. Compliance With Mandatory Reference Design Requirements	Pass / Fail	n/a	C12.1	Bidders must submit proposals demonstrating how their design complies with the Mandatory Reference Design Requirements.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C13.Acceptable approach to achieving planning permission	Pass / Fail	n/a	C13.1 C13.2	<p>Bidders must submit proposals setting out their approach to achieving planning permission. This must be provided as set out in C13.1 and C13.2 below.</p> <p>Bidders must submit proposals demonstrating compliance including a methodology for achieving planning approval accordance with paragraph 2.17 of Volume 1 of the ITPD. This should include the following:</p> <ul style="list-style-type: none"> i. Community requirements; ii. Policy of the local planning authority; iii. Development Framework requirements; and iv. "Good neighbourliness". <p>Bidders are required to (in conjunction with the Board) participate in planning consultation meetings with the City of Edinburgh Council regarding planning requirements. From these consultations Bidders must submit evidence to demonstrate that the granting of approvals for the scheme will be achieved in the Preferred Bidder stage and confirm any perceived obstacles / project risks (both known and unknown) in this regard shall be clearly drawn to the Board's attention.</p>	To Pass, Bidders will be required to demonstrate that the granting of approvals for the scheme will be achieved

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C14. Acceptable vertical and horizontal movement strategy	Pass / Fail	n/a	C14.1 C14.2 C14.3	<p>Bidders must submit proposals setting out their vertical and horizontal movement strategy. This must be provided as set out in C14.2 – C14.3 below.</p> <p>Bidders must submit proposals setting out a coherent strategy which shows how their design has been developed for managing different categories of traffic and materials within the Campus Site. This shall include the movement of people and vehicles and the distribution of supplies and waste and the separation of clean and contaminated traffic and materials during transportation, storage and at drop off points.</p> <p>Bidders must submit proposals setting out how their design has been developed to minimise travel time and distances for patients, staff, and material transmission of micro-organisms either through airborne or other means to support and segregate a natural flow of pedestrian and vehicular traffic.</p> <p>Bidders must submit proposals setting out</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>how their design has been developed to include a strategy for the following:</p> <ul style="list-style-type: none"> i. Wheelchair users, less able users and transportation of small children and babies that will use the Facilities; ii. Incorporation of fire fighting lift(s) to maintain evacuation use for the less able, small children and babies in an emergency situation; and iii. The route required by people and materials from the helipad, the RIE and the Facilities. 	
C15. Acceptable ICT strategy and Bidders proposals, compliant with Board's requirements	Pass / Fail	n/a	<p>C15.1</p> <p>C15.2</p>	<p>Bidders must submit proposals setting out their approach to a compliant ICT strategy. This must be provided as set out in C15.1 – C15.4 below.</p> <p>Bidders must submit proposals setting out their ICT strategy and demonstrating an understanding of the Board's requirements for information management and technology (M&T).</p> <p>Bidders must submit proposals setting out a detailed methodology demonstrating how it will ensure compliance with the Board's Construction Requirements, define clear interfaces of responsibility as necessary,</p>	

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			<p>C15.3</p> <p>C15.4</p>	<p>and how they will take overall responsibility for the coherence and compatibility of systems such that they will operate to suit the Board's needs.</p> <p>Bidders must submit proposals setting out the number, location size and specification of IT / communications rooms.</p> <p>Bidders must submit proposals setting out how the Board's routing, fire suppression, ventilation and connectivity to the RIE requirements has been specifically addressed.</p>	
C16. Acceptable fire planning strategy	Pass / Fail	n/a	<p>C16.1</p> <p>C16.2</p>	<p>Bidders must submit proposals setting out their fire planning strategy. This must be provided as set out in C16.1 and C16.2 below.</p> <p>Bidders must submit proposals setting out their strategic fire strategy, demonstrating how the design will be developed to consider fire compartmentation and horizontal and vertical evacuation strategies.</p> <p>Bidders must submit proposals setting out how their fire planning strategy has been developed. For indicative purposes only it is</p>	

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				<p>anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. The implications on staff and users in the event of a fire; ii. A clear understanding of the policies and principles underlying fire safety in NHS premises, compliance with NHS policies and principles and full agreement and coordination with Lothian and Borders Fire and Rescue Service, The CEC Council's Building Control Department and the Board's Fire Officer; iii. Compliance with: The Building (Scotland) Regulations 2004 and The Building (Scotland) Amendment Regulations 2011, SHTM 81 and SHTM 82; iv. How a Fire Engineering solution has been developed (if it has been proposed), to what extent it has been agreed with the regulatory authorities and how the Board will not be exposed to any additional risks (programme, quality or cost) should the solution need to be amended or abandoned during the course of the development and finalisation of proposals; v. Integration of their fire strategy with 	

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				<p>the fire strategy for the RIE Facilities to ensure they are compatible and operate in conjunction and how the fire strategy issues at the Link with the RIE Facilities are to be addressed;</p> <p>vi. Details of external and internal access and circulation routes, including a safety and security statement for each element of the scheme with particular reference to the different patient types using the Facilities; and</p> <p>vii. Details of how the particular issues in the surrounding areas of high fire risk such as the helicopter landing pad are to be addressed.</p>	
C17. Acceptable structural design proposals	Pass / Fail	n/a	<p>C17.1</p> <p>C17.2</p>	<p>Bidders must submit proposals setting out their approach to structural design. This must be provided as set out in C17.1 - C17.3 below.</p> <p>Bidders must submit proposals setting out a statement of the structural design philosophy which shall demonstrate how their design has been developed including a methodology for ensuring a safe, aesthetically pleasing and durable structure.</p> <p>Bidders must submit proposals relating to</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C17.3	<p>the following elements:</p> <ul style="list-style-type: none"> i. Substructure; ii. Structural frame solution, including grid arrangements; iii. Ground, suspended floor slab and roof construction; iv. External wall and internal partition construction; v. Fire protection strategy and proposed methods to be adopted ; and vi. Methods for dealing with floor penetrations both during new build works and to accommodate future potential needs. <p>Bidders must submit the following:</p> <ul style="list-style-type: none"> i. A schedule and/or drawings demonstrating the dead and imposed loading design criteria (both uniformly distributed and concentrated loads) adopted for all areas of the Facilities; ii. Specification of construction and materials to be utilised in the hard external works e.g. roads, pavements etc.; iii. Details of their proposals for co-ordinating structure with space requirements and distribution of services taking into account maintenance and replacement during 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>the operational life of the buildings;</p> <p>iv. Details of opportunities for the future expansion of Clinical Services and Non-Clinical Services. The Bidders shall ensure that the physical arrangement of the Facilities allows for growth and change of clinical services in the future, as far as is practical for example partition moves and additional service runs both vertically and horizontally. The cost implications of structural solutions to future proof the Facility by creating 'soft spots' (refer also to C5 above) shall also be included; and</p> <p>v. A detailed description of the design of the drainage system, taking into account matters such as the design itself, allowable discharge into the public sewers, the need or otherwise for surface water attenuation and the incorporation of drainage to existing buildings within the site drainage proposals.</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C18. Acceptable services, utilities and infrastructure proposals	Pass / Fail	n/a	C18.1	Bidders must submit proposals setting out their mains service infrastructure strategy for the site, and defines principal service routes external to the buildings. This shall also demonstrate adequacies of capacities including details of these provided by Utility providers.	
C19. Acceptable approach to achieving required BREEAM rating	Pass / Fail	n/a	C19.1 C19.2	<p>Bidders must submit proposals setting out their approach to achieving the required BREEAM rating. This must be provided as set out in C19.1 and C19.2 below.</p> <p>Bidders must submit a draft BREEAM assessment of their proposals with supporting commentary. Bidders shall demonstrate how they will achieve, as a minimum, a “Very Good” rating in line with the requirements for healthcare facilities as set out in the BREEAM Scheme Document for New Construction (SD5073) 2011.</p> <p>Where assumptions with respect to certain elements within these assessments have to be made (i.e. such details that would ordinarily be developed during the Preferred Bidder or post Financial Close period) the basis for these assumptions, including</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				substantiation, must be set out in the Bidders proposals.	
C20. Acceptable post Preferred Bidder design development proposals and design programme	Pass / Fail	n/a	C20.1	<p>Bidders must submit proposals setting out their approach to design development and design programme. This must be provided as set out in C20.1 and C20.2 below.</p> <p>Bidders must submit proposals setting out their approach to be adopted to manage the design process (taking account of the design review procedures to be implemented). For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. Further development of 1:500, 1:200 and 1:50 design drawings and other design details and how these will be developed in conjunction with the Board's project team, user groups, specialist advisers and other project stakeholders, to achieve sign off to the proposals; ii. Further development of the 	To Pass, Bidders will be required to demonstrate clear proposals setting out a robust process, supported with a logical and deliverable programme, for the development process both up to, and beyond, Financial Close.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C20.2	<p>specifications and engineering related drawings and how these will be developed in conjunction with the Board's project team to achieve sign off of the proposals;</p> <ul style="list-style-type: none"> iii. The anticipated level of involvement that the Board will have in the design development process, and the number of main design iterations anticipated; iv. Outline proposals for change control, confirmation of technical queries and other design related management tools; and v. Further development of interior design proposals to the satisfaction of the Board incorporating patient groups. <p>Bidders must submit a design programme to Financial Close and thereafter to design completion. This shall:</p> <ul style="list-style-type: none"> i. Show the proposed programme for the development of the design drawings and specifications (supplemented by samples and models as appropriate) and other technical schedules to the NPD Project Agreement; ii. Clearly indicate the expected number of design drawings and specifications; 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				iii. Clearly define periods allowed for the Board's consideration of proposals; and iv. Demonstrate how and when sign off of the Board's Construction Requirements will be achieved in this period by the Preferred Bidder, and how this sign off relates to development and sign off of Project Co Proposals.	
C21. Compliance with Board's Construction Requirements	Pass / Fail	n/a	C21.1	Bidders must confirm their compliance with the Board's Construction Requirements. If as their design has been developed there are specific areas of the Board's Construction Requirements that Bidders would seek to change, these shall be scheduled and provided in support of the statement. The Board shall not be required to accept any proposed amendments.	
C22. Acceptable design life proposals	Pass / Fail	n/a	C22.1	Bidders must submit a schedule of design life proposals against the elements listed in section 5.1 (Schedule of Life Expectancies) of the Board's Construction Requirements.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				minimising the effects of delays and unforeseen circumstances.	
C24. Clarity, robustness and quality of construction methodology	Scored	1.85	C24.1 C24.2 C24.3	<p>Bidders must submit their construction methodology proposals. This must be provided as set out in C24.1 - C24.10 below.</p> <p>Bidders must submit proposals setting out in sufficient detail how they will deliver the development including their construction strategy, proposals and method statements. Bidders shall address in detail how the Works phase of the project will be managed including a methodology covering day to day management.</p> <p>Bidders must submit proposals setting out in sufficient detail how they shall mitigate the egress of water, dust, debris or any microbiological contamination out of the Site and into adjacent buildings i.e. how they will ensure they are a considerate contractor.</p> <p>Bidders must submit proposals setting out in sufficient detail how they will follow the provisions of Sections 60 and 61 of the Control of Pollution Act 1974, with reference to the control of noise due to any demolition</p>	

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			C24.4	<p>or construction works in particular for works adjacent to an occupied property i.e. RIE and other occupiers of the wider estate.</p> <p>Bidders must submit proposals setting out in sufficient detail how they will not only adhere to legal obligations but how they will ensure that “at all times the requirements and reasonable wishes and safety of the immediate neighbours to the Campus Site (including the Royal Infirmary of Edinburgh, Little France site) are respected” with particular consideration to key locations such as A&E and operating theatres.</p>	
			C24.5	<p>Bidders must submit proposals to set out in sufficient detail how they will ensure that they will integrate with and not inhibit the RIE pedestrian, vehicular, cycle, service vehicular and emergency vehicular movements, access routes and parking during construction and during operation of the Facilities. The submission must set out how they will ensure site safety at all times.</p>	
			C24.6	<p>Bidders must submit proposals, in sufficient detail, setting out how continuity of utility supplies and operational continuity of the immediate neighbours is to be maintained at all times. The Bidders submission shall also</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C24.7	provide outage protocols in case these safeguards fail to protect the neighbours Bidders must submit proposals, in sufficient detail, setting out a detailed methodology demonstrating their proposals for the safe and compliant disposal of surplus excavated material, all building spoil, demolition waste and rubbish.	
			C24.8	Bidders must submit proposals of their site office set up. This shall describe in particular how they are to be serviced and how safe access and egress will be provided.	
			C24.9	Bidders must submit proposals setting out in sufficient detail their approach to storage of materials. This shall describe in particular how materials will be delivered to, stored, and then transferred to the Site for incorporation in the Works.	
			C24.10	Bidders must submit proposals setting out in sufficient detail their construction phasing and access methodology which shall demonstrate how the proposals have been developed to address the Site constraints and interfaces with the wider site. Bidders must include their proposals for creation of	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>a temporary construction access over the Yellow Area (as shown on Plan 2). Bidders must submit details of location of access and methodology for its construction. This will form part of the management procedures for the Works as regards satisfying town planning matters as detailed in the ITPD. Further details are set out in paragraph 1 (Construction Access over Yellow Area) of Section 1 of Part 1 of Appendix A of the Board's Construction Requirements.</p>	
C25. Acceptable approach to commissioning and handover	Pass / Fail	n/a	C25.1	<p>Bidders must submit proposals setting out a commissioning programme, supported by a methodology demonstrating how this will be developed and agreed in conjunction with the Board. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) how they will provide the following:</p> <ul style="list-style-type: none"> i. Management of interfaces with the Board and the Board's contractors and other parties e.g. Consort for the Link Building and obtaining such other parties consents/approvals as required; ii. How they will carry out commissioning 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>activities both before and after the Actual Completion Date;</p> <p>iii. Access for the Board during the Works including access for equipment installation (Groups 2A, 2B and 3) and the Board's Contractors;</p> <p>iv. A "zero defects" culture in order to deliver the scheme with few or no snagging items at the Actual Completion Date. Bidders shall outline a contingency plan for investigating and rectifying any defects which could still occur despite all best endeavours of the Project Co. In addition proposals should be submitted outlining how snagging items will be closed out after the Actual Completion Date;</p> <p>v. Facilities handover including how they shall interface and assist the Board with their decanting, familiarisation and training for the Facilities and proposals on how they shall work closely with the Board in developing an occupation plan;</p> <p>vi. Facilities which are "Handover Clean". Bidders shall demonstrate within their response:</p> <ul style="list-style-type: none"> ▪ How this will be managed in terms of the sign-off of the 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>Facilities and handover process; and</p> <ul style="list-style-type: none"> ▪ Details of any specialist contractors that may be used as part of this process. 	
C26. Acceptable approach to quality and environmental management systems	Pass / Fail	n/a	C26.1	<p>Bidders must submit proposals setting out their approach to construction quality and environmental management systems. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following:</p> <ol style="list-style-type: none"> i. Confirmation that they will complete the Works in accordance with the requirements of BS EN ISO 9001 and 14001 or any equivalent standard; ii. Details of proposed quality assurance and environmental management systems (i.e. a system synopsis); iii. Details of their approach to developing the quality and environmental management systems, including key dates; iv. Where individual quality and environmental management systems of the designers, contractor, service provider and Project Co are to be used, a statement regarding how these separate systems will be 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>integrated to form a coherent overall quality management system. For the avoidance of doubt, the Board requires Project Co (in addition to their sub-contractors) to adopt and implement a compliant system;</p> <ul style="list-style-type: none"> v. Details of their approach for monitoring quality during construction (this may be by reference to a similar system implemented on a similar scheme); i.e. compliance with current revisions of BS 8000: Series "Workmanship on Building Sites, BS 5606:1990 "Guide to Accuracy in Building". and other activities based on Good Industry Practice current at the time, as a minimum; vi. Details of their approach for auditing the quality and environmental management systems. This shall include details of the independent, internal and external audits of Project Co and its sub-contractors; and vii. A description of how the proposed systems will integrate with their strategies for risk mitigation. 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C27. Acceptable approach to health and safety management	Pass / Fail	n/a	C27.1	<p>Bidders must submit proposals setting out their health and safety management system. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. Confirmation that they will adopt and implement an accredited health and safety management system complying with the requirements of OHAS ISO 18001. For the avoidance of doubt the Board requires that Project-Co adopt and implement a compliant system; ii. Details of all proposed designers, sub-contractors, and suppliers confirming that they operate and accredited health and safety management system complying with OHAS 18001 standards covering all aspects of the project as applicable. Copies of current certificates from an accredited third-party assessment body showing that systems are compliant should be provided; iii. Details of the approach for auditing designers, contractors, sub-contractors and suppliers of their 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>health and safety management systems. This should include details of internal, external and independent audits of Project-Co;</p> <ul style="list-style-type: none"> iv. Proposals for managing occupational health that will be implemented; v. Key dates for development of the system; vi. Safety in design and how Bidders have removed risks through design innovations; vii. Potential constraints on their Works activities when considering the health and safety of their immediate neighbours and other members of the public that may be affected by the Works. This shall include construction traffic management plan within the Campus at Little France and restrictions on the movement of water, dust, vibration, noise and micro-organisms; viii. How any risks to health and safety will be managed and mitigated throughout the Works; ix. How they plan to deal with the potential occurrence of below ground services crossing the Site, in addition to the removal of other 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>below ground obstructions that may still be present from previous demolition works;</p> <p>x. Methodology for the use of overhead cranes;</p> <p>xi. The removal of waste material;</p> <p>xii. Compliance with HAI Scribe;</p> <p>xiii. Storage, transportation and handling of gas cylinders (for construction use); and</p> <p>xiv. How their proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with HTM 2025 and SHFN 30.</p>	
C28. Acceptable approach to compliance with CDM regulations	Pass / Fail	n/a	C28.1	<p>Bidders must submit proposals setting out their approach to achieving compliance with the CDM regulations. This must be provided as set out in C28.1 and C28.2 below.</p> <p>Bidders must submit proposals setting out how they will comply with the requirements of the Construction (Design and Management) Regulations 2007. Particular reference shall be made to Project Co's role as Client, in addition to proposals to cover discharging the duties of CDM Coordinator, Designer and Principal Contractor under the Regulations. Bidders shall also include the</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>methodology to demonstrate how they will deal with potential commercial and other conflicts between their constituent parts with respect to compliance with the Regulations and shall provide the following:</p> <ol style="list-style-type: none"> i. A competency submission for the individual who will be leading the role of CDM co-ordinator, in accordance with CDM ACOP L144 “Managing Health and Safety in Construction”; ii. A Health and Safety document to identify how the requirements of Appendix 4 of the ACOP L144 “Managing Health and Safety in Construction” will be applied on the project; iii. The format of the Pre- Construction Information relating to the project to address the requirements of Appendix 2 of the CDM ACOP L144 “Managing Health and Safety in Construction”; iv. The contents and structure of the Construction Phase Plan relating to the project to address the requirements of Appendix 3 of the CDM ACOP L144 “Managing Health and Safety in Construction”; v. Details of the induction process to 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C28.2	<p>address the requirements of section 184 and 185 of the CDM ACOP L144 "Managing Health and Safety in Construction";</p> <p>vi. The format to be used for the Health and Safety File to address the requirements of section 263 of the CDM ACOP L144 "Managing Health and Safety in Construction"; and</p> <p>vii. Details of the process for managing health and safety in Design including hazard elimination and risk reduction, principles of prevention, provision of information and management of the Design process as required by the CDM ACOP L144 "Managing Health and Safety in Construction".</p> <p>Bidders must submit proposals setting out how they have complied with the CDM duties during the Dialogue Period and provide a design risk assessment which is to be updated as the design is progressed.</p>	
C29. Robustness of technical costs	Pass / Fail	n/a	C29.1	Bidders must submit fully completed technical cost proformas contained in the ITPD. All information requested must be provided. Bidders' completed proformas shall be provided in the same MS Excel	To Pass, Bidders will be required to demonstrate that their technical costs are robust for the scope of works to be delivered.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				format to allow direct comparison between bids.	
C30. Acceptable list of summary assumptions, clarifications and derogations	Not Scored	n/a	C30.1	Bidders must submit a consolidated schedule of all assumptions, clarifications and qualifications made in respect of their ITPD Bids. Whilst it is encouraged that such references are also made in the appropriate locations throughout Bidders' submissions, it is a mandatory requirement of the ITPD Submission that all such matters are also summarised in a single location.	
C31. Acceptable Interface Proposals	Pass / Fail	n/a	C31.1	Bidders must submit proposals setting out their approach to meeting the interface issues as described in Appendix A of the Board's Construction Requirements (subject to the conditions set out in Clause 9 (Nature of Land Interests) including without limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement).	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
D. Approach to Facilities Management					
D1. Clarity, robustness and quality of approach to management and administration of the Services and Contract	Scored	2.50	D1.1	<p>Bidders must submit proposals setting out their proposed approach to managing and administering both the Services and the NPD Project Agreement itself. The Bidder is also required to provide a detailed proposal for the management, liaison and interfacing with the Board and the other Board service providers, these being Authority Parties.</p> <p>The importance to the Board of a holistic approach to the delivery of Services under the NPD Project Agreement cannot be overstated. The success of this will be dependent upon the quality of the general management of the Project.</p> <p>Bidders must submit the following:</p> <ol style="list-style-type: none"> i. Full Method Statements for the management and administration of the Project Agreement and Services contained therein; ii. Location of the members of Project Co's administration team (i.e. on or off site); iii. Details of Bidder's proposed managerial structure, indicating the roles and responsibilities of each manager, supervisor and team member; iv. Details of how material changes to the 	

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				<p>management structure of Project Co will be communicated to the Board;</p> <p>v. Details of how changes to working practices and / or Service delivery timings will be communicated to the Board; and</p> <p>vi. Details of how it is proposed to electronically manage Services management and administration to improve delivery.</p>	
D2. Acceptable approach to integration with Board policies and operation	Pass / Fail	n/a	D2.1	<p>Bidders must submit proposals setting out how they will comply, integrate and align their methodologies with the Board's policies, operation and procedures for the delivery of Services to the Facilities. This must include the following:</p> <p>i. Details of how it will ensure that the Services are delivered in accordance with the requirements of the Health planning Standards/NHS Requirements as detailed within paragraph 2.3 of Volume 3 of the ITPD.</p>	
D3. Acceptable approach to ensuring quality management	Pass / Fail	n/a	D3.1	<p>Bidders must submit proposals setting out their Method Statements for quality management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <p>i. Description of any quality management systems or policies the Bidder has for the</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Services or would put in place for the Services; ii. Interface with the Board's Quality Assurance representatives iii. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate; iv. Proposals for carrying out audits, including the provision of their proposed audit programme for the Services; and v. Details of the Bidder's proposals for the escalation of activities following a major incident including interface with the Board.	
D4. Acceptable approach to ensuring environmental management	Pass / Fail	n/a	D4.1	Bidders must submit proposals setting out their Method Statements for environmental management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Interface with the client's environment representatives; ii. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate; iii. Details of their approach to ISO 14001 and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>shall describe any relevant experience of implementing such systems for other local authority or NHS clients of the Bidder;</p> <p>iv. Bidder's environmental policy statement, and shall state explicitly whether they have, or are working towards developing an environmental strategy;</p> <p>v. Bidder's environmental management system, for their own organisation and/or for this project;</p> <p>vi. Structure of the environmental management system;</p> <p>vii. Details of the Bidder's approach and commitment to use of ethical and sustainable materials;</p> <p>viii. Proposals for carrying out audits, including the provision of an indicative audit programme for the Services; and</p> <p>ix. Details of the Bidder's proposals for the escalation of activities following a major incident, including interface with the Board.</p>	
D5. Acceptable approach to ensuring health and safety management	Pass / Fail	n/a	D5.1	<p>Bidders must submit proposals setting out their Method Statements for health and safety management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <p>i. Procedure for disseminating hazard and safety warnings;</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<ul style="list-style-type: none"> ii. Methodology for the development and maintenance of the health and safety system relevant to the Services; iii. Interface with the Board's health and safety representatives; iv. Process for maintaining effective overall control of all site activities and the coordination of and liaison with all staff such that there are suitable integrated arrangements to allow compliance with the Health and Safety at Work Act 1974; v. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate; vi. Process to ensure constant access to health and safety professionals for both its own staff and the Board's nominated representatives; vii. Develop bespoke risk assessments recognising the services being delivered at the RIE and University on the wider Campus. viii. A copy of the Bidder's Health and Safety policy and a description of their approach to ISO 9001 and ISO 18001 or similar systems; ix. Proposals for carrying out audits, including the provision of an indicative audit programme for the Services; and x. Details of their proposals for the escalation 	

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				of activities following a major incident including interface with the Board.	
D6. Acceptable approach to interfacing with the Board for undertaking works outside of access times	Pass / Fail	n/a	D6.1	<p>Bidders must submit proposals setting out their approach to interfacing with the Board for undertaking works outside of access times. This must include the following:</p> <ul style="list-style-type: none"> i. How they will ensure that any Works and Services proposed to be undertaken outside agreed Access Times are agreed with the Board's Representative prior to commencement; and ii. How Works and Services will be managed and carried out in accordance with Permit to Work System. 	
D7. Clarity, robustness and quality of approach to partnership and resources including liaison, resources and supply chain management	Scored	2.50	D7.1 D7.2	<p>Bidders must submit proposals setting out their approach to partnership and resources including liaison, resources and supply chain management. This must be provided as set out in D7.1 – D7.3 below.</p> <p>Bidders must submit proposals setting out their approach to communications with the Board or its representatives. This shall include their proposed appropriate interfaces, frequency, nature and structure of meetings and reporting.</p> <p>Bidders must submit proposals setting out:</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D7.3	<ul style="list-style-type: none"> i. Details of storage, maintenance and disposal of plant, equipment, materials, consumables, packaging and chemicals used in the delivery of the Services; ii. Details of suitably qualified staff and availability to meet the requirements of this NPD Project Agreement. <p>Bidders must submit proposals setting out:</p> <ul style="list-style-type: none"> i. Details of how the supply chain will be managed; ii. Proposed approach to delivery of Services through the supply chain; iii. Method of creating a successful integrated Services team. 	
D8. Acceptable approach to business continuity planning	Pass / Fail	n/a	D8.1	<p>Bidders must submit proposals setting out their approach to business continuity planning. This must include the following:</p> <ul style="list-style-type: none"> i. Details of its approach to business continuity planning including: <ul style="list-style-type: none"> a. Its approach to the creation and maintenance of its own business continuity plan and disaster recovery plans for the required Services; b. The proposed approach to supporting the Board's "Business Continuity; and c. Details of who within the management team will have overall 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>responsibility for business continuity.</p> <ul style="list-style-type: none"> ii. Details of its proposed training procedures for staff who will participate in emergency procedures; iii. Details of its proposals for testing Business Continuity Plans at the property; iv. Details of its proposals for the escalation of activities following a major incident (and\ or at the request of the Board); v. Details of its own, internal Business Continuity (e.g. those plans related to its own survival as a business following a major incident); and vi. Details of the existing arrangements for testing its own, internal Business Continuity Plans. 	
D9. Acceptable fire safety policies and procedures	Pass / Fail	n/a	D9.1	<p>Bidders must submit proposals setting out their approach to fire safety policies and procedure. This must include the following:</p> <ul style="list-style-type: none"> i. Details of its fire safety policy ii. Details of fire safety and security systems and procedures to be implemented on site including their approach to the Helipad. iii. Approach to ensuring an integrated fire safety strategy for the overall site, including appropriate interfaces with the Board and other Third Party organisations i.e. Authority Parties. 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
D10. Clarity, robustness and quality of approach to performance and information management including; helpdesk, programme maintenance lifecycle, performance monitoring, monitoring and records, regular reports and information requests, building services and statutory testing	Scored	4.50	D10.1	<p>Bidders must submit proposals setting out their approach to performance and information management, This must be provided as set out in D10.1 – D10.8 below.</p> <p>Bidders must submit proposals setting out details of their proposed computer-aided facilities management (CAFM) system and how they will provide an asset management and reporting capability. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. Call receipt and management and escalation; ii. Management information; iii. Reporting; iv. Incident management; v. Alarm management; vi. Maintenance scheduling; vii. Asset data maintenance; viii. Helpdesk interface protocol with the Board and/or third party's; ix. Proposed staffing and location of the helpdesk; x. Interface between the helpdesk and other aspects of the CAFM system; xi. Reporting procedures and frequency of reporting; and 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D10.2	<p>xii. Enabling the Board to gain access to the data held within the BMS in a format/ method agreeable to the Board.</p> <p>Bidders must submit proposals setting out their approach to programme maintenance lifecycle. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. The information and delivery strategy which will be utilised in establishing a Programmed Maintenance planner; ii. Confirmation that the Bidder recognises that certain works will need to be undertaken out of normal working hours/ during the weekends to minimise the impact on the Board's operations, and without additional cost to the Board; iii. Method of establishing and updating their 5-year Maintenance Lifecycle plan; iv. Details on the provision of all specialist sub-contractors for programmed maintenance and lifecycle; v. Details of how it will ensure that the delivery of all Services will underpin the required hygienic/infection control standards for the facility, specifically compliance with HAI Scribe standards; vi. Details on staffing and management of the 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D10.3	<p>Service;</p> <p>vii. Details on how planned, reactive and statutory works are to be monitored for both quality and safe methods of work. This should include works that are undertaken by directly employed staff and any sub-contractors;</p> <p>viii. Details of proposals to assess staff roles and responsibilities, skill requirements, competency, training arrangements and review procedures;</p> <p>ix. Details on its approach to planned, reactive and statutory maintenance including prioritising business critical equipment and systems at all premises together with details on how any planned maintenance that is not achieved by the planned date is addressed;</p> <p>x. Sample of proposed Service Report to be used for this Contract;</p> <p>xi. Details on interface with Board's cleaning service when carrying out Programmed Maintenance;</p> <p>xii. Schedule for cleaning of all internal and external panes of glazed areas of the Facilities envelope; and Schedule of planned external façade cleaning service.</p> <p>Bidders must submit proposals setting out details of their proposed delivery strategy and key activities. For indicative purposes only it is</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D10.4	<p>anticipated that Bidders proposals may include (but should not necessarily be limited to) the following service areas:</p> <ul style="list-style-type: none"> i. Mechanical maintenance ii. Electrical maintenance iii. Plumbing iv. Lift maintenance v. Fire safety system/ equipment vi. Internal / external fabric of the Facilities vii. Periodic electrical testing and inspections viii. Lift inspections ix. Pressure vessel x. Pressure systems (written schemes) xi. Water systems risk assessments xii. Fire risk assessments xiii. Water sampling / testing <p>Bidders must submit proposals setting out their approach to performance monitoring. This must include the following:</p> <ul style="list-style-type: none"> i. Description of how the performance of the Service will be self-monitored; ii. Approach to customer feedback and complaints handling; iii. Sample customer feedback form. 	
			D10.5	<p>Bidders must submit proposals setting out their approach to monitoring and records. This must include the following:</p> <ul style="list-style-type: none"> i. Details on how the Bidder will ensure all 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D10.6	<p>certificates, appropriate documentation and records in relation to the Project are stored in accordance with appropriate legislation and the Board's policies; and</p> <p>ii. Details on how the Bidder will ensure all records in relation to the Project are maintained accurately and kept up-to-date.</p> <p>Bidders must submit proposals setting out their approach to regular reporting and information request. This must include the following:</p> <p>i. Procedures for ensuring that the reports are appropriately tailored to the Boards requirements, including the completion period for such reports;</p> <p>ii. Details on how it will ensure that reports are accurate and produced in line with agreed timescales;</p> <p>iii. Details of the types of reports that they are currently producing for other clients.</p>	
			D10.7	<p>Bidders must submit proposals setting out their approach to building services. This must include the following:</p> <p>i. Approach to commissioning new Plant and Equipment;</p> <p>ii. Details on how hardware and software licenses will be kept up to date;</p> <p>iii. Details on how to ensure all Equipment/ Assets used in the delivery of the Services are maintained properly and safe to use.</p>	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D10.8	Bidders must submit proposals setting out their approach to statutory testing.	
D11. Acceptable approach to un-programmed maintenance	Pass / Fail	n/a	D11.1	Bidders must submit proposals setting out their approach to Un-programmed Maintenance Works. This must include the following: i. Meeting the relevant Rectification Period; and ii. Meeting the standards required.	
D12. Clarity, robustness and quality of approach to service elements including; utilities management and grounds maintenance services	Scored	2.50	D12.1	Bidders must submit proposals setting out their approach to service elements including utilities management and grounds maintenance. This must be provided as set out in D12.1 and D12.2 below. Bidders must submit a detailed methodology describing their approach to utilities management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Proposals to ensure an adequate continuous	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D12.2	<p>supply of energy is available;</p> <ul style="list-style-type: none"> ii. Proposals for interface with the Board to ensure no interruptions in the supply of Utilities to the Facilities; iii. Proposals for procurement of Utilities for the Board which demonstrate value for money; iv. Maintenance approach to ensure all external Utility infrastructures within the Site is fully functional; v. Method of monitoring Utilities/carbon consumption and how usage will be analysed and used; vi. Sample Utility consumption report; vii. Proposals for improving energy/ carbon efficiency; and viii. Details on Utility energy profile audit. <p>Bidder must submit proposals setting out their approach to grounds maintenance. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> i. Methodology for Grounds Maintenance Service and indicative programme for Planned Maintenance; and ii. Interface with third parties in ensuring a holistic approach to the safe use of the Campus access and egress routes. 	
D13.	Pass / Fail	n/a	D13.1	Bidders must submit fully completed technical	To Pass, Bidders will be

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
Robustness of technical costs				cost proformas for the Services contained in the ITPD. All information requested must be provided. Bidders' completed proformas shall be provided in the same MS Excel format to allow direct comparison between bids.	required to demonstrate that their technical costs are robust for the scope of works to be delivered.
D14. Acceptable list of summary assumptions, clarifications and derogations	Not Scored	n/a	D14.1	Bidders must submit a consolidated schedule of all assumptions, clarifications and qualifications made in respect of their ITPD Bids. Whilst it is encouraged that such references are also made in the appropriate locations throughout Bidders' submissions, it is a mandatory requirement of the ITPD Submission that all such matters are also summarised in a single location.	
D15. Acceptable approach to mobilisation of Facilities Management services	Pass / Fail	n/a	D15.1	<p>Bidders must submit proposals setting out their approach to mobilisation of facilities management services. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following:</p> <ul style="list-style-type: none"> <li>i. A draft mobilisation plan using MS Project showing the activities to be performed, interdependencies between activities, the allocation of resources and where Board input is required; <li>ii. Details of their proposed structuring and 	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				<p>resourcing for mobilisation. This should include the names and CVs of the proposed mobilisation management team, indicating relevant experience;</p> <p>iii. Details of proposed communications with the Board during mobilisation. This shall propose appropriate interfaces and the frequency, nature and structure of meetings and reporting;</p> <p>iv. Approach to recruitment of staff, including as appropriate relevant security clearances;</p> <p>v. Detailed proposals for the establishment of the Helpdesk service that clearly demonstrates an understanding of the operational and technical interfaces with Board Services;</p> <p>vi. Proposals for installation and population of the CAFM system describing (as applicable) how installation shall be effected and how data will be migrated and tested; and</p> <p>vii. Method of vetting staff and acquiring the necessary and appropriate security clearances.</p>	

Appendix A (iii) – Design Deliverables

<p>Appendix A (iii)</p>	<p>Design Deliverables</p> <p>Bidders shall provide the following design submission requirements (as given in the Volume 1 of the ITPD):</p> <p>1. Project Overview</p> <p>1.1 - Bid Drawings Schedule</p> <p>2. Approach to Design & Construction - Architectural & Landscaping Design</p> <p>2.1 - Architectural Drawings Schedule</p> <p>2.2 - Outline Architectural Specification supporting the design concept and setting out the proposed materials, finishes and components to be used. An Outline Specification shall be included for all components as detailed in the appropriate sub sections of the NBS Specification template.</p> <p>2.3 - Development Control Plan</p> <p>2.4 - 1:1000 Site Plan</p> <p>2.5 - 1:500 Location/Site Plan</p> <p>2.6 - 1:200 Site Layouts</p> <p>2.7 - Landscaping Proposal Specifications</p> <p>2.8 - Landscaping Proposal Drawings</p> <p>2.9 - 1:200 Architectural general arrangement floor plans, sections and elevations</p> <p>2.10 - 1:500 Architectural departmental adjacencies</p> <p>2.11 - 1:200 Architectural elevations showing appropriately rendered:-fenestration, exterior materials, louvers and cast shadows</p> <p>2.12 - 1:100 Architectural sections denoting floor to ceiling heights, suspended ceilings, raised access floors and floor levels</p> <p>2.13 - 1:200 Departmental layouts to include a table setting out the Draft Schedule of Accommodation and Reference Design Schedule of Accommodation requirements and the Bidder's proposed schedule of accommodation and 1:50 room layouts. Schedule of Accommodation should include the following:</p>
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	<p>Column A – areas for each room as stated in the Draft Schedule of Accommodation</p> <p>Column B – areas for each room as stated in the Reference Design Schedule of Accommodation</p> <p>Column C – as drawn Areas for each room proposed by the Bidder</p> <p>Column D – variance in areas between Column A and Column C (Column C minus Column A)</p> <p>Column E – where the areas in Column C are less than Column A, Bidders shall provide the variance in areas between Column C and B (Column C minus Column B)</p> <p>Column F – a comments Column to explain why the Board’s Draft Schedule of Accommodation (Column A) cannot be achieved, noting the absolute minimum area the Board will accept is the area in the Reference Design Schedule of Accommodation (Column B)</p> <p>2.14 – 1:200 Architectural drawings detailing (i) movement strategy, (ii) user flow diagrams at all principal circulation locations, (iii) movement interfaces and (iv) analysis of key nodal points</p> <p>2.15 - 1:50 Architectural sections through Roof and Plant Room</p> <p>2.16 - 1:200 Architectural proposals relative to the clinical requirements and infection control.</p> <p>2.17 - 1:200 Architectural drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code.</p> <p>2.18 - DDA Proposals including drawings, analysis and proposals.</p> <p>2.19 –Drawings of the developed proposals suitable for use at post Preferred Bidder AEDET Review.</p> <p>2.20 - 1:50 Architectural design response detailing interfaces with existing RIE</p> <p>2.21 - 1:100 Architectural drawings and visualisations for the Pod proposals</p> <p>2.22 – 1:20 coloured part architectural elevations and visualisations showing the Entrances</p> <p>3. Approach to Design & Construction - Interior Design Proposals</p> <p>3.1 - Quality, appropriateness and proposals for RHSC interior design supported by architectural drawings of how the layout and the design proposed addresses:</p>
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	<p>3.1.1 - Signage</p> <p>3.1.2 - Patient, communal and public areas</p> <p>3.1.3 - Appropriateness of facilities for users</p> <p>3.2 - Loaded 1:50 room layout drawings for the RHSC indicating interior design proposals and demonstrating the coordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services.</p> <p>3.3 - Quality, appropriateness and proposals for DCN interior design supported by architectural drawings of how the layout and the design proposed addresses:</p> <p>3.3.1 - Signage</p> <p>3.3.2 - Patient, communal and public areas</p> <p>3.3.3 - Appropriateness of facilities for users</p> <p>3.4 - Loaded 1:50 room layout drawings for the DCN indicating interior design proposals and demonstrating the coordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services.</p> <p>3.5 - Internal Perspectives at eye level that demonstrate form and setting of the key internal architectural areas, distinguishing or innovative features which demonstrate the design quality of the proposals</p> <p>3.6 – Drawings and visualisations to demonstrate the integration of Artwork into the interior design concept.</p> <p>3.7 – Sample boards to demonstrate the proposed interior finishes, colour and textures. Boards to include RHSC and DCN wards, the Pod, Atrium and CAMHS.</p> <p>4. Approach to Design & Construction - Civil & Structural Proposals</p> <p>4.1 - Structural Drawings Schedule</p> <p>4.2 - Civil Engineering Drawings Schedule</p> <p>4.3 - Outline Structural Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template.</p> <p>4.4 - 1:500 Site plan layout indicating all manholes, gully positions for all site drainage</p> <p>4.5 - 1:500 Site plan layout indicating all positions for surface water drainage</p>
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	<p>4.6 - 1:500 Site plan layout indicating all positions for foul water drainage</p> <p>4.7 - 1:500 Site plan layout indicating all positions for water mains</p> <p>4.8 - 1:500 Site plan layout indicating all positions for roads, footpaths and finished levels</p> <p>4.9 - 1:200 structural general arrangement foundation plans</p> <p>4.10 - 1:200 structural general arrangement plans including floor and roof plans indicating all column and beam locations and sizes and all structural elements</p> <p>4.11 - 1:100 structural sections through the building showing structural elements and service zones</p> <p>4.12 - Confirmation of Geotechnical surveys, reports, studies undertaken in addition to the Geotechnical survey in the data room</p> <p>4.13 - Confirmation of other site surveys, reports, studies undertaken in addition to the information already located in the data room</p> <p>4.14 - Confirmation of any vibration monitoring / prevention proposals.</p> <p>4.15 - 1:100 drawings for Helipad</p> <p>4.16 - Outline Structural Specification supporting the Helipad design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification</p> <p>5. Mechanical & Electrical Services</p> <p>5.1 - Building services (mechanical) drawings schedule</p> <p>5.2 - Building services (electrical) drawings schedule</p> <p>5.3 - Outline Building services (mechanical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template.</p> <p>5.4 - Outline Building services (electrical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template.</p> <p>5.5 - 1:500 site plan layout indicating all mechanical services , utilities supplies, natural gas mains, water supply and fire</p>
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	<p>mains</p> <p>5.6 - 1:500 site plan layout indicating all electrical utilities supplies, electrical mains, data and communications ducts</p> <p>5.7 - 1:200 internal services concept schematic and zoning plans for both heating and ventilation; indicating of heating and ventilation in each room</p> <p>5.8 - 1:200 mechanical general arrangement floor plans showing extent of services, distribution routes, mechanical plant acoustic treatment, plant areas, etc</p> <p>5.9 - Mechanical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed :</p> <ul style="list-style-type: none">5.9.1 - Plant strategy5.9.2 - Distribution strategy5.9.3 - Incoming gas and water services (including metering and sub-metering)5.9.4 - Environmental design considerations5.9.5 - Heat sources5.9.6 - Natural Ventilation strategy5.9.7 - Mechanical Ventilation strategy5.9.8 - Mechanical cooling5.9.9 - Mechanical air conditioning5.9.10 - Specialist ventilation strategy5.9.11 - Domestic hot and cold water system5.9.12 - Space Heating System5.9.13 - Space Cooling System5.9.14 - Building Energy and Management System5.9.15 - Dry Risers5.9.16 - Soil and Waste System (above and underground)
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	<ul style="list-style-type: none">5.9.17 - Rainwater pipework and distribution5.9.18 - Specialist drainage5.9.19 - Sanitary ware and appliances5.9.20 - Dry Risers5.9.21 - Natural Gas Installations including Laboratory Gases5.9.22 - Medical Gas Installations5.9.23 – Pneumatic Tube System5.9.24 - Mechanical Commissioning Strategy <p>5.10 - 1:200 electrical general arrangement floor plans showing extent of services, distribution routes, plant areas, etc</p> <p>5.11 - Electrical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed:</p> <ul style="list-style-type: none">5.11.1 - Incoming electrical services5.11.2 – Metering and Sub-metering5.11.3 - Mains distribution including standby generation facilities5.11.4 - Earthing, Bonding and Lightning protection5.11.5 - Containment systems5.11.6 - Small power installation5.11.7 – Lighting and Emergency Lighting5.11.8 - Specialist lighting5.11.9 - Lighting control systems5.11.10 - Uninterruptible Power Supplies5.11.11 - Telecommunications and I.T.5.11.12 - Nurse Call System5.11.13 - Fire Detection and Suppression System
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	<p>5.11.14 - Staff Attack / Induction Loop</p> <p>5.11.15 - Security system</p> <p>5.11.16 - Access Control system</p> <p>5.11.17 - CCTV system</p> <p>5.11.18 - Public address system</p> <p>5.11.19 - Digital TV and Radio Installation</p> <p>5.11.20 – Patient / Equipment Tagging</p> <p>5.11.21 – Induction Loop</p> <p>5.11.22 – Bedhead Services</p> <p>5.11.23 - Electrical Commissioning Strategy</p> <p>5.12 - 1:50 mechanical and electrical services sections to illustrate use of ceilings, natural daylight, ventilation strategies, cooling and heating strategies, lighting strategy, acoustic strategy, specialist installations strategy, services concept</p> <p>6. Lift Provisions</p> <p>6.1 - Lift and Escalator Drawings Schedule</p> <p>6.2 - Outline Building Services (lift and escalator provision) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. Traffic flow analysis to be included.</p> <p>7. Environmental Services and Energy Management Strategy</p> <p>7.1 - Natural Ventilation drawings and proposals</p> <p>8. Fire Strategy</p> <p>8.1 - 1:200 Fire Strategy drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code.</p>
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	<p>8.2 - Outline Fire Strategy Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template.</p> <p>9. Security Strategy</p> <p>9.1- 1:200 Security drawings in support of security strategy and how the security proposals support the design concept</p> <p>9.2 - Outline Security Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template.</p> <p>10. Acoustic Strategy</p> <p>10.1 - Outline Acoustic Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template.</p> <p>11. Adaptability, Flexibility and Expandability Strategy</p> <p>11.1 - Architectural adaptability drawings in support of the overall adaptability strategy.</p> <p>11.2 - Strategy and drawings showing how the design of the new RHSC and DCN demonstrates innovation, flexibility, consideration of whole life design and is capable of absorbing reasonable change in the future without excessive public, patient or clinical disruption.</p>
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Appendix A (iv) – Specifications

Appendix A (iv)	<p>Specifications</p> <p>Bidders shall provide specific details on their proposed suite of specifications for the Works. These details shall include, but not be limited to the following:</p> <ul style="list-style-type: none">i. The industry recognised specifications proposed, with specific commentary on the extent of application of those to each main discipline (civil / structural, M&E, architectural etc);ii. Inclusion of either Project specific specifications for each main discipline, or example specifications used on other projects that are representative of the level of detail and clearly demonstrate the proposed level of quality that will apply to this scheme: andiii. A statement confirming that all such specifications (including fully completed framework specifications) will be fully drafted by the Preferred Bidder prior to Financial Close. <p>For the avoidance of doubt, the Board is expecting Bidders to adopt both general, and where required, specific specifications to cover all components, materials, workmanship etc. For example the NBS framework could be utilised for mainstream building elements, however may need to be supplemented by specific standards and specifications relevant to particular Bidder proposals (e.g. piling, steelwork erection, infrastructure works).</p>
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Appendix A (v) – Technical Cost Proformas

[See separate Excel file]

Appendix A (vi) – Change Protocol**Annex 1 to Appendix A (vi) – Description of Potential Equalisation Adjustment for Change Protocol**

Bidders to note the following points in relation to the Appendices to Schedule Part 16 Change Protocol;

1. Notional fixed quantities have been applied to the attached Appendices of Schedule Part 16 - Change Protocol,
2. The notional fixed quantities will be applied automatically to the bidder's rates to obtain the annual cost of the bidders Appendices of Schedule Part 16 - Change Protocol submissions,
3. As described at paragraph 5.7.1 (c) (Economic Cost) of Volume 1 of the ITPD, the Board will apply the annual cost over the 25 year concession period.
4. A probability factor will be applied to the annual cost of each Bidder's proposals, with the probability being a maximum of 20% in any year, to reflect the likelihood that the full value of change will not apply to each and every year but will vary across the contract period. With respect to the proposed probability factor, the Board confirms that the same factors will be applied to all three Bidder.
5. The resulting risk adjusted annual values will be discounted by 3.5% (real) to derive a NPV that will form the Equalisation Adjustment to be applied.
6. The notional quantities will be removed prior to Financial Close and will not form part of the catalogue for the operational period and as such should not be assumed to be the level of works required during the contract period.
7. When completing Appendix 1 Part 1 bidders should ensure that the Timescales section of the Appendix are completed with reference to the drafting in Schedule part 16.
8. The population of these catalogues is for evaluation purposes only through a potential Equalisation Adjustment, which shall be calculated pursuant to the above description. At the preferred bidder stage the catalogue will be developed further to reflect the full range of specifications within the preferred bidders design, any additional rates will be benchmarked against the bidders original rates proposed at Final Tender.
9. It is recognised that each Bidder will be applying different product solutions and it is for the Bidder to decide the appropriate product(s) from their catalogue to be inserted into the change workbook which is only to be utilised for evaluation purposes. This should be based on bidders' experience of the most likely product(s) to be required under change control noting;

Appendix 2, Part 1 – column for Bidder Priced Product Description, to allow bidders to specify the product they have used for pricing each line item within the table.

Appendix 2, Part 2 – Revised the responsible party for a number of items to correctly reflect the costing requirements for lifecycle works.

Annex 2 to Appendix A (vi) – Schedule Part 16 Change Protocol Proformas

[See separate Excel file]

Appendix B (i) – Financial Submission Requirements

Bidders should provide their responses to the questions below in a separate document labelled ‘Financial Submission’. Where possible, the responses should be contained in a single document, with the use of separate annex documents avoided if it is possible to include the relevant information in the main text without causing difficulties in formatting or document size.

Ref	Required Response
F1	<p>Potential Funders</p> <p>Bidders should provide details of funders that the Bidder would intend to involve in a Preferred Bidder Funding Competition. This shortlist should include as wide a range of potential funding solutions as is practical and should include capital markets solutions.</p> <p>Bidders should submit summary details of the funding terms being proposed by these funders within Final Tenders for information purposes only. Letters of support should be submitted from funders to be included in the funding competition.</p>
F2	<p>Funding Competition Methodology</p> <p>The Bidder’s response should set out how value for money will be secured between funding options and/or funding providers, during the Preferred Bidder Funding Competition.</p> <p>This should take the form of a proposed Funding Competition methodology, to be based on the protocol set out in Appendix B6 below, that will be applied in order to secure the required funding after Preferred Bidder appointment, including timescales that will apply.</p>
F3	<p>Programme to Financial Close</p> <p>The Bidder should describe any additional funding-specific actions or issues between Tender submission and Financial Close over and above those described in the answer to question B15.</p> <p>Except where already provided in the response to question B15, evidence must be provided that potential providers of finance to Project Co have accepted the proposed timetable in principle and that adequate resource will be available to ensure the timetable is met.</p> <p>Where possible, and again except where already covered in the response to question B15, Bidders should provide a clear statement on the level of approval process and timescale that will be required from the respective lending organisations.</p>
F4	<p>Exclusivity</p> <p>Bidders should provide a statement confirming that they have not entered/will not enter into any exclusivity arrangements with funders before Preferred Bidder appointment.</p>
F5	<p>Risk Capital Information</p> <p>The Bidder must submit the following information for each type of risk capital to be raised:</p> <ul style="list-style-type: none"> • Identity of the investors • Amounts to be subscribed by each investor and the timing thereof • Terms and conditions of the subscription including return requirements and/or coupon rights (shareholder agreement or detailed term sheet) • Mezzanine interest rates if applicable • Terms and any other agreements between the Investors in their capacity as investors in the Project

Ref	Required Response
	<p>Co</p> <ul style="list-style-type: none"> • Any other rights attaching to this subscription • An undertaking that no additional margins or charges will apply that have not already been disclosed and included in the Financial Model • The length of time each class of risk capital will remain in the project vehicle • The extent to which the funds are committed. The Bidder is required to produce the strongest form of commitment possible. The level of commitment should be demonstrated through the provision of Board minutes or letters of support from the sponsors committing to subscribe subordinated debt on the terms identified above.
F6	<p>Due Diligence</p> <p>The Bidder should indicate the extent of the funder due diligence that has been carried out to date and the overall scope and timetable of funder due diligence up to Financial Close. In addition to the provider of senior debt, the response should cover due diligence required by any third party provider of subordinated debt funds.</p> <p>Bidders should provide completed versions of the diligence certification appended to this document at Appendix B3 below for legal and technical diligence advisors, to the effect that they have carried out work as if acting on behalf of funders and have raised all of the issues that they would normally expect funders to have raised in assessing the Bidders' proposals.</p> <p>Bidders should submit any diligence reports available in support of the certification.</p> <p>A model audit is not required at this stage. However, Bidders should indicate whether a model auditor has been appointed and if so, what scope of services has been agreed.</p> <p>Bidders should indicate their acceptance of the risk that the model audit may prove the Annual Service Payment to be incorrect, and that they may not pass any additional costs on to the Board.</p>
F7	<p>Security Package</p> <p>Bidders should provide full details of the security required to support their proposals, including parent company guarantees, bonding, letters of credit, liquidated damages and liability caps, and set out full details of the pricing assumed for such a security package. This should be done by completing the table included in Appendix B5.</p> <p>Bidders should confirm that they will bear the risk of pricing of the security package relating to senior debt as contained with the Bidder's submitted Financial Model.</p> <p>Bidders should describe the process undertaken to establish the security package and pricing proposed and set out how they have satisfied themselves that they are able to bear the risk of any change in pricing.</p> <p>Security Package for Capital Market Solution</p> <p>Bidders should provide detailed pricing information for the security package required for a capital market solution, based on discussions with potential providers of funding from this source and clearly demonstrating the level of internal approval already obtained or required to secure such pricing. Bidders should complete the table included at Appendix B5. Evidence to support the pricing presented, such as letters from brokers or bondsmen, should be provided in support of this information.</p> <p>Bidders should describe how pricing of the package might change if the sizing of the security package alters, for example, if a 15% performance bond is required.</p> <p>Bidders should clearly set out in their proposals the trigger point for any change in junior debt structure or timing that may come as a result of the use of a capital funded solution. For example, Bidders should indicate the tolerance within which any change in the timing, structure or amount of junior debt would allow that Bidder to keep to its final tender IRR.</p>

Ref	Required Response
	Bidders should identify any security package requirements that would be unacceptable.
F8	<p>Financial Model</p> <p>The Bidder should provide a narrative statement describing the key outputs of the Financial Model, including Annual Service Payment (both real and nominal in the first full year of operations); NPV of ASP and surpluses, summary of pass-through costs, sources and uses of funds and key assumptions.</p> <p>The Bidder is required to submit the Financial Model from which the key output information is derived which complies with the authority term sheet in Appendix B4 and the key assumption and format requirements set out in section 3.9 of IFT Volume 1.</p>
F9	<p>Databook</p> <p>The Bidder is required to provide a databook and user guide supporting the Financial Model for the Financial Submission, as set out in section 3.9 of IFT Volume 1.</p>
F10	<p>Proformas</p> <p>The proforma financial information requirements are included in Appendix B2 below.</p> <p>The information is the minimum requirement. Where the Bidder needs to provide additional information in order to provide a higher level of understanding of the individual components of the submission such additional information should be provided.</p>
F11	<p>Tax and Accounting Risk</p> <p>The Bidder should provide confirmation that they will underwrite and accept all risk relating to the tax and accounting adopted within the Financial Model.</p>
F12	<p>Advisor Opinion</p> <p>Bidders should submit a formal letter from their tax advisers or suitably qualified professional from within the Bidder's own organisation confirming that in their opinion the proposed tax treatment (including corporation tax, treatment of surpluses, VAT and SDLT) is valid and that any required accounting treatments underpinning the tax treatment would be within the appropriate accounting standards. This opinion should set out the basis for the treatments adopted, and identify any risks associated with it.</p>
F13	<p>Detailed Tax Assumptions</p> <p>Bidders should identify assumptions in relation to taxation including the following:</p> <ul style="list-style-type: none"> • Bidders must specify the corporation tax rates assumed, including any marginal relief (if appropriate) and confirm that consideration has been given to changes to the standard rate of corporation tax included in the Finance Act 2011 and announcements in the 2012 Autumn Statement. • Bidders should specify the assumptions made in respect of the commencement and cessation of trade for tax purposes, including any tax relief assumed for pre-trading interest costs. • Bidders should specify the assumptions made in respect of deductibility or non-deductibility of revenue costs, including in respect of construction costs, transaction costs, such as bid costs, development costs, planning costs and legal fees. • Bidders are required to specify the assumptions made in respect of the tax treatment of capital expenditure, (including in respect of lifecycle costs and any intangible fixed assets) including amounts of expenditure allocated to the different capital allowance pools, amounts assumed to be non-qualifying for capital allowances, the rate of writing down allowance claimed and details of any capital allowances disclaimed.

Ref	Required Response
	<ul style="list-style-type: none"> • Bidders are required to categorise taxable profits by type, such as trading profits, interest, and other non-trading profits or losses. The categories of taxable income should be appropriately ring-fenced (e.g. when carrying forward losses). • Bidders must specify any assumptions made in respect of the tax treatment of capitalised interest. • The application of transfer pricing legislation in the UK can have implications for PPP/PFI projects, particularly around the tax treatment of subordinated debt and corporate debt interest charges. Bidders should consider the implications of this aspect of corporation tax on their proposals and confirm that any such implications have been considered. • Bidders should consider the potential implications of the worldwide debt cap in respect of the deductibility of interest costs and confirm that any such implications have been taken into account in pricing the project. • Bidders should provide a statement setting out their assumptions in respect of the tax treatment of any other income or capital contributions received. • Bidders should provide a statement setting out any tax assumptions made concerning timing of payments of corporation tax. • Bidders must make their own decisions as to whether or not to seek advanced tax clearance from HMRC for any aspect of the proposed treatment. If such clearance is sought, Bidders must attach the appropriate correspondence to their submission. If the Bidder is relying on an advanced clearance from HMRC, this will need to be provided before contract signature and Financial Close. • Bidders are required to state any VAT assumptions made and the basis for these assumptions (including VAT implications in relation to land transactions where applicable). • Bidders should consider the implications of SDLT on their proposals if relevant. Any SDLT costs should be included within the Financial Model along with an accompanying statement explaining how it is calculated.
F14	<p>Bid Validity</p> <p>Bidders should confirm that they will maintain underlying construction, operating, FM and Project Co costs for a period of three months from the target Financial Close date with no adjustment for inflation.</p> <p>Bidders should confirm that only capital, lifecycle and facilities management costs will increase post-validity period and that they will use all reasonable endeavours to mitigate the impact of any cost increases post validity period.</p> <p>Bidders should provide specific cell references in the Financial Model that define which costs will increase post validity period.</p> <p>Bidders should specify which cost index or indices they require costs to be inflated in the post validity period. Note should be taken of the indexation regime that will be applied to Scottish Government support in relation to the construction cost cap.</p>
F15	<p>Surplus Treatment</p> <p>Bidders should describe in detail the tax and accounting treatment applied to any surpluses in the Financial Model.</p> <p>Bidders should also set out the approach taken to the creation of any cash buffer, with reference to paragraph 3.8.6 of this IFT document.</p>
F16	<p>Hedging</p> <p>The Bidder must set out clearly its proposal in relation to financial risk, Financial Close and any hedging arrangements required to support the project. The following details should be provided:</p>

Ref	Required Response
	<ul style="list-style-type: none"> • The manner in which the Bidder will address the risk of future movements on interest rates, including a full description of its interest rate hedging to be applied. • The time period over which hedges are expected to be in place. • Details of any financial instruments that will be used to provide protection against interest rate movements and the cost/effect of such protection should be reflected in the Financial Model. • Confirmation that the Project Co will bear all interest rate risk in respect of its borrowings once Financial Close is achieved. • Confirmation that the Bidder (and subsequently Project Co) will bear all foreign exchange risk. • The manner in which the Bidder will address the risk of future movements in the Retail Price Index (RPI). The Board does not expect that any Bidder's funding solution will require the use of RPI hedging instruments. The Financial Model submission should clearly demonstrate the proportion of costs that are fixed, the proportion subject to inflation and the basis upon which the Bidder has set the proportion of Annual Service Payment that will be subject to inflation. • Confirmation of the acceptance of the principle of benchmarking of hedging instruments (including GICs where appropriate) at Financial Close. • The Bidder should identify the broad approach they will utilise in setting the underlying funding rate at Financial Close ensuring transparency and best value for The Board.
F17	<p>Payment Mechanism</p> <p>The Bidder should confirm, in relation to the payment mechanism schedule and thresholds for warning notices and termination in clauses 24 and 41, that:</p> <ul style="list-style-type: none"> • the sponsors support the bid position • the bid position is acceptable to FM sub-contractors • appointed funder technical advisors have reviewed the bid position and have included all relevant comments in their due diligence report • the Bidder will work with the Board in agreeing the bid position with funders appointed as a result of the funding competition

Appendix B (ii) – Financial Proformas

[See separate Excel file]

Appendix B (iii) – Due Diligence Certification

Part 1 - Funder's Technical Adviser: Draft Certificate

As per Question F6 of the Financial Submission Requirements, The Board requires that this certificate is signed by the technical adviser who has carried out the funder's technical due diligence exercise for the purposes of the Final Tender.

We were appointed by [Insert name of Bidder] to carry out funder due diligence on the Final Tender Submission ("Funder's Technical Due Diligence").

We were appointed to undertake the following scope of work and confirm that this has been completed.

a) [Insert Scope of work here]

We confirm that this is the level of technical due diligence we would expect to carry out on behalf of a funder for a project of this type at this stage.

We confirm that we have undertaken due diligence on the calibration of the Payment Mechanism and that any matters which we have raised as a result of the due diligence we have carried out have been raised and discussed with the Board during the Dialogue Period and have been included within [Insert name of Bidder]'s Final Tender submission.

Approved Signatory of technical adviser: _____

Name of company: _____

Date: _____

Part 2 - Funder's Legal Adviser: Draft Certificate

As per Question F6 of the Financial Submission Requirements, The Board requires that this certificate is signed by the legal adviser who has carried out the funder's technical due diligence exercise for the purposes of the Final Tender.

We were appointed by [Insert name of Final Bidder] to carry out funder due diligence on the Final Tender Submission ("Funder's legal Due Diligence").

We were appointed to undertake the following scope of work and confirm that this has been completed.

a) [Insert Scope of work here]

We confirm that this is the level of legal due diligence we would expect to carry out on behalf of a funder for a project of this type at this stage.

We confirm that any matters which we have raised as a result of the funder due diligence we have carried out have been raised and discussed with the Board during dialogue and are included within [Insert name of Final Bidder]'s Final Tender submission.

Approved Signatory of legal adviser: _____

Name of company: _____

Date: _____

Appendix B (iv) – Term Sheets

	Commercial Bank(s)	EIB
Senior Term Loan	50% of the Senior Funding Requirement.	50% of the Senior Funding Requirement up to a maximum of £98.81 million.
Gearing	To be no more than 90% at Financial Close.	
Debt tail	2 years	
Repayment	The Senior Term Loan shall be repaid in accordance with the agreed repayment schedule reflected in the Base Case Financial Model and the Facility Agreement, which will be a 6-monthly sculpted schedule.	
Facility Margins	LIBOR assumed to be 4.00% Construction: LIBOR plus 2.80% p.a. Operations Yrs 1 - 8: LIBOR plus 2.50% Operations Yrs 9 - 15: LIBOR plus 2.80% Operations Yrs 16 - 20: LIBOR plus 3.00% Operations Yrs 21+: LIBOR plus 3.20% Equity Bridge (if in use): 1.75%	5.50% p.a. throughout.
Hedging Credit Spread	Interest rate swap: 0.28%	n/a
MLAs	2 bps	n/a
Arrangement Fee	2.30 %	1.00%
Commitment Fee	40% of the applicable margin	45bps
Agency Fee	£35,000 p.a. indexed	n/a
Cover Ratios	<p>Base Case Minimum ADSCR: 1.20 Base Case Average ADSCR: 1.20 Minimum LLCR: 1.20</p> <p>Lock Up ADSCR: 1.10 Lock Up LLCR: 1.15</p> <p>Default Minimum ADSCR: 1.05 Default Minimum LLCR: 1.10</p>	
Reserve Accounts	<p>A Debt Service Reserve Account to cover 6 months debt service.</p> <p>A Maintenance Reserve Account to provide a 3 year look-forward</p>	

reserve mechanism on a 100%/66%/33% basis.
--

Project Ratios – Definitions

For the purpose of this Term Sheet, cover ratios shall be defined as follows:

Annual Debt Service Cover Ratio (ADSCR) - (Backward and Forward looking)

The ADSCR is calculated looking back 12 months from the testing date and looking forward 12 months from the testing date and is calculated as the Available Cash Flow **divided by** the Debt Repayments.

Available Cash Flow comprises:

Include	Deduct
Unitary Payment	Service provider operating costs
Current account balance	SPV operating expenditure
Receipt of third party revenue	Life-cycle costs
Cash receipts from sale of tax losses	Taxes
Positive changes in working capital	Negative changes in working capital
Releases from Reserve Account(s)	Payments to Reserve Account(s)
Interest received on cash deposits	

Debt Repayment comprises:

Senior debt principal repayments plus senior debt interest payments for the 12 months prior to the testing date for a backward looking ADSCR and 12months from the testing date for a forward looking ADSCR.

Loan Life Cover Ratio

Net present value of forecast available cash from the testing date until the final repayment date of the senior debt discounted to the testing date at the weight average cost of the senior debt plus all cash balances **divided by** total senior debt outstanding at the calculation date.



Европейска инвестиционна банка
 Evropská investiční banka
 Den Europæiske Investeringsbank
 Europäische Investitionsbank
 Euroopa Investeerimispank
 Ευρωπαϊκή Τράπεζα Επενδύσεων
 European Investment Bank
 Banco Europeo de Inversiones
 Banque européenne d'investissement
 Banca europea per gli investimenti
 Eiropas investīciju banka
 Europos investicijų bankas
 Európai Beruházási Bank
 Bank Ewropew tal-Investment
 Europese Investeringsbank
 Europejski Bank Inwestycyjny
 Banco Europeu de Investimento
 Banca Europeană de Investiții
 Európska investičná banka
 Evropska investicijska banka
 Euroopan investointipankki
 Europeiska investeringsbanken

NHS Lothian
 Waverley Gate
 2-4 Waterloo Place
 Edinburgh
 EH1 3EG
 UK

For the attention of: Susan Goldsmith, Director of Finance

By courier

Luxembourg, 04 December 2013

OPS A/WE-2/2013-0200/FR/vdb

Ref.:

Royal Hospital for Sick Children (RHSC), Child and Adolescent Mental Health Service (CAMHS) and the Department of Clinical Neurosciences (DCN).

Dear Madam,

The European Investment Bank ("EIB") is pleased to respond to the request of the NHS Lothian (the "**Authority**") to write in support of the financing proposal for the Royal Hospital for Sick Children (RHSC), Child and Adolescent Mental Health Service (CAMHS) and the Department of Clinical Neurosciences (DCN), (the "**Project**").

The EIB's Board of Directors have approved in principle a loan to the Project for an amount of up to GBP 98.81 million. This letter does not represent a binding commitment by EIB to provide financing to the Authority, or the Project, and any financing and participation by EIB will be subject to satisfactory due diligence, terms and documentation, including but not limited to the various conditions referred to below.

The commitment to fund the Project would be made at financial close and before providing such commitment EIB would need to be satisfied that various conditions have been fulfilled including, inter alia:

- (i) we have completed satisfactory due diligence in relation to the Project and that the structure and terms of all project and finance documentation are satisfactory to us;
- (ii) we have agreed the commercial arrangements and documentation with the preferred bidder, the sponsors/contractors and the other debt providers;
- (iii) the proposed loan achieves an acceptable internal loan grading and risk profile;
- (iv) that we have received the necessary internal credit and other approvals; and



(v) the relevant conditions precedent have been fulfilled to EIB's satisfaction.

This letter shall not create any legal relations.

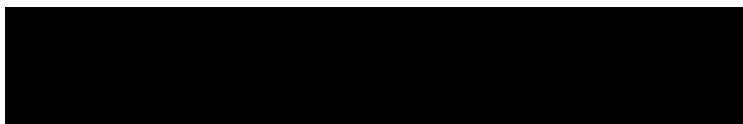
More information on these projects can be found on www.eib.org

EIB looks forward to working with the Authority on the implementation of this Project.

This letter shall be governed by and construed in accordance with English law.

Yours faithfully,

EUROPEAN INVESTMENT BANK



P. Jacobs

F. Rizzi

Appendix B (v) – Security Package Pricing

	Bank/EIB Solution	Wrapped Bond	Unwrapped Bond
Liability Cap	Details to be provided	50%	50%
Letter of Credit	Amount required Institution providing the Letter of Credit and associated rating Annual cost (nominal) in % terms Resulting total cost as used in financial model	10 % Letter of Credit from institution with minimum rating from S&P of A-. Annual cost (nominal) in % terms Resulting total cost	20 % Letter of Credit from institution with minimum rating from S&P of A-. Annual cost (nominal) in % terms Resulting total cost
Performance Bond	Amount of Performance Bond required Institution providing the Performance Bond and associated rating Annual cost (nominal) Total cost	10 % Liquid performance bond: Annual cost (nominal) Total cost	10 % Liquid performance bond: Annual cost (nominal) Total cost
Parent Company Guarantees	Details to be provided		
Equity bridge loan	If in use, details of security package requirements to be provided		
Other	Please detail any other Bidder-specific lender security package requirements (during construction or operations)	Please detail any other Bidder-specific lender security package requirements (during construction or operations)	Please detail any other Bidder-specific lender security package requirements (during construction or operations)
Rating Agency costs	n/a	Upfront and annual monitoring costs to be provided (for information only)	Upfront and annual monitoring costs to be provided (for information only)

Appendix B (vi) – Funding Competition Protocol

Objectives of the Funding Competition

The primary objective of the Funding Competition is to identify competitive proposals for senior debt funding for the Project which:

- are firm, unqualified and deliverable;
- enable the required amount of senior debt to be raised;
- reduce the NPV of the Annual Service Payment as proposed in the Preferred Bidder's Final Tender Financial Model ('FT Model');
- are deliverable by the target Financial Close date 1 October 2014;
- do not require any renegotiation of any Project documents or any alteration of the risk allocation as agreed between the Board and Preferred Bidder.

Process

Delivery of senior debt funding is the responsibility of the Preferred Bidder. This includes:

- management of the Funding Competition process and of the funder Due Diligence process;
- production of all materials required and covering all costs incurred in the process;
- meeting the timescales that will be set out in the Preferred Bidder letter.

The Funding Competition will be run by the Preferred Bidder, subject to advance approval from the Board, SFT and their financial advisors in respect of key issues including:

- timing of the competition;
- developing the shortlist of prospective funders to be approached;
- the documentation issued to prospective funders;
- evaluation criteria;
- final selection of bank versus any other (e.g. public bond) structure.

Any difference in cost to the account of the Preferred Bidder arising from the final selection of funding route is the Preferred Bidder's risk, subject to the risk allocation arrangements set out in the IFT. Such costs will not be amended following selection of Preferred Bidder and final selection of preferred funder(s).

Offers solicited from prospective senior debt funders must at a minimum:

- be deliverable - final submissions from funders must have credit committee approval providing an unambiguous commitment to fund;
- be sufficient to cover the full required senior debt sum;
- set out their proposals for all key terms such as credit margins, fees, cover ratios, and interest rate hedging;
- accept the principles of public sector benchmarking of derivatives pricing at Financial Close, or competing any GICs at Financial Close in the case of a bond solution;
- accept the Project Agreement, associated Schedules and all other Project Documents in full, preserving the risk allocation set out in the Final Tender. Any funder seeking to amend these Documents may be excluded from the Competition;
- confirm whether the Preferred Bidder's security package proposals (including proposed security provider(s)) are acceptable;
- confirm their rating requirements for the Account Bank;

- confirm whether their offer is a "bank" or "bond" solution; that they accept the standard form compensation on termination provisions for "bank" or "bond" (as applicable); that they accept calculation of breakage costs on termination on the basis of readily identifiable and objective benchmarks;
- demonstrate commitment to the proposed financial close date;
- confirm whether the Preferred Bidder's security package proposals (including proposed security provider(s)) are acceptable;
- confirm their rating requirements for the Account Bank;
- confirm whether their offer is a "bank" or "bond" solution; that they accept the standard form compensation on termination provisions for "bank" or "bond" (as applicable); that they accept calculation of breakage costs on termination on the basis of readily identifiable and objective benchmarks;
- reflect the detailed funder's due diligence undertaken and accept novation of the funder's advisors appointed by the Preferred Bidder; and
- demonstrate commitment to the proposed financial close date.

The Board will not accept significant changes to the Project Agreement, associated Schedules or other Project Documents as a result of the funding competition. To the extent that any such change has a negative impact on the Project it will be an equity risk rather than a risk for the Board. The Board therefore expects the Preferred Bidder to develop the Information Memorandum to a sufficient level of detail to make the above terms for participation clear.

If financing is expected to come from a club of funders, the following should be asked of prospective funders in order to assess the deliverability of any club solution:

- whether, if part of a club, they would accept one funder in the club taking on the role of Agent/Security Trustee (and whether they would be willing to / require to assume that role); and
- whether, if part of a club, they would accept the appointment of one funder to represent the club on technical issues and one funder to represent the club on legal issues (and whether they would be willing to / require to assume that role).

The Preferred Bidder will discuss Funding Competition responses received with the Board to allow financial modelling of responses to be carried out on an agreed basis. The Preferred Bidder will model all Funding Competition responses agreed with the Board as set out in the Funding Competition Methodology. The Preferred Bidder will prepare a summary report demonstrating the impact of each funding proposal on the Annual Service Payment and the associated NPV versus those in the FT Model as well as a tabular summary of pricing and key terms and conditions for each proposal.

Financial Model

The FT Model based on the Board's Final Tender term sheet provided in this document will be provided to prospective funders by the Preferred Bidder. Funders will be requested to improve on these terms, subject to there being no change in the Board's risk profile. If prospective funders feel that a revised Model reflecting an alternative structure is necessary for them to perform their assessment of the Project then they should outline their rationale to enable the Preferred Bidder and Board to consider the request and agree a new version.

The junior debt coupon included in the FT Model will not increase regardless of any change in rates or terms resulting from the Funding Competition.

The Board will take the risk up to Financial Close on movements to underlying LIBOR/ reference gilt/GIC rates or bond margin.

Benefits arising from the Funding Competition and any improvements up to and including Financial

Close will be passed in full to the Board, including improvements in bank terms such as fees, costs, margins, gearing, cover ratios and increase in loan tenor. Benefits from any incorporation of EIB finance are wholly for the account of the Board.

Involvement of the Board and SFT

To enable agreement and decision-making throughout the process, the Preferred Bidder will chair a funding competition “working group” which will include a representative from each of the Board, its financial advisers and SFT.

Consent of SFT will be required throughout, including:

- agreement of the shortlist of funders;
- agreement of the contents of the Information Memorandum;
- final selection of the funding route and final selection of the preferred funder(s).

All correspondence with funders in competition will be recorded in writing and available to all procuring parties (i.e. the Board, the preferred bidder, SFT and advisors).

The Board, its advisors and SFT retain the right to attend all significant meetings held with potential funders. A minimum of 48 hours’ notice of such meetings must therefore be given to the Board including a detailed agenda for such meetings.

Regular summaries of significant communications pertaining to the competition and the position of any negotiations are to be provided in advance of each meeting.

The competition will be run on a transparent, open book basis. The Preferred Bidder will allow the Board, its advisors and SFT full access to the responses received from funders and all analysis (including financial modelling produced by the Preferred Bidder or its advisers) to assess and compare those responses. The Preferred Bidder agrees to run any additional scenarios or sensitivities reasonably requested by the Board, its advisors or SFT. The list of sensitivities will, as far as possible, be agreed in advance of the competition.

Appendix C (i) – Not Used

Appendix C (ii) – Legal Submission Requirements and Evaluation

1. Prohibited Bidder Amendments

1.1 Bidders will not be permitted to include in their Final Tender (Bidder Specific) NPD Project Agreement or any part of their Final Tender Submission:

1.1.1 amendments, caveats and/or qualifications which have not previously been raised with the Board and/or its advisers during the Dialogue Period (other than drafting that is necessarily consequential on, or necessary to implement, amendments which have been so raised); or

1.1.2 amendments, caveats and/or qualifications which have been raised with the Board during Dialogue Period but rejected by the SFT,

such amendments being defined as "**Prohibited Bidder Amendments**".

1.2 The Board shall be entitled to reject in its absolute discretion any Prohibited Bidder Amendments included within the Final Tender (Bidder Specific) NPD Project Agreement or Final Tender Submission which forms part of a Bidder's submission for the Final Tender.

2. Final Tender

2.1 Overview

Unless a Bidder is notified otherwise, the legal submission requirements for the Final Tender shall be as set out in paragraph 2.2 (NPD Project Agreement) and 2.3 (Additional Documentation) below.

2.2 NPD Project Agreement Submission

2.2.1 Bidders should note that a NPD Project Agreement specific to each Bidder (**Final Tender (Bidder Specific) NPD Project Agreement**) shall be issued to each Bidder by the Board in the Invitation to Submit a Final Tender.

2.2.2 The Final Tender (Bidder Specific) NPD Project shall be based upon:

- (a) the respective NPD Project Agreement submitted by Bidders as part of the Draft Final Tender; and
- (b) any agreed issues resolved in the final Dialogue Meeting,

and Bidders shall be required to submit their Final Tenders on the basis of the terms of the Final Tender (Bidder Specific) NPD Project Agreements, without further amendment (subject to paragraph 2.4.1(a)(ii)) (the "**NPD Project Agreement Submission**"). A letter from each Bidder's consortium confirming that their Final Tender (Bidder Specific) NPD Project Agreement is acceptable to them shall suffice for the purposes of the NPD Project Agreement Submission. Please also note the additional Board requirement to complete the certificate set out in Appendix K (Acceptance of Contractual Terms) by the consortium members (including sub-contractors).

- 2.2.3 Subject to paragraph 2.4.1(a)(ii) any amendment to the Final Tender (Bidder Specific) NPD Project Agreement may result in a Bidder's entire Final Tender being rejected by the Board without further evaluation.

2.3 Additional Documentation Submission

- 2.3.1 Subject to paragraph 2.3.2, the following documentation (**the "Additional Documentation Submission"**) shall also require to be submitted by Bidders as part of their Final Tender:

- (a) Contractual matrix/diagram, showing clearly the relationships between the Bidder and its supply chain including shareholders, junior debt providers, funders and sub-contractors. The diagram should provide details of all collateral warranties, direct agreements, any applicable guarantees and who the design consultants shall be which will be granted to the Board and the circumstances in which the protection offered by the collateral warranties and direct agreements will be available;
- (b) Fully developed, signed heads of terms for each of the Contractor, Services Provider and any relevant Key Sub-contractors. The Board will expect to see details such as caps on liability, liquidated damages and indemnities covered in these heads of terms;
- (c) Final version of proposed parent company guarantees; and
- (d) Final version of the NPD Articles of Association.

- 2.3.2 The documentation referred to above in paragraph 2.3.1 above, shall be based upon:

- (a) such similar documentation as was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and
- (b) any agreed issues resolved in the final Dialogue Meeting,

and Bidders shall be required to submit their Final Tenders on the basis of the terms of this paragraph, without further amendment.

2.4 Evaluation of Final Tender

- 2.4.1 The legal submission which forms part of the Final Tender shall be evaluated as follows:

- (a) NPD Project Agreement

Subject to paragraph 2.2.3, the NPD Project Agreement shall be evaluated in accordance with the following:

- (i) Pass/Fail: Subject to paragraph 2.4.1 (a)(ii) below, Bidders shall be awarded a pass if they accept the Final Tender (Bidder Specific) Project Agreement. Bidders shall be awarded a fail if they do not accept the Final Tender (Bidder Specific) Project Agreement;
- (ii) If a pass is received by Bidders in respect of the Final Tender (Bidder Specific) Project Agreement, the provisions of paragraph 5.7.1(d) (Quantifiable Bidder Amendments) of Volume 1 of the ITPD shall be applied. The Quantifiable Bidder Amendments that shall be applied to a Bidder's Provisional Economic Cost Score shall be those Quantifiable Bidder Amendments notified by the Board to Bidders

during the Dialogue Period. Bidders can choose not to include amendments which result in Quantifiable Bidders Amendments within the Final Tender (Bidder Specific) NPD Project Agreement, as part of their Final Tender. The Quantifiable Bidder Amendments to be applied to the Provisional Economic Cost Score shall then be reduced accordingly by the Board.

(b) Additional Documentation Submission

Subject to paragraph 2.3.3, the Additional Documentation Submission referred to in paragraph 2.3.1 above shall be evaluated in accordance with the following:

- (i) Pass: Bidders shall be awarded a pass if they submit as part of their legal submission for their Final Tender the documentation referred to above in paragraph 2.3.1 above, which shall be based upon:
 - (A) such similar documentation as was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and
 - (B) any agreed issues resolved in the final Dialogue Meeting,
- (ii) Fail: Bidders shall be awarded a fail if they submit as part of their legal submission for their Final Tender the documentation referred to above in paragraph 2.3.1 above which is not based upon:
 - (A) such similar documentation was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and
 - (B) any agreed issues resolved in the final Dialogue Meeting.

Appendix C (iii) – Not Used

Appendix C (iv) – Interface Proposals

Summary of Interface Proposals to be provided by Bidders

The following Interface Proposals are required to be provided by Bidders to the Board for Final Tender as part of C31. The requirements of the Interface Proposals are more fully set out in Appendix A of the Board's Construction Requirements, subject to certain conditions within Schedule Part 5 (Land Matters), and this summary should be read in conjunction with these provisions. Although the Interface Proposals are primarily relevant to the Construction Phase, some Interface Proposals shall apply to the Project Operations. Please note that Appendix A of the Board's Construction Requirements may be subject to change to reflect discussions during the Dialogue Period.

The requirement for the Interface Proposals arose from an agreement between the Board and Consort when the Site was removed from the Campus Site (i.e. in order for the Board to secure land for the construction of the Facilities) and therefore from Consort's responsibility. The Interface Proposals are intended to provide Consort with some comfort that the Project Operations are conducted by Project Co in a manner which is least detrimental to Consort's ability to operate the Retained Estate and/or Retained Site.

The Interface Proposals shall be agreed between the Board and Consort pursuant to procedures set out in the RIE Project Agreement. All Bidders are required to submit Interface Proposals prior to relevant Dialogue Meetings, as per the timetable set out below. However, the Board shall not engage with Consort to finalise and agree these Interface Proposals until Preferred Bidder stage. It is the Board's intention that the Interface Proposals shall be in an agreed form and ready for implementation by the Preferred Bidder at Financial Close.

The Board's approach to the Interface Proposals in the ITPD is to ensure a level playing field between Bidders. Please note that the Board cannot guarantee that Appendix A of the Board's Construction Requirements, upon which the Interface Proposals shall be based, will not be subject to further amendment or refinement at Preferred Bidder stage or post-financial close. However, at this stage, the Board anticipates that any such amendment or refinement should not be material.

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
1	Traffic Management Strategy	The Traffic Management Strategy ('TMS') is required where Project Co wants to access the Site for the construction of the Project via the Orange Areas (which	Required to be	Preferred Bidder Stage	Pass / Fail	Construction Phase

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>includes the orange hatched areas) shown on Plan 2.</p> <p>The TMS is a proposal which is to address traffic management at the Campus which must be prepared having regard to:</p> <ul style="list-style-type: none"> (a) the health and safety of all users of the Campus Site and/or Campus Facilities must be safeguarded at all times; (b) RIE Facilities is a working hospital to which access (including both pedestrian and vehicular) must be maintained at all times; (c) traffic at the Campus Site is to be prioritised in accordance with the following hierarchy: <ul style="list-style-type: none"> (i) blue light traffic access/egress; (ii) staff, patients and visitors to the Campus Site and/or Campus Facilities (public transport); (iii) staff, patients and visitors to Campus Site and/or Campus Facilities (car parking); (iv) Campus Site and/or Campus Facilities deliveries, FM supplies and waste collection; and (v) Project Co's construction traffic; and (d) insofar as reasonably practicable and appropriate in 	submitted for Final Tender.			

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>the circumstances (taking into consideration, for example, the number of construction vehicles involved, the number of journeys anticipated, the time of the day when access is required and the part(s) of the areas affected) construction traffic using the affected area shall require to be segregated from other traffic and/or pedestrians using the affected area (for example, through contra-flow or one way traffic arrangements and safe routes for pedestrians).</p> <p>Further details of the TMS are set out in paragraph 2 (Construction Access over Orange Area) of Section 1 of Part 1 of Appendix A of the Board's Construction Requirements.</p>				
2	Oversail Strategy	<p>If as part of its activities (including construction of the Project) Project Co needs to oversail any other part of the Retained Site and/or Retained Estate then Project Co requires to prepare Oversail Strategy/ies. The Oversail Strategy/ies must comply with specified criteria and include:</p> <p>(a) programme of proposed oversail activities;</p> <p>(b) risk assessments;</p> <p>(c) a strategy for erection, operation, dismantling of oversailing crane(s), the details of which are more fully set out in Section 4 (Oversailing) of Part 1 of Appendix A of the Board's Construction Requirements.</p>	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Primarily Construction Phase but also Operational Term if any Project Operations required oversailing

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
3	Access Strategy	<p>An Access Strategy is required where Project Co needs to occupy part or parts or do works in and/or hoard off Access Areas (which includes Orange Areas (including orange hatched areas, on Plan 2), Yellow Area (including yellow hatched area, on Plan 2) and Substation Access Area (which is shaded blue and hatched black on Plan 2)) for carrying out works to pedestrian and vehicular access, to reconfigure roads, footpaths and landscaped areas and install surface water and foul/sewer drainage connections.</p> <p>Pedestrian and vehicular access to the Campus Site and/or Campus Facilities must be maintained at all times (albeit that the access arrangements may require to be subject to restrictions or diversions during any periods of occupation.) These restrictions need approval in the form of an Access Strategy. The Access Strategy is for managing pedestrian and vehicular access, in a manner similar to the TMS above but is not limited to traffic for construction. The Access Strategy is to be prepared which shall ensure:</p> <ul style="list-style-type: none"> (a) The health and safety of all users of the Campus Site and/or Campus Facilities must be safeguarded at all times; (b) Regard is had to RIE Facilities as a working hospital to which appropriate pedestrian and vehicular access must be maintained at all times; 	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term (wherever there is to be future ongoing maintenance the areas described).

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>(c) Pedestrian and vehicular access must be maintained (albeit, at times it may be restricted) over the section of Little France Crescent lying within the part of the Orange Area shown shaded orange (but not hatched black) on Plan 2; and</p> <p>(d) Traffic will be prioritised in accordance with the following hierarchy:</p> <ul style="list-style-type: none"> (i) blue light traffic access/egress; (ii) staff, patients and visitors to the Campus Site and/or Campus Facilities (public transport); (iii) staff, patients and visitors to the Campus Site and/or Campus Facilities (car parking); (iv) Campus Site and/or Campus Facilities deliveries, FM supplies and waste collection; and (v) Project Co's construction traffic. <p>Further details of the Access Strategy are set out in paragraphs 2 to 4 (Access Strategy) and 8 of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements</p>				

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Provisions about any Access Strategy to address an access which is required in the Operational Term not contemplated by the Access Strategy above is dealt with in Section 2 (Access Strategy and Amended Drainage Proposal) of Part 2 of Appendix A of the Board's Construction Requirements.				
4	Supplemental Drainage Proposal	<p>A Supplemental Drainage Proposal is required where Project Co wants to install new surface water drainage connections from the Site to the existing surface water drain within the Orange Area. There is already an Initial Drainage Proposal, as set out in Appendix E of the Board's Construction Requirements, which primarily details the agreed connection points. This has to be complied with and supplemented by this Supplemental Drainage Proposal to include details of the design, construction, programme and Project Co's drainage proposals for the relevant drainage works.</p> <p>Prior to any drainage works taking place, Project Co (once appointed as Preferred Bidder) shall undertake a camera survey to document the condition of the existing surface water drainage system within the RIE Site. The camera survey will be carried out in accordance with Good Industry Practice and cover the full section of the RIE Site surface water drainage system that will serve the Site, from the point of the first connection from the Site to the drainage system to the point at which the drainage system discharges from the RIE Site to the Niddrie Burn. Four hard copies and an electronic version of the camera survey will be delivered by Project Co to the Board and no</p>	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>works may be carried out until the said camera survey has been carried out and requisite copies delivered by Project Co to the Board.</p> <p>Further details of the Drainage Proposals are set out in paragraphs 5 (Drainage Proposals) and 8 (Other General Matters) of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements.</p> <p>Amended Drainage Proposal</p> <p>If when Project Co is carrying out any of the drainage or services connections as more fully described above, it transpires that the position within the Orange Area is different (including route, depth, size or condition of the service media within the Orange Area) from what was anticipated so there is a need to change the scope of the drainage or service connections, then Project Co requires to prepare an Amended Drainage Proposal to include additional detail, information and drawings as are available.</p> <p>Further details of the Amended Drainage Proposals are set out in paragraph 2 (Drainage Proposals) of Section 2 of Part 2 of Appendix A of the Board's Construction Requirements.</p>				
5	Substation Proposal	The Sub-station Proposal must address the construction and maintenance repair and renewal of the access road in the Substation Access Area in the event that a Substation	Required to be submitted	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>is being built on the Substation Site.</p> <p>Substation Access Area If Project Co needs to do works to construct an access road in Substation Access Area shown shaded blue and hatched black on Plan 2, then prior to any access Project Co will have to prepare a Substation Proposal which must include details of design, construction, programme and Project Co's Proposals for the relevant Sub-station Access Works.</p> <p>The Substation Proposal must:</p> <p>(a) be safe in respect of personnel or equipment on any part of the Campus and/or Campus Facilities;</p> <p>(b) be in accordance with Good Industry Practice and Law;</p> <p>(c) not materially adversely effect the flow or functioning of the Niddrie Burn; and</p> <p>(d) adequately protect the high voltage electricity cable running through the Substation Access Area.</p> <p>Substation</p> <p>Project Co also needs to provide information about the design and construction of the Substation and Substation HV Cable.</p>	for Final Tender.			Term.

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>Method Statement</p> <p>Maintenance of Substation HV Cable by Project Co.</p> <p>Further details of the Substation Proposals and the Substation and Substation HV Cable are set out in paragraphs 6 and 7 (Substation Access and Cables) of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements.</p>				
6	Service Proposal (Service Strip and Foul Service Strip)	<p>If Project Co wishes to do works (in each case as necessary in connection with the Works) to construct and lay:</p> <p>(a) service media through under over Service Strip (shown shaded yellow and hatched black on Plan 2) for the passage of water, sewage, drainage or oil, gas, electricity, telephone (and other telecommunications); and/or</p> <p>(b) foul drainage through under over Foul Service Strip (shown shaded yellow and hatched black on Plan 2A) for the passage of foul drainage,</p> <p>then Project Co requires to exhibit Scottish Water or other statutory authority/utility company approvals in relation to the works for the connection of service media from the Site to the mains sewer located on the RIE Site and provide a Project Co's Proposal which must detail the route and depth of service media and detailed Method Statements for the maintenance, repair and renewal of the (i) service media through, under and over the Service Strip; and (ii)</p>	Required to be submitted Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>foul drainage through the Foul Service Strip.</p> <p>Further details of the Service Proposal are set out in Section 6 (Service Strip and Foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements.</p> <p>Amended Service Proposal</p> <p>If when Project Co is carrying out any of the drainage or services connections as more fully described above, it transpires that the position on Site is different (including route, depth, size or condition of the service media on Site) from what was anticipated so there is a need to change the scope of the drainage or service connections, then Project Co requires to prepare an Amended Service Proposal to include additional detail, information and drawings as are available.</p> <p>Further details of the Amended Service Proposal are set out in Section 3 (Service Strip and Foul Service Strip) of Part 2 of Appendix A of the Board's Construction Requirements.</p>				
7	Connection Proposal	<p>Project Co shall prepare a Connection Proposal in respect of the RIE Works. This should include a programme and the following specific connection information:</p> <p>(a) Link Building: (i) Design package for method of connection of the Facilities to the Link; and (ii) a Project Co's Proposal in respect of the connection to the Link</p>	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		<p>Building;</p> <p>(b) Fire alarm systems: (i) The fire alarm system specification for the interface link between the fire alarm system within the Facilities and the RIE Facilities; (ii) design package information for method of installation for the interface link between the fire alarm system within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the interface link between the fire alarm system within the Facilities and the RIE Facilities; and (iv) a Method Statement for the maintenance and repair of the interface link between the fire alarm system within the Facilities and the RIE Facilities;</p> <p>(c) Not Used,</p> <p>(c) PTS: (i) The PTS specifications for the Facilities and the RIE Facilities; (ii) design package information for the proposed method of installation of the PTS within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the installation of the PTS within the Facilities and RIE Facilities; (iv) a Method Statement for the maintenance and repair of the PTS within the Facilities and RIE Facilities; The Board will confirm the route during Dialogue.</p> <p>(d) ICT: (i) The ICT specifications for the Facilities and the RIE Facilities; (ii) design package information for the proposed method of installation of the ICT within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the installation of the ICT within the Facilities and RIE Facilities; (iv) a Method Statement for</p>				

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
8	Construction Access Proposal	<p>the maintenance and repair of the ICT within the Facilities and RIE Facilities; The Board will confirm the route during Dialogue.</p> <p>Project Co should refer to Sub-section C of the Board's Construction Requirements as regards specifications and control requirements for such PTS, ICT, fire and security systems and information about the Link Building.</p> <p>Further details of the Connection Proposal are set out in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements.</p> <p>Project Co's construction access is governed by the following provisions of Appendix A of the Board's Construction Requirements:</p> <ul style="list-style-type: none"> (a) Paragraph 1 in relation to Construction Access over the Yellow Area; and (b) Paragraph 2 in relation to construction access over the Orange Area. 	Required to be submitted for Final tender	Preferred Bidder Stage	Pass/Fail	Construction Phase

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both

Appendix D – Dialogue Period Query Proforma

Re-provision of RHSC + DCN
DIALOGUE PERIOD QUERY PROFORMA

Ref No:
Dated Raised:

Topic: Technical Administration
 Financial Other
 Commercial

Is this query considered commercial in confidence?	Yes	No
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Query/Request:

Response:

Date of Response:

Please deliver response via:	Letter	Fax	E mail
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Raised on behalf of [] by: []

For RHSC DCN Use

RHSC DCN Ref No:

Date Received:

Passed to	NHSL Project Team		E&Y		Scottish Government other	
			MacRoberts			
			Mott Mac			

Appendix E - Reference Design Elements

Elements of the Reference Design	Status
Schedules of Accommodation	For spaces relating to Operational Functionality that will be used by NHS Lothian, and Non-Clinical Services spaces, the area of these rooms shall be a minimum and this minimum area is a mandatory requirement. The Reference Design Schedule of Accommodation needs to be read in conjunction with the Draft Schedule of Accommodation prepared by the Board as noted in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation). All other spaces are indicative.
Development Control Plan and Urban Design 1:1000/1:500	<p>Mandatory - those elements defined under Operational Functionality i.e.:</p> <ul style="list-style-type: none"> (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 departments within the Facilities; and (iv) the corridor widths as shown are a minimum with these minimum widths being mandatory requirements. <p>Indicative - everything else including Non-Clinical Services spaces.</p>
Departmental Layouts 1:500	<p>Mandatory - those elements defined under Operational Functionality i.e.:</p> <ul style="list-style-type: none"> (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 departments within the Facilities; and (iv) the corridor widths as shown are a minimum with these minimum widths being mandatory requirements. <p>Indicative - all other elements (e.g. Non-Clinical Services spaces, layouts and locations for Hard FM spaces, locations and sizes for services risers and spaces etc).</p>
General Arrangements Plans 1:200 A42664060	<p>Mandatory - those elements defined under Operational Functionality i.e.:</p> <ul style="list-style-type: none"> (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 departments within the Facilities; (iv) the adjacencies between rooms within the Hospital departments; and (v) the corridor widths as shown are a minimum and these minimum widths are mandatory requirements. <p>Indicative - all other elements (e.g. Non-Clinical Services spaces, layouts and locations for Hard FM spaces, locations and sizes for services risers and spaces, etc).</p>

Elements of the Reference Design	Status
General Arrangement Elevations and Sections.	Indicative
Generic Room Layouts 1:50	<p>Mandatory - those elements defined under Operational Functionality i.e.: The location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal room elevations.</p> <p>Indicative - All other elements.</p>
Key Room Layouts 1:50	<p>Mandatory - those elements defined under 'Operational Functionality' i.e.: The location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal room elevations.</p> <p>Indicative - All other elements.</p>
Fire Strategy 1:200	Indicative
Interior Design and Artwork Concepts	Indicative
Wayfinding Strategy	Indicative
Flexibility and expandability	Indicative
Supplies, Storage, Distribution and Waste Management (Soft FM)	Mandatory
Decontamination and Control of Infection (HAI-SCRIBE)	Indicative

Elements of the Reference Design	Status
BREEAM	Indicative
Geotechnical Site Investigation	N/A (Data Room status)
Decanting, Phasing,	Indicative
Traffic Impact Assessment and Traffic Management Plan	Indicative
Security Strategy	Indicative
ICT strategy	Indicative
Helipad	Indicative

Appendix F – Thermal and Energy Model Parameters

1 THERMAL MODELLING DATA

1.1 General

In addition to energy modelling required of Bidders to satisfy Building Regulations and the BREEAM requirements of the Project, energy modelling shall further be undertaken to inform the Authority of the actual proposed annual energy consumption of the Facilities, by fuel type, and the annual operating costs therein.

Bidders / Project Co shall undertake comprehensive “all-inclusive” thermal and energy modelling to assess the performance of the Bidders’ proposals/Project Co Proposals, and provide an assessment of the actual energy consumption for the building.

The thermal and energy performance of the Facilities shall be modelled to the Project specific parameters, identified within Section 3 (*Board’s Construction Requirements*) of Schedule Part 6 (*Construction Matters*). Thermal and energy modelling shall inform the sizing of all heating, ventilation and comfort cooling requirements for Project Co’s Proposals, inclusive of all natural ventilation pathway and overheating analysis.

Bidders/Project Co shall provide proposed energy consumption figures from their “all-inclusive” thermal and energy modelling, with all supporting documentation including model inputs, assumptions, calculations and reporting, at the following design stages:

- Final Tender;
- Financial Close; and
- Commissioning End Date.

The following documentation shall be used in providing the thermal and energy modelling for the building;

- Scottish Health Technical Memorandums
- EnCO2de
- Health Building Notes
- CIBSE Design Guides (including AM11: *Building Energy and Environmental Modelling* and TM54: *Evaluating operational energy performance of buildings at the design stage*)
- Building Regulations (Scotland) Technical Standards

1.2 Building Envelope

The building envelope, construction and materials and the operation will have a significant impact on the efficient operation of the building engineering services installations. The thermal and energy

model requires therefore to take cognisance of the project specific factors as detailed in the Reference Design proposals and Section 3 (*Board's Construction Requirements*) of Schedule Part 6 (*Construction Matters*).

The modelling exercise must take cognisance of the RIE Facilities and the associated Link Building to recognise the interface between the new and the existing buildings.

The Gross Internal Floor Area should be calculated by measuring the overall internal area of the building making a reduction for partitions, walls, voids and courtyards. The floor areas of internal rooms, circulation spaces and internal walkways should be included.

The heated volume should take into account the height between the floor surface and the room ceiling and should exclude ceiling voids, pipe ducts and plant rooms and include for a 6% reduction due to walls/partition generally in accordance with HTM 07-02: EnCO2de – Making energy work in healthcare.

The building envelope performance design criteria should be based upon an air tightness figure measured in $\text{m}^3/\text{hr}/\text{m}^2$ @ 50Pa as appropriate to the type of facility and in accordance with Building Regulations (Scotland) Technical Standards.

Further methods of measuring and demonstrating the thermal efficiency of the building envelope such as thermal imaging can be utilised subject to agreement with the Board.

1.3 Ambient Weather Profile and Degree Day

The energy use of the building may be predicated by reference to the outside temperature and the Department of Health Estate and Facilities division publishes degree day data on a monthly basis.

The energy modelling shall be based on the above degree day data utilising the base temperature of 18.5° Celsius and Edinburgh degree day weather profile data.

Outputs from degree day energy models may be combined with additional numerical energy models to provide an “all inclusive” energy model for the building.

1.4 Dynamic Thermal and Energy Modelling Simulation

As an alternative to the Degree Day methodology, a certified and industry approved Dynamic Simulation Model (DSM) software tool compliant with CIBSE Applications Manual AM11 may be used to produce the thermal and energy model for the Facilities.

Bidders shall seek agreement from the Board of their proposed modelling tool which shall require to be the most updated version of either:-

- IES (Integrated Environmental Solutions) Programme
- TAS (Thermal Assessment Simulation) Programme

Future modelling tools may be available and Bidders shall obtain the agreement of the Board if they propose to use a certified alternative to those listed above.

Outputs from dynamic simulation models may be combined with additional numerical energy models to provide an “all inclusive” energy model for the building.

1.5 Plant and Systems

The thermal and energy modelling shall incorporate all building services installations as required to maintain the Facilities within the operational parameters as defined in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters).

Any specific loads that Bidders deem to be excluded from the thermal and energy model, such as catering, etc., shall be quantified by Bidders and submitted to the Board for agreement and acceptance prior to any modelling works commencing.

1.6 Group 2 to 3 Equipment

As part of the thermal and energy modelling exercise Bidders shall provide an assessment of the energy consumption of the known Group 2A, Group 2B and Group 3 equipment.

Bidders are to provide a proposed methodology to the Board to demonstrate the projected energy consumption of the Group 2A, Group 2B and Group 3 equipment.

Although this information shall not form part of the agreed energy or carbon emissions targets, it shall be utilised to provide the Board with an informed estimate of anticipated future energy consumptions and utilities costs to allow future budget allocations to be assessed.

2 DESIGN PERIOD

2.1 Modelling of Design Proposals

To calculate energy consumption loads for mechanical services, the CIBSE Building Energy Codes, calculation using the Degree Day Method and Edinburgh weather data for Space Heating and ventilation systems shall be used.

The occupancy, Equipment usage and departmental hours shall be identified by the Board. Any variations from this data proposed by Project Co shall be agreed with the Board prior to any modelling works commencing. Where assumptions are made by Project Co, these shall be in line with Good Industry Practice and shall be quantified in the submission. This includes the application of factors set out in CIBSE Guide B for the thermal weight of the building, levels of operation and occupancy (Table B18.12), and the correction factor for the length of working day (table B18.13) as appropriate.

The exact correction factors to be applied in the modelling shall be provided by the Bidders and agreed with the Board prior to any modelling works commencing.

The degree day figure used shall be 18.5° Celsius as the base.

Space heating/cooling should be assessed on the required temperatures that are indicated on the room data sheets that will be provided by the Board to Bidders.

Design calculations shall be based on an external winter condition appropriate to Edinburgh and shall be compliant with external winter conditions detailed in the CIBSE design guides.

Thermal conductivity values shall be at a minimum as stated in the Scottish Building Regulations (Technical Standards) and shall reflect the actual building fabric design proposals.

The clinical usage and departmental hours shall be as indicated by the Board and any variations from these shall be proposed by the Bidders shall be agreed with the Board prior to any modelling

works commencing.

All ventilation plant should be assessed on a maximum power and pressure drop within the air distribution systems as stated in the Scottish Building Regulations (Technical Standards) and in-line with Good Industry Practice.

Domestic Hot Water (DHW), usage shall be based on a 24-hour usage period. Any variation to this shall be proposed by Bidders and agreed with the Board prior to any modelling works commencing.

The cold water storage provision should be based on a 24-hour day usage period. Any variation to this shall be proposed by Bidders and agreed with the Board prior to any modelling works commencing.

Lighting shall be modelled in accordance with the Board's Construction Requirements, Room Data Sheets and any specific guidance provided by the end-user through the Board.

All lighting designs shall comply with CIBSE lighting design guides and the general lighting strategy proposed by Bidders and as detailed and agreed at Financial Close. Any variation to this shall be proposed by Bidders shall be agreed with the Board prior to any modelling works commencing. The thermal and energy model shall also be used by Bidders to show compliance of Project Co's Proposals with the Board's thermal and air quality requirements as identified in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters).

Dynamic simulation models shall use the CIBSE Test Reference Year (TRY) data for Edinburgh in assessing the heating and, where required, cooling for each room within the Facilities. This information will inform the sizing of heating, ventilation and comfort cooling equipment within Project Co's Proposals. CIBSE Design Summer Year (DSY) data shall be utilised to assess natural ventilation strategies.

Thermal and energy models shall accurately model all proposed window/fenestration opening profiles, including taking in to account all constraints in the fenestration openings, including reveals, meshing and restrictors, when assessing overheating and air quality criteria for naturally ventilated rooms. Any automation and/or proposed opening parameters, for example temperature set points to open fenestration or any night time cooling strategies, shall be agreed in advance with the Authority.

The thermal and energy models shall further allow for accurate thermal representation, and HVAC system sizing therein, for where doors are to be held open for operational or fire safety reasons.

2.2 Key Deliverable

The primary deliverable will be that Bidders / Project Co shall provide detailed calculation and modelling documentation, following the protocol as identified above that demonstrates the proposed "all-inclusive" actual annual energy consumption of the proposed Facilities by fuel type.

Bidders/Project Co shall further show that thermal modelling has been undertaken, following the protocol as identified above, to inform the heating, ventilation and cooling (HVAC) plant, overheating analysis and equipment sizing for the Facilities.

Appendix G – Insurance Response Matrix

Part 1 Insurance Costs Matrices

A. Premium calculation for Construction Phase - Schedule Part 15 Section 1

Class of Required Insurance	Cover Period	Sum Insured/ Rateable Factor	Premium Rate	Premium excluding IPT	Insurance Premium Tax (IPT)	Brokers remuneration (specify type and amount)
1. Contractors "All Risks" Insurance						
2. Contractors "All Risks" Terrorism Insurance ¹						
3. Delay in Start Up Insurance						
4. Delay in Start Up Terrorism Insurance ²						
5. Construction Third Party Liability Insurance						
6. Insurances required by law						
TOTALS						

¹ Bidder Note: whilst it is noted that the Terrorism Insurance will be renewable annually, the premium quoted in this table should represent the full cost for the duration of the Works.

² Bidder Note: whilst it is noted that the Terrorism Insurance will be renewable annually, the premium quoted in this table should represent the full cost for the duration of the Works.

B. Premium calculation for Policies to be taken out and maintained from the Actual Completion Date - Schedule Part 15 Section 2

Class of Required Insurance	Cover Period	Sum Insured/ Rateable Factor	Premium Rate	Premium excluding IPT	Insurance Premium Tax (IPT)	Brokers remuneration (specify type and amount)
1. Property Damage "All Risks" Insurance						
2. Property Damage "All Risks" Terrorism Insurance						
3. Business Interruption Insurance						
4. Business Interruption Terrorism Insurance						
5. Third Party Public & Products Liability Insurance						
6. Insurances required by law						
TOTALS						

C. Waiver of subrogation for Consort and Consort Parties

Please identify separately for all policies required by Schedule Part 15 Sections 1 and 2 the cost of obtaining a waiver of subrogation against Consort and Consort Parties including their respective suppliers and / or subcontractors of any tier pertaining to the RIE Project Agreement in accordance with clause 53.6.1 of the draft NPD Project Agreement.

Class of Required Insurance	Cover Period	Premium excluding IPT	Insurance Premium Tax (IPT)	Brokers remuneration (specify type and amount)
1. Contractors "All Risks" Insurance				
2. Delay in Start Up Insurance				
3. Construction Third Party Liability Insurance				
4. Insurances required by law (Construction Phase)				
5. Property Damage Insurance				
6. Business Interruption Insurance				
7. Third Party Public & Products Liability Insurance				
8. Insurances required by law (from Actual Completion Date)				
TOTALS				

Part 2 Insurance Technical Matrix

A. Schedule Part 15 Section 1 of NPD Project Agreement

Class of Insurance	Insurer(s) Identity (N.B. Including any co-insurers or excess layer insurers)	Deductible each and every claim (N.B. Confirm any aggregate Deductible if applicable)	Agreement to the requirements Clause 53 (Insurance) (If not please identify areas of variation or alternative proposals)	Agreement to the requirements of Schedules Part 15 (Insurance Requirement) and Schedule Part 25 (Insurance Proceeds Account Agreement) (If not please identify areas of variation or alternative proposals)
1. Contractors "All Risks" Insurance				
2. Delay in Start Up Insurance				
3. Construction Third Party Liability Insurance				
4. Insurances required by law				

B. Schedule Part 15 Section 2 of NPD Project Agreement

Class of Insurance	Insurer(s) Identity (N.B. Including any co-insurers or excess layer insurers)	Deductible each and every claim (N.B. Confirm any aggregate Deductible if applicable)	Agreement to the requirements of Clause 53 (Insurance) (If not please identify areas of variation or alternative proposals)	Agreement to the requirements of Schedules Part 15 (Insurance Requirement) and Schedule Part 25 (Insurance Proceeds Account Agreement) (If not please identify areas of variation or alternative proposals)
1. Property Damage "All Risks" Insurance				
2. Business Interruption Insurance				
3. Third Party Public & Products Liability Insurance				
4. Insurances required by law				

Appendix H – Certificate of Non-Collusion and Non-Canvassing

CERTIFICATE OF NON-COLLUSION AND NON-CANVASSING

We acknowledge that any Bidder who directly or indirectly canvasses any member, official or employee of Lothian Health Board (“the Board”) concerning the award of any contract in relation to the Project to re-provide services from the Royal Hospital for Sick Children, Child and adolescent Mental Health Services and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France will be disqualified from the bidding process and any Submission submitted by or on their behalf shall be disregarded.

Therefore, we hereby certify and undertake and bind and oblige ourselves to the Board and its successors that we have not canvassed or solicited nor will we in the future canvass or solicit any member, official or employee of the Board in connection with the award of the Project or any Submission or proposed Submission in connection therewith and we certify that, to the best of our knowledge and belief having made reasonable enquiry, our Relevant Persons (as hereinafter defined) have not so canvassed or solicited.

In this certificate and undertaking, "Relevant Person" shall mean, as applicable in relation to us, any party co-operating with us in tendering for the Project, fellow tender consortium member, joint venture, controlling shareholder, subsidiary or parent company or other company within any group of which we form part, or any other person directly or indirectly controlling or controlled by us.

The essence of tendering is that the Board shall receive *bona fide* competitive Submission from all persons tendering. In recognition of this principle:

- I. We certify to the Board and its successors that the Submission submitted by us, or on our behalf, is a *bona fide* Submission, intended to be competitive and we have not fixed or adjusted the amount of the Submission or the rates or prices quoted therein by, or under, or in accordance with any agreement or arrangement with any other person.
- II. We also certify to the Board and its successors that we and, to the best of our knowledge and belief having made reasonable enquiry, our Relevant Persons have not done and we hereby undertake and bind and oblige ourselves that we will not do at any time, any of the following acts:
 - A. enter into any agreement or arrangement with any other person that he shall refrain from bidding or add to the amount of any Submission to be submitted; or
 - B. offer or agree to pay or give any sum of money, inducement or valuable consideration directly or indirectly to any person for doing or having done or causing to be done, any act or omission in relation to the Submission or any other tender submitted to the Board in relation to the Project.

_____ in capacity of _____
Signature

duly authorised to act on behalf of _____

Date

in the presence of

_____ Witness

_____ Full name

_____ Address

Appendix I – Community Benefits

1 Social Considerations / Community benefits overview

1.1 Background

The Board recognises the very significant training and employment opportunities delivery of this Project can create for the wider community and beyond throughout the Project Term. The Board also recognises that the Project has the potential to drive significant initiatives relating to regeneration, sustainability and social benefits, aligning with the Board's strategic objectives.

The Board is therefore incorporating a range of social considerations/Community Benefits (CB) Requirements into its procurement which will ultimately form contractual requirements under and in terms of Clause 73 (Community Benefits) of the NPD Project Agreement.

Project Co will work in partnership with the Board and where appropriate, the Edinburgh Partnership and the agencies listed in section 3.6 to deliver the Board's CB Requirements in respect of both the construction and operational phases of the Project.

1.2 Overview of the Board's CB Requirements

These are set out in Section 2 and comprise requirements for the following -:

- Targeted Recruitment and Training /Employment and Skills Plan(Section 2.1)
- Supply Chain Development (SMEs) (Section 2.2)
- Supply Chain Development (Social Enterprises) (Section 2.3)
- General CB Requirements (Section 2.4)

1.3 Bid Submission Requirements

These are detailed in Section 3.

In broad terms the Board's CB Requirements are expressed in general terms. Bidders are given freedom to provide proposals that best fit their delivery structure and procedures, split into construction phase proposals and operational phase proposals. Bidders are, however, required to propose specific financial consequences for failing to deliver these proposals, such payments to be reflected in Clause 73 of the NPD Project Agreement.

Bidders' responses will comprise completion of the various submission requirements, which are more fully set out in Section 3, but can be summarised as follows:

Section	Submission requirement	Approach to scoring
Section 3.1: Employability and Training – Construction phase	Completed ESP Completed CB Method Statement	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.

Section	Submission requirement	Approach to scoring
Section 3.2 – Employability and Training – Operational phase	Completed ESP Completed CB Method Statement	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.3 – Supply Chain Development, SME and Social Enterprise – Construction phase	Completed CB Method Statement for Construction phase	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.3 – Supply Chain Development, SME and Social Enterprise – Operational phase	Completed CB Method Statement for Operational phase	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.4 – Other Community Benefits	Bidders shall submit a Method Statement setting out any other proposals or measures they are willing to undertake to provide additional Community Benefits	Requirement to submit a Method Statement but not scored.

Responses referred to here as “CB Method Statements” are referred to in the NPD Project Agreement (Bidder Specific) as Project Co’s Community Benefits Method Statements.

1.4 Role of Edinburgh Council

The Board is a partner in the Edinburgh Partnership, a community planning partnership for the city which brings together the public, community, voluntary and business sectors to deliver a better quality of life in Edinburgh. For further information see:

http://www.edinburgh.gov.uk/info/20162/edinburgh_partnership/1446/about_the_edinburgh_partnership

Members of the Partnership will not be precluded from working with Project Co to deliver the CB programme provided that any potential conflicts of interest are managed to the Board's satisfaction.

2 The Board's Community Benefits Requirements

2.1 Targeted Recruitment & Training/Employment and Skills Plan

The Board is committed to assisting unemployed people, encouraging access to quality sustainable employment and providing training opportunities relating to deliver of the Project.

This may include on-site training and assessment, or offsite training, or a mix of these.

The Board, based on the approach outlined by Construction Skills, and using benchmarks suggested in guidance produced by them relevant to employability and training measures in major health projects, has identified the following required outputs and volumes.

Work Placement (16-19 years)	16
Work Placement (14-16 years)	4
Curriculum support activities	14
Graduates	3
Apprentice starts	11
Existing apprentices	10
Apprentice completions	3
Jobs advertised through local employment vehicles	7
N/SVQ starts for subcontractors	21
N/SVQ completions for subcontractors	18
Training Plans for subcontractors	5
Supervisor training for subcontractors	10
Leadership and management training for subcontractors	9
Advanced health and safety training for subcontractors	11

2.2 Supply Chain Development: SMEs

2.2.1 Context

The long term sustainable development of the SME base is vital to driving sustainable economic growth within Lothian, Scotland and beyond. The Board, in furtherance of its own objectives and those of the Edinburgh Partnership of which it forms part, recognises the need to support the development of the SME sector by developing a procurement approach which ensures their exposure to procurement opportunities related to the Project.

2.2.2 Requirement

Project Co shall ensure that the Project Co advertises, and ensures that its sub-contractors:

- advertise all relevant subcontracts to be agreed with Bidders with reference to Bidders' method statements; and
- allow SMEs equal opportunities to tender provided they have the appropriate capacity, experience and financial standing (and without leading to discrimination against others in the market).

An SME is defined as a company that is a small or medium-sized company and is not a member of a large group. An SME has a turnover of up to 50m Euro per annum and has no more than 250 employees.

2.2.3 Notes

Bidders may wish to contact the organisations listed in section 3.6 in the context of developing their proposals to meet the above.

1.1 Supply Chain Development: Social Enterprises

2.3.1 Context

The Board supports the Scottish Government's policy on Social Enterprise and believes that Social Enterprises have a distinct and valuable role to play in helping to create a strong, sustainable and socially inclusive economy.

A Social Enterprise is a business with primarily social objectives whose surpluses are principally reinvested for that social purpose in the business or in the community rather than being driven by the need to maximise profit for shareholders and owners. Social Enterprise is a business model which offers the prospect of a greater equity of economic power and a more sustainable society - by combining market efficiency with social and environmental justice.

The approach is founded on the principle of building relationships and partnerships by integrating a community development vision, social outcomes, business objectives and local and national government goals. Social Enterprises are involved in a wide range of industries, from recycling, community transport, landscaping, catering, employment and training to event management. In accordance with its broader objectives and its objectives through the Edinburgh Partnership, the Board wishes its procurement process ensures that Social Enterprises are made aware of supply chain opportunities offered by the Project.

2.3.2 Requirements: General

Project Co shall ensure that Project Co shall advertise, and ensure that its sub-contractors:

- advertise all relevant subcontracts to be agreed with Bidders with reference to Bidders method statements; and
- allow Social Enterprises equal opportunities to tender provided they have the appropriate capacity, experience and financial standing (and without leading to discrimination against others in the market)

2.3.3 Notes

Bidders may wish to contact the agencies listed in section 3.7 for information on Social Enterprises and/or in the context of developing their proposals to meet the above.

As part of the Scottish Government's strategy to create an enterprising third sector, social enterprises are preparing to increase activity with commercial contractors, utilising national and local training, capacity building and promotional measures. A register of social enterprises that are interested in contract delivery has been created at www.readyforbusiness.org to assist contractors to identify individual social enterprises and consortia, to assist planning with respect to community benefit delivery within a range of contract opportunities.

Scottish Government initiatives are supported by a Tender Preparation programme for Third Sector Organisations throughout Scotland that will be delivered through Scottish Government Contract by CEiS and the Supplier Development Programme in 2010/11. Through these programmes, significant support and resource is being allocated to support social enterprises to be ready to engage with companies delivering commercial contracts, and in particular within a community benefits framework to ensure that procurement activity contributes to meeting the Board's aims of having a robust social enterprise sector delivering social and environmental benefits in the city.

2.4 Other Community Benefits

Consistent with its broader objectives, including its objectives through the Edinburgh Partnership, the Board seeks to maximise Community Benefits delivered by the Project.

Accordingly, bidders will require to set out any additional Community Benefits that they would be willing to provide at no additional cost over the period of the contract. **Submissions on these additional benefits will not be scored** but the Board considers that such submissions could, for example, include additional Bidder proposals to:

- undertake educational initiatives with community, voluntary and charitable organisations relevant to the Project and not falling under 2.1 and 2.2 above; or
- support or contribute in some other way to the work of community, voluntary and charitable organisations associated with the Project.

Bidders will be at liberty to put forward other proposals.

Clause 73 of the NPD Project Agreement shall operate to contractually oblige Project Co to deliver additional Community Benefits that it puts forward.

2.5 General Community Benefits Requirements

2.5.1 Monitoring

Project Co will be required to provide monitoring information at least quarterly in a format to be agreed with the Board. The primary function of the monitoring information will be to enable the Board to measure and produce reports on Project Co's performance against the Community Benefits objectives.

In particular:

- Targeted Recruitment and Training:

- Supply Chain Development (SMEs and Social Enterprises); and
- Other Benefits put forward by Project Co.

To comply with the Data Protection Act, all such monitoring and training documents must include a statement authorising Project Co to disclose personal data from the monitoring forms to the Board for the purposes of contract monitoring. This statement is to be signed by the individuals listed.

2.5.2 Insurances

Project Co shall ensure that insurance cover includes people aged 16 and over and staff from employment and training organisations when on work experience on-site.

2.5.3 Disclaimer

The Board will work with its partners to enable access to appropriate construction and operational training, jobseekers, SMEs and Social Enterprises to be available to Project Co.

This action, however, does not comprise or imply any promise on the part of the Board or their agents to provide suitable services, trainees, labour or resources.

Any action taken by the Board to facilitate relationships between Project Co and individuals/firms/agencies does not imply and should not be deemed to imply that they or its agents consider the individual, firm or agency as suitable for engagement by Project Co and/or its supply chain. Within this context, the Board will work with local agencies to help facilitate the achievement of the Community Benefits Requirements.

3 BID SUBMISSION REQUIREMENTS

Bid submission requirements in respect of the Board's CB requirements are summarised at 1.3 above. The following sets out the detail required.

3.1 Employment and Skills Plan: Construction Phase

Bidders are required to complete an Employment and Skills Plan (ESP) covering the employment and skills areas from the table below (as extended by the Bidder to cover the full period of construction). For further information on each of these categories, Bidders are referred to Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" (and Appendix A in particular).

Benchmarks are provided in 2.1 and constitute minimum outputs for Bidders' ESPs. Bidders are to use their own judgement as to what outputs beyond those minimums they consider are ultimately achievable in relation to the Project.

The output figures for the ESP should indicate the minimum outputs for each month against the relevant employment and skills areas. The "Summary" columns are also to be completed. Guidance on the employment and skills areas is also included within Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" (and Appendix A in particular).

Bidders are required to provide an unequivocal statement alongside their ESP that, if appointed, they will be contractually bound to deliver against what they have set out in the ESP, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement.

TEMPLATE EMPLOYMENT AND SKILLS PLAN (ESP)

Employment and Skills areas		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Summ No
1.	Work Placement (16-19 years) – persons													16
2.	Work Placement (14-16 years) – persons													4
3.	Curriculum Support Activities – individual engagement													14
4.	Graduates – persons													3
5.	Apprentice Starts - persons													11
6.	Existing apprentices - persons													10
7.	Apprentice Completions - persons													3
8.	Jobs Advertised Through proximate Employment Vehicles - number													7
9.	N/SVQ Starts for Subcontractors - persons													21
10.	N/SVQ Completions for Subcontractors - persons													18
11.	Training Plans for Subcontractors - number													5
12.	Supervisor Training for Subcontractors - persons													10
13.	Leadership and Management Training for Subcontractors - persons													9
14.	Advanced Health and Safety Training for Subcontractors - persons													11

Employment and Skills Method Statement

Bidders are also required to provide a detailed CB Method Statement setting out how they intend to implement the employment and training requirements of the Board and to deliver the ESP. The CB Method Statement should clearly set out the proposed approach for delivering skills development against the employment and skills areas, covering the following:

- who in the organisation will be responsible for managing the training scheme and overseeing the proposals?
- which education and training providers will be involved with the delivery of the ESP?
- what types of accredited and non-accredited training are expected to be offered and who are expected to be the main beneficiaries of this training?
- which trades or occupational areas is it envisaged will be offering apprenticeship opportunities?
- what types of apprenticeships are expected to be offered (i.e., traditional programme led, advanced etc)?
- how will the target outputs as set out in the ESP be delivered?
- how will health and safety issues be managed?
- what actions will be taken to ensure the support of trade contractors and sub-contractors working on the project?
- how will compliance be managed and monitored with respect to the organisation's trade contractors and sub-contractors?
- how will the target outputs as set out in the ESP be delivered?
- how will health and safety issues be managed?
- How will monitoring of delivery of Community Benefits and reporting to the Board under Clause 73 of the NPD Project Agreement be undertaken?
- What financial consequence the bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against the ESP.

Bidders are referred to Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" (and Appendix A in particular) for further information and Appendix B of that document in particular.

3.2 Employment and skills plan: operational phase

Bidders should repeat the process outlined for the construction phase in respect of the operational phase (though the table should be completed not on a monthly basis but on an annual basis).

Note: The desired/expected outputs set out at Section 2.1 are for the Construction Phase only. The Board does not have desired/expected output figures for this element and it is a matter for bidders to consider, as against their specific approach to delivery.

3.3 Supply Chain Development: SMEs & Social Enterprise

Each Bidder must complete two separate CB Method Statements in accordance with the detail set out below, detailing what it proposes to do to meet the Board's SME and Social Enterprise supplier development objectives in respect of both the Construction Phase and Operational Phase.

Bidders will be expected to have identified a source for any additional resources they will require to deliver the SME and Social Enterprise development, so that the requirements can be met with no additional costs to the Board. As part of the bid preparation, the Board expects Bidders to have contacted the agencies listed in Section 3.6 or other similar agencies of their choice.

Bidders are required to provide an unequivocal statement in the CB Method Statement that, if appointed, they will be contractually bound to deliver against what they have set out in their CB Method Statements, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement and the financial consequence the Bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against what they have set out.

The Small to Medium sized Enterprises / Social Enterprises CB Method Statements must respond to the following questions (*NOTE: Separate responses are to be provided for the Construction Phase and the Operational Phase*):

1.	Describe the activities that you will undertake to identify SMEs and Social Enterprises and assess each sector separately in their capacity to deliver works, services or supplies, that are required for all contracts in relation to the Project.
2.	Please quantify, both in hours and value, the commitment of you and your sub-contractors, in relation to this project, to the engagement with SME / SEs in specific capacity building support and in the development of partnership working and outline your overall approach.
3.	How will you ensure that your sub-contractors make all opportunities available to SMEs and Social Enterprises?
4.	Describe the anticipated outcomes for SMEs and Social Enterprises from the activities you have outlined in response to Q2 and Q3 and how would you monitor and assess the social and economic impact of your engagement with SMEs and Social Enterprises?
5.	How you will monitor delivery of Community Benefits and report to the Board under Clau

3.4 Other Community Benefits

Bidders must provide a CB Method Statement setting out any other Community Benefits they are willing to deliver (see Section 2.4) and their proposals to monitor delivery of Community Benefits and report to the Board under Clause 73 of the NPD Project Agreement (**note: this CB Method Statement will not be scored**).

Bidders are required to provide an unequivocal statement in the CB Method Statement that, if appointed, they will be contractually bound to deliver against what they have set out in their CB Method Statements, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement and the financial consequence the Bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against what they have set out.

3.5 FOR INFORMATION ONLY – SUPPORT AGENCIES

POSSIBLE RESOURCES

Note: Any action taken by the Board to facilitate relationships between Project Co and individuals/firms/agencies does not imply and should not be deemed to imply that they or its agents consider the individual, firm or agency as suitable for engagement by Project Co and/or its supply chain. Within this context, the Board will work with local agencies to help facilitate the achievement of the Community Benefits Requirements.

3.6.1 Recruitment and Training

Agency	Remit	Contact	Position	Contact No.	Email	Web
Sector Skills CLIENTS :						
Construction Skills	Sector Skills for construction main trades. Advice on training and funding	Hugh McCafferty	Operations Manager	[REDACTED]	[REDACTED]	http://www.constructionskills.net/
EU Skills	Sector Skills for Utilities, Gas and heating plumbers. Advice on training & funding	Jim Brown	Skills Director Scotland	[REDACTED]	[REDACTED]	www.euskills.co.uk
Summit Skills	Sector Skills for Electrical, Plumbing & Building Services. Advice on training and funding	Ian Stirrat	Operations Manager	[REDACTED]	[REDACTED]	http://www.summitskills.org.uk
Edinburgh Partnership	Its role is to lead joint activity on issues facing the city and those living and working here	Saty Kaur		[REDACTED]	[REDACTED]	http://www.edinburghnp.org.uk

3.6.2 SMEs

Agency	Remit	Contact	Position	Contact No.	Email	Web
Federation of Small Businesses	FSB Scotland campaigns for a better social, political and economic environment to work, learn and do business in.	Stewart Farmer	Regional Organiser (West of Scotland)	[REDACTED]	[REDACTED]	http://www.fsb.org.uk
Scottish Enterprise	SE help ambitious businesses in Scotland to grow and become more successful. SE support key industry sectors and develop the business environment to enhance Scotland's economy	Jillian Moffat	Senior Manager	[REDACTED]	[REDACTED]	http://www.scottish-enterprise.com

3.6.3 Social Enterprises

Agency	Remit	Contact	Position	Contact No.	Email	Web
Edinburgh Chamber of Commerce	Dynamic member-led organisation, working to support the local business community and specifically our strong network of member businesses.			0131 221 2999		http://www.edinburghchamber.co.uk
Ready For Business	Business support Services for SEs	Roddy Stewart	Business Adviser			http://www.ceis.org.uk
Craigmillar & District Business Association	Association was created to provide a local networking and information forum for established businesses, local entrepreneurs and individuals within the Craigmillar area.			0131 661 8888	info@cre8te.co.uk	www.cdba.org.uk
Community Renewal	Work in local communities to	Nigel Green	Co-ordinator			http://www.communityrenewal.org.uk/

	and small neighbourhoods to improve the wellbeing of families.		Edinburgh			
WEACT (Stevenson College)	WEACT is our community-based employability organisation offering a range of services to clients across Edinburgh.			0131 447 2800 or 07733001052	weact@stevenson.ac.uk	WEACT is our community-based employability organisation offering a range of services to clients across Edinburgh.

3.6.4 Other Sources

Agency	Contact No.	Address	Web
Job Centres:			
New Town Edinburgh East Lothian	0845 604 3719	<u>20 High Riggs, Edinburgh, Lothian.</u>	https://www.gov.uk/contact-jobcentre-plus
	0845 604 3719		
North House	0845 604 3719		
		<u>Eskmills Park Station Road, Musselburgh, Midlothian.</u>	
Schools:			
Castlebrae Community High School	0131 661 1282	<u>2A Greendykes Road Edinburgh, Midlothian, EH16 4DP</u>	http://castlebrae.org.uk/
Portobello High School	0131 669 2324	10 Duddingston Road Edinburgh EH15 1NF	http://portobellohighschool.org.uk
Holyrood High School	0131 661 5871	55 Duddingston Road West, Edinburgh, EH15 3ST	http://www.holyroodedin.ic.org/home.icm
Liberton High School	0131 664 7514	328 Gilmerton Road, Edinburgh, EH17 7PT	www.liberton.edin.sch.uk/
Gracemount High School	0131 664 7440	<u>Lasswade Road, Edinburgh, EH16 6TZ.</u>	www.gracemounthighschool.co.uk/

Colleges:			
Jewel and Esk Valley College	0131 669 4400	<u>Milton Road Campus, 24 Milton Road, EH15 2PP.</u>	http://www.jec.ac.uk/
Queen Margaret University	0131 474 0000	<u>QMU Drive, Musselburgh, EH21 6UU.</u>	http://www.qmu.ac.uk/
Stevenson College	0131 535 4600	<u>Bankhead Avenue, Edinburgh, EH11 4DE.</u>	www.stevenson.ac.uk/

Appendix J - BIM Requirements for the Project

1 Project set up

- 1.1 Bidders are required to prepare a BIM Execution Plan for review by the Board. The BIM Execution Plan shall cover as a minimum the following topics:
 - a) Project information/description;
 - b) Key BIM stakeholders;
 - c) Goals and project objectives;
 - d) BIM objectives and uses;
 - e) Model management;
 - f) BIM deliverables and format;
 - g) Quality control system;
 - h) Data management; and
 - i) Frequency and content of BIM audits.
- 1.2 The BIM execution plan is to be prepared in accordance with BS 1192.
- 1.3 Bidders must use recognised industry BIM software platforms, suited to the various tasks to be fulfilled by both the design team and the supply chain, and establish principles of interoperability.
- 1.4 Bidders will provide a BIM overlay to the design team process map.
- 1.5 Bidders will appoint an Information Manager to see that the common data environment is set up and maintained and that the mechanism and technology for information exchange are in place and adhered to throughout the Construction Phase and the Operational Term.
- 1.6 Bidders will establish a through-life information management strategy including graphical and non-graphical information. Agree format for transfer of information into asset management systems will be developed, and a data classification system (eg Uniclass 2) established.
- 1.7 A Soft Landings implementation plan will be developed that follows the principles of the Government Soft Landings plan Policy dated September 2012.

2. Pre-construction Phase

- 2.1 3D visualisations, walk-throughs and images for User, Local Authority and other Stakeholder presentations and discussions at key project milestones are to be prepared.
- 2.2 Room layouts are to be prepared using ADB to include fully loaded 3D views.

- 2.3 The model is to include performance targets for key indicators, associated with associated provision in the design to measure data in operation and allow model-based comparisons between design intent and actual performance.
- 2.4 Data outputs in COBie format are to be prepared at key stages aligned to the process map, at a Level of Detail matching the stage requirement.
- 2.5 Specifications are to be based on a system that allows direct links between spatial BIM Models and the accompanying specifications and object attributes.
- 2.6 Read-only access to the BIM model gratis and within 24 hours is to be made available at the Board's request.

3. Construction Phase

- 3.1 The Board is to have read-only access to 4D construction sequencing output from model.
- 3.2 The model is to be regularly updated (every 2 weeks) to reflect material/component detailed selections or variations from those selected at design/tender stage.
- 3.3 Read-only access to the BIM model gratis and within 24 hours is to be made available at the Board's request.

4. Operational Term

- 4.1 The model shall be maintained throughout the Operational Term to reflect all planned maintenance and lifecycle works and modification should be made to reflect all changes implemented under Schedule 16 Change Protocol.
- 4.2 Read-only access to BIM model, gratis, and within 24 hours is to be made available at the Board's request.
- 4.3 Asset Management software is to be discussed with the Board but data should be held in recognised interchange format (e.g. COBie) to allow interoperability between recognised facilities management (CAFM) packages, recognised asset management packages and the BIM model.

5. Handback

- 5.1 Project Co will hand over ownership of the model to the Board at the Expiry Date.
- 5.2 At the Expiry Date, the model is to be fully updated model to reflect all changes during the Operational Term including specification details, operation and maintenance requirements and residual design life of all components and assemblies.
- 5.3 The on-going maintenance and replacement information is to be in a format to be agreed with the Board.
- 5.4 Project Co shall provide training in the operation of software to the Board.

Appendix K – Certificate of Acceptance of Contractual Terms

CERTIFICATE OF ACCEPTANCE ON CONTRACTUAL TERMS

As per paragraph 2.2.2 of Appendix C of Volume 1 of the ISFT, the Board requires that this certificate is signed by the Bid Director/Project Co lead, the D&C lead and the FM lead to acknowledge acceptance of the terms of the Final Tender (Bidder Specific) NPD Project Agreement, the Payment Mechanism and the Service Level Specification.

1. We, being [Project Co], [D&C] and [FM] can confirm that the terms of the following documentation (where relevant) are acceptable to us:
 - 1.1 Final Tender (Bidder Specific) NPD Project Agreement as set out in Volume 2 of the ISFT;
 - 1.2 Payment Mechanism as set out in Volume 2 of the ISFT;
 - 1.3 Service Level Specification as set out in Volume 3 of the ISFT; and
 - 1.4 Board's Construction Requirements as set out in Volume 3 of the ISFT.

2. We confirm that any matters which we have raised as a result of the due diligence we have carried out during the Dialogue Period have been raised and discussed with the Board during the Dialogue Period and that such matters have been included within [Insert name of Bidder]'s Final Tender submission.

in capacity of _____

Signature of [Project Co]

duly authorised to act on behalf of

Date

in the presence of

Witness

Full name

Address

_____ in capacity of _____

Signature [D&C]

duly authorised to act on behalf of

Date

in the presence of

_____ Witness

_____ Full name

_____ Address

_____ in capacity of _____

Signature [FM]

duly authorised to act on behalf of

Date

in the presence of

_____ Witness

_____ Full name

_____ Address

Appendix L – Petrol Station Site

The Board can confirm the Petrol Station Site was purchased by the Board on Wednesday 27 November 2013. The Petrol Station Site is as outlined in pink on the attached Plan 2.

Bidders shall include the landscaping of the Petrol Station Site in their Final Tender landscaping proposals. The Board can confirm that Bidders may use the Petrol Station Site during the Works for Construction Traffic only. The Petrol Station landscaping proposals and construction methodology will not be scored in the Final Tender Evaluation, however the bidders proposals should meet the Boards requirements.

Ground Investigations will be undertaken by the Board at the Petrol Station Site as early as practically possible with the anticipated issue of the Factual Report in March 2014. The scope and appointment of the Ground Investigation will be clarified in consultation with all Bidders prior to commencement of the Ground Investigation.

The Ground Investigations will be designed and managed by the Board's environmental consultant who will produce a Phase 1 and Phase 2 contaminated land risk assessment based on a proposed public open space land use. The reports will represent the baseline site conditions and be submitted to the bidders for review. The Ground Investigation Contractor will provide a letter of reliance for the Petrol Station Site Ground Investigation works only. A letter of reliance will not be provided for the reports produced by the Board's environmental consultant.

The preferred bidder will be required to obtain necessary planning permission from The City of Edinburgh Council for the proposed temporary and permanent land uses at the Petrol Station Site e.g. potential construction traffic route during construction and final reinstatement as an area of public open space within the Board's retained estate. The preferred bidder shall submit appropriate documentation to obtain such permissions including, but not limited to, risk assessments, a detailed remedial options appraisal and remediation statement which shall be produced in line with Part IIA of the Environmental Protection Act (1990) and follow best practice guidelines detailed in CLR11 (2004), BS10175:2011+A1:2013 and PAN 33.

Remediation proposals shall be agreed with the Board and their Environmental Consultant prior to submission to The City of Edinburgh Council and if necessary, SEPA.

Any remediation undertaken by Project Co during construction phase shall be independently verified by the Environmental Consultant and certified in accordance with the City of Edinburgh Council Planning Requirements and Regulations.

Additional Completion Criteria will be added to Appendix B (Completion Criteria) of Schedule Part 10 (Outline Commissioning Programme) to reflect the Petrol Station Works, the Petrol Station Completion Criteria are included in this clarification.

It is expected the work will be completed within the overall construction timetable, and therefore the Petrol Station Works will form part of the main Completion Criteria, however a fall back option of a phase 2 completion can be considered in the preferred bidder to financial close period, only if the Ground Investigation indicates more onerous ground conditions.

Provisional Sum

A provisional sum of £500,000 (excluding VAT) for undertaking the scope defined in this clarification shall be included to cover.

1. Risk Assessment and Reporting:

- Production of contaminated land interpretive reports and risk assessments (Phase 1 and Phase 2).
- Production of a remediation options appraisal report and remediation strategy (Phase 3).

2. Discharge of Planning Conditions imposed by The City of Edinburgh City Council relating to:

- The Demolition of any existing buildings.
- The proposed temporary land use, e.g. site access road.
- The final public open space land use as part of the wider planning application.

3. Remediation works:

- Potential removal of hydrocarbon free product and impacted soils/groundwater (if encountered).
- Supervision of the above.
- Provision of an inert environmental capping layer and geo-membrane.
- Independent validation and inspection.
- Or other viable remediation method that meets the planning requirements

The Board confirms the Provisional Sum includes the provision of an inert environmental capping layer and geo-membrane, however landscaping is not included.

The above scope, although based on the Parson Brinkerhoff Remediation Reports attached to this clarification, is indicative only and will be refined during the risk assessment process. It is dependent on the nature of the ground conditions encountered during the Petrol Station Site Ground Investigation works.

The Provisional Sum for the Petrol Station Works will be reviewed by the Board and the preferred bidder during the preferred bidder to Financial Close stage. This review will take place on an open book basis and following the issue of the Petrol Station Site Ground Investigation and subsequent preferred bidder discussions with the City of Edinburgh Council on the extent of any remediation that may (or may not) be required. The provisional sum will be adjusted in accordance with the attached Open Book Accounting Strategy and will be jointly agreed between the preferred bidder and the Board whilst also demonstrating value for money for the Board.

Volume 4 - Data Room – for information only**Copies of Parson Brinkerhoff Remediation reports**

Copies of historical ground investigations reports provided to the Board during purchase of the Petrol Station Site will be available for bidder information only.

Mott MacDonald Risk Assessment and Remediation Options Appraisal Reports

A review and assessment of the information contained within the Parsons Brinkerhoff Report and other reports provided to the Board by Esso Petroleum Company Limited during purchase of the Petrol Station Site has been undertaken by Mott MacDonald in view of the proposed public open space land use. These reports are for information only.



Re-provision of RHSC and DCN at Little France

ISFT: Volume 3

**(Part 6 Section 3 Sub-Sections A to E of
the Schedule to the Project Agreement)**

The Board's Construction Requirements

Author: NHS Lothian (The Board).

**Doc No:
Title**

**Revision:
Date:**

**Volume 3
Board's Construction
Requirements
Rev D (ISFT)
December 2013**

SCHEDULE TO THE PROJECT AGREEMENT

PART 6

Section 3: The Board's Construction Requirements

Sub-Section A: Introduction

Part 6 Section 3 of the Project Agreement encompasses the construction requirements of the Board and is divided into the following Sub-Sections and Appendices:

Sub-Section A Introduction

Sub-Section B Definitions and Abbreviations

Sub-Section C General Requirements

This Sub-Section contains overall philosophy and standards for the design, construction and finish and associated infrastructure, both internal and external for the Works and/or the Facilities.

Sub-Section D Specific Clinical Requirements

This Sub-Section contains design philosophy and specific requirements for each of the Clinical Services to be provided from the Facilities.

Sub-Section E Specific Non-Clinical Requirements

This Sub-Section contains Soft FM summary interface specifications and other Non-Clinical specifications related to the Works and/or the Facilities.

Appendix A Interface with Campus Site and/or Campus Facilities

Part 1 – Interface Construction Matters and Interface Proposals

Part 2 – Interface Proposals Procedure

Part 3 – General Matters

Annex 1 – Form of Notice

Appendix B Interface Output Specification

Appendix C Environmental Matrix

Appendix D Not Used

Appendix E Initial Drainage Proposal

Appendix F Access Strategy

Appendix G Connection Proposal

Appendix H Construction Access Proposal

Appendix I Oversail Strategy

Appendix J Service Proposal

Appendix K Substation Proposal

Appendix L Supplemental Drainage Proposal

Appendix M TMS

Appendix N Petrol Station

SCHEDULE TO THE PROJECT AGREEMENT

PART 6

Section 3: The Board's Construction Requirements

Sub-Section B: Definitions & Abbreviations

- A. Terms used in this Schedule Part 6 Section 3 where defined in the Project Agreement shall have the meanings ascribed to them in the Project Agreement or otherwise shall have the meanings given to them as follows:-.The following abbreviations have been used in this Schedule Part 6 Section 3:

24/7	Twenty four hours a day seven days a week
ACS	ACS Accreditation (formerly CORGI Regulations)
AEDET	Achieving Excellence – Design Evaluation Toolkit
AFD	Action for Disability
AHU	Air Handling Unit
AGSS	Anaesthetic Gas Scavenging System
B&ES	Building and Engineering Services Association
BCR	Board's Construction Requirements
BEAM	Building Environment Assessment Methodology
BMS	Building Management System
BREEAM	BRE Environmental Assessment Method
BS	British Standard
BSRIA	Building Services Research & Information Association
CAA	Civil Aviation Authority
CAMHS	Child and Adolescent Mental Health Service
CCTV	Closed-circuit television
CDM	CDM Regulations
CEL	Scottish Government Health Directorates Circulars
CEN	European Committee for Standardisation
CHP	Combined Heat & Power
CIBSE	Chartered Institution of Building Services Engineers

COSHH	Control of Substances Hazardous to Health
CP	Code of Practice
CYPH	Children and young peoples hospital which may otherwise be known as RHSC (Royal Hospital for Sick Children)
DCN	Department of Clinical Neurosciences which forms part of the Facilities
DDI	Direct Dial In
DGH	District General Hospital
DHW	Domestic Hot Water
DoE	Department of the Environment
ED	Emergency Department
EMS	Environmental Management System
EN	Euronorm Standards
EPC	Energy Performance Certificate
EU ETS	European Union Emission Trading System
HBN	Health Building Notes
HDL	Health Department Letters
HDU	High Dependency Unit
HFN	Health Facilities Notes
HFS	Health Facilities Scotland
HGN	Health Guidance Notes
HIS	Healthcare Improvement Scotland
HSE	Health & Safety Executive
HSDU	Hospital Sterilisation and Disinfection Unit
HTM	Health Technical Memoranda
HVAC	Heating Ventilation & Air Conditioning
HWS	Hot Water Supply
ICAO	International Civil Aviation Organisation

ICT	Information & Communication Technology
IDS	Intruder Detection System
IES	Illuminating Engineering Society
IEE	Institution of Electrical Engineers
IHT	Institute of Highways & Transportation
IP	Interpenetration Protection rating
IPS	Isolated Power Supply
IT	Information Technology
ITPD	Invitation to Participate in Dialogue
JAA	Joint Aviation Authority
LAN	Local Area Network
LEV	Local Exhaust Ventilation
LPS	Loss Prevention Standard
MAOT	Mobile Air Operations Team
MCA	Maritime and Coastguard Agency
MDCU	Medical Day Case Unit
MEL	Management Executive Letter (now known as Health Department Letters – HDL)
MRI	Magnetic Resonance Imaging
MTBF	Mean Time Before Fail
MOD	Ministry of Defence
NBS	National Building Specifications
NEAT	NHS Environmental Assessment Tool
NHBC	National House Building Council
NHS	National Health Service
NHSIA	National Health Service Information Authority
NHSL	NHS Lothian
PA	Public Address system

PBX	Private Branch Exchange
PCIU	Percutaneous Cardiac Investigation Unit
PCP	Project Co's Proposals
PICU	Paediatric Intensive Care Unit
PIR	Passive Infra-red
PoE	Power-over-Ethernet
PPE	Personal Protective Equipment
PPG	Planning Policy Guidance
PTS	Pneumatic Tube System
RBD	Reliability Block Diagram
RDD	Reviewable Design Data
RFFS	Rescue and Fire Fighting Services
RHSC	Children and young peoples' hospital (which may be known as CYPH and/or Royal Hospital for Sick Children) which forms part of the Facilities
SAR	Search and Rescue
SCIEH	Scottish Centre for Infection and Environmental Health
SCIM	Scottish Government Capital Investment Manual
SEHD	Scottish Executive Health Department
SEPA	Scottish Environment Protection Agency
SFPN	Scottish Fire Practice Notes
SFT	Scottish Futures Trust
SGHSCD	Scottish Government Health and Social Care Directorates
SHFN	Scottish Health Facilities Notes
SHGN	Scottish Health Guidance Notes
SHPN	Scottish Health Planning Notes and Scottish Hospital Planning Notes
SHS	Scottish Healthcare Supplies
SHTM	Scottish Health Technical Memoranda

SHTN	Scottish Hospital Technical Notes
SI	International System of Units
SUDS	Sustainable Urban Drainage System
TPO	Tree Preservation Order
UPS	Un-interruptible Power Supplies
VIE	Vacuum Insulated Evaporator
VDU	Visual Display Unit
VoIP	Voice over Internet Protocol (or Voice Over IP)
WC	Water Closet
WRAP	Waste & Resources Action Programme

B. The following additional definitions have been used in this Schedule Part 6 Section 3:

Adaptability Strategy	Means the Adaptability Strategy, provided by Project Co to define their strategy for ensuring appropriate provision for adaptability and flexibility of the Facilities
Appendix A	Means Appendix A (Interface with Campus Site and/or Campus Facilities) annexed to this Sub-Section C of Section 3 (<i>Board's Construction Requirements</i>) of Schedule Part 6 (<i>Construction Matters</i>) as varied, amended or supplemented from time to time in accordance with the Project Agreement;
Benefit Realisation Plan	A benefits realisation plan acts as an overview of the main milestones detailed in each benefit profile. It serves as a management tool to monitor, track and manage the collective set of benefits associated with a project. The key activities (e.g. measurements, evaluations etc), from each benefit should be drawn together to form the consolidated plan. This will provide a centralised resource to help keep track of what needs to be done, when and by whom, to manage the successful realisation of benefits.
Blue Light	Ambulance, police and fire services
Car Park B	The car park which ceases to be used as a car park and is the Site
Certified Wood	Timber certified by Forest Stewardship Council
Corporate Greencode	Corporate GREENCODE® is a suite of software, templates and support materials developed by the NHS

for the NHS. It is maintained by Health Facilities Scotland (HFS) to:

- guide you through the development and implementation of a corporate Environmental Management System (EMS) and
- provide tools to help you run and maintain your corporate EMS.

Council	The City of Edinburgh Council
Design Champion	Person in the Board who promotes the importance of achieving quality in capital developments and in ongoing initiatives to improve both the patient environment and the working lives of staff
Encode	HTM 07-02: EnCO2de – Making energy work in healthcare
Environmental Matrix	Means the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department / unit / space / area. The title is Reference Design Envisaged Solution – RHSC / DCN Environmental Matrix version third issue as set out in Appendix C of this Section 3 (<i>Board's Construction Requirements</i>) of Schedule Part 6 (<i>Construction Matters</i>) (as varied, amended or supplemented from time to time in accordance with the Project Agreement);
Existing CAMHS	Child and Adolescent Mental Health Services currently at the Royal Edinburgh Hospital and Forteviot at the Existing RHSC
Existing DCN	Department of Clinical Neurosciences, Western General Hospital, Edinburgh
Existing RHSC	Royal Hospital for Sick Children, 9 Sciennes Road, Edinburgh
Family Council	Works collaboratively with partners, such as the Board, RHSC reprovision team and other forums, to ensure that the family perspective is integrated into current service provision, including redesign, for Children & Young People (C&YP) services
Firecode	Firecode consists of a number of Health Technical Memoranda (HTM) which consider policy, technical guidance and specialist aspects of fire precautions. Full list of HTM obtained from http://www.dh.gov.uk/en/Publicationsandstatistics/Letterandcirculars/Firecode/DH_609
Good Practice	The edition of the publication entitled “Good practice in

Guidance for selecting materials	the selection of construction materials” (British Council for Offices (BCO): 2011) or any amended or updated version as at Financial Close.
Green Travel Plan	Means the NHS Lothian Sustainable Development Strategy Green Travel Plan.
HAI SCRIBE	Healthcare Associated Infection System for Controlling Risk In the Built Environment
HEAT	Means Health Improvement Efficiency and Governance, Access to Service, and Treatment Appropriate to Individuals
Hot Core	Direct vertical patient circulations route from Helipad to Emergency Department and from Emergency Department to Operating Theatres.
Identikit	Means NHS Scotland Identity Guidelines
Major Incident	As defined by the Board’s Major Incident Strategy Response Plan Strategic Plan Number reference HPT E023 03
NHS Requirements	Means the requirements defined in paragraph 2.3 of this Sub-Section C as the same may be amended from time to time
Nursery	Means former Acorns nursery 51 Little France Crescent Edinburgh EH16 4SA
Project Sponsor	Person who is responsible within the Board for the success of the project
Safety Action Notices	Safety Action Notices were standard priority safety warnings issued in Scotland from 1995 to 2009 when they were superseded by Medical Device Alerts (from the MHRA – Medicine and Healthcare Products Regulatory Agency) and Estates & Facilities Alerts.
Secured by Design	Is the official UK Police flagship initiative supporting the principles of 'designing out crime'
Touch Down Base	A workstation space where staff can access a PC, Telephone, Printer ,radiological examinations, patient monitoring systems, emergency nurse/patient call system and other administrative tools to assist the clinical practitioner in executing their job.
Vistamatic	Glazed secure vision panel

SCHEDULE TO THE PROJECT AGREEMENT

PART 6

Section 3: The Board's Construction Requirements

Sub-Section C: General Requirements

1 Introduction

This document sets out the key design criteria and the core requirement to create a modern facility to re-provide services from the Existing RHSC, Existing CAMHS and the Existing DCN in a single building adjoining the RIE Facilities at the Campus Site. The design shall be enduring and take account of the history, culture and physical requirements of these internationally renowned centres of excellence.

Part 6 Schedule 3 Sub-Section C forms the general construction requirements included in the Board's Construction Requirements. Project Co shall satisfy all the requirements under this Sub-Section C.

This (and subsequent) sections of Sub-Section C of the Board's Construction Requirements outlines the overall aims of the Board with regard to the design quality of the Facilities. This Sub-Section C shall be read in conjunction with, but not limited to the following documents:

The Board's Policies; and

Project Specific Requirements defined in Sub-Sections D and E, and Appendices to this Schedule Part 6 Section 3.

Sub-Section C is divided into the following paragraphs.

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2 Project Wide Requirements

The Board's vision is to provide high-quality, patient-centred services from modern Facilities. The new hospital is a single building supported by the separate energy centre but Project Co may provide other buildings on the Site to house plant and services. Where the term "building" is used, this refers to the RHSC and DCN hospital building. The energy centre and Project Co's other buildings shall meet the relevant requirements of Part 6 Schedule 3 Sub-Section C of the Board's Construction Requirements. The physical design and access to the Facilities shall promote and enhance the delivery of that full range of services, all to the benefit of patients, visitors, public and staff alike. Additionally the design strategy shall respond to the needs and aspirations of a variety of service providers including the NHS, local authorities and other community based services. The wish of the Board is to create a centre of excellence that may be an inspiration to others and set a benchmark of quality of sustainable design.

Project Co shall ensure the design complies with the general ethos detailed here, whilst also addressing the detailed requirements listed in the following clauses. It shall be noted that the requirements detailed are not exhaustive, and it is recognised that specific clinical needs will determine the nature and design of Facilities in some areas.

The Board requires the following matters to be addressed as part of its requirements:

- a) The need for Project Co to maintain leadership throughout to the agreed final design stage and;
- b) The Board's management team will be actively involved and will support both the project team and the clinicians.

Project Co shall support the Board's vision as stated above and develop a partnership with the Board to ensure that these aspirations are met and that Project Co co-operate fully in the evaluation of these criteria with the Board at key stages of the process.

Project Co shall ensure that the design of the Facilities draws upon and endeavours to further develop, improve and exceed current best practice (and Good Industry Practice) standards achieved in other similar schemes, and meets the requirements of the prospective patient groups, staff and the public. This philosophy of design and sustainability shall be extended across all parts of the Facilities including landscaped and external areas as well as the essential patient areas and these endeavours should extend to benefit the wider population of the community.

The Board is keen to actively participate in the design process. To facilitate this, Project Co shall engage the Board in the design and in particular the Reviewable Design Data.

2.1 Approach to Design

The Scottish Parliament has articulated the desire that Scotland becomes "***the best small country in the world***" and has further asserted that the quality of our built environment is a key factor in achieving this. The Scottish Government Health and Social Care Directorates (SGHSCD) believe that improving the quality of our caring environments is crucial to delivering the confident, compassionate Scotland that is aspired to.

The new building will follow the design aspirations and guidance laid out in the Policy on Design Quality for NHS Scotland (2010) to which the Board subscribes and implements through its Design Champion. The DCN will meet the objectives of the DCN stakeholders. Specifically for children and young people it will deliver the quality objectives laid down by the Family Council and other stakeholders in the project. The quality objectives of the children and young people's Family Council are:

- a) The new hospital will be a beautiful place with Children and Young People at the centre of a nurturing, engaged and safe community.
- b) The new hospital will provide systems and spaces that recognise the healing capacity of sustaining everyday lives and provide parallel pathways of care for patients, carers and families.

The DCN part of the Facilities will have a physical link with the existing RIE Facilities specifically with the critical care unit. Project Co should generally design and also satisfy themselves that the Facilities are capable of being so designed so that the construction and operation of the Facilities will all be within the Site subject to the rights granted to Project Co on the RIE Site and/or Bioquarter Site, as applicable, as detailed in Clause 9 (Nature of Land Interests) of the Project Agreement and subject to Appendix A. If any access or other rights are required for the construction and operation of Facilities outwith the Site and on any part of the Retained Site and/or Retained Estate and/or Bioquarter Site then Project Co will be required to notify the Board and seek agreement of the Board for the exercise of any such rights. If Project Co requires any access or other rights outwith the Campus Site and/or Bioquarter Site then Project Co recognises that consent to such rights will be required from the owner and/or operator and/or occupier of the affected property and Project Co will be responsible for obtaining any such consents.

The design will be evaluated against BREEAM 2011 New Construction (SD5073) (with BREEAM ENE1 target of 6 credits (excellent) in accordance with the BREEAM Scheme Document for New Construction (SD5073) Section 6.ENE1).

The design needs to realise the aspirations of the Benefit Realisation Plan.

The Design Champion for the project is the NHS Lothian's Project Sponsor, supported by the Director of Capital Planning and Projects, and the design process is managed by the reprovision project team.

Project Co shall take cognisance of all the architectural and building services implications of the requirements described in the Board's Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

2.2 General Requirements of the Board

Architectural and General Design

Project Co shall ensure the Facilities comply with the following general requirements of the Board:

- a) Application of the principles contained within "A Policy on Architecture for Scotland, 2001" and "A Policy on Architecture for Scotland, Public Consultation, Review of Policy" 2006 both published by the Scottish Government;

- b) Adherence to the requirements set out in CEL 19 (2010) "A Policy for Design Quality for NHSScotland, 2010 Revision published by the Scottish Government;
- c) Application of the principles contained in "Improving Standards of Design in the Procurement of Public Buildings", 2002 published by the Office of Government Commerce;
- d) Application of the principles within the Scottish Government Health and Social Care Directorate's "A Policy on Sustainable Development for NHSScotland 2012". All NHS Scotland bodies engaged in the procurement of new healthcare buildings must carry out independent sustainability accreditation for projects;
- e) Application of the principles contained in "Healthier Places" – Architecture & Design Scotland; and
- f) Application of the principles contained in "A Vision of Health NHSScotland's agenda for realising value in the developing healthcare estate" – Architecture & Design Scotland

Clinical Design Issues

- a) In-patients and out-patients shall have an appropriate level of privacy and allow an adequate level of observation by staff;
- b) The Facilities shall be designed to handle the projected workload;
- c) The design shall provide and promote a calm, safe working environment and shall contribute to the development of this requirement through the choice of colours, soft furnishings and the visual integration of all safety and security systems;
- d) Entrances and waiting areas shall have a light, spacious and welcoming atmosphere and the main entrances shall be immediately apparent;

General Design Issues

- a) Whilst maintaining an integrated approach to the design of the Facilities, Project Co shall ensure that individual departmental design is age-appropriate and that patient orientation and recognition of location is achieved. Project Co shall consult the Board with respect to the interior design proposals and the Board's preferences and opinions shall be taken into account in the final choices;
- b) The Facilities shall incorporate the recommendations of "Effective Wayfinding and Signing Systems - Guidance for Healthcare Facilities" 2nd Edition 2005, NHSScotland Signage Guidelines, NHSScotland Identity Guidelines and BS8501:2002. "Graphic symbols and signs – Public information symbols" and have a co-ordinated décor and sign-posting scheme to create a safe and readily-understood patient environment;
- c) The Facilities shall incorporate appropriate standards of security, and minimise the potential for exposure to crime and vandalism. Recognising that particularly vulnerable groups will use the Facilities, security will be designed to meet the needs of all patients, visitors and staff. Vulnerable individuals include, but are not exclusive to, young children, mental health patients, and the frail and elderly. The Facilities shall meet the requirements of Secured by Design. In this respect, as part of the planning process, discussions with the Lothian and Borders Police Architectural Liaison team and Special Branch shall take place, and any comments made reflected in the Facilities as appropriate (see paragraph 3.7 of this Sub-Section C for further guidance);and
- d) The Facilities shall be designed such that all maintenance and life cycle component replacement procedures can be carried out practically, efficiently and effectively and with minimal disruption to Clinical Services.

All standards, guidance, codes of practice and all other titled requirements that Project Co shall comply with are to be the current version of the requirement or its replacement requirement without the need for a Change. Refer also to paragraph 2.5 below.

2.3 NHS Requirements

In addition to the standards listed in paragraph 2.4 of this Sub-Section C, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:

- a) The themes, issues and recommendations in "Better by Design: Pursuit of Excellence in Healthcare Buildings" by the Department of Health;
- b) New Policy on Design Quality for NHS Scotland published by SGHSCD;
- c) Firecode;
- d) HAI SCRIBE;
- e) HBN;
- f) HFN and SHFN;
- g) HGN and SHGN;
- h) HTM and SHTM;
- i) SHTN;
- j) SFPN;
- k) HDL;
- l) SHPN;
- m) NHS publication 'Performance requirements for building elements used in healthcare facilities';
- n) NHS Scotland & NHS Policies;
- o) Board Policies as scheduled and available in the Disclosed Data as such schedule and Board Policies may be amended from time to time;
- p) Health Department Letters (or Management Executive Letters) as appropriate published by SEHD and SGHSCD;
- q) Safety Action Notices published by NHS Scotland;
- r) Healthcare Improvement Scotland (HIS);
- s) NHS Model Engineering Specifications;
- t) Department of Health publication "Better by Design";
- u) Corporate Greencode;
- v) NHS Scotland Fire Safety Management, incorporating NHS Scotland Firecode;
- w) Hazard Notices issued by NHS Scotland; and
- x) HSC 1999/123;

i. Firecode

Project Co shall ensure the Facilities comply with the NHS Scotland Fire Safety Management - a suite of documents which explains the policy and technical guidance in fire precautions in hospitals and other healthcare premises, comprising the Health Facilities Scotland Fire Safety Policy, the Scottish Health Technical Memoranda (SHTM) and Scottish Fire Practice Notes (SFPN) which all comprise NHS Scotland Firecode, the Fire Safety Documentation Reference Guide and A Model Management Structure for Fire Safety.

Project Co shall prepare proposals in accordance with NHS Scotland Firecode to be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement prior to the submission of the proposals for approval by the Relevant Authority including without limitation building control department.

In the event of a conflict between the requirements of the local building control officers and NHS Scotland Firecode the more onerous requirements shall take precedence. Project Co shall notify the Board as soon as such conflict is known or suspected and shall further advise the Board of Project Co's proposed relevant design solution as early as possible before formal submission for review by the Board. When the more onerous requirement is to be used the Board will have the right to decide what constitutes the more onerous requirement.

Any fire strategy which affects the Site will also have to have regard to, be compatible with and operate in conjunction with the fire strategy and procedures for the RIE Facilities and/or Retained Estate, as applicable.

ii. Health Building Notes (HBN)

Project Co shall take fully into account the guidance and advice included within HBN. Project Co shall ensure the Facilities comply with the requirements of HBN and shall adopt as mandatory any recommendations.

iii. Health Facilities Notes & Scottish Health Facilities Notes (HFN & SHFN)

Project Co shall, in relation to all SHFN and all HFN (except HFN where an SHFN exists with the same number and covering the same subject matter): take fully into account the guidance and advice included within such SHFN and HFN; ensure that the Facilities comply with the requirements of such SHFN and HFN; and adopt as mandatory all recommendations and preferred solutions contained in such SHFN and HFN.

iv. Health Guidance Notes & Scottish Health Guidance Notes (HGN & SHGN)

Project Co shall, in relation to all SHGN and all HGN (except HGN where an SHGN exists with the same number and covering the same subject matter): take fully into account the guidance and advice included within SHGN and HGN. Project Co shall ensure the Facilities comply with the requirements of SHGN and HGN and shall adopt as mandatory any recommendations.

v. Health Technical Memoranda & Scottish Health Technical Memoranda (HTM & SHTM)

Project Co shall, in relation to all SHTM and all HTM (except HTM where an SHTM exists with the same number and covering the same subject matter): take fully into account the guidance and advice included within such SHTM and HTM; ensure that the Facilities comply with the requirements of such SHTM and HTM; and adopt as mandatory all recommendations and preferred solutions contained in such SHTM and HTM.

vi. Scottish Hospital Technical Notes (SHTN)

Project Co shall, in relation to all SHTN take fully into account the guidance and advice included within such SHTN; ensure that the Facilities comply with the requirements of such SHTN; and adopt as mandatory all recommendations and preferred solutions contained in such SHTN.

vii. Scottish Fire Practice Notes (SFPN)

Project Co shall, in relation to all SFPN take fully into account the guidance and advice included within SFPN. Project Co shall ensure the Facilities comply with the requirements of SFPN and shall adopt as mandatory any recommendations.

viii. Scottish Government Health Directorates Circulars (CEL and HDL)

Project Co shall, in relation to all CEL and HDL take fully into account the guidance and advice included within CEL and HDL. Project Co shall ensure the Facilities comply with the requirements of CEL and HDL and shall adopt as mandatory any recommendations.

ix. Scottish Health Planning Notes and Scottish Hospital Planning Notes (SHPN)

Project Co shall take fully into account the guidance and advice included within SHPN. Project Co shall ensure the Facilities comply with the requirements of SHPN and shall adopt as mandatory any recommendations.

x. Sustainability

Project Co shall comply with the requirements set out in "A Policy on Sustainable Development for NHSScotland 2012". This policy supersedes and incorporates NHS HDL (2006)21 "An Environmental Management Policy for NHSScotland".

Project Co shall comply with the requirements set out in HTM 07-02 EnCO2de – making energy work in healthcare.

Project Co's proposals shall facilitate the achievement of an effective Environment Management System; the exemplar tool is Corporate Greencode's objectives.

Project Co's proposals shall allow the Facilities to achieve as a minimum "very good" rating when subjected to a BREEAM 2011 New Construction (SD5073) and BREEAM ENE1 target of 6 credits (excellent) in accordance with the BREEAM Scheme Document for New Construction (SD5073) Section 6.ENE1assessment.

Council requirements and NHS Policies including CEL 2 (2012), A Policy on Sustainable Development for NHSScotland 2012 to be read in conjunction with “A Sustainable Development Strategy for NHSScotland 2012”, “Sustainable Development in the NHS”, 2001 and, “NHS Estates, Sustainable Development: Environmental Strategy for the National Health Service,” 2005.

xi. General

Project Co shall take fully into account all health building briefings and planning guidance relevant to the briefing, design and construction of an acute general hospital, particularly but not limited to the material published by SEHD and NHS Estates guidance formally promulgated for use in Scotland.

Project Co shall also take fully into account the guidance and advice included within the following publications as the same are amended from time to time:

- a) Enhancing privacy and dignity-achieving single sex accommodation;
- b) National standards of cleanliness for the NHS Scotland;
- c) Quality Guidelines: Access for People with Disabilities (April 2000);
- d) Infection Control in the Built Environment (SHFN 30 & HAI-SCRIBE);
- e) National Standards of cleanliness for the NHS Implementation Guidance Toolkit;
- f) Standards for Environmental Cleanliness in Hospitals; and
- g) Scottish Infection Manual – “Managing the Risk of HAI in NHS Scotland”.

Project Co shall ensure the design of the Facilities incorporates the following requirements;

- a) Minimisation of the need for staff to be with patients in secluded or isolated parts of the building;
- b) The layout of the inpatient units shall discourage patients from leaving the units except when authorised to do so. Project Co shall give due consideration to channelled exit routes that require the negotiation of staffed areas; and
- c) Ease of patient observation by staff.

2.4 Minimum Design & Construction Standards

Project Co shall also ensure that the Facilities comply with Good Industry Practice, NHS Scotland requirements, relevant statutory requirements (including highways) and required consents including, but not limited to, the following as the same may be amended from time to time:

- a) Construction (Design and Management) Regulations 2007;
- b) Management and Safety at Work Regulations 1999;
- c) Health & Safety legislation, including all UK and Scottish Statutory Instruments;
- d) Recommendations of the Health and Safety Executive;
- e) Control of Substances Hazardous to Health (COSHH) Regulations 2002 and amendments;

- f) Manual Handling Operations Regulations 1992;
- g) Health and Safety (Display Screen Equipment) Regulations 1992;
- h) Workplace (Health, Safety and Welfare) Regulations 1992;
- i) BS OHSAS 18000:2007;
- j) Quality Assurance System to BS EN ISO 9000 and 9001;
- k) The Equality Act 2010;
- l) The Climate Change (Scotland) Act 2009;
- m) "Better Public Building" by Department of Trade & Industry;
- n) The Building (Scotland) Act 2003 and its most recent amendments;
- o) The Fire (Scotland) Act 2005 and its most recent amendments;
- p) The Fire Safety (Scotland) Regulations 2006;
- q) The Building (Scotland) Regulations 2004 and its amendments;
- r) The Non-Domestic Technical Handbook 2011 to The Building (Scotland) Regulations 2004 and its amendments
- s) Scottish Fire and Rescue Service and NHS Lothian Fire Officer's requirements and fire safety requirements, including, but not limited to the Board's Fire Strategy, Fire Safety for NHS Scotland 2011, CEL 11(2011), Practical Fire Safety Guide for Healthcare Premises by Scottish Government and NHS Scotland Firecode series;
- t) Minimum requirements of the relevant utilities companies, and the Board;
- u) Requirements of The City of Edinburgh Council's Building Control Officer, Fire Officer and Environmental Health Officer;
- v) Relevant British Standards, Codes of Practice, or equivalent European industry recognised standards;
- w) Eurocodes;
- x) Building Research Establishment Digest Recommendations;
- y) Local Bye-Law and Regulations;
- z) Scottish Centre for Infection and Environmental Health guidance / recommendations;
- aa) Treasury Taskforce Private Finance Technical Note No. 7: How to Achieve Design Quality in PFI Projects;
- bb) The requirements of the National Radiological Protection Board;
- cc) Radiological Protection Act 1970;

- dd) Radioactive Substances Act 1993;
- ee) The Ionising Radiation Regulations 1999;
- ff) The Ionising Radiation (Medical Exposure) Regulations 2000;
- gg) All other bodies and authorities having jurisdiction;

Project Co shall as a minimum achieve the standards detailed in the Patient Rights (Scotland) Act 2011; and

For the avoidance of doubt, Project Co shall provide all fixed fire fighting equipment to comply with statutory requirements and the requirements and recommendations of NHS Scotland Firecode.

2.5 Hierarchy of Standards

If there is any inconsistency within the terms of this Section 3 of Schedule Part 6 (*Construction Matters*) and the Appendices then the provisions of Appendix A, Appendix B (Interface Output Specification), Appendix E (Initial Drainage Proposal), Appendix F (Access Strategy), Appendix G (Connection Proposal), Appendix H (Construction Access Proposal), Appendix I (Oversail Strategy), Appendix J (Service Proposal), Appendix K (Substation Proposal), Appendix L (Supplemental Drainage Proposal) and Appendix M (TMS) shall prevail.

Where contradictory standards / advice are apparent within the terms of this Section 3 of Schedule Part 6 (*Construction Matters*) and the Appendices then subject to the foregoing paragraph then (1) the most onerous standard / advice shall take precedence and (2) the most recent standard / advice shall take precedence. When the more onerous requirement is to be used the Board will have the right to decide what constitutes the more onerous requirement.

Where there is a conflict of interest resulting from the use of the standards / advice Project Co shall involve the Board in the decision making process. The Board shall be entitled to make the final decision regarding the standards / advice to be used for the Facilities including any contradictions that may arise between items (1) and (2) above.

NHS Scotland standards shall take precedence over equivalent NHS England and Wales's standards.

In certain instances, NHS publications include a number of options or alternative solutions. Where the Board has defined their preference specifically, Project Co shall adopt these preferences as a mandatory requirement. Where no Board preference is stated, Project Co shall engage the Board in the design development process to seek and incorporate the Board's preference within the Facilities.

While the Board has placed a clear obligation on Project Co in relation to NHS publications, it also wishes to acknowledge that in certain cases the subject matter, guidance and advice included therein may have been further developed and improved since the date of publication. In this regard, the Board does not wish to limit the use of current best practice or innovation in relation to the adoption of design standards.

For the avoidance of doubt, the Board considers NHS publications reflect minimum standards and any alternatives proposed by Project Co shall provide a similar or enhanced level of service and quality.

2.6 Information Technology & Record Information

Computer aided design shall be applied but not limited to the following:

- a) Calculations and principal energy flow analysis for plant simulation;
- b) All drawn information layouts, schematics, etc.;
- c) “As fitted” and record documentation and drawings;
- d) Electrical, mechanical and communication services;
- e) Landscaping and site planning and;
- f) Traffic modelling and;
- g) All other design or design information which Project Co is obliged to provide the Board in accordance with paragraph 4.5.17 (Completion Requirements) and/or Clause 17.18 and/or 18 of the Project Agreement.

The systems used for computer aided design, including Building Information Modelling, shall be available for use by the Board and all of the information listed above shall be made available on such systems and maintained fully up to date throughout the Works and as applicable during the Operational Term and made available at all times to the Board. This is required in order to assist with the transfer and integration of new and existing information between the Board and Project Co.

3 General Design Requirements

Project Co shall design the Facilities to address the following issues:

3.1 Character & Innovation

3.1.1 Vision

Cognisance shall be taken of the long and illustrious histories of the Royal Hospital for Sick Children and Department of Clinical Neurosciences in Edinburgh. The new building will effortlessly and efficiently support service delivery, both now and in the future, and the human needs of the people within the building; those on whom the service depends - the staff – and all those it is intended to serve. The design should be valued by the patients, staff, visitors, other users and the local community. It shall have an enduring quality that will outlive transient trends or architectural fashion and will provide a memorable landmark building of which future generations will be proud.

The design shall reinforce a strong positive image of the NHS and be identifiable with its function of care. It shall therefore represent the standards of excellence that the teams of staff at all levels are working to achieve.

The building design shall avoid being a purely utilitarian environment, neither bland nor monotonous and certainly not an “off the shelf shoe box”. Each part shall have a discrete visual identity. All vistas and focal points such as entrances should be instantly recognisable with distinctive visual interest.

It shall recognise the following human and healing aspects enshrined in NHSScotland's vision for the healthcare estate:

- a) Uplifting – a building that people of the local area are proud of; that is a symbol of the NHS service ethos and the staff: that conveys respect to the patients and which encourages respectful behaviour in return; which offers an “architecture of hope”.
- b) Local – that one size does not fit all: that both the service configuration and the architectural expression should grow from, and support, the community needs and the unique characteristics of the place.
- c) Natural – the importance of daylight and contact with the natural environment; of knowing the time of day and weather; of being able to escape into a garden; of being sustainable and using resources efficiently.

3.1.2 Excellence for Patients

The design of buildings, external and internal appearance as well as the design of the external works, and landscape can have a positive or a negative effect upon patient care, staff experience at the work place and the way NHS healthcare buildings are perceived. Project Co shall develop design solutions which by the use of materials, lighting, shape, scale, mass and form of the building elements make a positive contribution to engendering the well-being of patients, staff and visitors.

3.1.3 Healthcare Excellence

Project Co shall develop building design solutions that:

- a) Reinforces the dependability and reassurance that the NHS means to the local community;
- b) Respects their local environment and at the same time make a positive contribution to the urban context that they are in;
- c) Clearly expresses their function in external and internal appearance;
- d) Allow patient diagnostic and treatment areas to be differentiated in design concept and detail from inpatient areas; and
- e) Reflect that design considerations such as the distribution, size and proportion of windows and the use of materials can reflect the clinical function.

These elements shall be expressed in the scale and mass of the buildings, as well as the disposition of functions, whilst sustaining its effectiveness and efficiency of its use.

3.1.4 Architectural Vision

Project Co shall develop building design solutions, which create an ordered composition of building elements in a stimulating form that successfully combines good standards of space, height, form, scale and use of materials and colours / images with associated functional requirements and the surroundings.

3.1.5 Stimulating Design

Project Co shall develop building design solutions which create a high quality, good working environment, both externally and internally, which shall provide a reassuring, enjoyable, convenient and safe hospital for all patients, their families, visitors and staff. This objective shall not be in conflict with the desire to produce a stimulating design. Project Co shall meet this objective and shall develop a design which will not date and which shall be adaptable in a way that does not destroy the original design vision / concept, whilst sustaining its effectiveness and efficiency of its use.

3.1.6 Design Innovation

The design shall reflect current and developing innovations in healthcare delivery and translate these into an innovative buildings solution including the incorporation of art integral to the architecture.

Innovation in design can range from whole concepts of hospital planning, distribution of functions etc to detail design of components, materials, spaces, use of technology etc.

3.1.7 Recognisable Quality

The Board expects high quality design to match the best national standards of healthcare provision it intends to implement.

Materials shall be substantive and of high quality. They shall be carefully detailed and constructed such that the quality is appreciated throughout the life of the Facilities. They shall retain their appearance within a compatible maintenance regime. For example, detailing of external materials shall be resistant to and shall not cause unsightly staining.

The life cycle plan and design detailing shall allow for replacement of elements of the buildings in a way that does not impair the design quality or adversely affect the service provision.

3.2 Internal Environment

3.2.1 Quality Environment

“You can’t just heal a person with medicine; the environment has to work too.”
Young People’s Advisory Group

The design of the Facilities shall create a sustainable, high quality, good working environment, both externally and internally which will provide a reassuring, relaxing, convenient and safe hospital for all patients, their families, visitors and staff.

The Board anticipate that an interior designer will be included in the Project Co’s design team to secure a clear co-ordination of the interior materials and wayfinding within the Facilities, matching the furniture, furnishings and equipment being procured by the Board.

Communal patient areas, which include spaces such as playrooms and quiet rooms, shall be domestic in design and ambience (whilst ensuring that measures to reduce the risk of transmission of infection and increase safety are not compromised). Public areas such as waiting and reception areas shall be restful, open and be well lit with natural light as far as is

practicable. They shall, as far as reasonably practicable, have views out to landscaped spaces that add quality and orientation.

The design shall allow for an open and friendly environment, but shall ensure privacy and dignity for patients, family members and visitors when required. To achieve this, the following features shall be incorporated:

- a) The ability for patients to see staff working within each section;
- b) The ability for staff to observe patients easily from the Touch Down Base;
- c) Where appropriate, glazed panels to have privacy control;
- d) Doors to all rooms inpatient single rooms shall have large viewing panels with privacy control;
- e) Wards and Units shall function as dedicated patient care areas and must not be designed for use nor used as thoroughfares for access;
- f) Facilities shall be sensitive to the cultural, religious and spiritual needs of patients, family members, visitors and staff;
- g) All non-clinical areas shall be designed to limit incursion into the clinical areas; this may be achieved by separate service entrances;
- h) Reception areas shall be easily accessible to visitors upon entry to the ward, department or unit;
- i) Reception areas shall facilitate dialogue with visitors of varying heights e.g. children, wheelchair users, adults, whilst maintaining staff security and privacy across the reception desk;

Wards shall be designed to maximise the efficiency of working arrangements, ensuring minimal travelling distance whilst treatment is being carried out at bedside and in clinical treatment areas within the ward environment.

Washing and toilet facilities shall be located within bed areas, and sited to allow maximum visibility into the rooms. Visual and acoustic privacy must be positively addressed in the case of shared facilities within bed bays. All washing and shower areas shall be designed to minimise the spread of infection, and meet accessibility codes, for example large doors which open outwards.

A suitable and appropriate, continuous machine cleanable floor surface is required. Refer to paragraph 5.13.2 for flooring.

The use of curtains shall be minimized wherever possible to control infection by utilising screens/blinds within glass which can be operated without touching the blind.

The location of patient entertainment systems shall not be obtrusive.

It is anticipated that ward layouts will maximise views, particularly from bedrooms. Sight lines shall be optimised for all users to enable outward visibility with consideration being given to sill heights. Windows on the ground floor will require special attention in relation to privacy and security. Account shall be taken of external environmental conditions, such as stronger winds at higher levels and window designs shall manage and control these environmental effects. The Board welcomes innovative designs and diverse approaches such as wheelchair and baby-buggy height windows which are inherently safe. Window design and specification must meet the requirements of The Building (Scotland) Regulations 2004 and its amendments and adhere to all relevant minimum NHS Requirements.

Project Co shall provide covered areas, which can be used year-round, as amenity and play space. Project Co shall provide seating and furniture in these areas.

Parents/relatives/carers normally need to take time off work to be with their child/family member in hospital. Access for them to resume normal activities, while remaining close to their child/family member, must be demonstrated within the design, e.g. internet access in quiet internal and external areas for carers.

The internal finishes must be effectively and expertly designed and co-ordinated, and furnishings, furniture and equipment must be of high standard. User representatives, via the Board's Representative must be consulted at appropriate points throughout the design, construction and operational phases to ensure that the processes and solutions are responsive to specific needs, both operationally and aesthetically, as well as maintaining corporate requirements all in liaison with the Board's Project Team.

3.2.2 Light, Colour & Texture

Colour, decoration, works of art and motifs shall be used to facilitate identity of the Facilities; and its designated areas / zones and in addition improve wayfinding. It also shall be used to create an immediate and distinct 'image' of the Facilities to visitors, which is interesting and stimulating. The use of colour shall be co-ordinated with the lighting and be appropriate for the activities in each area; toned down in certain areas e.g., recovery, rehabilitation and quiet areas; but bright and stimulating in others, such as waiting and corridor areas.

Project Co shall propose the colour scheme and any choices available, details of which shall be submitted to the Board for review by the Board in accordance with paragraph 1.2.3 of Schedule Part 8 (Review Procedure), Table of Finishes and clause 12.6 of the Project Agreement.

The design shall provide quiet, comfortable areas with pleasing outlooks easily accessible from clinical areas where patients and their families / visitors can "escape" from the clinical environment. Such areas may facilitate informal discussions with health professionals in the future, and be equipped for play / recreation.

The effective use of light is an essential component of the hospital design. Light should be used both creatively within the building and also externally to light the building and create a sense of presence and beauty. The external lighting is to be designed to illuminate main entrances to the building, for wayfinding in the dark and to promote external design features. The use of external lighting to enhance security arrangements is essential.

The use of both natural daylight and artificial light should contribute towards a high quality environment and also be energy efficient. It shall be possible to adjust lighting for reading, close and clinical work, to suit mood and condition of patient, time of day etc. Emergency lighting is required throughout the Facilities.

Natural light should be provided in public spaces and in occupied private and staff spaces within the building as far as is practicable. Natural and artificial light sources shall be designed to avoid glare and thermal gain. Changes in level shall be well lit and abrupt changes in illumination should be avoided, unless specified as a clinical requirement. Glare on reception desks, signs and notice boards must be avoided. Artificial lighting layouts particularly, but not exclusively, along areas of circulation, shall be designed to avoid the creation of a stroboscopic lighting effect.

Deep plan spaces may prove necessary in certain circumstances. In such cases, the layout must be relieved by the penetration of daylight and sunlight from adjacent courtyards or roof and light shafts.

3.2.3 Internal Spaces

All internal spaces shall be planned in accordance with the requirements of the Specific Clinical Requirements at Sub-Section D with the appropriate adjacencies and layouts.

Some spaces shall be designed to encourage social interaction for patients, visitors and staff.

Public spaces shall be used to integrate the various parts of the building, and shall be designed to avoid being a space joined by long, narrow corridors.

3.2.4 Internal Wayfinding

Design solutions shall incorporate an integrated, comprehensive wayfinding strategy that enables patients, visitors and staff to self-navigate with ease and lack of stress throughout the buildings.

The integration of works of art into the wayfinding strategy is encouraged by the Board.

The wayfinding strategy shall be designed to meet the needs of staff, patients and visitors. Routes shall be clearly defined to ensure that parts of the buildings that are restricted to staff are not used as short cuts by patients and visitors. The use of enclosed internal courtyards as an integral part of a route shall be considered.

Internal signage shall be easily understood and consistent throughout the journey from the entrance to the department reception and on to rooms. It shall not create a clutter and the use of pictograms and graphic art is encouraged.

Proposals should be developed which acknowledge the multi-sensory process used in wayfinding and which address the needs of people with impairment in touch, smell, sight or sound.

The wayfinding strategy shall embrace the Identikit toolkit guidelines published by NHS Scotland and be able to interface with what is in use within the Campus Site and Bioquarter Site.

3.3 Urban & Social Integration

3.3.1 Sense of Place

The Facilities shall be designed to complement and enhance the quality of the design in the locality in which it is sited. It shall create a welcoming, inclusive and vibrant environment, and shall enable easy access by the communities and groups who will use it.

The Facilities shall be organised to establish a continuity of building frontage and a clear definition of public and private spaces. When approaching the building the viewing of service areas or more "industrial" looking parts of the Facilities shall be avoided.

3.3.2 Neighbourhood & Community

Project Co shall ensure they are considered a responsible 'good neighbour' throughout design, construction and operation periods. The Facilities shall add value to the neighbourhood and wider community, and not detract nor be a nuisance or a burden to the environment.

The design shall reflect the importance of the Project in healthcare terms and it shall be seen as a leading edge community resource reflecting the objectives of a modern NHS.

Project Co shall provide Facilities whose overall visual impact contributes to improving civic design, and is sensitive to their relationship with the surroundings.

Careful consideration shall be given to the height of the buildings in relation to adjacent developments.

3.3.3 Site Fit

New buildings, parking areas, other infrastructure and services shall be located with regard to the existing landscape and topography. Amenity space shall be planned around the buildings at appropriate places.

The design of the Facilities shall identify areas of the Site as possible expansion zones.

3.3.4 Hard & Soft Landscaping including Garden Spaces

Project Co shall design, as an integral part of the Facilities, a hard and soft landscaping scheme that will enhance the environment of the Facilities.

The landscaping scheme shall be of a high quality and shall assist in knitting the Facilities into their surroundings. It must also provide an interlinked network of attractive public spaces for amenity and circulation for use by patients, staff and visitors.

These will form an essential clinical part of the external environment, and must be integrated with the other aspects of the external environment, building entrance areas; car parking; access roads; pavements / footpaths; and service / delivery areas. The landscape design should support and enhance the separation of pathways of pedestrians, public vehicles and delivery vehicles.

The soft landscape design and choice of plants should assist in providing a therapeutic environment and be sympathetic to the character of the existing landscape.

External hard and soft landscaping (including courtyards) shall be designed for therapeutic use and provide patient's, staff and visitors access. The landscape scheme shall facilitate security of pedestrians and avoid 'No-Go' areas. A comprehensive and integrated landscape strategy shall be developed for appropriate formal and informal treatment of public and private areas.

Project Co shall provide all the external equipment required for the external areas. Details of the extent, type and location of such equipment shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement. Notwithstanding the foregoing, the Board reserves the right to fund specific equipment from Charitable Funds and

depending on the type of specific equipment thus funded such equipment shall be governed by Schedule Part 11 (Equipment Schedule).

3.4 Citizen Satisfaction

3.4.1 Design Concept

The visual forms shall enhance the sense of place and shall exploit to best advantage the environmental qualities of the Facilities and the Retained Site and the Retained Estate.

3.4.2 Scale & Proportion

Appropriate scale and proportions shall reflect the human scale, suitable for child and adult users of the hospital, adjoining urban surroundings and the existing buildings / structures at the Campus Site. Plant rooms, lift, stair towers and the helipad shall express form and function, but they shall not be perceived as dominating and oppressive.

3.4.3 Composition

The composition of the buildings shall be complete, cohesive and well balanced in massing. The visual form shall enhance the Site and sense of place.

The overall form of the buildings shall be designed to demonstrate the individual functional needs of each part of the Facilities. These parts shall harmonise with each other and the overall site, and the concept of facilities for different age and patient groups with distinct identities shall be fully explored by Project Co.

3.4.4 Aesthetics

The overall visual form of the buildings shall combine good standards of space, height, form and scale. The form of the building shall appeal to the aesthetic senses of patients, visitors and staff as follows:

- a) The lines of the design shall clearly define forms and surfaces of the buildings;
- b) The skyline shall reflect the mass of the buildings but not be out of scale and dominating;
- c) The sky line shall not be monotonous.
- d) The solid forms shall be in scale and have harmonious shapes; and
- e) The interplay of light and shade shall add to the definition of the building form and the balance between solid and glazed elements needs to be incorporated into the design.

3.4.5 The Arts

The Board will be entitled to approve the whole art content in the Project and Project Co shall submit any artwork to the Board as Reviewable Design Data for review by the Board in

accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement before any art work is commissioned.

Project Co is required to demonstrate how art is an inherent element of the design and how it has been integrated into the building fabric such that there is differentiation between the identities of the RHSC, CAMHS and DCN areas.

The incorporation of art, its use for way finding and the enhancement of the overall therapeutic environment must be an essential requirement of the design. Work has been initiated by the Board to develop an arts strategy to support the design of a hospital, and its environs, that will promote health and wellbeing. In consultation with the Board, Project Co shall carefully consider the outputs from the 2010-2014 charitably funded Artists in Residence Programme within the RHSC and CAMHS. Documents relating to the Board's arts requirements are set out in the Disclosed Data. Project Co shall provide and install the art.

Project Co shall give careful consideration to the co-ordination and siting of artwork, so that it is multi-age appropriate, child-safe and interactive. Project Co shall ensure that all artwork conforms to the infection control standards appropriate to its location. Integration of artwork within the interior design should enhance identity at all levels – Facilities wide, departmental, main public spaces and circulation routes. To facilitate the utilisation of walls and other surfaces as art or for art, the design and positioning of engineering outlets, controls and sensors requires particular consideration. The internal wall construction and surface finishes within the Facilities shall allow for the flexible display of Artwork. Project Co's lighting design shall include for the use of illumination and spotlighting of the artwork features, or as art itself.

Project Co's design shall provide space for:

- Live arts performance and associated forms of presentation;
- The display of artwork created by children in RHSC and for the display of art competition work
- Health promotional events; and
- Public events, appeals and merchandising for fundraising / charity promotions.
- Artworks to be displayed on a rotational basis.
- Project Co shall ensure that the Facilities, where appropriate, incorporate innovative design and artworks as an integral part of the Facilities. Project Co shall:
 - a) Create and designate spaces within the Facilities (both internal and external) which will be appropriate for the integration of artwork into the designs, and ensure that these locations incorporate suitable building services and the relevant parts of the Facilities are suitably designed and constructed in all respects for the provision for placing or fixing such items such that they are displayed to their best advantage;
 - b) Liaise with the Board (or nominated representative) as ideas for arts are developed in conjunction with service users and staff, and, in conjunction with the Board, identify a shortlist of suitable artists that works may be commissioned through; and

- c) Commission such artists whose artwork has been submitted to the Board as Reviewable Design Data and approved by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement, and take full responsibility for ensuring their works are integrated into the Facilities, also ensuring that the contractor and designers involved are integrated into this process from the outset such that the creative opportunities are maximised and that functional, cost and arts programme issues are anticipated and resolved.

Project Co shall take an active and supportive role in implementing an arts and environment programme for the Facilities.

Project Co's design shall integrate such artwork features as are being transferred from the Existing RHSC and Existing DCN into the overall design philosophy for the Facilities. A schedule of the large and heavy items to be transferred, including those items to be built into the new building fabric, is detailed in the Disclosed Data. A schedule detailing the more portable items to be transferred is included in Schedule Part 11 (Equipment Schedule).

The artworks proposals shall embrace (where applicable) the Identikit toolkit identity guidelines published by NHS Scotland.

3.5 Uses

3.5.1 Service Philosophy

The service philosophy is contained in Sub-Sections D and E of Section 3 of this Schedule Part 6.

The design shall deliver a solution, which fully reflects the special needs for each patient group whether they be attending hospital on a planned or on an unplanned basis. Clinical activity is considered further under these headings:

- a) Unscheduled Care;
- b) Scheduled Inpatient care;
- c) Out-patient and Medical Day Care;
- d) Critical Care Services;
- e) Theatre and Day Surgery;
- f) Clinical Support Services;
- g) Child and Adolescent Mental Health Service.

These are detailed in the Board's Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

The Project shall promote integrated ways of working and delivering services for both primary and secondary care, and for the NHS, local authorities and other community based services.

3.5.2 Clinical & Non Clinical Functionality

The Facilities shall be designed to accommodate the Clinical, Non-Clinical and other functions ascribed to them in terms of space, environment and the efficient and safe operation of equipment, as defined in the Board's Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

The design of the Facilities shall:

- a) Function efficiently, effectively and economically to achieve the optimum balance between capital cost of the Facilities and the Board's operating costs and to meet and satisfy all of the requirements and obligations set out in these Board's Construction Requirements to ensure that the Facilities are sustainable well into the future and as a minimum for the whole of the Operational Term or to meet the Handback Requirements, whichever is the longer period;
- b) Demonstrate that the design fully reflects the special needs for each patient group in terms of access, functional relationships and planning;
- c) Interface easily with other service providers in particular the wider services provided by the Board;
- d) Foster the provision of patient-focussed acute services; and
- e) Permit and encourage service integration across the care spectrum/community.

The design shall be able to do this in terms of environment, scale, comfort privacy, reassurance, style and security.

3.5.3 Design for Therapy

The Board places a high priority on how the design of the Facilities impacts, both mentally and physically, on the treatment experience for patients, families, visitors and staff. It is therefore essential that Project Co develops a clear strategy which is interpreted through the design of the Facilities and focuses on providing an environment that takes every opportunity to enhance the experience of every person who comes in to contact with it.

This paragraph 3 shall be read in conjunction with the requirements for infection control. Whilst it is expected that there is a balance to be drawn between design for therapy and infection control requirements, the requirements of one over the other shall not preclude the use of well thought out design and good quality solutions.

3.5.4 Patient Privacy and Dignity

To achieve appropriate levels of privacy, Project Co shall provide Facilities which allow adequate space around patients. This may include space for families, and other visitors to sit with patients, adequate space between chairs, and seating in rest bays along corridors to provide rest places along the route of the patient / visitor journey. The privacy afforded to patients, staff, families and visitors shall not be compromised by inappropriate or inadequate sound reduction measures in the design or in the build standard.

Sill heights for windows shall enable outward visibility, in particular for children, patients in wheelchairs and in beds. Special consideration shall be given to the needs of those with impaired mobility and those with poor sight. Some doors and internal glazed screens shall

require vision panels or other glazing systems, which may be obscured or controlled for privacy. The ability to use vision panels which allow objects / small children on the other side to be viewed are required in those areas as defined in the Room Data Sheets.

3.5.5 Age Appropriate Care

The age range of children routinely attending the RHSC paediatric facility will be 0 – 16 years, and a number of young people aged from 17 to 18 years of age also will attend. CAMHS patients routinely attend until they are 18 sometimes older therefore the building, particularly within the Inpatient areas, will offer a variety of facilities to meet the needs of infants, pre-school age, 5-10 year olds, 10-13 year olds and 13-16/18 year olds. Adolescents in RHSC have access to a social space designed especially for this age group, CAMHS inpatient areas are to accommodate 12-18 years olds. The DCN facility provides services to adults.

Age specific facilities will be provided within the appropriate areas.

3.5.6 Single Room Accommodation

DCN and CAMHS will have 100% of inpatient spaces in single rooms, and in the RHSC approximately 59% of inpatient spaces will be in single rooms, which will facilitate the management of the privacy and dignity of patients and families, and infection control.

Challenges for the design of single room accommodation, particularly within longer term inpatient facilities, includes many adolescents preferring to be in a single room for privacy, however consideration is to be given to provide additional space for social, educational and IT facilities.

3.5.7 Functional Relationships

The design shall offer all users of the Facilities the highest level of efficiency in their operations by way of relationships and adjacencies between functional units.

The general inter-relationship of wards and departments is fundamental to good design, ensuring patients and families can receive effective care and that staff can go about their business efficiently.

The grouping and disposition of departments shall take into account the importance of enabling easy flow of the three main groups of traffic:

- a) Patient, family, visitor and staff traffic arriving at the hospital;
- b) Patients' and staff traffic between clinical departments (in and out patient areas) and central diagnostic departments, particularly theatres and radiology.
- c) Service traffic – good design will ensure that distances for service traffic are kept to a minimum with innovative use of vertical routes e.g. service lift;

3.5.8 Work Flows & Logistics

Workflows within and between departments shall be direct and the routes for patients and staff as short as possible. Internal traffic cross-flows which could be inefficient or conducive to the transmission of micro-organisms either through airborne or other means shall be minimised.

The movement of people and the distribution of supplies and waste shall be carefully considered. Circulation routes shall be clear and appropriately sized.

Patterns of movement within the hospital shall be clear, unambiguous and logical for patients, families, visitors and staff. The adjacency patterns will minimise travel time and distances for patients, families, visitors and staff, with clear and coherent signposting to support a natural flow of pedestrian traffic.

Use shall be made of art in creating focal points, and supporting wayfinding both for internal and external areas.

The route for patients to be taken to the RIE Facilities and RHSC Emergency Departments from the helipad is through the Hot Core. There is to be a controlled link to the RIE Facilities from the ground and first floors of the Facilities building.

All signposting and instructions must be readily accessible and capable of being understood by the community that the hospital serves.

Provision is to be made for deliveries being accommodated at a loading area / bay. These will arrive in a range of different vehicle types, and the deliveries will be off-loaded into an adjacent Goods Receipt Area. Provision is also to be made for mail to be delivered directly into a Mail Room, catering supplies delivered directly into a Catering Store, and linen will be delivered straight into a linen store.

3.5.9 Manual Handling

Project Co shall ensure that the working environment of staff shall be designed in such a way that where they are required to manually handle inanimate objects / patients and / or transport patients, due consideration shall be given to the obligations within the Manual Handling Operations Regulations 1992 (as amended). This shall extend to the provision of mechanical devices including fixed (i.e. ceiling mounted tracking hoist systems) or mobile hoists including appropriate allocation of space and structural capacity.

3.5.10 Adaptability & Expansion

Project Co shall ensure that the physical arrangement of the buildings allows for growth and change of Clinical Services in the future, as far as is practical. The provision for such are detailed in the Adaptability Strategy.

The design shall consider the means for departments to be used flexibly, adapted or expanded. National policy, clinical advancements and technological changes will impact on the way services are provided in the future, and the Facilities need to be sufficiently flexible to handle these advances. The design shall demonstrate that potential change or expansion has been considered by the provision of adequate space either at the external perimeter and / or between functions and departments.

The structural grid, construction technique, structure, service penetrations and engineering services strategy shall demonstrate that the design proposals for expansion, adaptation and flexibility are co-ordinated.

The provision of engineering, telecommunications and building services shall be appropriate for the provision of anticipated changes in medical equipment.

The architectural flexibility shall reflect the overall Adaptability Strategy.

Project Co shall ensure that the design of the internal enclosing walls, screens and ceilings and their relationship to the environmental servicing strategy present a co-ordinated and consistent approach throughout, capable of accepting change at a later date with the minimum of disruption to the building structure and main mechanical and electrical plant installations and associated services.

Project Co shall ensure that the Facilities' structure and envelope, services, partitioning, ceiling, and flooring systems are consistent with a co-ordinated methodology which facilitates future flexibility for re-planning and change in the layout of departments, rooms, services outlets and equipment.

The internal divisions and environmental servicing strategy shall provide a co-ordinated and consistent approach throughout and shall readily accept change with the minimum disruption to the building structure and main mechanical and electrical and plant installations. In particular, it shall be possible to install or relocate fittings, fixtures, equipment and service outlets with minimum disruption to the use of the Facilities.

Building structures shall be designed by Project Co to facilitate ease of alteration to the internal layout of the buildings, or to its plant, services or equipment, during the lifetime of the buildings. This shall be achieved by:

- a) Selecting structural forms in which future builderworks holes for building services distribution, both vertically and horizontally (including ductwork), or equipment, may be cut simply and economically and maintaining the fire safety integrity without significant additional work;
- b) Providing knock out panels to permit the formation of holes not exceeding 150x150mm through suspended floors, adjacent to 50% of the internal columns on all floors. These knock out panels shall be positioned close to columns distributed across all areas of each floor;
- c) Designing the floors for imposed loadings that will permit the reallocation of space within the Facilities, so that each area of floor is structurally capable of supporting the imposed loads of offices, wards, corridors, general storage areas or waiting areas, together with their appropriate partition walls, finishes, ceilings, services and medical equipment;
- d) Providing removable access panels within the structure, where these are required for the installation, maintenance, repair and removal of plant, services or equipment;
- e) Constructing internal room walls such that they can be readily removed or altered i.e. the structure is not reliant on the walls for structural stability; and
- f) Designing plant space and riser space so that future change can be accommodated.

Project Co shall ensure that the Facilities do not have perimeter upstand beams and all perimeter beams shall be designed to allow a clear 300mm services zone above the ceilings and below the perimeter beams, unless otherwise agreed with the Board.

3.6 Spaces

3.6.1 Floor Layouts

The design of departmental and unit layouts shall reflect the demand for space defined by occupancy and usage as described in the Board's Construction Requirements Part 6 Section 3 Sub-Section D (Specific Clinical Requirements), Sub-Section E (Specific Non Clinical Requirements). Where areas and shape of rooms results in undesirable spaces, Project Co shall discuss with the Board alternative solutions, which may or may not result in shared space providing a more appropriate environment as well as optimising the available use of space. These may include locker rooms, sitting areas, seminar rooms etc

3.6.2 Equipment Requirements

Project Co shall identify and provide all necessary connections and infrastructure (including supply, extraction and removal of waste) for all items of equipment identified in Schedule Part 11 (Equipment Schedule). For the avoidance of doubt, this obligation specifically includes specialist service requirements, including for example 3-phase electrical supply, surge protection, special water supply requirements and separation of contaminated waste.

Project Co shall provide a suitable environment for each item of equipment; this shall take into account lighting, temperature and ventilation requirements. Project Co shall design the Facilities to allow for the provision and safe use of the Group 1, Group 2A, Group 2B and Group 3 Equipment.

For reasons relating to standardisation, compatibility, staff familiarity and product quality the Board shall be entitled to choose items of equipment which shall be proposed and submitted by Project Co to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

Irrespective of the party responsible for the supply, installation, maintenance and replacement of each item of equipment (as detailed in the Schedule Part 11 (Equipment Schedule)), Project Co shall provide Facilities that satisfy the following criteria:

Allow equipment and associated systems to be installed, commissioned, operated, maintained and replaced in accordance with;

- a) Good Industry Practice;
- b) Manufacturer's instructions;
- c) The Board's specific supplementary requirements; and
- d) The Board's, and statutory health and safety requirements;

In order to:

- a) Allow equipment and associated systems to operate efficiently, effectively and in accordance with their intended function for the whole of its design life;
- b) Take due account of the impact on the environmental conditions within the Facilities. For the avoidance of doubt, this obligation includes (but is not limited to) impact of heat gain and loss, and ventilation; and
- c) Take due account of the potential impact of future equipment changes through either updating or replacement. In particular, allowance for equipment of different sizes, weights, service requirements or environmental impacts.

- d) Allow the Board to provide their Clinical Services and Non Clinical Services with a minimum of disruption during installation, commissioning, operation, maintenance and replacement.

A number of specialist engineering systems will be required within the Facilities and each shall be fully integrated within the design proposals. Specialist systems shall be incorporated where appropriate to enhance the operation of the equipment and the Facilities.

The construction, structure, plant and services shall be designed to meet the Board's Construction Requirements and the specific requirements for special equipment and associated services. The design of the Facilities shall meet these requirements with regard to wall, ceiling and floor loads, structural movement and deflections, the need for special floors, wall and ceiling supports, ceiling grids and other such measures to allow for the installation of special equipment and associated services.

3.6.3 Room Data Sheets

Project Co shall provide Facilities that, as a minimum, meet all the requirements specified in the Room Data Sheets included in this Schedule Part 6 Section 6. Room Data Sheets not included in Schedule Part 6 Section 6 shall be provided through RDD.

Project Co shall provide fully developed Room Data Sheets submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

As part of the commissioning process, Project Co shall be responsible for demonstrating compliance with the requirements included within the Room Data Sheets.

For the avoidance of doubt, Project Co shall provide mechanical ventilation, comfort cooling and air conditioning to suit the functional requirements of each of the rooms in the Facilities. Irrespective of the ventilation requirements in Room Data Sheets, where rooms are clearly intended to be occupied and / or become internal spaces during design development and natural ventilation is not possible, mechanical ventilation and / or extract ventilation shall be provided as appropriate to suit the function of the space.

3.6.4 Interior Design

Project Co shall develop an interior design strategy to cover all areas of the Facilities and shall present this to the Board for its consideration. The integration of works of art is considered by the Board to be an essential element of any such interior design strategy.

Proposals shall be presented by Project Co in room-by-room schedules with samples of finishes, colours, lighting fittings, materials as appropriate, and signage, supplemented by colour sketches or coloured computer images submitted to the Board for review in accordance with paragraph 1.2.3 of Schedule Part 8 (Review Procedure), Table of Finishes and clause 12.6 of the Project Agreement. Project Co shall agree with the Board a programme for submission of this information allowing sufficient time for consultation with the users, and for incorporating feedback into the final scheme.

Where Project Co includes internal planting displays, these must comply with the Board's infection control requirements, and associated irrigation and atmospheric controls shall be provided.

3.6.5 Space Standards

“Many factors can contribute to engendering a sense of ease, for instance:- the degree of natural light, brightness and airiness, colour and texture, an easily understood layout with clearly defined focal points, uncluttered signage and a clear distinction between the realms of public and private space, maintaining patient dignity”.

SEHD 2006

Project Co shall provide designs which are efficient, economical and flexible for immediate and future use, and which can be managed efficiently to cope with seasonal and strategic variations in activity.

The internal and external space provision shall be equal to or greater than that prescribed in codes of practice, regulations and guidance related to hospital buildings.

Appropriate space provision shall be made for circulation, waiting and sub-waiting space and for the movement of patients, pedestrians and the storage and transportation of goods.

Individual departments shall be designed to allow formal and informal discussion, therapy and interaction within each clinical environment - such as in consultation rooms, therapy and rehabilitation rooms, waiting areas and receptions. The design shall also support the creation of a learning environment for informal and formal teaching of staff, students, patients and their families.

Project Co shall provide space to allow informal discussion, therapy and interaction within open and reception areas in the clinical environment, such as areas of rehabilitation, consultation and main waiting / reception areas. Consideration shall also be given to making use of open areas such as courtyards and corridor recesses within clinical areas and main circulation routes for 'break-away' space.

Project Co shall recognise that the perception patients' and staff of the spaces created may assist with their feeling of belonging and of not being intimidated, and may help with their orientation, mobility, confidence, privacy and their ability to socialise.

3.6.6 Ward Configuration

Where required, wards shall be configured to meet the requirements of single sex wards providing privacy and dignity to patients.

The layout of the wards shall facilitate the separation and zoning of patients into clinical groups to respond to seasonal variations in activity, case mix, and practice and to deal with infectious conditions.

Space around beds shall comply with Department for Health Adult in-patient accommodation: Planning and design manual: Version 2.5: England and HBN 23 Hospital Accommodation for Children and Young People (2005) providing adequate space for health care professionals, teaching requirements, visitors and multi-pieces of equipment to be located near to the patient within the bed area. Additional space shall be allowed for engineering and building services zones. There shall be a minimum of 3.6m between bed centres.

The Touch Down Bases are sited throughout the clinical ward area to ensure optimum observation of patients and equipment in single and four bedded wards. The ratio of Touch Down Base should be 1:4 beds depending on design of ward.

3.7 Security & Control

Security of patient, staff, families and other visitors is of utmost priority. The design of the Facilities shall ensure maximum protection and minimise exposure to crime in internal and external areas.

Special care shall be given by the Project Co to the control and monitoring of access points used by the public and staff from public circulation spaces particularly those which may be quiet and sparsely populated during out-of-hours services.

Particular attention shall be given to the security of routes used during the hours of darkness by staff between pedestrian access points to the Site, car-parking areas and entrances to the Facilities.

Access control systems shall be provided to restrict access to certain areas of the hospital to relevant staff members, patients and visitors as appropriate in paragraph 9.19. Access controls shall be based around the following requirements:

- a) Provision of high resolution CCTV or appropriate technology at all entry and exit points, reception areas, main entrance and such other areas as are defined in paragraph 9.19;
- b) Systems to provide of out-of-hours security infrastructure to accommodate varying working hours, particularly evening and night-time working;
- c) Security systems that are consistent with other Board facilities and policies, including main door or departmental access systems linked to staff identity badges;

Points of entry and reception points shall be minimised and allow for natural supervision and/or monitoring of movement and entry.

There shall be minimal isolated vistas and dead-end spaces to design out the potential for crime. The provision of security lighting must be effective and efficient but not overbearingly bright.

Design of roadways, paths and parking areas shall take into account the safety of staff, patients and the public. Landscaping will soften the hospital site, be attractive and calming but be designed with security and safety in mind.

External areas and courtyards must be safe, secure and capable of being used in varying weather conditions.

All external access routes and entrances to the Facilities shall prevent the risk of wind funnels.

3.7.1 Secured by Design

Project Co shall meet the requirements of "Secured by Design", and in particular the recommendations of the Secured by Design - Hospitals guide.

Project Co shall endeavour to ensure that their approach to security and control of the Facilities will be structured in a way which will allow the Board the flexibility to seek compliance with the requirements of the Secured by Design initiative at a later date.

3.7.2 Safer Parking Scheme

Project Co shall where possible adhere to the principles of the British Parking Association's Safer Parking Scheme Documents and Guidelines.

Project Co shall endeavour to ensure that their approach to security and control of the parking facilities will be structured in a way which will allow the Board the flexibility to seek compliance with the requirements of the Safer Parking Scheme initiative at a later date, and achieve the "Park Mark Safer Parking Award". Safe routes for pedestrians should be incorporated.

3.8 Site Access & Circulation

A traffic assessment has been undertaken on behalf of the Board to ascertain and evaluate the impact of the development on transport patterns. Project Co shall validate the recommendations of this report and secure agreement with The City of Edinburgh Council for its proposals.

The Board requires to see, as far as reasonably practical, the clear separation of access for services, supplies, and waste removal vehicles from patients' and visitors' access points and entry points for the Facilities. In addition as RIE is an operating hospital adequate access to the RIE must be maintained at all times during construction and operation of the Facilities.

In the planning and design of the Facilities and of the Site layout, Project Co shall endeavour to ensure as far as is reasonably practical that routes used by pedestrians are segregated from routes used by moving road vehicles and any tug trains or similar deployed in the operation and maintenance of the Facilities. Project Co through the location of suitable external seating shall provide "rest areas" in safe positions along the main pedestrian routes.

External wayfinding shall be consistent with the principles currently adopted on the RIE Site, and Bioquarter Site or as modified at some future date, and be appropriate for the different age range of patients involved.

For the RHSC Paediatric facility there will be separate entrances required for the following departments:-

- a) For the Emergency Department (ED);
- b) Main hospital entrance for patients, staff and visitors;
- c) Child and Adolescent Mental Health Service (CAMHS);

Clinical Neurosciences

- a) Route for emergency patient transfers via RIE Facilities Emergency Department;
- b) Main hospital entrance for patients, staff and visitors;

The defined routes for construction plant and construction access roadways shall comply with the provisions of paragraph 4 and Appendix A.

Project Co shall undertake all necessary works associated with the following specific requirements:

3.8.1 Design for Disability

The design shall comply with the requirements of the Equality Act 2010, and take full consideration of HBN 00-02 "Sanitary Spaces", SHFN14 "Disability access", SHFN20 "Access audits for primary healthcare facilities", HFN 21 "Car Parking" and Standards of Care for Dementia in Scotland: Action to support the change programme, Scotland's National Dementia Strategy. Further guidance is provided in BS 8300:2009 Design of buildings and their approaches to meet the needs of disabled people - Code of practice.

Doors and lifts are required to be of a width and length to allow wheelchair access (often with additional attached equipment) and patients being transferred on trolleys and beds with attached clinical equipment, and this is also essential for children being transported in prams and buggies. Automatic doors along patient pathways are essential to ensure that staff pushing patients and /or equipment on trolleys, wheelchair users and parents/carers with children in prams/buggies can move rapidly and smoothly. Automatic doors will improve access for wheelchair users, those with reduced mobility, impaired vision and other disabilities. Automatic doors will minimise damage caused to doors and walls by trolleys and cages.

Entrances to the Facilities shall be clearly identified to promote ease of wayfinding and distinctive 'landmarks' shall be incorporated into the design particularly for the main entrances.

The Facilities' environment, both externally and internally, shall be designed to be accessible to everyone. The journey on to the Site, from pedestrian / vehicle routes, through the main receptions, into the Facilities and to the desired locations shall follow a safe, logical and clear system.

Attention shall be paid in the design to all aspects of the physical environment relating to the accessibility of the Facilities as follows:

- a) Access to buildings, such as level or ramped entry;
- b) Emergency evacuation arrangements, in particular for the visually impaired, the disabled and the frail, such as fire refuges or alternative escape routes for people with mobility impairments;
- c) The accessibility of external paths and landscaping and the location of "rest areas" on all external routes;
- d) Circulation within buildings, including their interior layout;
- e) Effective lighting and signage and colour or tone contrast on doors to aid orientation;
- f) Desks, laboratory benches, work surfaces and reception desks with varying or flexible heights;
- g) Appropriate seating;
- h) Accessible toilets; and
- i) Convenient but controlled 'free' proximity parking.

Project Co shall ensure that the Project design draws upon and endeavours to further develop improve and exceed current best practice and standards achieved in other similar

projects, and incorporates full accessibility for the prospective patient groups, staff and public. This shall include aspects of both physical environment and visual and audio aids to enable full and unrestricted use of the Facilities for all groups. This philosophy of design shall be extended across all parts of the Facilities including access to the landscaped and external areas as well as the essential patient treatment and residential areas.

Project Co shall ensure the design complies with the general accessibility ethos detailed above, whilst also addressing the detailed requirements listed elsewhere. It shall be noted that the requirements detailed are not exhaustive, and it is also recognised that specific clinical needs will determine the nature and design of Facilities in some areas.

In particular it is highlighted that the Facilities will be used by a high proportion of wheelchair users. Project Co shall ensure that the fire strategy and design of the Facilities take full account of this.

In meeting the overarching obligations with respect to accessibility, Project Co shall comply with the following non-exhaustive list of standards:

- a) BS8300:2009 Design of buildings and their approaches to meet the needs of disabled people – Code of practice;
- b) SHFN 14 Disability Access;
- c) SHFN 20 Access audits for primary healthcare Facilities; and
- d) HFN 21 Car parking.

BS8300:2009 “Design of buildings and their approaches to meet the needs of disabled people – Code of practice”; is also the document most widely referred to by consultants advising on general building design in relation to the Equality Act 2010. Project Co shall therefore refer to this document and give full regard to its standards. It will, however, be necessary to match the standards of BS8300:2009 “Design of buildings and their approaches to meet the needs of disabled people – Code of practice” with others laid down in NHS guidance notes.

For the avoidance of doubt, specific accessibility requirements listed in this Schedule Part 6 Section 3 shall take precedence over the standards laid down in BS8300:2009 “Design of buildings and their approaches to meet the needs of disabled people – Code of practice”.

3.8.2 Vehicular Access

Road widths, turning circles, waiting bays and lay-bys shall be designed so that they are suitable for hospital and emergency traffic including service vehicles and are designed for the convenience of staff and the public. These routes shall link the main access points on Old Dalkeith Road/ Little France Crescent to the principal vehicle routes and entrance points to the Facilities. It shall be noted that some of these routes may be required to connect seamlessly into and be compatible with roads, turning circles, bays and lay-bys which are outside the Site boundary.

The Board does not require the Radio Lollipop trailer to be stored at the Facilities. Access is required to the Facilities for the trailer to be loaded up in the delivery area with equipment from the roadshow equipment store. The trailer is 9.0m (long) x 2.4m (wide) x 3.5m (high). Project Co shall provide adequate access to the delivery area for the trailer.

3.8.3 Pedestrian Access

Project Co shall provide routes to the Facilities and to adjacent parts of the Campus Site from Old Dalkeith Road and Little France Crescent which are safe and convenient for pedestrians and cyclists to use. These routes shall link the main access points on Old Dalkeith Road / Little France Crescent to the principal patient, visitor and staff entrance points to the Facilities. It shall be noted that some of these routes may be required to connect seamlessly into and be compatible with and reflect pedestrian desire lines and pathways which are outside the Site, subject to the requirements of paragraph 4, Appendix A and Clause 9 (Nature of Land Interests) of the Project Agreement.

Pedestrian routes to the building shall be as direct as possible to reduce the temptation to use or create unauthorised entrances and exits. Project Co through the location of suitable external seating shall provide "rest areas" along the main pedestrian routes.

Pedestrian emergency exits from the buildings shall be used for that purpose only and appropriate measures shall be taken by the Project Co to ensure that they cannot be used for accessing the buildings.

3.8.4 Cycle Routes

Special attention shall be given to the maintenance and extension of existing safe cycle routes. Project Co shall carry out works to form a cycle path and reconfigure the landscaped areas within the Yellow Area (Cycle Path Works) subject to providing a method statement for these works which method statement will form part of the relevant Interface Proposal, and complying with the requirements of Section 2 (Operational Construction Issues) and paragraphs 1 and 5 of Section 5 (Access Areas, Drainage and Substation) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A and the Access Strategy and/or where applicable any Access Strategy agreed and/or determined pursuant to Section 2 (Access Areas and Amended Drainage Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A.

The reconfigured cycle path shall terminate at Little France Crescent and to the access to the Site from Old Dalkeith Road Project Co shall provide appropriately located bicycle security and staff changing facilities. It shall be noted that some of these routes may be required to connect seamlessly into and be compatible with existing cycle routes which are outside the Site boundary but within the Campus Site.

3.8.5 Emergency Vehicle Access

Project Co shall provide clear and well defined routes for emergency vehicles such as ambulance, fire and police. The Emergency Department access will require 2 distinct entrances: one for emergency patients and one for ambulant patients.

Ambulances will most frequently use the Emergency Department entrance and the entrance to DCN. Waiting and queuing of ambulances at these locations will require to be considered by Project Co.

The design of the Facilities by Project Co shall take into account the unimpeded continued routing of "blue-light" emergency ambulance traffic into the ED in the Facilities and the RIE Facilities and around the Campus Site. Special provision shall be made for manoeuvring, unloading and waiting of ambulances and other emergency vehicles at the Emergency Department for the Facilities and the RIE Facilities.

3.8.6 Service Vehicle Access

Service traffic shall be separately routed to the loading bay area(s). Project Co shall provide a holding facility for three of the longest lorries to wait for access to the loading bay areas. Access to the holding area, VIE compound, energy centre and loading bay areas will be controlled as defined in paragraph 7.5 of this Sub-section C. In such areas safe segregated routes for pedestrians will be clearly identifiable and these will not be in conflict with vehicular movements.

3.8.7 Road Markings & Signage

Project Co shall undertake all necessary road, footpath and car parking markings and signage works within the Site boundary.

3.9 Car Parking & Drop-off / Pick-up

3.9.1 Car Parking

Car parking to replace the car parking spaces in Car Park B have been provided elsewhere at the Campus Site. Car Park F will provide additional car parking to meet the essential needs of the Campus Facilities.

Project Co shall provide a strategy for parking which demonstrates control of access to onsite and close proximity parking.

From the Actual Completion Date, Patients and Visitors to the Facilities will have access to Car Park E.

3.9.2 Emergency Department Parking

Project Co shall provide as a minimum 24 free spaces for emergency visitors to the ED for the Facilities and the RIE Facilities. Of these spaces:

- a) 50% must be of a size for disabled or parent and child parking, and marked as appropriate.
- b) 50% must be non-disabled spaces for short term parking for emergency visitors to the ED facilities.

These will be provided in a way that is clear to users that they are for short term stay and they will be located so as not to cause access issues elsewhere.

Access controls will be provided as detailed in paragraph 7.5 of this Sub-section C.

3.9.3 Disabled and Parent and Child Parking

The design of the Facilities shall recognise the importance of providing sufficient disabled parking spaces and drop-off points as close to the entrances as possible.

In addition to the disabled and parent and child parking provision at the ED, Project Co shall provide as a minimum:

- a) 40 free disabled parking spaces for RHSC indicating that they are for Disabled and Parent and Child Parking; and.,
- b) 20 free disabled parking spaces for DCN marked accordingly.

Access controls will be provided as detailed in paragraph 7.5 of this Sub-section C.

The design of the Facilities shall recognise the importance of providing sufficient disabled parking spaces and drop-off points as close to the entrances as possible.

3.9.4 Drop-off / Pick-up Arrangements

Project Co shall provide designated, covered “drop-off / pick-up” area(s) directly adjacent to the principal entrances to the Facilities including the ED entrance. This shall allow direct access to the Facilities, for a wide range of vehicles including private cars, taxis, ambulances and patient transport vehicles. The design should discourage any other use other than drop-off in this area.

4 Site Specific Requirements

4.1 Site Boundary

The Site is currently in the ownership of the Scottish Ministers and is part of the Campus Site.

Refer to other site boundary issues detailed in other parts of this paragraph 4 and paragraph 7 of this Sub-Section C (in particular paragraph 7.3).

4.2 Travel Plan

In line with the Board’s obligations under Policy Statement 3 of SEHD’s “Environmental Management Policy for NHS Scotland”, the Board will prepare a Green Travel Plan for the Facilities, which aims to reduce the impact on the environment of travel by staff, patients and visitors to and from the Facilities, and travel by staff during work at the Facilities.

The scope of this Green Travel Plan is in line with the Integrated Transport White Paper ‘Travel Choices for Scotland’ and ‘Scotland’s Transport: Delivering Improvements’.

Project Co shall assist the Board in developing the integrated Green Travel Plan to take account of the impact of the Facilities.

Project Co shall ensure that the proposals for Site access and circulation, pathways and car / cycle parking are discussed and agreed with the Board in the context of the Green Travel Plan.

Guidance is available within the SEHD document, ‘Travel Plans: An Overview, September 2002’.

For the avoidance of doubt, the Board is responsible for the development of the Green Travel Plan.

4.3 Existing Services

4.3.1 RIE Enabling Works

The Board has identified the following enabling works (the "RIE Enabling Works") which will be required to be carried out on the Campus Site to meet planning requirements. These key enabling works will be carried out by or on behalf of the Board by or on behalf of Consort. These works do not form part of the Project and it is intended they are completed or substantially completed prior to any part of the Project commencing on Site. The key enabling works are described here for information purposes only and form part of Disclosed Data so that Project Co is aware of them and takes them into account in planning for the Project.

- a) Flood Protection Works: which means the enhancement of existing flood protection measures at the Campus Site;
- b) Road Infrastructure Works: which means changes to the road and transport infrastructure at the Campus Site, including but not limited to the creation of a public transport terminus to the east of RIE Facilities, new bus stances and revision of existing car parking;
- c) VIE Relocation Works: which means relocation of the existing VIE plant and gas governor serving the RIE Facilities to another location on the RIE Site. Separate VIE plant is required for the Facilities;
- d) Link Building Works: which means the building which is to be part of the RIE Facilities to which the new Facilities will be connected at ground and first floor levels;
- e) Service Diversion Works: which means the disconnection of certain services such as electricity, water, gas, that serve the RIE Facilities and are currently located on under or over the Site and such services which are disconnected will be relocated in positions outwith the Site to new positions within the RIE Site. However Project Co should note that not all redundant services are being removed and grubbing up of any disconnected and redundant services will be the responsibility of Project Co, as part of the Works. Project Co should have regard to the following services which are expected to continue to be present at the Site namely the county sewer (which it is believed runs from south to north in the western area of the Site) the storm water system (which serves Car Park B), the utilities services for the Nursery including water, gas, power, telecommunication and drainage, the Sewers referred to in paragraph 6.1.1 and gas pipe referred to in paragraph 6.1.2; further the following services are expected to be present and possibly connected namely bases for medical gases, equipment, apparatus, pipes, conduits and the like relating to disconnected, non functioning and/or redundant services under the Site, manholes and slabs for parking equipment. Project Co shall carry out any protection and diversion works associated with any further existing services located within the Site but this list is not exhaustive and Project Co must satisfy itself as to the conditions of the Site. This may include (but not be restricted to) electric cables; telecommunications cables and equipment; gas mains and apparatus; sewerage mains / drainage pipes; and water mains;
- f) Sewer Diversion Works: which means the diversion of trunk sewers currently located in the Site to positions outwith the Site to new positions within the RIE Site save for a

section of Sewer referred to in paragraph 6.1.1 which will continue to run under the Site; and

- g) Clinical Facilities: Reconfiguration/alteration of a number of clinical facilities within RIE Facilities;

4.3.2 Flood Works

- a) Off-Site Flood Protection Works – It is proposed to construct flood defence walls (approximately 1000mm high) to both sides of the Niddrie Burn in the Nether Craigour area upstream of the Old Dalkeith Road bridge to provide improved flood protection to dwellings at Little France Mills and to the Campus Site and Campus Facilities. These works will be procured under a separate contract and do not form part of the Project and are expected to be carried out in the areas shown on the indicative plan RHSC-DCN-FP-001 which forms part of the Disclosed Data.

4.4 Demolition and Site Clearance Requirements

- 4.4.1 Notwithstanding paragraph 4.3 above, Project Co shall be responsible for the all demolition and site clearance of the Site including without limitation all structures such as the Nursery, services and removal of disconnected services. The work that Project Co shall carry out will include but is not limited to the following:
- a) The identification and removal of all structures, including the Nursery, hardstandings and the like occupying the Site.
 - b) The identification and protection of live (and/or used) services in, under, on, over the Yellow Area, the Orange Area, the Service Strip, the Foul Service Strip, the Substation Site, Substation Access Area and the Substation Cable Route.
 - c) The identification, decommissioning, removal and / or protection / relocation of live (and used), live (and redundant) or redundant (and disconnected) services in, under, on, over, crossing the Site; and
 - d) The identification and removal of underground services, old foundations, drainage runs, basement structures and other below ground obstructions present following demolition of previous structures occupying the Site.
- 4.4.2 The Board has provided Disclosed Data. Whilst the Board believes that the information presented here is representative of the position on Site, Project Co is required to draw its own conclusions with respect to overall allowances required and the accuracy of the Disclosed Data. Other obstructions, contamination and services not yet identified may be present at the Site.
- 4.4.3 Where in connection with the Project, Project Co requires to carry out any demolition, Project Co shall carry out all demolition in accordance with BS 6187:2000 “Code of Practice for Demolition” and the following:
- a) Issue a method statement identifying the scope and methodology for undertaking the demolition works in Project Co's Proposals and to be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement;

- b) Break up and remove off-site all structures, foundations, temporary accommodation, and other below ground and surface obstructions in accordance with, but not limited to, BS5228, 2009 “Code of practice for noise and vibration control on construction and open sites.”;
- c) Decommission and / or break up and remove all redundant underground structures, chambers and redundant surface water and foul water drains, telecommunications, electric cables, gas mains, water mains and ducts within the Site. For the avoidance of doubt, this obligations includes for making safe all redundant works left in-situ, and sealing of voids, where left, against vermin;
- d) Protect remaining live services against damage or disruption; and
- e) Minimise vibration and noise produced by the demolition works, and agree appropriate limits for such with the Board to be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

4.4.4 Project Co shall allow the Board to carry out independent monitoring that shall include but not be limited to air pollution, noise, and vibration.

4.5 Construction Phase Requirements

4.5.1 General

The permanent and temporary Works and all construction operations for the Project should, save where expressly provided otherwise, generally be designed and constructed so that they can be carried out and where appropriate replaced, repaired, renewed and maintained on and from within the Site.

The Site is part of the Campus Site and Project Co has to be aware of and plan and programme the Works and Operations having regard to the other activities and operations ongoing at the Retained Site and Retained Estate.

At some points it may be necessary temporarily for Project Co to enter or have access across other parts of the Retained Site and/or Retained Estate for construction activities in accordance with and subject to the requirements detailed in this Sub-Section 3 and Appendix A Appendix B (Interface Output Specification) and Appendix E (Initial Drainage Proposal) and the Interface Proposals and in accordance with Clause 9 (Nature of Land Interests) of the Project Agreement. Project Co shall be responsible for identifying and implementing all necessary working practices to satisfy statutory requirements in relation to their construction activities. The construction of the Facilities shall be registered with the Considerate Constructors Scheme. The Contractor shall be registered with the Considerate Constructors Scheme.

Project Co shall undertake the role of Client and appoint a Principal Contractor and CDM Co-ordinator under the Construction (Design & Management) Regulations 2007 and appropriate amendments for the duration of the Works.

Project Co shall also comply with the obligations of the “Contractor” as laid down in the Board’s “NHS Lothian Estates Operation Policy For Control of Contractors”.

Project Co shall at all times work within the hours 07:00 and 20:00, unless agreed by the Board in advance, and any further restrictions set by The City of Edinburgh Council in granting Planning Permission.

Precautions shall be taken to avoid infestation of the Works by rats, mice and other vermin. When drains are being laid, precautions shall be taken to avoid the entry of rodents, including providing temporary stoppers to pipe ends and setting manhole covers in position as the work proceeds. Pipes and cables passing through the foundation walls shall be properly built in.

Project Co shall take all necessary precautions to prevent the outbreak and spread of fire. Project Co shall provide and maintain suitable and adequate fire fighting equipment at points within and adjacent to the Works. Project Co shall comply with the requirements of the Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation. Bonfires on the Sites will not be permitted.

Project Co. shall not use the Site during the Works for any purpose other than carrying out the Works.

There are helicopter operations to and from the existing helipad facility currently operating from RIE Site. Project Co shall comply with CAA requirements on construction sites close to a helipad. In particular Project Co's tower cranes will require to have aviation lights to indicate the cranes location to the helicopters using the existing helipad.

Project Co shall provide, for the duration of the construction phase, Personal Protective Equipment for visiting Board staff (and other approved visitors), and use of Project Co facilities for meetings etc.

Project Co shall provide the Board with temporary site accommodation for Board staff and advisors for the duration of the Construction Phase.

Project Co shall provide, remove and pay for all associated consumption of the temporary utilities required to construct the Works.

4.5.1A Clean Roads and Footpaths

Project Co shall adequately maintain approaches to the Site and/or any other roads and/or footpaths within the Campus Site which it is using or accessing and keep such free from mud and debris or materials to the Board's satisfaction. All vehicles must be cleaned, with any mud or loose debris removed, prior to the vehicles leaving the Site. Project Co shall provide facilities for washing down vehicles before leaving the Site and/or the Campus Site, to avoid contamination of the surrounding roads. Any contamination of surrounding roads, pavements, cycle paths etc. by site traffic shall be removed.

4.5.2 Site Access

Construction Access over the Yellow Area

If Project Co requires to carry out works to form a construction access to the Site over the Yellow Area Project Co shall provide a method statement for these works which method statement will form part of the relevant Interface Proposal and shall construct the works and comply with the requirements of Paragraph 1 of Section 1 (Construction Access) of Part 1

(Interface Construction Issues and Interface Proposals) of Appendix A and the Construction Access Proposal.

Works and Access during the Operational Term

Project Co shall maintain, repair, replace and renew the Facilities. Where in connection with the carrying out of works of maintenance, repair, replacement and renewal to the Facilities Project Co needs to access the RIE Site and/or RIE Facilities any such works and access shall be carried out in accordance with Section 2 (Operational Construction Issues) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A, and the Interface Proposals and where applicable Paragraph 1 (Access Strategy) of Section 2 (Access Areas, Amended Drainage Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A. This is without prejudice to any other more onerous requirements detailed in the Board's Construction Requirements which may apply to other works being carried out in the RIE Site including without limitation:-

Where:-

- a) the works are to repair, maintain, replace and renew service media serving the Facilities located within the Service Strip or the Foul Service Strip Project Co shall also comply with the provisions of Section 6 (Service Strip and Foul Service Strip) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A and the Service Proposal and where applicable any Amended Service Proposal agreed or determined pursuant to Section 3 (Amended Service Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A; and/or
- b) the works are to repair, maintain, replace and renew interface links between the fire alarm systems, PTS and ICT and the Joint, Project Co shall also comply with the provisions of Section 7 (Link Building) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A, the Interface Output Specification and the Connection Proposal; and
- c) the works are to repair, maintain and (where necessary) replace and renew the Substation HV Cable Infrastructure on the Substation Cable Route Project Co shall comply with the provisions of paragraph 4 of Section 2 (Operational Construction Issues) and paragraph 4 of Section 5 (Access Areas, Drainage and Substation) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A and the Substation Proposal; and/or
- d) otherwise comply with any other requirements in relation to Access Areas otherwise referred to in this Section 3 (*Board's Construction Requirements*).

4.5.3 Board Major Incident Support

Project Co shall support the Board in dealing with a Major Incident. Project Co's support will be as required by but not limited to the Board's Major Incident Strategy Response Plan Strategic Plan Number reference HPT E023 03.

4.5.4 Restrictions and Requirements for Storage of Waste on Site

Project Co is required to demonstrate a waste management programme for the Works to minimise all site waste disposal to landfill, and to maximise reuse/recycling of timber, metal, plastic, paper and other waste arising. Project Co will liaise with all suppliers to ensure the minimum of packaging is used for deliveries of goods and materials to site. Any unavoidable packaging waste is to be recycled through an authorised waste recycler. When surplus

excavated material and building spoil and rubbish cannot be recycled Project Co is to dispose of it to a licensed tip and be transported by an approved waste transportation company, and shall fully comply with all Law governing the controlled disposal of waste material. No materials shall be disposed of on Site by any other means. All spoil and waste materials that arise from the construction of the Works shall only be stored on Site until disposed off site. Project Co shall take cognisance of the location of the air intakes for the Retained Estate when assessing the locations for spoil and waste material stockpiles and comply with the requirements of paragraph 4.5.12 in selecting the location for spoil and waste material stockpiles. No burning of any materials is permitted on or near the Site.

Project Co shall meet all statutory waste management regulations and local byelaws in relation to the storage of waste on site including but not limited to the Environmental Protection Act, Environmental Protection (Duty of Care) Regulations 1991, Hazardous Waste Regulations 2005 and WEE Directive.

The storage of waste during construction works shall cause no harm to neighbours and/or other building users at the Retained Site and particular attention is required to the location of waste storage areas in relation to windows and ventilation air intakes in the surrounding buildings.

Waste storage areas must be secure and shall be constructed such that they limit the possibility of leakages and contamination.

4.5.5 Site boundary treatment requirements

Project Co shall provide a site boundary that is secure and prevents unauthorised access to the Site at all times.

Around the perimeter of the Site Project Co shall provide a solid painted hoarding which extends from ground level to a minimum of 2.4m and shall provide visual screening of the Site. Corporate signage shall be restricted to the entrances and exits of the Site and in every case there shall be an NHS Lothian sign located next to each of the contractor's corporate signs. There shall be no other advertising on the hoarding or on tower cranes / construction equipment. Artwork created by or on behalf of the Board may be displayed on such crane and/or construction equipment as appropriate as proposed by the Board to Project Co. and approved by Project Co such approval not to be unreasonably delayed or withheld. All NHS Lothian signage shall comply with the recommendations of "Effective Wayfinding and Signing Systems - Guidance for Healthcare Facilities" 2nd Edition 2005, NHS Scotland Signage Guidelines and NHSScotland Identity Guidelines.

Project Co shall provide two waterproof public information project boards for external display. Project Co shall discuss and propose to the Board the content, size and location of these signs for approval by the Board such approval not to be unreasonably delayed or withheld. .

4.5.6 Site signage restrictions and requirements

Project Co shall obtain approval of the content and layout of the main site signboard/s from the Board such approval of the Board not to be unreasonably delayed or withheld subject to complying with the aftermentioned requirements. That part of the signage which refers to the Board shall follow the recommendations of "Effective Wayfinding and Signing Systems - Guidance for Healthcare Facilities" 2nd Edition 2005, NHS Scotland Signage Guidelines and NHS Scotland Identity Guidelines. The signboard/s shall contain the project title, the names of the Board, Project Co and the Principal Contractor. No additional advertising will be permitted on these signs beyond the standard consultant signboards.

4.5.7 Signage outside the Site

Project Co shall provide signage, but not in the Yellow Area, to the Emergency Department of the Royal Infirmary of Edinburgh that requires to be clearly visible from Old Dalkeith Road. Project Co shall ensure that existing RIE Facilities signage is replicated or reinforced if temporarily obscured by the construction of the Facilities. Project Co shall replicate or reinforce existing RIE Facilities signage that is obscured by the Works.

4.5.8 Site Accommodation and Compound

Project Co will be entitled to use Car Park E for a site compound during the Construction Phase for the Works, subject to complying with the provisions of Section 3 (Site Compound/Car Park E) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A.

Project Co shall provide a site compound that is secure and prevents unauthorised access at all times. The existing services that run under, on and over Car Park E are to be located by Project Co. A record drawing of the existing services shall be provided to the Board prior to the commencement of construction of the Works. Project Co shall provide and obtain all necessary consents for temporary services to the site accommodation and compound and pay for their use.

Project Co shall be permitted to erect a sign stating their name and the project title at the entrance to the compound. No additional advertising will be permitted.

4.5.9 Restrictions and requirements on vehicles accessing the Campus Site road network

Project Co shall comply with paragraph 4.5.2. Notwithstanding the foregoing and any other requirements applying to any works, where any works and/or activities are or require to be carried out in any part or parts of the Access Areas, Project Co shall comply with paragraph 1 of Section 5 (Access Areas, Drainage and Substation) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A and the Access Strategy and where applicable any Access Strategy agreed or determined pursuant to Section 2 (Access Areas and Amended Drainage Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A and also in accordance with Clause 9 (Nature of Land Interests of the Project Agreement).

Project Co shall ensure that all contractors attending the Site are made aware of the heightened level of care and consideration required when carrying out work in an operational hospital in order to mitigate any detrimental effect on patient care, Board staff and the general public.

Project Co shall propose, discuss and agree with the Board a strategy for providing unimpeded Blue Light access to the RIE Emergency Department and other appropriate departments / units during construction of the Works. Project Co shall ensure that at all times during the construction and commissioning of the Works that free and unimpeded access is maintained for Blue Light emergency traffic through the Orange Area to the adult Emergency Department of RIE and through the Orange Area to the Percutaneous Cardiac Investigation Unit (PCIU) within the RIE. This includes the ambulance access which will encroach upon the Site, the stretcher drop off entrance and the ambulant entrance at the adult Emergency Department of the RIE. Provisions will also have to be made on the Site and Campus Site as required, to provide a minimum of five ambulance drop off parking spaces. The spaces are to be such that a stretchered patient can be taken directly into the adult Emergency Department of the RIE from an ambulance parked at any of these

five spaces. Ambulances must also be able to pull out from any of the five spaces without hindrance to any other parked ambulance. Project Co shall plan construction and commissioning of the Works so as to accommodate these requirements including without limitation the TMS and/or Access Strategy and/or the requirements of Section 2 (Access Areas and Amended Drainage Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A.

Project Co shall agree with the Board revisions to the Blue Light traffic access/egress routes during the construction period.

Where construction traffic is required to access the Orange Area and any other part of the Campus Site road network, Project Co shall be responsible for ensuring that drivers observe the 15mph speed limit, that all vehicles have a valid MOT (if required), have the appropriate comprehensive insurance and that all drivers hold a valid UK driving licence.

A vehicle "Civil Penalty Notice Scheme" operates on the Campus Site.

4.5.10 Construction works further information

a) Construction works on the Site but connecting to other parts of the RIE Facilities

(i) Fire connection and the Joint

(A) As set out in paragraph 4.5.1 the new Facilities shall be delivered as a standalone new build. However, the Facilities will be physically linked to the RIE Facilities at ground and first floor levels. The part of the RIE Facilities to which the Facilities will be linked is called the Link Building.

(B) The Link Building is part of the RIE Facilities. Project Co will be responsible for designing and constructing the Facilities to physically link to the RIE Facilities at the Link Building interface point as more particularly detailed in the Interface Output Specification. Project Co shall carry out the works to connect the Facilities to the Link Building subject to and in accordance with:

1. Section 7 (Link Building) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A;
2. Interface Output Specification; and
3. the Connection Proposal.

(C) Project Co shall design and construct the Fire Alarm System in accordance with the provisions detailed in paragraph 8.10.

(D) Project Co shall construct the Joint. The Joint shall form part of the Facilities.

b) Construction works outside the Site – Off Site Works

(i) Works outside the Site but within the Campus Site, and maintained by Project Co

(A) There shall be building services links between the Facilities and the RIE Facilities in respect of building services and other connections in terms of:

1. infrastructure associated with ICT;
2. a pneumatic tube system (PTS);

3. Foul Water Drainage connections.

The above matters set out in paragraph 4.5.10 (a) and 4.5.10 (b) (i) (A) form part of the RIE Works

(ii) Access road for the Substation Works in the Substation Access Area

(A) Project Co will design and build a new PTS system which will run from the Facilities to the pharmacy and laboratories within the RIE Facilities. Project Co will design and build an ICT Data Network system which will run from the Facilities to link to the Board's ICT equipment/systems within the RIE Facilities. The Board will advise Project Co of the route for the PTS and ICT within the RIE Facilities. Project Co will be responsible for replacing, repairing, renewing and maintaining the PTS and ICT. Project Co shall provide design, construction and other information which information will form part of Project Co's applicable Interface Proposal for approval by the Board and shall design build, construct, replace, renew and maintain in accordance with:

1. Section 7 (Link Building) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A
2. The Interface Output Specification; and
3. The Connection Proposal.

(B) Service Strip

1) FOUL WATER DRAINAGE

There may also be connections into some existing infrastructure for Foul Water Drainage. If Project Co requires to connect the Foul Water Drainage systems for the Facilities into the existing Foul Water Drainage systems for the RIE Site and/or RIE Facilities then foul water drainage systems must be designed and constructed by Project Co such that they may be connected to foul water drainage systems only at the agreed connection points in the Initial Drainage Proposal and/or within the Foul Service Strip (**the Foul Water Drainage**). Project Co will be responsible for replacing, repairing, renewing and maintaining the Foul Water Drainage systems serving the Facilities and the connections. Project Co shall provide design, construction and other information which shall be part of Project Co's applicable Interface Proposals to the Board for approval, about the Foul Water Drainage systems serving the Facilities. Project Co shall comply with the requirements for installing, maintaining, repairing, renewing and replacing foul water drainage systems subject to and in accordance with:

- (i) Section 2 (Operational Construction Issues) and Section 6 (Service Strip and Foul Service Strip) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A; and
- (ii) The Access Strategy; and
- (iii) The Service Proposal; and
- (iv) The Supplemental Drainage Proposal; and where applicable
- (v) any Access Strategy and/or Amended Drainage Proposal and/or Amended Service Proposal as applicable agreed or determined pursuant to Section 2 (Access Areas and Amended Drainage Proposal) and Section 3 (Amended Service Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A.

2) ELECTRICAL, GAS AND WATER CONNECTIONS

As regards design and construction, maintenance, repair, replacement, and renewal of any electrical, gas and water connections these must all be independent services serving the Facilities and shall not connect into any such services serving the Retained Site and/or Retained Estate. However wherever any such services have to be installed and cannot be installed on the Site they may be installed on the RIE Site, the locations for such services are however restricted to certain areas of the RIE Site namely the Service Strip. Project Co will be responsible for design and construction and replacing, repairing, renewing and maintaining such services serving the Facilities. Project Co shall provide such design, construction and other information which shall be part of Project Co's applicable Interface Proposals for approval by the Board about the services and shall comply with:

1. Section 2 (Operational Construction Issues) and Section 6 (Service Strip and Foul Service Strip) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A; and
2. The Access Strategy; and
3. The Service Proposal; and (where applicable)
4. any Access Strategy and/or Amended Service Proposal agreed or determined pursuant to Section 2 (Access Areas and Amended Drainage Proposal) and Section 3 (Amended Service Proposal) of Part 2 (Interface Proposals Procedure) of this Section 3 (*Board's Construction Requirements*) of Schedule Part 6 (*Construction Matters*) (as varied, amended or supplemented from time to time in accordance with the Project Agreement).

(C) SUBSTATION ACCESS WORKS

If Project Co chooses to construct a substation on the land outlined in blue on Plan 4 in accordance with paragraph 4.5.10 (d) below then Project Co shall design and construct and thereafter maintain, repair, replace and renew the access road an access road thereto in the Substation Access Area and shall comply with the requirements for the access road detailed in paragraph 4.5.10 (d) below.

c) **Construction works outside the Site but within the Campus Site but not maintained by Project Co – the Retained Estate Handback Infrastructure which comprise Hospital Square Works, Cycle Path Works and Surface Drainage Works**

The Board has identified the following works which will be required to be carried out outwith the Site on the RIE Site. These works comprise Hospital Square Works, Cycle Path Works and the Surface Water Drainage Works. These works will be carried out by Project Co and upon completion will not be maintained by Project Co but once completed will form part of the Retained Estate Handback Infrastructure. These works include:

(i) **Hospital Square Works**

- (A)The design and construction of new roadway, hard and soft landscaping works to the area between the Chancellor's Building, RIE Facilities and the redline boundary to the north and east of the Site;

(B) Emergency Departments: The design and construction of new roadways, hardstandings and parking areas at the new entrance to the RIE Facilities and the Facilities' emergency departments including without limitation:

1. Roundabout at the termination of the road north of the link to the RIE Facilities;
2. RIE Facilities Day Surgery/PCIU ambulance drop off that will have access to the roundabout referred to in item (i) above;
3. Taxi rank and drop off set back from the road outside Ann Rowling Clinic;
4. Drop off set back from the road opposite the taxi rank and drop off referred to in item 3. above;
5. Roundabout at the RIE Facilities entrance for access to the DCN proximity parking and RIE Facilities Day Surgery/PCIU ambulance drop-off;
6. The ambulance drop-off for the Facilities ED from Old Dalkeith Road. This shall have a minimum of 5 ambulance drop off spaces for the Adult and Paediatric Ambulance ED. The layout shall prevent Project Co's Operational Term vehicles from stopping ambulances from having access to the ED ambulance drop off spaces for the ED within the Facilities and RIE Facilities emergency department. For the avoidance of doubt there may also be element of these works carried out on the Site in which case any such elements are part of the Facilities and not Retained Estate Handback Infrastructure.
7. Emergency visitor parking for the Facilities ED from Old Dalkeith Road. For the avoidance of doubt there may also be element of these works carried out on the Site in which case any such elements are part of the Facilities and not Retained Estate Handback Infrastructure.
8. Link to the existing Adult Ambulant Entrance to the RIE Facilities emergency department and its 6 ambulance drop off spaces.

(C) Project Co shall create an access to the loading bay areas of the Facilities, the VIE Compound and energy centre at the Site from Old Dalkeith Road.

(ii) Surface Water Drainage Works

There may also be connections into some existing surface water drainage. If Project Co requires to connect the surface water drainage systems for the Facilities into the existing surface water drainage systems on the RIE Site then surface water drainage systems must be designed and constructed by Project Co such that they may be connected to surface water drainage systems at the agreed connection points in the Initial Drainage Proposal (**the Surface Water Drainage Works**). Project Co shall provide design, construction and other information which shall be part of Project Co's applicable Interface Proposals to and for approval by the Board about the Surface Water Drainage Works systems serving the Facilities and Project Co shall comply with Section 5 (Access Areas, Drainage and Substation) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A, the Initial Drainage Proposal, the Supplemental Drainage Proposal, the Access Strategy and where applicable any Access Strategy and/or Amended Drainage Proposal agreed or determined pursuant to Section 2 (Access Areas and Amended Drainage Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A,

(iii) Cycle Path Works

For details of the cycle works see paragraph 3.8.4 of this Sub-Section C of the Board's Construction Requirements.

(d) Construction works outside the Campus Site and maintained by Project Co**(i) SUBSTATION WORKS**

Project Co shall be responsible for getting a dedicated HV power source for the Project via a dedicated Scottish Power substation. The Board has identified the Substation Site as the possible location for a dedicated substation for the Project.

If Project Co chooses to locate the substation on the Substation Site then Project Co shall provide design, construction and other information which shall be part of Project Co's applicable Interface Proposals to and for approval by the Board about the substation and access thereto which access may be formed only on the Substation Site and Project Co shall comply with the provisions regarding the Substation Access and Substation HV Cable Infrastructure in paragraphs 3 to 5 of Section 5 (Access Areas, Drainage and Substation) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A and the Substation Proposal (**the Substation Works**).

(ii) SUBSTATION HV CABLE WORKS

If a substation is constructed on the Substation Site then in order to get power from the substation to the Site the Board has identified a route for the Substation HV Cable Infrastructure, the Substation Cable Route, on the Bioquarter Site. The cable route to the Facilities may enter the Site via the Service Strip (shown shaded yellow and hatched in black on Plan 2 and the cable route may not cross the Retained Site at any other point. In constructing the Substation HV Cable Infrastructure on the Substation Cable Route, Project Co shall be responsible for all design, construction, maintenance, repair, replacement and renewal and shall comply with paragraphs 2 and 4 of Section 2 (Operational Construction Issues) and paragraphs 1 and 3 to 5 of Section 5 (Access Areas, Drainage and Substation) and Section 6 (Service Strip and Foul Service Strip) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A and the Access Strategy and Substation Proposal and the Service Proposal and where applicable any Access Strategy and/or Amended Service Proposal agreed or determined pursuant to Section 2 (Access Areas and Amended Drainage Proposal) and/or Section 3 (Amended Service Proposal) of Part 2 (Interface Proposals Procedure) of Appendix A (**the Substation HV Cable Works**).

4.5.11 Workmanship, Construction Accuracy & Tolerances

Project Co shall ensure that general workmanship conforms to current revisions of BS 8000: Series "Workmanship on Building Sites", which covers typical building construction activities. Where specialist design proposals require construction activities outside the scope of this document, Project Co shall propose specific quality procedures relating to these activities based on Good Industry Practice current at the time, as a minimum.

Project Co shall ensure that workmanship for all construction and component assemblies is as defined in the British Standards and current industry best practice. Work is to be true to detail with sharp profiles, straight and free from defects, marks, waves or flaws of any nature impairing strength, performance or appearance.

The buildings and the external works shall be designed and set out by Project Co in accordance with BS 5606:1990 "Guide to Accuracy in Building".

In some situations the tolerances identified in BS 5606 may not be appropriate for the particular elements or combination of elements in the Facilities. Where special levels of accuracy are required in relation to Project Co's proposals these shall be stated by Project Co. Project Co shall consider the recommended procedure set out in Figure 8, Section 3, Appendix B, of BS 5606.

Project Co shall identify critical dimensions and setting out points on all its drawn information.

4.5.12 Control of Noise, Vibration and Dust

Project Co will ensure that unacceptable dust and pollution as a result of construction works or any other activities undertaken on the Site is not created at locations where patients, staff, visitors or members of the public might be exposed to pollutants and areas adjacent to ventilation intakes on the Campus Site (in particular intake vents at the existing operating theatres at the RIE Facilities and at the University Facilities). The ambient air quality standards to be met are as outlined in the table below:

Ambient air quality standards

Pollutant	Averaging Period	Air Quality Objective	
		Concentration ($\mu\text{g}/\text{m}^3$)	Allowance
Nitrogen Dioxide (NO_2)	1-hour	200	18 per calendar year
	Annual	40	-
Particulates (PM_{10})	24-hour	50	35 per calendar year
	Annual	40	-
	Annual	18	-
Particulates ($\text{PM}_{2.5}$)	Annual	12	-
		25	-
		15% reduction	-

Project Co shall comply as a minimum with the mitigations detailed in the Planning in Principle – Environmental Statement dated July 2011 and Addendums dated August 2011 and October 2011. Project Co shall comply with BS 5228-1:2009 Code of practice for noise and vibration control on construction and open sites Part 1: Noise and BS 5228-2:2009 Code of practice for noise and vibration control on construction and open sites Part 21: Vibration. Project Co shall comply with Control of Noise (Code of Practice for Construction and Open Sites) (Scotland) Order 2002. Project Co shall comply with the noise controls set in HAI-SCRIBE 2 review.

Project Co shall ensure that the design and installation of any plant, machinery or equipment shall be such that any associated noise complies with NR25 when measured within any nearby living apartment, and no structure borne vibration is perceptible within any nearby living apartment.

The attention of Project Co is drawn to the provisions of Sections 60 and 61 of the Control of Pollution Act 1974, with reference to the control of noise in relation to any demolition or construction works. Where such works are adjacent to occupied property, Project Co shall ascertain from the Site neighbours what requirements or restrictions, if any, shall apply, particularly in relation to Aspergillus. The restrictions may relate to the type of construction plant to be used, siting of construction plant, methods of working to be adopted, the hours of work permissible and may, in addition, impose a maximum noise level that must not be exceeded.

With regard to piling operations, the Board considers it essential that steps are taken by Project Co to limit the effects of noise and vibration. Project Co is required therefore to demonstrate through the selection of the method of piling that full consideration has been given to this requirement.

Project Co shall at all times ensure that the appropriate silencers and/or noise suppression apparatus are correctly fitted to construction plant and equipment.

Project Co shall fit all compressors, percussion tools and vehicles with effective silencers of a type recommended by the manufactures of the compressors, tools or vehicles but in any event to the requirements of BS 5228-1:2009.

Any equipment of a semi-permanent nature used by Project Co, which produces noise on a regular basis, shall be positioned to cause the minimum disturbance to adjacent areas. Project Co shall ensure absolute care is taken at all times throughout the course of the Works to prevent the egress of water, dust, debris or any microbiological contamination out of the Site and into adjacent buildings. In particular, Project Co shall establish any specific requirements for the control of dust.

Project Co shall ensure that all of the contractor and subcontractor's workforce are trained on the pollution and noise reduction measures in operation during the Works.

4.5.13 Meetings with Consort during the Construction of the Works

Project Co shall attend meetings with the Board and Consort during the construction of the Works. The Board shall manage the meetings including chairing and preparing the minutes except for the fortnightly Health and Safety Group meetings that Consort chair and minute. Project Co shall have the same lead person or a named deputy, at all meetings. The meetings that Project Co shall attend are to be agreed with the Board.

4.5.14 Meetings with Immediate Neighbours

Project Co shall attend meetings with the Board and all immediate neighbours during the construction of the Works. Project Co shall manage the meetings including chairing and preparing the minutes Project Co shall have the same lead person, or a named deputy, at all meetings. The meetings that Project Co shall attend are to be agreed with the Board.

4.5.15 Meetings with the Board during the Construction of the Works

Project Co and the Board shall agree the day-to-day; week-to-week meetings to be attended by Project Co and the Board. The purpose, timing, structure, management and content of the meetings are to be agreed by the Board and Project Co. Project Co shall have the same lead person at all meetings as far as possible or a named deputy.

4.5.16 Restrictions on Images and Videos during Construction of the Works

Project Co are required to obtain the Board's agreement prior to the use of CCTV cameras, webcams and the like to take images, videos and the like of the Works whether on or outside the Site.

4.5.17 Completion Requirements

On completion of the Works, Project Co shall provide the Facilities as clean to comply with the Schedule Part 10 (Outline Commissioning Programme). Project Co shall demonstrate how the proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with SHTM 03-01 and SHFN 30.

Project Co shall adopt a systematic and thorough approach to the commissioning of the Facilities including the setting to work, testing and providing the handover documentation for the same.

Project Co shall approach the commissioning activities as an entirely separate procedure undertaken by Project Co and ensure all activities interface with the buildings themselves, building services and equipment provisions.

Project Co shall ensure that the ability to commission the systems and installations is considered at an early stage and is designed into the Facilities and is an inherent part of the overall buildings solution.

During the design stage Project Co shall detail outline commissioning periods required on-site such that these are built into the Programme and Outline Commissioning Programme.

During the Construction Phase Project Co shall ensure that installations comply with the design intent of the drawings and that all installation and commissioning activities at the Facilities are performed correctly. This shall include ensuring physical access is easily achievable to all commissioning stations and devices.

By the date for Project Co to make available the principal operation and maintenance manual set in Clause 18.5 of the Project Agreement, Project Co shall provide to the Board a complete set of electronic records representing the design, construction, testing and commissioning and completion of the "as-constructed" Facilities that include the routes of all building services. This shall include, but not be limited to, a full set of as-built records, drawings, specifications and the like and the documents in the Completion Criteria, incorporating all changes to the design and all remedial works during construction. The documents and drawings format(s) and [] number of copies are to be provided by Project Co. For the purposes of Clause 17.18 and 18 of the Project Agreement all final as-built records for the Facilities shall include, as a minimum:

- a) Design information including all relevant design calculations, parameters, assumptions, standards, specifications, product data sheets for all components and parts, including details of the influence on the design of actual construction methods, including any change or remedial works during construction.
- b) As built drawings for all component parts of the Facilities;
- c) Testing & Commissioning records for all discrete components, subsystems, systems and the Facilities as a whole;
- d) Operating and Maintenance manuals;
- e) Health and Safety File;

- f) Full set of design, construction, testing and commissioning and completion records/certification.
- g) All other information that is required to be collated under the Construction (Design and Management) Regulations 2007 as amended from time to time.

Project Co shall provide to the Board, at the Actual Completion Date, a certificate confirming that the Facilities comply with the requirements of NHS Scotland Firecode.

Construction records and all information relevant to the construction of the Facilities shall be stored in a secure electronic data room created specifically for this purpose by Project Co for access after completion. The system for storage of data and information shall be designed by Project Co and shall generally be compatible with the Board's existing systems. The format of the data room and the system for storage of data shall be designed by Project Co and submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement. Project Co shall be responsible for management and administration of the data room for the Project Term.

4.5.18 Oversailing Activities

When Project Co intends to oversail any part of the Retained Site and/or Retained Estate in connection with the Works and/or any works in the Operational Term then Project Co shall comply with the Oversail Strategy and Section 4 (Oversail) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A and/or where applicable any Additional Oversail Strategy agreed or determined pursuant to Section 1 (Oversail) of Part 2 (Interface Proposals Procedure) of Appendix A.

4.6 Petrol Station

Project Co shall design and construct the Petrol Station Works in accordance with Appendix N (Petrol Station) and the relevant provisions of Sub Section C (*General Requirements*) of Section 3 (*Boards Construction Requirements*) of Schedule Part 6 (*Construction Matters*) as regards the Petrol Station Works.

5 General Construction Requirements

5.1 Schedule of Life Expectancies

The buildings, including building services components, shall be designed with materials, components and techniques that are readily available, reliable, sustainable and easily maintainable in use. The Board supports buildings constructed using components with proven technology, with high life expectancy, leading to minimum cost in use.

Good Industry Practice for a design life at the Actual Completion Date for the elements listed below shall as a minimum be:

- | | |
|--------------------------------------|----------|
| a) Structure, including substructure | 70 years |
| b) Floor Structure | 70 years |

c) Roof Structure	70 years
d) Drainage and below ground civil engineering infrastructure	70 years
e) External Walls	70 years
f) External Openings, windows and door	25 years
g) Roof Finishes	25 years
h) External finishes	25 years*
i) External Hard Surfaces	20 years
j) Internal partitions including openings	25 years
k) Internal Doors	25 years
l) Internal finishes (excluding soft flooring)	15 years*
m) Soft flooring	12 years
n) Internal fixtures and fittings	15 years
o) Engineering plant	CIBSE Guidance
p) Engineering services distribution systems	CIBSE Guidance

*excluding painted finishes

Project Co shall demonstrate that the design life proposed for any element will be achieved.

Materials and components forming part of the Facilities, which require maintenance and replacement within the life of the Facilities, shall be selected, located and fixed in such a way as to minimise future inconvenience, disruptions and to avoid temporary closure of the Facilities.

5.2 Infection Prevention & Control

The Board requires the highest priority on infection prevention and control to be given in relation to the movement of goods and in particular the segregation as far as is reasonably practical of clean linen, food trolleys and the removal of waste, soiled linen and empty food trolleys.

Project Co shall ensure all aspects of the Facilities allow for the control and management of any outbreak and/or spread of infectious diseases in accordance with the following:

- Infection Control in the Built Environment: Design and Planning (SHFN 30);
- Scottish Infection Manual – “Managing the Risk of HAI in NHS Scotland”;
- Health Facilities Scotland – Healthcare Associated Infection – System for Controlling Risk in the Built Environment (2007)
- Guidance provided by Clinical Standards Board NHS HIS;

- e) Textiles and Furniture (SHTM 87);
- f) Ventilation in Healthcare Premises (SHTM 03-01);
- g) "Guidance on Prevention and Control of Clostridium difficile Infection (CDI) in healthcare settings in Scotland" Health Protection Scotland, 2009; and
- h) NHS Lothian Infection control web based manual
<http://www.nhslothian.scot.nhs.uk/Services/A-Z/InfectionControl/Pages/default.aspx>;

5.3 Thermal Requirements

Project Co shall ensure the buildings' envelopes complies with Section 6 of 2011 Non-domestic Technical Handbook to The Building (Scotland) Amendment Regulations 2010 and the following criteria:

- a) The entire building envelope shall be thermally broken and no details that allow cold bridging shall be used;
- b) The whole building envelope shall be provided with a continuous air and vapour tight skin layer with a vapour resistance of not less than 200 Mns/g when tested in accordance with BS 3177. This barrier shall be on the accommodation side of any insulation and may be formed of differing materials at different parts of the construction provided that continuity is maintained in all places. The vapour barrier material shall be non-combustible;
- c) The building fabric shall include passive design measures to limit summer temperatures to figures given within the Environmental Matrix; and
- d) The work to the fabric to achieve the above standards shall include but not be limited to enhanced window performance, high solar performance glazing systems, brise soleil and enhanced thermal insulation value.

5.4 Acoustics

Project Co shall define the acoustic criteria to be adopted on a room-by-room, and corridor-by-corridor basis with reference to SHTM 08-01: Acoustics. Project Co shall be responsible for demonstrating compliance with the agreed criteria.

Project Co shall endeavour within their design, to minimize the transfer of noise, dust and vibration throughout the Facilities. In particular, the design shall take account of the potential for disruption to the clinical function of the Facilities caused by noise, dust, vibration or other nuisance, however caused, as a result of future modifications / remedial works that may be required to the Facilities.

Project Co shall demonstrate in their design, how it shall address the issue of undesirable noise transmission in patient waiting areas. Project Co shall endeavour to minimise and mask ambient noise sufficiently to preserve patient privacy, confidentiality and maintain a calming atmosphere.

Project Co shall ensure that the acoustic design of the Facilities shall give due consideration to the requirements of the deaf and hard of hearing. In particular the level of background noise shall be such that it does not cause particular difficulty for those with such conditions.

In addition, Project Co shall ensure all specialist audiology sound-proofing in accordance with the Board's Construction Requirements this Schedule Part 6 Section 3 Sub-Section D

(Specific Clinical Requirements), Sub-Section E (Specific Non Clinical Requirements) and this Schedule Part 6 Section 6 (Room Data Sheets) are designed into the Facilities.

5.5 Room Mock-ups

Project Co shall provide the design of the room mock-ups including the 1:50 floor plan with loaded floor, walls and ceiling including details showing Equipment. The design for the mock-ups shall include the detailing for the floor finishes including skirting interface. Project Co will provide accommodation for, and full scale mock-ups of the following rooms, as a minimum, for use in the design development and approval process:

- a) Touch Down Base;
- b) Adult Single Bedroom with ensuite;
- c) Paediatric Single Bedroom with ensuite
- d) Paediatric Four Bedded room;
- e) Clean Utility Out Patient Department and
- f) Clean Utility In-patients

These shall be built with all services, equipment, doors and windows. They shall include the floor, wall and ceiling finishes. The services and equipment do not need to be live. Group 3 equipment will be provided by the Board for Project Co to install into the rooms.

The design and construction of the room mock-up shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement. They shall be provided in a timely manner, to ensure they add value to the design development and approval process.

5.6 Integration with Engineering Services

Internal walls, partition systems, ceiling voids and service risers shall be capable of integrating services, e.g. wiring, plumbing, medical gases and service terminals as required without detriment to the performance of any building services and other Facilities performance criteria such as fire resistance or acoustic properties. Engineering Services shall be co-ordinated such that satisfactory means of maintenance access is provided which minimises the potential for disruption to the Board's operations.

5.7 Building Envelope

The building envelope includes all external wall, façade and roof cladding elements associated with the Project. Project Co shall design the building envelope to provide a high quality enclosure to the accommodation and shall provide resistance to impact damage and intruder break-in, either by cutting or disassembly of the wall components. It shall incorporate an external finish which is essentially self-cleaning irrespective of the frequency of maintenance. Whilst selection of all materials and construction techniques is the responsibility of Project Co, there are a number of key criteria which must be satisfied by Project Co, as follows:

- a) All selected materials shall be compatible with each other;
- b) All selected materials shall be subject to the approval of The City of Edinburgh Council as part of the overall planning approval process;

- c) The selected materials shall have a verifiable life expectancy in line with the criteria set out in paragraph 5.1 and certain specific elements, such as sealants, which may have a design life of less than the period stated, shall be identified and submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement and shall be the subject of a planned maintenance programme for replacement;; and
- d) Any cladding systems chosen for use on this Project shall be designed and constructed to resist silently, without detriment to the required performance or appearance, the action of the elements including wind, rain, hail, snow, ice, solar radiation, temperature changes, moisture movement, structural movements, construction tolerances, thermal movements, the internal environment of the buildings and dead or imposed loads. The systems shall include the necessary provisions to enable regular cleaning from outside and regular routine maintenance to take place, without disturbance to the activities within the buildings, in accordance with the current provisions of the amended Workplace (Health, Safety and Welfare) Regulations 1992 and Ability to Open Windows Safely guidance.

Project Co shall ensure that the buildings are constructed and the design is detailed to limit air infiltration to minimum levels to reduce energy consumption and improve internal environmental conditions.

Performance demonstration tests for all roof and wall elements shall be carried out by Project Co in accordance with the following:

Project Co shall ensure all testing of mock-up assemblies of parts of the buildings construction are completed satisfactorily before work starts on the Site in relation to the building envelope.

Project Co shall arrange for the testing of all completed wall and roof assemblies to prove compliance with the requirements of The Building (Scotland) Regulations 2004 and its amendments

Project Co shall ensure that the external hard and soft landscaping around the buildings shall allow access for the appropriate maintenance / cleaning system and equipment utilising the hierarchy of control measures included within the Work at Height Regulations 2005 as amended. Appropriate provisions shall be incorporated by Project Co to allow the safe use of the appropriate maintenance / cleaning system including but not limited to safe access to the workplace and equipment. The structural frame and external skin of the buildings shall be designed by Project Co to accommodate the loading requirements of access equipment and operatives, where the cleaning and maintenance system uses this method.

Project Co shall design the buildings' envelope to prevent rainwater entry into the building structure and the internal accommodation. Where water penetrates cladding elements, as part of the functional design and construction techniques, Project Co shall ensure it is controlled and drained externally.

5.8 Internal Areas

Project Co shall ensure that the internal areas of the buildings shall allow access for the appropriate maintenance / cleaning system and equipment utilising the hierarchy of control measures included within the Work at Height Regulations 2005 as amended. Appropriate provisions shall be incorporated by Project Co to allow the safe use of the appropriate maintenance / cleaning system including but not limited to safe access to the workplace and equipment. The internal frame and internal skins of the buildings shall be designed by

Project Co to accommodate the loading requirements of access equipment and operatives, where the cleaning and maintenance system uses this method.

5.9 Ceilings Heights & Voids

The floor to ceiling heights, or the floor to the underside of ceiling mounted plant where there are no ceilings, shall be designed to accommodate the nature and use of the accommodation.

Project Co shall provide ceiling heights and voids that provide an interface between the mechanical and electrical services installations and the accommodation below with the integration of service outlets, lighting, grilles and other fittings.

Project Co shall configure the design, wherever possible, to accommodate future flexibility.

The Board accepts that there will be a limited number of areas where future flexibility will be less easily achieved. These areas may include (but not be limited to): operating theatres; shielded rooms; and rooms designed to accommodate heavy imposed loads.

An appropriate and safe void allowance above all ceilings shall be provided, including appropriate and safe points of access for maintenance of services. These shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement. The void allowed shall be adequate for the proper co-ordination and installation of engineering, cabling (including IT) and other services.

Co-ordination with the electrical, mechanical and communication services shall be an inherent part of the ceiling and building design. Within each area the installation of the engineering services provision shall be co-ordinated with the ceiling layout and allow simple relocation if required.

Suspended ceilings shall be readily demountable without suffering damage or becoming soiled and shall be easily cleaned. Frequently accessed voids shall be fitted with robust hinged locking doors or hatches.

Project Co shall ensure that the void above the ceiling is fully accessible from below, unless otherwise agreed by the Board, and adequate for the proper installation and co-ordination of the services, and for their future maintenance, repair and replacement. Allowance shall be made by Project Co for the installation of additional services in the future wherever possible. Where the design does not include the need for ceiling voids for services there shall be an allowance made by Project Co for a dedicated zone for the installation of ceilings and services at a later date.

Project Co shall ensure that the ceiling layouts are co-ordinated with the drainage, mechanical and electrical services installations. Project Co shall demonstrate its solution to this requirement prior to the commencement of construction.

Ceiling mounted booms required for patient support and monitoring systems in theatres, Paediatric Intensive Care Unit (PICU), treatment or x-ray rooms shall be co-ordinated with the ceiling layouts.

Project Co shall ensure the design and construction provide flexibility in terms of fixtures and fittings, i.e. locations of individual pieces of equipment can be readily changed and not unduly restricted by the type of construction.

Project Co shall ensure that the ceiling voids are designed to accommodate the specific requirements of the fire strategy for the Facilities – and in particular, the provision of cavity fire-barriers within compartments.

5.10 Corridor Widths and Heights

Corridor widths and heights shall satisfy the relevant guidance provided by:

- a) BS8300:2009
- b) The Equality Act 2010;
- c) SHFN14 “Disability Access”;
- d) HBN 00-04;
- e) SHTM 81; and
- f) Other relevant statutory guidance.

The hospital streets are to have a minimum unobstructed width of 3 metres. Other corridor widths shall be as defined by the nature and use of the accommodation. Corridor heights shall be as defined by the nature and use of the accommodation. Main interdepartmental corridors in areas that patients may travel in beds shall be of sufficient width to allow two beds, with any attached equipment, to pass. The corridors width and height shall allow the installation, removal or replacement of clinical and non clinical equipment. Minimum widths and heights shall apply along the whole length of the corridor.

5.11 Door Widths and Heights

Clear widths and heights of all door openings in addition to satisfying the requirements of The Building (Scotland) Regulations 2004 and The Building (Scotland) Amendment Regulation 2011, shall comply with the guidance of BS 8300:2009, SHTM 81, SHTM 58 and the relevant section of HBN 40. Door widths shall be identified in the relevant Room Data Sheet.

The door opening widths and heights in clinical areas shall be sufficient to allow the safe passage of a four section profiling electric bed with associated equipment and escort alongside.

Notwithstanding the above, Project Co shall be responsible for establishing, through detailed consultation with the Board, additional specific requirements for door widths and heights in all areas of the Facilities. Consideration shall be given to providing sufficient door width in areas where the Board’s operations rely on the use of larger items of equipment such as waste containers and regeneration trolleys.

Door widths, heights and door configuration shall be provided to allow for the delivery and removal of equipment to each area.

5.12 Windows

Project Co shall ensure that due consideration is given to the location and extent of glazing on external walls with regard to solar gain and heat loss. Solar control glazing, or appropriate solar shading, shall be used on windows on east, west and south facing elevations. The use

of blinds or other device placed between secondary glazing or double sashes shall not be considered appropriate solar shading.

Courtyards, and courtyard elevations, shall be designed by Project Co so that daylight to usable room spaces at the lowest level of the courtyards is adequate for normal tasks within the rooms.

The Board wish to see the use of natural daylight contributing towards the achievement of a high standard of environmental quality.

Natural light shall be provided in public spaces and in occupied private and staff spaces within the Facilities as far as is practical. Natural and artificial light sources shall be designed to avoid or minimise glare.

Window area and sill height, privacy and security requirements will require special consideration for ground floor accommodation to allow sufficient daylight and views out whilst maintaining privacy from people outside the building.

Where transparent window glass requires to be rendered translucent for reasons of privacy either by obscure glazing or by the use of applied reflective films, then consideration shall be given to the effect of internal artificial lighting during the hours of darkness. This particularly, but not exclusively, applies to all patient areas situated at or adjacent to external public spaces.

Project Co shall provide all windows with a security rating classification of R3 for manual intervention attack when tested in accordance with BS EN 1627-2011. Glazing and glazing sizes shall be kept to the minimum compatible with the requirements of lighting, surveillance and visibility.

Where possible all windows shall be designed by Project Co to be cleaned both externally and internally from the inside, unless otherwise agreed by the Board. Project Co shall ensure no portions of windows, either fixed or opening shall come below the level of worktops or desks included in the Schedule Part 11 Equipment Schedule.

Project Co shall ensure opening windows are provided with good quality well-fitting seals and shall be capable of opening at the top and bottom of the frame and shall be fitted with restrictors to give a maximum opening of not more than 100mm in normal use. The effect of such restrictors shall be taken into account by Project Co when calculating the effect on efficient and effective natural ventilation requirements for the room. Project Co shall ensure all windows required for ventilation shall be provided with controllable trickle ventilators within the head of the frame or with two stage key lockable handles giving 5 – 10mm ventilation gap. The opening lights of the windows, and any control devices, shall not interfere with the location or operation of blinds or curtains. All windows and fittings shall be compliant with anti-ligature requirements.

External sills shall be designed to prevent birds from roosting.

Project Co shall ensure that locking devices, to enable the windows to be released for cleaning purposes, shall be by key or other device such that the locks cannot be released by unauthorised persons.

Project Co shall ensure that all handles or control gear shall be placed at levels which enables them to be operated by staff standing on the floor without the use of loose poles, and which do not conflict with the location of the adjoining construction elements, including blinds and curtains. Where windows are placed over worktops or desks, or where the

operation as described above is not achievable, mechanical or electrical means of opening shall be provided by Project Co with controls located in a suitable position within the room concerned.

Project Co shall test the windows and other external opening assemblies (louvres and doors) in accordance with the following.

- a) BS EN 1027:2000 Windows and Doors – Watertightness – Test Method;
- b) BS EN 12210:2000 Windows and Doors – Resistance to Wind Load - Classification; and
- c) The Test Report Format contained in the withdrawn standard - BS 5368, Part 4: 1986 (EN86).

5.13 Finishes

5.13.1 General Finishes

Project Co shall select finishes on the basis of the following:

- a) Accessibility;
- b) Appropriateness;
- c) Durability;
- d) Robustness;
- e) Compatibility;
- f) Maintainability;
- g) Suitability for life cycle replacement;
- h) Co-ordination with other finishes;
- i) Suitability for infection control;
- j) Health and Safety attributes;
- k) Life Expectancy set out in paragraph 5.1;
- l) Easy of future maintenance; and
- m) Appearance.

All wall finishes and backgrounds shall be selected and installed in accordance with the NHS Requirements set in paragraph 2.3, and appropriate British and European Harmonised Standard Specifications and Codes of Practice. The Board's requirements are identified in this Schedule Part 6 Section 6 (Room Data Sheets) and the finishes listed in the table set out in paragraph 1.2.3 of Schedule Part 8 (*Review Procedure*).

Areas of the Facilities that are subject to potential damage from trolleys, vehicles, beds or other similar traffic shall have adequate protection to comply with SHTM 69 as a minimum.

The finishes detailed in the Table of Finishes in accordance with Schedule Part 8 Review Procedure and shall demonstrate the finished quality standards of certain specific fittings and finishes that will be constructed by Project Co during the design and construction stages. Project Co will create these mock-ups that will form the benchmark for quality control of site operations.

Project Co shall also select finishes which do not give rise to offensive odours developing. Accordingly, finishes shall be selected with due regard to usage, potential spillage and cleaning regimes (details provided in Sub-Section E) and health and safety issues in relation to performance and cleaning regime.

Project Co shall ensure that all floor, wall and ceiling finishes include adequate provision for movement joints, in accordance with current recommendations, to cater for any movements of the structure and/or the background material of the finish. Project Co shall ensure that the location and detail of the joints shall be fully co-ordinated with the overall interior design. Project Co shall indicate the position of all movement joints on drawings to be submitted as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

The use of inspirational colour patterning, motifs and texture shall be considered by Project Co in appropriate areas throughout the building. Where carpeted areas are required due consideration shall be given by Project Co to the use of durable wool-rich carpets if appropriate to the room function.

Project Co shall submit to the Board for review by the Board in accordance with paragraph 1.2.3 of Schedule Part 8 (Review Procedure), Table of Finishes and clause 12.6 of the Project Agreement the decoration for the Teenage Cancer Trust accommodation.

Where possible, internal surfaces shall allow cleaning and repair of elements that may be vandalised, with the minimum of effort.

5.13.2 Flooring

Project Co shall ensure all level, stair treads and nosings, and inclined flooring shall meet the following minimum slip resistance requirements:

- a) "Pendulum Test Value" of 36 or greater (when either dry or contaminated); and
- b) "Rz surface micro-roughness (microns μm)" of 20 μm or greater for water-wet, low activity pedestrian areas.

Project Co shall procure that test results in the "installed" condition are independently verified by the Health & Safety Laboratory, Buxton, Derbyshire. The pendulum test shall be performed using a pendulum-coefficient of friction instrument with "Four-S" rubber (Standard Simulated Shoe Soil) and Slider 55 rubber, in accordance with approved HSE test methodology.

For the avoidance of doubt, the obligation to follow the pendulum-coefficient of friction methodology is a specific obligation and is derived from the HSE, which is their preferred method of test.

Project Co shall ensure that all entrances to the Facilities incorporate sufficient length of appropriate floor matting designed to remove contaminants including water, dirt and leaves from footwear, trolley wheels etc. A water evaporation system such as a hot air curtain shall be provided at each entrance.

All floor finishes shall comply with SHTM 61 and have low absorption, low radius of ignition and low dirt retention.

Project Co shall comply with all of the recommendations provided in SHS Safety Action Notice SAN(SC)05/08.

Project Co shall prepare a Flooring Finish Selection Matrix in accordance with SHTM 61, 2009 in order to demonstrate to the Board that the selected finishes are suitable for their locations.

The particular conditions in the plaster suite accommodation shall be taken into account when selecting floor finishes.

5.14 Partitions

Project Co shall ensure partitions address special construction requirements including x-ray protection and gamma ray shielding i.e. concrete or lead. It is important that Project Co comply with the shielding requirements from the Board's Radiation Protection Advisor.

Partitions shall be designed to take account of following criteria:

- a) Structural strength of overall partition, and adequacy of support for fittings, fixtures and equipment, both planned and future;
- b) Sound reduction;
- c) Fire resistance;
- d) Moisture resistance;
- e) Resistance to biological infection;
- f) X-ray shielding;
- g) Gamma ray shielding; and
- h) Protection from damage.

5.15 External Materials

Project Co shall ensure that selected materials are robust and durable. The choice of materials for cladding and external surfaces shall comply with the performance levels of the Board's Construction Requirements and provide an appropriate design solution in terms of quality, scale, colour, texture, serviceability, statutory and environmental requirements.

5.16 Architectural Hardware

The locking system shall be fully suited across the Facilities, and shall interface with swipe card/other entry systems where provided. The locking system shall interface with the Board's existing 'swipe card' or other electronic entry systems currently employed at the RIE Facilities. Particular requirements with respect to electronic door access / security requirements are contained in paragraph 9.19.6.

5.16.1 Ironmongery

Project Co shall provide ironmongery which shall enhance the overall quality of the interior design concept. Project Co shall ensure ironmongery is of robust construction suitable for its specific purpose and usage characteristics and in accordance with the Room Data Sheets. For ease of use by elderly or disabled persons Project Co shall ensure handles are colour contrasted with the door background colour and of easy grip design.

Samples of all the ironmongery products shall be prepared in accordance with paragraph 2.3 and paragraph 5.5. The lock suiting information is to be provided as Reviewable Design Data for review in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement post Financial Close. This is so that details of lock suiting will be submitted by Project Co to the Board to allow adequate time for discussion and amendment if necessary before the fittings are required for installation in the buildings. All door closers shall be fully adjustable.

5.16.2 Blinds & Curtains

Project Co shall select blinds and curtains to relate to the overall interior design concept and to the specific requirements for each in relation to colour, pattern, material, fire resistance, non-flammability, opacity, light reflectance and light absorption. Blinds and Curtains shall be Class O rated. Windows in clinical areas shall be fitted with disposable curtains. Windows in non-clinical areas shall be fitted with blinds that are of the non-disposable type.

Project Co shall ensure that materials for blinds and curtains shall also comply with the requirements of the Board's Head of Service Infection Control for cleaning, washing and maintenance, and comply with SHFN 30 and SHTM 87 and relevant Safety Action Notices. All blinds and curtains shall be compliant with anti-ligature requirements.

The locations and fixings for both blinds and window curtain tracks shall be co-ordinated by Project Co with the window and internal window sill design from the outset of the building design development and the fixings shall be designed by Project Co to take the proposed maximum loadings possible for the tracks concerned. Curtain tracks shall be designed by Project Co to overlap the window openings so that they do not allow light to pass into the room when drawn. Controls for blinds and curtains shall be co-ordinated by Project Co with the window design and its opening gear, including any operating handles, levers or stays that may be required and shall be located conveniently for staff or patients to operate as appropriate.

Project Co shall fix bed curtain tracks at the height recommended in the relevant guidance and Project Co shall ensure bed curtain tracks are co-ordinated with other service outlets and the window positions, where applicable. An adequate ventilation gap must be provided by Project Co at the curtain head.

Where Project Co are required to provide "vistamatic" blind type controls to observation panels, doors and screens, appropriate sight lines shall be maintained into single bedrooms and counselling / interview rooms.

Where blinds are required for privacy reasons, but are deemed not to meet the infection control criteria for a particular area then Project Co shall provide an alternative means of ensuring that privacy is maintained.

5.17 Hand Washing Facilities

Project Co shall ensure that all hand washing facilities comply with CEL 03 (2012) Water sources and potential infection risk to patients in high risk units are provided with electronic valves to the supply spouts and that they shall conform to SHTM64 in all relevant respects; particularly;

- a) Single spout mixer to achieve correct temperature;
- b) Water temperature thermostatically controlled; and
- c) Supply and waste connections to concealed services.

Sensor taps are not allowed in clinical areas.

5.18 Staircases, Ramps, Balustrades, Walkways, Escalators & Lifts

Where staircases, ramps, balustrades, walkways, escalators and lifts are provided in addition to those required to satisfy means of escape criteria, these shall be designed to relate to the anticipated capacity of use and clearly designated for public, staff or service circulation.

Where ramps are provided in addition to those required to satisfy means of escape criteria these shall be suitable for independent and/or assisted wheelchair users, trolleys and ambulant disabled people.

Dependent on the nature and configuration of the Project Co's design proposals, Project Co may be required to provide staircases for fire fighting access, smoke control, dry and wet riser provision agreed with The City of Edinburgh Council's Building Control Department and the Scottish Fire and Rescue Service.

Particular attention shall be given to evacuation lifts where there may be a high percentage of wheelchair users on upper floors.

Any passenger or bed / passenger lifts required for vertical transportation shall have a minimum clear entrance of 1300 mm.

5.19 Soft Landscaping Requirements

Project Co shall incorporate areas of soft landscaping into the Facilities to complement both buildings and hard landscaped areas' of the Site and the adjacent areas of the Retained Site in accordance with the requirements of paragraph 7.1.

5.20 Wayfinding & Signposting

Wayfinding shall be so designed to meet the needs of different groups of people coming onto the Site, such as children, the elderly, the physically and visually impaired, as well as for service delivery purposes and contractors.

Signs shall be consistent to the end of the journey, identify functional specialities to facilitate the separation of different clinical zones.

Signposting from parking areas to entrances shall be clear and unambiguous.

Project Co shall observe the guidance and advice referred to in paragraph 2.2 General Design Issues item b.

Non-specialist language shall be used. Consideration shall be given to the use of iconic and pictorial signs as an alternative to written words.

5.21 Wall Protection

Project Co shall establish the most suitable form of protection at the most effective height location and orientation that shall prevent direct impact with the building fabric, its fixtures and fittings. SHTM 69 provides guidance and recommendations on this subject.

Project Co shall undertake a detailed review of those pieces of mobile equipment both Clinical and Non-Clinical, that are expected to be used by the Board and Project Co within the Facilities. This review shall include a process of risk assessment and shall be organised to determine the type and extent of protection that is required to the building fabric. Project Co shall submit the findings of the review to the Board as Reviewable Design Data for review by the Boards (in particular the Board's Radiation Protection Adviser) in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement. Project Co shall comply with the findings of the review including providing the design and construction required by the review.

Project Co shall be required to demonstrate that the proposal provides the most effective height, location and orientation of protection that shall prevent direct impact with the building fabric.

Mobile equipment currently used by the Board includes (but is not limited to) the following, however Project Co shall be responsible for establishing a comprehensive schedule of all mobile equipment and associated dimensions sufficient to inform the design:

- Cots / Incubators / Beds / Patient Trolleys / Mobile X Ray Machines / Resuscitation Trolley's / Mobile Ultrasound Machines / Mobile EEG / Retrieval Team Equipment / Mobile Hoists / Wheelchairs / Food Trolleys / Mortuary Box / Supply delivery trolleys / Cleaning Equipment - Hoovers/Washers / Disposal Holder collection trolleys / Linen Trolleys / Sterile Supply Trolleys

Project Co shall endeavour to minimise the extent of impact damage incurred by ensuring corridors are free of awkward corners / obstructions. Project Co shall ensure that doors in corridors are of sufficient width to accommodate all forms of hospital traffic and shall, where necessary, be designed to be held in the open position or to automatically open where appropriate.

A combination of some or all of the following forms of protection would be deemed appropriate in corridors and hospital streets:

- a) Crash rails;
- b) Defensive coves; and
- c) Corner treatment and reinforcement.

Exposed services such as ducts, radiators and pipework can be badly damaged when struck by trolleys etc. Project Co shall incorporate measures to avoid damage to these elements.

5.22 Static Discharges

Project Co shall seek to eliminate, by choice of material coupled with control of the environment the release of static charge, in accordance with the recommendations contained in SHGN Static Discharge (1999).

Project Co shall co-operate with the Board in the production of relevant risk assessments in accordance with HTM 00-07 "Resilience planning for the healthcare estate".

5.23 Standardisation & Prefabrication

The use of standardised / prefabricated elements and building components to achieve good quality control, ease and speed of installation and flexibility for future use is welcomed. Their use shall ensure Operational Functionality can be achieved and offering value for money.

In order to take advantage of the repetitive nature of construction, maximise productivity and efficiency and minimise construction periods and waste, consideration shall be given to off-site prefabrication. It shall specifically be applied to repetitive elements e.g., sanitary assemblies, bathrooms or complex equipment such as plant assemblies.

Project Co shall adopt standardised and / or pre-fabricated components and elements of construction which improve product quality, guarantee consistency of performance enhance efficiency of maintenance, and provide flexibility for future changes, ease of replacement and value for money.

5.24 Materials

Project Co shall ensure that all materials incorporated into the works shall comply with the requirements of The Construction Products (Amendment) Regulations 1994, and all other parts of the Board's Construction Requirements.

Project Co shall ensure that all products and materials to be incorporated into the Facilities shall be of sound and satisfactory quality and unless otherwise agreed by the Board shall be new. Project Co shall not construct the Works utilising substances which are hazardous to health, including but not limited to substances referred to as being hazardous to health and safety in The Control of Substances Hazardous to Health Regulations 2002 and The Control of Substances Hazardous to Health (Amendment) Regulations 2004.

Where materials and components are not specifically identified as complying with The Construction Products Regulations 2013 and any subsequent amendments, Project Co shall ensure that they comply with the relevant British Standards, Eurocodes and Codes of Practice. Where materials and components are available in varying qualities complying with two or more of the relevant regulations or standards, the higher quality products shall be used.

Project Co shall ensure that the whole quantity of each product and material required to complete the Works is of a consistent type, size, quality and overall appearance and is fit for its intended purpose. Project Co shall ensure all products and materials are handled, stored, prepared and used or fixed strictly in accordance with the manufacturers' written instructions or recommendations and not be damaged when incorporated into the Works.

Project Co shall not construct the Works utilising substances which are hazardous to health, including but not limited to substances referred to as being hazardous to health and safety in "The Control of Substances Hazardous to Health (Amendment) Regulations 2004"

Project Co shall ensure that:

- a) the materials selected or specified by or on its behalf for use in the Facilities (or any part or parts thereof) are in accordance with the guidance contained in the Good Practice Guidance for selecting materials and this paragraph 5.24; and
- b) there shall not be specified for use nor shall there be incorporated or used in connection with the Facilities any materials or substances which are expressly prohibited by the Project Agreement or any part of it or which are generally known not to be in accordance with British or European Standards and Codes of Practice at the time of specification or use (as applicable), or any materials or substances which are deleterious to health and safety or to the durability of buildings and/or other structures and/or finishes and/or plant and machinery in the particular circumstances in which they are used, or any materials or substances identified as deleterious, unsatisfactory or unsuitable in the relevant circumstances in the Good Practice Guidance for selecting materials and, in addition to and separate from the foregoing, any substances or combination of substances publicised prior to the time of construction in any Building Research Establishment Limited (“BRE”) publications issued as part of the BRE Professional Development service which the BRE recommend are not used for building purposes or for the type of buildings comprised in the Project.

Project Co shall obtain confirmation that all timbers are “Certified Wood”.

Project Co shall certify at the Actual Completion Date that none of the materials, products or constructions defined as not being appropriate above have been used in the construction of the Facilities, or incorporated in them, other than where specific written consent from the Board has been obtained. Project Co shall also notify the Board of any other material which may become designated as prohibited at any time after incorporation into the project, during the Project Term.

5.25 Sustainability

Project Co shall promote sustainable development by demonstrating an integrated approach to the social, environmental and economic well-being of the area served, now and for future generations. The Facilities shall also reflect the objectives of any local agenda strategy supported by The City of Edinburgh Council including Edinburgh Standards for Sustainable Building (2010).

Project Co shall design the Facilities to support the environmental services and to conserve and utilise energy in line with the Climate Change Scotland Act 2009 and the public sector duty to meet national targets of 42% reduction of CO₂ emissions arising from burning of fossil fuels and 80% by 2050. NHSScotland HEAT targets on energy conservation and CO₂ emissions are in place to meet the requirements of this public sector duty. The design of the environmental control system shall be co-ordinated and integrated with the design of the structure and the occupied areas in order to maximise the control and flexibility of the installations.

A grey water recycling scheme should be assessed for applicability in this project.

Project Co shall promote sustainable development by demonstrating an integrated approach to the social, environmental and economic well-being of the area served, now and for future generations. Project Co shall ensure that the design and completed Facilities comply with the recommendations of Local Agenda 21, including reflecting the objectives of any Local Agenda 21 strategy supported by The City of Edinburgh Council.

The Facilities shall, as far as reasonably practicable, deliver benefits to the environment. Project Co shall:

- a) Implement a strategy to meet the BREEAM requirements outlined in 5.25.1 below;
- b) Minimise waste during construction and operation;
- c) Using Corporate Greencode, implement an Environmental Management System (EMS) for accreditation aligned to ISO 14001;
- d) HTM 07-07 Sustainable Health and Social Care Buildings: Planning, design, construction and refurbishment;
- e) Reduce the use of fuels which contribute to ozone depletion, global warming, air and water pollution and depletion of non-renewable resource;
- f) Respect the local landscape and protect natural habitat and species and comply with the UK Biodiversity Action Plan;
- g) Avoid sources of ionising and electromagnetic radiation to the extent determined by the relevant HTM;
- h) Avoid any design features associated with sick building syndrome;
- i) Maximise the opportunity for waste minimisation and re-cycling;
- j) Maximise efficient and effective removal and transport of waste;
- k) Adopt maintenance regimes which maintain optimum performance;
- l) Where possible avoid the use of harmful building products and processes; and
- m) Explore the use of prefabricated elements to achieve good quality control, ease and speed of installation and flexibility for future use;
- n) Project Co shall comply with the relevant NHS Requirements, including, but not limited to:
 1. The development of a Local Environmental Strategy in line with sustainable development in NHS;
 2. New environmental strategy for the National Health Service;
 3. Corporate Greencode;
 4. Good Corporate Citizenship Assessment Model (GCCAM);
 5. Carbon/ energy management in healthcare; and
 6. The Board's target of utilising some 20% of renewable energy sources shall be achieved by Project Co.

Project Co shall design the Facilities to support the environmental services and to conserve and utilise energy. The design of the environmental control system shall be co-ordinated and integrated with the design of the structure and the occupied areas in order to maximise the control and flexibility of the installations.

5.25.1 BREEAM

Project Co shall ensure that the Facilities achieve as a minimum a "Very Good" rating when assessed against BREEAM 2011 New Construction (SD5073).

Under the BREEAM 2011 New Construction (SD5073) there are now mandatory requirements specifically under energy, CO2 emissions, water and ecology. In addition, BREEAM embraces energy efficiency and passive design strategies for ventilation and

thermal control to enhance internal comfort. The Facilities shall therefore also meet a BREEAM ENE1 target of 6 credits (excellent) in accordance with the BREEAM Scheme Document for New Construction (SD5073) Section 6.ENE1

BREEAM requires a design stage assessment, carried out and completed before construction starts on site, by Project Co. In addition a post construction review is required at completion carried out by Project Co. The post construction review assesses “as built” specifications and actual construction practice on site and shall maintain the 'Very Good' rating.

BREEAM Pre-assessment is in the Disclosed Data..

5.26 Energy Strategy

Project Co shall provide Facilities that achieve an optimum level of energy and utility conservation. Project Co shall:

- a) Minimise internal areas requiring mechanical ventilation;
- b) Minimise direct solar gain to avoid air conditioning/comfort cooling;
- c) Maximise daylight factors in staff, patient and visitor areas;
- d) Maximise utilisation of plant and systems;
- e) Maximise control and flexibility of the installations; and
- f) Ensure that the Facilities are designed and built to facilitate their operation in accordance with the Corporate Greencode.

Project Co shall provide Facilities that achieve a maximum water consumption target of 170,000 litres/bed/year and include measures that they propose to allow the Board to minimise consumption.

Project Co shall take due account of developments in Information and Medical Equipment Technology and any potential impact that this technology may have on the Energy Strategy for the buildings. Particular attention shall be paid to potential opportunities for heat gain within the Facilities provided due to the installation of additional or higher performance plant and equipment.

5.27 Fire Planning Strategy

Project Co shall demonstrate in the design for the Facilities a clear understanding of the policies and principles underlying fire safety in NHS premises.

In all cases the proposed fire strategy shall be fully co-ordinated and be agreed with the Scottish Fire and Rescue Service, The City of Edinburgh Council's Building Control Department and the Board's Fire Officer. Any proposals which deviate from the stated requirements of The Building (Scotland) Regulations 2004 and The Building (Scotland) Amendment Regulations 2011, SHTM 81 and SHTM 82, shall be supported by a specialist fire engineer's report which provides a clear understanding of the risks and protection measures to be included. Calculations and supporting information shall also be provided.

The Fire Planning Strategy shall recognise the Clinical Adjacency with respect to Medical Day Case Unit (MDCU) and the neighbouring medical inpatient beds and shall not separate these areas by a fire compartment wall.

Project Co shall ensure that all gas cylinders, whether they are connected to external supplies or not, are stored in accordance with SHTM 2023.

Signage must be sited and designed in accordance with the Health and Safety (Safety Signs and Signals) Regulations 1996, BS 5499-10:2006 Safety signs, including fire safety signs - Part 10: Code of practice for the use of safety signs, including fire safety signs and the Health and Safety at Work Act 1974.

5.29 Radiation Protection

Project Co shall be responsible for the design and build of clinical and support facilities where exposure to ionising radiation might occur. This includes the use of x-rays, CT scanners and gamma cameras, and radioactivity (both in the form of sealed and unsealed sources).

Areas where ionising radiation is used shall require the walls, ceilings, floors, doors and screens to act as radiation shields. The design of the Facilities shall be compatible with specialised operational procedures, employed by the Board in order to ensure the health and safety of staff, patients and the public in radiation areas.

Project Co shall comply with the requirements of the Board's Radiation Protection Advisor to ensure that the Facilities combined with the Board's working practices provide adequate radiation protection.

Project Co shall submit proposals for providing screening to rooms containing radiology or other equipment emitting ionising radiations. These must be submitted to the Board as Reviewable Design Data for review by the Boards (in particular the Board's Radiation Protection Adviser) in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

5.29.1 The Designing-in of Radiation Protection

Adequate restriction of the radiation exposure of patients, staff and the public cannot be achieved by considering in isolation either the design of the Facilities, or the working practices to be adopted within it. The inter-relationship of the design of the Facilities and systems of work will be crucial in determining whether or not procedures can be completed quickly and efficiently and thus with the minimum irradiation of staff. Accordingly Project Co shall comply with the requirements of the Board's Radiation Protection Advisor and the operational managers of the relevant services.

Dedicated x-ray rooms and other appropriate areas require the walls, ceilings, floors, doors and screens to be shielded.

X-ray rooms and other appropriate areas are controlled areas whenever an exposure is in progress. The usual practice is to use electrical signs that illuminate at the room entrances when an exposure is underway.

Diagnostic x-rays are taken in other areas, e.g. operating theatres. The workload and x-ray energies involved will determine the amount of shielding required.

5.29.2 Work with Radioactive Materials

Project Co shall make provision so that arrangements can be made to monitor waste prior to being removed for disposal and linen prior to being sent for laundering.

A combination of shielding and speed of operation is required to avoid causing high radiation exposures to patients, staff and others.

Unsealed-source therapy also leads to the production of solid items and waste contaminated with radioactivity (e.g. clothing, food remnants, linen etc). Some can be disposed of by disposal or by maceration. The rest will need to be stored by Project Co in a secure shielded store away, from clinical area, until the radioactivity decays to background levels.

5.29.3 Transport, Delivery & Collection of Radioactive Materials

The arrangements for delivery, collection and storage of radioactive materials need to guarantee the safety of the materials in transit at all times. Appropriately trained staff must be used for moving radioactive packages both within the Facilities and by road. This shall require provision of short term parking.

Project Co shall give consideration to establishment of designated routes for the frequent transport of radioactive sources.

5.30 Static Magnetic Field Protection

The siting and planning of facilities for the use on patients of magnetic resonance imaging (MRI) shall pay particular attention to the characteristics of the equipment required and the need to screen unwanted radio signals from interfering with the MRI equipment and conversely the signals arising from the MRI equipment interfering with equipment elsewhere.

In areas where it is proposed to install MRI equipment Project Co shall ensure that effective magnetic fringe field protection is provided around such areas in accordance with the equipment suppliers' recommendations. Project Co shall discuss and agree proposals as Reviewable Design Data for review in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement for any such screening with the Board prior to the installation of the MRI equipment.

The design of the Facilities shall be compatible with the specialised operational procedures employed by the Board in order to ensure the health and safety of staff, patients and the public in areas where this type of equipment is to be installed.

Project Co shall ensure that adequate provision for the removal, and replacement, of the equipment is provided and Project Co shall be responsible for agreeing with the equipment supplier reinforced routes through the Facilities, suitably sized access panels in walls, suitable ceiling heights, corridor widths and door openings to facilitate equipment replacement.

The design of the Facilities internally and externally, the patient journey and the construction of the buildings shall recognise the hazards associated with the powerful magnetic fields generated by the imaging equipment.

5.31 Electromagnetic Interference Protection

The siting and planning of facilities for the use on patients of Electroencephalography (EEG) and Evoked Potential Recordings shall pay particular attention to the characteristics of the equipment required and the need to screen unwanted electromagnetic signals from interfering with the EEG and Evoked Potential Recordings equipment and conversely the signals arising from the EEG and Evoked Potential Recordings equipment interfering with equipment elsewhere. Project Co shall comply with the requirements of SHTM 06-01.

Areas where electromagnetic interference will occur shall require the walls, ceilings, floors, doors and screens to act as electromagnetic interference shields. Project Co shall submit proposals for providing screening to rooms containing (EEG) and Evoked Potential Recordings equipment or other equipment emitting electromagnetic interference. These must be submitted to the Board as Reviewable Design Data for approval in accordance with Schedule Part 8 Review Procedure.

The design of the Facilities shall be compatible with the specialised operational procedures employed by the Board in order to ensure the health and safety of staff, patients and the public in areas where this type of equipment is to be installed.

The design of the Facilities internally and externally, the patient journey and the construction of the buildings shall recognise the hazards associated with electromagnetic signals generated by the EEG and Evoked Potential Recordings equipment.

5.32 Facilities Maintenance

The Project Co shall provide Facilities that ensure that the maintenance and replacement of services, finishes, components, elements, systems, furniture and equipment can be carried out effectively within the requirements of clinical operations and functionality.

Project Co shall ensure that the access routes within the buildings shall allow access for the appropriate maintenance / cleaning system, and equipment utilising the hierarchy of control measures included within the Work at Height Regulations 2005 as amended. Appropriate provisions shall be incorporated by Project Co to allow the safe use of the appropriate maintenance / cleaning system including but not limited to safe access to the workplace and equipment. The structural frame, floors and internal walls of the buildings shall be designed by Project Co to accommodate the loading requirements of access equipment and operatives, where the cleaning and maintenance system uses this method.

5.33 Pest Control

Project Co shall incorporate pest control measures and measures to prevent pest entry to the Facilities.

6 Civil & Structural Engineering Requirements

Project Co shall in carrying out the Works comply with the following non-exhaustive list of civil & structural engineering requirements.

Project Co shall take cognisance of all the civil engineering and structural implications of the requirements described in the Board's Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

For the avoidance of doubt the hierarchy of standards and advice detailed in paragraph 2.5 shall apply to this paragraph 6.

6.1 General Requirements

Project Co shall ensure that the design and construction of the civil and structural engineering elements of the buildings and external works meets the following criteria:

- a) Be fit for their intended purpose;
- b) Be fully co-ordinated with the design of the building fabric, finishes, services, facades, internal walls, medical equipment and existing Site features, including buildings / structures;
- c) Include the design and construction of any secondary framing necessary for the support of plant, services, ceiling mounted tracking hoist systems, other lifting equipment or medical equipment;
- d) Provide adequate space for the distribution of services, while maintaining the required finished floor levels and the floor to ceiling heights called for in the Room Data Sheets, and elsewhere in this Schedule Part 6 Section 3 Sub-Section C;
- e) Maximise the clear zone above the ceilings for services to the degree consistent with overall economy for the Board;
- f) Provide fire resistance required by the appropriate SHTM and HTM, and the requirements of the Scottish Technical Standards;
- g) Be economically adaptable to meet changing clinical needs; and
- h) Require minimum maintenance and be designed to accommodate maintenance requirements for services, equipment and building fabric.

6.1.1 Sewers under the Site

Project Co requires to be aware of the Sewers serving the RIE Facilities and other neighbouring properties on and off the Campus Site part of which Sewers are located within part of the Site as shown coloured green on Plan 11 and Project Co shall ensure that:

- a) No buildings or other erections are to be constructed nor any trees, shrubs, bushes or other plants or vegetation planted, grown, cultivated or permitted to grow over the route of the Sewer or within a lateral distance measuring from the centre line thereof which are likely to adversely affect the Sewer or would impair safe and reasonable access thereto (which shall be not less than 6 metres);
- b) No underground works will be undertaken within a lateral distance measuring from the centre line thereof which may adversely affect the Sewer or would impair safe and reasonable access thereto (which shall be not less than 6 metres).
- c) Access shall be provided at all times to the Board and any Board Party and Consort and any Consort Party to the extent required to maintain, repair and renew the Sewer and in accordance with the requirements in Clause 9 (Nature of Land Interests) of the Project Agreement (as varied, amended or supplemented from time to time in accordance with the Project Agreement; and
- d) Project Co shall be fully responsible for the consequences of failing to comply with these requirements and the losses which may be suffered or incurred by the Board and/or any Board Party and/or Consort and/or any Consort Party as a result of any act or omission of Project Co and/or a Project Co Party exercising any of the rights and/or performing any of its obligations and/or failing to do so and the provisions of Clause [49.1.6] of the Project Agreement shall apply.

6.1.2 Gas Pipe under the Site

Project Co requires to be aware of the possibility of the gas pipe serving the RIE Facilities part of which may be located within part of the Site and Project Co shall ensure that:

- a. No buildings or other erections are to be constructed nor any trees, shrubs, bushes or other plants or vegetation planted, grown, cultivated or permitted to grow over the route of such service media or within a lateral distance measuring from the centre line thereof which are likely to adversely affect the service media or would impair safe and reasonable access thereto (which shall be not less than 6 metres);
- b. The provisions of paragraph (a) above shall also apply to any service media being located within a lateral distance of 15 metres from the gas pipe measuring from the centre line thereof;
- c. Access shall be provided at all times to the Board and any Board Party and Consort and any Consort Party to the extent required to maintain, repair and renew the gas pipe and in accordance with the requirements in Clause 9 (Nature of Land Interests) of the Project Agreement (as varied, amended or supplemented from time to time in accordance with the Project Agreement; and
- d. Project Co shall be fully responsible for the consequences of failing to comply with these requirements and the losses which may be suffered or incurred by the Board and/or any Board Party and/or Consort and/or any Consort Party as a result of any act or omission of Project Co and/or a Project Co Party exercising any of the rights and/or performing any of its obligations and/or failing to do so and the provisions of Clause [49.1.6] (Indemnities) of the Project Agreement shall apply.

6.2 Architectural / Structural Interface

Structural floors shall be designed to have penetrable zones co-ordinated with the modular framework for partitions and services.

For the avoidance of doubt, structural timber floors shall not be permitted.

Columns shall be located in-so-far, as is reasonably practical to coincide with corridor walls in order to minimise intrusion into rooms or corridors. The relationship of columns, ducts and walls shall permit clear internal room surfaces and not obstruct equipment or fittings.

As far as practical, the walls to vertical service shafts shall be non-load bearing and therefore maximising opportunity for future services installation, alteration and maintenance.

The elevation design shall facilitate distribution of services at the building perimeter.

6.3 Performance Standards

Unless otherwise agreed with the Board, Project Co shall ensure that all structural elements are designed in accordance with current revisions of the following standards:

- a) Eurocode 0 – BS EN 1990:2002 – Basis of structural design;
- b) Eurocode 1 Series – BS EN 1991 Actions on structures;

- c) Eurocode 2 Series – BS EN 1992 Design of concrete structures;
- d) Eurocode 3 Series – BS EN 1993 Design of steel structures;
- e) Eurocode 4 Series – BS EN 1994 Design of composite steel and concrete structures;
- f) Eurocode 5 Series – BS EN 1995 Design of timber structures;
- g) Eurocode 6 Series – BS EN 1996 Design of masonry structures;
- h) Eurocode 7 Series – BS EN 1997 Geotechnical design;
- i) Eurocode 8 Series – BS EN 1998 Design of structures for earthquake resistance;
- j) Eurocode 9 Series – BS EN 1999 Design of aluminium structures;
- k) BS 8500-1:2006 – Concrete: Complementary British Standard to BS EN 206-1. Part 1 Method of specifying and guidance for the specifier;
- l) BS 8500-2:2006 – Concrete: Complementary British Standard to BS EN 206-1. Part 2 Specification for constituent materials and concrete;
- m) BS 8102:2009 – Code of practice for protection of below ground structures against water from the ground;
- n) BS 8204 – Screeds, bases and in-situ floorings;
- o) BS 5606:1990 – Guide to accuracy in building; and
- p) BS 8000 – Workmanship on building sites.

Note: Eurocodes 0 to 9 – Corresponding National Annexes shall be used where applicable for Nationally Determined Parameters (NDP).

Construction tolerances, unless otherwise stated by the Board shall be no greater than those specified in Tables 1 and 2 of BS 5606. Where the operational constraints of the buildings require special levels of construction accuracy then Project Co shall be responsible for establishing and designing for these.

The performance of components shall be in accordance with the appropriate British Standards and Eurocodes.

Project Co shall ensure that building structures are designed to resist imposed, roof and wind loads not less than those required by current revisions of Eurocode 1 Series – Actions on structures. Project Co shall ensure that building structures are designed to carry the loads of heavy plant, the helipad and helicopters and medical equipment (including ceiling mounted tracking hoist systems) in their permanent positions and any loads that will be imposed upon the structures during the installation, removal or replacement of such heavy items. This requirement may involve the design of 'strong routes' through the buildings and / or specially strengthened areas of the roof onto which heavy items can be lifted. These areas and routes shall be identified by Project Co in their design as Reviewable Design Data for review in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement for agreement by the Board. Consideration by Project Co shall also be given to

selection of floor screeds which shall have adequate strength and resilience to resist abrasion and indentation from the use of medical equipment.

Project Co shall ensure that any measures considered necessary shall be taken to protect the buildings from ingress of naturally occurring ground gases.

6.4 Loadings & Structural Flexibility

The Facilities' structural flexibility shall reflect the overall Adaptability Strategy designed by Project Co. Despite any connection to the RIE Facilities the Facilities are to be free standing and must not rely on any other buildings outwith the Site for support.

Project Co's structures shall be designed to cater for the dead loadings associated with the chosen materials for the structure, finishes, partitions and cladding to the buildings. As a minimum, it shall also be designed for the imposed loads as specified in current British Standards and Eurocodes. The design shall also take into account the need for specialist measures to allow for the installation of special equipment and associated services. Structural deflections shall be limited as necessary for the proper installation and functioning of specified equipment.

Project Co shall account for (but not be limited to) the following loading schedule:

- a) General floor loadings;
- b) Point loads for Clinical equipment and Services;
- c) Impact loads;
- d) Vibration loads;
- e) Special plant foundation loads; and
- f) Service loads.

Project Co shall take account of concentrated point loads from both mobile and stationary plant and equipment. The structure shall incorporate reasonable measures to accommodate updated versions of such machinery without major disruption. In addition, Project Co shall ensure that floors and supporting structures have the capacity for retro fitting lifting devices for all fixed items of plant and equipment weighing 35kg or more.

The Room Data Sheets have indicative details on anticipated items of heavy equipment.

For the avoidance of doubt, the Board recognise that no upper limit has been identified and this information will be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement on a departmental / unit / area basis.

Project Co shall take cognisance of the requirements in specified areas for ceiling mounted tracking hoist systems etc with point loads ranging from 375 kg to 750 kg. The structural capability and configuration of these areas shall allow the Board complete flexibility for re-configuration and extension of this equipment and / or retro-fitting of future lifting equipment in these areas.

Project Co shall take account of the need for special screeds, raised or lowered floors, ceiling grid support grids and other such measures to allow for the installation of special equipment and associated services.

Project Co shall ensure that specific areas of the Facilities satisfy particular requirements of the Board's operations or equipment in those areas. Relevant constraints may include but are not limited to maximum allowable structural deflections, differential settlement, vibration and the meeting of any specific tolerances. Project Co shall be responsible for establishing and resolving and seeking approval of any such constraints by submitting details to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

Project Co shall take account of dynamic loads from general movement of people through to activities such as aerobics, dance or other rhythmic activities that can give rise to adverse harmonic effects that affect the design.

Lateral stability bracing systems shall not obstruct or hinder clinical or non-clinical or any other use and/or operations at the Facilities and without limitation shall not obscure the windows or doors.

The vibration response of the buildings shall comply with the requirements of SHTM 08-01 Acoustics and be compatible with the requirements of the equipment to be installed.

With respect to the Facilities, Project Co shall:

- a) Take due account of future flexibility of the Facilities (in terms of future change of use and / or relocation of equipment);
- b) Specifically make allowance for future flexibility of ceiling mounted tracking hoist equipment in specified areas, including the requirement for re-configuration, extension and / or retro-fitting of lifting equipment i.e. the whole of the specified area shall be structurally capable of accommodating hoist equipment;
- c) Make specific allowance for items of particularly heavy equipment and / or other onerous loading conditions; and
- d) Make specific allowance for installation, transfer and / or removal routes for heavy equipment throughout the Facilities.

Parts of the structure potentially subject to damage from trolleys or vehicles shall be designed with adequate protection to prevent such damage from occurring.

Structural deflections shall be limited as necessary for the proper installation and functioning of special mobile, rail mounted, or fixed equipment.

Project Co shall include, within the design, provision for removal, replacement and upgrading of installed plant and equipment. As part of this element of design, a comprehensive replacement strategy shall be prepared for implementation. This strategy shall, wherever possible, consider how these works can be undertaken whilst minimizing disruption to the function of the completed Facilities.

6.5 Foundations & Sub-structure

All foundations shall be designed by Project Co to Eurocodes to comply with current Codes of Practice taking into account the loadings to be sustained, prevailing ground conditions and the effects of any settlement on new superstructure and on links to adjacent buildings. Proposed solutions shall take account of adjacent foundations or structures and engineering

services below ground. Despite any connection to the RIE Facilities the Facilities are to be free standing and must not rely on any other buildings outwith the Site for support.

6.6 Movement Joints

Structural movement joints shall not be located through:

- a) Theatre rooms;
- b) Treatment and surgery rooms;
- c) X-ray and imaging rooms;
- d) Pharmacy manufacturing rooms;
- e) Kitchens and food preparation areas;
- f) Any room with (now or in the future) with ceiling mounted tracking hoists or other similar lifting equipment;
- g) Any other room requiring a sterile environment; and
- h) Any rooms where there is a risk of biological or other hazard, or risk of penetration by water, grease / oil, or other hazardous or detrimental substance.

Lateral stability bracing systems shall not obstruct or hinder clinical or non-clinical operations and shall not obscure the windows or doors.

6.7 Building Super-Structure & Envelope

Vertical, oblique and lateral loadings from the external walls must be safely transmitted through the structure to the load bearing strata. When under maximum design stress, joints shall maintain full water exclusion properties and design appearance. Despite any connection to the RIE Facilities, the Facilities are to be free standing and must not rely on any other buildings outwith the Site for support.

Project Co shall provide the means for replacing the x-ray equipment during the Operational Term through the external envelope of the rooms housing the x-ray equipment including intermediate support if the equipment is to be transferred into the building from the exterior at upper floors. The external structural solution for the replacement of x-ray equipment shall not adversely impact on architectural appearance of the Facilities. Project Co shall provide the means of replacing the x-ray equipment to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

In addition to providing safe, aesthetically pleasing and durable structures, the structural design must enable the required clear spaces to be achieved with adequate provision of services taking into account maintenance and replacement during the operational life of the buildings. The design must consider construction methods and future maintenance and demolition of the structures and make provision for these to be carried out safely.

The environmental criteria to be applied in confirming the design performance shall be assessed and confirmed by Project Co. Formal testing of elements of the construction by a recognised testing authority will be required as part of the approval process.

6.8 Fire & Corrosion Protection

Project Co shall provide fire protection to all elements of structure and ensure fire ratings are in compliance with space use and the more onerous of Scottish Technical Standards / the

Board's requirements. When the more onerous requirement is to be used the Board will have the right to decide what constitutes the more onerous requirement.

6.9 Durability & Maintainability

All elements of the structure shall be capable of withstanding potential deterioration due to weather, ground conditions, wear and tear, and accidental damage relevant to their location and environment.

Where the requirement for maintenance is less than the required life expectancy of the element(s) practical and realistic arrangements shall be designed into the construction of the Facilities to allow for any necessary repairs, replacements, and painting etc. to be carried out safely without compromising the operational activities within and around the Facilities.

6.10 Other Performance Requirements

Project Co shall ensure that all building elements and retaining structures shall incorporate appropriate means to resist the passage of dampness, both into the building structure and fabric, and into the accommodation, including the resistance to any hydrostatic pressure. Project Co shall ensure that all such construction shall be in accordance with the requirements of The Building (Scotland) Regulations 2004 and its amendments, BS 8102 and Code of Practice CP 102 for Protection of Buildings against Water from the Ground.

6.11 Drainage

Project Co shall design and provide separate foul and surface water drainage systems in accordance with the requirements of The Building (Scotland) Regulations 2004 and its amendments.

Project Co shall be responsible for liaising with Scottish Water to agree connection requirements to the surrounding public sewers and for compliance with relevant provisions of paragraph 4 and paragraph 6.1.1 as regards sewers.

Project Co shall provide, where necessary within the on-site drainage network any isolators, grease traps, retention traps, interceptor tanks and other such devices necessary to prevent the discharge of any potentially dangerous or otherwise contaminative materials to the public sewers.

Foul and surface water drainage shall be designed on separate systems and shall discharge into the existing systems, subject to necessary approvals and for compliance with relevant provisions of paragraph 4 as regards surface water drainage.

Surface water discharge shall be in accordance with the following requirements:

- a) A SUDS system designed and constructed in accordance with the Regulations and the guidance contained in 'SUDS: Design Manual for Scotland and Northern Ireland';
- b) Water Environment (Controlled Activities) (Scotland) Regulations 2005;
- c) A public sewer provided under the Sewerage (Scotland) Act 1968 and amendments;
- d) An outfall to a watercourse that complies with any notice and / or consent by SEPA.

SUDS features shall be designed as an integral part of the landscaping.

The drainage systems shall be designed to require no regular maintenance other than the cleaning of gully traps etc. and access for maintenance shall be provided to all drainage runs.

All drainage shall be designed to avoid the risk of local flooding and flooding of the system into which they discharge and/or to properties and/or land served by such systems. Flooding of electrical equipment areas and areas where stray current leakage may occur in the presence of water shall be prevented.

Drainage shall be sufficient to ensure that no areas of standing water occur within the design criteria of the relevant authority. The drainage systems shall be capable of coping with, as a minimum, the foul loading and the storm event specified by the relevant authority and shall be considered an integral part of the public sewerage system. The drainage system shall be capable of taking such detritus as may normally arise during the operation of the system and during normal and winter maintenance conditions and those within the design criteria of the relevant authority.

A free passage of air shall be maintained through the foul drainage system.

Flat roofed areas wherever possible shall be drained to eaves gutters. Where such roof is enclosed, without eaves, it shall be drained by a minimum of two grated roof outlets and rainwater pipes, which shall be designed to pass the design rate of run-off assuming one outlet or 33 per cent of the outlets are out of use, whichever is the greater number.

Project Co shall design the drainage system in such a way as to minimise the requirement for internal manholes.

Project Co shall construct the drainage installation such that it complies with the Initial Drainage Proposal and shall comply with relevant provisions of paragraph 4 as regards drainage installation.

7 External Works

Project Co shall design and construct an external works environment for the Facilities that fully integrate with the buildings.

Project Co shall design the external works for ease of navigation around the site by staff, patients and visitors.

Project Co shall appoint an appropriately qualified professional and prepare a comprehensive hard and soft landscaping scheme.

In preparing the hard and soft landscaping scheme for the external works, Project Co shall ensure that due account is taken of the Board's requirements with respect to the integration of artwork.

Project Co shall select external works materials on the basis of the following:

- a) Accessibility;
- b) Appropriateness;

- c) Durability;
- d) Robustness;
- e) Compatibility;
- f) Maintainability;
- g) Suitability for life cycle replacement;
- h) Co-ordination with other finishes; and
- i) Suitability for infection control
- j) Health and Safety attributes
- k) Life Expectancy set in paragraph 5.1;
- l) Easy of future maintenance;
- m) Appearance.

In preparing the hard and soft landscaping scheme for the external works, Project Co shall ensure that due account is taken of the Board's requirements with respect to the integration of artwork.

Project Co shall carry out landscaping works outwith the Site boundary in the Yellow Area and Hatched Orange Areas in accordance with the relevant provisions of paragraph 4. All landscaping works shall be compatible with the adjacent parts of the external environment at the Retained Site.

Project Co shall seek advice from the Board to seek to minimise the risk of crime and vandalism on the Facilities. This advice shall be pro-actively sought by Project Co as part of the design process.

Project Co shall seek advice from Lothian and Borders Police's crime prevention representative on the proposals for external works to minimise the risk of crime and vandalism on the Site and the Facilities.

Where possible, Project Co shall ensure that external surfaces allow easy cleaning of vandalised elements, with the minimum of effort.

Project Co shall provide the following principal elements:

7.1 Soft Landscaping Requirements

Project Co shall design, as an integral part of the Facilities, a soft landscaping scheme that will enhance the environment of the Facilities.

The soft landscaping shall be easy to maintain, and plants and shrubs shall reach a state of maturity within three years of Actual Completion Date.

The design of landscaping and selection of plants and shrubs shall aid the reduction in risk of crime.

Project Co shall ensure that the landscaping and gardens are designed in accordance with the following:

7.1.1 General

Project Co shall involve the Board in the decision making process for all proposed planting for the Facilities details of which shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with paragraph 1.2.3 of Schedule Part 8 (Review Procedure), Table of Finishes and clause 12.6 of the Project Agreement.

Project Co shall carry out accurate site surveys prior to design of soft landscape to determine site levels and identify on survey drawings all existing features including any existing mature trees.

Project Co shall by reference to their own ground investigation data; confirm the need for imported topsoil or whether amelioration of existing soil is sufficient to support their soft landscaping proposals. Project Co shall then provide new or utilise existing soils, as appropriate.

Project Co shall carry out any necessary remedial measures to suit planted areas and hard landscaped areas.

7.1.2 Soil Preparation & Topsoil

Soil preparation shall be carried out by Project Co in accordance with BS 4428:1989, Code of practice for general landscape operations (excluding hard surfaces). Project Co shall ensure care is taken with the use of weed-killers. Project Co shall ensure that all topsoil complies with BS 3882:2007, Specification for topsoil and requirements for use.

7.1.3 Trees

Project Co shall ensure that any work to existing trees, whether or not covered by Tree Preservation Orders, shall only be undertaken with the appropriate licence as stipulated by the Tree Preservation Order or with the approval of The City of Edinburgh Council.

Project Co shall ensure that tree protection complies with BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations. A register of the existing trees shall be made including giving each tree a unique number. Before construction commences Project Co shall take photographic records of the existing trees on and adjacent to the Site. The photographs shall record the trees' unique number. A site plan shall record the position of the existing trees noting their unique number.

7.1.4 Shrubs & Groundcover

Project Co shall ensure that all shrubs shall comply with BS 3936 Part 1:1992, and shall be planted to BS 4043: 1989.

Project Co shall ensure that shrub and groundcover protection complies with BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations. A register of the existing shrubs and groundcover shall be made including giving each shrub and area of groundcover a unique number. Before construction commences Project Co shall take photographic records of the existing shrubs and areas of groundcover on and adjacent to the

Site. The photographs shall record the shrubs and areas of groundcover's unique number. A site plan shall record the position of the existing shrubs and areas of groundcover noting their unique number.

7.1.5 Planting & Watering

Project Co shall ensure that planting and watering is carried out while soil and weather conditions are suitable for relevant operations.

7.1.6 Turf

Project Co shall ensure that turf is in accordance with BS 3969:1998, Recommendations for Turf for general purposes. Turf shall be free from undesirable grasses and weeds.

Project Co shall avoid grass in courtyards, unless the courtyard is very large. If provided Project Co must ensure there is a suitable, sufficiently wide access away from occupied areas for bringing mowing machinery to the turfed areas.

7.1.7 Health & Safety Considerations

Project Co shall ensure that all weed-killer / pesticides and herbicides and any other chemicals used in association with the landscape works preparation comply with SEPA regulations, the COSHH Regulations, and any other relevant regulations applying to hospital sites.

7.2 Therapy Gardens

The landscaping and therapy gardens provide an opportunity to soften the whole image of the Facilities by a visual presentation of quality and sensitivity that relates to pleasure and emotion rather than the essential clinical impressions that will inevitably be gained by users and visitors.

The gardens shall be easily accessible from the units / departments. It shall be secure and provide space for therapy and privacy. The needs of the patients will be varied and descriptions of their needs can be found in the Board's Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements) for the individual departments / units.

Certain parts of the therapy gardens shall be open for general use; other parts shall be private for use by specific patient groups.

The therapy gardens shall be available 24/7, 365 days a year. Attention shall be paid to the lighting of the gardens to allow use after dark and to enable the gardens to be enjoyed in the evenings when viewed from inside the building. Attention shall also be paid to providing covered / heated areas to allow the external environment to be enjoyed in different weather conditions.

All paved areas shall be wheelchair accessible and constructed using non-slip materials. Handrails shall be provided at intervals to allow ambulant disabled people equal access to the gardens. There shall be a number of paved areas thus allowing a number of 'walks' throughout the garden areas, away from the road network and car parks. Kerbs to the paved areas are necessary to avoid the risks of wheelchairs becoming stuck in soft earth.

Seating shall be provided throughout the garden areas. This shall be of a range of styles and heights so that it suits the needs of all service users. Protection from wind and some covered areas shall be provided throughout the garden(s).

7.3 Site Boundary Requirements

No work shall commence on Site until the details of the proposed boundary treatment have been submitted to and approved by The City of Edinburgh Council.

Project Co shall provide boundaries to the Facilities, which provide security, appropriate visual screening and essential maintenance access. Project Co shall engage the Board in the design process for all boundaries details of which are to be submitted to the Board as Reviewable Design Data for review by the Board in accordance with paragraph 1.2.3 of Schedule Part 8 (Review Procedure), Table of Finishes and clause 12.6 of the Project Agreement.

Where appropriate, proposals for the Site boundary treatment shall comply with the relevant parts of BS1722: Fencing.

7.4 Site Access & Circulation

Always subject to complying with the relevant provisions of paragraph 4 and Clause 9 (Nature of Land Interests of the Project Agreement as regards access for pedestrian and vehicular access on and around the Campus Site, the entrances and exits to the Facilities shall be clearly defined and signed; their design shall enhance ease of movement from and to the public roads. The road system shall be designed to facilitate safe, convenient routes separating transportation groups as far as practical. Attention is to be given to provide clear and well defined routes for emergency vehicles, fire, police and ambulance. The requirements of the Firecode in relation to 'Site Access' shall be considered.

All of the access requirements shall satisfy the requirements of the Board and The City of Edinburgh Council.

Project Co shall define as Reviewable Design Data for review and agreement by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement and seek agreement of The City of Edinburgh Council for the creation of additional pedestrian and / or emergency road access points to suit the specific requirements of the final design.

The colour of the road surfaces shall be black and all footpaths shall satisfy the requirements of the Board details of which are to be provided as Reviewable Design Data for review and agreement by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement, and the requirements of The City of Edinburgh Council.

Project Co shall also provide suitably robust signage for easy site navigation during construction and operational phases.

7.5 Roads, Footpaths, Cycleways & Car Parking

Project Co shall ensure the following as a minimum:

- a) Parking for vehicles is to be as close as possible to relevant parts of the Facilities served and the diminishing of the visual impact of parking by appropriate planting shall not impinge on individual parking places;
- b) Direct routes from parking areas to the building entrances are provided; and
- c) Appropriate and secure cycle storage.

Project Co shall provide as a minimum a network of private roadways on the Site and at the Campus Site providing access to:

- a) Car parking;
- b) The delivery entrance(s) to the Facilities, waste compounds and service infrastructure; and
- c) A taxi / car / ambulance drop off and layover bay.

Project Co shall ensure that all roads, delivery and refuse collection areas have sufficient headroom above them to allow for the passage of appropriate delivery and refuse collection vehicles and are designed to provide sufficient space to allow efficient manoeuvring of such vehicles without undue difficulty, risk of impact or adverse effect of exhaust fumes on occupants of the buildings. Project Co shall ensure that all roads, car parks and other areas that may be used by fire fighting appliances shall have sufficient headroom for such vehicles equipped with fire fighting appliances and are designed to allow their efficient manoeuvring. Project Co shall submit details of the types of delivery vehicles which require to be considered in the design to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

Where areas of car parks are required to be traversed by vehicles heavier than 2500kg for maintenance or access purposes, the sub-base, base and surfacing of these areas shall be specifically designed by Project Co for these heavier loads.

Roads, delivery and refuse collection areas, and car parks, together with their supporting groundworks and structures, shall be designed by Project Co to provide full and sufficient access for inspection, maintenance and repair of roads, car parks, delivery and refuse collection areas, structures, underground and underground drainage and sewerage, including existing drainage items such as manhole covers and drains and sewers. Where access for maintenance, repair or replacement of underground services is required under the terms of an easement, the design of all elements affecting the exercise of such an easement or servitude shall also be in accordance with the requirements of the party that has the right to exercise the servitude or easement. See also drainage requirements detailed at paragraphs 4, 6.1.1, 6.11, 8.7.20 and 10.3 of this Sub-Section C.

Project Co shall also comply with the following criteria:

- a) Finish: to be macadam, hot rolled asphalt or, if approved by the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement, block paving. Project Co shall provide a black finish to roads, green finish to cycle routes and a red finish to pedestrian routes (subject to agreement with The City of Edinburgh Council);
- b) Kerbs: to comply as a minimum standard with BS.1339:2003 "Concrete paving flags - Requirements and test methods". Dropped, flush, kerbs shall be provided at all pedestrian crossing locations;

- c) Pedestrian crossings: details of types, locations, lighting and controls shall be Reviewable Design Data for review and agreement by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement;
- d) Markings: to The Traffic Signs Regulations and General Directions 2002 and all Chapters of The Traffic Signs Manual and details of such shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement;
- e) Gradients: All gradients shall comply with the provisions of The Building (Scotland) Regulations 2004 and its amendments as applicable. No gradient in excess of 1:20 shall be allowed in parking areas (other than access roadways), and 1:15 on pedestrian staff, patient and visitor access paths from parking areas to the building entrances; and
- f) Parking bays: comply with the SHFN 20, HFN 21 and the item on gradients above. Variation from the standard (to make optimum use of the space for example) may be desirable and Project Co shall submit details to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

Designs shall cater for the access and parking needs of pedestrians and the physically disadvantaged. This shall involve catering for visitors and staff using different modes of transport in adapted vehicles and with multiple aids / equipment.

Accessible parking bays shall incorporate a minimum additional 1.2m section to the end of each bay. This is to allow tailgate access by disabled people without the need to set down ramps or lifts within the main circulation routes of car parks. The first and last accessible parking bays in a row of 'in line' spaces shall be provided with a minimum clear area of 1.2m to both sides.

Parking for the transport requirements of deliveries and waste disposal, ambulances, fire appliances and other specialist and emergency vehicles shall be segregated from public and staff parking.

Car parking provision shall take into account the following requirements:

- a) Drop off points;
- b) Dedicated parking for those with disabilities, the elderly and those with small children located close to the clinical areas, especially for those with limited mobility and eyesight;
- c) Automated controlled entry / egress barrier arms to service vehicles access defined in paragraph 3.8.6 of this Sub-Section C, emergency department parking defined in paragraph 3.9.2 of this Sub-Section C, RHSC Disabled Parent and Child Parking and DCN Disabled Parking defined in paragraph 3.9.3 of this Sub-Section C shall be installed by Project Co. Care shall be taken that the location and design of the control mechanism has sufficient capacity to cope with peak flows and that there shall be clearly defined instructions. The controlled barrier to the proximity parking shall be provided with a height gauge to prevent unwanted high-sided vehicles from entering and shall be well lit at all times;
- d) Appropriate parking for on-call clinical night staff as near as practical to the controlled night entrance(s) for staff; and

- e) Project Co shall design and provide appropriate signage external to the Facilities to ensure ease of navigation around the Site.

7.6 Hard Landscaping Requirements

Project Co shall incorporate into the Facilities all associated hard landscaping for the Site, including but not limited to the following;

- a) Access and hardstanding for emergency and delivery vehicles;
- b) Access for building maintenance and window cleaning;
- c) Access and circulation for, visitors and patients both on foot, bicycles, in cars or on public transport;
- d) Parking for vehicles and bicycles including disabled facilities;
- e) Drop-off facilities including lay-bys and bus/transport stops;
- f) Service areas, as appropriate;
- g) Accommodation for building services plant, waste and materials management, as appropriate;
- h) Amenity areas for staff, patients and visitors;
- i) Suitable pathways and paving;
- j) Protection against noise and environmental pollution;
- k) Security provisions, as appropriate;
- l) Appropriate Site boundary treatment;
- m) Walls, fencing, gates / barriers and hedgerows as appropriate along the Site Boundary and at particular locations inside the Site;
- n) CCTV surveillance of the building perimeter, to all car parks, pedestrian routes, therapy gardens, courtyards, roof terraces, external play areas and helipad;
- o) External lighting;
- p) Suitable means of shelter against adverse weather conditions at entrances, bus / transport waiting, and drop off locations and covered links provided, as appropriate;
- q) Automatic vehicle access barriers, as appropriate; and
- r) Fire hydrants.

All hardstanding, Site roads, paths, car parks, cycleways, and footpaths etc shall be designed and constructed so as to be free from standing water within the design criteria of the relevant authority.

8 Mechanical & Electrical Engineering Requirements

Project Co shall provide the Works to comply with the Environmental Matrix.

Project Co shall in carrying out the Works comply with the following non-exhaustive list of mechanical & electrical requirements.

Project Co shall provide mechanical and electrical systems that help create a “state-of-the-art” building with innovative design. Project Co shall provide an engineering system that utilises the latest technology to create a high quality working environment that will provide a

reassuring, enjoyable and convenient hospital for all patients, their families, visitors and staff. Project Co shall ensure the services network is efficient, effective, flexible and unobtrusive. Project Co shall ensure that the system is easy to maintain and shall maximise the opportunities for flexible adaptation and extension of the Facilities.

Electrical, mechanical and communication services shall be designed to be an integral and co-ordinated part of the design. Services shall be clearly identified at regular intervals and at all locations where maintenance access is required.

The location of engineering and utility services shall be co-ordinated with the structure and not constrain or conflict with Operational Functionality. Access to all services shall facilitate ease of maintenance which shall be safe and able to be effectively undertaken. There shall be provision for space to give flexibility for future re-planning and / or re-modelling of the Facilities.

The Board requires the buildings to be designed to achieve an optimum level of autonomy along with energy and utility utilisation. The energy centre shall be for the sole use of the Facilities. The services provided from the energy centre shall be provided from sources solely on the Site.

Project Co shall take cognisance of all the building services implications of the requirements described in the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

For the avoidance of doubt the hierarchy of standards and advice detailed in paragraph 2.5 shall apply to this paragraph 8.

8.1 Minimum Engineering Standards

In addition to the publications in paragraph 2 of this Sub-Section C Project Wide Requirement, Project Co shall ensure that the design, construction and selection of components for the mechanical and electrical works comply with, including but not limited to, the following design reference documents :

- a) NHS Scotland Firecode;
- b) All current relevant legislation and Codes of Practice by CIBSE;
- c) All current relevant legislation and publications by the Building and Engineering Services Association (B&ES);
- d) All current relevant British Standards;
- e) European Harmonised Standard Specifications and Codes of Practice;
- f) ACS Accreditation (formerly CORGI Regulations);
- g) Gas Safety Regulations;
- h) The Management, Design and Operation of Microbiological Containment laboratories. HSE 2001
- i) Biological Agents: Managing the Risks in Laboratories and Health Care Premises HSE 2005
- j) Biological Agents: The Principles, Design and Operation of Containment Level 4 Facilities.
- k) Water Research Centre Codes;

- l) The Water Supply (Water Quality) (Scotland) Regulations 2010;
- m) Electricity at Work Regulations 1989;
- n) BS 7671:2008) (IEE Wiring Regulations);
- o) The control of legionella bacteria in water systems approved Code of Practice;
- p) The Electrical Equipment (Safety) Regulations 1994; and
- q) Electromagnetic Compatibility Regulations 2006.

The design of the environmental control system shall be co-ordinated and integrated with the design of the structure and the occupied areas as to maximise the control and flexibility of the Facilities.

The following is a non exhaustive list of SHTM's, HBN's and HTM's applicable to the Facilities:

- a) SHTM 64: Building Components Series Sanitary Assemblies:
- b) SHTM 2010 Parts 1 - 6: Sterilization;
- c) SHTM 2023: Access and accommodation for engineering services;
- d) SHTM 2030: Washer-disinfectors
- e) SHTM 2031: Clean steam for sterilization
- f) SHTM 2035: Mains signalling;
- g) SHTM 02-01 Parts A and B: Medical gas pipeline systems
- h) SHTM 03-01: Ventilation in Healthcare Premises;
- i) SHTM 04-01 Parts A - G: The control of Legionella, hygiene, 'safe' hot water, cold water and drinking water systems;
- j) SHTM 06-01: Electrical services supply and distribution;
- k) SHTM 06-02: Electrical safety guidance for low voltage systems;
- l) SHTM 06-03: Electrical safety guidance for high voltage systems;
- m) SHTM 08-01: Specialist Services – Acoustics;
- n) SHTM 08-02: Specialist Services – Lifts;
- o) SHTM 08-03: Specialist Services - Bedhead Services;
- p) SHTM 08-04: Pneumatic Tube Transport Systems;
- q) SHTM 08-05: Parts A to D: Building Management Systems;
- r) SHTM 08-06: Specialist Services - Pathology Laboratory Gas Systems;
- s) HBN 00-07: Resilience Planning for Healthcare Establishments;
- t) HTM 07-02: EnCO2de; and

u) HTM 07-03: Transport Management and Car Parking.

Project Co shall consider the requirement for ligature resistance fittings and fixings within the building services provision in appropriate areas (identified or otherwise in the Specific Clinical and Non-Clinical Requirements), and generally in keeping with Good Industry Practice.

8.2 Infection Control

Mechanical and Electrical equipment selections and designs shall take cognisance of HAI-SCRIBE in its entirety.

8.3 Engineering Services Interface with Building Fabric

Project Co shall ensure that co-ordination of the electrical, mechanical and communication services shall form an inherent part of the Facilities design.

Services provision, e.g. luminaires, fire alarms, and mechanical services, shall be co-ordinated with the ceiling layout and allow simple relocation if required.

Access to services shall be provided and the services clearly identified at regular intervals and at all locations where maintenance access is required, for example at valves and electricity connection points. Access to building services shall be in accordance with SHTM 2023: Access and accommodation for engineering services.

The positioning of sockets, light switches, alarm buttons and fire “break-glass” panels etc shall be consistently located throughout the Facilities and to specifications set out in BS8300 (unless specific clinical needs take precedence). The positions shall be detailed and shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

Structural design shall ensure that structures are co-ordinated to ensure the logical and sequential installation and maintenance of services. For example the use of columns adjacent to vertical service voids shall be minimised.

8.4 Unrestricted Access to Patients

Project Co shall take due consideration of the servicing strategy for highly serviced areas. This shall be inclusive of but not limited to bed areas where clinical staff require 360° free access. Project Co shall not gain access to services above beds for maintenance purposes

8.5 Performance Standards

8.5.1 Energy Performance Certificate

Project Co shall ensure that the Facilities shall operate to achieve an Energy Performance Certificate (EPC) rating of C or better.

Project Co shall provide and display the Energy Performance Certificate (EPC) for each building in the Facilities.

8.5.2 Thermal Comfort

Where maximum internal summer time temperature calculations indicate that the internal temperature will exceed those limits set out in the Environmental Matrix, Project Co shall provide means of reducing the temperature rise.

Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of any room or area does not exceed the maximum acceptable level of 25°C for more than 50 hours per annum.

For any room or area that does not meet this criterion, there should be a hierarchy of remedial action to prevent the high temperature by passive means as a priority, adopting a suitable means of comfort cooling as a last resort.

8.5.3 Air Quality

i. Internal

Air quality in all areas shall take account of occupancy levels, internal pollutants, heat gains, external pollutants and atmospheric conditions and shall be controlled to provide adequate comfort and fresh air levels appropriate to the functions of each department area.

Particular attention shall be given to the risk of cross infection within the hospital / healthcare environment and shall be such as to minimise the spread of infection. Project Co shall demonstrate through submission of information to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement, how the proposals facilitate the control and management of an outbreak and spread of infectious diseases, and in particular shall comply with the requirements of SHTM 03-01 (Ventilation in Healthcare Premises). In order to reduce cross-contamination, the design of the Facilities shall incorporate 100% fresh air supply systems only.

Project Co's demonstration referred to above is to cover all aspects of the building, its services, spatial relationships, soft and hard FM proposals and incorporate requirements of the Board's Infection Control Team.

Project Co shall provide natural ventilation wherever possible, except where:

- a) The level of outside noise is unacceptable;
- b) Safety or security features must be provided;
- c) Unpleasant smells are generated either inside or outside the building;
- d) Where inflows of air are undesirable;
- e) Clinical requirements, as detailed in the Room Data Sheets, do not allow in areas such as isolation rooms, where positive or negative pressure are required; and
- f) Areas which are air-conditioned.

ii. External

- a) The Project Co shall comply with the requirements of City of Edinburgh Council and other statutory bodies regarding airborne emissions from the Site and shall undertake all studies necessary to prove that emissions and their dispersal will not have any adverse impact on the local community or staff, patients and visitors to the Campus Site.

8.5.4 Vibration

Project Co shall ensure that building services plant and equipment are suitably isolated from the building structure in order to prevent the transmission of vibration. Project Co shall comply with the guidance on the satisfactory magnitude of building vibration with respect to human response given in BS 6472-1:2008 Guide to evaluation of human exposure to vibration in buildings Part 1 Vibration sources other than blasting. Project Co shall comply with the following vibration limits detailed below:

- a) Plant rooms on occupied floors 0.015 m/s²;
- b) Plant rooms above and below occupied floor levels 0.050 m/s²;
- c) Remote plant rooms 0.100 m/s²;
- d) No structure borne vibration is perceptible within any nearby living apartment.

8.5.5 Acoustics

To allow the effective control of building services noise in the provision of a satisfactory acoustic environment Project Co shall satisfy the following criteria (with reference to British Standards and NHS Requirements in particular SHTM 08-01 Acoustics).

- a) Careful selection of plant and equipment;
- b) Good installation;
- c) Correct operation and maintenance;
- d) Be such that any associated noise complies with NR25 when measured within any nearby living apartment.

8.6 Incoming Services

8.6.1 General

Project Co shall be responsible for the provision of all new utilities and the energy supply infrastructure to and from the Facilities (whether this is internal or external to the Site boundary), including:

- a) Confirmation of the capacity of the proposed system;
- b) Liaison with potential suppliers;
- c) System development and planning;

- d) Any supplies modifications to the periphery of the Site;
- e) Any supplies modifications within the Site;
- f) Metering and sub-metering of supplies;
- g) Strategic planning;
- h) Emergency systems; and
- i) Power factor correction.

Project Co shall carry out the work outwith the Site boundary in accordance with the relevant provisions of paragraph 4.

8.6.2 Security of Incoming Supplies

Project Co shall provide back up to respond to the failure of the incoming supply of electricity, gas and water supplies to the Facilities.

In particular, Project Co shall provide 100% standby generator capacity for electrical services in accordance with the requirements and recommendations of SHTM 06-01. For the avoidance of doubt, Project Co shall also ensure that the Facilities are provided such that all the requirements detailed in SHTM 06-01 are satisfied.

Project Co shall ensure that energy, water, power supplies, medical gases and communication supplies to and within the Facilities are maintained by agreement with the utility suppliers, the Board, and where necessary by providing standby sources of supply (e.g. dual fuel boilers etc).

Project Co shall develop a strategy to ensure the security of the supply. Project Co shall be required to demonstrate the feasibility of the strategy to the satisfaction of the Board.

Project Co shall investigate adequacy, and provide the Board a report on location and number of connections of local town's water supply, gas and electrical supplies around and to the Site. Project Co shall ensure their town's water, gas, electrical and data/telecommunication connections to the Site maintains an adequate, autonomous and robust service and shall submit full connection details with the proposals.

The incoming gas supply shall be housed in a stand alone gas meter house of adequate size to accommodate the gas supply with gas meter, twin governor gas streams with associated valves and where each stream is sized to meet full Facilities capacity.

8.6.3 Provision for Isolation

Project Co shall ensure that all sections of the supply mains, whether supplying electricity, gas or fluids, can be taken out of service for maintenance without interrupting the supply to the Facilities or to any part of the Retained Estate and/or Retained Site.

Project Co shall provide external isolation of water supplies to the new Facilities. Local isolation of the water supply to all sanitary appliances, and at the final equipment connection points, shall also be provided.

8.7 Mechanical Systems

The Project Co shall design, supply, install, test, commission, operate and maintain all mechanical building services necessary to support the Clinical Services at the Facilities. The following systems are indicative of those anticipated by the Board but are not exhaustive and sole responsibility shall be Project Co's to determine all necessary systems are included.

Systems shall be design, supplied, installed, tested, commissioned, operated and maintained all in accordance with the regulations and standards.

8.7.1 Building Management Systems & Controls

Project Co shall provide a building management system (BMS) to be installed to allow easy, remote, monitoring of measured values and control set points. Communication with (and between controllers) will utilise the main hospital data network and therefore the data traffic between controllers and dependency on the network shall be minimised. There will not be a requirement for CCTV video or sound files to be transferred, via the network, and therefore it is not envisaged that a high data bandwidth will be needed. All BMS systems generally have the same functionality and therefore the choice of manufacturer shall be the responsibility of Project Co, but consideration should be given to existing systems that are currently on the network which are "Sigma" from Schneider Electric or "Desigo" from Siemens.

Should multiple BMS systems/suppliers be used Project Co shall require to fully integrate these into a single 'master' BMS system and to provide training to the Board in the areas required for 'read only' access.

Project Co shall ensure all plant can be operated in automatic mode (via a BMS) or manual mode should a corruption in BMS software occur. Furthermore, physical bypasses shall be provided where appropriate for maintaining service, for example at control valves.

Project Co shall install a new digital BMS that controls all mechanical systems. The BMS should not be considered as a "life & limb system" and should only control the mechanical systems but should interface to the other systems such as lighting. Monitoring of security, CCTV, lifts etc will only be of an information type and BMS will not be relied upon to deliver "life alarms". Also, future replacements of systems should be considered at this point and one system should not control everything. Systems do become obsolete (and manufacturers fail) and if one system were to be used for "everything" then all the system could be compromised and need changing at the same time. This would be a very costly exercise with multiple complications. If "interfaces" were to be used between separate systems the problem of catastrophic failure is avoided with only one system compromised making it easier to manage during restoration of services.

It shall assist in minimising energy consumption. Project Co shall ensure that the Facilities have a hard-wired link between the BMS and fire alarm and other life safety systems to enable plant shutdown if required during fire situations as well as complying with the relevant provisions of paragraph 3 and 4 as regards fire, security, and CCTV. Project Co shall ensure that the BMS is capable of producing energy consumption reports to the Board's requirements. The Board shall have full access to all new graphics which shall be fully visible to the Board with 'read only' rights to the BMS. The BMS front-end shall be internet enabled to allow secure access from any internet based PC without the need for further licences.

Project Co only shall have control and adjustment of BMS settings.

The BMS system shall be designed, installed and commissioned in accordance with the manufacturers' instructions and industry best practise. The following documents shall also be taken into consideration:

- a) Standard Specifications for BMS, AG 9/2001, BSRIA;
- b) Library of system control strategies, AG 7/98, BSRIA;
- c) Automatic control, CIBSE Commissioning Code C: 2001;
- d) Specifying building management systems, TN 6/98, BSRIA; and
- e) SHTM 08-05.

The Board controls philosophy is to provide a safe, healthy and comfortable environmental condition in the Facilities, whilst focusing on energy conservation measures. Project Co shall ensure that the controls effectively deliver the requirements of the Board. Project Co shall adopt Good Industry Practice in the application of BMS controls.

Project Co shall ensure that an energy and life cycle cost conscious approach is adopted for all stages of the BMS. Project Co shall ensure that this includes the initial design of a system through to final commissioning; the planned maintenance; and the servicing of the plant.

Project Co shall ensure that the programming of the outstations shall be carried out in a consistent, structured manner. Project Co shall ensure that strategies shall be kept as simple and as uniform as possible. Project Co shall ensure that the BMS incorporates the following non-exhaustive list of full functionality and monitoring points;

- a) The control and timing of heating, cooling and ventilation plant to ensure optimum energy and environmental performance, including multiple temperature zone controls, zone valves and individual area and room temperature sensors.
- b) Optimum start of heating, cooling and ventilation plant to minimise the operational costs of achieving desired values by occupation time.
- c) Optimum stop of heating, cooling and ventilation plant to minimise the operational costs of running plant during the required occupancy period.
- d) Facility to program night set back set points for individual areas, individual optimisers, individual time schedules and areas that require heating continuously but not consistently.
- e) Protection for the mechanical plant and building fabric during external frost conditions.
- f) Protection for the building fabric, from condensation, when the mechanical plant is timed off.
- g) Protection for the mechanical plant and building fabric during severe external air low temperatures.
- h) Provision to automatically shut off heating plant when the external air temperature has risen above a pre-determined set value. The plant will automatically restore normal operation when the external air temperature falls to below a separate pre-determined value.
- i) Weather compensation of any heating circuit dependant on external air temperature. This compensated set value will be accessible for easy adjustment.

- j) Weather compensated heating circuits will also have room temperature influence to raise (and lower) the calculated set point with reference to a room temperature set point.
- k) Where dual plant has been installed this shall be able to be automatically duty cycled by the BMS on a weekly or hours-run basis. Failure of the duty plant shall notify the system and automatically (after a short period of time) bring on the standby plant.
- l) All ventilation plant and air handling units shall be individually monitored and controlled through the BMS.
- m) All extract fans shall be individually timeclock controlled and monitored through the BMS.
- n) Representative graphic slides will be required for all the controlled plant on the system. A hierarchical structure shall be adopted that allows other relative slides to be directly accessed from the current slide. These slides shall match the standard slides for the respective existing systems details of which shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.
- o) The system shall automatically flag-up alarms for remote interrogation. Essential critical alarms shall be also routed via SMS texts to an out-of-hours "on call" mobile phone. Great care shall be given to selection of the alarms that are deemed to be essential critical alarms.
- p) The current state of plant, temperatures, set-values etc shall be accessible from a simple, intuitive index tree structure on the BMS "front-end" interface.
- q) Application of energy metering, via the BMS, will allow Renewable Heat Incentive and energy saving schemes and to be implemented. This will require heat meters to be installed on each plate heat exchanger and heating circuit and connected into the BMS via MODBUS type interface. These meters may be used for fiscal purposes and would assist in providing information as to energy use.
- r) The BMS shall monitor but not control the fire alarm system. The fire alarm system shall be hard-wired to the heating/ventilation plant to switch the plant off when required. The BMS input from the fire alarm system would mirror the action of the fire alarm hard-wired connection to also switch the plant off to prevent nuisance alarms from being generated.
- s) The BMS shall monitor the control circuit state within each control panel and on failure of the control circuit would switch off the demands for the connected plant. This will assist in identifying the control circuit state and also in preventing the system from being swamped by nuisance alarms. Care shall be taken that the control circuit failure does not give the impression that a fire alarm event has happened.
- t) The automatic start-up of plant (timed on, restoration of fire alarm or control circuit) will be staged in over a period of a few minutes to prevent surges on the supply to the control panels.
- u) The BMS will status monitor other systems such as medical gas alarm, fire alarm fault, security system fault, lift motor fault etc but will NOT be expected to carry out any function with this information. All the systems connected will have their own strategy that will not be affected by the operation of the BMS.
- v) The BMS will monitor common fault alarms for security, smoke dampers, CCTV, staff attack, disabled alarms and nurse call.
- w) Local independent cooling systems serving IT rooms will be controlled by their own control system to the dictates of their own, independent, temperature control sensor. The BMS will have a dedicated sensor located beside the control sensor for

monitoring purposes only. Information from the cooling system such as “Running” and “Failure” will be connected into the BMS.

- x) Boilers and Chillers independent control systems will have electronic interfaces to connect to the respective BMS. This is envisaged to be a MODBUS connection that will allow operational data – such as temperatures, conditions, set values, run-times and alarms to be “mapped” onto the BMS as real values.
- y) Fans and pumps will be inverter driven and speed set via an analogue output from the BMS. This will allow trim to be applied to reduce operational costs as and when possible. Independent pump (and fan) speed control should be avoided as remote speed control, by BMS, is unlikely to be achievable.
- z) Information from inverter drives used for fans and pumps such as running state and trip state will be echoed back to the BMS via connections internal to the respective control panels. These signals will also illuminate indicators on the control panel facia.
- aa) Piped across pumps and fans will be differential pressure switches that will provide indications of actual running condition of the plant. These conditions will be echoed back to the BMS via connections internal to the respective control panels. These signals will also illuminate indicators on the control panel facia.
- bb) The BMS will be programmed with settable operational user levels to allow the filtering of functionality to be determined dependant on users experience and training.
- cc) Where local room temperature controllers are utilised they shall be integrated with the BMS to allow the BMS to monitor the current characteristics of the controller. Characteristics such as current room temperature, actual room set-point, controller state, valve positions etc. It should also be possible to set values into the controllers remotely from the BMS. Examples of the set values are: Enabling the controller, main set values, lower set point limit, upper set point limit. Every room controller will be represented individually on the BMS to allow specific rooms default conditions to be set remotely. The BMS software shall be written to allow for night set-back room temperature set points to be applied if required.
- dd) Electricity metering shall be provided on specific distribution boards and connected into the BMS via MODBUS type interface.
- ee) All renewable/LZC technology systems shall be individually metered and connected into the BMS via MODBUS type interface to permit the Board to monitor record and maximise financial benefits from each system.
- ff) The BMS shall be capable of monitoring the hot and cold water temperatures, including stored cold water and volume records.
- gg) The BMS shall be capable of monitoring the UPS/Emergency generators.
- hh) The BMS shall be capable of remote monitoring of all critical fridge/freezers.

For clarity "multiple temperature zone controls" throughout this BMS section refers to BMS connected equipment to allow for zoning throughout the building to ensure that each department and on a floor-by-floor basis can be time controlled via the BMS to allow for current (and future) changes to departmental occupational / heating requirements.

The BMS will include all the required control equipment (Fan / pump starters, sensors, valve actuators, pressure switches, pressure transducers, relays, power wiring, control wiring, network wiring, hand over-ride switches, panel indicator lamps, all other associated control panel items, site specific software including graphic slides) to provide a complete working system control system.

Project Co shall ensure the BMS is set up in a way that enables the monitoring of points on a continuous basis by the Board in order to facilitate trend analysis. Project Co shall ensure that this includes temperature profiles, valve positions and plant operation periods. Project Co shall ensure that it is possible to obtain historic data on specified points for a period of at least 14 days in order to facilitate fault diagnosis in the event of a problem.

Project Co shall ensure that the monitoring of domestic hot water and cold water (including tanks and end-of-line outlets) is continuous and carried out throughout the Facilities (not just at central plant) in order to demonstrate compliance with the Board's Legionella prevention strategy and conforms to relevant legislation, and NHS guidance.

Project Co shall ensure that the BMS is installed to control all plant where there is an operational requirement or a life cycle cost benefit, including but not limited to:

- a) Boiler plant;
- b) Air handling plant;
- c) Ventilation plant;
- d) Cooling plant;
- e) Domestic hot water plant;
- f) Duty/Standby control; and
- g) Lighting interior and exterior (localised control shall also be considered).

Project Co shall ensure that all major plant items shall be designed and controlled to provide "real time" status monitoring, including run, fault, and alarm reporting. Project Co shall ensure that this includes boilers, pumps, pressurisation units, air handling plant, fans and air conditioning. Project Co shall provide a modular boiler system for the Facilities which will be of a dual fuel nature with storage capacity to meet the Board's statutory civil contingency requirements, which is 200 hours of peak winter demand.

Project Co shall ensure that the requirements of the following paragraphs are incorporated into the proposed Building Management System for the Facilities;

i. Zone Control

Project Co shall ensure the Facilities are capable of individual temperature control for all patient areas; to be achieved with the use of BMS controlled zone controls. Areas of 24-hour operation shall be independently controlled from non 24 hour areas to ensure optimum efficiency and in discrete areas consideration shall be given to localised zoning depending on the orientation of the buildings. Proper consideration is required to the level and extent of temperature sensing and monitoring devices to provide both accurate and cost effective zonal control.

ii. Optimisation & Compensation

Project Co shall ensure Good Industry Practice is adhered to regarding control regimes incorporating time, optimisation and weather compensation.

iii. Smart Metering

Project Co shall ensure the use of meters giving high accuracy at low flow rates and that metering points give consumption in SI units including any time bands as appropriate. Project Co shall ensure data collection and report production is by electronic systems.

Project Co shall allow sub-metering of electricity, heating and domestic water usage for each individual department / unit.

Project Co shall allow sub-metering of electricity usage for each individual department / unit and as required to satisfy the requirements of Section 6 of the Scottish Technical Standards.

As a minimum all incoming utilities shall be metered. In addition, any relatively large use of electricity, such as DHW trace heating, external lighting or mechanical plant, shall be metered separately and in line with BREEAM Healthcare stipulations.

The metering equipment shall be located at the most appropriate location for easy manual accurate reading to be taken of the load and reading should also be relayed to a central meter station in the energy centre.

Project Co shall make provision to allow the regular monitoring and reporting procedures to be implemented during the Operational Term. The installation of sub-metering is required and is to be introduced to allow accurate departmental energy usage and costing information to be obtained.

The Board believes that the feedback of information on consumption levels is essential to ensure that any adverse variances are recognised and a course of remedial action initiated. The system shall be designed and installed so that monitoring can be carried out on a continuous basis to enable energy consumptions to be data logged and profiled.

The system shall be designed and installed to permit calibration/accuracy checks on all meters (primary and sub) on an ongoing basis as an integral part of the services commissioning and prior to project completion to ensure BMS accuracy.

The BMS shall be installed to automatically read and provide trend analysis to a range of energy / water meters. All meters including those of the utility supply companies and internal sub-meters shall be automatically read by the BMS at pre-determined intervals. Project Co shall ensure that the BMS is capable of reading utility meters on a continuous basis in order to facilitate trend analysis. The energy metering shall include (but not limited to):

Electricity

- a) Main incoming HV supply;
- b) Main LV Switchboard;
- c) External lighting (separate sub-meter for car park lighting);
- d) All distribution boards with separate meters for power and lighting;
- e) Departmental power and lighting;
- f) HVAC control panels;
- g) Cooling plant;

- h) Standby electrical energy sources, rotating and static; and
- i) Tenant areas (if provided).

For the purpose of energy estimates, hours run meters shall be provided for all Air Handling Unit (AHU) fans.

Water

- a) Main incoming water supply; and
- b) Internal sub-meters.

Gas

- a) Main incoming gas supply; and
- b) Internal sub-meters.

Oil

- a) Delivered to Site; and
- b) Used on Site, by individual pieces of equipment.

iv. Smart Meter Type

The new smart meters must be capable to 'store measured energy consumption data for multiple time periods; and at least half hourly' and they must 'provide remote access to such data by the licensee'. The meter shall allow access to data to be available in a day + one.

The metering shall be provided by an independent provider of metering and data services. This will allow the supplier to be changed without being bound by any metering and data services, and without losing meter data during the supplier change over.

v. Communication Protocol

In recognition of the advances being made in building management systems, Project Co shall ensure that the BMS platform is compatible with a range of diversified core systems and standard protocols such as BACnet, LonTalk, Modbus, and OPC. The use of these standard communication protocols will allow for more effective integration and help prepare for future devices and technologies. It will also facilitate the use of communication between different manufacturers control equipment.

vi. User Interface

Project Co shall ensure that once installed and commissioned the 'smart' meters have a BMS user interface that is sufficiently user friendly to facilitate multi-user access, without the need for the users to be controls or software specialists. Project Co shall meet the requirements of the Board in so far as that; the Board envisages that navigation around the BMS, via the "front end" will be by a combination of floor plans, plant & equipment graphics and drop down menus or "software" knobs.

Project Co shall provide the Board with a system capable of remote off-site access through the BMS from a number of locations, in order that it can monitor internal and utility consumptions / trends. Software access to be security password controlled.

Project Co to prepare and present sample software tutorial on BMS graphics (Graphical User Interface) to the Board/end user as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement at a time suitably in advance of project completion to allow software/graphic modifications in line with the Board comments.

vii. System Selection

Project Co shall ensure that all materials and equipment used are standard components, regularly manufactured for this and/or other systems and not custom designed especially for this project. Project Co shall ensure that all systems and components have been thoroughly tested and proven in actual use, for at least two years, within other NHS establishments of a similar size and complexity to this one. All components and/or systems shall be type tested and carry the CE mark.

Project Co shall confirm that both the hardware and software will be fully supported for a minimum period of 15 years from the Actual Completion Date. Future compatibility shall be supported for no less than 10 years from the Actual Completion Date. Compatibility shall be defined as the ability to upgrade existing field panels to current level of technology, and extend new field panels on a previously installed network.

8.7.2 Towns Water Connection to the Site

Project Co shall provide a secure as possible single towns water connection to the Site from the local Scottish Water network exploring opportunities for and if feasible incorporate dual supplies to ensure increased site resilience and subject to complying with the relevant provisions of paragraph 4.

8.7.3 Site Mains Water, Fire Water, Quality & Distribution

Project Co shall develop the Site potable and fire water networks as separate systems, each arranged in a ring with adequate valving to achieve robustness in continuity of supply.

Project Co shall filter the Site potable water to the criteria set out in SHTM 04-01 Parts A - G and commensurate with the piping material proposed.

In determining the pipework material the Project Co shall take cognisance of the latest best practice in the Scottish NHS.

8.7.4 Fossil Fuels

Project Co shall be responsible, in conjunction with Transco in determining the philosophy for the provision of fossil fuels to the Site. Options that Project Co may consider are un-interruptible gas or the provision of dual fuel burners and a heating oil standby facility. Irrespective of the option proposed by Project Co the availability criteria described elsewhere in Clause 9 and Schedule Part 14 (Payment Mechanism) of the Project Agreement and/or the Services Specifications will be strictly adhered to.

8.7.5 Heating System

Project Co shall provide all heating systems required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and to:

- a) Zone and control heating circuits to provide an efficient and comfortable environment;
- b) Provide valve isolation such that isolation of circuits/sub-circuits shall have minimal disruption to the remaining departments;
- c) Provide 24 hour occupied (and unoccupied) wards and departments with a night set-back facility;
- d) Provide temperature and ventilation night set-back facilities so that when departments are unoccupied they will have frost and anti-condensation protection.

Project Co shall provide high efficiency, low NOx heat generation and heating water distribution plant, serving good quality heat emitters to ensure satisfactory heat distribution within the area served. Project Co shall arrange heat emitters and all heating pipework such that in all areas, the surface temperature limits as laid down in SHTM 04-01 Parts A - G are not exceeded. Project Co shall not utilise heating pipework as a heat emitter within patient areas.

Project Co shall pay particular attention to effective use of warm air curtains in entrance / draft lobbies.

The Scottish Government are considering supporting a district heating network (DHN) at the Bioquarter Site. In order to future proof the Facilities for connection to this DHN, Project Co shall provide valved and blanked connection points suitably sized and located for the whole heating load of the Facilities, including an additional 20% for future expansion. Project Co shall design space for the future installation of duty and standby plate heat exchangers capable of the full heat load while providing a hydraulic break between the Facilities and the DHN.

Project Co shall make provision in the design of the Energy Centre for the future installation of underground pipework into the building at a position to connect to the proposed heat exchanger space. Project Co shall in designing the co-ordination of utility services within the Service Strip take cognisance of the future requirement for.

8.7.6 Domestic Water Services

The water supply system for the Facilities shall include a new dedicated supply from Scottish Water's off site infrastructure and also incorporate on-site bulk water storage (24-hours) and subject to complying with the relevant provisions of paragraph 4.

Treatment of potable cold water supplies is considered undesirable and the provision of a wholesome supply from Scottish Water's mains with the minimum of storage and handling is the preferred approach.

Project Co shall design and install the domestic cold and hot water supply installations to fully comply with the requirements of SHTM 04-01 Parts A - G. Project Co shall include for all specialist treatment plant that may be necessary. Project Co shall provide water sampling points as required by SHTM 04-01 Parts A - G with due regard for clinical requirements and provision of Clinical Services.

Secure local isolation shall be provided by Project Co at all sanitary appliances, and at final connection points to equipment. Project Co shall provide secure external isolation to the buildings.

Project Co shall provide plumbed in water dispensers at ward level in accordance with Schedule Part 11, Equipment Schedule. The installation of ice machines is prohibited.

Project Co shall provide plumbed water to specialist services such as, but not limited to, washing machines in specialised units and dishwashers in ward areas in accordance with the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements), and in particular Schedule Part 11, Equipment Schedule.

Project Co shall provide plumbed water to all vending machines as required throughout the Facilities in accordance with the Board's Construction Requirements Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements), and in particular the Schedule Part 11, Equipment Schedule.

The Project Co's attention is drawn in particular to SHTM 04-01 Parts A - G concerning pipework materials and standards of filtration to be used in Scottish health care facilities.

All clinical hand washing facilities shall be provided with automatic sensor taps. In order to assist in achieving the water consumption target (see paragraph 5.26 of this Sub-Section C) Project Co shall consider the use of low flush toilets and insert spray caps where appropriate to taps to ensure the conservation of the water supply. Project Co shall install systems into the urinal facilities to reduce the flush requirements.

As required within SHTM 04-01 Parts A - G, no flexible or braided hoses shall be permitted for final connections between domestic water distribution pipework and appliances/outlets.

Project Co shall consider the environmental benefits and economic viability of greywater recycling on Site and if beneficial to the project shall incorporate such a system into the building services and flood abatement philosophy for the Site. Project Co shall describe fully its mode of operation and integration into the Site.

Project Co shall evaluate the benefits and feasibility of rainwater harvesting for process areas only which if adopted, Project Co shall ensure that the rainwater from the roof of the Facilities and hardstandings is collected, stored and re-used for toilet flushing purposes and if appropriate separated to serve supply points for irrigation of the external areas of the proposed Facilities.

Project Co shall ensure that the recycling facility for the separate greywater and rainwater systems allows for appropriate filtration and complies with any flood abatement philosophy for the site.

8.7.7 Hot Water Supply

Appropriate operational engineering systems for hot water and steam shall be included in the design of the Facilities.

Domestic hot water systems shall be designed to provide adequate flow to satisfy maximum demand whilst minimising stored hot water and energy consumption. The provision of some storage is desirable to minimise the impact of hot water generation on boiler power.

Project Co shall install Type 3 (in accordance with NHS Model Engineering Specification D08) thermostatic mixing valves at all HWS outlets to comply with SHTMs and SHGNs except where 60°C water is a particular requirement so that the mandatory requirements for the control of Legionella and other bacteria within the system are met.

Energy efficient hot water boilers shall be provided in all staff rest rooms and kitchen areas.

8.7.8 Mechanical Ventilation & Air Conditioning

The heating, ventilation and air conditioning systems shall be logically designed to operate efficiently incorporating heat recovery and providing local control where required. Project Co should ensure avoidance of simultaneous heating and cooling, either by the ventilation system itself or between the ventilation system and any other heating and cooling system,

The energy and power systems shall be appropriately designed to provide fully integrated designs in terms of the incorporation of engineering services into the building fabric and external spaces.

The need to maintain comfort conditions in accordance with the Room Data Sheets in all areas but particularly in clinical areas is of paramount importance and Project Co shall develop strategies for achieving these conditions together with minimum energy consumption.

Project Co shall provide natural and mechanical ventilation, comfort cooling, and air conditioning to suit the Facilities and clinical requirements and provision of the Clinical Services. Project Co shall provide a climate control facility in clinical and staff areas which are provided with comfort cooling (if applicable). The use of low carbon solutions is anticipated for such requirements.

Project Co shall provide the air lock to the first floor of the Link Building to the RIE Facilities in accordance with the Interface Output Specification, the Connection Proposal and relevant provisions or Paragraph 4 concerning any connections to the Link Building.

Project Co shall ensure heat gain from all equipment and personnel is allowed for in sizing and selection of the systems.

Project Co shall demonstrate how the proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with SHTM 03-01, SHFN 30 and HAI-SCRIBE.

Project Co demonstration is to cover all aspects of the building, its services, spatial relationships, Soft and Hard FM proposals (as appropriate) and incorporate requirements of the Board's Infection Control Team.

Project Co shall ensure that ventilation systems installed in areas classified as hazardous are designed to relevant standards.

Where grilles or diffusers are used within rooms Project Co shall ensure they are:

- a) Arranged to avoid draughts; and
- b) Designed to minimise noise intrusion into the space.

Project Co shall incorporate provision to include humidification to the AHU plant at a future date.

8.7.9 Combined Heat and Power

Project Co shall consider the environmental benefits and economic viability of Combined Heat and Power (CHP) and if beneficial to the project shall incorporate CHP into the building design, avoiding any 'dumping' of heat or export of power off-site. Project Co shall describe fully its mode of operation and integration into the mechanical and electrical services to demonstrate their assessment and viability.

8.7.10 Medical Gases

Project Co shall provide all medical gases required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific-Non Clinical Requirements), such as but not limited to:-

- a) Oxygen Vacuum Insulated Evaporator (VIE) shall be for the sole use of the Facilities. The Oxygen VIE shall be provided from sources solely on the Site.
- b) Nitrogen provided on the Site
- c) Nitrogen oxide provided on the Site;
- d) Medical air 4 bar;
- e) Surgical air 7 bar; and
- f) 50% oxygen / 50% nitrous oxide provided on the Site.

Medical gas bottles, plant areas and stores shall be accommodated within suitably designed buildings / rooms / enclosures with good access, natural ventilation and satisfactory noise emissions control.

All medical gas installations which serve clinical departments shall be connected to essential electrical supplies.

The status of the central medical gas plant shall be monitored by an alarm system with a status signal to an alarm panel located in a manned office. The panel shall also report the alarm to the BMS. Each ward and department shall be fitted with a local medical gas alarm panel downstream of each area valve service unit (AVSU). These panels shall also report the alarm to the BMS.

The local medical gas panel in Medical Inpatients shall have the capacity to repeat the local medical gas alarms from MDCU.

Project Co shall install the piped medical gases in accordance with SHTM 02-01 and "Model Engineering Specification C11".

Project Co shall install outlets as defined in this Schedule Part 6 Section 6 (Room Data Sheets).

Project Co shall provide a medical gas distribution system sized to accommodate the demand of the Facilities at the Actual Completion Date and handover, with the capacity to accommodate an increase in demand (flow and consumption) of no less than 25% throughout the Facilities.

Project Co shall ensure that the provision of medical gases to the point of use is continuous. Where Project Co are providing medical gases via cylinders they shall provide manifold systems with automatic change over from duty to standby to no less than two equal banks of

cylinders. The capacity of such arrangements should be in line with that outlined within SHTM 02-01 and "Model Engineering Specification C11" along with necessary alarm systems to alert staff as to a fault conditions.

Project Co shall ensure that adequate points of isolation exist to all medical gas systems.

8.7.11 Medical & Dental Vacuum

Project Co shall provide medical and dental vacuum systems as required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements).

Medical and dental vacuum plant areas and stores shall be accommodated within suitably designed buildings / rooms / enclosures with good access, natural ventilation and satisfactory noise emissions control.

Installations shall be connected to essential electrical supplies and shall be in compliance with SHTM 02-01.

The status of the central medical and dental vacuum plant shall be monitored by an alarm system with a status signal to an alarm panel located in a manned office. The panel shall also report the alarm to the BMS.

8.7.12 Anaesthetic Gas Scavenging System

Project Co shall provide an active Anaesthetic Gas Scavenging System (AGSS) as required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements).

AGSS plant areas and stores shall be accommodated within suitably designed buildings / rooms / enclosures with good access, natural ventilation and satisfactory noise emissions control.

The installation shall be connected to essential electrical supplies.

The status of the AGSS shall be monitored by an alarm system with a status signal to an alarm panel located in a manned office. The panel shall also report the alarm to the BMS.

8.7.13 Non-Medical Gases

Project Co shall provide all non-medical gases required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific-Non Clinical Requirements).

Non-medical gases shall be provided as either bottled or piped installations as deemed appropriate.

Gas bottles, plant areas and stores shall be accommodated within suitably designed buildings / rooms / enclosures with good access, natural ventilation and satisfactory noise emissions control.

All critical non-medical gas installations i.e. certain laboratories etc shall be connected to essential electrical supplies.

The status of the central non medical gas plant shall be monitored by an alarm system with a status signal to an alarm panel located in a manned office. The panel shall also report the alarm to the BMS.

Project Co shall install the non medical gases in accordance with SHTM 08-06, SHTM 02-01 and "Model Engineering Specification C11".

Project Co shall install outlets as defined in Schedule Part 11, Equipment Schedule.

Project Co shall provide a non medical gas distribution system sized to accommodate the anticipated demand of the Facilities at the Actual Completion Date having regard to Schedule Part 11 (Equipment Schedule) and the Room Data Sheets, with the capacity to accommodate an increase in demand (flow and consumption) of no less than 25% throughout the Facilities.

Project Co shall ensure that the provision of non medical gases to the point of use is continuous. Where Project Co are providing non medical gases via cylinders they shall provide manifold systems with automatic change over from duty to standby to no less than two equal banks of cylinders.

Project Co shall ensure that adequate points of isolation exist to all non medical gas systems.

8.7.14 Bedhead Services

Project Co shall provide bed head services as defined in the Schedule Part 11, Equipment Schedule. Project Co shall ensure that bedhead services are designed and installed in accordance with SHTM 08-03.

8.7.15 Sterilisation

Project Co shall provide clean steam and associated sterilisation plant and distribution systems as required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements). Plant and associated systems shall be designed to SHTM 2031 and SHTM 2010. Discharges to drain are to be treated / managed in accordance with SEPA requirements.

8.7.16 Special Water Services

Project Co shall provide all special water services required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements), such as but not limited to:

- a) Special supplies such as de-ionised water to laboratory equipment;
- b) Special supplies such as de-ionised water to equipment washers / disinfection equipment; and
- c) Special supplies for Renal Dialysis.

8.7.17 Laboratory Gases

Project Co shall provide all laboratory gases required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements), such as but not limited to:-

- a) Nitrogen; and
- b) Carbon Dioxide.

All pipework shall be distributed in ventilation spaces within the ceiling void with maximum permissible separation from the electrical services and hot pipe services. Natural gas installation in the building shall comply with the all current Gas Safety Regulations, incorporating emergency manual / automatic isolation in each room with gas draw-offs. Reinstatement of natural gas following emergency isolation shall also follow an inherently safe regime.

8.7.18 Local Exhaust Ventilation Systems

Project Co shall provide all LEV systems including but not limited to that required to support the provision of catering, workshop and maintenance facilities on Site.

8.7.19 Fume Cupboard & Micro-biological Safety Cabinets

Project Co shall provide fume cupboard and both CAT II and CAT III microbiological safety cabinet exhaust systems as required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements). Systems shall comply with NHS Specifications and Guidance documentation which shall include a matched supply system into the room(s) containing fume cupboards and micro-biological safety cabinets. Fume cupboard design and installation shall be to BS EN 14175.

Microbiological Safety Cabinet design and installation shall be to BS EN 12469: 2000 Biotechnology - performance criteria for microbiological safety cabinets and BS 5726: 2005 Microbiological safety cabinets.

8.7.20 Drainage

Project Co shall provide all necessary drainage to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements) and their aspirations regarding reduced water consumption which shall include but not be limited to:

- a) General foul water drainage;
- b) General surface water drainage;
- c) Kitchen drainage, inclusive of grease traps;
- d) Laboratory drainage;
- e) Radioactive waste;
- f) Drainage from areas handling radio isotopes, or other contaminants such as silver;
- g) Bedpan disposal system; and
- h) Drainage from oil bund areas, inclusive of oil interceptors.

Project Co shall consider the environmental benefits and economic viability of greywater recycling on Site and if beneficial to the project shall incorporate such a system into the

building services and flood abatement philosophy for the Site. Project Co's Proposals shall describe fully the system's mode of operation and integration into the Site.

Project Co shall ensure all drainage discharges from Site are strictly in accordance with the limits set by SEPA.

Drainage systems shall be provided which function reliably with the minimum of blockages, leaks etc. Materials and jointing systems with a proven track record shall be chosen.

The design of the system shall be such as to create the minimum disruption in the event of blockages.

Project Co shall construct the drainage installation such that it complies with the "Initial Drainage Proposal" and the Supplemental Drainage Proposal and the relevant provisions regarding drainage in paragraph 4.

8.7.21 High Specification Air Conditioning Systems

Project Co shall provide high specification, full function and close control air conditioning systems to support the Board's Clinical Output Specification that are contained in Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements), such as but not limited to:

- a) Laminar flow rooms and / or operating theatres; and
- b) Areas handling radio isotopes or other radiological contaminants.

Air conditioning systems installed in the above areas shall be higher specification air conditioning systems with standby motors belted up in accordance with SHTM 03-01, 04-01 and NHS Model Engineering Specification C04.

8.7.22 Ventilation and Air Conditioning of Isolation Rooms

Project Co shall provide air conditioning systems to Isolation Rooms to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements), NHS Standard Infection Control Precautions (SICPs) and maintaining strict positive / negative pressure differentials.

Ventilation and air conditioning systems for these rooms shall be designed and installed in accordance with SHTM 03-01, 04-01 and NHS Model Engineering Specification C04. Project Co shall demonstrate how the proposals facilitate the control and management of an outbreak and spread of infectious diseases.

8.7.23 Pneumatic Air Tube Transport System

Project Co shall provide a pneumatic air tube transport system for the Facilities with links to the RIE Facilities. The locations to be served in the Facilities are indicated on the RHSC Pneumatic Air Tube Transport System Requirement Table and DCN Pneumatic Air Tube Transport System Requirement Table below and, as required to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements). All of the Facilities pneumatic air tube transport system stations shall deliver to and receive from the laboratories and pharmacy located within the RIE Facilities, Rooms G5119 and S6107 respectively. In addition to the provision of the system within the Facilities, Project Co will also be responsible for the installation of the link to and the system

including supporting plant within the RIE Facilities in accordance with predetermined routes advised by the Board. The installation must be consistent with the overall communications policy of the hospital. Project Co shall ensure the pneumatic air tube transport system shall be designed and installed in accordance with SHTM 08-04: Specialist services Pneumatic tube transport systems: Part A: Overview and management responsibilities and Part B: Design considerations and good practice guide. The system shall be 160 mm diameter multiple carrier microprocessor controlled with all associated infrastructure comprising two transmission tubes (one to and one from the RIE Facilities) accommodating up to five carriers travelling simultaneously in any direction. Notwithstanding the foregoing, the system shall be designed to take a minimum of 21 transactions per hour (not including the return of capsules). The 21 transactions per hour is the average number of transactions based over a 24hr period, and should therefore be seen as the minimum requirement as at times of peak activity, i.e. Monday to Friday 8am – 5pm, the number of transactions will be higher with fewer transactions overnight and weekends. The system will have a 70% maximum system capacity.

Project Co shall design and construct the Pneumatic Tube System in accordance with the Appendix B (Interface Output Specification) and the relevant provisions of paragraph 4 as regards the PTS.

RHSC Pneumatic Air Tube Transport System Requirement Table

Ref	Department	Pneumatic Air Tube Delivery System Required and Number	Location
RHSC SPECIFIC DEPARTMENTS			
A	Front Door - ED / Assessment Ward		
A1	Emergency Department	2	1 Laboratory Area and 1 outside Resuscitation Room
A2	Paediatric Acute Receiving Unit - 34 Beds	1	Central Location Staff Base
B	Critical Care / HDU / Neonatal Surgery		
B1	PICU and HDU's - 24 Beds	2	1 close to Room 5/8 and the other close to Room 14
C	RHSC In Patient Pathway / Ward Care		
C1.1	Medical Inpatients - 23 Beds	1	Staff Base Central location
C1.2	Surgical Long Stay Inpatients -15 Beds	1	Staff Base Central location
C1.3	Neuroscience Inpatients - 12 Beds	1	Staff Base Central location
C1.4	Haematology / Oncology Inpatients & Daycases - 17 Beds & 2 Chairs	1	Staff Base Central location
C1.8	Surgical Short Stay Inpatients - 14 Beds	1	Staff Base Central location
C1.9	Inborn Metabolic Disorders Lab	1	
D	RHSC Ambulatory Care		
D1	RHSC Main Outpatients	2 - (1 Ground Level 1 First Level)	In corridor In the D1 Area Reception Area
D9	Medical Day Care Unit - 5 Beds	1	Reception Area
H	Academic		
H2	Clinical Research Facility	1	Close to reception area

DCN Pneumatic Air Tube Transport System Requirement Table

Ref	Department	Pneumatic Air Tube Delivery System Required and Number	Location
DCN SPECIFIC DEPARTMENTS			
L	DCN In Patient Pathway / Ward Care		
L1	DCN Acute Care - 24 Beds	1	Staff Base closest to Resuscitation Room
L2	DCN Inpatients - 43 Beds	1	Clinical Supplies Room 2-L2-067
M			
M	DCN Out Patient Departments		
M1	DCN Outpatients	1	Reception Area
JOINT DEPARTMENTS			
P	Combined Theatres		
P1	Operating Theatres & RHSC Surgical Day Case Unit	2	1 located close to reception area in DCN & RHSC end
Q			
Q	Combined Radiology		
Q1	Radiology	1	Located close to DCN Reception Area

8.8 Electrical Systems

8.8.1 Main & Sub-Main Distribution

Project Co shall provide a main and sub-main distribution system for the new Facilities incorporating all connections from the utility provided HV supply, LV main switchgear, sub-main cabling and distribution boards as required, to provide separate essential and non-essential supplies to power and lighting throughout the Facilities designed in accordance with SHTM 06-01 and SHTM 06-02 respectively.

The utility provided HV Supply shall include a new Scottish Power substation that may be located adjacent to Car Park F on the Substation Site. Project Co shall comply with the relevant requirements for the Substation Works and Substation HV Cable Infrastructure detailed in paragraph 4 the relevant Interface Proposals and Appendix A.

A new HV board and standby generators shall be housed within a new energy centre which shall supply via an 11kV ring new HV Substations located within the building.

The design of the LV Distribution shall ensure that redundancy is provided throughout the Facilities and include features such as dual fed distribution boards.

Project Co shall incorporate no less than 25% spare capacity (for the Facilities as designed) to the main distribution switchgear, standby generator etc within the Facilities and size the installations (all distribution panels, containment, risers etc.) to accommodate additional future spare requirements.

Project Co shall provide automatic power factor correction equipment in accordance with SHTM 06-01.

8.8.2 Standby Generation

Project Co shall provide a standby mains failure generator system for the Facilities to provide 100% power in the event of loss of the mains supply and comply with requirements set out in paragraph 8.6.2 of this Sub-Section C.

The standby generator design shall be based on a N+1 arrangement.

The system shall include for controls to operate and maintain the generator inclusive of facilities to automatically synchronise with the switchboard.

The provision of services to modern healthcare facilities is critical to its continuous operation and proposals shall include adequate resilience and support systems in all areas of the design.

Project Co shall ensure all critical services shall be maintained in the event of:

- a) A primary supply failure;
- b) A main distribution failure; and
- c) A local distribution or equipment failure.

Loss of any critical service shall not disrupt the operation of the Facilities and sufficient no break back-up systems shall be included to assure continuity of services.

In sizing the generators Project Co shall include the 25% spare electrical capacity identified for the general power distribution systems.

Project Co shall ensure the quality of generated supply is to be compatible with the requirements of specialist clinical equipment.

8.8.3 Electrical Small Power

Project Co shall provide socket outlets throughout the Facilities to provide for general facilities, cleaner's requirements and for connection of particular items and portable equipment as required throughout the Facilities. Project Co shall provide power supplies suitable for personal domestic appliances (e.g. hairdryer) in changing rooms. Segregation shall be provided between "clean" and "dirty" power supplies.

Project Co shall provide all necessary single and three phase power supplies for plant and equipment.

8.8.4 Lighting

The lighting installation shall be designed by Project Co to comply with the latest versions of the following publications and all other relevant guidance including CIBSE Lighting Guides and in particular LG2

Project Co shall provide the lighting levels and uniformity of light suitable for the task to be carried out and in accordance with the appropriate guidelines. The Board requires a lighting design / installation which provides good uniformity over the task area i.e. $\geq 80\%$.

Project Co shall ensure that luminaires are complete with an appropriate high efficiency diffuser / controller and be suitable for the application for which they are proposed.

Project Co shall incorporate the use of daylight into the lighting design. Project Co shall design and orientate the building such that the daylight can be used to best effect, supplemented by the artificial lighting system to provide the appropriate levels of illumination.

8.8.5 Interior Lighting

All access routes to plant areas shall be lit to provide safe access for maintenance.

Hazardous areas shall be provided with the appropriate classified luminaires.

All light switches for public areas shall be provided such that they cannot be operated by unauthorised persons.

Whilst the lighting design must be functional for clinical use, Project Co shall ensure that the overall lighting concept will produce an aesthetically pleasing environment. All lighting equipment shall be co-ordinated with the building structure. Project Co shall aim to use a mixture of fittings and retail lighting techniques to create a welcoming atmosphere and balanced visual environment.

Project Co shall provide and install the most energy efficient form of lighting to provide occupiers with improved visual comfort while reducing noise levels and running costs.

Project Co shall ensure that corridor lighting is multi circuited to facilitate use of 100% or 50% of the luminaires. Where the corridor is over 15 metres in length, consideration shall be given by Project Co to zoned lighting and the use of presence detection sensors to maximise efficiency.

Night lighting shall be provided within all corridors either by individual fittings or by selective switching of the general corridor wall/ceiling luminaires. Project Co shall ensure night lighting in corridors shall not spill into patient bedrooms, or other bedded areas.

Luminaires shall be located to provide ready access for lamp changing and maintenance, whilst still providing the recommended level and quality of illumination to the area.

Night lighting shall be provided at nurse stations, patient bed areas and locations where call systems are installed.

Artificial illumination shall be provided to Treatment (activity / consulting) Rooms, etc by fully recessed, hermetically sealed modular light fittings, switched at the room door positions. Treatment Room luminaires which provide the general lighting shall be controlled by at least two circuits depending on the arrangement of fluorescent tubes in each fitting. The design of these luminaires by Project Co must provide ease of access for lamp changing.

Luminaires, their colour and material finish shall be selected to co-ordinate with the architectural intent throughout the circulation areas. Low wattage 2700K luminaires to be used in particular rooms shall be selected on their ability to create a calm and “homely” atmosphere. Project Co shall consider the inclusion of wall mounted luminaires and /or uplighters.

All lamps used in clinical areas shall have as a minimum a colour rendering capability of ≥ 85 CRI. For practical reasons consideration shall be given by Project Co to using the same luminaire in both clinical and non-clinical spaces within the same ward. A reading light with an on/off switch shall be provided at each bedhead location. Project Co shall provide an additional switch on the nurse call handset.

Where luminaires of the fully recessed type (modular and / or downlighter) are installed within fire rated ceilings, they shall be provided with a one hour rated fire canopy. Project Co shall also ensure that they maintain the integrity of the ceiling and that the canopies are tested to “BS 476 Fire tests on building materials and structures Parts 20 and 23, clause 5. Project Co shall also ensure that all canopies meet the requirements of Class O materials”.

Luminaires with prismatic diffusers installed on fire escape routes shall be fitted with flame retardant diffusers to TP(a) classification in Part B (Fire safety) of the Building Regulations in England: Light Diffusers and Wall Coverings, minimum Class 3 surface spread of flame.

Bed head observational lighting (watch lighting) shall be provided where specified in high dependency and critical care wards. The observational lighting shall be separately switched and controlled from the general lighting. Refer to Schedule Part 11, Equipment Schedule for details of where observational lighting is required

Wall or ceiling mounted examination lighting shall be provided where specified in intensive therapy, high dependency and coronary units. Refer to Schedule Part 11, Equipment Schedule for details of where examination lighting is required

Laser and x-ray warning lights shall be provided outside theatres, major treatment rooms and x-ray rooms and interfaced with the laser / x-ray machines

Food factory type luminaires shall be provided in areas in which food is prepared, cooked and stored.

Ensure that in the entrance areas, functional lighting is supplemented by additional lighting to enhance the interior and create an aesthetically pleasing environment.

Plant areas, roof void areas, ducts, lift motor rooms, shafts and similar utility areas shall be additionally illuminated utilising suitably IP rated luminaires.

Project Co to provide over-mirror lights in all male and female changing rooms, where indicated in the Schedule Part 11 (Equipment Schedule).

8.8.6 Exterior Lighting

The perimeter, including any main entrance canopies and pedestrian walkways, to all buildings shall be lit by the use of LED energy efficient luminaires mounted on walls, columns and/or bollards. All on-site access roads, footpaths and cycle ways shall be lit to levels compatible with the adjacent roads. The lighting shall satisfy the requirements of BS EN 13201 and BS 5489:2003 Code of practice for the design of road lighting. Lighting shall be provided to all direction signs around the Site where these are not adequately illuminated by external lighting.

All access routes to plant areas shall be lit to provide safe access for maintenance.

All wall mounted luminaires shall be fed by back entry. Cable runs on the outside of buildings shall not be permitted.

All external columns, bollards etc. shall be provided with fused cut-outs and termination facilities for cabling.

All luminaires shall be wired on multiple circuits to avoid loss of light to whole areas in the event of a mains/circuit failure.

Project Co shall illuminate the main entrances, the buildings perimeter and pedestrian walkways by use of energy efficient luminaires, wall, column and / or bollard mounted. The installation shall achieve the requirements of BS EN 13201 and BS 5489:2003 Code of practice for the design of road lighting, providing external lighting for safety and security purposes.

When selecting luminaires, Project Co shall give consideration to light pollution, vandalism, security, energy efficiency and local residents' needs.

Project Co shall control external lighting to minimise energy consumption, by photocell or movement sensor, the lamp type selected must be sympathetic to frequency of switching dictated by the control means. Project Co shall consider the use of solar powered lighting.

8.8.7 Lighting Control & Wiring

Project Co shall provide automatic control of lighting control using natural light level sensing. Control lighting for unoccupied periods by use of the BMS scheduling capability, with movement sensing override for safety. Project Co shall provide a safe minimum light level at all times.

Project Co shall ensure that the lighting design incorporates a flexible switching arrangement to allow for varying activities within each room and for cleaning purposes. Switches for public areas shall be positioned by Project Co so that unauthorised persons cannot switch the lighting.

Lighting within all WC's, Staff WC's and changing rooms shall be controlled via passive infrared sensors/movement detectors or similar, with adjustable time control facilities.

Lighting within clinical areas shall be manually controlled.

Project Co shall arrange the circuiting of luminaires to control groups of fittings in order to provide flexibility of switching arrangements. Such a facility is particularly important in large spaces where the level of daylight is not uniform and artificial lighting is likely to be needed for long period in areas remote from windows.

Project Co shall provide alternative circuits together with two-way or intermediate switching at all section doors and corridor direction changes for lighting in corridors and circulation areas.

Where multi-gang lighting control switches are required Project Co shall provide a label fixed to the grid under the switch plate, indicating the switches are fed from different supplies.

Project Co shall wire lighting circuits within rooms/areas on the same phase as the general power circuits.

8.8.8 Emergency Lighting

Project Co shall connect the emergency lighting to addressable self-monitoring control panels with each luminaire containing an interface unit that will be monitored and controlled by the control panel which shall report to the BMS system. Project Co shall ensure that the emergency luminaires are automatically tested in accordance with the requirements of the British Standards.

The emergency luminaires may be of either the maintained or non-maintained variety. Project Co shall ensure that they are powered by a suitable battery supply connected by an auto-changeover switch or utilise self-contained battery packs within luminaires (3-hour rated). Project Co shall ensure that the emergency luminaires will be automatically energised in the event of a failure to the local lighting circuit.

Project Co shall comply with the requirements of BS 5266 Emergency Lighting and European Legislation CEN/TC 169 WG3 Emergency Lighting of Buildings.

8.8.9 Standby Lighting

Project Co shall provide 100% standby lighting via the generator to enable normal activities to continue during the loss of a normal mains supply.

Project Co shall ensure that the quality of standby lighting is equal to that of the normal lighting at the task points.

8.8.10 Uninterruptible Power Supplies

Project Co shall provide Uninterruptible Power Supplies (UPS) to serve life-support equipment within area and rooms listed in the UPS Required Table below and the requirements of Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) in accordance with SHTM 06-01 Electrical Services. UPS to be provided to individual rooms shall be as stated on the Room Data Sheets. Project Co shall provide UPS for the Helipad and the NHS Lothian Server Room's ventilation/cooling. The UPS shall provide a no-break supply during loss of normal mains power supply and subsequent emergency generator power supply. The UPS System shall be of modular parallel design and will have N+1 redundancy. The Board shall only provide the IT dedicated UPS for the NHS Lothian Server Room and NHS Lothian Node Rooms. Project Co shall provide the power for the UPS provided by the Board. UPS requirements for the UPS provided by the Board in the NHS Lothian Server Room and NHS Node Rooms are detailed in the Responsibility Matrix within paragraph 9.7 under IT dedicated UPS.

UPS Required Table

Level	Area	Rooms
Basement		
Ground Floor	Emergency Department	Resuscitation Room(s) 4 Major Treatment Rooms
	Co-Joined Radiology	MRI Rooms CT Rooms Gamma Camera Rooms Control Rooms
First Floor	Co-Joined Theatres	9 Theatres and anaesthetic rooms MRI Room Angiogram Interventional Room Recovery Spaces
	Critical Care	24 Cubicle Spaces
	DCN Acute Care	Receiving / Resuscitation Room
Second Floor	Ehealth	Server Room's ventilation/cooling
Third Floor	Medical In-Patients	Transitional Care Rooms
Fourth Floor / Roof	Helipad	Helipad RFFS Accommodation
		Helipad Fire Suppression System Lighting to Helipad; Helipad ramp and Helipad stairs

These units shall provide one hour standby duration in accordance with relevant NHS Requirements documents.

8.8.11 Lifts

Project Co shall provide bed passenger lifts (suitable for inclusion of at least one hospital bed (orthopaedic bed)), goods lifts, service lifts (dumb waiters), general passenger lifts and evacuation lifts for emergency conditions within the buildings in accordance with but not limited to SHTM 08-02, SFPN 3 and SHTM 81. All lifts provided for the movement of patients shall be supplied from the essential services supply in accordance with SHTM 06-01.

Three of the lifts in the DCN / 'Hot' core are to provide access to helipad located on the roof. Two in number Patient Bed lifts and one in number FM lift shall serve the roof area that the helipad is located on. The lifts are to have call buttons at roof level and key operated access to the roof from inside the lifts.

RHSC Patient Bed and Passenger lifts shall not stop at floors that are exclusively served by DCN departments with manual override.

DCN Patient Bed and Passenger lifts shall not stop at floors that are exclusively served by RHSC departments with manual override.

Project Co shall give consideration to the following in the provision of lifts:

- a) The lifts shall be vandal / damage proof but aesthetically pleasing and appropriately sized - (min size for bed and associated equipment);
- b) A minimum of one lift shall be sized to accommodate the lifting of the major component parts of medical equipment for replacement during maintenance with particular attention given to lifting the MRI scanner components to and from the ground and upper floors. Project Co shall require to liaise with relevant clinical and estates staff to identify the most onerous components during the design stage. When the more onerous components are to be used the Board will have the right to decide what constitutes the more onerous component.
- c) Banks of lifts shall be appropriately controlled to maximize movement;
- d) Collective controls of groups of lifts shall be used;
- e) All floors including plant levels shall be served
- f) Project Co's control rooms shall be easily accessible and designed to minimise the need for artificial cooling;
- g) Emergency hands free telephones in lifts shall be accessible to the blind, partially sighted, deaf and wheelchair users. Telephones shall be linked to lift car audio inductive loop;
- h) Lifts for people and goods shall be separated;
- i) Dedicated lifts are required for theatres or swipe controlled staff access override; and
- j) Disabled friendly controls, information etc (wheelchair accessible height of buttons, tactile numbers, voice messages, and visual alarm) shall be incorporated in the lift design.

8.8.12 Escalators

Where Project Co provides escalators within the buildings they shall adhere to the requirements of all relevant British Standards and in particular with BS EN 115 Safety of escalators and moving walks.

8.9 Lightning Protection & Earthing

Project Co shall provide a lightning protection system for the protection of the structure, the contents and occupants. The lightning protection installation shall be in accordance with the latest version of BS EN62305 Protection against lightning. The lightning protection system shall comprise of air termination network, down conductors, earth termination network and all required equipotential bonds.

Project Co shall provide a system of earthing that shall ensure sufficient and fast operation of protective systems in the case of earth faults.

The earthing system shall comply with BS7671:2008 Requirements for electrical installations (IEE Wiring Regulations), BS7430:1998 Code of Practice for earthing and with the Electricity at Work Regulations 1989.

The earthing system shall comprise of earth electrode system, main and supplementary earth bars, main and supplementary equi-potential bonding.

8.10 Fire Detection & Suppression Systems

Project Co shall ensure that the fully addressable automatic fire detection system for the Facilities is fully compliant with the performance criteria laid down under SHTM 82 (including Supplement A) and the latest revisions to BS 5839. The design of the Facilities shall be in full accordance with HTM 05-02, including both vertical and horizontal compartmentation and evacuation routes. All circulation doors shall be installed with integrated electro-magnetic door hold open devices with all security door locks interlocked for evacuation in a fire condition.

Project Co shall provide sprinkler protection to those departments surrounding High Dependency departments (above, below and adjacent on the same level) as required by SHTM 82 Section 3.

Project Co shall ensure that the system must be an L1 fully addressable analogue system incorporating an auto-dialler / monitoring facilities with the capability for remote site monitoring via an internet PC connection. The system should also be provided with a full 2 way communication link to the RIE Facilities, subject to the details being agreed with the Board and Consort as part of the Project Co's Proposals and/or as Reviewable Design Data for review and agreement by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement and provided. Project Co shall carry out the necessary connection work to the fire alarm system at the interface with the Link Building in accordance with the Interface Output Specification for the Link Building, the Connection Proposal and the relevant provisions of paragraph 4.

The system shall be equipped with sufficient sounders to maintain sound outputs in different areas in accordance with SHTM 82, and incorporate visual strobe indicators for a fire condition in accordance with the requirements of the Equality Act 2010. Project Co will provide voice evacuation announcements and shall agree with the Board if manual voice evacuation or pre-programmed announcements are to be provided as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

Project Co shall ensure that the Facilities are divided into zones by ward / department / unit area as well as by floors with mimic or repeater panels at each nurse station (or equivalent) and at least one panel per floor located in a central circulation area. In the event of fire the Facilities shall be capable of individual zone evacuation with all other zones receiving awareness signalling. Project Co shall ensure that all fire alarm panels are capable of giving details of system status for fire, fault, and alarm conditions including full text descriptions of location. All panels shall be capable of data / event logging and report generation. Manual call points must be provided at every exit and staircase with no point in the building being more than 30m travel from a call device.

Materials and equipment shall be the catalogued products of manufacturers regularly engaged in production and installation of automatic fire detection systems and shall be manufacturer's latest standard design that complies with the Board's Construction Requirements.

Project Co shall ensure that this system will have a documented history of compatibility by design for a minimum of 15 years. Future compatibility shall be supported for no less than 10 years. Compatibility shall be defined as the ability to upgrade existing systems to current level of technology, and extend new field panels on a previously installed network.

Project Co shall take into account the need for maintaining patient security during alarm testing i.e. the testing regime shall not allow for ordinarily secure doors to open as a result of routine testing.

Project Co to provide fire suppression systems in NHS Lothian Server rooms, IPS Room and main HV and LV switchrooms.

Fire hose reels are not acceptable within the Facilities. For the avoidance of doubt, Project Co shall provide all fixed fire fighting equipment to comply with statutory requirements and the requirements and recommendations of NHS Scotland Firecode.

Project Co shall review requirements for fire hydrants with The City of Edinburgh Council's Building Control Department and Scottish Fire and Rescue Service.

The fire systems for the Facilities will have to be designed and constructed and replaced, repaired, renewed and maintained such that they may be connected to, communicate and operate with the fire systems at the RIE Facilities. It is envisaged that such connections and a control box for the fire systems will be proximate to the Link Building. The rights to make and replace, repair, renew and maintain such connections are subject to design, construction and other information being provided as part of Project Co's applicable Interface Proposal for approval by the Board and Project Co shall comply with the requirements for installing, maintaining, repairing, renewing and replacing interface links between the fire alarm system within the Facilities with those within this RIE Facilities as part of the RIE Works subject to and in accordance with:

- a) Section 7 (Link Building) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A;
- b) Interface Output Specification; and
- c) Connection Proposal.

8.11 Information and Communications Technology

Refer to paragraph 9.

8.12 Engineering Flexibility & Zoning

Heating, ventilation, electrical and medical gas zoning shall be configured to promote flexibility in order to enable re-modelling and re-planning to be undertaken at a future date.

All engineering services shall be zoned with isolation and safety provision, for the whole of the Facilities and for individual wards and departments. Project Co shall also ensure that zoning accounts for:

- a) The requirement for "dirty" / "clean" separation;

- b) Solar movement; and
- c) The necessity for isolation of part of the Facilities without affecting the entire Facilities.

8.13 Services Capacity Reserve

In accordance with Good Industry Practice, all plant, plant spaces and building services systems shall be specifically designed and provided with defined reserve capacity allowances and future expansion capabilities for the Facilities (e.g. distribution boards with 25% spare capacity for the buildings as designed).

In addition to the reserved capacity allowances in relation to the building as defined in this Sub-Section C, Project Co shall also ensure reserve capacity, service termination, zoning and general arrangement supports any future extension of the building that may be an optional feature of Project Co's Proposals.

8.14 Service Routes

All service voids, risers and other spaces shall allow for installation of additional services and shall provide a defined reserve of a minimum 25% of useable area through routing cross sectional area. All isolating valves and other items requiring particular access shall be positioned at convenient locations with permanent access provision and which do not impede execution of the clinical functions or and/or provision of the Clinical Services in the space.

Services shall be arranged in a clearly zoned spatial hierarchy in ceiling voids, risers and plant spaces.

Access to services shall not be given in clinical areas.

All service voids, risers, plant rooms and other service / plant spaces shall be designed to easily facilitate the future removal of building services within each space.

In order to minimise potential disruption to the Board due to maintenance of building services, Project Co shall where practicable route services through common spaces such as corridors and avoid through routing within department areas.

All new ductwork shall be provided to allow cleaning of internal surfaces and components to be undertaken as detailed in the HVCA Document TR19 Cleanliness of Ventilation Systems.

8.15 Commissioning & Testing

All buildings, services and equipment shall be commissioned by Project Co to ensure that all they are compliant with the quality and performance specifications, including manufacturer's recommendations, and that all systems operate to the Board's satisfaction.

Project Co shall as a minimum commission the Facilities in accordance with the 'Guidance to Engineering Commissioning' published by The Institute of Hospital Engineers (1995).

Project Co shall be responsible for demonstrating and certifying to the Board the successful completion of all commissioning testing, and compliance with all relevant standards.

Project Co shall provide a comprehensive set of Operation and Maintenance Manuals (in hard and electronic forms) for all installed and commissioned equipment in a format specified

in paragraph 4.5.17 and in accordance with the requirements in Clauses 17.18 and 18 of the Project Agreement.

Project Co shall provide such staff training as is deemed necessary by the Board details of training proposed shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

9 Information and Communications Technology (ICT) Requirements

9.1 Introduction

The Board recognises the importance of information and communication in the provision of Clinical Services and Non-Clinical Services and Operational Services in the modern health care environment; having the right information available and efficient means of communication enables improved efficiency. There is an increasing reliance on ICT infrastructure to meet these requirements both in terms of performance and availability.

This specification is intended to co-ordinate the various aspects of ICT provision within the Board's operations. The specification does not describe all individual systems and their operation in great detail, but identifies the various information and communication systems, the Board's current strategies for their development and maintenance, the obligations placed on Project Co.

Although this paragraph 9 will be of prime interest to the ICT designer, there is information contained here that Building Services designers and Architects may require for their designs.

9.2 Overall Requirements

Project Co shall design, construct, manage and maintain/lifecycle replace the ICT systems for the Facilities as identified within the responsibilities matrix, in paragraph 9.5. For avoidance of doubt, this includes the detailed requirements set out in the Interface Output Specification and Connection Proposal and relevant provisions of paragraph 4 and in the Schedule Part 11, Equipment Schedule.

Particular consideration shall be given to how ICT can be used to aid patient and staff flow throughout the Facilities.

Project Co shall comply with the NHS Lothian E-Health Strategy for those ICT systems that Project Co has a design/construction/management responsibility. Project Co shall take cognisance of the current NHS Lothian E-Health Strategy in place at the time of lifecycle replacement of individual ICT systems, ensuring continued compatibility with NHS strategy/policy at the time of the ICT system replacement.

9.3 Design Requirements

Project Co shall comply with the following requirements for those ICT systems that Project Co have a design responsibility, as identified within the Responsibilities Matrix, in paragraph 9.5.

9.3.1 User / Functional Requirements

Project Co shall liaise with the Board to robustly identify and capture all User and Functional Requirements required within each ICT system to support key departmental operational requirements.

Project Co shall ensure that these captured User and Functional Requirements are achieved within the design and construction of the ICT systems, including the selection of appropriate and compatible manufacturer products and systems.

9.3.2 System Availability

Project Co shall design the infrastructure and each of the other systems to meet the Availability targets set by the Board. This shall include the provision of appropriate hardware and software redundancy within the system design.

9.3.3 System Assurance

Project Co shall demonstrate that the proposed ICT design solutions comply with the Board's User and Functional Requirements.

Project Co shall submit a Reliability Block Diagram (RBD) for each ICT system to demonstrate that the Board's System Availability targets are met. This shall highlight the Mean Time Before Fail (MTBF) data for each hardware component of the system and show the required hardware and software redundancy implemented within the design.

Project Co shall provide ICT systems that are fully compatible with and support the delivery of the NHS Lothian E-Health Strategy.

9.4 Minimum Engineering Standards

In addition to the publications in paragraph 2 Project Wide Requirement, Project Co shall ensure that the design, construction and selection of components for the ICT works comply with, but not limited to, the following design reference documents:

- a) All current relevant British Standards;
- b) European Harmonised Standard Specifications and Codes of Practice;
- c) Applicable NHS Requirements
- d) Electromagnetic Compatibility Regulations 2006;
- e) ISO/IEC 11801:2002 Information Technology - Generic Cabling for Customers Premises;
- f) BS EN 50173-1: 2011 (Information Technology – Generic Cabling Systems)
- g) BS EN 50174-1: 2009 (Information Technology – Cabling Installation Part 1 Specification and Quality Assurance)
- h) BS EN 50174-2: 2009 (Information Technology – Cabling Installation Part 2 Installation Planning and Practices inside Buildings)
- i) BS EN 50174-3:2003 (Installation technology. Cabling installation. Installation planning and practices outside buildings)
- j) BS 6701:2010 Telecommunications equipment and telecommunications cabling. – Specification for installation operation and maintenance.

- k) BS 7718: 1996 Code of Practice for Installation of Fibre Optic Cabling.
- l) BS 7430: 1998 Code of Practice for Earthing
- m) BS EN 50310: 2000 Application of Equipment Bonding and Earthing in Buildings with Information Technology Equipment
- n) TIA/EIA-568 B-SET: 2001 (Commercial Building Telecommunications Cabling Standards).
- o) TIA/EIA-569 B-SET: 2004 (Commercial Building Standard for Telecommunications Pathways and Space).
- p) TIA/EIA-606-A: 2002 (Administration Standard for commercial Telecommunications Infrastructure)
- q) TIA/EIA-607: 1994 (Commercial Building Grounding and Bonding Requirements for Telecommunications)
- r) TIA/EIA-TSB67: 1995 (Transmission Performance Specifications for Field Testing of Unshielded Twisted Pair Cabling Systems)
- s) ISO/IEC 11801:2002/Amd 2:2010/Cor 1:2010 (Information Technology – Generic Cabling for Customer Premises)
- t) Relevant technical specifications (or equivalent) in the following order of precedence;
- u) British Standards transposing European Standards;
- v) European technical approvals;
- w) common technical specifications;
- x) International Standards; or
- y) other technical reference systems established by the European standardisation bodies.
- z) If the technical specifications referred to in u) are insufficient to meet the ICT requirements, Project Co shall make reference to the following technical specifications (or equivalent):
 - aa) British Standards;
 - bb) British technical approvals;
 - cc) British technical specifications relating to the design, calculation and execution of the work or works and use of the products; or
 - dd) DfT publications, standards and technical memoranda.
 - ee) Relevant OFTEL and DTI Standards, Publications and Regulations.
 - ff) Relevant Legislation.

In complying with any standard, Project Co shall equally comply with any published amendments and revisions issued up to Financial Close.

9.5 Responsibilities Matrix

Responsibilities for the delivery of aspects of the various ICT systems are set out in the table below:

Service / Technology	System Design	Construction / Provision	Management	Maintain/ Lifecycle Replace
1. Information Technology (IT)				
System management	N/A	N/A	Board (equipment) / Project Co (infrastructure)	Board (equipment) / Project Co (infrastructure)
System architecture, design	Project Co to Board approval	Project Co	Board	Project Co
Hardware (inc. PCs, printers)	Board	Board	Board	Board
Hubs, servers/switches	Board	Board	Board	Board
NHS Lothian Server Room	Project Co to Board approval	Project Co	Board	Board
NHS Lothian Node Rooms	Project Co to Board approval	Project Co	Board	Board
Containment	Project Co to Board approval	Project Co	Project Co	Project Co
Cabling and faceplates	Project Co to Board approval	Project Co	Project Co	Project Co
Testing & Commissioning of Project Co Equipment	N/A	Project Co (with Board in attendance)	Project Co	Project Co
Testing & Commissioning of Board Equipment	N/A	Board	Board	Board
IT dedicated UPS	Project Co (infrastructure only) to Board approval - Board to provide as a part of Hardware	Project Co (infrastructure only) - Board to provide as a part of Hardware	Board (equipment) / Project Co (infrastructure)	Board (equipment) / Project Co (infrastructure)
Final connections to hardware, hubs, UPS, external links and other equipment	N/A	Board	Board	Board
Facilities for seminar rooms, presentation spaces, reception areas, offices	Project Co (infrastructure only) to Board approval, refer Schedule Part 11, Equipment Schedule	Project Co (infrastructure only) / Board (equipment)	Board (equipment) / Project Co (infrastructure)	Board (equipment) / Project Co (infrastructure)
Links to Other Organisations	Project Co (infrastructure only) to Board approval	Project Co (infrastructure only) / Board (equipment)	Board (equipment) / Project Co (infrastructure)	Board (equipment) / Project Co (infrastructure)
Video Conferencing links/	Project Co	Project Co	Board	Board

Service / Technology	System Design	Construction / Provision	Management	Maintain/ Lifecycle Replace
facilities – external, internal	(infrastructure only) to Board approval, refer Schedule Part 11, Equipment Schedule	(infrastructure only) / Board (equipment)	(equipment) / Project Co (infrastructure)	(equipment) / Project Co (infrastructure)
Patient Location	Project Co (infrastructure only) to Board approval, refer Schedule Part 11, Equipment Schedule	Project Co (infrastructure only) / Board (equipment)	Board (equipment) / Project Co (infrastructure)	Board (equipment) / Project Co (infrastructure)
Equipment Tracking	Project Co (infrastructure only) to Board approval, refer Schedule Part 11, Equipment Schedule	Project Co (infrastructure only) / Board (equipment)	Board (equipment) / Project Co (infrastructure)	Board (equipment) / Project Co (infrastructure)
2. Telephone System				
System management	N/A	N/A	Board	Board
System architecture/design	Board	Board	Board	Board
Telephony System	Board	Board	Board	Board
Operator Console	Board	Board	Board	Board
Hand sets	Board	Board	Board	Board
Pagers / staff location system	Board	Board	Board	Board
Containment	Project Co to Board approval	Project Co	Project Co	Project Co
Cabling and faceplates	Project Co to Board approval	Project Co	Project Co	Project Co
Testing & Commissioning of Project Co Equipment	N/A	Project Co (with Board in attendance)	Project Co	Project Co
Testing & Commissioning of Board Equipment	N/A	Board	Board	Board
Final connections to Telephony system	N/A	Board	Board	Board
Telephone System dedicated UPS	Project Co (infrastructure only) - Board to provide as a part of Hardware	Project Co (infrastructure only)	Board	Board
Fallback PBX system: Resilient cabling from RIE Facilities to the Facilities	Project Co (infrastructure only) to Board approval	Project Co	Project Co	Project Co
3. Bedhead Services				
System management	N/A	N/A	Project Co	Project Co
System architecture/design	Project Co to Board approval	Project Co	Project Co	Project Co
Nurse Call	Project Co to Board approval (see 4. Nurse Call)	Project Co (see 4. Nurse Call)	Project Co	Project Co

Service / Technology	System Design	Construction / Provision	Management	Maintain/ Lifecycle Replace
Medical gases	Project Co	Project Co	Project Co	Project Co
Electrical supply	Project Co	Project Co	Project Co	Project Co
Bed lighting	Project Co	Project Co	Project Co	Project Co
ICT – Clinical (Data Outlet(s))	Project Co	Project Co	Project Co	Project Co
ICT – Patients/Public (Data Outlet(s))	Project Co	Project Co	Project Co	Project Co
Voice Outlet	Project Co	Project Co	Project Co	Project Co
TV and Radio facilities	Project Co (containment and wiring only)	Project Co	Board	Board
3. Bedhead Services (Cont'd)				
Testing & Commissioning	N/A	Project Co (with Board in attendance)	Project Co	Project Co
4. Nurse Call				
System management	N/A	N/A	Project Co	Project Co
System architecture/design	Project Co to Board approval	Project Co	Project Co	Project Co
Nurse Call System	N/A	Project Co	Project Co	Project Co
Containment and cabling	Project Co to Board approval	Project Co	Project Co	Project Co
Testing & Commissioning	N/A	Project Co (with Board in attendance)	Project Co	Project Co
5. Fixed Induction Loops				
System management	Project Co	Project Co	Project Co	Project Co
System architecture/design	Project Co to Board approval	Project Co	Project Co	Project Co
System provision	N/A	Project Co to install complete system with potential for expansion	Project Co	Project Co
Testing & Commissioning	N/A	Project Co (with Board in attendance)	Project Co	Project Co

Service / Technology	System Design	Construction / Provision	Management	Maintain/ Lifecycle Replace
6. Security Systems				
6.1 CCTV				
System management	N/A	N/A	Project Co	Project Co
System architecture / design	Project Co to Board approval	Project Co	Project Co	Project Co
CCTV cameras, detectors, scanners, access units	Project Co to Board approval	Project Co	Project Co	Project Co
Monitors, multiplexes, control equipment hardware and software, recording equipment, servers	Project Co to Board approval	Project Co	Project Co	Project Co
CCTV Equipment Room(s)	Project Co to Board approval	Project Co	Project Co	Project Co
6.1 CCTV (Cont'd)				
Containment and cabling	Project Co to Board approval	Project Co	Project Co	Project Co
Testing & Commissioning	N/A	Project Co (with Board in attendance)	Project Co	Project Co
Final connections to hardware	Project Co to Board approval	Project Co	Project Co	Project Co
6.2 Access systems (to be integrated with alarm system)				
Doors and restricted areas	Project Co	Project Co	Board	Project Co
Hold open devices to minimise door damage & fire risk, and optimise "openness" of internal spaces	Project Co	Project Co	Project Co	Project Co
6.3 Alarms (to be integrated with access control system)				
Intruder	Project Co to Board approval	Project Co	Board	Project Co
Personal safety alarms	Project Co to Board approval	Project Co	Board	Project Co
Equipment alarms (Board)	Project Co to Board approval	Project Co	Board	Project Co
Equipment alarms (Project Co equipment)	Project Co	Project Co	Project Co	Project Co
Lift alarms, link to emergency base (REM or similar)	Project Co to Board approval	Project Co	Project Co / Board	Project Co
7. Wireless Network				
System management	N/A	N/A	Board	Board

Service / Technology	System Design	Construction / Provision	Management	Maintain/ Lifecycle Replace
System architecture / design	Project Co to Board approval	Project Co	Project Co	Project Co
Wireless Network Cabling Infrastructure	Project Co to Board approval	Project Co	Project Co	Project Co
Containment and cabling	Project Co to Board approval	Project Co	Project Co	Project Co
Wireless Access Point locations (Inclusive of Wireless Surveys)	Project Co to Board approval	Project Co	N/A	N/A
7. Wireless Network (Cont'd)				
Wireless Access System (LAN Controllers, Wireless Control System, Wireless Access Points and network interface / firewalls. This list is not exclusive).	Board	Board	Board	Board
Testing & Commissioning	N/A	Project Co (with Board in attendance)	Project Co	Project Co
Final connections to wireless network	N/A	Board	Board	Board
8. Intercom				
System management	N/A	N/A	Project Co	Project Co
System architecture/design	Project Co to Board approval, refer to Sub-section D Specific Clinical Requirements	Project Co	Project Co	Project Co
Intercom System	N/A	Project Co	Project Co	Project Co
Containment and cabling	Project Co to Board approval	Project Co	Project Co	Project Co
Testing & Commissioning	N/A	Project Co (with Board in attendance)	Project Co	Project Co
9. Video Telemetry				
System management	N/A	N/A	Project Co	Project Co
System architecture/design	Project Co to Board approval, refer to Sub-section D Specific Clinical Requirements	Project Co	Project Co	Project Co
Video Telemetry System	N/A	Project Co	Project Co	Project Co
Video Recording Equipment	N/A	N/A	Board	Board

Service / Technology	System Design	Construction / Provision	Management	Maintain/ Lifecycle Replace
Containment and cabling	Project Co to Board approval	Project Co	Project Co	Project Co
Testing & Commissioning	N/A	Project Co (with Board in attendance)	Project Co	Project Co
10. Others				
Public Area Phones	Project Co (infrastructure and equipment except handset) / Board (handset)	Project Co (infrastructure and equipment except handset) / Board (handset)	Project Co (infrastructure and equipment except handset) / Board (handset)	Project Co (infrastructure and equipment except handset) / Board (handset)
10. Others (Cont'd)				
Television / radio , common areas/patient information systems – Groups 2A, 2B and 3 Equipment as per Schedule Part 11, Equipment Schedule	Project Co (infrastructure only) to Board approval, refer Schedule Part 11, Equipment Schedule	Project Co (infrastructure only) / Board (equipment)	Board (equipment) / Project Co (infrastructure)	Board (equipment) / Project Co (infrastructure)
11. Building Management System (BMS)				
System management	Project Co	Project Co	Project Co	Project Co
System architecture/design	Project Co to Board approval	Project Co	Project Co	Project Co

Where in the foregoing table any item is stated to be for the Board approval then all information relating to such item shall be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

9.6 Structured Cabling System

The Structured Cabling System (SCS) shall be a single fully integrated design to provide the physical connectivity for the following systems, as a minimum:

- a) Data network;
- b) Voice network.

Project Co shall provide a data network infrastructure capable of supporting as a minimum but not limited to the following systems:

- a) On-line clinical and non-clinical information systems.
- b) Internet, intranet and email services;

- c) Voice over internet protocol; and
- d) TV and Radio facilities.

Project Co shall provide a voice network infrastructure that is capable of supporting, but not limited to the following systems:

- a) Conventional voice (PBX services);
- b) Modem and fax services;
- c) Phone to the bedhead;
- d) Public area telephones; and
- e) Public taxi ordering telephones.

Project Co shall ensure that resilience is provided within the voice and data network designs between the NHS Lothian Server Room, each NHS Lothian Node Room and the main RIE facilities, including dual diverse cable routing between each.

9.6.1 Cabling

The Board's requirement for structured cabling is Cat 6a.

All cabling installed shall allow for a minimum of 25% spare capacity.

Cables, which pass through the infrastructure of a building shall be suitably protected against damage. Through walls and floors this shall involve an appropriate type of sleeve, through any form of metalwork or stiff plastic then a rubber grommet shall be used.

Project Co shall ensure that the installation of the copper and fibre cabling is certified by the manufacturer.

Subject to Board approval, Project Co may nominate a preferred cable system manufacturer.

9.6.2 Data Patch Panels

Project Co shall take cognisance of the ICT requirements and provide suitable patch panels for their infrastructure cabling.

9.6.3 Data Outlets

The data and voice outlets shall be RJ45 and shall utilise lead-frame technology for improved performance and reduced depth. The outlet contacts shall be silver-plated and positioned at 45° to the copper core of the cable to increase the number of possible re-terminations and provide a gas tight seal.

The outlets shall be appropriate for the Board's Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non Clinical Requirements); and the rooms / spaces identified.

9.7 NHS Lothian Server and NHS Lothian Node Rooms

Project Co shall provide all NHS Lothian Server and NHS Lothian Node Rooms and any other ICT equipment rooms required to serve the ICT systems to be provided for the Facilities.

Project Co equipment shall be allowed to be installed within the NHS Lothian Server Room or NHS Lothian Node rooms providing individual cabinets are secured. Secure arrangements for Project Co access to shared Server/Node rooms shall be agreed with the Board.

The final size and location of the NHS Lothian Server and NHS Lothian Node Rooms shall be dependent upon Project Co's final design the details of which shall be Reviewable Design Data (e.g. physical restrictions of cable run lengths etc). Project Co shall allow for cabinet sizes 800mm x 1000mm (can be either 42u or 47u) in the NHS Lothian Server Room and 800mm x 800mm (can be either 42u or 47u) in the NHS Lothian Node Rooms.

Project Co shall ensure that the environmental conditions in the NHS Lothian Server and NHS Lothian Node Rooms are sufficient to allow for safe operation and working on plant and equipment. Project Co should also avoid the use of basement spaces due to the risk of flooding. No water, steam or waste services shall be located either in or directly above NHS Lothian Server / NHS Lothian Node Rooms due to risk of water damage. Windows are not permitted in the NHS Lothian Server Room.

UPS for the NHS Lothian Server Room and NHS Lothian Node Rooms is detailed in paragraph 8.8.10 of this Sub-section C.

Project Co shall provide 2 x 200 pair copper (minimum) multi-core cables following independent resilient routes to support back up telephones linked from the Facilities Server Rooms to the RIE Facilities PBX.

Project Co shall provide 2 x 50 pair copper cables between the Facilities Server Rooms and each Node Room by diverse routes.

Project Co shall allow for 25% spare capacity within the NHS Lothian Server and NHS Lothian Node Room Cabinets.

9.8 Wireless Network

Project Co shall provide 100% wireless network coverage throughout the Facilities.

Project Co, in conjunction with the Board, shall establish the required number of Wireless Access Points by means of a comprehensive wireless access survey of the Facilities.

Subject to Board approval, Project Co may utilise the Board's wireless network for specific applications. Each individual Project Co system proposed to be accommodated on the Board's wireless network shall be agreed individually with the Board on a case by case basis.

Project Co shall ensure that the wireless network is capable of supporting the accurate location and tracking of Wi-Fi-enabled devices through the use of Wi-Fi triangulation.

Project Co shall, in undertaking the wireless access survey and design, take cognisance of the requirements of the Wi-Fi system to fully accommodate the Board's systems, Project Co's systems and public access.

Each Wireless Access Point shall be Power-over-Ethernet (PoE) and Project Co shall provide a single data outlet integrated with the building fabric. The Board shall provide the wireless equipment at each Wireless Access Point, and the cabling used to connect the Wireless Access Point to the data outlet.

9.9 External Services

Routes shall be provided by Project Co from two independent external access points (ducts) to the NHS Lothian Server Room. These shall be of a size suitable for external grade multi-core fibre cable(s), and copper multi-core cable(s). Project Co shall ensure that the Board is granted free access to these ducts at all times so that it may access communications services provided by any third party it wishes to nominate.

Project Co shall ensure that resilience is designed into the external interconnectivity between the Facilities and the RIE Facilities, including dual diverse cable routing between each.

9.10 Helpdesk

Project Co will establish a Helpdesk in the RHSC building all in accordance with the requirements of Schedule Part 12 Section 1 with associated infrastructure to receive and respond to calls. The helpdesk and infrastructure should also have the facility to receive and redirect calls to the NHS Estates Helpdesk as necessary.

9.11 Communication & Connectivity with the RIE Facilities

9.11.1 Infrastructure

Project Co shall provide two 24 core single mode fibre optic cables (Topology: - Diverse Star; Type: - OS1 - 9 micron; Cores: - 24 for each type with 100% expansion capacity to be provided in the cable tray runs), from the NHS Lothian Server Room in the Facilities to the RIE Facilities, following independent routes for resilience. The connection will be to the Communications Rooms 1 and 2 in the RIE Facilities.

It is the Board's understanding that within the Old Dalkeith Road / Little France Crescent cable duct, cables belonging to providers BT (Route 1-NHS), THUS (Route 1 – N3)) and VIRGIN (University), run into the two RIE Facilities Communication Rooms. If the Board are correct then Project Co shall provide a second ICT connection route from the Facilities to the RIE Facilities within the Old Dalkeith Road / Little France Crescent cable duct, cables belonging to providers BT (Route 1-NHS), THUS (Route 1 – N3)) and VIRGIN (University), run into the two RIE Facilities Communication Rooms.

Project Co shall provide two 200 pair copper (minimum) multi-core cables following independent resilient routes to support back up telephones linked from the Facilities Server Rooms to the RIE Facilities PBX.

9.11.2 System Connectivity/Interfaces between the Facilities and RIE Facilities

Project Co shall provide links for the Data network to the RIE Facilities. Project Co shall comply with the requirements of the Interface Output Specification, Connection Proposal and the relevant provisions of paragraph 4.

9.12 Induction Loop

The design of the Facilities shall include a system of induction loops with suitably located dedicated sockets and signage in areas such as reception areas, bedded bays, single, treatment, consulting, counselling and interview rooms. Additionally, the design shall reflect these requirements in areas such as offices where staff may require this facility.

Project Co shall provide induction loop or infrared systems in accordance with the Equality Act 2010 requirements. The final provision and locations are to be submitted as Reviewable Design Data for review and agreement by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement, dependent upon the final design solutions. The Board would prefer to see a building-wide system installed but experience has shown that this often raises issues of confidentiality.

Project Co shall therefore ensure the provision of portable hand held systems for use by visitors that shall be made available at Enquiry/Information Desks at the Entrances. This shall ensure that the parts of the Facilities not provided with induction loops or infrared systems are made accessible to all users.

The “ear” symbol denoting the presence of an induction loop shall be prominently displayed. A sign shall explain clearly to people using hearing aids how they can benefit from the induction loop.

Alternatively, proven systems that do not raise issues of patient confidentiality can be proposed by Project Co to provide Facilities wide coverage as appropriate.

9.13 Public Address System

No requirement for a general public address system within the Facilities.

9.14 Intercom

Project Co shall provide an intercom system for the Facilities to meet the requirements of Board’s Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and other areas highlighted in Schedule Part 11 Equipment Schedule and Board’s Construction Requirements Part 6 Section 6 Room Data Sheets.

9.15 Video Telemetry

Project Co shall provide a video telemetry system within the Facilities to meet the requirements of the Board’s Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) in the rooms identified. The video telemetry system shall be provided over fibre optic connections between the relevant departments.

9.16 Public Telephone Ordering Service

Project Co shall install the telephone system for the public to make free phone calls to order a taxi and contact other organisations that may include Traveline Scotland, Smokeline and NHS24. The Board will determine the organisations to be contacted by the public telephone ordering service. Project Co shall provide a telephone system that shall accommodate new or replacement telephone numbers during the Operational Term. The public telephone ordering service is to be provided in the DCN reception and RHSC reception. The Board will provide the telephone handsets and signage for the handsets as Board Equipment in

accordance with the relevant provisions of Schedule 11, Equipment Schedule. The Board will arrange the taxi ordering service prior to Completion and during the Operational Term.

9.17 Security

9.17.1 General

Project Co shall provide security systems specifically designed to meet the requirements of each department / unit.

The systems shall present a secure and reassuring environment for patients, staff, families and visitors by providing appropriate security measures within the particular restraints imposed by clinical demand and personal freedom. The design of the Facilities shall ensure maximum protection and minimize exposure to crime in internal and external areas.

Project Co shall provide the required control, monitoring and recording equipment within the security office. The security system needs to allow for the security officer to be able to respond to alerts (staff attack and fridge/freezer alarms) when not in the security office.

The design for all security systems shall be in line with the general principles of the approach suggested by Secured by Design.

Local alarm annunciation shall be provided within wards and at the central security desk.

The Board will monitor the CCTV system, including controlling access to, and the disclosure of, CCTV images.

9.17.2 Panic Alarm System

Project Co shall provide a panic alarm system, which will provide total coverage for the Facilities. The system shall be capable of emitting both audible and visual warnings to alert staff and security to the fact that there is an attack or a situation has arisen in which patients, visitors or other staff members are in danger. Service requirements shall dictate where the alarm is annunciated but as a general guide the panic alarm shall raise an alarm locally and at the security office. The system shall be capable of highlighting the exact location of the staff member in distress.

The system shall be inclusive of personal panic alarms for all staff.

9.17.3 Nurse Call Systems

Project Co shall provide a comprehensive nurse call system at all bed locations (and ensembles), nurse stations, toilets and showers, TV Rooms and all other areas frequented by patients (refer to Schedule Part 11, Equipment Schedule for details). The system must be capable of emitting both audible and visual warnings for the following situations:

- a) To summon a nurse (Patient to Nurse);
- b) To highlight a medical emergency (Nurse to Nurse); and
- c) To highlight a non-medical emergency (Nurse to Nurse).

Project Co shall ensure that both visual and audible warnings are sited in positions that enable the appropriate staff to respond to the exact location of the call both efficiently and effectively. Project Co shall ensure that the warnings, both visible and audible, shall be specific to the type of emergency and must be consistent throughout all areas of the Facilities. The system incorporates a two-way hands free voice communication system with paging facility.

The nurse call system shall be programmed and configured on a room by room basis to allow the flexibility to transfer individual rooms from any ward nurse call panel to an adjacent ward nurse call panel. The transfer of a room or rooms from one area to another shall then include the "follow me" light above the intervening ward doors and room over door light.

Project Co shall provide systems that comply fully with the requirements of relevant NHS Requirements in particular SHTMs, HTMs, SHBNs and HBNs. In addition these systems shall interface fully with the information technology system to enable on-screen alerts at locations details of which are to be submitted as Reviewable Design Data for review and agreement by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

Project Co shall ensure that the nurse call button / cord meet the need of the particular patient that may be required to use the Facilities. Patients may have cognitive problems or have difficulties with mobility. The Nurse Call units for all patients shall be provided with safety cords.

9.17.4 Patient Location and Equipment Tracking System

Within the Facilities, Project Co shall provide the infrastructure to allow NHSL to install a real time patient location and equipment tracking system. 9.17.5 Alarms & Intruder Detection System

Project Co shall provide an Intruder Detection System (IDS) within the Facilities to provide out of hours security cover. This shall be provided by PIR Detectors located within the corridors, and rooms with ground floor windows internally adjacent to any roof access points. In addition Project Co shall ensure that restricted areas have door contacts available for monitoring unauthorised entry.

Project Co shall ensure that the proposed alarm systems for the Facilities include lifts, refrigeration equipment and other critical equipment. Project Co shall ensure that the alarm systems can be monitored on Site and also remotely outwith the Facilities.

9.17.6 Security Access Control

Project Co shall provide a comprehensive access control system to all external access doors and to internal doors requiring restricted access including access control doors to NHS Lothian Server and NHS Lothian Node Rooms, Main entrance doors to Departments, FM and Patient Bed Lifts, Helipad and each ward. Project Co shall provide a comprehensive access control systems to meet the requirement of the Board's Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements). In addition other areas with restricted access as defined by the Board.

Ward access control doors shall also be fitted with a video entry door access system. All video entry camera shall be suitable for viewing of visitors in wheel chairs.

Project Co shall ensure the system includes all necessary power supplies, card readers, actuators, egress buttons and emergency “break-glass” release units.

The system installed by Project Co shall be separate from the Board’s data network.

Project Co shall provide door entry video intercom systems to the main entrance door and the delivery entrance.

9.17.7 External CCTV

Project Co shall provide a comprehensive colour CCTV system covering all external access points, car parking and external pedestrian circulation routes around the Site.

The system installed by Project Co shall be separate from the Board’s data network.

The design shall also take cognisance of the Board’s Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

Project Co shall ensure that the system comprises a multi-channel digital recorder with a recording frame per second for each camera which is in accordance with a detailed engineering specification to be agreed with Lothian and Borders Police.

The digital recorder shall also control playback of images onto a CCTV monitor.

All recorded images should be of sufficient quality to be used for evidential purposes.

9.17.8 Internal CCTV

Project Co shall provide a comprehensive colour CCTV system covering all corridors, entrances, lift lobbies, First Floor link to the RIE Facilities, Emergency Department, hospital street and other areas where members of the public gather or areas where access is to be restricted i.e. wards.

The system installed by Project Co shall be separate from the Board’s data network.

The design shall also take cognisance of the Board’s Construction Requirements in this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

Project Co shall ensure that the system comprises a multi-channel digital recorder with a recording frame per second for each camera which is of sufficient quality to allow recorded images to be used for evidential purposes.

The digital recorder shall also control playback of images onto a CCTV monitor.

9.17.9 Monitoring of CCTV Images

All internal and external CCTV camera images shall be transmitted back to the CCTV monitoring equipment located within the security office to be provided within the Facilities.

9.17.10 Clinical Equipment Alarms

Each ward drug fridge shall be alarmed to warn of common faults. The sounder shall be located locally for ward fridges in areas manned 24/7 or located in the Security base when the area is not manned 24/7.

Each Ultra Low Temperature freezer, laboratory fridge and laboratory freezer in H1 Child, Life and Health, H2 Clinical Research and U1 Specialist Paediatric Biochemistry Laboratory shall be alarmed to warn of common faults. The sounder shall be located locally for fridges and freezers in areas manned 24/7 or located in the security office when the area is not manned 24/7.

9.17.11 Car Park Barriers

Project Co shall provide all power and control wiring associated with vehicle access barriers and shall be compatible with card solutions in use on other Board sites.

9.18 TV & Radio Facilities

Project Co shall provide the infrastructure for reception and distribution of television and radio for use by patients, visitors and staff. This shall include external aerials / dishes, containment and cabling / distribution and the like to enable Freeview TV services and Radio Lollipop Radio services to be distributed throughout the Facilities.

Television and radio will primarily be required for individual rooms and spaces as set out in the Schedule Part 11, Equipment Schedule.

10 Helipad Requirements

Project Co shall provide a rooftop helipad sited such that it gives direct access to the DCN 'Hot' core.

10.1 Minimum Compliance Requirements

In addition to the publications in paragraph 2 (Project Wide Requirement), Project Co shall ensure that the helipad shall be sited, constructed and maintained in accordance with the compliance requirements contained in:

- a) HBN15-03 Hospital Helipads;
- b) The Air Navigation Order 2009, as amended;
- c) International Civil Aviation Organisation (ICAO) Annex 14 Volume II, as amended;
- d) ICAO Doc 9261-AN/903 Heliport Manual;
- e) CAA Safety Regulation Group CAP 437 Offshore Helicopter Landing Areas - Guidance on Standards;
- f) CAA Safety Regulations Group CAP 789 Requirements and Guidance Materials for Operators;
- g) CAA CAP 637 Visual Aids Handbook;
- h) Joint Aviation Authority (JAA) Joint Aviation Requirements JAR-OPS 3: Commercial Air Transportation (Helicopters):

National Fire Protection Association (NFPA) 418 Standard for Heliports (is not a compliance requirement but is good practice guidance).

10.2 Helicopter Operators

The helipad shall be designed to accommodate helicopters provided by the following helicopter operators:

- a) Scottish Ambulance Service Air Ambulance
- b) Ministry of Defence (MOD),
- c) Maritime and Coastguard Agency (MCA),
- d) Police Helicopters,
- e) all other emergency service providers, and
- f) their replacements.

Project Co shall consult with the helicopter operators during the design, construction and operation of the helipad and this will only be done through the Board. Project Co will have no direct contact with the helicopter operators.

10.3 Helipad Requirement

The helipad shall be designed to permit daytime landings, night-time landings and take offs and flights affected by poor visibility and low cloud. The helipad will require to pass inspection by the Civil Aviation Authority and Mobile Air Operations Team (MAOT) before the Actual Completion Date particularly with regard to compliant visual aids, lighting and Rescue and Fire Fighting Services (RFFS) provision for the helicopters to be served. Adequate space shall be made available for critical engineering services such as fire fighting, helipad access and helipad lighting. Electrical equipment providing power to the helipad must be supported by an Uninterrupted Power Supply (UPS) provided by Project Co. The lighting shall not cause a trip hazard.

The helipad will be constructed at least 3 metres above the roof with at least one ramp. The ramp(s) shall provide a landing at least 1 metre below the level of the helipad on which RFFS personnel can stand with their fire-fighting equipment to observe the arrival and departure of helicopters. The helipad shall be constructed from fire resistant materials. The helipad's drainage shall be separate from both the surface water and foul water drainage systems and shall only pass into the public drainage system once it had passed through a petrol/fuel interceptor.

The patient route from the helipad to the RIE Facilities and RHSC Emergency Departments will be through the Hot Core. There are to be two patient bed lifts, an FM lift and a stair in the Hot Core serving the helipad. The lifts are to have call buttons at the roof of the building (proximate to the helipad) and have key operated access to the roof from the interior of the lifts. Access to the roof area from the lifts and the stair will have security access control. The lifts and stair core structure must terminate below the level of the helipad.

Project Co shall appoint an aviation design specialist. Project Co shall incorporate the advice and recommendations of the aviation design specialist in meeting the requirements of Schedule Part 6 Construction Matters.

For the avoidance of doubt the Board shall be "the person" referred to in paragraph 2.8 of HBN 15-03 being "the person in charge of an area intended for taking off and landing must cause to be in operation such lighting as will enable the pilot to identify the landing area and

direction, and to make a safe landing and takeoff". The Board will provide the trained person for night operations. Project Co shall provide all hardware for the lighting requirements of the helipad. The Board will provide at least one trained person for night operations.

Contrary to paragraph 2.9 of HNB 15-03 the helipad will operate at night, with low visibility and in all levels of cloud cover. The helipad will be provided with Helicopter Approach Path Indicator (HAPI) that complies with CAA CAP 637 Visual Aids Handbook.

There is no requirement for refuelling of helicopters. Helicopters will not be based at the helipad.

The helipad is to be category H2 in terms of ICAO Annex 14 Volume II, Chapter 6 and is to have RFFS to H2 RFFS Standard to comply with CAA Safety Regulations Group CAP 789. Project Co shall ensure that the helipad is sufficiently robust to accommodate the largest of these helicopters in common use in the UK with the exception of the Boeing CH-47 Chinook helicopter or its replacement. In terms of HBN 15-03 item 11.9 the helicopter operator is Air Ambulance.

The RFFS facilities will be provided by Project Co during construction and during the Operational Term. The risk assessment to justify the scale of RFFS facilities and standards will be carried out by the Board and provided to Project Co.

The accommodation for male and female RFFS personnel to store, lay out and put on their protective equipment quickly is to be located on the floor serving the helipad. A drench shower to allow PPE to be cleaned / decontaminated before the RFFS personnel enter the building is to be located by the external entrance to the accommodation for male and female RFFS personnel.

Project Co shall provide the means for CCTV viewing of the whole of the helipad from monitors located in the Security Office. In addition when the helipad is in operation Project Co shall provide the means for CCTV viewing of the whole of the helipad from monitors located in the accommodation for the RFFS personnel.

The Board will provide the RFFS personnel. The RFFS personnel are not expected to spend long periods on the helipad. The Board will provide the RFFS medical equipment. The Board will be required to make contact with the CAA to inspect the (RFFS) and lighting.

The stores for the rescue and medical equipment, complementary fire-fighting agents and dedicated patient trolley and a Unisex WC shall be located on the floor serving the helipad.

The name of the hospital to appear to the pilots is "RIE".

The Board will produce the Development Control Plan that refers to the helipad.

Project Co shall have responsibilities in regard to HBN 00-07: Resilience Planning for the Healthcare Estate for the helipad. Details of the helipad are to be submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.

The Board should include specific risks created by helicopters using the hospital helipad in their overall site risk assessments.

The Board shall provide the Helipad Operation Manual and audit the helipad routinely for compliance with the Manual.

10.4 Helipad Permissions

The Board will prepare the details for and obtain the necessary permission for the helipad from the Scottish Ministers (in their capacity as land owners). The Board will make the Police aware of the helipad's presence prior to Financial Close.

PART 6

Section 3: The Board's Construction Requirements

Sub-Section D: Specific Clinical Requirements

This Schedule Part 6 Section 3 Sub-Section D forms the Specific Clinical Requirements included in the Board's Construction Requirements Specification. Project Co shall satisfy all the requirements under this Sub-Section D.

It contains design philosophy and specific requirements for each of the clinical services to be provided from the Facilities.

PART 6

Section 3: The Board's Construction Requirements

Sub-Section E: Specific Non-Clinical Requirements

This Schedule Part 6 Section 3 Sub-Section E forms the Specific Non-Clinical Requirements included in the Board's Construction Requirements Specification. Project Co shall provide Facilities which interface with all the requirements under this Sub-Section E.

PART 6

Section 3: The Board's Construction Requirements

Appendix A: Interface with Campus Site and/or Campus Facilities

PART 6

Section 3: The Board's Construction Requirements

Appendix B: Interface Output Specification

PART 6

Section 3: The Board's Construction Requirements

Appendix C: Environmental Matrix

PART 6

Section 3: The Board's Construction Requirements

Appendix D: Not Used

PART 6

Section 3: The Board's Construction Requirements

Appendix E: Initial Drainage Proposal

PART 6

Section 3: The Board's Construction Requirements

Appendix F: Access Strategy

PART 6

Section 3: The Board's Construction Requirements

Appendix G: Connection Proposal

PART 6

Section 3: The Board's Construction Requirements

Appendix H: Construction Access Proposal

PART 6

Section 3: The Board's Construction Requirements

Appendix I: Oversail Strategy

PART 6

Section 3: The Board's Construction Requirements

Appendix J: Service Proposal

PART 6

Section 3: The Board's Construction Requirements

Appendix K: Substation Proposal

PART 6

Section 3: The Board's Construction Requirements

Appendix L: Supplemental Drainage Proposal

PART 6

Section 3: The Board's Construction Requirements

Appendix M: TMS

PART 6

Section 3: The Board's Construction Requirements

Appendix N: Petrol Station



SCOTTISH HOSPITALS INQUIRY
Hearing commencing 24 April 2023
Bundle 3 - Invitation to Submit Final Tender ("ISFT") Documents