



**The Baird Family Hospital**

**and**

**The ANCHOR Centre**

**Foresterhill Health Campus,**

**Aberdeen**

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**Full Business Case**

**Addendum**

**APPENDICES**

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September 2020

**Appendix A**

**Full Business Case**

**Approval Letter (to follow)**

# **Appendix B**

# **NHSScotland Design Assessment Report**



## NHSScotland Design Assessment Process

Project No/Name: GP05-06 Baird Family and ANCHOR projects

Business Case Stage: FBC

Assessment Type: Panel

Assessment Date: Mar - May 2020

Response Issued: 11 May 2020 - **03 July 20** – 'Supported' & verified status achieved  
(following HAI 05&12Jun meetings and Theatre Plan mark-up\* receipt 24Jun; and Board letter 03Jul20)

### Introductory Comments

The appraisal below is of GP05 Baird Family and GP06 ANCHOR projects on Foresterhill campus. This review is based on the HUB stage 1 OBC submission (approx. RIBA Stage 2 or C), received from NHS Grampian on 29 Nov 2019 and AECOM issue 01 May 2020; plus meetings of 21 May, 28 Jun & 04 Dec 2018; and technical meetings 20 Feb & 02 Oct 2019.

The Board's Design Statement (DS) was developed for June 2015 IA stage submission to CIG and we have used this as benchmarks in our recommendations below. We understand the Board have undertaken self-assessment workshops, including AEDETs, to confirm their objectives are being met at each of the previous key decision points, in-line with their DS's section 5.

The Board have had dialogue with the local planning authority and comments have been incorporated into this report.

This report is based on the OBC report of 08 May 2018, with FBC updates colour-coded, any new comments are *times grey italic*, outstanding OBC risks/ recommendations are highlighted in **RED**, and additional FBC comments in *BLUE italics*, with those recommendations highlighted **\*Bold/ \*Bold** requiring sign-off prior to receiving NDAP 'SUPPORTED' status.

### Joint Statement of Support

Having considered the information provided, Health Facilities Scotland and Architecture & Design Scotland have assessed the project and consider that it is of a suitable standard to be

**SUPPORTED** (verified)

**With the following recommendations:**

### Essential Recommendations

See Appendix A for further details on recommendations.

1. That plans to address wider approach, setting and landscape framework issues noted in clause 1.1, 1.2 and 1.3 of the Design Statements be brought together, and developed in conjunction with the recent appointment for Campus Landscape Masterplan (Lot 1).

**PARTIAL DISCHARGE** – *Noted that the Baird & ANCHOR team have engaged with the Campus Lot 1 Team, including further meetings with ERZ. That the palette of material types produced has been developed in conjunction with ERZ, and both the Baird & ANCHOR land-*

scape designs, within the restrictions of the project, have evolved to align with the landscape masterplan. **ADVISORY RECOMMENDATION-** dialogue continues as both projects progress.

2. That the design & landscape around the building, courtyards and the use of upper level flat roofs/ terraces for views and accessible respite gardens be developed significantly to provide the range of experiences noted in clauses 1.2, 1.3, 1.5, 1.6, 2.2, 2.3, 3.1 & 4.1 of the design statement. The current plan to minimise access and user experience to mostly only 'lightwells', is not yet meeting Design Statement or national standards. Even IF elements to be delivered later, at FBC stage a viable design proposal is required to ensure what can be achieved now and in future. Also the appearance and maintainability of the exterior, plus service yard and FM access to be further developed to ensure the 4.1 statement achievable: "*improve the impression and operation of the hospital and it's relationship with the adjacent residential areas.*"

**PARTIAL DISCHARGE** – *Noted that the design & access to outside space has developed, but appropriate access to courtyards & upper terraces has still to be evidenced, to enable future investment in these spaces for greenspace & artwork. ADVISORY RECOMMENDATION - develop phased overview plan for courtyards & terraces, etc showing current access/ design, plus future potential. Each area to agree minimum landscape qualities to achieve long-term value, e.g. planting, visual interest, biodiversity, plus art,.*

3. That the building designs continue to be developed and coordinated throughout FBC to address the detailed matters in Appendix A, e.g. patient (1.0), staff (2.0) and visitor experience (3.0), MEP strategy (4.0), fire strategy, wayfinding, access, acoustics, sustainability; and ultimately to reach standards that are closer to those benchmarked for these projects. In particular see Appendix *information marked\**; this is required to allow NHS Board decision-making on appropriate environment for up to 9% of inpatients, and sustainable MEP strategy. This information is anticipated to be received by HFS prior to NDAP 'support' being sent to CIG.

**PARTIAL DISCHARGE** – *see appendices for details*

## Advisory Recommendations

We recommend that the Board:

- Develop the proposals to take account of the Advisory Recommendations as noted within Appendix A – General Design Principles - of this report

**PARTIAL DISCHARGE** – *see appendices for details*

## Notes of Potential to Deliver Good Practice

If the above recommendations are addressed in full, then the project has the potential to become a model of good practice for staff and patient environments.

## Next Stage Processes

### Next Actions at Current Business Case Stage

The Board are invited to provide the evidence described below to allow the NDAP to verify the status as **SUPPORTED** to the CIG. Please indicate your intentions in this regard by **25 Jun 20** to [susan.grant7@nhs.net](mailto:susan.grant7@nhs.net), and the anticipated timescale for submitting amended information.

- NHS Board provision of **ESSENTIAL RECCOMENDATION information marked \*** in Appendix, to allow decision-making on an appropriately safe environment.
- NHS Board Letter confirming commitment to develop the designs in accordance with our recommendations, including anticipated timescales for submitting amended information.
- If we do not receive a notification of your intentions by the above date, the report will have status amended to UNSUPPORTED and be automatically forwarded to the CIG.

**VERIFICATION to CIG** (to be completed once above has been received and considered):

The above **\* marked** evidence is received and remaining conditions discharged by NHS Grampian letter on **03 Jul 20**, and thereby is **SUPPORTED**, and has achieved the **VERIFIED** status required for the CIG.

Signed ... \_\_\_\_\_ *Susan Grant* \_\_\_\_\_ Dated .....03 July 2020.....

### Process at Next Business Case Stage

#### Notes on Use and Limitations to above Assessment

The above assessment may be used in correspondence with the Local Authority Planning Department as evidence of consultation with A&DS **provided the report is forwarded in its entirety**. A&DS request that they be notified if this is being done to allow preparation for any queries from the local authority; please e-mail [health@ads.org.uk](mailto:health@ads.org.uk). If extracts of the report are used in publicity, or in other manners, A&DS reserve the right to publish or otherwise circulate the whole report.

Any Design Assessment carried out by Health Facilities Scotland and/or Architecture & Design Scotland shall not in any way diminish the responsibility of the designer to comply with all relevant Statutory Regulations or guidance that has been made mandatory by the Scottish Government.

## Appendix A – General Design Principles

### GP05-06 - Baird Family and ANCHOR projects

#### 4. Approach, Setting and Landscape: campus framework

- Council Planners (ACC) wish to continue to be a partner and 'critical friend' to NHSG in the development of the landscape and campus framework. The current masterplan is a strategy which needs to be developed into a realisable plan. ACC is 'open' to help guide this.
- NHSG advise landscape details of plants, materials and general landscape have not yet been specified or finalised with planners. A lead landscape architect for campus landscape masterplan's 'lot 1' has been appointed and design development will soon be starting. To be completed early 2019. The absence prior to this has meant there has yet to be a coordinated approach.

Essential Recommendation- (DS 4.1) Coordination needed asap and early sight of proposals requested. We will require a full landscape plan with materials and details, to include a similar palette of materials for across the whole campus, plus Baird and ANCHOR sites.

**DISCHARGED** – *Note that the design for the landscape between Baird & ANCHOR has been further developed to respond to the constraints of the site, the wider Landscape Strategy and Campus wide facilities management requirements. Landscape proposals have also developed in consultation with RACH and ARCHIE, such that proposals respect existing landscape features, and provision is made for future works by RACH and ARCHIE.*

- NHSG advised extra charitable funding may be available to tie in the Children's hospital landscape. We welcome proposed synergy in landscape between Baird and RACH.
- Parking: NHSG advise new Multi Storey Carpark (MSC) is not for staff - opened and closed again due to electrical snagging issues. Now in 'bedding-in' phase; for use by patients & visitors only. Baird undercroft car park, drop-off and access, prioritised for those in labour and bereaved. Similar prioritisation anticipated in ANCHOR area adjacent to entrance.

Essential Recommendation- (DS 2.1, 3.1 & 4.1) develop Shuttle bus from MSC around site.  
**DISCHARGED** - *Plans developed showing shuttle bus drop off points adjacent to both Baird and ANCHOR, and the currently suggested routing of that bus.*

Develop drop off and parking layouts to achieve benchmarks.

*Suggested further crossing at SE corner of Baird (south of car park entrance), incl. adding section of footpath. Team advise following extensive discussions with site safety team, concerns relative to proximity to Helipad and children's hospital egress and safe pedestrian movement, identified movement in this area is to be clarified to enable users safe access.*

**PARTIAL DISCHARGE** *subject to DS statement amendment on safe access mitigations.*

#### BAIRD FAMILY project:

##### 5. Approach, Setting and Landscape

- Essential Recommendation- (DS 1.1) Develop external treatments and landscape. Particular attention on backup generator adjacent to southeast entrance, e.g. potential to use vertical green wall/planting was discussed to help tie into the landscape.

**PARTIAL DISCHARGE** - *sketch ref 'Baird Lower Ground Generator Planting Scheme'*

- Essential Recommendation- (DS 1.1) Develop how the building is approached from the northwest. For example, is the café in the right place/ potential to obscure entrance? Landscape Architects to review how axial geometry is coming through, to ensure legibility.

**DISCHARGED** -*Design of the western civic space has been developed to take account of pedestrian movement around the wider campus and how that inter-faces with the Baird entrance, with an improved legibility of space to enhance wayfinding to the entrance.*

- Essential Recommendation- (DS 1.2) Consider pedestrian crossing over Forresterhill Road in detail, and opportunities to continue proposed hard landscaping treatment across to tie in with Lot 1 as part of developing campus landscape masterplan strategy.

**DISCHARGED** - *Noted that while the provision of a crossing over Forresterhill Road is out with the scope of the Baird & ANCHOR project, the team have engaged in wider discussion regarding pedestrian movement and appropriate locations for this crossing. And that this has informed the design of the north and west approaches to the Baird Family Hospital.*

- Essential Recommendation- (DS 1.3, 1.6, 2.4) Building cross sections working well. Still to explore potential for roofs to be treated as hard/soft landscaping, and give different sense of landscape treatment, to support wayfinding, recovery, sustainability and value for money.  
**PARTIAL DISCHARGE** - *Noted that the outside space has developed, but future public access not yet evidenced, nor any min. or future enhancement potential agreed. ADVISORY REC. develop phased overview of both current access & design, plus define min. qualities & future potential for: landscape, biodiversity, art, etc, if funding offered.*
- Essential Recommendation- (DS 1.3, 1.6, 2.4) Develop a coordinated approach of landscape treatment, & courtyards in particular. Potential of a modular approach. Show views from access level and from above, where both important. Non-accessible courtyards should still have planting, with visual interest, biodiversity, plus art, to ensure a long term value.  
**PARTIAL DISCHARGE** – as above
- Essential Recommendation- (DS 1.3, 1.6, 2.4) Especially IF elements to be delivered later, at FBC stage a viable design proposal is required to ensure what can be achieved now and in future. Easy maintenance and FM accessibility strategy will be key to ensure viability, especially of parts to be delivered by volunteers or charity.  
**PARTIAL DISCHARGE** – as above
- Essential Recommendation- (DS 1.3, 1.6, 2.4) Develop Arts Strategy – high level strategies have begun. NHSG stated fundraising strategy to be launched once OBC approval in. The team encouraged to get architects, artists and landscape (plus HAI) to work together asap; and thus ensure multi-discipline dialogue delivers quality and value across the project.  
**PARTIAL DISCHARGE** – *Noted NHS GP has developed and approved an arts strategy for both buildings and will work with Graham Construction, the designers and the Grampian Hospital Arts Trust to develop an arts plan for each building with artists during Stages 3 & 4. ESSENTIAL REC –evidence continuing art & therapeutic design/ dialogue.*
- Essential Recommendation- (DS 4.1) Develop scale of planting to the south. NHSG team advise this is still to be determined through detailed development of landscape. Also stated that culvert cannot be opened up due to aviation constraints.

**DISCHARGED**

- Essential Recommendation- (DS 4.1) Further exploration of proposed SUDS, levels, parking, road and landscape area between Baird and Anchor is to be welcomed.  
**DISCHARGED**
- Essential Recommendation- (DS 4.1) ACC planning queried treatment of retaining feature wall to screen views of basement car parking from the south. Potential to extend geometry of the facade into the landscape?  
**DISCHARGED**
- Essential Recommendation- (DS 4.1) Explore southwest corner of the building, this looks tight and awkward, particularly from wider / Lot 1 perspective, and may create too much of a pinch point /bottle neck.  
**DISCHARGED**
- Essential Recommendation- (DS 4.1) Develop maintainability and FM accessibility of the exterior, including to plant and service yard(s) as well as near public or blue light entries.  
**PARTIAL DISCHARGE** – *Service yard greatly developed. ESSENTIAL REC: Evidence 3D images of yard & adjacent routes views from key areas, e.g. CMU birthing room, staff rest.*

6. **Architectural**

- Layout is very well-considered, an admirable comprehension of a large and complex brief into a succinct form.
- Southern corridor is long, however in reality will not read as such as it is split between departments and set out his way so that door locations dividing departments can change should departments shrink or expand.
- NHSG confirmed that a conscious decision has been made that there are to be no dirty corridors throughout and are satisfied this can be managed in the design & FM service.



- The stair towers have too much dominance, and concerns the proposed super graphic could date whole facility quickly.

- Advisory Recommendation – Develop stair design and play down the emphasis of the stair, e.g. continue plane to form a dark grey rectilinear foil / fin sitting behind as a backdrop to the white render. Mass and proportion is key in articulating this successfully, the fin wall as a backdrop to the two 'dominant' concave elevations should be a strong horizontal. Apart from a slot of light into the stairs, absorb into the convex walls, to better effect as a stop.

**DISCHARGED** - *Note north stair towers revised to minimise horizontal form.*

*Team to advise on-going development for strategy for feature panels.*

*- Scope for supergraphics retained, but alternatives under review.*

*- Contrasting coloured feature zone included in planning application.*

*- Options for patterns / colours considered (not supergraphics).*

- Advisory Recommendation – ACC concern over proposed use of black brick at east and west entrances, appearing harsh and unwelcoming. Develop & humanise the entrances, using a lighter touch, colour and materials were discussed and would be welcomed, e.g. opportunity to make café and reflective spaces at each main entrance more tactile.

**DISCHARGED** - *Noted that brick is base-course only. Elevation drawings and visuals demonstrate a lighter touch to both entrance areas, through the reduction in the number of materials proposed in the palette, which now includes the introduction of accent colouring.*

Advisory Recommendation – Develop 3D visualisations, as overly distort the floor to floor height of 4350mm, if windows are 2700mm - narrow band of render below looks weak.

**DISCHARGED**

- Essential Recommendation- (DS 1.3, 1.6, 1.9, 2.3, 3.1, 4.1) Team advise that windows are flush to help with providing seating on the interior. Consider facet and protection from wind driven rain – deep reveals to minimise wash off. A complex pattern of windows mullions and transoms (horizontal & vertical framing) is proposed, some of which will be opening. Both these issues are significant elements to ensure proposals will deliver a sustainable solution, internally and externally. These must be developed in detail with users early in FBC stage, including modelling of options where required to test competing requirements, see 7.

**DISCHARGED** – *Noted design development has moved windows deeper into reveal - practicalities of support and detailing.*

- Essential Recommendation- (DS 1.3, 1.6, 1.9, 2.3, 3.1) Provide architectural images to demonstrate the patient environment and 'views' for the 8no bedrooms currently looking into the atrium. Both as current option, plus as a roof garden/roof lights –pros and cons of each, including effect on atrium's initial 'impressions' /wayfinding for visitors; fire etc.

**\* required prior to OBC NDAP verification of 'support' to CIG**

- *Further to receipt of drawings and proposals dated 18<sup>th</sup> February, and subsequently updated proposals received 15<sup>th</sup> March following further NDAP feedback, the Team are congratulated on architectural development of both options. There are pros and cons for both - either would be acceptable. A balanced view should be taken as to which is preferred and which should be developed to FBC stage, and in reference to DS noted above. We recommend Board seek views of potential service users, as their priorities should be given due consideration. We also suggest a 3D model will assist this decision-making. Plus a possible hybrid between the two approaches for rooms adjacent to the stairwells could merit further exploration. Advice on pros and cons of each options as follows:*

- *Atrium – Full Height option: (Pros) bedroom pods/bay windows add modulation and visual interest to the upper portion of the of the atrium space, views of activity within rooms could help animate the space; oblique views offered from rooms provide potential to allow good observation along atrium (1.3) and attractive place to sit; 4 storey atrium creates greater feeling of space. (Cons) less private than lower height option in terms of potential of bedrooms to be overlooked from atrium space; acoustic and lighting control needed from atrium space (blinds required); no views to outdoor space or breath of fresh air from rooms (1.9); initial arrival space should still be intimate in scale (1:3); pods must not be value engineered out if this option is to be supported.*
- *Atrium – Lower Height option: (Pros) bedrooms provided with view outside to landscaped space and breath of fresh air (1.9); more privacy provided to bedroom spaces; atrium has more intimate scale (1:3), but still airy and good lighting; (Cons) careful specification and design of roof garden required to ensure planting appropriate with amount of natural light provided; maintenance of space needed to ensure pleasant*

view maintained from bedrooms (Note: similar issues and solution will need to be developed anyway for 19 bedrooms that overlook flat roof area to south).

- o Technical design issues e.g. fire, acoustics, and maintainance, are still to be resolved for both options at the next stage. With both pros and cons for each, we consider these issues are not so significant that they will either rule in or out a Board/ User preference.

**DISCHARGED** – *Noted that the preferred option (Atrium full height) has been implemented following a public consultation*

#### 7. **Building Services Strategy** (from 2no follow-up meetings: 22 & 26 Jan 2018)

HFS queried design proposals, options and reports for MEP strategy i.e. whole of the building is fully mechanically ventilated, with radiant ceiling panels, plus openable windows. This is an 'unusual' proposal given recent similar NHSS solutions. At follow-up meetings, HFS accepted this was due to clinical and deep planning constraints in ground and first floors. However it was agreed that a more usual and simpler natural ventilated design be sought and tested for second floor e.g. patient bedrooms; and for third floor e.g. hotel and offices. Project team agreed, but stated a change was time critical for FBC development.

- Essential Recommendation- (DS 4.1) realistic DSM modeling must be developed to test and optimise safe, sustainable and comfortable solutions early in FBC design development. Supply and confirm realistic DSM assumptions based on considered data, e.g. operational hours, occupation / equipment diversity, MEP gains, water use, non- "adiabatic". Also develop design and confirm realistic electrical max. demand, expansion potential, resilience etc. Plus 'future weather' comfort, to optimise landscape etc to reduce solar gain & noise. (*Refer to IES & Mabbett reports on HFS's website: [NHSScotland New Build Health Buildings DSM Modelling - Summary](#) and [NHSScotland New Build Health Buildings DSM Modelling - Main Report](#)*)

- Essential Recommendation- Current NCM+ model update with patient bedroom natural ventilated design (4-5 chosen) e.g. opening window(s)/ trickle vent and ensuite extract solution (see emailed IES/ Mabbett 2017 report on NHSS bedroom exemplar model). This will allow comparison and Board decision-making.

**\* required prior to OBC NDAP verification of 'support' to CIG**

- *Further to receipt of updated Ventilation report on 21<sup>st</sup> Feb and meetings on this date and 8<sup>th</sup> March; HFS still has reservations regarding technical assumptions and details . However a key element of this report is that risks of 'solar gain' overheating can be alleviated by increasing mechanical bedroom air changes in from ~2 to ~6ACH, is agreed. We therefore accept, that although not an agreed 'optimal' solution in terms of sustainability, complexity and costs, this would take considerably more effort, and will also have pros and cons. Assuming 21<sup>st</sup> Feb report is basis for the Board decision-making to go with the current Baird proposals; we recommend a contractual incentive is provided on whole design life model and/or part of 8. soft landing. This should relate to  $\leq 25^{\circ}\text{C}$  for 50hrs/ year; with agreed pay-back, or better the design/ contractual input to correct if occurs within agreed time limit e.g. 10 years. We also recommend the window design which is yet to be developed provides a number of opening permutations so this is more than just a 'placebo' to users, and will provide flexibility for operation/ sustainability improvement.*

*Similar to above recommendations apply to ANCHOR's 21 consulting rooms; in addition we recommend the nat vent option of rooms 1-6 & 16; plus explore further why model/ design is not achieving similar solution in rooms 7-15 at terrace. Otherwise this terrace needs some other functionality, especially given current proposal for no patient access.*

- Note: [SHTM 55](#) mandates window risk assessment, NOT a 100mm max. opening. Good sustainable window design can achieve air flow, safety, comfort and views. [SHPN 04](#) & [SHTM 03-01](#) both encourage hybrid/ natural ventilated solutions. SHTM 03-01 & SHTM 04-01 are both under review. For clarity Table A1 should be read in this context, e.g.

Application	Ventilation	ac/Hour	Pressure (Pascals)	Supply Filter	Noise (NR)	Temp (°C)	Comments For further information see Section 6
General ward	S / E / N	6	0 or -ve	G4	30	18-28	
Communal ward toilet	E	10 or 3	-ve	-	40	-	
Single room	S / E / N	6	0 or -ve	G4	30	18-28	
Single room WC	E	3 or 10	-ve	-	40	-	
Clean utility	S	6	+ve	G4	40	18-28	
Dirty utility	E	6	-ve	-	40	-	

S = supply      E = extract

N = Natural ventilation

Natural ventilation is by nature variable, so strict ac/hr etc is not applicable for General Ward or Single Room. Natural ventilation for patient bedrooms is encouraged. Given toilet/ WC is ensuite @10 ac/hr, a patient bedroom will achieve more than 2 ac/hr and ordinarily is -ve pressure relative to corridor.

- Essential Recommendation – develop water system design based on realistic DSM above and include service voids to confirm safe water temperature design, reducing legionella risk without reliance on constant chilling or dumping ([SHTM 04-01](#), HSE, Water Byelaws).

**NOT DISCHARGED – ESSENTIAL RECOMMENDATIONS:**

- i. Evidence energy targets achieved, particularly as proposal is for full mechanical ventilation.
- ii. Evidence realistic DSM and its use to optimise Building Services design and sustainability.
- iii. **\*Confirm Users have agreed room conditions for rooms identified in contract where room air temperature is to be controllable across a range of temperatures.** Once above agreed, incl. control deviation etc; confirm which rooms must have a means of cooling and heating that room which permits a unique temperature to be maintained in it. Supply air temperatures for heating & cooling must be capable of offsetting the maximum heating & cooling loads while adhering to the maximum delta K in the SHTM.
- iv. Confirm the lower of the room temperatures can be achieved when the summer external design condition is present, and that the higher air temperature can be achieved when the winter external design condition is present. Also confirm relative humidity in the room ≤70%RH at any of their range of temperatures, for rooms Users agree clinically necessary.
- v. Auxiliary fan coil units should not be installed in the ceiling above an occupied space. Confirm accessible for routine maintenance and cleaning without the need to disrupt the operation of the department that they serve.
- vi. Radiant panels for spaces which operate for reduced hours are on the same circuit as those which operate for 24/7. Confirm how heating can be set back while areas are not in use.
- vii. Confirm Flushing by-pass arrangements.
- viii. Confirm that the satisfactory operation of the plate heat exchangers at low loads has been checked with the manufacturer.
- ix. Confirm that any arrangements to limit return heating temperatures (to the central primary heat source) have been agreed with the Board and any operator of the primary heat source.
- x. Ensure that control valves are positioned to match their control/ flow ports.
- xi. Ventilation drawings indicate secondary attenuators on a number of rooms. Confirm that all rooms comply with SHTM 08-01 in relation to noise from the ventilation system.
- xii. The relative locations of the duct cooling coil & reheat coil for the theatre SPS are incorrect.
- xiii. All air handling units (AHUs) which serve clinical spaces and areas which operate on a 24/7 basis should be in full compliance with SHTM 03-01 part A.

- xiv. ***\*Confirm, or evidence risk assessment & sign-off, that the water feed from the reservoir produces a supply to match the required standards of temperature and microbiological content etc at all times following the proposed treatment.***
- xv. ***\*Confirm, or evidence risk assessment & sign-off, how hot water temperature protection will be provided at appropriately selected DHW outlets.***
- xvi. *No connections are shown from a bulk oil storage supply to replenish the day tanks on the standby generators. Confirm that an operating procedure has been agreed to maintain the operation of the generators as the oil store diminishes in the day tank.*
- xvii. *Some chilled water buffer vessels are shown in parallel to the chillers. The buffer vessels are normally installed in series with the chiller plant (as shown for some in the Baird building). Confirm consistent approach or defend variation, then evidence risk assessment & sign-off.*
- xviii. *Ventilation systems for the MRI and ACRM have to be completed.*
- xix. *Confirm no brass fittings or valves to be used on the chilled water system.*
- xx. ***\*Confirm "White Spaces" likely functions and allowances e.g. ventilation, power.***

## 8. Sustainability

BREEAM 2014 NC target of ~70% is welcomed with ENE01 ≤5. MEP options to date not based on realistic DSM, only NCM+ with 2050 DSY with limited data on WLC cost/ periods etc; but relative 'magnitude' assumed correct. We welcome priority on total energy demand reduction; therefore Pv not required for BREEAM. IF NHSG request Pv; current proposal's payback is too low, once optimised is still ~9-10yrs; note, panels are ordinarily good for 20 yrs, but key parts 10-15yrs. Alternatively IF NHSG request roof space for future Pv; this is still unlikely to be cost effective, unless incentives/ tariffs change significantly.

- Advisory Recommendation – Update BCRs & DS 4.2 to clarify sustainability brief; e.g. >2 years 'seasonal commissioning/ soft-landings; use annual operational energy NDEP certificates, not just 10yr EPC 'notional carbon'; confirm if EU-ETS is relevant to designs.
- Advisory Recommendation –for soft-landing, VfM, sustainability, energy targets, and continuous improvement, BCR to state contractor will assist annually for min. 3 yrs, to:
  - i. review of actual electrical and gas demand figures for each year of operation and update contract with provider, to minimise operational costs to Board.
  - ii. review of energy performance for each year, to provide an improvement report to minimise operational costs/ actual energy use to Board
  - iii. preparation of agreed format of NHSScotland Display Energy Performance (NDEP) annual certificate, or agreed equivalent (e.g. DEC), showing table comparison in kWh/m<sup>2</sup> to design model targets & NDAP benchmarks below, plus the trend of actual energy used, over min. last 3yr period of contract.
- Essential Recommendation - NDAP benchmarks; to be confirmed prior to FBC submission: BAIRD TOTAL 320 kWh/m<sup>2</sup> (Elec. 120; Thermal 200); ANCHOR TOTAL 200 kWh/m<sup>2</sup> (Elec. 80; Thermal 120); (above are based on improvement on HTM07-02 benchmarks)
- Essential Recommendation - SUDS proposals to be developed. Unfortunately is not a wider campus biodiversity-led solution, therefore essential buried 'barrel' proposal must realise wider benefits & resolve RACH approach, parking & levels, in-line with campus masterplan.

### **NOT DISCHARGED** – ESSENTIAL RECOMMENDATIONS:

- i. Evidence energy targets achieved, particularly as proposal is for full mechanical ventilation.
- ii. Evidence realistic DSM and its use to optimise design holistically and sustainability; incl any sustainability reviews and reports.
- iii. Evidence BREEAM status & outputs, e.g. scores, RAG ratings, % completed.
- iv. Confirm BCR incl above, e.g. Soft Landing, 3yr annual review NDEP/DEC etc
- v. ADVISORY REC: confirm alignment with NHSScotland 2045 Net Zero Carbon target.

9. **Equality Act/ access**

Essential Recommendation - Confirm Equality Impact Assessments undertaken, i.e. independent/ community reviews e.g. [SDEF / DSDC](#). We welcome 'changing place' toilet. Provide evidence in use of [HBN 08-02](#), [Dementia](#) & [wayfinding](#) guidance and checklists.

**NOT DISCHARGED** – confirm window and door aperture heights and controls are accessible and safe for user profile e.g. babies to great-grandparents. [SHTM 55: 2.18- ideal view zone "450-1800mm"](#) & [SHTM 58: 2.22- provide lower vision panel "where children are present"](#). Evidence Equality reviews, incl. staff change gender; independent & assisted balanced access for bedrooms, ensuites & cons/exam, e.g. *consider NHSScotland emerging Repeatable Room layouts (chair: Allan Robertson)*. **ESSENTIAL RECOMMENDATION** - Confirm recent Equality Impact assessments undertaken & sign-off of above, plus items in 11 below.

10. **Acoustic Design**

Essential Recommendation – We welcome acoustic OBC report. This should be developed to ensure the appropriate design of key internal spaces e.g. birthing rooms, bedrooms, cons/exam, theatres, recovery, atrium, cafe and reception/ staff base complies not only with [SHTM 08-01](#), but [HBN 08-02](#) our Equality Act duties and reduction of unwanted noise to aid recovery e.g. fire alarm visual & audible warnings. The Board must also consider their equipment specifications, e.g. soft closer bins, night-settings for phones/ bleeps etc.

**PARTIAL DISCHARGE** – Acoustic St4 reports confirm date e.g. May 2019 or Apr 2018?. Confirm Equality & HBN 08-02 applied as no mention of in report. Confirm report 'recommendations' are 'statements' of the proposed design/construction, e.g. *2.4 "The final glazing specification and plant noise mitigation will be developed in parallel" or 4.4.1 "partitions should extend above ceilings to the soffit"*. Also Appendix A: confirm M&E NR 30 for sleep rooms, NR 35 for recovery/ birth. 3.1.2 states importance of 'reverberant characteristics' of source & receiver rooms [& corridors] -confirm where/how 'reverb' is reduced in proposals e.g. birth rooms, recovery, & Neonatal. Many birth doors are opp each other, confirm if any can be mirrored/ moved to reduce noise transfer. *ADV REC: acoustics between depts considered incl. add'l lobby doors e.g. near B-BS041 & B-BS044. Welcome 5.1 Atrium modelling; confirm class B absorber ≥800m<sup>2</sup>, & class/m<sup>2</sup> is calculated for heavy rain.*

11. **HAI & Quality Assessments**

Essential Recommendation - Confirm HAI workshops and assessments completed for each stage. Submit record of appropriate stakeholder design reviews undertaken for each stage, i.e. Design Statement self-assessment workshops, including AEDETs. (SHFN 30; DS: 5.0)

**PARTIAL DISCHARGE** – –ESSENTIAL RECOMMENDATIONS:

- i. Theatres- suite layout is unusual and repeated for 6no, therefore welcome Theatre Scrub Flows sketch 15/11/19. This shows HAI risks from clinical staff flow - i.e. route to scrub is through MDT Prep, diagonally across theatre, particularly if arriving after patient.  
**\*ESS RECOMENDATION: HPS advise Scrub relocate to where staff enter, this may be shared between 2 theatres.**  
*B-THE034 many worktops & cabinets in theatre is unusual, \*ESS RECOMENDATION: HPS reduction of fixtures to ease cleaning/ stocking/ flexibility.*  
*B-THE037 & 041 (& missing 122) \*ESS RECOMENDATION: HPS replacing clinical whbs with gel dispensers.*  
*THE041 confirm/ draw gowning 'circle' location is clear of staff entering Scrub.*  
*THE122 confirm/ draw prep is spatially suitable and if lay-up confirm vent suitable.*  
*THE053 confirm/ draw bed/ trolley path is clear, include attending people/ equip.*  
*Oncology Theatre ventilation – refer to HPS / HFS 20180622 SBAR on theatre vent design.*  
*Confirm Vistamatic or pattern-glazing between theatre & support rooms, except Entry/Exit.*  
*Visually link 2no theatres –consider glazing at standing height for staff emergency/training.*  
*All Pendants – confirm novel tandem surgical pendant plus anaesthetic pendant (with machine mounted on it), will not restrict circulation more than is usually the case.*  
*Confirm pendants are fully coordinated with ceiling, grilles, lights and mounted monitors.*  
*Received 5no 1:50 layouts out of ~32no theatre suite rooms, confirm any key differences in other 27no are drawn and User's signed off.*

- ii. *Recovery- confirm bed/ trolley space is per Clinical and clinical support spaces (HBN 00-03) i.e. Fig 42: 2575 x 2800mm; and incl some segregated recovery spaces for infected patients/ gender or privacy e.g. single recovery rooms.*
- iii. *Neonatal- many weeks of discussion culminated in NHS GP's clinical & IPCT teams, HPS & HFS meeting on 02 Oct 19. Initially on suitable door selection for isolating a room, but of necessity, this discussion centred properly on the clinical and infection control requirements to manage a safe & healthy neonatal dept. A key exploration was the plan to provide 3 negative pressurised airborne infection isolation rooms within the overall NICU environment. The outcome of this exploration is that there is no requirement for 'hermetically' sealed doors, and the 3 rooms would become single rooms for barrier nursing. We also recommended modelling/ detail design to evidence air flows cascade from clean to dirty throughout e.g. a- NICU & SCBU: clean air supply flows across and vitiated air is extracted from behind cots in open bay & single rooms; b- the air transmission route between the NICU & SCBU doors immediately facing each other across a corridor. We recommend a clinical & technical review of ACH and Pressure differences between SCBU and NICU in light of door across corridor and the emerging new vent guidance, e.g. HTM 03-01, US ASHRAE Feb 2020 update. We recommend re-design of NICU basins/ troughs to reduce cross contamination & legionella risks, i.e. if 2no >2m apart consider making it 1no (HAI SCRIBE 2.15). Confirm single DSR suitable in size, location. See 12 below for fire strategy for NICU.*
- iv. *Birthing- recommend add lobby/ doors near B-BS041 for partner privacy & acoustics between induction & birthing depts. Confirm birthing & ensuite room layout e.g. no vision panels for doors, records a balanced assessment for equality & safety as well as privacy; also disabled use of birthing pool. Confirm single DSR layout & suitable in size, location.*
- v. *Wards- recommend room layout for bedrooms, ensuites (incl for EPU) and cons/exam consider NHSScotland emerging Repeatable Room layouts (chair: Allan Robertson), e.g. relocate clinical WHB 300mm, change 600 to 900mm leaf door. For minimum intervention, these 2 examples alone, will improve equality, flexibility, value, and sustainability incl. training/maintenance. Confirm bedroom & ensuite room layout e.g. 1100mm window cill & vision panels for doors, records a balanced assessment for equality & safety as well as privacy. Confirm suitable DSR distribution as 5 per floor seems OK, but spread is uneven. Recommend parent lounges have balcony-type door, even if access currently limited.*
- vi. *CMU & Triage- Adv. recommend add extra doors to create a functional Ambulance lobby. Recommend modelling/ 3D images of CMU birthing room with views out window, to ensure design meets min. requirements i.e. light, pleasant and blinds NOT permanently closed. Recommend develop CMU & Triage art & interior designs, incl HAI & acoustics input. Recommend parent lounge has door out to courtyard even if access currently limited.*
- vii. *MRI & FM support- evidence of input/ sign-off on MRI room layouts and multi-factorial passive & active safety measures, e.g. Zone 3's size, shape & view/ control of entry doors, consider ferromagnetic detection systems (FMDS). Confirm access for MRI replacement/ maintenance will not block entry by ambulance. ADV.Recommend daylight into induction/ recovery room. Confirm need 1 or 2 staff WCs, & if 1, alternative function e.g. larger DSR.*
- viii. *OPD & ACRM- Eliminate B-MOPD 003 & 21 WC doors obstruction of corridor/ 1500mm clear escape route. Recommend review NHSScotland Repeatable Room (RR) cons/exam layout (chair: Allan Robertson) for HAI/ Equality/ VFM etc, e.g. similar to N106H-NOR-MO-00-DR-A-72010 for GOPD010, but prefer clinical basin relocated for access/ flexibility NOT as N106H-NOR-AC-00-DR-A-72013 for B-ACRM013; as blind/curtains drawn permanently. Also welcome bariatric layout N106H-NOR-GO-00-DR-A-72004, consider slightly wider GOPD010, as this may allow RR layout (scooter use), but with a wider couch, door & hoist for bariatric*
- ix. *Foyers & Atrium- recommend rationalise 'knuckle' zone between B-CMU004 & B-TRI007 lounges. Recommend develop Atrium art & interior designs, incl HAI & acoustics input.*
- x. **Essential Recommendation** - current HAI SCRIBE dated Oct 2018. Confirm recent HAI and H&S risk assessments undertaken & sign-off of all items above.

## 12. Fire & Life Safety Strategy

- Essential Recommendation - Develop fire strategy, layout etc updated and reviewed to ensure segregated/ safe, evacuation routes operationally achievable from all clinical, visitor and staff spaces, including evidence on progressive horizontal evacuation where required; atrium design/ assumptions; smoke containment etc. as SHTM/ Firecode compliance.
- Essential Recommendation - Facade and wall covering to comply with minimum standards of THND, however in view of ongoing review of building standards there may be a requirement for non-combustible cladding on healthcare buildings with the possibility of applying reg's retrospectively. Provide full details of cladding, insulation, fire stopping and cavity barriers.
- Fire service access should be agreed with fire service to ensure satisfied with proposals.
- Extended travel distances of  $\geq 5\text{m}$  where limit of 15 is specified, is not a minor increase.
- L1 detection and fire compartmentation is standard for hospitals and is not a mitigation.
- Refuse and high hazard areas under operating theatre. It is imperative that theatres are provided with the maximum protection to ensure they remain in use for as long as possible.
- Goods receiving area under operating theatres (as refuse area above). Cannot be reliance on management control for goods receiving room as it would be impractical to implement.
- Protected lobbies should not form part of a through route.
- Dry Riser outlets in atrium. Consult with fire service; as there may be some flexibility regarding hose distances. They would not normally expect to run hose from an atrium.
- MRI compartment exit. Ensure that patients can be safely moved to an adjoining and appropriate compartment to continue their care.
- Car park ventilation – listed as a fire safety issue, refer to engineering for compliance.
- Advisory- fire suppression systems are not mandatory for all areas within a hospital, but they do add an additional layer of fire safety and this should be considered fully in any determination. Additionally, as there are variances from other standards, a suppression system could be considered in mitigation. There is a possibility that suppression systems may be specified for hospital buildings following a review of regulations.
- Advisory Recommendation – bedroom door self-closing devices are 'free swing arm' type. To allow Fire and Equality functionality e.g. equipment access and patient use/ isolation.
- Advisory Recommendation – 'multi state' detectors to be installed as part of the fire alarm system. This will reduce false alarms, service disruption and avoidable blue light journeys.
- Advisory Recommendation – environment and management for the safe charging of personal electrical equipment by staff and patients.

### **PARTIAL DISCHARGE – \*ESSENTIAL RECOMMENDATIONS:**

- \***Confirm smoke detection** in voids with combustible materials e.g. fan coil units.
- \***Re-assess by Fire Engineer** or re-design to meet THND/ SHTMs: excessive travel distances in ACRM etc, plus non fire-separated spaces e.g. Staff bases, further compromise user escape.
- \***Re-assess by Fire Engineer** or re-design to meet THND/ SHTMs: operating theatres must be given maximum protection from high hazard areas under, to stay in-use as long as possible,
- \***Re-assess Fire Strategy**- to fully consider & record fire suppression assessment. Must fully consider the added life safety of suppression, particularly given variances from standards. Board must also record societal importance of clinical service & benefit of facility protection.

### **Fire Strategy document: must update per mark-ups & confirm all of the following\*:**

**\*3.4.5.3 Free-swing door closers fitted to all bedroom doors.**

**Hold-open devices fitted to doors in all high traffic areas, to minimise damage to the doors and to provide an unobstructed route for operational staff and equipment.**

**\*3.4.6.2 Ductwork passing through compartment /sub-compartment and other fire resistant construction (e.g. between sleeping accommodation and corridor), is fitted with remotely re-settable fire and smoke dampers operated by smoke detection.**

**\*4.1 Although detection need not be provided for sanitary accommodation, risk assessment must assess fire load & potential for wilful fire raising, to confirm detection needs.**

**\*Appendix F.3 The ventilation system is designed for a fire size up to 2.5 MW based on likely furniture and fittings. The Fire Strategy to allow for the potential for a larger fire, once facility is occupied and if management procedures not as stringently enforced.**

## 13. Derogations

- Essential Recommendation - Confirm OBC, then FBC, list of derogations and include the technical reasons for each and whether each deviation meets or exceeds current guidance.

**PARTIAL DISCHARGE –BCR clarifications 18-02-2019. ESS REC:5.6.1 add mock-up list**

## ANCHOR project

The headings and content for Baird project review above should also be read for ANHOR. Only where a variant occurs is this commented on below.

### 14. Approach, Setting and Landscape

- Advisory Recommendation - (DS 1.1) Walls extending into the landscape to the eastern edge works well, combining seating etc. And using the same language as the building. Suggested looking at the Shell headquarters in Geneva by Kathryn Gustafson as a precedent – an example of a strong architecture and landscape scheme.

#### **DISCHARGED**

- Essential Recommendation- (DS 1.1, 1.2) There is a paradox with the design of the southern 'courtyard' space. The layout and orientation of the space suggests an entrance, and/or a place you would want to be, there is an opportunity lost in making this a service yard. The team are strongly encouraged to re-examine this.

#### **DISCHARGED**

- Essential Recommendation- (DS 1.1, 1.2) If this southern area must be the service yard then it should be revisited and developed as part of the landscape - for example through varying the treatment of the surface so that the landscape flows in (e.g. using grasscrete rather than hard paving to denote the vehicle turning area), ha-ha wall as screening, and keeping the service area to a bare minimum (pulling back the line of bollards as tight to the secure line of the delivery area as possible).

#### **DISCHARGED**

- Essential Recommendation- (DS 1.3) The northern courtyard that is being enclosed in three+ storeys may struggle to be seen as a habitable space. The space could become bigger to become more useable if it cannot house the services. The adjacency of the space to the teenagers' lounge suggested it could usefully be made accessible as a focused amenity space for teenagers to spend time. The same landscape tools used in the southern areas could be used here, e.g. ha-ha, wall edge, this will help establish 'sense of place'.

**PARTIAL DISCHARGE** - *Noted that this outside space has developed, but future public access is not evidenced, nor any future enhancement potential agreed. ADV.RECOMMEND develop phased plan showing current access & design, plus future potential. Evidence min. qualities of landscape, biodiversity, art etc, in every key space e.g. overlooked terraces. ESS.REC: Evidence public access both available & visible, e.g. locate door opp. Public WCs.*

### 15. Architectural

- Team is to be congratulated on amount of work that has been done allowing us to comment in greater detail. The refinement of the building footprint, moving further away from radiotherapy, is a positive step.
- Essential Recommendation- (DS 1.1, 1.2, 1.3) Strengthen entrance & built form- there is a lack of strength to the entrance and a confused response to the southern "courtyard". The diagrams suggest greater clarity in organization (i.e. two flanks and a central section) which is not being followed through in the built form.

#### **DISCHARGED**

- Essential Recommendation- (DS 1.3, 1.4) Strengthen atrium clarity - the legibility of the central atrium area has diminished and has the least clarity in the plan. The team will explore opportunities to address this, to help reinforce the clarity of the atrium so that it reads as one space through, for example, increasing transparency and playing with ceiling heights where budget allows.

#### **DISCHARGED**

### 16. Building Services Strategy (from 2no follow up meetings: 22 & 26 Jan 2018)

- Essential Recommendation- As 7. Plus at follow-up meetings, HFS accepted clinical constraints in lower ground aseptic suite, plus solar gain risk to comfort in open plan chemo treatment and office on first floor. However it was agreed that a more usual and simpler natural ventilated design be sought and tested for upper ground floor outpatient wings i.e. consulting exam suite. This was particularly relevant given NHSG stated patients will not access adjacent terrace, so only audio /visual privacy concerns were 1 or 2 rooms onto east car park, which should be resolvable by good landscape design near their opening windows.

**PARTIAL DISCHARGE** – ESSENTIAL RECOMMENDATIONS: as sections 7 -13 above, plus:



- i. A-CA116 – Treatment Chair area: confirm all-round accessibility of 4-chair cluster A-CA118, e.g. move north ~200mm; also 3-chairs A-CA122 e.g. move south ~300mm.
- ii. **\*A-CA116 – Treatment Chair area: confirm ventilation clean-to-dirty cascade** and air flow proposals for main area and its surrounding ensuite rooms, e.g. Procedure & Treatment rooms A-CA085-86 & 92-93 & Clean Utility A-CA073 to be positive (or neutral) air pressure to A-CA116; All WCs A-CA097, 98, 114, 115 & Dirty Utilities A-CA102-03 to be negative. Confirm A-CA100 Store uses, e.g. if clean consumables make positive pressure. Once above brief is agreed, confirm vent requirements throughout Clinical Dept e.g. ACH.
- iii. **\*Re-assess by Fire Engineer** or re-design to meet THND/ SHTMs: excess travel distances
- iv. **\*Fire Strategy document: must update per mark-ups & confirm the following:**  
A-CA116 – Treatment Chair area: confirm fire routes to an appropriate & adjoining compartment or 'place of safety', e.g. escape stairs 1, 2, & 3 enable safe/ escorted patient egress.



Susan Grant  
Principal Architect  
Health Facilities Scotland

3<sup>rd</sup> July 2020

Dear Susan

Re: NDAP Full Business Case Report for The Baird Family Hospital and ANCHOR Centre Project – Project GP05-06

Thank you for submitting the draft NDAP FBC report for our project on the 11<sup>th</sup> May 2020.

We note the recommendations in the report, and we have been working over the past few weeks to address these recommendations, provide the required evidence and ensure that the project responds appropriately. This work has been captured in the NDAP tracker documentation we have been sharing with you.

I am happy to confirm our intention to implement these recommendations.

Please do not hesitate to get in touch if further information is required at this stage.

Yours sincerely

Jackie Bremner  
Project Director  
B&A Project

# **Appendix C**

## **Project Cost Update**

NHS Grampian					Appendix C	
Baird and ANCHOR Project						
Full Business Case						
Overall Project Cost Update - August 2020 (Rev 4 10/9/20)						
Ref	Package	Current (Aug 20 )	FBC (Feb 20)	Difference	Notes on Reconciliation	
WP 2100	Piling	£ 4,282,131.26	£ 4,290,631.26	-£ 8,500.00		
WP 2200	Groundworks & Hard Landscaping	£ 4,575,650.75	£ 4,575,650.75	£ -		
WP 2400	Steelwork, Decking & Fire Protection	£ 3,208,146.54	£ 3,207,996.54	£ 150.00		
WP 2600	Insitu Concrete Frame	£ 16,962,698.65	£ 16,485,966.98	£ 476,731.67	£276K increase due to updated tender price received by GC dated Aug '19 but had not been included in Dec '19 TP offer; £200K is 1% inflation advised by sub to take price to current day / eligible for acceptance level and has been noted around a £6/m3 increase in concrete rates due to come into effect in January 2021	
WP 2605	Precast Concrete Stairs	£ 61,840.00	£ 61,840.00	£ -		
WP 2900	Brick & Block	£ 895,678.91	£ 895,678.91	£ -		
WP 3000A	Roofing / Roof Hatches / Smoke Vents	£ 1,668,431.87	£ 1,668,431.87	£ -		
WP 3000B	Render	£ 2,171,089.88	£ 1,747,041.42	£ 424,048.46	Proposed package contractor from Dec '19 TP offer has gone into liquidation. The 2nd lowest in that WP evaluation has returned a very low credit rating which is deemed below acceptable parameters and the 3rd lowest WP cost from this process is now inserted as this amount in TC offer	
WP 3000C	Rainscreen Cladding	£ 1,484,437.24	£ 1,484,437.24	£ 0.00		
WP 3000F	Wall / Roof Cladding	£ 2,814,873.49	£ 2,821,142.27	-£ 6,268.78		
WP 3100	Curtain Walling, Windows & Rooflights	£ 3,442,148.61	£ 3,442,148.61	£ -		
WP 4200	Structural Framing System	£ 1,713,023.17	£ 1,713,022.90	£ 0.27		
WP 4202	Folding Partitions	£ 82,974.13	£ 82,974.13	-£ 0.01		
WP 4207	IPS & Cubicles	£ 856,914.58	£ 856,914.58	£ -		
WP 4300	Partitions	£ 8,221,059.19	£ 8,221,059.19	£ -		
WP 4300A	Ceilings	£ 3,066,509.16	£ 3,066,509.16	£ -		
WP 4400	Floor Finishes	£ 1,530,083.90	£ 1,530,083.90	£ -		
WP 4401	Raised Access Flooring	£ 80,292.41	£ 80,292.41	£ -		
WP 4606	Joinerwork / Internal Doors & Ironmongery	£ 2,547,779.81	£ 2,547,779.82	-£ 0.00		
WP 4700	Architectural Metalwork	£ 1,204,920.77	£ 1,204,920.77	-£ 0.00		
WP 4704A	Roller Shutters	£ 22,006.00	£ 22,006.00	£ -		
WP 4704B	Smoke Curtains	£ 78,953.26	£ 78,953.26	£ -		
WP 4704C	Transfer Hatches	£ 9,895.00	£ 9,895.00	£ -		
WP 4800	Decoration & Ames Taping	£ 1,609,044.56	£ 1,609,044.56	£ 0.00		
WP 4802	Hygienic Wall Finishes / Bump Rails	£ 619,399.67	£ 619,399.67	£ -		
WP 4903	Internal Screens	£ 645,470.51	£ 645,470.51	-£ 0.00		
WP 4999	Link works to Existing Buildings	£ -	£ -	£ -		
WP 5100	FF&E	£ 3,010,395.02	£ 3,010,395.02	£ -		
WP 5100B	Coldrooms	£ 156,947.65	£ 156,947.65	£ -		
WP 5102	Signage	£ 270,306.72	£ 270,306.72	£ -		
WP 6000	MEP	£ 50,513,037.83	£ 49,428,021.70	£ 1,085,016.13	MEP costs proposed have increased around some items previously allowed now having been market tested. One proposed sub-contractor of Tier 1 MEP Sub has gone into liquidation therefore proposal has reverted to next highest price. The majority of the difference is a revised view on risk of price changes depending on when orders are placed.	
WP 6050	MTHW	£ 481,355.55	£ 481,355.55	£ -		
WP 6100	ACRM Lab Fit Out	£ 848,655.05	£ 848,655.05	£ -		
WP 6200	Aseptic Suite Fit Out	£ 1,166,414.84	£ 1,166,414.84	£ -		
WP 6500B	BWICS & Fire Stopping	£ 1,323,264.52	£ 1,225,700.54	£ 97,563.98	Related to the value of the MEP package	
WP 6500C	Maternity Demolition / Asbestos Removal	£ 966,290.73	£ 966,290.73	£ 0.00		
WP 7500	Lifts	£ 1,124,806.51	£ 1,124,406.51	£ 400.00		
WP 9500	Soft Landscaping	£ 196,151.03	£ 196,151.03	£ -		
WP 9501	Westburn Road Crossing	£ 182,343.72	£ 182,343.72	£ -		
WP 9502	Westburn Road Lighting	£ -	£ 80,460.18	-£ 80,460.18	Costs moved to Stage 3	
WP 9503	Reinstatement of Westburn Road entrance	£ 22,928.81	£ 22,928.81	£ -		
<b>Works Costs</b>		£ <b>124,118,351.30</b>	£ <b>122,129,669.76</b>	£ <b>1,988,681.54</b>	<b>As per details noted above against individual packages</b>	
<b>Additional Items (not included in target price work packages)</b>		£ <b>1,284,612.84</b>	£ <b>1,097,376.76</b>	£ <b>187,236.08</b>	Uplift in extra over cost of insurance liability, power supplies to 2nr tower cranes, revised survey costs and other various smaller updates e.g. CEs moving certain design works from Stages 3 to 4	
<b>Works Cost</b>		£ <b>125,402,964.14</b>	£ <b>123,227,046.52</b>	£ <b>2,175,917.62</b>		

Prelims		£	11,586,927.15	£	10,641,977.64	£	944,949.51	Additional PSCP staff costs over 21 additional programme weeks; including inflation allowance and effecting reduction as per latest negotiations
Bonds		£	515,059.32	£	500,840.55	£	14,218.77	
Package Prelims		£	506,137.90	£	506,137.90	£	-	
Design Fees		£	1,767,876.14	£	1,888,029.33	-£	120,153.19	Reduction in Stage 4 design costs however, note some moved fees from other stages included under other item above
Inflation		£	7,657,879.09	£	7,016,319.10	£	641,560.00	Revised view on inflation across packages based on latest indices along with some change in package values driving net overall an increased inflation amount
Risk	Package	£	1,996,446.33	£	1,986,297.96	£	10,148.37	Minor change on package risk values
	General	£	3,960,277.59	£	2,515,000.00	£	1,445,277.59	Main driver is design team fees risk added by GC in latest TP offer
		£	5,956,723.91	£	4,501,297.96	£	1,455,425.95	
		£	153,393,567.66	£	148,281,649.00	£	5,111,918.67	
Fee	4%	£	6,135,742.71	£	5,931,265.96	£	204,476.75	
<b>GC Stg 4 Target Price</b>		£	<b>159,529,310.37</b>	£	<b>154,212,914.96</b>	£	<b>5,316,395.41</b>	
Enabling Works		£	6,022,690.62	£	6,006,181.41	£	16,509.21	
Stage 2/3 PSCP & Design costs		£	6,154,362.52	£	6,037,505.07	£	116,857.45	as per contract + CEs implemented and CEs pending implementation; main driver for change would be Westburn Road lighting moving into a Stage 3 instruction
<b>Total GRAHAM Cost</b>		£	<b>171,706,363.51</b>	£	<b>166,256,601.44</b>	£	<b>5,449,762.07</b>	
PSC Fees		£	1,434,581.74	£	1,217,676.00	£	216,905.74	Variance to be defined
Other project costs		£	2,440,632.00	£	2,440,632.00	£	-	
Client Risk		£	4,110,833.33	£	3,475,500.00	£	635,333.33	Main driver is Covid-19 risk for period beyond 29 weeks noted below and to be built into final Target Price; risk allowance for up to 1 year; Also includes 355K increase to client risks for helicopter stoppages which has been reviewed to include potential impacts to sub packages as well as finalisation of the site rules
Forecasted Works Costs		£	2,482,117.43	£	1,203,302.39	£	1,278,815.03	£45K net variance on GC submitted costs mainly around window ammendments, changes to LGF carpark and hydroseeded spoil heap removal; Main drivers are FFE per submitted GC extra over costs of £266K to be reviewed, Tanker & FM Yard changes of £180K and allowances for further changes in Stage 4 of 142K; inflation element of £90K in terms of uplift in prices to point ready for incorporation into the Target Price. And works arising from design assurance review
Covid Implications for initial 29 week period		£	476,175.63	£	-	£	476,175.63	PSCP indication of offer value per TP submission for initial 29 week period
Equipment		£	14,166,666.64	£	14,166,666.64	£	-	
NHSG Inflation		£	416,872.00	£	416,872.00	£	-	
VAT		£	35,934,006.65	£	34,446,781.59	£	1,487,225.07	
<b>Total</b>		£	<b>233,168,248.93</b>	£	<b>223,624,032.06</b>	£	<b>9,544,216.87</b>	

# **Appendix D**

## **Cost Advisor Updated Target Price Report**

## **CONCLUSIONS**

### **Overall Project Cost Implications.**

The overall alterations as outlined in our report have resulted in a revised Target Cost offer from Graham Construction of £159,529,310 and this has been taken forward into the Capital Cost Overall Budget Costs which includes Stage 2/3 Fees , Enabling Works , Client Risk , Equipment , other client costs, Design Assurance Review costs and VAT . This is now totalling £233,168,248 incl VAT and is per attached summary . Overall this is £9,544,216 higher than previous December 2019 Project Cost total .

### **AECOM Recommendation Summary**

AECOM can confirm that following the reviews/discussions agreements on the submitted Target Cost from Graham Construction that we are content that this revised amount of £159,529,310 is consistent with the basis of the previous Target Price submission in December 2019 and that the basis of the updates to this have been interrogated and validated and understood .

This when allocated into the Capital Cost Project Cost summary provides an outturn revised cost amount of £233,168,248 as set out in attached Capital Cost appendix Paper.

The only exception to full agreement on this is the premis and value of the £1,417,377 plus Fee/VAT for the Design Fee Risk within the PSCP Risk section. This requires to be further challenged with and justified by Graham Construction for further justification before it could even be considered as a valid cost inclusion by NHS Grampian . This is included within the noted updated amounts in both Target Cost and Capital Cost Project cost amounts but remains to be concluded in any agreement.

**Robert Rankin/Matt Abbott**

**10 September 2020**

# **Appendix E**

## **Updated Cashflows**



NHS Grampian  
Baird and ANCHOR Project  
Anticipated Cashflows

Table 1: Costs – Cashflow

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s
Enabling Projects	40	7,728	4,690	846	43						13,347
Construction Related Costs		1,897	1,454	8,595	3,170	14,533	73,101	106,385	6,842	190	216,167
Equipping		0	0	0	0	0		2,000	15,000		17,000
<b>Total Capital Costs</b>	<b>40</b>	<b>9,625</b>	<b>6,144</b>	<b>9,441</b>	<b>3,213</b>	<b>14,533</b>	<b>73,101</b>	<b>108,385</b>	<b>21,842</b>	<b>190</b>	<b>246,514</b>
Project Development Costs	1,550	782	848	957	964	840	846	744	736	50	8,316
Commissioning Costs - Revenue									210		210
Impairments		3,200	6,870								10,070
Additional Depreciation									2,627	5,254	
Clinical Service Costs									504	1,027	
Non-Clinical Service Costs									213	434	
Building Related Running Costs									1,507	3,074	
<b>Total Revenue Costs</b>	<b>1,550</b>	<b>3,982</b>	<b>7,718</b>	<b>957</b>	<b>964</b>	<b>840</b>	<b>846</b>	<b>744</b>	<b>5,795</b>	<b>9,838</b>	
<b>Total Costs</b>	<b>1,590</b>	<b>13,607</b>	<b>13,862</b>	<b>10,398</b>	<b>4,177</b>	<b>15,373</b>	<b>73,947</b>	<b>109,129</b>	<b>27,637</b>	<b>10,028</b>	

Table 2: Funding – Cashflow

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s	£000s
SG Additional Capital Funding	0	1,897	1,454	8,595	3,170	14,533	73,101	108,385	21,842	190	233,167
Hub Contract	40	7,631	303	22							7,996
NHSG Capital Funding	0	97	4,387	824	43						5,351
NHSG Revenue Funding (Project)	1,550	782	848	957	964	840	846	744	946	50	8,526
NHSG Impairment		3,200	6,870								
SG Depreciation								0	2,627	5,254	
NHSG Revenue Funding (Other Scheme Costs)								-13	2,065	4,534	
Third Party (UoA)								13	157	0	
<b>Total Sources of Funding</b>	<b>1,590</b>	<b>13,607</b>	<b>13,862</b>	<b>10,398</b>	<b>4,177</b>	<b>15,373</b>	<b>73,947</b>	<b>109,129</b>	<b>27,637</b>	<b>10,028</b>	

# **Appendix F**

## **Risk Register**

				Project Title:	NHSG : Major Acute Services -			Risk Champion:	Jackie Bremner - NHSG Project Director									
				Date Register First Created:	24.01.17		Date Updated:	01/07/2020		Revision Number:	30		Updated by:	JB, JA, GT, MA, FMcd and AB		Current Stage:	Stage 3	
				of														
Master Register Ref:	New Register No	Category	GC classification	Risk Description	Probability (1-5)	Impact (1-5)	Risk Rating (1-25)	Action Plan Completed?	Time / Cost Impact	Mitigation	Probability (1-5)	Impact (1-5)	Time / Cost Impact	Agreed PSCP Provision	Agreed NHS Provision	Agreed PSCP Time	Agreed NHS Time	Risk Owner
				Prior to Mitigation								Post Mitigation						
	1	Site & Geotechnical (project)	1.03	Access and Scaffold - Assumptions incorrect requiring additional resources and impacting programme	4	3	12			Scaffold plans developed, works market tested	3	2	6	£22,000.00		0		PSCP
47	2	Project	1.04	Traffic Management - PSCP Construction traffic impedes live operations on site, resulting in delays to public / staff requiring resources to mitigate.	4	3	12			Construction Traffic Management Plan developed by PSCP and agreed with NHSG. Site rules document provided by NHSG.	3	2	6	£8,000.00		0		PSCP
47A	3	Project	1.04	Traffic Management - NHSG - Site operations impede Construction works	4	3	12			Construction Traffic Management Plan developed by PSCP and agreed with NHSG. Site rules document provided by NHSG.	1	2	2		£22,333.33		0	NHSG
90	4	Statutory	1.04	Traffic Management - May fail to comply with Traffic Planning Regulations	3	4	12			Construction Traffic Management Plan developed by PSCP and agreed with NHSG. Site rules document provided by NHSG. TMP submitted and agreed with planners.	1	2	2	£2,000.00		0		PSCP
93	5	Brief	1.04	Traffic Management - Brief / WI may fail to identify and address Site constraints, (Blue light, FM, Fire Access Routes, etc).	4	4	16			Stakeholder meetings with NHSG FM, Estates etc. SAS and Scottish Fire and Rescue have informed the design and traffic management plans. Design and traffic management plan agreed.	2	2	4		£44,666.67		0	NHSG
93A	6	Design	1.04	Traffic Management - Design may fail to identify and address site constraints (blue light, FM, Fire Access Routes etc)	4	4	16			Stakeholder meetings with NHSG FM, Estates etc. SAS and Scottish Fire and Rescue have informed the design and traffic management plans. Design and traffic management plan agreed.	2	2	4	£8,000.00		0		PSCP
	7	Site & Geotechnical	1.04	Traffic Management - Risk that a 999 ambulance is unaware of the diversions in place that this causes delay to a patient being treated in ED.	3	5	15			Traffic Management Plan prepared and agreed with SAS and NHSG Logistics. Although the principles have been agreed prior to construction, there will be ongoing dialogue during the construction stage to ensure that safe access/traffic management is maintained.	1	5	5	£0.00		0		NHSG
	8	Site & Geotechnical	1.04	Traffic Management - Risk that a Fire Appliance is unaware of the diversions in place. Results in a delay to controlling a fire.	2	5	10			Traffic Management Plan prepared and agreed with SFR and NHSG Logistics. Although the principles have been agreed prior to construction, there will be ongoing dialogue during the construction stage to ensure that SFR are kept informed, at each stage, of any changes in the fire route.	1	5	5	£0.00		0		NHSG
	9	Project	1.04	Traffic Management - NHSG may require additional pedestrian and traffic management arrangements over and above the scope of the works included in the Target Price	3	3	9			During the Construction Stage, NHSG will continue to negotiate with logistics/Graham Construction to agree pedestrian and traffic management arrangements. Agreement of the Traffic Management Plan has reduced the probability.	2	2	4		£22,666.67		0	NHSG
	10	Construction	1.05	Logistics - NHSG impose / change restrictions from Site Rules, including hours of working, permits, accessing areas of the site, and alike leading to a change of traffic management, site management, construction methodology.	2	3	6			Robust pre-agreed plans with site rules/WI being signed off by NHSG before agreement of TP. NHSG to communicate with Project Team regarding any changes to the agreed Site Rules and construction phase plans. Alternative solutions to be agreed by NHSG & PSCP.	1	2	2		£11,333.33		0	NHSG
	11	Site & Geotechnical (project)	1.05	Logistics - PSCP makes incorrect assumptions in logistics planning, resulting in additional costs and / . Or programme delays	3	3	9			PSCP has planned logistics in detail against programme of works in dialogue with NHSG logistics officers.	2	2	4	£4,000.00		0		PSCP
46	12	Project	1.06	Adjoining Properties - Claims with regards to damage to neighbouring properties as a direct result of Works, to the extent not already shown in the dilapidations surveys.	2	4	8			Photographic schedule of condition will be undertaken of neighbouring properties prior to starting construction works. Method statements for construction to be completed by PSCP and agreed with NHSG before works commence. Works planned taking into account limited adjacencies, where works are close.	1	4	4	£6,000.00		0		PSCP
141	13	Site & Geotechnical	1.06	Adjoining Properties - Undermining roads / pavement during works.	2	4	8			Design has been developed to ensure protection of existing roads and paths. Alternative routes provided as a last resort. Construction techniques chosen to mitigate risk including consideration of temporary works	1	4	4	£1,200.00		0		PSCP
	14	Site & Geotechnical	1.06	Adjoining Property - Existing Fire Strategy including muster points not defined / agreed and may need to be temporarily moved / replaced	5	3	15			Strategy developed and reviewed by all parties including FO, ACC and NHSG / HFS	2	2	4		£5,000.00		0	NHSG
	15		1.06	Adjoining Properties - Remedial issues to existing buildings, services, drainage, roads and alike, either not detailed in surveys completed at TP or not as a result of PSCP works.	3	2	6			Scope of PSCP dilapidations surveys requires to be clearly defined in the Works Information.	3	3	9	£0.00		0		NHSG

	16	Site & Geotechnical (project)	1.12	Temporary Works - Incorrect craneage assumptions requiring additional plant and equipment	3	3	9		Craneage study performed	2	3	6		£20,000.00		0		PSCP
	17	Site & Geotechnical (project)	1.12	Temporary Works - Incorrect assumptions in general temporary works requirements	3	3	9		Temporary works co-ordinator appointed. Register of temporary works developed and requirements incorporated in market testing.	2	3	6		£20,000.00		0		PSCP
94	18	Site & Geotechnical	1.13	Ground conditions - bearing pressure, to the extent shown in the GI's, site variations require additional works.	4	5	20		Risk mitigated following a six month programme of enabling works. Known ground condition issues included in Target Price.	3	4	12		£60,000.00		0		PSCP
94	19	Site & Geotechnical	1.13	Ground conditions - gas protection, to the extent identified in GI. Design accounts for gas protection measures.	4	5	20		SI carried out to inform design specification. Gas membrane specified.	1	2	2		£6,000.00		0		PSCP
94	20	Site & Geotechnical	1.13	Ground conditions - obstructions over and above 200mm, over and above that identified in the GI's completed at Target Price	4	5	20		SI's carried out to inform design specification. Few obstructions encountered however there remains a risk in areas of man made fill / previously developed ground	2	2	4		£93,333.33		0		NHSG
#REF!	21	Site & Geotechnical	1.13	Ground conditions - Rock at a Higher level than anticipated resulting in mass fill to foundations rather than piling	4	3	12		Area to the south west of Baird has the distinct risk of the rock being too shallow (i.e. less than 3m) to pile requiring mass fill	4	3	12		£60,000.00		8		PSCP
99	22	Site & Geotechnical (Project)	1.13	Ground conditions - under existing buildings not known at TP submission, results in additional costs and programme, e.g. contamination, over and above that identified in the GI's completed at Target Price	4	5	20		Early survey work undertaken including under buildings now demolished. The residual risk relates to AMH.	3	4	12		£70,000.00		0		NHSG
57	23	Construction	1.14	Contamination - Risk that Baird & ANCHOR , AMH, Site becomes Contaminated by Knotweed	3	3	9		Knotweed strategy for site developed and an initial and ongoing treatment plan established. Ongoing communication with Core Group.	2	3	6		£23,333.33		0		NHSG
94	24	Site & Geotechnical	1.14	Ground conditions - contamination incl asbestos, including any found during subsequent works (following agreement of the Works Target Price), over and above that identified in the GI's completed at Target Price	4	5	20		Early SI's have been carried out to inform design specification.	3	3	9		£70,000.00		0		NHSG
113	25	Site & Geotechnical	1.14	Contaminated Material - Asbestos in buildings over and above that identified in the Management Surveys available at Target Price	5	3	15		Asbestos surveys have been carried out where possible. The residual risk is in relation to the existing maternity hospital where is not possible to carry out the survey until the building has been vacated. Desktop study of available info together with meeting with NHSG Asbestos officer Sufficient cost and programme allowances have been made.	4	3	12		£160,000.00		0		NHSG
113	26	Site & Geotechnical	1.14	Contaminated Material -Asbestos as identified in the Management Surveys provided / completed at target price, under estimated	5	3	15		Robust tendering and billing now complete.	2	3	6		£16,000.00		0		PSCP
	27	Site & Geotechnical (project)	1.14	Contaminated Material - e.g. Aspergillus Fumigatus and other airborne spores found on site resulting in decontamination costs and programme delays	3	3	9		UPDATE FOLLOWING CONCLUSION OF DISCUSSIONS WITH HPS AND HFS	4	3	12		£112,000.00		0		NHSG
95	28	Site & Geotechnical (project)	1.15	Groundwater - High groundwater table gives problems on both sites for basements.	4	4	16		Current design proposals take into account the high groundwater levels across the sites.	3	4	12		£60,000.00		0		PSCP
	29	Site & Geotechnical	1.16	Ground conditions - archaeology discovery delays works	3	4	12		Desktop surveys carried out to mitigate risk. None found during enabling works	1	4	4		£28,000.00		0		NHSG
148	30	Site & Geotechnical	1.17	UXO - Unexploded Ordnance	1	3	3		Desktop surveys carried out to mitigate risk.	1	3	3		£28,000.00		0		NHSG
	31	Site & Geotechnical	1.18	Ecology - Existing Maternity - BAT's discovered and results in mitigation measures, impacting programme and costs	5	3	15		Survey to be carried out during the bat season in the year leading up to demolition. TP allowance made for actual survey	2	2	4		£8,000.00		0		NHSG
	32	Site & Geotechnical (project)	1.18	Ecology - issues and constraints other than the presence of Bats and Knotweed impede works	2	2	4		Ecology reports completed.	1	2	2		£4,000.00		0		PSCP
97	33	Site & Geotechnical (project)	1.19	Environmental - NHSG amendments out with the B&A site impact on the results of the FRA.	5	5	25		NHSG to continuously review developments on site.	1	3	3		£4,000.00		0		NHSG
38	34	Project	1.20	Existing Services - PSCP damage to existing known services without prior agreement - Repairs required as a result of damage or interference to site wide services as a result of the construction works.	3	4	12		Risk/method statements to be provided before works undertaken (required by NHSG at least three weeks in advance). Procedures for working with services detailed/agreed within WI.	2	4	8		£8,666.67		0		PSCP

38A	35	Project	1.20	Existing Services - Risk to loss of service , including any temporary measures required to safeguard clinical services required as a result of damage or interference to site wide services during as a result of the construction works.	3	4	12			Risk/method statements to be provided before works undertaken (required by NHSG at least three weeks in advance). Procedures for working with services detailed/agreed within WI.	2	4	8		£12,666.67	0	NHSG
98	36	Site & Geotechnical (Project)	1.20	Existing Services - Uncharted services - actual location and condition of existing services, found during construction, results in additional costs/time.	4	4	16			GPR surveys carried out. Unknown services will be further investigated if identified.	3	4	12		£70,000.00	0	NHSG
	37	Site & Geotechnical	1.20	Existing Services - Risk of damage to MPHWP pipework resulting in repairs being required- ANCHOR	2	3	6			Management strategy and temporary works agreed with Vital Energy.	2	3	6		£12,666.67	0	PSCP
	38	Site & Geotechnical	1.20	Existing Services - Risk of damage to MPHWP pipework resulting in repairs being required	3	3	9			Management strategy and temporary works agreed with Vital Energy. Future works required to make connections will be by Vital. Permit to dig to be used, known locations for pipeworks. Measures planned to protect route with markings / warnings	3	3	9		£19,000.00	0	PSCP
	39	Site & Geotechnical	1.20	Risk that NHSG requires to step in and manage loss of service as a result of damage to MPHWP pipework. - Baird	3	3	9			A civil mitigation plan is to be agreed for a breach in the MPHWP supply.	3	3	9		£0.00	0	NHSG
	40	Site & Geotechnical	1.20	Existing Services - Risk of damage to Vital pipework resulting in loss of service - ANCHOR	2	3	6			Agree management strategy and temporary works with Vital Energy.	2	3	6		£0.00	0	NHSG
98	41	Site & Geotechnical (Project)	1.2	Existing Services - Known services - Poor Accuracy of GPR surveys of existing services below ground results in damage to services.	4	4	16			GPR surveys carried out. Further trial digs at hot spots to understand risks.	3	3	9		£10,000.00	3	PSCP
40	42	Service	1.20	Existing Services - Insufficient resilience within existing site services for Oxygen. Including existing quality of gas / network.						Early assessment of existing service capacity in addition to an assessment of likely service demands of B&A. Strategy is agreed & plan being developed. NHSG have agreed capital funding for the implementation of SHBN compliant O2 resilience for the Forresterhill campus. Details, including location and programme are currently being finalised, however, this work may not be delivered in advance of the enabling works commencing, and this work has now commenced.					£0.00	0	NHSG
40	42 (a)	Service	1.20	Existing Services - VIE works and duct remedials not completed preventing final road works to Rach road / Phase 2 service yard being completed impacting main Baird site works	4	5	20			Works moved to beginning of main works from enabling. VIE works are complete. Remedial works to ducts currently on hold due to Covid -19 restrictions. NHSG monitoring the situation and will progress works when it is safe to do so. Allowance in main works programme of 6 weeks to allow completion of RACH road realignment in advance of required commencement of the main building.	3	3	9		£84,000.00	0	NHSG
	42B (b)	Service		Existing Services - VIE works and not completed preventing BAIRD & ANCHOR works start on site						Additional VIE works were completed Q1 2020					£0.00	0	NHSG
114	43	Design	1.20	Existing Services - System ties, fire alarm and BEMS - specific requirements not known system architecture not matched	3	3	9			BEMS capacity confirmed as ok FA further investigation required as to availability / capacity for integration. NGB still awaiting confirmation from contacting ADT to confirm	2	3	6		£16,000.00	0	PSCP
114	43 (a)	Design	1.20	Existing Services - Impact of existing cause and effects to new build cause and effect.	4	3	12			NHSG provide details of existing has provided existing C&E where available. Fire plans but no C&E. NHSG to complete C&E in areas impacting on B&A as a priority.	2	3	6		£11,333.33	0	NHSG
45	44	Project	1.20	Existing Services - site infrastructure capacity for telecoms not available resulting in design changes during the construction phase of the project.	3	3	9			There has been a comprehensive review of data available and identification of capacity gaps. Site surveys of existing services have been carried out. Ground investigation has been carried out.	1	3	3		£11,666.67	0	NHSG
45	45	Project	1.20	Existing Services - site infrastructure capacity for electricity not available resulting in design changes during the construction phase of the project.	3	3	9			There has been a comprehensive review of data available and identification of capacity gaps. Further site surveys by NHSG have confirmed potential issues, Common infrastructure strategy and plan for campus is in development.	3	4	12		£35,000.00	0	NHSG
103	46	Site & Geotechnical	1.20	Existing Services - mechanical, gas, Water, fire hydrant, sprinkler, Infrastructure may not have sufficient capacity for main works impacting design and costs	3	4	12			Gas (heating) n/a Water / fire hydrant - confirmed as having sufficient capacity Supply for sprinkler - capacity check completed on site and issued to Vipod for confirmation - awaiting response delayed due to COVID - NGB chasing	2	3	6		£40,000.00	0	NHSG
103	46 (a)	Site & Geotechnical	1.20	Existing Services - MTHW, Infrastructure / connection points may not have sufficient capacity / size for main works impacting design and costs						Investigations have taken place into the existing systems. Vital, in collaboration with NHSG and the PSCP, has confirmed that the system is capable of accepting the predicted demand. Scope of work has been agreed.					£0.00	0	NHSG

54	47	Design	1.20	Existing Services - Due to issues out with works non-achievement of n+1 heat and energy resilience impacts negatively upon capex and/or space.	4	4	16			The Project Team has engaged with Vital around resilience. A strategy has been agreed which will be implemented during construction.	2	4	8		£23,333.33	0	NHSG
55	48	Design	1.20	Existing Services - CEF pipeline encroaches upon the construction footprint of the Baird Family Hospital and ANCHOR Centre. -Working in proximity causes issues / damage	4	5	20			Known location, permit to dig and hand dig processes will be used	1	3	3		£1,466.67	0	PSCP
100	49	Project	1.20	Existing Services - Existing condition of steam main and or services and or tunnel, results in remedial or additional works required to complete project	5	4	20			Further surveys to be carried out immediately prior to the works.	3	3	9		£35,000.00	0	NHSG
105	50	Site & Geotechnical (Project)	1.20	Existing Services - Drainage Impact Assessment results in on / off site drainage capacity works (foul drainage) - over and above scope - resulting in delays and additional works	3	4	12			Pre development enquiry has been submitted and a verbal response has now been received from Scottish Power water. A major issue is not expected, however, confirmation in writing is required.	3	4	12		£84,000.00	0	NHSG
106	51	Site & Geotechnical	1.20	Existing Services - Drainage connections / diversions Existing Maternity - works required over and above those identified in the CCTV surveys / drawings and specifications included in the works information.	3	4	12			CCTV to Maternity has been carried out and results have been incorporated in the design. There remains a residual risk.	2	3	6		£60,000.00	0	NHSG
106	52	Site & Geotechnical	1.20	Existing Services - Drainage Existing Maternity - remedial works required to existing drainage not amended by the PSCP either within or out with the site prior to commencement / and or after handover	3	4	12			CCTV surveys have been carried out. Post completion CCTV required	3	4	12		£12,000.00	0	NHSG
107	53	Statutory	1.20	Existing Services - ACC requirement for limit on discharge leads to large attenuation requirement on site where space is limited. Existing drainage from Radiotherapy also needs to be moved. Storm water attenuation due to increase in impermeable areas (Surface Water)						Sourcing of information regarding existing discharge rates. Work currently underway.					£0.00	0	NHSG
166	54	Site & Geotechnical	1.20	Existing Services - existing defects and / or issues with the current Pneumatic tube system is problematic which we need to join into.						Investigations ongoing into condition of existing systems.					£0.00	0	NHSG
222	55	Brief & CP's / Design	1.20	Existing Services - Additional works may be required to complete the terminations required for the services including the steam main disconnections, over and above TP allowances, resulting in additional costs and a delay to reinstating the heating over and above those identified in the Target Price	3	3	9			Survey to be carried out/risk and method statement to be agreed in advance of the works commencing (during Stage 4).	2	3	6		£11,333.33	0	NHSG
	56	Site & Geotechnical	1.20	Existing Services - Condition of steam main and or depth associated with the ANCHOR development. Steam main impacts design and or costs of work.	3	5	15			Further surveys carried out, however remains a risk that duct deeper than indicated by the surveys. Additional surveys to be carried out during Stage 4 and as the works progress.	2	3	6		£11,333.33	0	NHSG
	57	3rd Party	1.20	Existing Services - Maternity - Existing third party meters may be found within buildings for demolition resulting in a delay and additional costs.	3	3	9			RFI response confirming no presence.	1	2	2		£0.00	0	NHSG
	58	Site & Geotechnical	1.20	Existing Services - Existing service duct requires remedial works including back-log maintenance	4	4	16			Surveys completed, work avoid points of specific concern, monitor during works	3	3	9		£0.00	0	NHSG
	59		1.20	Existing Services - Steam Main shutdowns periods for disconnection of Maternity impacts demolition programme	4	3	12			Preparation works to be done, where required, during annual estates shutdown. Allowances included for scope of works required. Minor risk remains that condition of SM deteriorates / and or shutdown prevented out with Project Team control	2	2	4		£14,000.00	0	NHSG
	60		1.21	Temporary Connections - Insufficient site temporary electrical supplies. Requiring additional supplies and / or generators	4	3	12			A temporary generator will be provided for the two tower cranes.	2	3	6		£11,333.33	0	NHSG

142	61	Construction	1.21	Water - Temporary water outages caused by others out with construction site halt works on site	2	3	6		Resolve quickly to minimise programme impact.	1	3	3		£0.00	0	NHSG
142	62	Construction	1.21	Electricity - Temporary power outages caused by others out with construction site halt works on site	2	3	6		Resolve quickly to minimise programme impact.	1	3	3		£0.00	0	NHSG
	63	Construction	1.22	Security - theft from the works	4	3	12		Site Security incorporated into construction plan and prelims	2	2	4		£20,000.00	0	PSCP
26A	64	Statutory	2.01	Planning - Failure to discharge and / or costs to comply with planning conditions (05) Replacement of planting within 5 years if due to drought and / or no maintenance (07) Bird Management Plan after Sectional Completion (11) Travel plan compliance demonstration (12) Site wide Signage (14) Public Art	3	3	9		Approval of matters specified received in November 2018. Purification of all prior to construction commencement in place. NMV required to elevations, consultation with ACC to take place once NHSG approve packages	2	2	4		£20,000.00	0	NHSG
26B	65	Statutory	2.01	Planning - Failure to discharge and / or costs to comply with planning conditions (01) Materials (02) Plantroom enclosures (03) Boundary Treatment Materials (05) Planting except where replacement required as a result of NHSG lack of maintenance / and or drought (10) Westburn Road Crossing					Approval of matters specified received in November 2018. Purification of all but one issue prior to construction commencement in place. External materials proposals submitted for purification in December 2019.					£0.00	0	NHSG
26C	66	Statutory	2.01	Planning - Failure to discharge and / or costs to comply with planning conditions (06) Environmental Management Plan (07) Bird Management Plan up to Sectional Completion (08) Acoustic Report (09) Working Hours (13) Air Quality	2	4	8		Approval of matters specified received in November 2018. Purification of all pre-commencement matters completed. Ref NHSGAS-GRA-XX-XX-RP-W-28100	1	3	3		£9,000.00	0	PSCP
85	67	Statutory	2.04	Statutory Planning - Costs of discharging conditions of Planning Consent may be greater than allowance provided for e.g. extent of works / green-space, resulting in amendment to design and cost					Regular engagement with planners Identification of possible planning risk costs in cost plan					£0.00	0	NHSG
92	68	Statutory	2.02	Building Control - Fire strategy not defined / agreed Fire Strategy remains open to testing throughout the design stage, and derogations may be challenged.	4	4	16		A Fire Strategy has been agreed with Building Control and is being finalised with NHSG.	3	3	9		£85,000.00	0	NHSG
	69	Site & Geotechnical	2.03	Statutory Electric - Connections to HV ring results in loss of overall ring due to parallel fault leading to loss of service	4	4	16		Caution during excavation and jointing. Surveys to be undertaken prior to works and comprehensive RAMS agreed before proceeding. Contingency planning with MM (electrical engineer) prior to works starting.	3	4	12		£0.00	0	NHSG
205	70	Statutory	2.04	Statutory Water - Additional design fees may be necessary in relation to Scottish Water, DIA	3	2	6		Monitor with Scottish Water - no impact anticipated at present (refer comments).	1	2	2		£1,500.00	0	NHSG
34	71	Statutory	2.10	Statutory Other - Legislative changes post Stage 4 contract that affect the scope, specification and/or the cost of the project.	2	4	8		Regular monitoring and review.	1	4	4		£58,333.33	0	NHSG
34A	72	Statutory	2.10	Statutory Other - Fire legislative changes post Stage 4 contract that affect the scope, specification and/or the cost of the project.	2	4	8		Regular monitoring and review.	1	4	4		£26,666.67	0	NHSG
41A	73	Project	2.10	Statutory other - ACRM - HFEA require amendments to the design and or constructed works (Change in Brief)	4	3	12		There has been early and regular engagement with ACRM department and HFEA and this continues. HFEA do not comment on design issues but will inspect the building once constructed to ensure compliance with all relevant regulations. There was early engagement to appoint preferred sub contractor to develop design and provide support on development of URS.	2	3	6		£11,333.33	0	NHSG

41A	74	Project	2.10	Statutory Other - ACRM - PSCP fails to comply with Brief / URS resulting in remedial works to facility	4	3	12		Early and regular engagement with ACRM department and HFEA. Specialist subcontractor appointed and URS / Design developed jointly with by NHSG Clinical team as agreed in 25/09/2018 - ACRM meeting no 7. Residual risk of errors remains	2	3	6		£4,000.00	0	NHSG
109	75	Design	2.10	Statutory others - Aseptic pharmacy brief does not meet user / GMP requirements, resulting in remedial works to facility	3	4	12		Early and regular engagement of Pharmacy colleagues and appointment of a Specialist Contractor engagement with agencies underway. Pharmacy engaged in dialogue. Early engagement ongoing to appoint preferred sub contractor to develop design and provide support on development of URS. Lessons learned session held with Clinical Team and details added to the lessons learned register Specialist subcontractor appointed and URS / Design developed jointly with NHSG Clinical team. Residual risk of errors remains	1	3	3		£5,666.67	0	NHSG
109	76	Design	2.10	Statutory others - Aseptic pharmacy design does not meet brief / URS, resulting in remedial works to facility	3	4	12		Early and regular engagement of Pharmacy colleagues and appointment of a Specialist Contractor. There has been appropriate engagement agencies and pharmacy have been engaged in dialogue. Early engagement ongoing to appoint preferred sub contractor to develop design and provide support on development of URS. Lessons learned session held with Clinical Team and details added to the lessons learned register. Specialist subcontractor appointed and URS / Design developed jointly with NHSG Clinical team. Residual risk of errors remains	2	3	6		£4,000.00	0	PSCP
89	77	Statutory	2.10	Statutory Other - May fail to comply with Environmental Regulations	4	3	12		Environmental plan has been developed for both Planning and construction	2	3	6		£8,000.00	0	PSCP
91	78	Statutory	2.10	Statutory Other - May fail to comply with Utilities Regulations	2	4	8		Detailed design of Utilities completed including identification of utility regulations applicable including SHTM's etc.	1	3	3		£6,000.00	0	PSCP
154	79	3rd Party	2.10	Statutory Others - External agencies cause delays, / and or request changes in main works that influence costs and programme i.e. NDAP/HFS	4	3	12		Early and regular engagement with this stakeholder agency.	3	3	9		£84,000.00	0	NHSG
154	79 (a)	3rd Party	2.10	Statutory Others - Other additional external Technical Reviews, delays programme	5	3	15		Regular communication and work in partnership with reviewing bodies.	5	3	15		£0.00	0	NHSG
154	79 (b)	3rd Party	2.10	Statutory Others - Other additional external Technical Reviews - delays resulting from issues found	2	3	6		Design has already been subject to ongoing and detailed technical compliance reviews.	3	3	9		£0.00	0	NHSG
	80		2.10	Statutory Other - Amendments as a result of revised SHTM 04 in relation to the removal of TMV's	4	2	8		A TMV risk assessment has been carried out. The taps included within the Target Price are not the taps that will be installed, providing a suitable alternative comes onto the market. An alternative solution may be required should a new product not be available (an allowance is included for this "below the line".)	4	2	8		£8,000.00	0	NHSG
	80 (a)		2.10	Statutory Other - 3rd Party validation of services and areas may delay handover	4	2	8		NHSG to scope and procure 3rd party specialists in line with programme	3	2	6		£18,000.00	0	NHSG
	81	Construction	3.01	Adjoining Property -NHSG fail to engage with appropriate clinical stakeholders to advise of works/noise/disruption.	3	4	12		Regular planned site communication meetings/look-ahead between NHSG & PSCP with clinical attendance. Escalation strategy in place to agree with issues that arise. Business Continuity Plan being progressed.	2	3	6		£0.00	0	NHSG
221	82	Programme	3.02	Programme Main - The start date for the main contract may be delayed due to defects on enabling works.					NEC3 Supervisor to monitor and report on quality and highlight any defects early. PSCP quality control system in place.					£0.00	0	NHSG
119	83	Construction	3.08	Aircraft - Disruption of Heli operations - Due to activities that do not comply with the site rules document.	3	4	12		Design has taken cognisance of the CAA report and 3D modelling. The CAA requirements have informed the site rules. TMP and craneage has been developed for agreement with NHSG	3	4	12		£8,000.00	0	PSCP
120	84	Construction	3.08	Aircraft - Construction works are disrupted due to helipad operations, in the event that materials equipment are not safely secured.	4	3	12		Foreign Object Damage strategy developed and incorporated into construction method statement.	2	3	6		£5,333.33	0	PSCP
120	85	Construction	3.08	Aircraft - Construction works are disrupted due to helipad operations beyond the allowances for standing time included within the Works Target Price.	4	3	12		Protocol agreed with NHSG on standing time during construction operations and allowance to be included in the Enabling Works Target Price.	2	3	6		£96,000.00	0	NHSG
	86	Construction	3.08	Aircraft - Delay to completing the work for the Westburn Road lighting may delay the start of the main contract	5	3	15		The design for Westburn Road lighting has been agreed and S56 issued to ACC for approval which is still awaited. The PSCP Compensation Event for the delivery of these works is currently being finalised. Plans being finalised to progress the work in advance of the commencement of construction for the main project works.	3	3	9		£0.00	0	NHSG



43	87	Construction	3.10	3rd Party - Non compliance with HAI Scribe assessment controls (e.g. noise, dust) inadequate.	5	3	15			The HAI Scribe Assessment has been completed for key stages. An HAI Risk Matrix has been established and will be reviewed on a regular basis at site progress meetings to ensure that agreed action is mitigated. An assessment will be undertaken in relation to the success of the actions undertaken.	2	3	6		£5,333.33		0		PSCP
43A	88	Construction	3.10	3rd Party - NHSG require HAI related actions over and above those included within the original assessment.	5	3	15			The HAI Scribe Assessment has been completed for key stages. An HAI Risk Matrix has been established and will be reviewed on a regular basis at site progress meetings to ensure that agreed mitigation is implemented. Any additional requirements will be monitored in Stage 4.	2	3	6		£11,333.33		0		NHSG
126	89	Construction	3.10	3rd Party Noise - Noise and acoustic levels exceed limits / requirements noted in the Site rules / WI during construction halting work	4	3	12			Monitor during construction.	2	3	6		£24,000.00		4		PSCP
127	90	Construction	3.11	3rd Party Dust - not controlled during construction work halting work	2	3	6			The HAI mitigation actions have been agreed and will be implemented in Stage 4. This will be monitored through the Stage 4 Site Progress Meetings.	2	3	6		£24,000.00		4		PSCP
124	91	Site & Geotechnical	3.14	3rd Party Other - Unforeseen restrictions to planned working hours over and above those in WI / Site Rules	3	3	9			Early dialogue with stakeholders to understand and plan for likely restrictions.	2	3	6		£56,000.00		0		NHSG
125	92	Construction	3.14	3rd Party Other - Vibration exceed limits / requirements noted in the Site rules / WI during construction works affecting clinical services /stopping construction work	4	3	12			Construction techniques and surveillance developed with respect of limits set in Site Rules/Works Information - Site rules	2	2	4		£16,000.00		2		PSCP
128	93	Construction	3.14	3rd Party Other - Odour during construction works may become an issue in adjacent buildings halting work (e.g. fumes from construction activities)	2	3	6			Construction techniques and surveillance developed with respect of limits set in Site Rules/Works Information. HAI scribe carried out Method statements to be developed during stage 4 and monitoring to be carried out	1	3	3		£4,000.00		1		PSCP
132	94	Construction	3.14	3rd Party Other - Vandalism of the works	4	3	12			Site Security to be incorporated into construction plan and prelims	2	3	6		£8,000.00		0		PSCP
138	95	Construction	3.14	3rd Party Other - Risk of falling materials during craning operations.	2	4	8			Construction Phase Plan developed. Specific RAM's and lifting plans to be developed and agreed in advance of operations. Over sail out with boundary prevented	1	4	4		£1,133.33		0		PSCP
139	96	Construction	3.14	3rd Party - Other - Remodelling / refurbishing the existing layout will involve working in a live hospital environment - disruption	3	2	6			HAI scribe completed Method statement to be developed for interfacing works detailing how live areas protected to ensure continuity of services This will be agreed with NHSG prior to works commencing. - Out of hours working	2	2	4		£2,266.67		2		PSCP
	97	Construction	3.14	3rd Party Other - Work in close proximity to acute care areas	3	4	12			Construction Phase H&S Plan, and Health and Safety planning by PSCP with input from NHSG. daily communications between PSCP site management team and NHSG	2	3	6		£6,666.67		0		PSCP
	98	Legal & Contractual	4.01	Status of Design - Delays with client approval of construction drawings as per NEC clauses (Design Acceptance).	2	4	8			PSCP has distributed (notification) all drawings to approval authorities within NHSG via A-Site with timescales and actions clarified	2	2	4		£21,333.33		0		NHSG
53	99	Brief & CP's / Design	4.02	BREEAM - PSCP BREEAM target credits required for overall works are not achieved during works. e.g. material reuse etc.	5	3	15			Early identification of points that need to be secured.	2	2	4		£12,000.00		0		PSCP
53A	100	Brief & CP's / Design	4.02	BREEAM - NHSG BREEAM target credits required for overall works are not achieved during works. e.g. material reuse etc.	5	3	15			Early identification of points that need to be secured.	2	2	4		£0.00		0		NHSG
	101		4.03	Air permeability - issues with testing and / or quality results in need for remedial works	2	3	6			quality of design detailing to be reviewed, robust quality checks during construction, sufficient allowances in programme	1	2	2		£4,000.00		0		PSCP
	102		4.04	Acoustics - issues with testing and / or quality results in need for remedial works	2	3	6			quality of design detailing to be reviewed, robust quality checks during construction, sufficient allowances in programme	1	2	2		£4,000.00		0		PSCP
163	103	Design	4.04	Design Assumptions - Baird Birthing Rooms: Acoustic Performance agreed as part of the Works Information proves to be inadequate	3	3	9			Building designed in accordance with SHTM guidance. Specialist acoustician engaged and his advice has been taken account of in the Stage 3 design.	2	3	6		£9,333.33		0		NHSG
	104		4.05	U-Value - issues with testing and / or quality results in need for remedial works	2	3	6			quality of design detailing to be reviewed, robust quality checks during construction, sufficient allowances in programme	1	2	2		£4,000.00		0		PSCP
	105		4.06	BIM Requirement - Level 2 not achieved, LOD and LOI not in line with EIR's	2	3	6			BEP completed, ongoing clash detection and BIM workshops, BIM champion leading process	1	2	2		£4,000.00		0		PSCP
	105 (a)			BIM - Information provided may not interface with NHSG asset & FM systems without significant rework.	5	3	15			Dialogue to be concluded with NHSG & NHS BIM advisor to finalise the requirements for interfacing with the NHSG asset management systems.	4	3	12		£0.00		0		NHSG

86	106	Brief & CP's / Design	4.10	Technical - May fail to maintain a consistent interpretation of Standards	3	3	9		Derogations and applicable standards to be developed and regular reviews maintained throughout project life for each building; to be monitored.	2	3	6		£16,000.00		0		PSCP
30	107	Brief & CP's / Design	4.14	Design Assumptions - Scope is unclear, resulting in inappropriate facilities and cost escalation.					Works Information updated and included in the Stage 4 Contract.					£0.00		0		NHSG
30A	108	Brief & CP's / Design	4.14	Design Assumptions - NHSG Brief amended and / or unclear resulting in amendments to works	4	3	12		Clear signed off Works Information as part of the Stage 4 Contract.	1	3	3		£15,000.00		0		NHSG
111	109	Project	4.14	Design assumptions - Specialist equipment design requirements change / not advised timeously e.g. MRI	4	2	8		NHSG and Graham Construction have worked with HFS to agree assumptions and demarcation schedule outlining what will be done by the PSCP during Construction and what needs to be done by NHSG to bring the MRI unit into operation.	3	2	6		£12,000.00		0		NHSG
	109 (a)	Project	4.14	Design Assumptions in relation to environmental conditions - assumptions made in the Target Price/Design around Group 2, 3 & 4 equipment change.	4	3	12		NHSG and Graham Construction have collaborated to agree assumptions	4	3	12		£80,000.00		0		NHSG
112	110	Project	4.14	Design Assumptions - Art strategy and programme does not align with PSCP design and programme	3	3	9		Develop an aligned strategy. A representative of GHAT is a member of the Interior Design Project Group and this will be addressed during Stage 4.	3	2	6		£17,000.00		0		NHSG
115	111	Brief & CP's / Design	4.14	Design Assumptions - Failure to agree derogations and clarifications has an impact on Target Price agreement and the potential for programme delay.	3	4	12		NHSG and the PSCP are finalising agreement of derogations and clarifications and their reflection in their costed design/Target Price. This will be completed prior to entry into Stage 4.	3	4	12		£0.00		0		NHSG
116	112	Brief & CP's / Design	4.14	Design Assumptions - Failure to meet carbon reduction targets	4	4	16		Ongoing dialogue with design team & NHSG as part of the MEP workshops and development of Stage 4 works information. Two Target criteria set in BCR's, under TM54 - initial assessment shows failure on Baird. To be reviewed with NHSG. Ref email 29/04 to HFS	2	4	8		£8,000.00		0		PSCP
117	113	Brief & CP's / Design	4.14	Design Assumptions - Failure to co-ordinate with Green space strategy - resulting in amendment to scope and costs e.g. change in materials					Dialogue with planners, NHSG to provide details of Greenspace requirements and design for interfacing phases PSCP to develop design against NHSG requirements, NHSG approval of proposals					£0.00		0		NHSG
118	114	Design	4.14	Design Assumptions - Existing link bridge structure requires significant works for interface	3	3	9		Survey & design completed in advance of Stage 4. Allowance to be made in cost plan until final design known - Residual risk remains.	2	3	6		£4,666.67		0		PSCP
119	115	Construction	4.14	Design Assumptions - New buildings may block the "bleep" signal. Won't be able to be determined until completion	3	2	6		No mitigation possible until completion of buildings. Accept & address if required.	3	2	6		£17,000.00		0		NHSG
	116	Brief & CP's / Design	4.14	Design Assumptions - Maternity - Additional depth of foundations may be discovered during demolitions, beyond the 2 m allowed in the Target Price and resulting in a cost and programme impact.	3	3	9		The demolition prices allow for an assumed 2m depth of existing foundations to all buildings for demolition	2	3	6		£22,000.00		0		NHSG
	117	Brief & CP's / Design	4.14	Design Assumptions - Vibration limits designed for ACRM are not sufficient for equipment.	2	3	6		Design was developed in consultation with the specialists in the department/structural engineer and in accordance with the SHTM and British Standards, refer to BCR clarifications	1	3	3		£2,000.00		0		NHSG
30B	118	Brief & CP's / Design	4.15	Development of the Enabling works results in change required to Main works design - risk due to TP prior to completion of the enabling works					TO BE CLOSED PRIOR TO CONTRACT AGREEMENT					£0.00		0		NHSG
56	119	Service	4.15	Design Assumptions - There is a risk that the Baird Theatre design / brief is not fit for purpose for all specialities. Including achieving environmental criteria as result of brief not being compliant with HBN 26.	5	3	15		Involved all relevant stakeholders in theatre design, including Infection Prevention and Control Team, as well as undertaking research/visits to other theatre facilities. Design is appropriate for the specialists who will operate in the building in 2023. Further discussions with HFS as part of the FBC Stage NDAP assessment have confirmed that design as acceptable. Flow and workforce issues continue to be addressed through the monthly theatre redesign group.	1	3	3		£20,000.00		0		NHSG
83	120	Design	4.15	Design Changes - May fail to define appropriately the Clinical / Non Clinical WI leading to minor changes	5	3	15		Creation of comprehensive WI during Stage 2, 3 and 4. Incorporate lessons learned from other projects. PSCP WI signed off by NHSG through NEC3 Design Acceptance.	3	2	6		£70,000.00		0		NHSG
83A	121	Design	4.15	Design Changes - PSCP may fail to appropriately interpret the Clinical / Non Clinical WI leading to minor changes in works	5	3	15		Creation of comprehensive WI during Stage 2, 3 and 4. Incorporate lessons learned from other projects. PSCP WI signed off by NHSG through NEC3 Design Acceptance.	3	2	6		£48,000.00		0		PSCP
84	122	Service	4.15	Design Changes - May fail to define appropriately the Clinical / Non Clinical Brief leading to Major changes	3	5	15		Creation of comprehensive WI during Stage 2, 3 and 4. Incorporate lessons learned from other projects. PSCP WI signed off by NHSG through NEC3 Design Acceptance.	1	4	4		£200,000.00		0		NHSG

84A	123	Design	4.15	PSCP may fail to appropriately interpret the Clinical / Non Clinical WI leading to major changes in works	3	5	15		Creation of comprehensive WI during Stage 2, 3 and 4. Incorporate lessons learned from other projects. PSCP WI signed off by NHSG through NEC3 Design Acceptance.	1	4	4		£80,000.00		0		PSCP
	124		4.15	Design Changes - MRI and all other Group 2,3,4 - final selected equipment impacts design post TP										£0.00		0		NHSG
	125		4.15	Design Changes - Revised RPA requirements amend design	3	2	6		RPA requirements have been confirmed and are reflected in design.	2	2	4		£11,333.33		0		NHSG
	126		4.15	Design Changes - Nurse call changes to performance specification	4	2	8		There has been clinical input to the design development and Design Acceptance.	4	2	8		£22,666.67		0		NHSG
	127		4.15	Design Change - Theatre integration requirements require amendments to the design	4	3	12		Project team is in ongoing dialogue with specialists in order to confirm requirements. Provision made for cabling meantime.	4	2	8		£22,666.67		0		NHSG
	128		4.18	Design fees - insufficient allowances for PSCP design fees and development of the design to react to ongoing coordination, impacted by poor services	2	3	6		Fees agreed in advance of tender, design change freeze post TP	4	3	12		£1,466,666.67		0		PSCP
	129	Brief & CP's / Design	4.21	Design Assumptions - Package development of Design from RIBA Stage 4 to 5 - Design development	4	4	16		Robust design of RIBA 4, surveys and alike SUM TRANSFERRED FROM PACKAGE TENDERS	1	3	3		£0.00		0		PSCP
147	130	Design	4.21	Design Development - Interface between Works Information and specialist design not included in subcontractor specialist price	3	4	12		Coordination meeting/planning Early engagement of specialist sub-contractors to ensure interfaces clearly identified and responsibilities agreed	2	4	8		£4,666.67		0		PSCP
14	131	Project	5.04	Main works Programme - Handover is delayed due to construction issues.	4	3	12		Early and effective planning and coordination by the PSCP.	3	3	9		£321,600.00		12		PSCP
	132	Programme	5.04	Programme Main - Handover is delayed due under estimation of construction periods	4	3	12		Early and effective planning and coordination with the PSCP	2	2	4		£0.00		0		PSCP
14A	133	Project	5.04	Main works Programme - Handover is delayed due to technical commissioning issues.	4	3	12		Early and effective planning and coordination with the PSCP & Technical commissioning manager. Commissioning manager appointed. There has been a high level commissioning programme agreed and this will be further developed within the Project Team	3	3	9		£60,000.00		12		PSCP
157	134	Site & Geotechnical	5.05	Adverse Weather - Weather conditions within the 1 in 10 year average disrupting the works	2	4	8		Regular review of weather forecast and mitigation measures incorporated Agreed Time / Risk allowance included in contract	2	4	8		£32,000.00		4		PSCP
157	135	Site & Geotechnical	5.05	Adverse Weather - Weather conditions out with the 1 in 10 year average disrupting the works	2	4	8		Regular review of weather forecast and mitigation measures incorporated Agreed Time / Risk allowance included in the contract	2	4	8		£56,000.00		0		NHSG
157	136	Site & Geotechnical	5.05	Adverse Weather - Wind speeds over and above 38mph prevent craneage activities	2	4	8		Regular review of weather forecast and mitigation measures incorporated Agreed Time / Risk allowance included in the contract	2	4	8		£28,000.00		0		NHSG
143	137	Project	5.06	Programme Resources - Availability of NHSG NEC3 Supervisor resource impacts on witness testing, commissioning and validation during the construction phases.	2	3	6		Commissioning plan in place - soft landings & adequate Supervisor capacity/notice periods to be defined. Commissioning manager appointed and programme developed with NGB / CM / MML. Dates clearly set out in the Construction Programme.	1	3	3		£14,000.00		0		NHSG
	138	Programme	5.07	Sectional Completion - Client change in phasing during works impacts delivery	3	3	9		Detailed phasing developed between the parties	1	2	2		£4,000.00		0		NHSG
137	139	Statutory	5.10	Programme Statutory - Building Control fail to meet dates for issues certificates to close off each construction phase.	3	4	12		Early engagement with ACC BCO Staged warrants to be agreed Regular meetings and engagement with assigned BCO	2	3	6		£20,000.00		4		PSCP
134	140	Construction	5.12	Defects - Zero defects at Handover not achieved	3	4	12		Sufficient resource to de-snap prior to handover. Quality Management System/quality plan being finalised. Soft landings to provide process for de-snap prior to handover	1	4	4		£0.00		0		PSCP
156	141	Construction	5.12	Defects - Post completion snagging	5	2	10		Sufficient resource to de-snap prior to H/O QMS to be finalised Soft landings process provides for de-snap prior to handover	2	2	4		£40,000.00		0		PSCP
130	142	Project	5.13	Programme other - Capital equipment procurement (NHSG) - Procurement and lead-in times of Group 2/3/4 equipment and availability	3	3	9		HFS appointed to assist delivery of equipment strategy and equipment manager currently being recruited.	2	3	6		£56,000.00		0		NHSG
131	143	Project	5.13	Programme Other - NHS Directly employed subcontractors do not adhere to programme	3	3	9		Regular programme updates & review. Good package management. Programme changes must be clearly communicated to allow resources to be planned.	2	3	6		£40,000.00		0		NHSG
135	144	Project	5.13	Programme - Other - There is a risk that failure to clear / decant existing Aberdeen Maternity Hospital impacts on ability to demolish AMH.	4	3	12		Decommissioning plan to be developed and implemented.	2	3	6		£8,000.00		0		NHSG

136	145	Service	5.13	Programme - Other - There is a risk that failure to ensure staff familiarisation with new equipment and installations may delay handover and occupation. Subject to Graham Construction having to provide the training that has been included in the Works Information.	3	3	9		Soft landings plan being developed to provide training and aftercare with respect to PSCP supplied equipment. The NHSG Functional Commissioning Plan will include details of orientation programme to ensure staff are fully briefed and safe to use new equipment	1	3	3		£2,000.00	0	NHSG
	146	Construction	6.01	Labour - availability including for Out of hours working	3	2	6		Review subcontractor bids, appointments to include for travel and accommodation, manage programme	2	2	4		£22,666.67	0	PSCP
	147	Site & Geotechnical	6.03	Materials - Non availability of Materials	3	2	6		Early procurement - parties to work to substitute if required, programme to show lead-ins	1	2	2		£20,000.00	0	PSCP
62	148	Finance & Procurement (Project)	6.06	Subcontractor Availability - Procurement Strategy: management of supply chain lead time.	3	4	12		NHSG has worked in partnership with the PSCP and Cost Advisor to ensure procurement strategy considers the management of lead in time issues ahead of target price being agreed.	3	4	12		£60,000.00	12	PSCP
122	149	Construction	6.06	Subcontractor availability - Material and labour shortages due to geographical location (major developments)	3	4	12		Early market testing of key packages to secure resource There were meet the buyer events to identify wider supply chain.	3	3	9		£70,000.00	12	PSCP
	150	Finance & Procurement	6.12	Quantities - Package Quantity Take off risk	4	3	12		Competent parties, cross checked SUM TRANSFERRED FROM PACKAGE TENDERS	2	3	6		£0.00	0	PSCP
	151	Finance & Procurement	6.13	Scope - Package scope gaps	4	3	12		Competent parties, cross checked SUM TRANSFERRED FROM PACKAGE TENDERS	2	3	6		£0.00	0	PSCP
	152	Finance & Procurement	6.24	Insurance - Additional insurance requirements lead to additional prelim costs above original tender					agree additional requirements in advance of TP, build into TP					£0.00	0	NHSG
	153	Project	6.24	Insurances - If the PSCP fails to take out the agreed insurances, NHSG will deduct the cost of this from payments to Grahams, including any expenses incurred in obtaining these insurances.	3	3	9		PSCP will take out CAR insurance. - Is that not for enabling ? - No	1	3	3		£0.00	0	PSCP
25	154	Construction	6.26	Quality - The level of build quality delivered by PSCP does not match brief.	4	4	16		Robust monitoring by Graham Construction Site Supervisor and NEC3 Supervisor team. PSCP has a full quality management system in place. Note this is still being finalised	1	4	4		£40,000.00	0	PSCP
52	155	Finance	7.03	Escalation - Programme may straddle financial years and availability of funding requires to be managed.	3	3	9		Active management of the programme and early dialogue with NHS and SGHSCD if revenue/capital funding is required in a different financial year.	2	2	4		£0.00	0	NHSG
69	156	Finance & Procurement	7.03	Escalation - Construction Inflation calculations may be inadequate (MIPS)	3	5	15		Use of BCIS forecasts at point of target price to be used. Review of market data and cost plan allowances. Procurement strategy also deals with this. Framework agreement includes provision of inflation.	3	4	12		£640,000.00	0	PSCP
122	157	Finance & Procurement	7.04	Taxation - Changes in legislation due to BREXIT, increase costs and programme.	3	4	12		Impact of BREXIT to be monitored	3	4	12		£195,000.00	0	NHSG
65	158	Project	8.00	Contractual - PSCP fail to meet NEC3 contract obligations.	2	3	6		PSCP commercial team to brief full PSCP team on requirements and provide training where required. Asite CAT system utilised to administer contract	1	3	3		£4,000.00	0	PSCP
66	159	Project	8.00	Contractual - PSCM fail to meet NEC contract obligations.	2	3	6		PSCP commercial team to brief full PSCM team's on requirements and provide training where required Asite CAT system utilised to administer contract	1	3	3		£6,000.00	0	PSCP
67	160	Project	8.01	Design Liability - PSCP fails to obtain / deliver Sub Contractor Collateral Warranties	3	4	12		List of sub contractor warranties is being finalised.	3	2	6		£90,000.00	0	PSCP
145	161	Finance & Procurement	8.02	Contract - Extent & requirement of delay damages unknown.					TO BE CLOSED PRIOR TO CONTRACT AGREEMENT					£0.00	0	NHSG
79	162	Finance & Procurement	8.06	Payment Terms - Project Bank Account system unproven / does not work	3	1	3		Project bank account established and piloted during Stage 3 and fully operated during Stage 4.	3	1	3		£0.00	0	NHSG
79	163	Finance & Procurement	8.06	Payment Terms - Project Bank Account system unproven / does not work	3	1	3		REVERT TO TRAD PAYMENT whilst solution is being found, interim payments required by PSCP using own capital, resulting in loss in interest on capital Check wording	3	1	3		£24,000.00	0	PSCP
144	164	Finance & Procurement	8.11	Contract - No relief from delay damages for matters that are contractors insurable events, e.g. flood, fire, storm	2	5	10		Inherent risk other than provisions made to protect works as far as practicable	2	5	10		£50,000.00	4	PSCP
81	165	Project	8.21	Contractual - Failure to deliver agreed 'Community Benefits'	3	2	6		There has been early and ongoing agreement with PSCP regarding Community Benefits Plan and regular updates of progress.	2	1	2		£4,666.67	0	PSCP
82	166	Finance & Procurement	8.21	Contractual - Inaccurate forecast of pain/gain share, and taking benefit prior to finalising Actual Cost, results in under / overspend	3	3	9		No use of gain until high degree of actual cost (might be late in project). Regular forecasting in line with the contract.	3	2	6		£0.00	0	NHSG
82	166 (a)	Finance & Procurement	8.21	Contractual - use of gain share results in additional contract risk to PSCP impacting profitability and forecasting.	3	3	9		Separate contract will be entered into for reinvestment	3	2	6		£60,000.00	0	PSCP
68	167	Project	9.01	Resources - NHSG - Project team may not involve appropriate Professional expertise, (Design, Commercial)	3	3	9		Selection of team including Professional Services Consultants based on quality of professional expertise and costs.	1	2	2		£2,000.00	0	NHSG

68	167 (a)	Project	9.01	Changing cost advisor may result in delay as a result of loss of commercial knowledge on works to date	4	3	12		Detailed orientation is nearing completion and planning for the next stage is progressing.	3	2	6		£0.00	0	NHSG
68	168	Project	9.01	Resources - PSCP Project consultancy team may not involve appropriate Professional expertise, (Design, Commercial)	3	3	9		Selection of team including PSCM's based on quality of professional expertise and costs.	1	2	2		£10,000.00	0	PSCP
151	169	Project	9.01	Resources - PSCP internal resources inappropriate and insufficient to deliver the works	3	4	12		Regular review of resource requirement. Resources is a standing agenda item for the Core Group.	1	2	2		£10,000.00	0	PSCP
15	170	Project	9.01	Resources - NHSG - Inappropriate and insufficient resources to deliver the project and associated work	3	4	12		Regular review of resource requirement including the commissioning of external resources as required.	1	2	2		£20,000.00	0	NHSG
121	171	Finance & Procurement	9.03	Construction Market Conditions - Material and labour costs due to market conditions	3	4	12		Impact of market conditions to be monitored Possible early purchase of products to be investigated Early Market testing of key components to be undertaken to achieve supplier input on market conditions costs	3	3	9		£0.00	0	PSCP
133	172	Finance	9.03	Construction Market Conditions - Suppliers/supply chain may suffer insolvency during the project.	4	3	12		Vetting of supply chain prior to appointment. The use of performance bonds is being explored.	4	3	12		£280,000.00	16	PSCP
123	173	Construction	10.00	Health and Safety - Fire within construction site	3	3	9		Fire plans developed including protection of adjoining buildings / departments and escape routes for initial works as per CPP, fire plan to be constantly reviewed and amended as works progress during stage 4	1	3	3		£8,000.00	0	PSCP
1	174	Project	Client	Overall project not achievable/deliverable within stated timescales.	5	5	25		To establish and actively manage the delivery of the Project Plan to meet programme, with review at regular Core Group Meetings. The project is now in a period of delay and scenario planning is taking place to allow the impact of this to be managed.	4	5	20	T	£448,000.00	0	NHSG
2	175	Finance & Procurement	Client	Lack of clarity over scale of Scottish Government funding and conditions attached : associated with the Works	4	4	16		Regular and timely engagement with Scottish Government	2	2	4	T&C	£0.00	0	NHSG
3	176	Project	Client	Scottish Government\NHS Grampian do not approve FBC resulting in programme delay.	5	4	20		Continuing and regular engagement with Scottish Government	2	4	8	T	£80,000.00	0	NHSG
7	177	Service	Client	There is a risk that Internal and external stakeholders feel disengaged, are not involved in shaping the project and are not kept up to date with progress.	3	4	12		A Project Communications and Involvement Framework is in place and reviewed regularly. Project Team meet regularly with third sector and patient group partners. Internet, intranet and social media accounts are in place. Regular internal staff awareness sessions organised. Regular engagement with other Health Boards in North of Scotland. NHSG Partnership and HR personnel involved in project to aid communication. Communication activities are core duties undertaken by Deputy Project Director, Service Project Manager and Communications Officer	2	3	6	T	£0.00	0	NHSG
8	178	Service	Client	There is a risk that the lack of a clear NHSG Service Redesign Strategy and Implementation Plan will result in appropriate clinical service modelling not being achieved thereby not maximising the benefits of the facilities.	4	4	16		Creation of a Redesign Agenda and Implementation Plan coupled with a governance structure to support its delivery.	3	4	12		£0.00	0	NHSG
9	179	Service	Client	There is a risk that the facility design and/or service model do not meet with approval from users (e.g. patients, carers, staff) resulting in complaints/grievances/ poor publicity/loss of reputation).	4	4	16		Early and continuous engagement with users has been in place since the start of the project and continues. This been facilitated through Project Groups and various other communication channels.	2	3	6		£0.00	0	NHSG
10	180	Service	Client	Failure to maintain the benefits of relations with the University in the current facilities, and to achieve aspirations for education, peer review and research in the future.	3	3	9		Early and ongoing engagement with University.	1	3	3		£0.00	0	NHSG
11	181	Service	Client	There is a risk that service redesign will involve changes to staff terms and conditions, with the potential for staff dissatisfaction/formal action. This could potentially lead to programme delay if staff do not feel involved in the planning for the new facilities.	3	3	9		Early and continuous engagement throughout the project with partnership, HR and professional bodies.	2	3	6		£0.00	0	NHSG
12	182	Project	Client	Project team roles and responsibilities are unclear.	4	3	12		Clear Project structure, roles and terms of reference. A team development process is established to ensure coordinated team working and good communication. Roles and responsibilities are set out in the PEP which is updated on a quarterly basis.	1	2	2		£0.00	0	NHSG

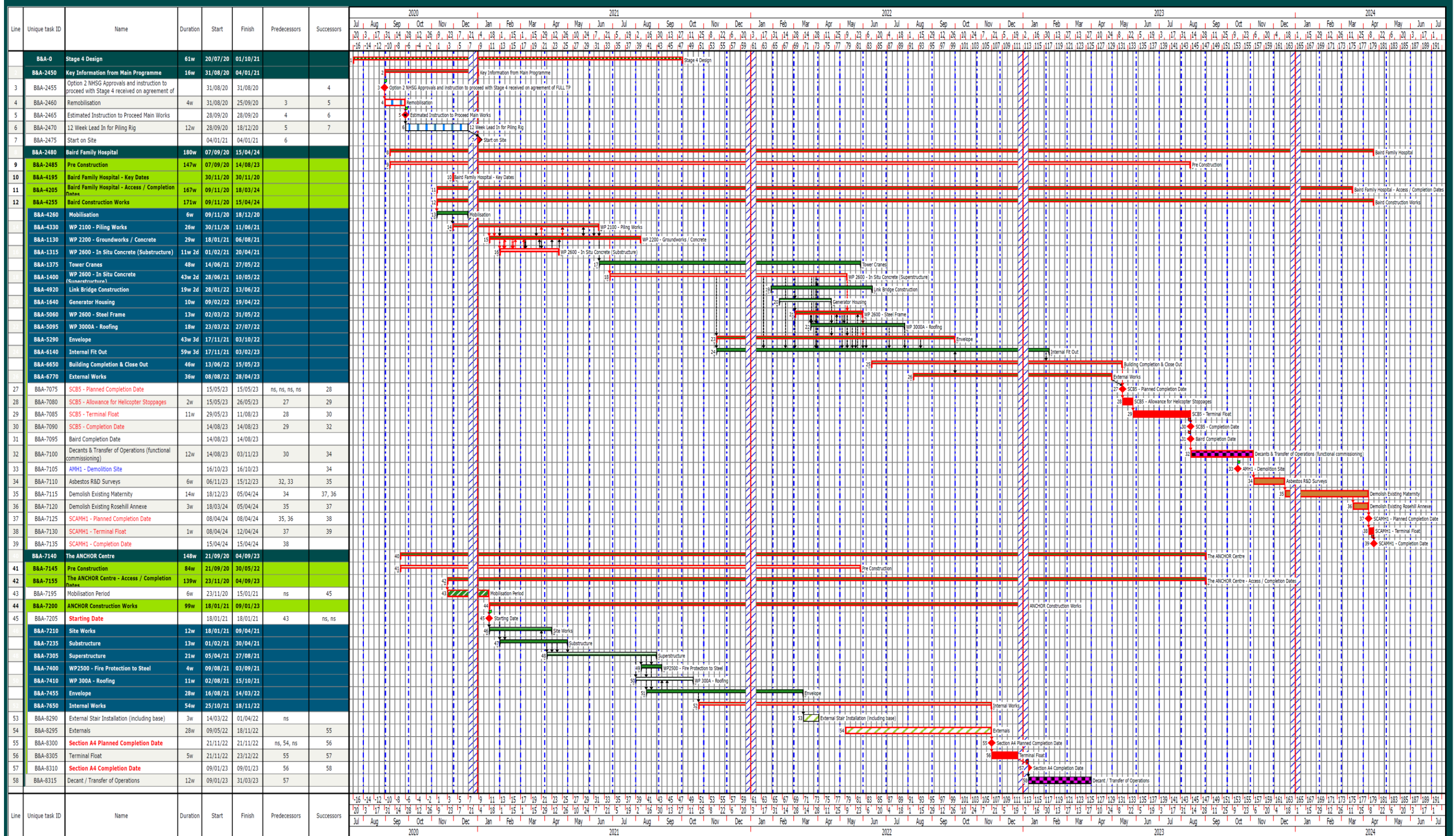
13	183	NHSG Commissioning	Client	There is a risk that failure to plan and coordinate functional commissioning activities will result in issues during the commissioning period. Such as failure could lead to cost pressures and disruption/risk to clinical areas.	4	3	12		Commissioning Manager in post and Equipment Manager will be appointed for the start of Stage 4. These roles will allow NHSG to a safe, smooth and coordinated functional commissioning plan. This will be integrated within the Soft Landings Delivery Plan. High level functional commissioning planning has commenced.	2	3	6			£40,000.00	0	NHSG
17	184	Finance & Procurement	Client	Affordability of scheme within the notional agreed funding identified is not achievable	4	3	12		On-going monitoring and monthly reporting to Project Board. Cost Advisor regularly reviews the cost reporting and target price together with risk and inflation provisions with the PSCP.	4	3	12			£0.00	0	NHSG
18	185	Finance	Client	Evaluation of project does not demonstrate VFM.	4	4	16		Regular reviews of the project against VFM and affordability criteria.	2	4	8			£0.00	0	NHSG
19	186	Finance	Client	Recurring building running costs are unaffordable.	4	3	12		Periodic review of anticipated running costs and appropriate incorporation into NHS Grampian Financial Plan	1	3	3			£0.00	0	NHSG
20	187	Finance	Client	Potential Group 2, 3, 4 equipment costs are unaffordable.	4	4	16		Development of equipment schedule in conjunction with HFS.	2	3	6			£0.00	0	NHSG
21	188	Finance & Procurement	Client	Potential double running between technical commissioning and decommissioning not budgeted.	3	3	9		Early budgeting for commissioning period and confirmation of capacity required for double running for a number of weeks (staffing and infrastructure) following completion of the commissioning plan.	1	3	3			£0.00	0	NHSG
24	189	Finance & Procurement	Client	VAT treatment assumptions could change.	3	3	9		Regular review of VAT assumptions and update of cost plans as appropriate	3	2	6			£186,000.00	0	NHSG
31	190	Service	Client	There is a risk that clinical modelling assumptions are not realised.	4	4	16		Early and detailed involvement of clinical staff and other relevant parties in the planning process, with repeated review at all stages.	2	4	8			£0.00	0	NHSG
32	191	Service	Client	There is a risk that maternity modelling may be inaccurate if assumptions about the use of Community Maternity Units are not realised and impact of Best Start recommendations	3	4	12		Forecast CMU numbers have been reviewed using best available evidence to date coupled with clinical staff engagement. Active plan to encourage appropriate usage of the CMUs is being implemented in advance of Baird being opened in 2023.	2	4	8			£0.00	0	NHSG
33	192	Service	Client	There is a risk that future changes to medical technology/clinical care are unable to be fully anticipated and could change the service model from that which is planned. There is the associated risk that accommodation provided will then not be fit for purpose.	5	4	20		Project Team will continue ongoing dialogue with clinical teams throughout the life of the project to keep up to date with changes in clinical care which could impact on the project. Flexible accommodation has been included in the final designs.	2	4	8			£0.00	0	NHSG
35	193	Service	Client	There is a risk that the strategy for health records paper storage/electronic patient record is not realised and inadequate accommodation is provided. The project will provide for current paper records only.	5	3	15		Robust dialogue with Health Records team and engagement around strategic planning for implementation of electronic patient records has taken place and will continue. Accommodation provided in future will be flexible in nature. Finding a storage solution for the AMH records is being progressed by the wider NHSG Health Records Projects Group.	3	3	9			£0.00	0	NHSG
36	194	Service	Client	There is a risk that we are unable to recruit and retain clinical staff within specialist services, reducing our ability to achieve some of the benefits outlined in the benefits registers.	4	3	12		Early resource planning and engagement with relevant stakeholders. Proposal to develop key worker staff housing on site which will hopefully increase recruitment to NHSG, as well as the attraction of working in modern-day healthcare facilities.	2	3	6			£0.00	0	NHSG
37	195	Service	Client	There is a risk that the service/project will fail to prepare and train staff to deliver redesigned services.	4	4	16		Early planning and engagement with Operational Management Teams and with relevant stakeholders led by the Redesign Groups.	2	4	8			£0.00	0	NHSG
39	196	Service	Client	There is a risk that Soft FM services are not redesigned appropriately to function effectively in the new buildings.	3	3	9		Detailed non-clinical briefs have been developed, outlining the high level redesign required. An agreed redesign agenda has been developed with service and project input.	2	3	6			£0.00	0	NHSG
48	197	Service	Client	There is a risk that neonatal service modelling for the North of Scotland proves to be inaccurate (e.g. unanticipated changes to service delivery at Dr Gray's, Raigmore or Dundee which impact on Baird modelling, impact of Best Start national ITU recommendations).	4	4	16		NHSG have undertaken scenario planning, supported by an independent healthcare planner, to understand what the impact would be and put in place contingency plans, e.g. soft expansion space.	3	4	12			£0.00	0	NHSG
49	198	Service	Client	There is a risk that gynaecology service modelling will prove to be inaccurate, and the predicted movement of patients from in-patient to day and out-patient care is not achieved placing an unpredicted burden on in-patient services.	4	4	16		Service redesign agenda agreed and well-established with the clinical service; all redesign activities are being led by the clinical team.	2	4	8			£0.00	0	NHSG

50	199	Service	Client	There is a risk that the Admission on Day of Surgery rates are not realised for gynaecology and breast services, resulting in inadequate accommodation provision.	4	4	16			Design and implement a comprehensive surgical pre-assessment service accessible to all elective gynaecology and breast patients. This work is being led by the operational management teams, including the Project Nurse (in her Clinical Nurse Manager role)	2	4	8			£0.00	0	NHSG	
51	200	Service	Client	There is a risk that the predicted increase in incidence and prevalence of cancer are underestimated putting space pressure on The ANCHOR Centre.	3	3	9			Regular monitoring of cancer trends and discussions with clinical team. Continue to rehearse alternative ways of working e.g. extension of operational hours, increase in community clinics/treatments where appropriate etc.	2	3	6			£0.00	0	NHSG	
58	201	Service	Client	There is a risk that NHS Grampian is unable to find a solution to accommodating the Community Midwifery team, currently based in AMH, by 2023 as this team are not included in accommodation to be provided in The Baird Family Hospital	4	3	12			Agreed strategy to be in place to ensure this team have secured accommodation before 2023. Deputy Project Director in regular dialogue with the Chief Midwife to ensure progress is made on this issue	2	3	6			£0.00	0	NHSG	
59	202	Finance & Procurement	Client	Financial standing of the PSCP in light of the current economic uncertainty.	3	4	12			Financial standing of the PSCP confirmed through the HFS PSCP procurement process. PSCP has provided NHSG with a Parent Company Guarantee. NHSG and the Cost Advisor will work with PSCP to ensure that supply chain risks are managed during the development and application of the procurement strategy.	1	4	4			£20,000.00	0	NHSG	
59	203	Project	Client	Covid 19 Pandemic results in programme delay	5	5	25			Remote working including regular engagement to conclude pre-construction stage. Regular monitoring to assess and management impact on Stage 4	4	5	20			£280,000.00	0	NHSG	
	204			Reviewable Design Data During Construction - there is a risk that there may be a delay to NHSG approvals.	3	4	12			RDD schedule, including timescales, will be agreed prior to Stage 4.	2	4	8			£16,000.00	0	NHSG	
	205		client	Due to Programme delay there is a potential Group 2, 3, 4 equipment prices to increase beyond those costed as the procurement frameworks will now be renewed prior to commissioning on of the new facilities	4	3	12			Regular Engagement with HFS to identify outcome and impact of Framework Renewals	4	3	12			£12,000.00	0	NHSG	
	206		2.10	Statutory Others - Other additional external Technical Reviews - result in potential need to change design following agreement of target price	3	4	12			Early evaluation of cost and design impact of external technical review	4	3	12			£0.00	0	NHSG	
	207			FBC NDAP and/or HFS Design assurance process result in the need redesign work which has an impact on the target price	4	5	20			Ongoing dialogue with the NDAP/Design Assurance teams to close out actions. Agree a plan, including timescale for implementing actions.	3	5	15			£0.00	0	NHSG	
	208	Construction		Logistics -COVID related government restrictions resulting in changes to Site rules, including hours of working etc , leading to a change of traffic management, site management, construction methodology.	4	3	12			Robust working practice arrangements. Alternative solutions to be agreed by NHSG & PSCP.	3	3	9			£0.00	0	NHSG	
	209	Design		Brief does not meet user /organisational requirements, resulting in remedial works to facility, as a consequence of revised working practice arising from COVID pandemic	2	3	6			Early and regular engagement with colleagues	1	3	3			£0.00	0	NHSG	
	210	Project		Future Pandemic results in programme delay	3	3	9			Regular monitoring to assess and prepare for impact	3	3	9			£0.00	0	NHSG	
	211	Finance & Procurement		COVID - Construction Market Conditions - Material and labour costs due to market conditions	3	4	12			Impact of market conditions to be monitored Possible early purchase of products to be investigated Early Market testing of key components to be undertaken to achieve supplier input on market conditions costs	3	3	9			£0.00	0	NHSG	
	212	Finance	9.03	COVID - Construction Market Conditions - Suppliers/supply chain may suffer insolvency during the project.	4	3	12			Vetting of supply chain prior to appointment. The use of performance bonds is being explored.	3	3	9			£0.00	0	NHSG	
	213	Service	Client	there is a risk that NHSG services will implement permanent clinical service redesign changes in the post-Covid 19 environment; these changes could impact on the planning assumptions adopted for the Baird and ANCHOR project, in particular with regard to service and bed modelling.	4	4	16			the Baird and ANCHOR project team will engage with senior operational management and clinical colleagues to understand the required temporary changes made to services in the Covid 19 environment. The planning assumptions around service modelling for the new facilities will be re-examined alongside any proposed long-term service changes to ensure that the agreed ethos and principles for the project remain as approved.	3	2	6			£0.00	0	NHSG	
							0									£0.00	£0.00	0	0
																£4,045,666.67	£3,764,833.33	100	
																£4,045,666.67	£3,764,833.33	100	CHECK

# **Appendix G**

## **Project Programme**





█ Summary Bar   
 █ Contract Date   
  Procurement   
  NHSG   
  Lead In Period   
  Demolition   
  Contractor   
  2200 - Groundworks / External Works

◆ Milestone Appearances  
◆ Diamond

Drawn by: PT  
 Approved by:

Revision No: -  
 Revision Date: 28/07/2020

Dwg No: NHSG-B&A-MP-01  
 Notes: DRAFT - FOR INFORMATION ONLY