Golden Jubilee Foundation

Patients at the heart of progress

Hospital Expansion Programme

Phase One Ophthalmology Expansion

Outline Business Case

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STRAGETIC CASE

1 Strategic Case: Overview

1.1 Introduction to the Outline Business Case

This section of the OBC reviews the strategic case developed within the Initial Agreement (IA), highlighting any changes since the IA was developed ensuring the case for change remains valid and the preferred solution.

	Strategic Case (OBC)	
	Question	**Response**
Strategic Case	Have the current arrangements changed?	Confirm details on (for example): • Proposed changes to service model. • Service activity changes. • Service provider & workforce changes. • Impact on Board's assets.
	Is the case for change still valid?	Summary confirmation of the: • Need for change. • Investment objectives.
	Is the choice of preferred strategic / service solution(s) still valid?	Confirmation of the preferred strategic / service solution(s).

2 Have the current arrangements changed?

	Question	Response
Strategic	Have the current arrangements changed?	Confirm details on (for example): • Proposed changes to service model. • Service activity changes. • Service provider & workforce changes. • Impact on Board's assets.

This section of the OBC outlines:

- the proposed service model
- the updated capacity plan to support the predicted demand for cataract surgery
- the proposed workforce model, highlighting key changes when compared with the existing Ophthalmology workforce model.

2.1 Current Service Provision at GJF

At present GJF provide 24.5% of all WoS cataract activity and 18.5% of all NHS Scotland cataract activity.

Since developing the IA there has been no change in the GJF current activity since it was summarised within the IA – Appendix A1 outlines the Health Boards that continue to be supported as part of the three year rolling Service Level Agreement:

Figure 1: Summary of GJF Ophthalmology Capacity Allocations by Board 2017/19

Referring NHS Board	New Outpatients	Cataract Procedures	Percentage of Health Boards Cataract Procedures delivered at GJF
Greater Glasgow & Clyde	3,931	2,752	33%
Forth Valley	1,182	828	35%
Lothian	2,642	1,850	45%
Fife	312	219	13.9%
Dumfries & Galloway	214	150	9.5%
Lanarkshire	2,074	1,451	33%
Grampian	572	400	13%
Total	**10,927**	**7,650**	

There has been no change to the current physical accommodation, the service continues to be accommodated over three difference levels within the hospital. The clinic remains located within an inpatient ward area (space that will be required for the expansion of orthopaedic elective activity as part of the phase 2 elective expansion for the West Region). Theatres remain split with two theatres within the main theatre suite on level 3 and a temporary mobile theatre continues to be leased to provide additional operating capacity until a new purpose built facility is available.

It is important to note that the only cataract procedures not performed at the Golden Jubilee Hospital are those requiring General Anaesthesia.

2.2 Demand Modelling – Update

The detailed demand modelling exercise carried out by GJF in Spring 2017 has now been updated and reviewed. In addition following the more detailed work carried out by ISD the GJF model has been tested against the ISD modelling. The combined outputs of the ISD and GJF modelling are shown in Figure 5 and Figure 6.

The GJF demand modelling has been updated as follows:

Activity undertaken in 2016 was included within the model, each scenario was updated to include the new 2016 activity (e.g. scenario 2 population growth plus the last 3 years average growth in intervention rates applied each year now represents 2013 – 2016 growth rate not 2012 – 2015 growth rate). This has meant that the growth rates of each scenario have been updated.

The forecast additional procedures have been phased by financial year, this has helped the development of a detailed capacity plan and a recruitment, training and workforce plan.

The forecast additional procedures have also been phased by Heath Board by financial year, this helps inform the likely future revenue costs on a Health Board by Health Board basis.

The change in growth rates of the scenarios is outlined in Figure 2.

Figure 2 : Changes in Growth rates of scenarios when updated with 2016 activity figures

Scenario	Initial Agreement	Outline Business Case
Last 3 year growth rate	3.43%	1.90%
Last 5 year growth rate	5.10%	4.48%
Last 7 year growth rate	2.90%	2.95%
Last 10 year growth rate	2.10%	2.02%
Flat rate of growth of 2.5%	2.50%	No change 2.50%

Despite the significant growth in demand for cataract surgery, the number of additional cataract procedures has not grown correspondingly – this is thought to be as a result of wider ophthalmology pressures as well as the worsening financial pressures within the NHS, meaning fewer procedures were likely to be undertaken in additional waiting list initiative theatre lists and or in the private sector. This is demonstrated in a 139% increase in the number of patients waiting longer than 12 weeks for cataract surgery recorded in January 2018 when compared with figures recorded in March 2017.

Figure 2 shows the reduction in rate of growth in actual cataract surgery activity the last three years. To counteract the false reduction in activity numbers that might skew the demand forecasting, the 2016 activity figure has been adjusted to include approx 500 additional cataract procedures, as at 5th Jan 2018, within the WoS region, 803 patients were waiting longer than 12 week for their ophthalmology procedure (as cataract surgery accounts for approx 75% of all ophthalmology procedures it is assumed that 527 patients were waiting >12 weeks for cataract surgery).

The updated demand scenarios are outlined in Figure 3.

Clinical Criteria for Cataract Surgery

The GJF have clear criteria for listing patients for first and second eye surgery, in line with NICE guidelines, the criteria take into account both visual acuity and functional difficulties experienced by patients, e.g. stopped reading or driving or having problems carryig out his or her job and the patients understanding of what cataract surgery involves and the benefits and risks of surgery.

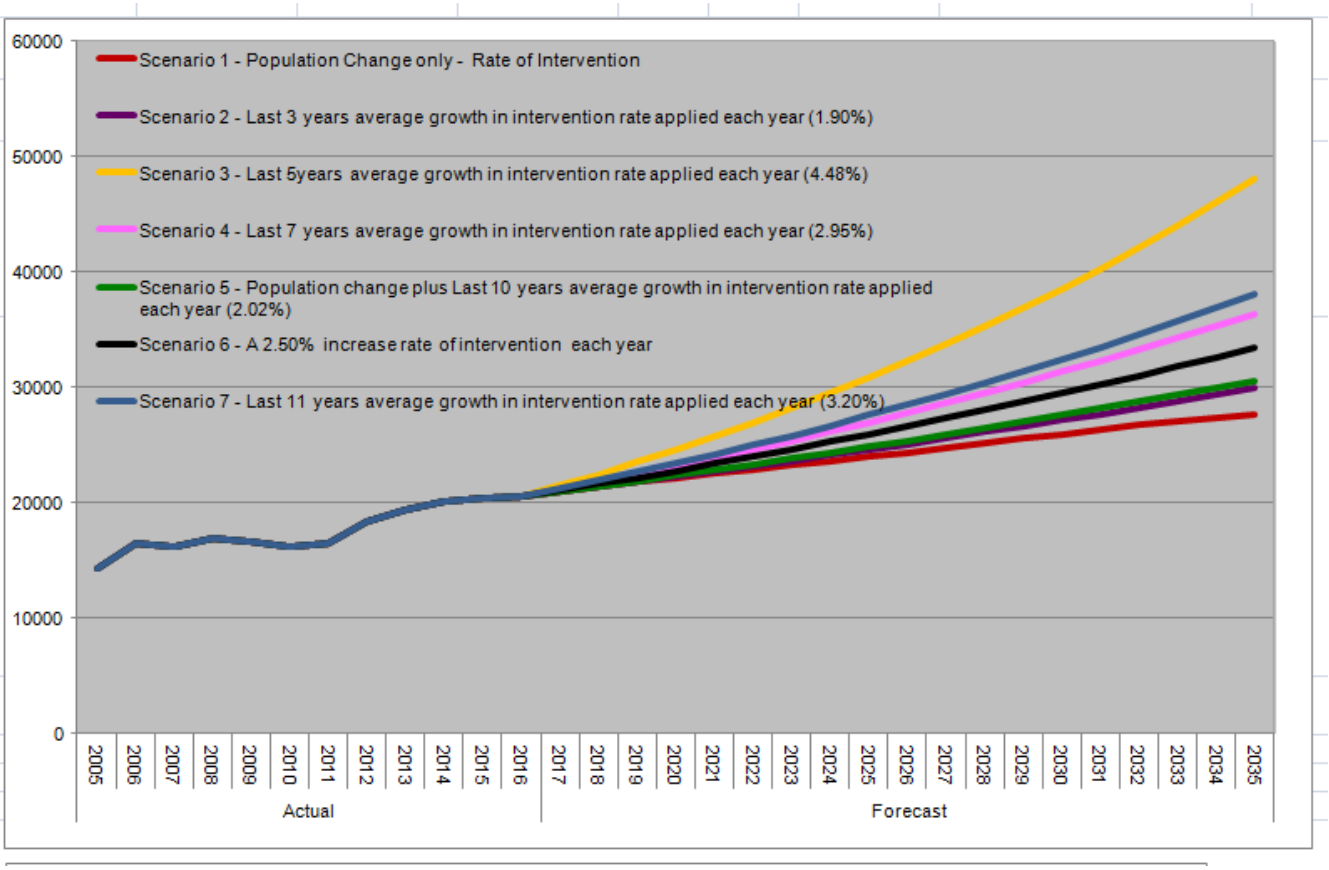
There are three main types of age related cataracts:

- Posterior subcapsular cataracts (central opacity cataracts)
- Nuclear Cataracts
- Cortical Cataracts

At present there are no nationally agreed criteria for cataract surgery, if in future national criteria were agreed and there was a change to the visual acuity criteria, whilst this may help to manage some of the demand in the short term, it would not solve the overall forecast increase in demand in the longer term, for example:

- A proportion of patients would still be listed for surgery on account of the functional difficulties they are experiencing
- Those patients with posterior subcapsular cataracts, would continue to be listed within the same timeframes as currently – as they have cataracts that rapidly progress and are likely to require surgery within a minimum 2-3 months of diagnosis
- Patients with Nuclear or Cortical cataracts are likely to meet any revised criteria within an average of 1-2 years
- The potential impact on other services would also need to be taken into account. Patients with cataracts struggle to have the same level of depth of perception with their sight, it is much harder to judge distances with a cataract, e.g. walking down steps or stepping off a kerb, there is a potential for an increased number of falls, as patients
- When patients ultimately do meet the listing criteria they may then have a higher degree of surgical difficulty and their operation may take longer and carry higher risks

Figure 3: Charted Summary of Modelled Scenarios



2.2.1 Comparison of GJF Demand Modelling and ISD Demand Modelling

Overall there is very little difference in the outputs of the GJF and ISD model, GJF have worked closely in partnership with ISD and the methodologies are very similar, the minor difference in the methodologies are as follows:

- Baseline year– ISD model assumes a three year average (2014, 2015, 2016) as the baseline year this is 21,558 procedures– whereas GJF have assumed the calendar year of 2016, adjusted to included the patients waiting longer than 12 week for their ophthalmology procedure.

- GJF have undertaken more detailed data cleansing to ensure only true elective cataract procedures are within the data set.

- In addition to reviewing and updating the future demand forecasts for cataract surgery, a review of how much demographic change might have influenced the last 10 – 11 years growth in cataract activity has also been undertaken. Figure 4 below outlines that in the ten year period between 2005 and 2015, the population aged over 60 grew by almost 15%, yet the increase in cataract surgery procedures rose by 43%. In the period from 2015 to 2035 population forecasts predict there will be almost a 35% increase in the number of people aged over 60, when compared to the previous ten years, the forecast of a further 48.8% increase in cataract activity seems prudent.

Figure 4: West of Scotland Actual / Forecast growth in those aged over 60+ years as compared with growth in cataract surgery

Year	Actual / Forecast Number of people aged over 60 years	Actual / Forecast Growth in population over 60	Actual / Forecast Percentage increase in population aged over 60	Actual / GJF (Scenario 5) predicted change in Cataract Surgery - percentage
2005	547,000	baseline	baseline	baseline
2015	628,000	+81,000	14.8%	43% actual growth in cataract activity between 2005 and 2015
2035	846,000	+218,000	34.7%	48.8% Forecast growth in Cataract Activity between 2015 and 2035

Having updated the demand modelling and reviewed the more detailed modelling carried out by ISD, Scenario 5, (population growth plus the last 10 year average increase in intervention rate) is still thought to be the most accurate prediction of future demand for cataract surgery for the WoS population, as it is closely aligned with the wider UK prevalecne study carried out by the RCO.

The proposed GJF Scenario, (scenario 5) has been plotted alongside the ISD demand modelled and is set out in Figure 5 and Figure 6. GJF Scenario 5 fits within the +/- 5% tolerances of the ISD Model.

Figure 5: Demand Modelling Outputs – Forecast Cataract Activity between now and 2035

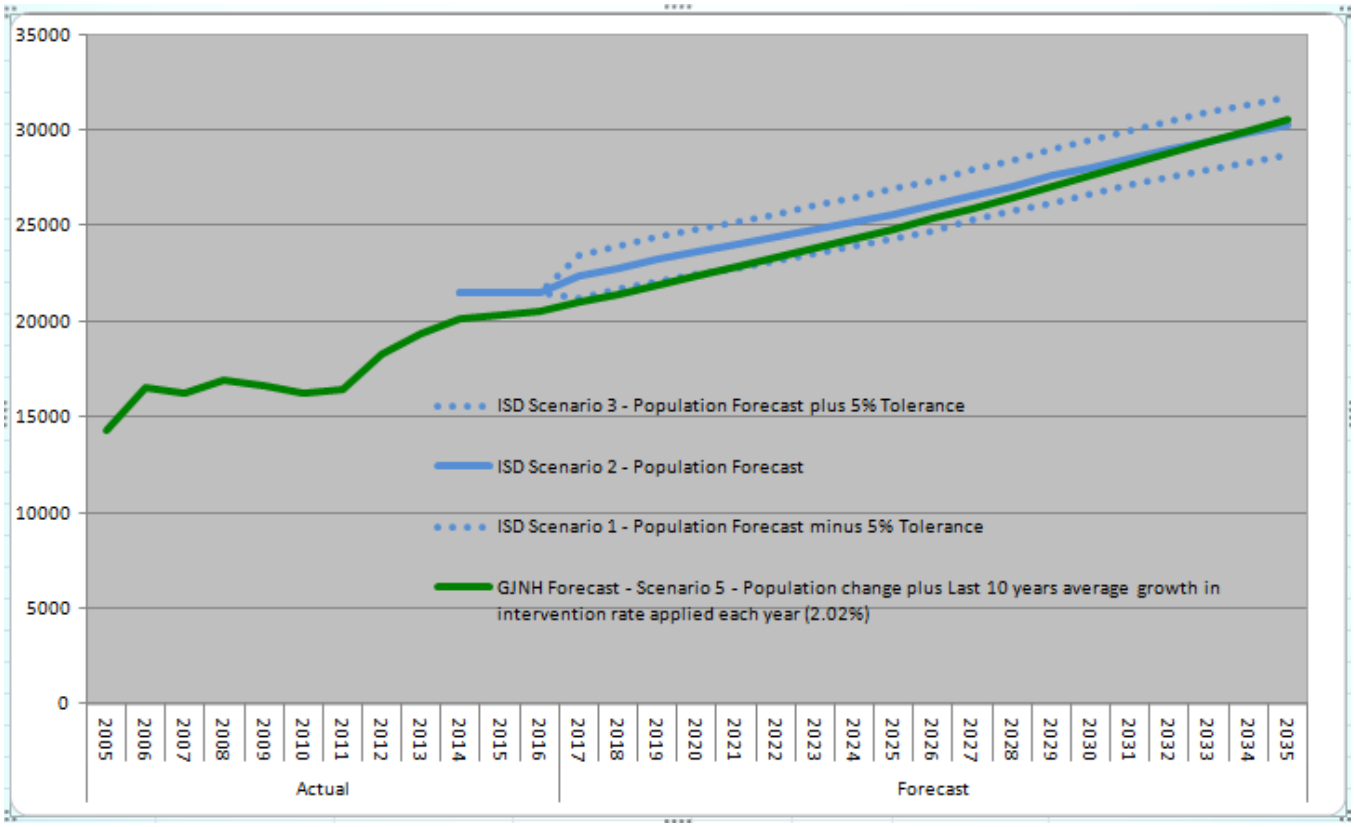


Figure 6: Tabular Summary of Modelled Scenarios

Scenario		Applied Annual % growth in Intervention rate	Predicted Cataract Procedures				Add theatres by 2035	% Increase in Procedures	
			YEAR						
			2020	2025	2030	2035		By 2025	By 2035
1	ISD Scenario 1 - population forecast Minus 5% tolerance	Rate varies year on year inline with demographic changes	22,434	24,343	26,639	28,725	2.4	12.90%	33.25%
2	ISD Scenario 2 - population forecast		23,615	25,624	28,041	30,237	2.9	18.90%	40.25%
3	ISD Scenario 3 - population forecast Plus 5% tolerance		24,795	26,905	29,443	31,749	3.4	24.80%	47.27%
5	IA - Last 10 years average growth in intervention rate - 2006 - 2015	2.10%	23,857	26,666	29,773	33,138	3.9	26.71%	57.46%
	OBC - Last 10 years average growth in intervention rate 2007-2016	2.02%	22,335	24,839	27,595	30,561	3.3	20.98%	48.84%

2.3 Phasing of Forecast Additional Activity

Detailed phasing of forecast additional activity has been undertaken for Scenario 5. Since the approval of the IA, NHS Lothian have stated their intent to repatriate all their cataract activity a significant proportion of their total cataract activity is currently retreated at GJF (1,850 cases – approx 45% of their current cataract activity) over a three year period from 2023/24 onwards. Therefore the phasing has been undertaken for two forecasts (see Figure 7 and Figure 8)

Forecast 1: No change to GJF current cataract activity plus forecast additional cataract activity to support requirements of WoS population.

Forecast 2: Repatriation of NHS Lothian cataract activity over a 3 year period from 2023/24 onwards, plus forecast additional activity to support requirements of WoS population.

Figure 7 : Forecast 1 - OBC Ophthalmology Phasing of Activity 2020 to 2035 (no repatriation)

Number of Theatres Commissioned	4				5						6				
	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
Forecast Additional WoS Demand for Cataract procedures	2,450	482	493	503	514	525	535	544	554	562	571	579	587	595	603
Total Cataract Procedures Carried out at GJF	10,500	11,000	11,500	12,000	12,500	13,000	13,500	14,100	14,600	15,200	15,800	16,400	16,900	17,500	18,100
Theatres Required at GJF	3.4	3.6	3.7	3.9	4.1	4.2	4.4	4.6	4.7	4.9	5.1	5.3	5.5	5.7	5.9
Total Outpatient Appointments Required (New and Urgent Post Op)	12,915	13,530	14,145	14,760	15,375	15,990	16,605	17,343	17,958	18,696	19,434	20,172	20,787	21,525	22,263
Number of outpatient sessions per week	11	12	13	13	14	14	15	15	16	16	17	18	18	19	19
Cumulative Additional Procedures - Phased by Health Board	**Assume Opening 1st April 2020 (17/18 to 20/21 demand combined)**	**21/22**	**22/23**	**23/24**	**24/25**	**25/26**	**26/27**	**27/28**	**28/29**	**29/30**	**30/31**	**31/32**	**32/33**	**33/34**	**34/35**
AYRSHIRE & ARRAN	455	537	620	705	792	881	971	1,063	1,157	1,252	1,349	1,446	1,546	1,646	1,748
DUMFRIES & GALLOWAY	76	112	149	186	224	263	303	344	385	427	469	512	556	600	645
FORTH VALLEY	285	342	400	460	520	582	645	710	775	842	909	977	1,047	1,117	1,188
GREATER GLASGOW & CLYDE	1112	1,314	1,522	1,734	1,950	2,171	2,396	2,625	2,858	3,095	3,335	3,578	3,826	4,076	4,330
LANARKSHIRE	522	627	735	844	956	1,071	1,187	1,306	1,426	1,549	1,673	1,799	1,927	2,056	2,188
Total	**2450**	**2,932**	**3,425**	**3,929**	**4,443**	**4,968**	**5,503**	**6,047**	**6,601**	**7,163**	**7,735**	**8,314**	**8,901**	**9,496**	**10,099**

Figure 8 : Forecast 2 - OBC Ophthalmology Phasing of Activity 2020 to 2035 (NHS Lothian repatriation)

Number of Theatres Commissioned	4								5					6	
	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
Forecast Additional WoS Demand for Cataract procedures	2,450	482	493	503	514	525	535	544	554	562	571	579	587	595	603
LOTHIAN REPATRIATION				-617	-617	-616									
Total Cataract Procedures Carried out at GJF	10,500	11,000	11,500	11,400	11,300	11,200	11,700	12,200	12,800	13,400	13,900	14,500	15,100	15,700	16,300
Theatres Required at GJF	3.4	3.6	3.7	3.7	3.7	3.7	3.8	4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.3
Outpatient/ pre op asessment Requirements															
Total Outpatient Appointments Required (New and Urgent Post Op)	12,915	13,530	14,145	14,022	13,899	13,776	14,391	15,006	15,744	16,482	17,097	17,835	18,573	19,311	20,049
Number of outpatient sessions per week	11	12	12	12	12	12	13	13	14	15	15	16	16	17	18
Cumulative Additional Procedures - Phased by Health Board	Assume Opening 1st April 2020 (17/18 to 20/21 demand combined)	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
AYRSHIRE & ARRAN	455	537	620	705	792	881	971	1,063	1,157	1,252	1,349	1,446	1,546	1,646	1,748
DUMFRIES & GALLOWAY	76	112	149	186	224	263	303	344	385	427	469	512	556	600	645
FORTH VALLEY	285	342	400	460	520	582	645	710	775	842	909	977	1,047	1,117	1,188
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LANARKSHIRE	522	627	735	844	956	1,071	1,187	1,306	1,426	1,549	1,673	1,799	1,927	2,056	2,188
Total	2450	2,932	3,425	3,929	4,443	4,968	5,503	6,047	6,601	7,163	7,735	8,314	8,901	9,496	10,099

The key challenges and potential risks of repatriation of elective activity to the North and East regions is further outlined in Appendix A1 in a paper entitled 'Elective Surgical Activity Delivered by the Golden Jubilee Foundation'. The paper was previously submitted to the Scottish Government Capital Investment Group (CIG) as part of the Golden Jubilee Phase1 Initial Agreement Approval process.

Looking at the two forecasts, both forecasts require access to six Cataract theatres, in forecast 1, five of the six theatres would be in commission by 2024, with all six theatres in use no later than 2030.

Forecast 2 plays in the impact of NHS Lothian's intent to repatriate all their cataract activity within a 3 year period from 2023/24 onwards, not unsurprisingly this would mean the fifth theatre would open in 2028 and the sixth in 2033.

Both forecasts require access to the same outpatient footprint, under forecast 2 the facility will not be fully utilised as quickly.

However, it is important to note that within our overall demand modelling and phasing of activity, we have not taken account of the following:

- The current West regional or national backlog of patients who are currently waiting longer than 12 weeks for

cataract surgery – this figure is growing monthly. It is assumed that this element of demand modelling is being undertaken by Individual boards as part of their recovery planning process. It I therefore assumed that this element of activity will be delivered through improvement in clinical productivity within existing hospitals undertaking cataract surgery.

- There is significant pressure within the other ophthalmic complex procedures and sub specialties which may displace further cataract activity in the future.

- Any change to existing cataract listing criteria, whilst there may be changes made in future to the second eye listing criteria, criteria are likely to be based on a number of factors not just visual acuity alone (criteria is likely to be based on visual acuity plus: functional difficulties, >1.50 Dioptres of anisometropia and type of cataract – the patient has – e.g. a posterior subcapsular cataract accelerates more quickly). Overall changing the visual acuity criteria for second eye surgery is unlikely to have a significant impact on the overall forecast demand for cataract surgery.

- The differing timescales for delivery of the various elective centres across NHS Scotland, will most likely lead to a further increase in the backlog of patients requiring cataract surgery ahead of the opening of further elective capacity. The GJF ophthalmology unit will be the first unit to be commissioned, there is an opportunity that the GJF facility could continue to support other regions by providing additional access to cataract surgery in the run up to their elective centres being built and commissioned. At present no allowance has been made for this in our phasing, however, assuming all elective centres are commissioned no later than 2023/24, and with sufficient planning time to recruit and train the required staff the GJF ophthalmology unit could support additional elective cataract surgery in the first 3 to 5 years of opening.

2.4 Further Improvements to the GJF Model of Care and Use of Technology

As set out within the IA, significant improvements have already been made to the model of care for cataract patients. Further work has been ongoing to support continued improvement of the service, within the OBC we have assumed the following further improvements to the model of care as follows:

Workforce Changes and Opportunities:

- In addition to core staffing in the three areas of clinic, theatre and pre and post op care, a nursing rotation will be established to support rotation of nursing roles through clinic, pre and post op areas and theatre, this will provide varied and attractive roles for staff, supporting staff retention, as well as providing flexibility in deployment of the workforce, supporting our delivery of a sustainable workforce plan.

- Further refinements have been made to patient flow within the clinic, a patient medical history form is now used in clinic to support smooth and efficient patient flow.

- A new band 4 role in clinic undertaking some of the duties a band 5 RN previously undertook has been successfully piloted and now forms part of our workforce plan for the new unit.

- As stated within the IA the GJF clinical team are keen to develop opportunities for junior doctor training rotations. The design has been developed to enable both peer support and supervision of training. Both the

theatre and clinic design will provide a supportive environment for training of nurses, optometrists and junior doctors. Within each twin theatre a large glass panel enables lines of sight which will enable peer support for all clinical staff and provide improved supervision for more senior junior doctors in training.

Changes to the Clinical Model:

- Group education sessions within the outpatient setting are now the norm and enable patients to meet each other and hear Q&A posed by other patients in advance of their operation

- A patient pathway video (funded by Scottish Government) is now in use enabling more information to be shared with patients in advance of their visit to the GJF.

- The clinical model assumes that there will be an improvement in the clinic conversion rate from 75% to 85%. We have been working closely with NES Optometry to develop an e-learning module for all optometrists in Scotland to increase the accuracy of referrals. This will support community Optometrists in discussing risks and options for cataract surgery and ultimately only referring patients who wish to go ahead with surgery. We have also been in contact with individual health boards to ensure accurate vetting of referrals.

- The clinical model also assumes there will be no routine post operative follow up for NHS GGC patients at the GJF – the business case assumptions are that all NHS GGC residents will be able to access post operative review within the community at their local high street optometrist no later than March 2020. This frees up optometrist resource which will be diverted to supporting additional new outpatients, which helps reduce the additional optometrists staffing costs in the first year of operation.

- Through extending the role of theatre nurses to maximise the consultant's time (for example to prep patients for surgery and write up the operation note for verification by the consultant), there will be opportunities to further improve consultant productivity (see below).

- Within the clinical model we have assumed there will be a mixture of double and single theatre lists undertaken, this will be supported by our innovative design to support both high volume single and double theatre lists – through a 'twin theatre' design. However we will be significantly increasing the number of double theatre lists undertaken by Consultants, whereby consultants have access to two operating tables and can deliver 9 – 11 cases within a 3.5 hour theatre session. Our theatre design has been developed specifically to support both single and high volume double theatre lists. Whilst the surgeon operates on patient A in theatre 1, the theatre team in theatre 2 can prepare patient B for surgery, once the surgeon has completed patient A's surgery he / she can move back into the shared scrub to re scrub/ gown / glove for theatre 2 where patient B is prepped for surgery. This method of operating will enable us to significantly increase consultant productivity at a time when there is a national shortage of consultant ophthalmologists and will therefore also support us in delivering a sustainable workforce model.

- It should be noted that double lists will be organised in morning sessions only to support sustainability and enable consultants to undertake another clinical activity in the afternoon, this is similar to the practice of other high volume cataract centres.

- We will continue to use our degree of surgical difficultly (DSD) grading process to ensure we do not reduce

theatre list numbers. Approx 15 – 20% of our cataracts are assessed as DSD 3's. Given the increased activity there will also be a requirement to run a small number of complex cataract lists every week, these lists typically contain 5 procedures, but are however more efficient than spreading more DSD3 cases across routine lists – and losing a higher number of theatre slots.

- Overall there will be a mixture of theatre lists, double lists of 10 – 11 cases, single lists of 7 or 8 cases, DSD 3 lists of 5 cases as well as training lists which will vary in size according to the level of trainee in post.

Improvements through use of Technology:

- Within our model we have assumed a number of improvements that will be supported by new technologies:
- A paperlite approach will be in place- through use of the ophthalmology Electronic Patient Record (EPR) – minimal information will be produced / captured in paper format
- Clinical portal will be used as the main repository of clinical information – access to this has already been rolled out to Greater Glasgow & Clyde, Lanarkshire, Ayrshire & Arran and Dumfries & Galloway
- Self check in facilities will be provided within the new facility. The self check in will be integrated with our TRAKcare system and will ensure patients are identified as arrived in the system, enable patients to check their personal details / demographics are correct and allow the patient to confirm the name and contact details of the person collecting them following their procedure. The self check in will also guide the patient where to go to within the unit on arrival. It is proposed that volunteers will be located in the waiting area to welcome patients and support this process. Further discussion is underway with the volunteer manager to describe this role in more detail.
- Self check in will also support further 'smoothing' patient flow – identifying where the patient is within the clinic and whether they are ready to be seen by the consultant ophthalmologist.
- Facilities to support new outpatient consultation via Video conferencing, this is patient centred and means patients only require to travel to the hospital once – at the time of their procedure.
- Omnicell system will be used within with unit this will ensure consistent supply of all medications topped up by Pharmacy technicians the system supports also ensures the service is efficient in that it prevents over supply of medication and avoid wastage.
- Use of touch screens will enable real time production of the patients operation note ready for electronic transfer to GPs and ultimately high street optometrists.
- The unit will provide instant discharge letters to patients and GPs, this has been successfully piloted within our current service and will be extended to cover the whole service when the new unit opens. The instant discharge process will develop further and be enhanced by full use of Electronic Patient Record (EPR) ensuring

streamlining of the discharge process.

- All equipment will be networked reducing the time it takes to manually enter patient details when taking images – enabling us to redirect this time into more direct patient care.
- Quick swipe access will be provided to systems to enable fast login to multiple systems by our clinical teams.
- The unit will be wifi enabled for staff and public access

Potential Further use of Technology

The national programme of linking up all local high street optometrists to the NHS e health network will enable further improvements to our processes including:

- Electronic transfer of operation and discharge note
- Electronic transfer of post op refraction and clinical outcomes that support audit of clinical outcomes and reduce time spent on data entry.
- There is potential to develop clinical portal into a patient portal whereby patients can check appointments clinical letters etc on line and from home.
- The roll out of electronic prescribing will further improve processes within the clinic area.

2.5 Proposed Recruitment, Training and Workforce Plan

The clinical teams have developed the overall workforce requirements for each financial year based on the predicted activity each year identified through the demand modelling.

The workforce plan the team have developed supports the delivery of the model of care described in section 1.2.5 above, to ensure the plan is deliverable recruitment and training timelines have been identified for each staff group to understand the lead in periods ahead of opening and or expansion each year.

The delivery of a sustainable workforce plan will be supported by the following:

- Ensuring recruitment of posts happens in a well managed, creative and timely way allowing time for induction and or further training.
- Working in partnership with other WoS Health Boards to fill the difficult to fill positions. e.g. consultant ophthalmologists. Developing flexible, joint job plans, to further enhance the job plans of the existing hard to fill consultant ophthalmologist posts within other Health Boards. (It is important to note that this is already established practice with NHS GJF and NHS Forth Valley).

- Ensuring that we liaise with WoS training programme director to offer training placements for junior doctors in training, supporting the next generation of consultants to be trained in a high volume cataract facility.

- Ensuring there is the appropriate nursing skill mix and numbers to support an excellent patient experience and efficiency of patent flow for the higher volume lists that exceed 7 cases per 3.5 hour session.

- Building on the NHS GJF branded 'Training Academy' - ophthalmology specific training will be established to support the training of band 2,3,4 and 5 nursing staff ahead of each phased expansion.

Developing a truly integrated team through:

- Having a single senior nurse for the new unit supporting the delivery of the whole patient pathway from clinic to pre operative care, theatre and post operative care.

- by developing a rotation nurses within the three areas of clinic, theatre and pre and post op care within the new unit, to support the sustainability of the service, provide more attractive roles to nurses and facilitate further development of the nursing team.

- Extending the role of nurses to maximise consultant time – through nurses prepping patients in theatre. There is also the opportunity to develop competencies to support nurses completing the write up of the operation note for the consultant to verify.

- In addition the workforce plan has taken into account the requirements of the clinical and non clinical support services as the service expands. Additional resources required have been identified through discussion with the relevant heads of department and built into the revenue costs.

3 Is the Case for Change Still Valid?

	Question	Response
Strategic Context	Is the case for change still valid?	Summary confirmation of the: • Need for change. • Investment objectives.

3.1 Need for Change

The IA provided a full list of the main issues causing the need for change which is provided below. Figure 9 describes the effect if no action is taken and an explanation of why action needs to be taken now.

Figure 9 : Summary of the Need for Change and Investment

What is the cause of the need for change?	What effect is it having, or likely to have, on the organisation?	Why action now:
Significant increase in the current and predicted Future service demand - Existing capacity within in the WoS is unable to cope with future projections of demand for cataract surgery between now and 2035	Existing capacity is unable to cope with current activity and will be unable to cope with the significant future projections of demand	The service will not be able to sustain the current position – if the plan to provide additional cataract capacity isn't implemented now patients will face a much longer wait for surgery and waiting time guarantees will not be met for majority of patients
Inefficient service delivery across two locations at GJF	Current service is delivered from inpatient theatre and a high cost leased temporary mobile theatre unit in two separate locations leading to inefficiency in service delivery – e.g. two receptions, admission, discharge areas etc	The service can only use the temporary leased mobile facility in the short term and is not as efficient or productive – if the plan to provide additional capacity isn't implemented now there will be a reduction in capacity when the temporary theatre is removed
The current clinic and theatre accommodation does not support innovation or efficient patient flow	Existing facilities are functionally ineffective and are unable to support more innovative models of care and efficient patient flow	New state of the art facilities that are purpose built are critical to the delivery of improved patient flow and improved clinical productivity in both clinic and theatre – without new appropriate facilities the service will not be able to adopt innovative models which are more productive and more cost effective

In the period following the approval of the IA there has been no change in service delivery within the West region or any change to national policy which affects the case for change and the programme team continue to develop a solution which:

- Is supportive of both the West Regional Delivery Planning process and the National Delivery Planning process
- Delivery of an innovative service and clinical model that is safe, effective and person centred
- Delivery of an innovative and sustainable workforce solution, that does not destabilise the status quo

The IA set out the investment objectives associated with this proposal - whilst there have been no change to these objectives since they were identified and developed as part of the IA, there has been a material change in the level of growth with significant increases to waiting time pressures within ophthalmology. Figure 10 provides an overview of the current position as at Jan 2018. There are now 803 patients waiting over 12 weeks for an ophthalmology procedure and 2,040 patients waiting longer than 12 weeks for a new outpatient consultation. Over a 9 month period (from 31st March 2017 to 8th Jan 2018) the number of patients waiting over 12 weeks for a new ophthalmology outpatient consultation has increased by 39% and there has been a 58% increase in the number of patients waiting over 12 weeks for their ophthalmic procedure.

Typically cataract procedures make up 75% of all ophthalmic activity – therefore it is likely that approx 3,900 cataract patients are waiting longer than 12 weeks for a new outpatient consultation and approx 603 cataract patients are waiting longer than 12 weeks for their cataract procedure.

Figure 10: West Region - Ophthalmology Patients Waiting Over 12 weeks – IPDC and New outpatients

Number of New Outpatients Waiting >12 weeks		Number of Inpatient/ Day Case Waiting > 12 weeks	
At Jan 2018	Difference Since 31st March 2017	At Jan 2018	Difference Since 31st March 2017
5,196	Plus 2,040	803	Plus 467

Figure 11: Investment Objectives

	Effect of the need for change on the organisation:	What has to be achieved to deliver the necessary change? (Investment Objectives)
Capacity Related Objectives	Existing capacity within in the WoS is unable to cope with future projections of demand for cataract surgery between now and 2035.	There is a requirement to improve current service capacity to meet the significantly increased predicted demand between now and 2035
	More patients treated in the high cost private sector - existing capacity pressures mean NHS Board have to access high cost cataract surgery within the private sector	Improve capacity to facilitate the reduction or elimination of routine use of the private sector
	More patients do not access services within the current waiting time guarantees - existing capacity pressures mean that often NHS Boards are unable to meet Scottish Government waiting time guarantees	Improve capacity and performance to ensure the delivery of current and future Scottish Government guarantees for inpatient / day case waiting times on a sustainable basis
	Sometimes elective surgery is cancelled as a result of existing service and or capacity pressures	Provide sufficient dedicated elective capacity to reduce the likelihood of cancelling patients
Quality and Performance Related Objectives	Service performance is variable - there is a need to improve existing service performance and improve current efficiency and productivity by providing more innovative models of care and adopting the principles of Better Care, Better Health and Better Value as set out in the Scottish Government "Health and Social Care Delivery Plan" published in December 2016	Reduce variability and introduce innovative models of care – to improve overall service performance within cataract surgery. This will deliver increased service efficiency and productivity
	Existing facilities are functionally ineffective and are unable to support more innovative models of care and efficient patient flow	A new improved environment and facility will be integral to supporting the more innovative models of care and also essential to support improved clinical productivity
	The GJF service model and patient pathways have been redesigned and are evolving , however the service could be more person centred and delivered in a more innovative and sustainable way. GJF is aspiring to be 'best in class' and provide 'world class model of care' for patients whilst also supporting the recruitment, retention and well being of staff - supporting and encouraging staff development	To implement new, innovative models of care is a state of the art environment adopting best practice principles (nationally and internationally) To develop a workforce model that supports recruitment retention and supports staff wellbeing and development whilst also ensuring the workforce model is efficient and sustainable

4 Is the choice of preferred strategic solution still valid?

	Question	Response
Strategic	Is the choice of preferred strategic solution(s) still valid?	Confirmation of the preferred strategic / service solution(s).

A relatively short period of time has passed since the Initial Agreement for this proposal was developed. Revisiting the principles of the preferred strategic / service solution has identified that there is no change required to the preferred solution. It remains true that there is the provision of additional cataract capacity is urgently required to support the needs of the current and future forecast population within the WoS region, this is strongly supported by a much higher forecast growth in those aged over 60, when compared with the +60 population growth between 2005 and 2015.

The proposal will also provide the opportunity to deliver all the additional benefits set out within the IA, further improving the GJF model of care and enhancing the patient experience.

ECONOMIC CASE

5 Economic Case: Overview

This section of the OBC will provide a detailed analysis of the benefits, risks and costs of each of the short listed options, including the Do Nothing option.

This section will demonstrate the relative value for money of the preferred option and includes the following steps:

Economic Appraisal
Key Steps
Identify a short-list of implementation options
Identify and quantify monetary costs and benefits of options
Estimate non-monetary costs and benefits
Calculate Net Present Value of options
Present appraisal results

6 Identify a short-list of implementation options

6.1 Develop a short-list of implementation options

As part of the Initial Agreement, a list of options were developed and shared with the Stakeholder Group. Given the GJF estate is now fully utilised and this project is project 1 of 2 projects of expansion on the GJF site, there were no viable refurbishment or reconfiguration options.

Given the GJF estate is located on a single site, with a hospital entrance and a separate hotel entrance, a site master planning exercise was carried out prior to completion of the IA to ensure all potential locations for the phase one expansion were identified.

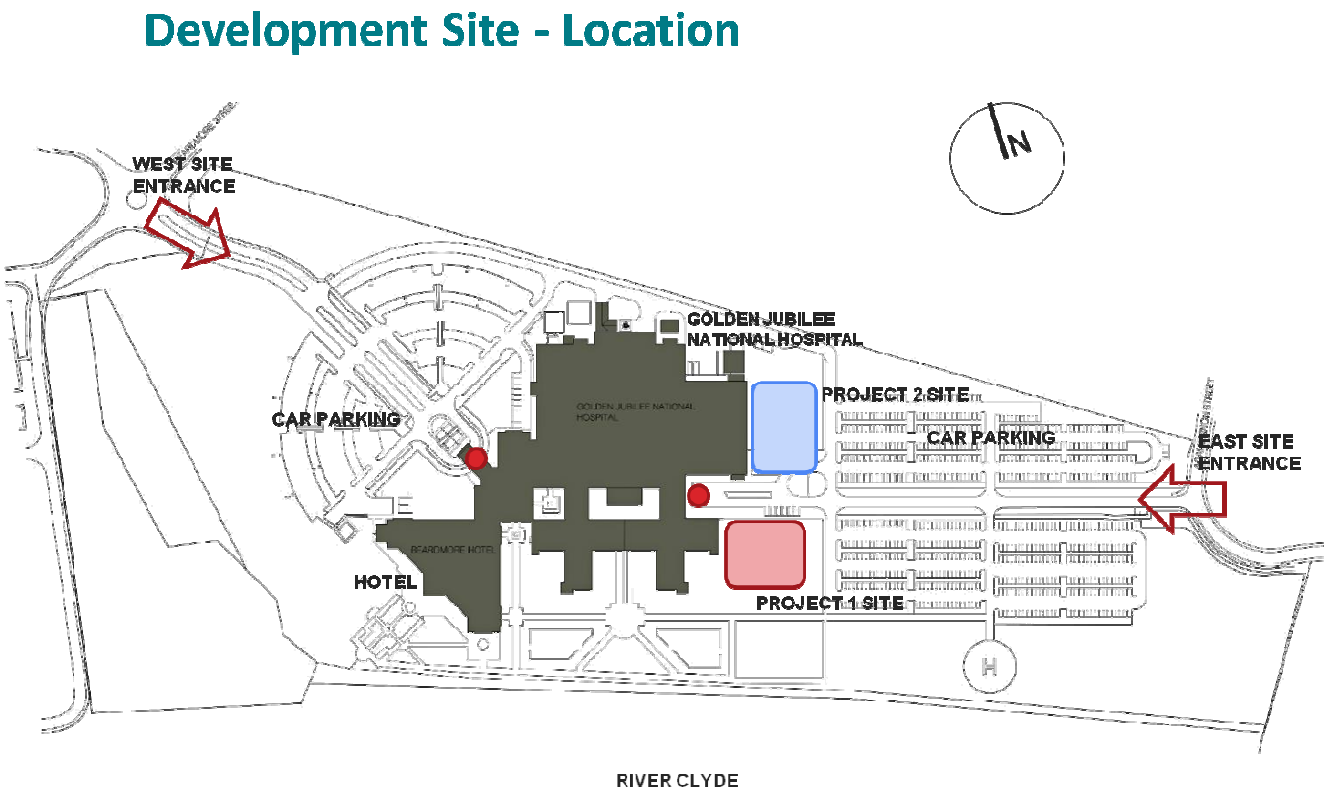
6.1.1 Development Sites Identified through the Site Master Plan Process

Three sites were identified within the GJF master plan development for further expansion.

- Site 1 being land at the West of the site to the left of the hospital main entrance
- Site 2 being land at the West of the site to the right of the hospital main entrance
- A third site was identified at the West side of the hospital adjacent to the current research and innovation centre collocated with the Golden Jubilee Conference Hotel.

Sites 1 and 2 given the collocation with existing clinical services, were the most appropriate for clinical development. Site 2 would enable the extension of the main theatre suite and was deemed more suitable for the phase 2 orthopaedic and other surgical specialties expansion. Therefore site 1 was identified as the preferred solution for the development of the phase 1 ophthalmology expansion.

Figure 12: GJF Site Map and Locations for Clinical Expansion



6.2 Option Identification

A range of options were developed as part of the IA to support the forecast additional activity. As part of the OBC the demand modelling work has been refreshed (see section 2.2) and the work has confirmed that the IA options remain valid, with a requirement for six theatres and supporting outpatient/ pre operative assessment and pre and post operative care space. The shortlisted OBC options are set out in section 8.2

7 Identify and quantify monetary costs and benefits of options

7.1 Financial Case - Introduction

The Golden Jubilee Foundation (GJF) continues to deliver on its financial targets to remain within both Revenue Resource Limits (RRL) and Capital Resource limits (RRL) in addition to a challenging efficiency saving programme and which over the last few years we have successfully delivered in excess of our targets. The Board is on plan to achieve all financial targets for financial year 2017/18 with the success of this due to a focus on redesign and innovation which is pivotal to support the delivery of this expansion.

This financial case will detail all the expenditure and funding modelled in relation to each of the four short-listed options and the affordability of the preferred option on the basis of the financial case in both Capital and Revenue terms.

7.2 Financial Model

For each of the four options the financial model has included an analysis of existing Golden Jubilee revenue costs for Ophthalmology activity. This cost base has been built up based upon the financial modelling from each of the prior year funded expansions within Ophthalmology from Phase 1 through to 5. These expansions have been subject to rigorous affordability reviews with Scottish Government and have applied the Golden Jubilee current funding model which includes the staffing (and fixed costs) supported by Scottish Government (as allowing the basis of Boards requiring the greatest need to access the Golden Jubilee) and the marginal costs funded by the referring Board as part of a 3 year rolling contract.

The capital costs for the two options contain building and refurbishment costs and have been appraised with detailed capital costings undertaken with support from the Board cost advisor. In addition an estimate of the cost of additional equipment for the expansion has been included in the capital costs, supported by an equipment group set up within the Board.

This has allowed us to apply thorough and detailed benchmarking in relation to staffing resource requirements against prior expansions (to sense check value for money) and in addition to the annual submission of the Scottish Health Service costs (Costs Book) returns as a benchmarking tool across NHS Scotland.

To support the financial model for each of the four options the following key data input has been applied;

- **Option 1: Do nothing - Retain status quo of existing service provision at GJF**
    - Extracted existing service provision costs at GJF for the current 2 theatres, the GJF dedicated outpatient facility and the separate temporary mobile theatre unit hire with staffing costs from operating currently 3 days a week.
    - This is in line with the previous IA submission and covers current annual activity of 7,997 cases

- It is assumed that the demand (through the detailed activity modelling for West of Scotland) is managed by increased use of the private sector. Taking into account the analysis of the current independent sector usage for West of Scotland Board areas and the opportunity cost associated with this if NHS capacity were not available. For the purposes of this business case this is modelled on an assumption of 100% private sector usage to cover the gap.

- **Option 2: Expansion of use of current mobile theatre at GJF:**

  - The Status quo current position has been applied as the baseline starting position within this option

  - Incorporating the 'mobile unit' expansion and the recent Scottish Government expansion proposal provided reliable data to base additional costs of extending the mobile unit from the current 3 days per week up to 5 days per week and increasing cataract procedures capacity by 1,300 cases

  - It is assumed that the remaining demand (through the detailed activity modelling for West of Scotland) is managed through use of the private sector taking into account the analysis of the current independent sector usage for West of Scotland Board areas and the opportunity cost associated with this if NHS capacity were not available. For the purposes of the business case this is modelled on an assumption of 100% private sector usage to cover the gap

- **Option 3: Creation of a partially integrated new build (4 theatres) plus 2 existing theatres at GJF:**

  - Detailed activity modelling for West of Scotland unmet cataract demand from 2020/21 through to 2034/35 of 10,500 cumulative additional procedures and accommodated within the new build including a phased reduction in NHS Lothian Heath Board repatriation of activity over 3 years from 2023/24 to 2025/26

  - Workforce modelling requirements from all direct clinical services, support and administration support services in line with prior Ophthalmology expansion applied to 2017/18 pay points for each applicable staff group on the above activity plans.

  - Workforce modelling requirements for staff groups and services not previously required within previous Ophthalmology expansion however now relevant due to the significant level of expansion being equivalent to 130% increase against the base across the timescale

  - To demonstrate value for money a review of cost per case for the service compared to current costs including recent Ophthalmology expansions and the 2016-17 Golden Jubilee Hospital and Scottish average cost per case from the Cost Book submission as an across Scotland comparator.

- **Option 4: Creation of a fully integrated new build (6 theatres) at GJF:**

  - Detailed activity modelling for West of Scotland unmet cataract demand from 2020/21 through to 2034/35 of 8,300 cumulative additional procedures provided in a new build including a phased reduction in NHS Lothian Heath Board repatriation of activity over 3 years from 2023/24 to 2025/26

- Workforce modelling requirements from all direct clinical services, support and administration support services in line with prior Ophthalmology expansion applied to 2017/18 pay points for each applicable staff group on the above activity plans.

- Workforce modelling requirements for staff groups and services not previously required within previous Ophthalmology expansion however now relevant due to the significant level of expansion now equivalent to 130% increase across the timescale

- To demonstrate value for money a review of cost per case for the service compared to current costs including recent Ophthalmology expansions and the 2016-17 Golden Jubilee Hospital and Scottish average cost per case from the Cost Book submission as an across Scotland comparator.

7.3 Capital Costs

Figure 13: Capital Costs

Costs in £millions	Do Nothing: As existing arrangements	Proposed Solution 1	Proposed Solution 3	Proposed Solution 4
Capital cost (or equivalent value) inc non-recoverable VAT on build	-	-	11,692,706	11,752,865
Optimism Bias			799,393	792,238
Capital Build Cost			12,492,009	12,411,083
Capital cost for equipping inc non-recoverable VAT	-	-	4,126,862	3,241,745
Total capital costs including build and equipment			**16,618,871**	**15,652,828**
Whole of life capital costs			24,434,276	24,024,361
Estimated Net Present Value of Capital Costs			16,928,017	15,136,723

The capital costs included above in relation to building elements have been provided by the Board external cost advisor and are as the stage two construction costs. These have been approved by the Board Cost Control group for the project. To compare on a like for like basis option 3 included estimated refurbishment costs for upgrading the two existing ophthalmology theatres over the 17 year period. The total capital costs above including equipment equate to £16.6m for option 3 and £15.6m for option 4.

Given the unaffordable and unsustainable options 1 and 2, for the economic analysis we have not assumed any refurb costs over the life of the project (see section 7.8 below). This is reflected in the nil NPV value for option 1 and option 2. On that basis we have therefore also not completed the Generic Economic Model templates included in appendix 14.

The analysis of the capital build costs for the project are summarised in the table below, this takes account of the year in which the building capital costs will be incurred, which is in line with the Board's financial plan.

Figure 14: Analysis Capital Build Cost

Element	Option 1	Option 2	Option 3	Option 4
	£	**£**	**£**	**£**
Construction	-	-	7,612,932	8,255,127
Refurb	-	-	553,167	-
Kiers Design	-	-	816,713	790,913
Surveys	-	-	97,000	97,000
Cost Advisor/Project Manager	-	-	178,323	173,323
Supervisor/CDMC	-	-	80,000	80,000
Contingency/Inflation	-	-	517,704	507,357
Unrecoverable VAT	-	-	1,836,777	1,849,145
Optimism Bias	-	-	799,393	792,083
Total	**-**	**-**	**12,492,009**	**12,411,083**

The assumptions made for both options by the cost control group, as advised by the cost advisor are noted below:

- The construction cost includes the following:
  - Build costs as detailed in the stage two cost report
  - Allowance for additional car parking
  - Allowance for removing the excess soil form the site
  - Allowance for possible abnormal ground conditions
- The Kiers design cost include the following:
  - All stage one design costs
  - All stage two design costs
  - Part of stage three design costs
- The surveys include all costs for ecological and ground condition surveys
- The cost advisor/project manager costs include the following:
  - The approved costs for the project manager for all stages referred to above
  - The approved costs for the cost advisor for all stagers referred to above – it should be noted that this appointment is a joint role between the Board and the PSCP until target cost is agreed.

- The cost of the supervisor and CDMC are as advised by the cost advisor, at this stage these costs are estimates and will not be confirmed until commencement of construction.
- The contingency included above is calculated at 5% of the construction cost by the cost advisor, this is in addition to the Optimism Bias figure. In addition a prudent level of construction inflation has been assumed which relates to the movement in indices between the agreement of the stage two costs and the commencement of construction.

The phasing of the capital construction costs for the two options are demonstrated below, all costs are inclusive of non-recoverable VAT, at this stage it has been assumed that all VAT relating to Kiers costs is irrecoverable until we finalise a recovery position with HRMC.

In addition we are undertaking a feasibility analysis regarding the potential to replicate the model in use in NHS England regarding the establishment of arms length companies for the construction of the elective centres. We have appointed VAT advisors to assist us to assess the feasibility of this with the outcome of this assessment to be shared with SGHSCD. This is preliminary work and no assumption has been made within the Business Case based on this.

Figure 15: Phasing of Capital Construction Costs

Option 3 Build 4 new theatres	**2017/18 £'000**	**2018/19 £'000**	**2019/2020 £'000**	**2020/21 £'000**
Capital Cost, inc VAT	674.6	2,604.2	7,241.4	1,172.8
Option 4 Build 6 new theatres	**2017/18 £'000**	**2018/19 £'000**	**2019/2020 £'000**	**2020/21 £'000**
Capital Cost, inc VAT	674.6	2,241.7	7,224	1,461.8

The costs relating to additional equipment have been prepared by the Project equipment group which is a sub-group of the cost control group. This group has reviewed all known medical equipment at this stage. A small element of this includes 'development' items that will be subject to an internal business case, but have been assumed (for prudency) at this stage.

The total equipping cost included in Figure 16 below is split between core equipment essential for running the new unit and service developments which are subject to an internal review based on benefits and costs. The whole cost has been used when calculating the capital costs and NPV calculations. All costs below are inclusive of VAT.

Figure 16: Equipping costs

	Option 3 £	Option 4 £
Essential Equipment	3,016,069	2,130,952
Developments	1,110,793	1,110,793
Total	4,126,862	3,241,745

7.4 Revenue Costs

In compiling the revenue costs associated with the four options the Board has completed a detailed analysis on an annual basis that reflects the increased demand in figures 7 and 8 under section 2.3. These annual costs have been summarised within Figure 17 below to align with the key dates of commissioning the builds and therefore additional capacity as noted specifically within Options 3 and 4.

The recurring revenue costs are described in Figure 17.

7.4.1 Recurring Revenue costs

Figure 17: Recurring Revenue Costs

	Option 1	Option 2	Option 3	Option 4	
	Do nothing	Do Minimum	Existing 2 Theatres	New Build	
Options Revenue Category	3 Day Mobile Theatre	5 Day Mobile Theatre	4 Theatres by Dec 2035	6 Theatres by Jan 2035	Total Cost per case
		£		£	
Current Costs	**7,700,125**	**7,700,125**	**7,700,125**	**7,700,125**	**963**
Existing Theatre costs			6,136,000		
Total Direct Additional Staffing Cost	0	550,938	1,921,418	4,141,415	410
Total Development Additional Staffing Cost	0	0	263,128	441,871	44
Additional Staffing Training costs	0	0	50,000	50,000	5
Total Additional Supplies Costs (incl. Overheads)	0	566,800	1,091,308	4,404,908	436
Mobile Theatre Hire, incl. staffing	0	396,500	-	0	0
Heat, Light & Power	0		216,000	216,000	21
Total Additional Cost	**-**	**1,514,238**	**9,677,854**	**9,254,194**	**916**

Depreciation	0		791,580	699,040	
Total Additional cost incl. Depreciation	**0**	**1,514,238**	**10,469,434**	**9,953,234**	
Net Total cost	**7,700,125**	**9,214,363**	**18,169,559**	**17,653,359**	**934**
Private Sector use on current capacity shortfall	13,650,000	11,960,000	-	-	1,300

Net Additional cost	**13,650,000**	**13,474,238**	**10,469,434**	**9,953,234**	

Private Sector capacity shortfall is modelled on private tariff cost per case of £1,300 against the annual forecast Demand for WoS Boards from section 2.3 figures 7 and 8. This has been benchmarked against confirmed WoS Health Board private sector cataract usage for financial years 2012/13 through to 2016/17 which reflected a total of 4,585 cataracts over the 5 year period. Using the confirmed data and employing a pro-rata approach would indicate at full cover a private sector cost for cataracts of over £17.8m for the 15 years within the expansion. The table above therefore includes 100% of the demand will be provided in the private sector. It is noted that the private sector contract currently being negotiated has a lower cost per patient rate than the assumption within the business case. This has not been reflected within this financial assessment due to a number of factors. The contract is being negotiated on a 3 year basis with short term procurement opportunities associated with this. It is unfeasible that the private sector costs are lower than NHS costs due to their pay structure. Any private sector short term option is not operationally or financially sustainable and importantly is not in line with current Scottish Government policy.

The total costs summary as detailed below (taken from the analysis above) shows that option 4 from a revenue perspective is best value for money. The increased costs in options 1 and 2 relate to the use of the private sector to accommodate the additional demand and the increase cost in option 3, compared to option 4 is due to additional staffing costs from split site location working.

Figure 18: Cost Summary

Revenue costs Summary	Option 1 (by 2031) - £'m	Option 2 (by 2031) - £'m	Option 3 (by 2031) - £'m	Option 4 (by 2031) - £'m
Total cost including 100% private sector usage to manage the demand	13.650	13.474	10.469	9.953

The cost per case of the modelled activity is detailed below and compares this to previous Golden Jubilee

Ophthalmology expansions in addition to the Scottish Health Service costs and the current independent sector tariff.

The recurring revenue costs for the options are compiled on the basis of the following:

- Salary costs are applicable for 2017/18 pay scales
- No financial reduction in Option 3 and 4 is modelled for the removal of the Ophthalmology mobile Theatre. This is currently funded by Scottish Government.
- Supplies costs are on the basis of the Golden Jubilee current Ophthalmology marginal tariff rate and are at 2017/18 cost base.
- Repatriation of Lothian activity is modelled within the activity plans and assumes the marginal costs will be funded by other Boards utilising this capacity. In line with the current Golden Jubilee funding model the resource transfer to NHS Lothian will equate to only to the marginal costs.

  We can see from the recurring revenue table that the cost per case in Option 4 equates to £916 and for option 3 this increases to £953 and therefore Option 4 reflects economies of scale particularly within staffing resources.

7.4.2 Cost per Case analysis

The points below review the cost per case of the modelled activity and compares this to prior 2014/15 and 2015/16 Ophthalmology expansions in addition to the Scottish Health Service costs and the independent sector tariff.

- Current service average cost per case £963
- Option 3 Total cost per case £953
- Option 4 Total cost per case £916
- 2014/15 Ophthalmology expansion cost per case £947.26
- 2015/16 Ophthalmology expansion cost per case £942.26
- 2016/17 Cost Book Scottish Average £1,320
- Average Independent private sector tariff £1,300

  This benchmarking analysis shows the value for money position within option 4 when compared to Option 3 as this reflects a cost per case reduction of £42 in addition to avoiding any reliance on private sector to cover activity shortfall.

7.4.3 Non-Recurring Revenue costs

In addition to recurring revenue costs related to Phase 1 Ophthalmology expansion there are also non-recurring revenue costs that need to be considered and these are reflected below, the timing of these are shown below in Figure 19. These will be supported by the Golden Jubilee.

Figure 19: Non-Recurring Revenue Costs

Non-Recurring cost	Cost £	Planned Funding Basis
Elective Centre Project Team: Including Medical Specialty Leads, Nursing Lead, Programme & Project manager, workforce planning, data analyst and admin support	340,000	Golden Jubilee funding assumed within 2018/19 Financial Plan
Transitional costs	250,000	Golden Jubilee funding assumed within 2018/19 Financial Plan
Staff Training – including Training academy within Theatre	176,000	Likely to be from 2019/20 Golden Jubilee financial plan to pump prime staff training prior to 1st year capacity implementation – requires as above to be funded by Golden Jubilee internal efficiencies and on a non recurring basis

7.4.4 Income analysis

Figure 20: Income Analysis

The following table shows the projected income (and funding) for option 4 summarised over the period of the expansion. The specific detail of this by Health Board (by year) is shown below.

This assumes the current Golden Jubilee funding model with Scottish Government supporting the fixed costs (including staffing and depreciation) and the referring Boards funding the existing marginal costs.

Financial Year	Option 4 – Scottish Government £'m	Option 4 – WoS Health Boards £'m
2020/21 – Additional	1.162	1.120
2021/22 - Additional	0.897	0.220
2022/23 - Additional	0.224	0.225

Final 2034/35 – Cumulative as at 2034/35 by Board	**5.333**	**4.620**
Ayrshire & Arran	£0.793	£0.799
Dumfries & Galloway	£0.293	£0.295
Forth Valley	£0.539	£0.543
Greater, Glasgow &Clyde	£1.965	£1.979
Lanarkshire	£0.993	£1.000

The Income analysis table (Figure 20) reflects the in year additional income due from 2020/21 through to 2022/23 The final 15 year cumulative income value for the full activity expansion (10,100 cases in Option 3 and 8,300 cases in Option 4) is then split across each Health Board contribution to provide detail to each Board of total funding planned by year 15.

The additional tables below take this analysis further to reflect both the annual and cumulative funding basis in figures 21 and 22 in respect of individual WoS Boards funding on marginal cost and Scottish Government staffing and depreciation.

Figure 21: Annual Income by Health Board and Scottish Government

Additional marginal costs - Phased by Health Board	AYRSHIRE & ARRAN	DUMFRIES & GALLOWAY	FORTH VALLEY	GREATER GLASGOW & CLYDE	LANARKSHIRE	Total	Scottish Government - Staffing support	Total Annual Cost	Scottish Government Depreciation support
Annual Funding Impact 20/21	208,026	34,734	130,271	507,985	238,728	**1,119,744**	**2,406,393**	**3,526,137**	
Annual Funding Impact 21/22	37,258	16,400	26,019	92,724	47,987	**220,390**	**207,523**	**427,913**	**678,595**
Annual Funding Impact 22/23	38,073	16,759	26,588	94,752	49,037	**225,208**	**107,408**	**332,616**	
Annual Funding Impact 23/24	38,897	17,122	27,164	96,803	50,099	**230,085**	**106,949**	**337,034**	
Annual Funding Impact 24/25	39,749	17,497	27,759	98,924	51,196	**235,125**	**271,320**	**506,445**	**20,445**
Annual Funding Impact 25/26	40,528	17,839	28,302	100,861	52,198	**239,728**	**118,591**	**358,319**	
Annual Funding Impact 26/27	41,319	18,188	28,855	102,829	53,217	**244,407**	**132,496**	**376,903**	
Annual Funding Impact 27/28	42,060	18,514	29,373	104,675	54,172	**248,795**	**193,428**	**442,223**	
Annual Funding Impact 28/29	42,802	18,840	29,890	106,520	55,127	**253,179**	**70,607**	**323,786**	
Annual Funding Impact 29/30	43,457	19,129	30,348	108,151	55,971	**257,055**	**122,523**	**379,578**	
Annual Funding Impact 30/31	44,117	19,419	30,809	109,793	56,821	**260,960**	**223,904**	**484,864**	
Annual Funding Impact 31/32	44,745	19,696	31,247	111,356	57,630	**264,674**	**271,102**	**535,776**	
Annual Funding Impact 32/33	45,366	19,969	31,681	112,902	58,430	**268,348**	**25,841**	**294,189**	
Annual Funding Impact 33/34	45,960	20,231	32,096	114,380	59,195	**271,861**	**248,872**	**520,733**	
Annual Funding Impact 34/35	46,585	20,506	32,532	115,934	59,999	**280,556**	**127,861**	**408,417**	
Cumulative Funding Impact 34/35	798,941	294,843	542,933	1,978,590	999,808	**4,620,114**	**4,634,818**	**9,254,932**	**699,040**

Figure 22: Cumulative Income by Health Board and Scottish Government

Cumulative marginal cost - Phased by Health Board	AYRSHIRE & ARRAN	DUMFRIES & GALLOWAY	FORTH VALLEY	GREATER GLASGOW & CLYDE	LANARKSHIRE	Total	Scottish Government Staffing support	Cumulative total cost	Scottish Government Depreciation
Cumulative Funding Impact 20/21	208,026	34,734	130,271	507,985	238,728	**1,119,744**	**2,406,393**	**3,526,137**	
Cumulative Funding Impact 21/22	245,284	51,135	156,290	600,709	286,716	**1,340,134**	**2,613,916**	**3,954,050**	**678,595**
Cumulative Funding Impact 22/23	283,357	67,894	182,878	695,461	335,752	**1,565,341**	**2,721,324**	**4,286,665**	
Cumulative Funding Impact 23/24	322,254	85,015	210,041	792,264	385,851	**1,795,426**	**2,828,273**	**4,623,699**	
Cumulative Funding Impact 24/25	362,004	102,512	237,800	891,189	437,047	**2,030,551**	**3,099,593**	**5,130,144**	**20,445**
Cumulative Funding Impact 25/26	402,531	120,352	266,102	992,049	489,245	**2,270,279**	**3,218,184**	**5,488,463**	
Cumulative Funding Impact 26/27	443,850	138,539	294,957	1,094,878	542,462	**2,514,687**	**3,350,680**	**5,865,367**	
Cumulative Funding Impact 27/28	485,910	157,053	324,330	1,199,554	596,635	**2,763,482**	**3,544,108**	**6,307,590**	
Cumulative Funding Impact 28/29	528,712	175,894	354,220	1,306,074	651,762	**3,016,661**	**3,614,715**	**6,631,376**	
Cumulative Funding Impact 29/30	572,169	195,022	384,568	1,414,224	707,733	**3,273,716**	**3,737,238**	**7,010,954**	
Cumulative Funding Impact 30/31	616,286	214,442	415,377	1,524,018	764,554	**3,534,675**	**3,961,142**	**7,495,817**	
Cumulative Funding Impact 31/32	661,030	234,137	446,624	1,635,374	822,184	**3,799,350**	**4,232,244**	**8,031,594**	
Cumulative Funding Impact 32/33	706,396	254,107	478,305	1,748,276	880,614	**4,067,698**	**4,258,085**	**8,325,783**	
Cumulative Funding Impact 33/34	752,356	274,337	510,401	1,862,656	939,808	**4,339,559**	**4,506,957**	**8,846,516**	
CumulativeFunding Impact 34/35	798,941	294,843	542,933	1,978,590	999,808	**4,620,114**	**4,634,818**	**9,254,932**	**699,040**

Cumulative additional activity	1,749	645	1,188	4,330	2,188	**10,099**	**10,099**		

Figure 23: Expenditure and Income Summary

Expenditure & Income Summary	Option 3 - £'m	Option 4 - £'m
Total income needed Split as	10.469	9.953
SG support- staffing	5.057	4.634
SG support- depreciation	0.792	0.699
HB support	4.620	4.620
	10.469	**9.953**
Offset by		
Private sector costs required if the expansion facilities were not available	**13.130**	**13.130**

7.4.5 Future Challenges

From a revenue perspective there are a number of challenges that will not to be considered and managed across period of expansion including the following:

- Impact from the nationally agreed pay policy as financial modelling based on current 2017/18 pay rates, current 2018/19 pay policy indicates and average 2.6% increase
- Future Health Board agreed funding model inflation rates from 2018/19 onwards
- Pump priming for Training of staff and further development of the Theatre Training academy assumed funded by the Golden Jubilee
- Recruitment to 'hard to fill Medical posts', the financial modelling assumes continued improvement in direct Ophthalmology consultant recruitment likely through joint appointments (for example) but a 10% year on year reduction on existing WLI payment reliance.

7.4.6 Future Efficiencies

The financial model reflects costs in line with existing innovations and benchmarks and the cost book NHS Scotland average tariff for Ophthalmology, however there is recognition within the Board of future opportunity benefits and efficiencies that may allow for further review between OBC stage and FBC and then into the expansion implementation period. These include:

- Full implementation of the Electronic Patient Record and voice recognition technologies
- Continued investment in recruitment and training to allow reduced reliance on expensive waiting list cover for Medical staffing
- Implementing different Theatre models, such as double lists to improve Theatre productivity and the number of cases per session improving productivity benefits
- Procurement review of lens and Ophthalmology supplies in collaboration with National procurement and other elective centre (where applicable) to drive forward volume and cash releasing savings within supplies with a knock-on effect on the marginal costs.

7.5 Affordability

The capital funding (including equipment) for the elective centres is ring-fenced capital monies from the Scottish Government for the creation of a number of elective treatment facilities in Scotland.

The revenue position for each of the 4 options and associated Income analysis are summarised in Figure , of note is that option 1 and 2 assume private sector . Option 3 and 4 is split based upon the current Golden Jubilee funding model.

Figure 24: Revenue Costs and Funding – summary

Revenue costs Summary	Option 1 (by 2031) - £'m	Option 2 (by 2031) - £'m	Option 3 (by 2031) - £'m	Option 4 (by 2031) - £'m
Net Additional cost	**13.650**	**13.474**	**10.469**	**9.953**
Funding due from – Scottish Government (Staff & depreciation)	**0**	**0.947**	**5.849**	**5.333**

Funding due from – WoS Boards on a marginal cost basis	**13.650**	**12.527**	**4.620**	**4.620**

The revenue funding assumptions are in line with existing funding model.

Non Monetary Costs and Benefits of the Short Listed Options

7.6 Introduction

A non monetary costs and benefits appraisal Workshop was held on Thursday 8 February 2018, there was a wide range of stakeholder input from patients, staff and third sector representatives. The participants are listed in Figure below.

Figure 25: Workshop Participants

Job Title
Patient Representative
Patient Representative
Patient Representative
Patient Representative
Patient Representative
Patient Representative
Scottish Health Council
Macular Society
West Dunbartonshire Access Panel
West Dunbartonshire Shopmobility
West Dunbartonshire Access Panel
Interim Clinical Nurse Manager
Consultant Ophthalmologist
Employee Director
Senior Charge Nurse Out Patients
Staff Side Representative
Programme Administrator
Director of Operations
Head of Communications and Corporate Affairs

Head of Strategy and Performance
Programme Manager
Clinical Lead
Performance and Improvement Lead
Project Manager, Kier

7.7 Short Listed Options

The shortlisted options developed as part of the IA, were reviewed and the advantages and disadvantages of each were presented to the group in more detail. The group were given time to explore and examine the options proposed as a solution and to inform the development of a preferred non financial option.

The short listed options put forward for assessment by the group was as follows:

Option 1: Do nothing - Retain status quo of existing service provision at GJF:

- Retain Status Quo - existing service provision at GJF with 2 theatres based in the inpatient theatre suite including pre-assessment and recovery space, a dedicated outpatient facility and a separate temporary mobile theatre unit operating 3 days a week.

Option 2: Expansion of use of current mobile theatre at GJF:

- Provision of additional temporary capacity at GJF - this would deliver increased capacity by 1,300 procedures, and 1,700 new outpatients.

Option 3: Creation of a partially integrated new build (4 theatres) at GJF:

- Creation of an integrated new build (4 theatres and associated outpatient accommodation) facility at GJF to deliver 10,450 additional cataract procedures and 13,900 additional new outpatients. In addition the existing 2 treatment rooms based within the inpatient theatre complex would be retained and the existing outpatient clinic based in a temporary location in vacant inpatient accommodation on level 4 would also be retained. The current modular unit would be ceased and the activity transferred to the new build.

Option 4: Creation of a fully integrated new build (6 theatres) at GJF:

- Creation of a fully integrated new build (6 theatres) facility at GJF to deliver all ophthalmology activity, including 10,450 additional cataract procedures and 13,900 additional new outpatients.

The options were described by the Programme Team, and questions were taken from the Group to clarify their understanding of what was being proposed. Following consideration all four options were agreed as appropriate options for scoring within the Non Financial Benefits Appraisal.

7.7.1 **Assessment of Benefit Criteria**

The group discussed the proposed benefits criteria in detail following which a total of six benefits were agreed for review. These benefits were then ranked and weighted according to how important they were seen to be in achieving the aims of the outline business case.

Figure 26: Benefit Scoring

Ref	Heading	Ranking	Weighting
B1	Patient experience People who use the service have positive experiences and their dignity is respected	1	20.8%
B2	Meets Service demands Supports the Scottish Government in addressing national pressures in the delivery of cataract surgery Supports West of Scotland Health Boards in meeting 'waiting times' guarantees for cataract surgery.	=3	17.8%
B3	Efficiency and productivity Supports the Service in delivering the greatest number of patient procedures, at the optimum level of quality, and making best use of time and resources.	=3	17.8%
B4	Staff experience Golden Jubilee staff feel valued by the Board and see it as a good place to work.	2	19.8%
B5	Ability to recruit, train and retain staff The Jubilee is seen as an attractive employer, helping them attract staff with the right skills.	5	16.9%
B6	Wider community benefits There are wider benefits for the local community	6	6.8%
Total			100%

Scoring was undertaken in small groups to assess the extent to which each of the options met the criteria using a scoring scale of 0 (could hardly be worse) to 10 (could hardly be better). The outcome of the small group scoring was then discussed by the wider group, and a consensus reached on the scoring for each benefit.

The outcome of scoring for each benefit is included is set out in Figure .

Figure 27: Weighted Scoring Results by Option

	BENEFIT CRITERIA	WEIGHT %	Option 1 - Do Nothing retain current service provision at GJNH		Option 2: Do Minimum Expand use of current mobile theatre at GJNH		Option 3 - Creation of a partially integrated New build (4 procedure rooms)		Option 4: Creation of a fully integrated new build (6 procedure rooms)	
		W	SCORE	W x S	SCORE	W x S	SCORE	W x S	SCORE	W x S
1	Patient Experience	20.8	5.0	104.2	4.0	83.4	7.0	145.9	9.0	187.6
2	Staff Experience	19.8	5.0	99.0	4.0	79.2	7.0	138.6	8.0	158.4
3	Meets Service Demands	17.8	2.0	35.6	3.0	53.5	8.0	142.6	8.0	142.6
4	Efficiency and Productivity	17.8	2.0	35.6	3.0	53.5	7.0	124.8	9.0	160.4
5	Ability to Recruit Train and Retain Staff	16.9	4.0	67.7	3.0	50.8	7.0	118.5	8.0	135.5
6	Wider Community Benefits	6.8	1.0	6.8	1.0	6.8	6.0	40.6	7.0	47.4
	TOTAL	100.0		349.0		327.1		711.1		831.9

7.7.2 **Results of the Non Financial Benefit Option Appraisal: Scores by Option**

Following collation of the scores the options were ranked from highest to lowest potential benefit:

Option	Weighted Score	Rank
Option 1: Do nothing - Retain status quo of existing service provision at GJF	349.0	3
Option 2: Expansion of use of current mobile theatre at GJH	327.1	4
Option 3: Creation of a partially integrated new build unit (4 theatres)	711.1	2
Option 4: Creation of a fully integrated new build unit (6 theatres)	831.9	1

Option 1 was assessed as offering the second lowest benefit as while it provided an adequate patient experience as reflected in current patient feedback, there was insufficient theatre and clinic capacity to meet future, forecast patient demand. In addition to this the configuration of the current service whereby the theatre and clinic spaces are not collocated, and the theatre footprint does not have dedicated prep space to support higher volume single lists limiting opportunities for improved efficiency and productivity. There is also limited opportunity to provide wider community benefits.

Option 2 was found to offer the least amount of benefit as while it offered a marginal increase in capacity and the potential for slightly better efficiency and productivity, the increased logistical challenges associated with getting more patients to and from the mobile theatre and increased staff dissatisfaction related to spending more time working in the mobile theatre meant it scored lower than Option 1. It was also felt that increased use of the mobile theatre would have a negative influence on staff recruitment and retention, particularly the medical workforce, as it would mean more time working in what some staff felt it was a poor working environment.

Options 3 and 4 were found to offer equal benefit with regards meeting service demand as both models had the capacity to deliver future, forecast patient demand, however, Option 4 scored higher in all other areas. The Group agreed that Option 3 would deliver a positive patient experience for the majority of patients as the majority of care would be delivered from a new, purpose built unit providing integrated outpatient and day case facilities. As Option 4 allows all patients to receive all of their care from the integrated unit, however, this option scored higher. Similarly, while Option 3 offered notable benefits in terms of staff experience, recruitment and retention, efficiency and productivity, and wider community benefits, these benefits would be greater in the case of Option 4 as all staff were able to benefit from working in the new unit, collocation of all care allowed for more extensive improvements in efficiency and productivity, and a larger, higher value project would provide more scope for community benefits.

While Option 4 achieved the highest benefit score, the group noted the following: patients, their families and staff would

still need to walk to the main GJNH building to access catering facilities, the provision of administrative accommodation out with the building may be a disadvantage, however through the roll out of EPR some of the concerns are likely to be mitigated. Finally, it was observed that whilst the provision of an enhanced facility, would help support recruitment and retention of staff, it would not fully mitigate all of the workforce challenges ahead. The group noted the GJF plans to create an 'Ophthalmology Nursing Development Programme' to recruit and train staff ahead of expanding the service.

7.7.3 Sensitivity testing

Following completion of the benefits scoring sensitivity testing was undertaken to ensure that the outcome of the exercise was robust and had not been unduly influenced by any single factor.

As shown in the table below, two sensitivity tests were carried out:

Test 1: application of equal weight to each benefit

Test 2: Exclude the top ranked benefit (Patient Experience) from the scoring

The results of the sensitivity tests are set out in Figure and Figure. In summary neither of the sensitivity test changed the ranked outcome of the benefit scoring – in both sensitivity tests the option delivering most benefits remained Option 4: Creation of a fully integrated new build unit with 6 Theatres.

7.8 Risk Assessment and Scoring by Option

The risks identified and scored at Initial Agreement stage and developed in the risk register appended relate to the preferred option (option 4). At the workshop these risks were reviewed and discussed to consider the risk ratings and mitigation and also any additional risks not captured. Members were asked to consider the likelihood of the risks occurring within options 1 – 3; the same impact rating was applied across all options with a risk score for each individual risk calculated for each of the 4 options. This was then added to provide an overall risk score for each of the four options which is shown in the table below:

Option	Score	Rank
Option 1: Do nothing - Retain status quo of existing service provision at GJF	24	1
Option 2: Expansion of use of current mobile theatre at GJH	56	2
Option 3: Creation of a partially integrated new build unit (4 theatres)	147	4
Option 4: Creation of a fully integrated new build unit (6 theatres)	139	3

In considering the identified risks, Option 1 as expected was found to be the lowest risk option with Option 2 also relatively low risk. Given that neither option involves design and construction many of the risks were agreed as non applicable. The key risks in Option 1 relate to the inability to support the national increase in demand without additional capacity and also the limits of the clinical model within the current set up. Option 2 offers some additional capacity via expansion of the mobile unit however would still not allow full realisation of the clinical model and would not support the projected increase in demand. In addition there are risks associated with the mobile theatre in relation to staff and community engagement making this slightly higher risk than Option 1.

Options 3 and 4 scored significantly higher on risk which is expected with all identified risks considered applicable to both options. The key difference between both options relates to the ability to support the clinical model with option three less able to realise this and scoring higher for that reason.

7.9 Top Ranked Option following Risk Assessment and Non Financial Benefits Appraisal

Overall the scoring exercise identified 'Option 4: Creation of a fully integrated new build unit with 6 Theatres' as the option that delivers the most benefits. The subsequent sensitivity testing did not change the outcome of the scoring with option 4 remaining the option delivering the highest benefit.

Looking at the risk assessment scores for the options not surprisingly options 1 and 2 scored the lowest risk, given that neither option involves design or construction. Looking at the risk scores of options 3 and 4, option 3 had the highest risk score – this was influenced by the more limited ability of the option to support the proposed clinical model.

Figure 28: Sensitivity Test 1: Apply Equal Weighting to All Criteria

BENEFIT CRITERIA		WEIGHT %	Option 1 - Do Nothing retain current service provision at GJNH		Option 2: Do Minimum Expand use of current mobile theatre at GJNH		Option 3 - Creation of a partially integrated New build (4 theatres)		Option 4: Creation of a fully integrated new build (6 theatres)	
		W	SCORE	W x S	SCORE	W x S	SCORE	W x S	SCORE	W x S
1	Patient Experience	14.3	5.0	71.4	4.0	57.1	7.0	100.0	9.0	128.6
2	Staff Experience	14.3	5.0	71.4	4.0	57.1	7.0	100.0	8.0	114.3
3	Meets Service Demands	14.3	2.0	28.6	3.0	42.9	8.0	114.3	8.0	114.3
4	Efficiency and Productivity	14.3	2.0	28.6	3.0	42.9	7.0	100.0	9.0	128.6
5	Ability to Recruit Train and Retain Staff	14.3	4.0	57.1	3.0	42.9	7.0	100.0	8.0	114.3
6	Wider Community Benefits	14.3	1.0	14.3	1.0	14.3	6.0	85.7	7.0	100.0
	TOTAL	85.7		271.4		257.1		600.0		700.0

Figure 29: Sensitivity Test 2: Exclude Top Ranked Benefit Criteria

	BENEFIT CRITERIA	WEIGHT %	Option 1 - Do Nothing retain current service provision at GJNH		Option 2: Do Minimum Expand use of current mobile theatre at GJNH		Option 3 - Creation of a partially integrated New build (4 theatres)		Option 4: Creation of a fully integrated new build (6 theatres)	
		W	SCORE	W x S	SCORE	W x S	SCORE	W x S	SCORE	W x S
1	Patient Experience									
2	Staff Experience	19.8	5.0	99.0	4.0	79.2	7.0	138.6	8.0	158.4
3	Meets Service Demands	17.8	2.0	35.6	3.0	53.5	8.0	142.6	8.0	142.6
4	Efficiency and Productivity	17.8	2.0	35.6	3.0	53.5	7.0	124.8	9.0	160.4
5	Ability to Recruit Train and Retain Staff	16.9	4.0	67.7	3.0	50.8	7.0	118.5	8.0	135.5
6	Wider Community Benefits	6.8	1.0	6.8	1.0	6.8	6.0	40.6	7.0	47.4
	TOTAL	79.2		244.8		243.7		565.1		644.3

8 Calculate Net Present Value and Assess Uncertainties

8.1 Net Present Value

Following the identification and measurement of the costs and benefits for each short listed option, a calculation of their Net Present Value (NPV) is included using the appropriate discount rate. The NPV is the key summary indicator of the comparative value of an option. It is the name given to the sum of the discounted benefits of an option less the sum of its discounted costs, all discounted to the same base date. The decision rule is to select the option that maximises NPV or minimises NPC.

Discount rates used is 3.5% for up to 40 years.

GEM has been utilised for option appraisal and for GEM outputs are contained within business case.

The guidance contained in SCIM has been used to formulate the costs include in the business case in relation to NPV.

The Net Present Value of the capital costs are shown in the table below.

Costs in £millions	Do Nothing: As existing arrangements	Proposed Solution 1	Proposed Solution 3	Proposed Solution 4
Estimated Net Present Value of Capital Costs			16.928	15.137

8.2 Assessing Uncertainty

To assess the impact of potential change in demand for cataract surgery a wide range of scenarios have been identified and their impact analysed. 8 possible scenarios were identified as follows:

Figure 30: Scenarios Assessing Uncertainty

Scenario	Description
1	NHS Lothian repatriate all existing activity sent to GJF
2	NHS Ayrshire & Arran supports own future forecast activity through expansion of their existing service
3	Dumfries and Galloway supports own future forecast activity through expansion of their existing service
3	NHS Fife repatriate all existing activity sent to GJF

4	West of Scotland Health Boards Improve Clinical Productivity by 10% over 6 year period
5	GJF are requirement to support other WoS Health Boards with their existing wait time pressures
6	Actual demand is higher than forecast – we have assumed scenario 7 is the actual demand not Scenario 5 set out in our preferred
7	Impact of long term ophthalmology conditions leads WoS Health Boards to need 20% more cataract activity
8	There is a need for NHS GJF to support the North region providing capacity for half of the future forecast demand between now and 2035.

The impact of each scenario was modelled as was the impact of the combined effect of all of the 8 scenarios (see Figure). Overall the combined effect of the scenarios leads to a position where the preferred option of building a 6 theatre ophthalmology facility would be fully utilised by 2029.

Figure 31: Assessing Uncertainty: Modelled Scenarios to Test the Preferred Option

Scenario		20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
	Forecast Additional WoS Demand for Cataract procedures	2,450	482	493	503	514	525	535	544	554	562	571	579	587	595	603
		-455	-537	-620	-705	-792	-881	-971	-1,063	-1,157	-1,252	-1,349	-1,446	-1,546	-1,646	-1,748
1	NHS Lothian Repatriate all existing activity sent to GJF				-617	-617	-616									
2	NHS Ayrshire & Arran Supports own future forecast activity through expansion of existing service	-455	-82	-83	-85	-87	-89	-90	-92	-94	-95	-97	-98	-99	-101	-102
3	Dumfries and Galloway Repatriation	-76	-36	-37	-37	-38	-39	-40	-41	-41	-42	-42	-43	-44	-44	-45
3	NHS Fife Repatriation of Existign Activity			-219												
4	WoS HBs Improve Clinical Productivity by 10% over 6 year period	-350	-350	-350	-350	-350	-350									
5	Requirement to support other WoS Boards with Existing Wait time pressures	1,400														
6	Actual demand is higher than forecast	336	132	137	144	149	155	161	168	173	180	187	194	201	209	217
7	Impact of long term ophthalmology conditions leads WoS Boards to need 20% more cataract activity	420	420	420	420	420	420	420	420	420	420					
8	There is a need to support the North region providing capacity for half of the forecast demand	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
	Additional Procedures	**3,905**	**747**	**541**	**158**	**171**	**186**	**1,165**	**1,179**	**1,193**	**1,206**	**799**	**812**	**825**	**839**	**853**
	Cumulative Additional Procedures	**3,905**	**4,651**	**5,192**	**5,351**	**5,522**	**5,708**	**6,874**	**8,053**	**9,246**	**10,452**	**11,251**	**12,064**	**12,888**	**13,727**	**14,580**

Current GJNH 2017/18 Annual Cases	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**	**7,997**

Round up to nearest 100 cases	**11,900**	**12,700**	**13,200**	**13,400**	**13,600**	**13,700**	**14,900**	**16,100**	**17,300**	**18,500**	**19,300**	**20,100**	**20,900**	**21,800**	**22,600**
Theatres Required at GJF	**3.9**	**4.1**	**4.3**	**4.4**	**4.4**	**4.5**	**4.8**	**5.2**	**5.6**	**6.0**	**6.3**	**6.5**	**6.8**	**7.1**	**7.3**

9 Appraisal Results

9.1 Identifying the Preferred Option

Section 4 confirms that the preferred strategic solution remains valid and there is an urgent need for the provision of additional cataract capacity to support the needs of the current and future population within the WoS region.

Section 8 confirms that the top ranked option in terms of benefit and risk is 'Option 4: Creation of a fully integrated new build unit with 6 Theatres'. Figure 22 outlines the Net present cost of options 3 and 4.

The combined NPV per weighted benefit point identifies option 4 as the preferred option see Figure 22. Although Option 4 has a marginally higher NPV, the higher non-financial appraisal scores lead to the selection of Option 4 as the Preferred Option.

Figure 22: Identification of the Preferred Option

	Option 3 - Creation of a partially integrated New build (4 theatres)	Option 4: Creation of a fully integrated new build (6 theatres)
Risk Assessment Score	147	139
Non Financial Benefits Score	711.1	831.9
Net Present Value	£16,928,017	£15,136,723
Net Present Value per weighted benefit score	£23,805	£18,195
Revenue Costs	£9.628m	£9.204m

9.2 Flexibility of the Proposed Facility

The proposed facility has been designed to support the efficient and effective delivery of a high volume cataract assessment and treatment service. Three key factors were taken into account when considering the level of future proofing built into the design:

- the location of the proposed site - the far side of the main entrance – away from lifts and other inpatient facilities
- the balance of ensuring the facility size enables efficient flow and reduces walking distances for its primary purpose of providing cataract assessment and treatment versus being large enough to potentially support other clinical use in the future

- Affordability - both in terms of capital and revenue

The main factor when considering future use of the facility is its proposed location. Located in the south east corner of the GJF site, the unit will be on the opposite side of the main entrance of the hospital. Therefore to reach the main lifts and access inpatient facilities, patients from the unit would have to travel through the main public reception area. Therefore it would not be particularly practical to use the facility in future for patients requiring a post operative overnight stay.

The facility has been designed to support the cataract assessment and surgery pathway as follows:

- All patient accommodation is located on the ground floor.
- The clinic rooms are sized for use by ophthalmology – they are not sized to accommodate an examination couch.
- Theatres and pre / post op areas are specifically designed to enable short walking distances to and from the pre and post operative area from Theatre, to support efficient flow and enable the majority of patients to walk in and out of theatre.
- The facility has been specifically designed to support performing cataract surgery under local anaesthetic:
    - Within theatres only oxygen and vacuum will be provided, there will be no provision of other piped medical gases.
    - Theatre standard air changes will be achieved of minimum of 25 air changes per hour (as per Royal College of Ophthalmologist guidance), with higher pressure achieved within the Theatre prep rooms.
    - The theatres have been sized according to clinical requirements for performing cataract surgery (40m2, not the standard 55m2).
    - The facility has been designed for ambulant patients:
        - The pre and post operative area is sized to accommodate contains patient chairs.
        - Circulation and recovery spaces are not sized to take multiple patient trolleys, whilst a trolley can be manoeuvred within the facility in the event of an emergency (e.g. in the event of a cardiac arrest or a patient/ relative becoming unwell),

If in future the facility is not required for cataract surgery, with no physical alterations, it could have the following clinical uses:

- Clinic rooms could be used by any ophthalmic sub specialty and or specialty that does not require access to an examination couch as part of clinical assessment
- Theatres could be used for other walk in walk out Local anaesthetic (not sedation) procedures e.g. minor hand procedures, minor plastic procedures.

- Theatres could also be used for procedures requiring clean air – e.g. injections

Due to the size of the theatres and the pre and post op area the facility could not be used for patients requiring to be prepared and or recovered on trolleys.

To use the facility for another clinical use, significant investment would be required to refurbishment / reconfiguration of both the pre and post op area and reconfigure the theatre suite to enlarge the theatres and install medical gases.

10 Economic Appraisal Template

The Generic Economic Model (GEM) templates have been completed and are attached at appendix 14.

COMMERCIAL CASE

11 Commercial Case: Overview

The main purpose of the Commercial Case at OBC is to outline the proposed commercial arrangements and implications for the project. It will do this by responding, as appropriate, to the following questions:

	Question	Response
Procurement Strategy	What is the appropriate procurement route for the project?	Outline: • Procurement route selected • Compliance with EU Rules and Regulations • Procurement plan & timescales
Scope of Works & Services	What is the scope and content of the proposed commercial arrangement?	Outline: • Scope & content of included services • Scope of building works • Scope of other works
Risk Allocation	How will the risks be apportioned between public and private sector?	Outline: • Risk allocation table
Payment Structure	How is payment to be made over the life span of the contract?	Outline: • Proposed payment structure • Other payment principles • Any non-standard arrangements
Contractual Arrangements	What are the main contractual arrangements?	Outline: • Type of contract proposed • Key contractual issues • Personnel implications

12 Determine the Procurement Strategy

	Question	Response
Procurement Strategy	What is the appropriate procurement route for the project?	Outline: • Procurement route selected • Compliance with EU Rules and Regulations • Procurement Plan & timescales

12.1 Overview

The SCIM requires that, as part of the OBC development process, Boards undertake an assessment to establish the procurement route for the project. This should consider the most likely route to deliver the best overall value for money and that should include consideration the potential for procuring capital investment projects through alternative financing arrangements under Public Private Partnership (PPP). Where PPP is assessed as not offering the best value for money procurement route for delivering the project, a clear justification should be provided.

In the event that a traditional procurement is adopted there is a range of options available to the Board in delivering the project and the assessment should again consider which of these is likely to best support the delivery of the requirements and offer the best value for money.

The Board sought to make this assessment at an early stage and as such, in parallel with the development of the IA, formally considered the options for procuring the requirements in developing Phase 1 Ophthalmology Expansion.

Key Features of the Assessment

Although neither an in-depth assessment of the likely attractiveness to the PPP market, nor any form of soft market testing, has been undertaken we believe that this project is likely to offer limited potential for enhanced VFM through the use of private finance. The main factors that draw us to this conclusion are:

The timetable constraints inherent in delivering the project do not lend themselves to delivery through a typical PPP procurement timetable.

Although not binding in Scotland treasury guidance does not favour the deployment of PPP for single schemes below £20m.

Economic conditions and the prevailing rates of finance for PPP projects mean that it is unlikely that bidders would be able to offer a solution that delivers value for money over alternative forms of procurement.

The extent of detailed design development already undertaken builds in a significant degree of innovation which may restrict the extent to which PPP providers could realise design and construction efficiencies.

The range of risks that the Board could reasonably expect to transfer to a private sector partner is limited.

There is little precedent to suggest that this type of project is likely to attract the required level of PPP market interest to secure a meaningful competition.

Considering the points above it is concluded that the PPP funding route, when compared with traditional procurement, is unlikely to offer enhanced VFM for the construction component of the project.

12.2 Procurement Route

Given that alternative forms of finance are unlikely to meet the project requirements or offer Value for Money (VfM) the Board have considered alternative means of delivering the requirements through the use of capital finance. Delivery under this route provides two main options, namely:

Conventional design & build approach

Framework agreement

Having considered a conventional design and build route the Board concluded that the timescales associated with this approach were unlikely to deliver the improvements in a manner which meets the overall programme for the proposed developments.

Framework agreements provide an established route with suppliers who currently have operational and proven supply chains with a national best practice and knowledge transfer process. Additionally this route allows for early contractor involvement and use of an industry standard contract. The Board concluded that this approach was likely to be the best means of meeting their requirements for the proposed Phase 1 Ophthalmology Expansion development.

It is therefore proposed to deliver the project in line with the guiding principles of the national Frameworks Scotland 2 Agreement which is managed by Health Facilities Scotland (HFS) on behalf of the Scottish Government Health Directorates.

The framework embraces the principles of collaborative working with the public and private sectors working together in an effective and efficient manner. It is designed to deliver tangible performance improvements due to repeat work being undertaken by the PSCP supply chains.

The Frameworks Scotland 2 initiative guide, developed by HFS for use on all projects, highlights that the framework has been established to achieve the following key benefits:

Earlier and faster delivery of projects

Certainty of time, cost and quality

Value for Money (VfM)

Well designed buildings procured with a positive collaborative working environment

The Framework Scotland 2 approach also has clear means for transferring risk during the construction phase, and also providing incentives to contractors to perform.

Having identified this as the preferred procurement route at an early stage the Board has been using Framework Scotland 2 to work with their selected Principal Supply Chain Partner (PSCP), Kier Construction, in developing the OBC. This has meant that the Board has been able to benefit from an integrated design team.

12.3 EU Rules and Regulations

By using the Frameworks Scotland 2 national framework which is an agreement with five Principal Supply Chain Partners (PSCPs) selected via an Official Journal of the European Union (OJEU) tender process for capital investment construction schemes across Scotland up to 2019, the Board do not have to undertake an OJEU procurement for this project.

12.4 Procurement Plan

The procurement plan follows the designated Frameworks Scotland 2 procurement route which is managed by Health Facilities Scotland (HFS). The project will be delivered through the following stages:

Stage 1 – Outline Business Case (Frameworks Scotland 2 Stage 2)

Stage 2 – Full Business Case (Frameworks Scotland 2 Stage 3)

Stage 3 – Construction (Frameworks Scotland 2 Stage 4)

Kier Construction will enter into an individual stage specific contract with Golden Jubilee Foundation at the beginning of each stage of the scheme. Subject to agreement of the Outline Business Case (OBC), the implementation milestones can be seen in Figure 78. The full project plan is outlined in Appendix A5

12.5 External Advisor Procurement

The Board have chosen to adopt the national Frameworks Scotland 2 Agreement for consultants to support the Programme Team and have appointed Aecom as Project Manager & Joint Cost Advisor. Further appointments will be made as the project progresses. These appointments will be delivered through the following stages:

Stage 1 – Outline Business Case (Frameworks Scotland 2 Stage 2)

Stage 2 – Full Business Case (Frameworks Scotland 2 Stage 3)

Stage 3 – Construction (Frameworks Scotland 2 Stage 4)

Aecom will enter into an individual stage specific contracts with Golden Jubilee Foundation at the beginning of each stage of the scheme for both Project Manager and Joint Cost Advisor services.

12.6 Conclusion

The Board sought to establish the optimal procurement route for the proposed developments at an early stage in the capital investment process.

Having considered a range of options, including the use of private finance, the Board have determined that the use of traditional capital finance offers the best overall value for money.

The Board have chosen to adopt the guiding principles of the national Frameworks Scotland 2 Agreement which is managed by Health Facilities Scotland and have appointed Kier Construction as its PSCP.

13 Scope and Content of Proposed Commercial Arrangements

	Question	Response
Scope of Works and Services	What is the scope and content of the proposed commercial arrangements?	Outline: • Scope & content of included services • Scope of building works • Scope of other works

13.1 Scope of Services

The products and services under contract are for a single point deliverer. This offers a procurement vehicle with an integrated supply chain for the delivery of design, manufacture, construction and commissioning of the proposed Phase 1 Ophthalmology Expansion development. It is proposed that the facility will be delivered by Kier Construction under the Frameworks Scotland 2 Agreement, NEC 3 Engineering and Construction Contract Option C: Target Cost with Activity Schedule. This delivery methodology will provide the following benefits:

- completion of the scheme to the standard and functionality that meets the requirements set out in the contract
- Value for Money (VfM), not only in the initial capital cost, but also for the whole life costs through the application of value management principles
- certainty of delivery in terms of time and cost
- consistent delivery in terms of quality in both design and construction
- introduction of continuous improvement through collaborative working and the adoption of benchmarking and performance management measures
- improved management of risk
- optimised delivery of sustainable development

The project will be delivered through the following stages:

Stage 1 – Outline Business Case (Frameworks Scotland 2 Stage 2)

Stage 2 – Full Business Case (Frameworks Scotland 2 Stage 3)

Stage 3 – Construction (Frameworks Scotland 2 Stage 4)

Kier Construction will enter into an individual stage specific contract with Golden Jubilee Foundation at the beginning of each stage of the scheme.

13.2 Scope of building works

NDAP

The Board has engaged with Health Facilities Scotland and Architecture & Design Scotland in line with the NHSScotland Design Assessment Process (NDAP) having submitted design information and participated in both an AEDET Review and Early OBC Review to assess the progressing OBC design.

AEDET

The OBC AEDET workshop was undertaken on 13 December 2017, facilitated by HFS. The summary of the workshop can be seen below:

A further AEDET workshop will be undertaken at Full Business Case stage, but it is clear from the summary presented that progress has been made towards the Target Score.

At this OBC stage a number of scores are affected by non- completion of scoring within the section due to the immaturity of the design, rendering certain statements unable to be scored. This is most notable in the Construction and Performance sections.

The Health Facilities Scotland and Architecture & Design Scotland Assessment Response dated 16 March 2018 confirms that the submitted project information is of a suitable standard to be Supported subject to a number of Essential and Advisory Recommendations. The Response notes that the assessment is based on information submitted in January 2018 and considerable design development and refinement has already taken place since this date. The Essential Recommendations focus on a number of key areas including some wider access issues both on the GJF site and in the local area which are the Board are seeking to address in collaboration with a number of external partner organisations. The Essential Recommendations also place emphasis on the need for a more extensive and developed landscape design to enhance the environment around the building for the benefit of both staff and patients. A recommendation to consider the patient reception, check in and discharge processes in more detail to ensure simple and straightforward wayfinding for patients is already underway with a number of revisions

made to the layout with additional operational protocols under consideration. Reference is also made to further design development of the various Waiting Areas to maximise access to views and natural light although this will be subject to some constraints due to the essential clinical requirements of pre and post-operative patients. The proximity of the Outpatient Consulting element of the building will require further consideration to ensure visual and acoustic privacy for patients while the external articulation of the building envelope is not yet developed sufficiently to ensure that the development has a clear identity and makes a positive contribution to its setting.

The Advisory Recommendations relate to technical and engineering design development that is required to ensure that the essential functional and operational requirements will be fulfilled and this process is already underway with detailed and coordinated architectural, structural and mechanical & electrical engineering design progressing.

The Assessment Recommendations have been reviewed in detail by the Board, the PSCP and their Design Team and a review meeting took place on 29 March 2018 with Health Facilities Scotland to outline the proposed responses to address the concerns highlighted. Based on the discussions that have taken place the Board is confident that they will resolve the matters raised in the Assessment.

BREEAM

The PSCP has engaged Hulley & Kirkwood (H&K) as the BREEAM Assessor for the project and a BREEAM Pre-Assessment review was carried out on in January 2018.

H&K has developed a bespoke BREEAM tracker document. This document provides a more intuitive mechanism to evaluate, monitor and predict the BREEAM scoring. The tracker allows credit headings to be allocated to appropriate members of the design team and allows credits to be categorised in terms of risk, cost, value and difficulty.

Credits within the checklist have been broken down into four distinct risk categories:

- Anticipated Credits – Low risk, best value BREEAM Credits which form the basis of best practice design and which benefit the overall design with limited additional cost.

- Target A Potential Credits - Medium risk, technically challenging credits above best practice design which have implications on project cost, procurement strategy and site space requirements.

- Target B Potential Credits - These credits have high associated risk, due to uncertainty about aspects which are to be assessed or likely to be out of the control of the design team. These credits cannot be guaranteed.

- Unlikely credits - credits which are deemed unobtainable/unlikely due to the nature of the site, the nature of the building operation or due to the project scope.

The potential score currently sits at 60.93% Very Good, however this does include 9.56% of higher risk Target B credits. A copy of the BREEAM objectives report is included in Appendix A9

BIM

The use of Building Information Modelling (BIM) creates a collaborative working environment for the project, with the full team sharing information through the Common Data Environment (CDE).

GJF Hospital Expansion Programme Phase 1 – Ophthalmology has a requirement to achieve BIM Level 2 maturity and therefore, as well as all of the relevant BIM software being utilised, the full team will ensure they align to the BIM Execution Plan (BEP) and all associated BIM Protocols, Guidance and Standards set for the project in accordance with the Employers Information Requirements (EIR) and underlying principles of 1192 series of standards and specifications. As part of the BIM process the team will also assist GJF and their Estates Team to fully define the scope of any project specific enhanced BIM handover requirements e.g. COBie data.

Specific details of the GJF BIM strategy and implementation are detailed in the project BIM Execution Plan (BEP) and associated appendices.

13.3 Scope of other works

A separate exercise will be undertaken to procure the equipment required to ensure effective use of the new Ophthalmic Facility and this will be indentified from a combination of the itemised individual Room Data Sheets augmented by equipment currently used as standard for current service provision that are not included within the room data sheets.

This overall listing will be subject to review and identification of all existing equipment available to transfer to the new Ophthalmic Facility. All items identified for transfer will be removed from the overall list of requirements to leave an exact list of items requiring to be procured.

This list will be reviewed and a procurement strategy developed to identify the route to market for each specific item / group of items. In accordance with the NHS Scotland Elective Programme Collaboration Paper (31st October 2017) where feasible and practical a collaborative approach with other planned elective sites for the procurement of high volume or high cost items will be considered .

The procurement strategy for each item / group of items will provide detail of the chosen route to market reflecting:-

The overall value of the proposed procurement exercise,

The GJNH Standing Financial Instructions,

The availability of National Procurement Scotland Framework Agreements.

The requirement to advertised in OJEU (Official Journal of the European Union) where the proposed contract value for supplies and services is above the current financial threshold £118,113 excluding Vat as detailed in the Procurement Reform (Scotland) Act 2014 (latest revision 1st January 2018).

14 Risk Allocation

	Question	Response
Risk Allocation	How will the risks be apportioned between public and private sector?	Outline: • Risk allocation table

14.1 Key Principles and Potential Risk Transfer

This section provides an assessment of how the associated risks might be apportioned between the Board and the Principal Supply Chain Partner. It also outlines the process for identifying, assessing and apportioning the project specific risks.

The general principle is to ensure that risks should be passed to “the party best able to manage them”, subject to Value for Money (VFM).

The table outlines the allocation of responsibility for key risk areas:

14.2 Risk Allocation Table

Figure 33: Risk Allocation

Risk Category	Potential allocation		
	GJF	PSCP	Shared
Design Risk	10%	90%	✓
Construction & Development Risk	25%	75%	✓
Transition & Implementation Risk	90%	10%	✓
Availability & Performance Risk	20%	80%	✓
Operating Risk	✓		
Variable of Revenue Risk	✓		
Termination Risks	50%	50%	✓
Technology & Obsolescence Risks	✓		
Control Risks	25%	75%	✓
Residual Value Risks	✓		
Financing Risks	✓		
Legislative Risks	10%	90%	✓
Other Project Risks	50%	50%	✓

The project delivery risks are identified in an integrated Risk Register with inputs by the Board and the PSCP. The Risk Register has been developed using the Golden Jubilee Foundation template and this will be transferred to the HFS template for costing during FBC stage.

An initial Risk Workshop was held in October 2017 attended by the key project members. The workshop focussed on developing and agreeing the key project risks. The Project Manager will be responsible for updating the Risk Register and identifying key risks to the Board Programme Director.

As the scheme has been developed, risks have been identified and quantified and allocated to the party best placed to manage them. The Project Manager will review the Risk Register and where necessary hold risk reduction meetings as and when required. Meetings to specifically review risk can be called by either the Project Manager or the PSCP. The

risks to be considered include both delivery risk and operational risks.

The Risk Register will be issued on a monthly basis by the Project Manager who will indicate on a simple matrix the changes to the Risk Register, ensuring all allocations of risk can be traced easily for audit purposes. Where there is movement of substantial amounts of risk allocation shown on this matrix, further breakdown to this risk allowance will be shown and submitted on supporting sheets.

15 Payment Structure

	Question	Response
Charging Mechanism	How is payment to be made over the life span of the contract?	Outline: • Proposed payment structure • Non-standard arrangements • Other payment principles

15.1 Proposed Payment Structure

The National Framework NEC3 Engineering and Construction Contract Option C Target Cost with Activity Schedule utilises an auditable open book approach to quantify and manage payment.

At the pre-construction stages, payment is based on a fee forecast schedule. This is intrinsically linked to an agreed programme and set of deliverables and is based on hours expended multiplied by the Framework agreed rates. The schedule is supported by timesheets along with ancillary cost payments such as surveys. The incurring and payment of professional fees is managed throughout this period by the Board and its advisors on a monthly basis.

The PSCP and its supply chain members commercial rates and profit levels for duties undertaken during each of the pre-construction Business Case development stages have been agreed as part of the framework selection process.

It is envisaged that the Target Cost for the construction will be established during the FBC development phase, with payment based on accounting ledger cost from the PSCP. Payments are checked and verified through the Joint Cost Advisor.

16 Contractual Arrangements

	Question	Response
Contractual Arrangements	What are the main contractual arrangements?	Outline: • Type of contract • Key contractual issues • Personnel implications

16.1 Type of Contract

It is proposed that the facility will be delivered by Kier Construction under the Frameworks Scotland 2 Agreement, NEC 3 Engineering and Construction Contract Option C: Target Cost with Activity Schedule.

16.2 Key Contractual Issues

A template contract has been prepared for use on Frameworks Scotland 2 based on the options contained within the NEC3 Engineering and Construction Contract, Option C: Target contract with activity schedule June 2005 edition (published by NEC, a division of Thomas Telford Limited) with amendments dated June 2006, September 2011 and any subsequent amendments. This has been adopted for use as the basis of all Frameworks Scotland 2 project specific contract documents. The scheme development is incorporated into the Contract by means of detailed requirements in the Works Information and establishing a realistic programme for execution – the Accepted Programme.

The style of Frameworks Scotland and the “scheme contract“ promotes the use of particular project management techniques. These are also applied to formulate the Target Total of Prices.

An overall contract is entered into at commencement of the PSCPs appointment following agreement of a Priced Activity Schedule and Accepted Programme.

A number of alterations have been made to the standard contract in order to tailor it to the requirements of Framework Scotland 2. Key alterations include:

- Cash flow forecasts regularly updated by the PSCP and related to the programme (from the NHS Client’s perspective providing a positive basis for finance planning)
- Payment of accrued costs to the supply chain
- Gain share potential for Client and the PSCP (but overspend of the final target is funded by the PSCP)
- An improved definition of Defined Cost Stage 1 – Outline Business Case

Appointments made have been done so through Frameworks Scotland 2 and the utilisation of standard contractual documentation supplied by Health Facilities Scotland. Contained within these documents for both PSCs & PSCPs is a defined scope of service for each role and associated activity schedules. This information provides clarity on the roles responsibilities and generally the output required from each team member at each stage of the project.

16.3 Personnel Implications

It is anticipated that TUPE (Transfer of Undertaking and Protection of Employee) will not apply to this investment.

FINANCIAL CASE

17 Financial Case: Introduction

17.1 Overview

The Golden Jubilee Foundation (GJF) continues to deliver on its financial targets to remain within both Revenue Resource Limits (RRL) and Capital Resource limits (RRL) in addition to a challenging efficiency saving programme and which over the last few years have successfully delivered in excess of our targets. The Board is on plan to achieve all financial targets for financial year 2017/18 with the success of this due to a focus on redesign and innovation which is pivotal to support the delivery of this expansion.

This financial case will detail all the revenue expenditure and funding modelled in relation to each of the four short-listed options and the affordability of the preferred option on the basis of the financial case and funding basis for both Capital and Revenue terms.

Within the financial case analysis and specifically for the recurring revenue position avoidance of private sector providers to cover the current activity gap is a key point in the financial affordability of the preferred option.

Financial Case		
	Key Steps	**Outcomes for OBC**
1.	Prepare the financial model	Detailed narrative & summary information on key inputs to financial model.
2.	Review capital & revenue financed impact	Completed cost template & supporting information for capital or revenue financed project.
3.	Assess affordability	Statement of affordability and explanation of any funding gaps.
4.	Confirm stakeholder support	Duly signed letter(s) of stakeholder support.

17.2 Focus on the financial case

The annual revenue and Capital costs have been summarised below for the preferred option – Option 4, these are as detailed within Figure 14, section 7.3 and Figure 17 sections 7.41.

Figure 34: Capital Build costs

Element	Option 4
	£
Construction	8,255,127
Refurb	-
Kiers Design	790,913
Surveys	97,000
Cost Advisor/Project Manager	173,323
Supervisor/CDMC	80,000
Contingency/Inflation	507,357
Unrecoverable VAT	1,849,145
Optimism Bias	792,083
Total	**12,411,083**

The capital costs included above have been included in the Boards strategic finance plan over the three year construction period.

Figure 35: Recurring Revenue costs

	Option 4	
	New Build	
Options Revenue Category	6 Theatres by Jan 2035	Total Cost per case
	£	
Current Costs	**7,700,125**	**963**
Existing Theatre costs		
Total Direct Additional Staffing Cost	4,141,415	410
Total Development Additional Staffing Cost	441,871	44
Additional Staffing Training costs	50,000	5
Total Additional Supplies Costs (incl. Overheads)	4,404,908	436
Mobile Theatre Hire, incl. staffing	0	0
Heat, Light & Power	216,000	21
Total Additional Cost	**9,254,194**	**916**
Depreciation	699,040	
Total Additional cost incl. Depreciation	**9,953,234**	
Net Total cost	**17,653,359**	**934**
Private Sector use on current capacity shortfall	-	1,300

Net Additional cost	**9,953,234**	

The recurring revenue costs for option 4 is on the basis of the following:

- Salary costs are applicable for 2017/18 pay scales
- No financial reduction in Option 4 is modelled for the removal of the Ophthalmology mobile Theatre. This is currently funded by Scottish Government.
- Supplies costs are on the basis of the Golden Jubilee current Ophthalmology marginal tariff rate and are at 2017/18 cost base.
- Depreciation for the building element is based on 40 year life and depreciation used for equipment is 10

years which is in line with the Boards policy

- Repatriation of Lothian activity is modelled within the activity plans and assumes the marginal costs will be funded by other Boards utilising this capacity. In line with current agreements and practice the resource transfer to NHS Lothian will equate only to the marginal costs.

18 Preparing the Financial Model

In option 4 the financial model has included a detailed analysis of existing Golden Jubilee revenue costs for Ophthalmology activity. This cost base has been built up based upon the financial modelling from each of the prior year funded expansions within Ophthalmology from Phase 1 through to 5.

The capital costs for the this options that contain building costs have been appraised with detailed capital costings undertaken, in addition an estimate of the cost of additional equipment for the expansion has been included in the capital costs.

This has allowed us to apply thorough and detailed benchmarking in relation to staffing resource requirements against prior expansions (to sense check value for money) and in addition to the annual submission of the Scottish Health Service costs (Costs Book) returns as a benchmarking tool across NHS Scotland.

To support the financial model for option 4 the following key data input has been applied;

- **Option 4: Creation of a fully integrated new build (6 theatres) at GJF:**
    - Detailed activity modelling for West of Scotland unmet cataract demand from 2020/21 through to 2034/35 of 8,300 cumulative additional procedures provided in a new build including a phased reduction in NHS Lothian Heath Board repatriation of activity over 3 years from 2023/24 to 2025/26
    - Workforce modelling requirements from all direct clinical services, support and administration support services in line with prior Ophthalmology expansion applied to 2017/18 pay points for each applicable staff group on the above activity plans.
    - Workforce modelling requirements for staff groups and services not previously required within previous Ophthalmology expansion however now relevant due to the significant level of expansion– equivalent to 130% increase across the timescale
    - To demonstrate value for money a review of cost per case for the service and by financial year compared to current costs including recent Ophthalmology expansions and the 2016-17 Golden Jubilee Hospital and Scottish average cost per case from the Cost Book submission as an across Scotland comparator.

The key differences within option 4 as the preferred option to the other short listed and costed options are;

- The preferred option reflects a fully integrated new build from 4 through to 6 Theatres between 2020 and 2031

and provides the benefits of all staff and facilities working together in the same integrated area and no requirement for split site working and less patient movement which provides financial benefit in staffing resources required. This option reflects continued value for money and self funding basis as all current demand gap would be covered by the 6 Theatre model by 2031 and indicates a removal of private sector costs to West of Scotland Boards,

- With option 3 this incorporates a 4 Theatre partial new build with another 2 Theatres within existing building premises which reflects the need for additional staffing associated with split site working. Like option four this reflects a fully self funded position on the avoidance of private sector costs however does not reflect as significant value for money as in option four due to the higher cost per case associated with staffing driven by split site working.

- Both options 1 and 2 do not represent any new build Theatres to accommodate additional capacity but rely on the existing temporary Ophthalmology mobile Theatre in place (Option 1) with an extension to up to 5 days per week modelled (Option 2). Neither of these options allow for enough additional capacity to manage current West of Scotland activity gap as per the demand modelling and do not represent value for money as higher rental costs associated with the temporary unit in addition to continued reliance on private sector to accommodate the remaining capacity shortfall.

The financial model reflects these key differences on costs as shown in the table below;

Key Information / Assumption	Associated Costs	Comments
Operating costs: Direct Clinical/service staffing Development Additional Staffing Service supplies Heat, Light & Power		Based on detailed workforce modelling provided for al direct clinical, support and administration services as advised by the service managers and reviewed by project team and senior management team. Development staffing is due in this case only due to the significant level of expansion and will go through and internal business case review to ensure development need is required prior to FBC.
Depreciation		Depreciation for the building is based on the life provided by the valuers which is 40 years. Depreciation for equipment has been calculated in line with the Boards policy over 10 years.

Property Lifecycle Costs		The Capital Property lifecycle costs assume the cost of replacing equipment in line with the 10 year life. The maintenance cost of the new build have been assumed as part of the recurring revenue costs.
Inflation		Not applied for revenue costs at this point in the business case. Will be managed through efficiencies detailed in section 7.4.6 or uplifts agreed with WoS Boards and SG through routine financial planning
Taxation		The only elements of tax that the Board will be eligible for are VAT, all non-recoverable VAT has been included in the analysis.
Proposed method of capital financing and any associated charges		It has been assumed that all capital will be financed via traditional capital with the funds being provided by SGHSCD. The will be no additional cost of financing for the construction element of the project. Options will be explored for the equipment at the time of procurement.
Proposed funding sources		Capital funding is ring-fenced capital monies from Scottish Government for elective centres. Revenue funding assumes support in line with prior expansions with staff costs supported by Scottish Government with marginal supplies costs supported by WoS Health Boards. Reduction in private sector use is assumed to fund the revenue required for this expansion.

19 Capital and Revenue Financed Impact

19.1 Summary of conventional capital costs and funding requirements

The impact of the conventional capital costs and associated funding are summarised in Figure :

Figure 36: Impact of the conventional capital costs and associated funding

		Funding			Change to OBC (*FBC only*)	
Capital Cost	Total £000s	Existing Resources £000s	Partner contributions £000s	SG Additional Funding Requirement £000s	Total at OBC £000s	Movement from OBC £000s
Building & Engineering works	9730			9730		
Location adjustment						
Quantified Construction Risk						
Additional itemised costs						
Total Construction costs	9730	0	0	9730	0	0
Site acquisition						
Other enabling works						
Additional itemised costs						
Total other construction related costs	0	0	0	0	0	0
Furniture						
IT						
Medical Equipment	2701			2701		
Additional itemised costs						
Total furniture and equipment	2701	0	0	2701	0	0
Additional Quantified Risk						
Total estimated cost before VAT and fees	12431	0	0	12431		
VAT	2256			2256		
Professional Fees	173			173		
Total estimated cost including VAT and fees but before optimism bias	14860	0	0	14860		
Allowance for optimism bias	792			792		
Total estimated cost	15652	0	0	15652		

Profile of capital expenditure

Year	Total Capital Spend £000s	Existing Resources £000s	Partner contributions £000s	SG Additional Funding Requirement £000s	Total at OBC £000s	Movement from OBC £000s
Year 1	674					
Year 2	2241					
Year 3	7224					
Year 4	4291					
additional equipment will be purchased as each additional theatre opens						
Total						

20 Assessing Affordability

20.1 A statement of Affordability

The capital funding for the elective centres is ring-fenced capital monies from the Scottish Government for the creation of a number of elective treatment facilities in Scotland. The Board's element for the building of the elective centres is reflected in the Board's financial plan submitted to the SGHSCD.

The cost for equipment which is critical for the operation of the elective centres will be included in the business cases.

The revenue position for preferred option, Option 4, and associated Income analysis is summarised in Figure .

Figure 37: Revenue Costs and Funding – summary

Revenue costs Summary	Option 4 (by 2031) - £'m
Net Additional cost	**9.953**
Income – Scottish Government	**5.333**
Income – WoS Boards	**4.620**

The revenue funding assumptions are in line with the Golden Jubilee funding model with staff costs supported by Scottish Government and marginal supplies costs supported by the WoS Boards. It is assumed the revenue funding to support this will be funded by the reduction in the private sector as described in detail within section 7.4.4.

Within the financial model there are recognised opportunities and efficiencies not yet fully recognised within the costs which allow for further costs review and improve value for money and subsequently the affordability of the preferred option. The main areas of consideration are detailed within section 7.4.6 and each of these will be more clearly defined within the Full Business Case.

As neither an increase in costs associated with pay related or inflation policies is incorporated at this point within the financial model it is expected that any increase associated with these would be manageable as a result of those efficiencies noted in section 7.4.6 and other innovative approaches to design and services or as a result of agreed inflationary uplifts between NHS Boards and Scottish Government as part of routine financial planning.

20.2 Closing the Affordability gaps

As described previously in section 21.1 it is assumed that the revenue funding to support this business case will be realised from the reduction in private sector use within West of Scotland Boards.

On the basis of the confirmed private sector data and prior expansion funding models of staff costs supported by Scottish Government and supplies costs via marginal tariffs within WoS Boards service level agreements no affordability gap is identified within this preferred option.

The Board will continue to manage costs within the business case in line with the financial model as set out in this OBC and identify ways in which to release efficiencies to offset any costs increase that may arise from the redesign and innovative approaches fundamental to this and all prior expansions implemented by the Board.

21 Confirming Stakeholder (s) Support

Patients, Staff and Third Sector Representatives

Stakeholders (patients, third sector representatives and staff) participated in two workshops during the development of this OBC, the nonfinancial benefits workshop held in February 2018 and an OBC workshop held in April 2018. The workshop participants are listed within section 8 of this OBC and in Appendix A18. Both events were also attended by Scottish Health Council.

The key messages from the workshops were that the stakeholders were supportive of the proposed solution. Participants highlighted priority areas the golden jubilee should continue to focus on. There included travel and public transport and signage. The stakeholder group highlighted that as the workforce plan is developed in more detail they would be keen to hear more about the proposals for the recruitment and training of nursing staff.

In addition wider patient feedback has been sought as the project has moved forward, a large patient survey was carried out with 647 responses. The feedback has been collated and is summarised in section 24.1.1

In developing the OBC, there was early engagement with the Scottish Health Council. Following advice from Scottish Government and after discussion with SHC, as this proposal is about delivering an expansion of an existing service over a number of years, proportionate engagement was considered appropriate to capture patients', carers' and the public's views and experiences.

West of Scotland Regional Engagement

To support the development of the IA and OBC, a West of Scotland Regional Engagement Group was established in January 2017. During the development of the IA and OBC there have been seven meetings with the West of Scotland Engagement Group Meetings, in addition during March and April 2018 one to one meetings were held with the leads for each Board (who were nominated by their Chief Executive). The key messages from the WoS Engagement Group are as follows:

- All members are comfortable with the modelling assumptions and forecast demand
- Some Boards have more pressure than others in ophthalmology at present
- All WoS Boards confirmed that they had no intention of repatriating work that is currently delivered by GJNH

Opportunities identified and discussed as part of this OBC development included:

- Potential to recruit joint appointments for difficult to fill posts – (this has already been achieved working in partnership with NHS Forth Valley)
- Training opportunities

The concerns raised during discussion and development of the OBC included:

– Access to revenue funding to support the additional capacity that will be made available at GJNH

– Workforce – ability to recruit to posts without destabilising existing WoS services – particularly within the field of theatre nursing (see sections 2.4 & 2.5 which outlines the GJF proposal to train nursing staff in advance of opening the new facility which addresses this concern)

An overview of the OBC was presented at the West of Scotland Directors of Finance meeting on 20th April 2018 and at the West of Scotland Health and Social Care Delivery Plan Programme Board on 27th April 2018. The group were very supportive of the effective and efficient model of care which has already been developed and rolled out as part of the Ophthalmology redesign at GJF, the group echoed the requirement to ensure the phased expansion and recruitment doesn't impact on existing WoS service provision and highlighted the requirement to access additional revenue funding year on year to support the increased forecast demand for cataract surgery.

Following the presentations on 4th May 2018 the OBC document was circulated to the West of Scotland Chief Executives, the WoS Directors of Finance and the National Health Board Chief Executives. In addition the OBC was shared with the National Boards collaborative Programme Members on 15th May 2018 and circulated to the National Elective Centres Programme Board members on 22nd May 2018. Feedback was received from all WoS Health Boards and shared with Mr John Burns, who has written a letter of support in his capacity as Chief Executive Implementation lead for the West Region, see appendix 18.

Golden Jubilee Foundation Approvals

The OBC was discussed and approved by our Hospital Expansion Programme Board on 2nd May 2018, the membership of the Board is included in **Error! Reference source not found.** and includes the following external stakeholders - Margaret Sherwood, National Programme Board Director, Margaret Duncan, performance Manager, Scottish Government, David Alexander , Vice Principal Operations, West College Scotland , Richard Cairns, Executive Director Infrastructure and regeneration, West Dunbartonshire Council and Sharon Adamson, Director of Regional Planning, West of Scotland.

The OBC was subsequently presented, discussed and approved at the GJF Board on 11th May 2018.

MANAGEMENT CASE

22 Management Case: Overview

The Management Case will demonstrate the NHSGJF is ready and capable of delivering the project successfully.

	Question	Response
Project Management	What are the project management arrangements are in place?	Outline: • Reporting structure & governance arrangements • Key roles & responsibilities • Project recruitment needs • Project plan
Change Management	What change management arrangements are being planned?	Outline, where appropriate: • Operational & service change plans • Facilities change plan • Stakeholder engagement & communication plan
Benefits Realisation	How will the project's benefits be realised?	Outline: • Updated benefits register • Full benefits realisation plan
Risk Management	How are the project risks being managed?	Outline: • Updated risk register • Risk control measures • Governance arrangements
Commissioning	What commissioning arrangements are being planned?	Outline: • Reporting structure aligned to main project structure • Person dedicated to leading this process • Key stages • Resource requirements
Project Evaluation	How will the success of the project be assessed?	Outline: • Person dedicated to leading this process • Key stages • Resource requirements

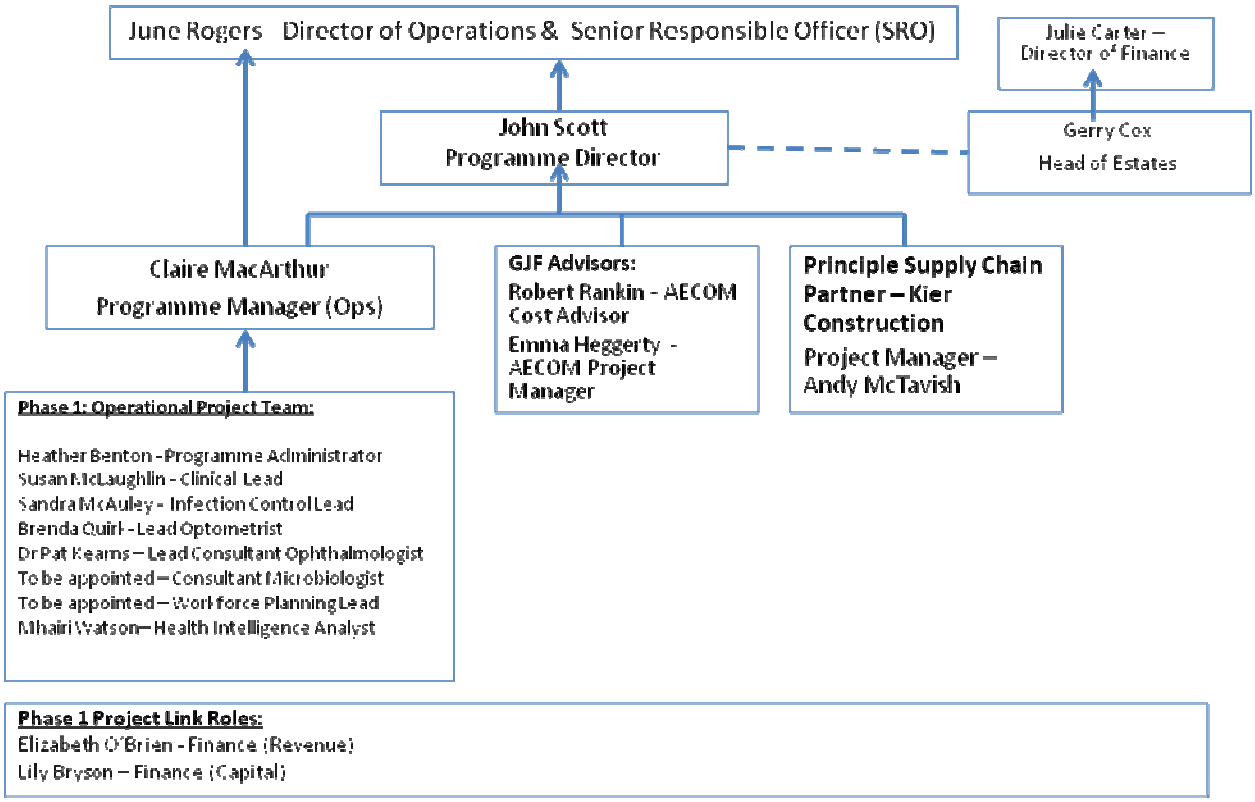
23 Project Management Proposals

	Question	Response
Project Management	What project management arrangements are in place?	Outline: • Reporting structure & governance arrangements • Key roles & responsibilities • Project recruitment needs • Project plan

23.1 Reporting Structure

Figure outlines the NHS GJF Organisational structure for project 1: the Ophthalmology Expansion.

Figure 38: Project 1 Reporting Structure



23.2 Governance Arrangements

Figure 23 and Figure outline the wider programme governance structure both within the GJF and the wider governance within the WoS region and within the context of the National Elective Centres programme.

The Hospital expansion programme will be managed by a Programme Board Chaired by the GJF Chief Executive, supported by the Director of Operations and Senior Responsible Officer. A West Regional Engagement Group has

been established to ensure continual engagement with the West Region throughout the development of both Project 1 Ophthalmology and Project 2 Orthopaedics, and other surgical specialties. The Programme Board membership is set out within Figure and includes representatives of the GJF senior management team, GJF Chairman, the director of regional planning, the Programme Director of the National Elective Centres Programme, Strategic Director, West Dunbartonshire Council, and Vice Principal Operations, West College Scotland.

Figure 23: Overarching Programme Governance Structure for Project 1 and Project 2

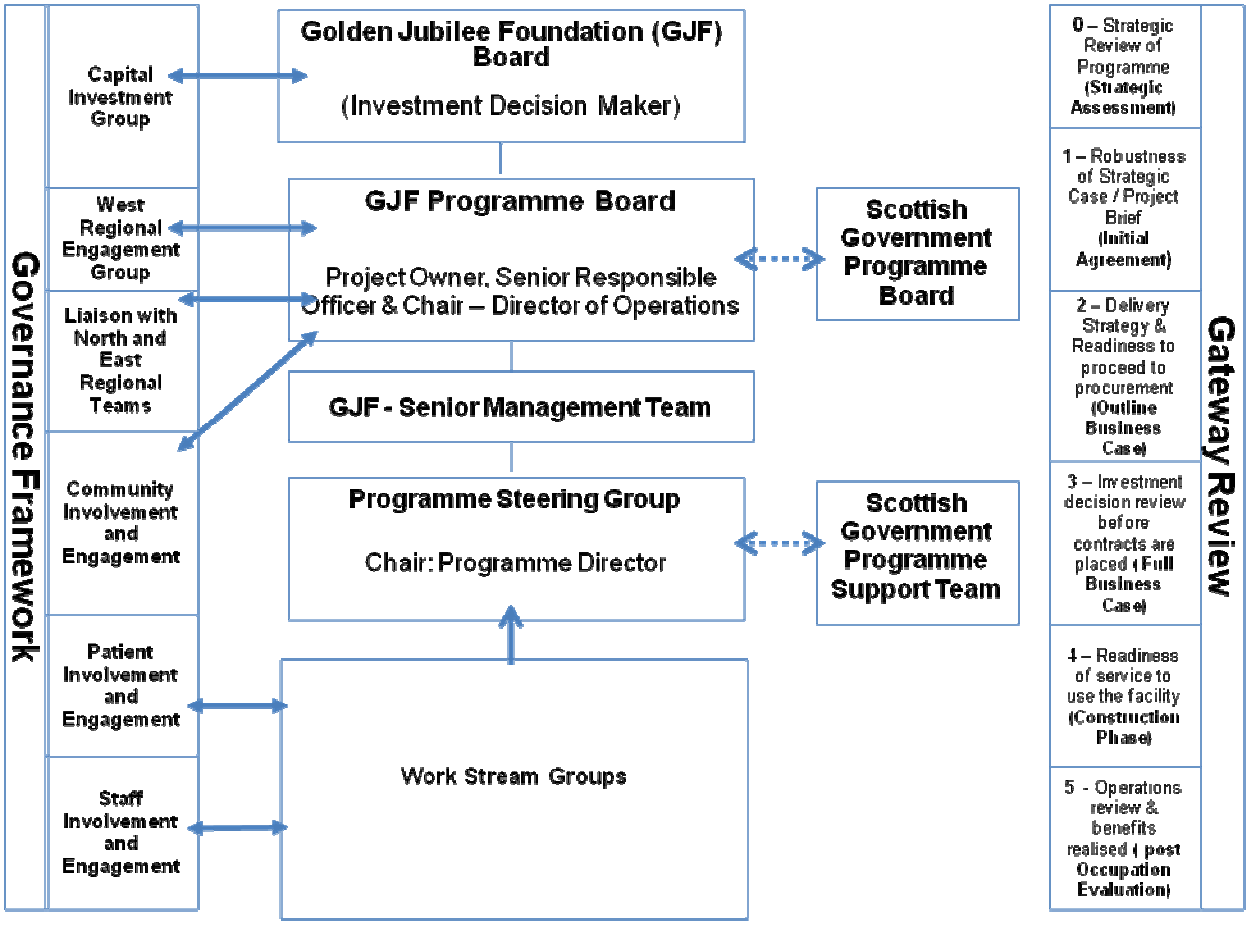
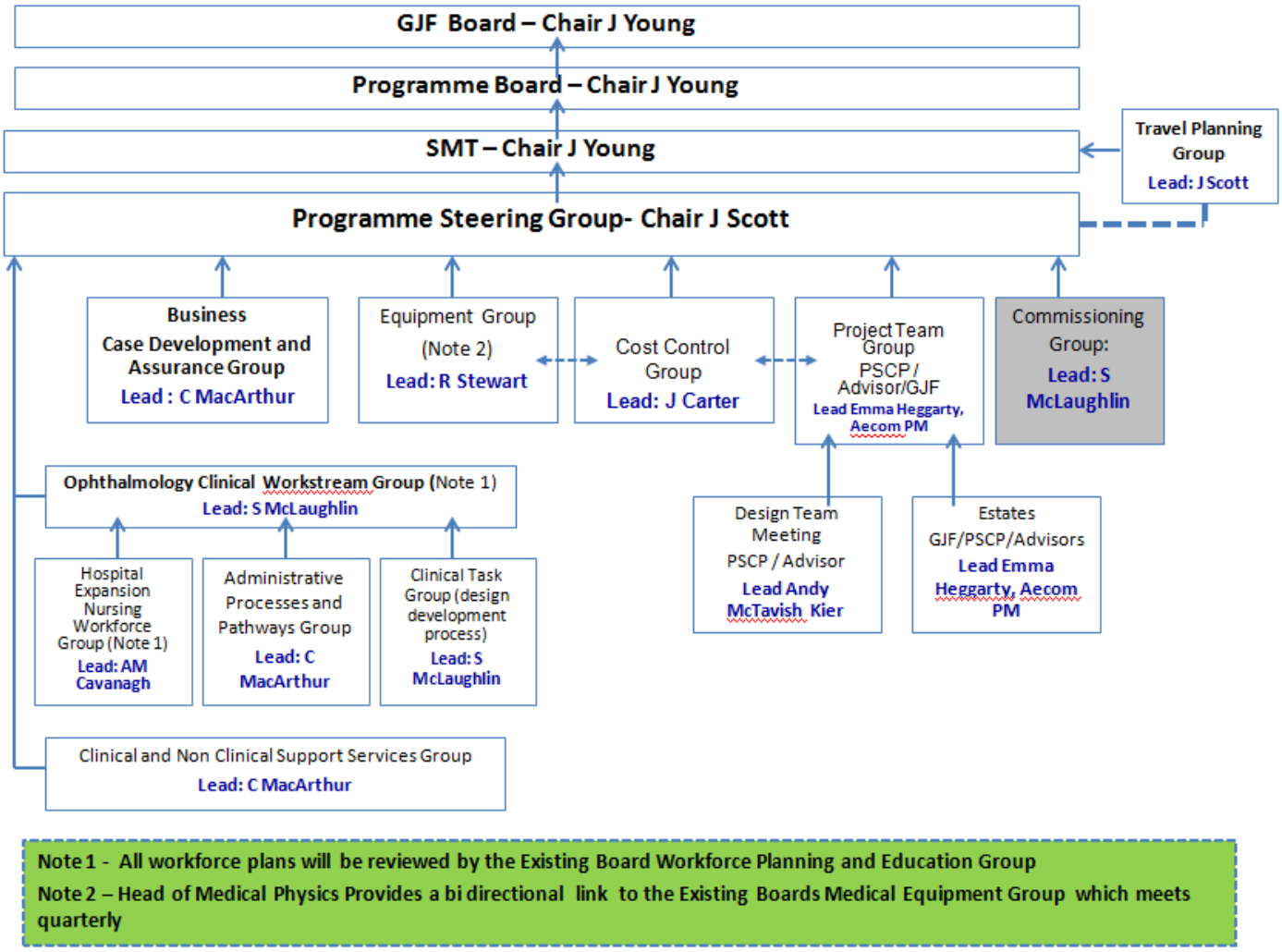


Figure 39: Project 1: Governance Arrangements for Project 1



Note 1 - All workforce plans will be reviewed by the Existing Board Workforce Planning and Education Group

Note 2 – Head of Medical Physics Provides a bi directional link to the Existing Boards Medical Equipment Group which meets quarterly

Figure 40: Programme Board Membership

Role
Chair of Programme Board and Chief Executive
Senior Responsible Officer & Director of Operations
Director of Finance
Nurse Director
Director of Global Development & Strategic Partnerships
Employee Director
Medical Director
Interim Chair GJF Board
Performance Manager, Scottish Government
Head of Clinical Governance
Programme Director, National Elective Centres
GJF Programme Director
Head of Corporate Affairs
Programme Manager, Ops
West College Scotland Representative
Head of Estates
Director of Regional Planning, West of Scotland
Associate Operations Director, Surgical Division
Associate Operations Director, RNM
Local Authority Representative

23.3 Key Roles and Responsibilities

The **Senior Responsible Officer** is the Board Director of Operations. June leads on communication with the West of Scotland Health Boards and the West of Scotland Director of Planning. June has extensive experience of managing project and managing clinical services. June has direct experience of delivering many previous service expansions at the GJF and was also involved in the creation of the WoS Heart and Lung Centre in 2007. Through this experience June is able to provide expertise related to the projects development, governance and stakeholder management as well as having in depth knowledge of service models and performance.

The **Programme Director** is John Scott, John has been appointed specifically to manage the delivery of the hospital expansion programme. John has significant experience of delivering capital projects having previously worked as Head of Capital Planning within NHS Ayrshire and Arran. John has direct experience of delivering large scale capital projects having been Programme Director for a new £50m Mental Health & Community Hospital in Irvine which was completed in 2016.John will be responsible for directly managing the Kier Construction PSCP team and the Client Advisors.

The **Programme Manager** is Claire MacArthur, Claire has been seconded from her substantive role as operations manager within the surgical division at GJF to support the hospital expansion programme. Claire is an experienced senior manager with extensive experience of working with the acute hospital sector. Claire's key skills and experience include project management, stakeholder management, planning and managing clinical services, leading service reviews/ improvement projects and developing strategies, workforce plans and business cases. Claire directly manages the GJF operational programme team.

The **Clinical Lead** for the programme is Susan McLaughlin, Susan has been seconded from her clinical educator role and leads the ophthalmology work stream group developing the clinical model and supporting workforce training and education plans and with support from the wider team will lead on the commissioning process. Susan has significant senior nursing experience her key skills include stakeholder management and facilitation, leading quality improvement projects, developing, planning and facilitating national and local training and education for clinical and non clinical staff. Susan has recently completed the Scottish Improvement Leaders Programme.

June, John, Claire and Susan have been involved with the project from the outset so have a detailed understanding of the project objectives and the process of delivery. All have confirmed capacity to continue within their roles ensuring continuity of knowledge and the required skill set.

The GJF programme team will be supported both internally and by those appointed as Independent Client Advisors and the Principal Supple Chain Partner. Expertise of the key roles and key competencies is described further in Figure below, but further advice is available through NHS GJF's Head of Estates Gerry Cox, and the Aecom Joint Cost Advisor, Robert Rankin. This experience together with the identified in Figure (programme Board membership) demonstrates that the project structure contains the required skill set to successfully deliver the project.

23.3.1 Independent Client Advisors

Those appointed to support the overall hospital expansion programme are detailed in Figure . Through the assessment and appointment process it has been demonstrated that those named have the required skills. Experience, expertise and capacity to deliver this project.

Figure 41: Independent Client Advisors

Role and Organisation
Project Manager, AECOM
Joint Cost Advisor, AECOM
CDM Advisor
Supervisor

23.4 Programme Recruitment Needs

NHS GJF has the required resource and individual capacity to ensure all key roles within the structure remain filled. A new role of a part time workforce planning manager will be recruited to shortly, it is envisaged this role can be recruited to from within NHSGJF. Prevention and control of infection support has been provided To date NHS GGC have provided Consultant Microbiology support to the project, however going forwards it is unlikely they will have the capacity to continue to support the project. Therefore there is a need to recruit to this lead advisory role as soon as possible and the process of identifying potential candidates is underway.

With the exception of the Lead Consultant Microbiologist it is not envisaged further external recruitment will be required for this project. Any further additional support will be provided within NHSGJF and from the confirmed client advisors.

The individuals identified under section 24.3 have been selected as they have the necessary skills and capabilities to assist the successful delivery of the project. Should any replacement of these individuals be required, NHS GJF recognise that any replacement will have to demonstrate sufficient knowledge and capabilities and provide confidence that no gap in resource ability occurs at any stage.

23.5 Project Plan and Key Milestones

A detailed project plan is in place and works are progressing in line with the plan. Key Milestones have been identified and works sequenced in order to complete design works for RIBA Stages 2 & 3, OBC and Planning submission. The project plan works in tandem with the stakeholder Engagement and communication plan which is further outlined in Appendix A4.

The current project plan is included within Appendix A2

The key project activities and milestones are outlined in Figure below.

Figure 42: Key Project Activities and Milestones

Action	Responsibility	Date
Completion of OBC	Programme Team and SRO	28th March 2018
OBC shared with Regional and National Planning groups	SRO	March and April 2018
Approval of OBC by Programme Steering Group	Steering Group	16th April 2018
Approval by Senior Management Team	Senior Management Team	26th April 2018
Approval of OBC by Expansion Programme Board	Programme Board	3rd May 2018
Approval of GJF Board	GJF Board	10th May 2018
OBC Submission to CIG	Programme Board	31st May 2018
CIG OBC Approval	CIG	2018
Stage 3 Design Development Period	PSCP	November 2017 to July 2018
Market Testing Period	PSCP	March 2018 to September 2018
Planning Application Submission	PSCP	27th June 2018
Building Warrant Submission	PSCP	27th November 2018
Stage 3 Proposal Submission Date	PSCP	29th October 2018
FBC Submission to CIG	Programme Board	13th November 2018
CIG FBC Approval	CIG	11th December 2018
Instruction to progress to Construction Stage	GJF Board	18th December 2018
Construction commence	PSCP	January 2019
Construction complete	PSCP	March 2020

23.5.1 **BREEAM**

As defined in the SCIM Guidance, 'The Scottish Capital Investment Manual requires that all new build above £2m are required to obtain a BREEAM Healthcare (or equivalent) 'Excellent' rating'. Following guidance sought from HFS, during the Stage 2 process, it has been established that HFS is willing to review the proposed BREEAM credits to be targeted for the facility, to enable a pragmatic approach to the design to be taken.

Hulley & Kirkwood (H&K) has been engaged as the BREEAM Assessor for the project and a BREEAM Pre-Assessment review was carried out on in January 2018. The potential score sits at 60.93% Very Good.

23.5.2 **AEDET**

A second workshop for AEDET benchmarking took place on 13 December 2017 facilitated by HFS, ensuring challenge to the scheme and awareness of the AEDET design principles.

23.5.3 **NDAP**

A number of meetings have been held with Health Facilities Scotland (HFS) and Architecture & Design Scotland (A&DS) in January and March 2018. Having considered the information provided, HFS and A&DS have assessed the project and consider that it is of a suitable standard to be supported and have made a number of recommendations.

The report in full including the recommendations can be seen in appendix A10.

23.5.4 **Site Investigation**

The following site investigations & surveys were carried out by the PSCP during Stage 2:

- Detailed UXO Risk survey
- Intrusive ground investigations
- Underground gas monitoring
- Drainage survey
- Topography and GPR survey
- Ecology survey

23.5.5 **Review of Progress Reporting**

A regular Project Team meeting is held on a monthly basis chaired by the GJF appointed Project Manager and attended by the Programme Director, this meeting will continue throughout the duration of the project. The agenda for this meeting requires progress reports from the PSCP, Project Manager and Joint Cost Advisor**.**

The appointed Project Manager also produces a monthly Red, Amber, Green (RAG) dashboard report based on a review of the PSCP report, progress monitored against the project programme and ongoing commercial review. This report forms the basis of the monthly progress update report to the programme Board.

23.5.6 **Project Constraints**

A specific constraint unique to the GJF site is the co-location of the Scottish National Advanced Heart Failure Service (SNAHFS), patients within this group include patients who are awaiting or have undergone heart transplantation and are particularly vulnerable as they are immunocompromised. As the only centre undertaking Heart transplantation within Scotland it is essential the service is safeguarded during site investigations, ground works or periods of construction.

Numerous fungal outbreaks have occurred in healthcare settings and have been a serious threat to immunocompromised patients. Construction and renovation activities can cause serious dust contamination and disperse fungal spores and construction activity has been reported as an independent risk factor for invasive fungal infection. In published reports invasive aspergillosis has an overall case fatality rate of 58%.

To mitigate the risk to this patient group and other immunocompromised patients within the GJF, the HAI SCRIBE process is integral to the design and construction elements of the expansion. During the construction phase, agreement, application and compliance monitoring of robust control measures is essential. To date when the site investigations were carried out patients were advised to access the hospital from the hotel entrance and avoid using the main hospital entrance which is adjacent to the development site for project1 of the hospital expansion.

In addition to the construction of the new facility, breakthrough to connect to the existing GJF via a single corridor into the level 1 orthopaedic outpatient clinic is planned. Works will therefore have to be very carefully planned and considered during construction of the facility and during break through into the existing building into a live outpatient environment. This work will be carried out by the PSCP but will involve input from the GJF clinical teams including the lead infection control nurse, lead consultant microbiologist, Orthopaedic and SNAHFS medical teams.

23.5.7 **Resource Planning**

NHS GJF have the required resource and individual capacity in place to achieve the key milestones set out within Figure . The ophthalmology workstream group is now well established with dedicated part time clinical leads supporting the continued design development process. In addition the group have developed the clinical model of care, agreed key performance assumptions and developed a workforce training and recruitment plan to support the successful delivery of further service expansion on commissioning. As the project progresses the group will further refine the workforce training and recruitment plan and support the commissioning group once it is established.

23.5.8 **Engagement with West Dunbartonshire Council**

Planning Permission

The Project Team has been in regular dialogue with the Planning Department, throughout the Stage 2 design process. The proposed timing of the Planning Application has been discussed and it was agreed that further liaison would take place as the design progressed. It is anticipated that the Planning Application will be submitted during June 2018.

Building Warrant

The Project Team has been in dialogue with the Building Control Department, during the Stage 2 design process. The programme for the application has been discussed and the probable requirement for progressive applications for Building Warrants was identified as being highly likely due to the relatively short pre-construction period.

23.6 Gateway Review

Following completion of the OGC's two-stage Risk Potential Assessment (RPA) process, it was confirmed that the programme will follow the Gateway review process. The first Gateway Review was carried out in January 2018.

The outcome of the review was a Delivery Confidence Assessment of Amber/Green (Successful delivery appears probable however constant attention will be needed to ensure risks do not materialise into major issues threatening delivery).

The report noted that Phase 1 of the Programme has been taken through a well-managed and effective clinical briefing and design development process. This has produced a stage 2 design that has good stakeholder support. The Programme is managed by an experienced and competent client team, matched by equally well resourced PSCP (Principal Supply Chain Partner) team and good working relationships have been established.

The Review Team have made recommendations and the Programme Director has prepared an Action Plan to address these which is included in appendix A5.

Following completion of the first Gateway Review, it was recommended the second Gateway Review be scheduled to take place in December 2018.

23.7 Conclusion

This section of the OBC shows that the Golden Jubilee Foundation have developed a robust project management framework outlining the project strategy and methodology based on best practice, the roles and responsibilities of key project members, the project communication and reporting arrangements and the project plan including key project milestones. The Full PSCP project plan for stage 2 and 3 is contained within appendix A2

24 Change Management Arrangements

	Question	Response
Change Management	What change management arrangements have been put in place?	Outline: • Operational & service change plan • Facilities change plan • Stakeholder engagement & communication plan

24.1 Operational and Service Change Plan

Expanding the Workforce to Support Additional Capacity

The project involves adding additional capacity to the existing service at the GJF , it is important to note that the expansion is phased over a period of 15 years between 2020 and 2035. NHS GJF recognises that the key to success of the service expansion will be the development of a sustainable workforce plan that does not destabilise services within the existing hospitals within the West region. Section 2.5 sets out the proposed principles of the recruitment, training and workforce plan.

The preferred solution (option4) has identified that in year one of opening there is a requirement for 56.76 wte additional staff of which 26.83 wte additional nursing staff (bands 2, 3, 4, 5, 6, 7), by 2035 there is a requirement for 128.15 wte additional staff of which 60.89 wte additional nursing staff bands (bands 2, 3, 4, 5, 6, 7),

The national shortage of experienced registered and unregistered nurses is well documented, in order to successfully deliver the additional capacity NHS GJF propose to:

Build on the already established NHS GJF branded 'Training Academy' approach, which has already successfully supported the many expansions in orthopaedic and ophthalmology theatre capacity, by creating an Ophthalmology Nursing Development Programme Essentially a small cohort of staff who are new to roles within the new ophthalmology unit will be recruited in a supernumery positions and trained to ensure they reach the appropriate competencies within theatre clinic and the pre and post operative area. Figure below outlines the proposed size and skill mix within the Ophthalmology Nursing Development Programme.

Ensure nursing roles within the new unit are attractive and we can retain staff by establishing a nursing rotation programme and ensure that staff are working to their full job role. The rotational approach will enable nurses to be trained to work within all three areas of the unit – clinic theatre or pre and post operative care. This development is new and exciting and will be developed in partnership with staff side in the coming months.

Given the national shortage of consultant ophthalmologists NHS GJF propose to:

- ensure the current clinic model, whereby optometrist undertake the patient examination and consent for surgery

continues, thereby maximising the consultant time within clinic.

- minimise turnaround time within theatre and maximise consultant time within theatre, by:
    - providing additional nursing resource for the higher volume lists
    - extending the role of nurses within theatre to support nurse prepping and the potential to complete the writing up of the operation note

Working closely with the other WoS Boards to fill the more difficult to recruit to consultant posts, by developing flexible more attractive joint consultant appointments supporting the wider delivery of ophthalmology services across the West of Scotland.

To provide a more patient centred approach and make best use of hospital optometrist time NHS GJF propose to:

Ensure all routine post operative reviews are undertaken within the community by community optometrists – note this is a change for NHS GGC patients

Figure 43: Proposed Additional Resource - GJF 'Ophthalmology Nursing Development Programme'

Band	1 year prior to opening	Subsequent years
	Cost	Cost
Various	£149.6K	£50k
Clinical Educator Band 7	£34.5k	n/a substantive post

24.2 Workforce Planning Process

The workforce plan was developed by reviewing existing workforce profiles, based on existing service provision at the GJF. A multidisciplinary approach involving all key members of the ophthalmology team was taken to agree the required workforce profile. The rotation of nursing staff is still at conceptual stage and requires significant further engagement with staff and staff side to describe how it will work. The need for a workforce planning lead has been identified and the post will be advertised within the next month to provide hands on support to undertake much wider engagement process. The phased workforce requirements and workforce profile is outlined in appendix A6.

24.3 Facilities Change Plan

Engagement with Estates & Facilities services is underway. This process is being carried out in line with the Government Soft Landing Principles and led by the PSCP.

The PSCP has commenced the inception and briefing stage, establishing stakeholder requirements and strategies. Existing experience of mechanical, electrical and plumbing strategies and systems have been reviewed in detail generating a brief of preferred methodologies, systems and specifications. This review process has established design elements which will be stand alone for the new areas formed as well as those which will need to integrate into existing systems. Key items such as BMS, fire detection, CCTV and access control systems will all be integrated into existing infrastructure and existing operational policies.

Further design development based on the understanding gained is ongoing and design review will be undertaken through the FBC process. This process will include engagement with the established monthly Estates Meetings.

At pre-handover stage operators will be able to spend time gaining an understanding of interfaces and new systems and check that the output and functionality expected are provided.

Initial aftercare will be part of the service provided by Kier as PSCP. The exact timescale will be discussed and confirmed through the FBC and contract award processes along with any extended period in coordination with the long- term post occupancy evaluation process. It is expected that the PSCP team will retain a presence on site to deal with emerging issues, assist with understanding how systems are operating, measured, monitored and adjusted to ensure the facility meets the users' expectations and requirements.

24.4 Stakeholder Engagement and Communication Plan

The hospital expansion team have developed excellent links with the National Elective Programme Support Team and provide regular progress updates to the National Elective Centres Programme Board, in addition the team have close links with the recently established Scottish Access Collaborative Programme Board .

There is a specific Stakeholder Engagement and Communication Plan in place, approved by Project Programme Board, which includes information on the identification of stakeholders, key messages, timeline of communication activities, as well as methods of communication and engagement (appendix A4).The objectives of the communications and engagement plan are:

- To raise awareness about service developments and expansion at the Golden Jubilee Foundation
- To demonstrate to our key stakeholders the value we bring in supporting Boards across NHSScotland
- To raise awareness in key stakeholder groups of our positioning as an organisation in context with the elective care project, regional and national deliver plans
- Maximise the opportunities for engagement to ensure as wide a range of views as possible is sought at all stages of the project
- To support two way dialogue with our key stakeholders, ensuring key milestones and benefits are communicated effectively through a wide range of methods. We aim to create a collaborative working environment

- To utilise the two way dialogue with stakeholders to develop our plans and help shape our services by appropriately involving people and listening to feedback received

- To ensure those who have contributed to the expansion development see the impact of their contribution through meaningful feedback and are thanked for their input

The Plan is a live document and its ongoing review forms part of the Steering Group agenda, ensuring its contents are regularly reviewed and updated as required. This is not the only opportunity for review and change, this is a document that is shared with the core team and it is understood that it can be updated at any time through core team members awareness of any change.

24.4.1 **Patient Feedback – Ophthalmology Patient Questionnaire**

The ophthalmology service have now completed a patient feedback questionnaire which has been statistically significant with overall comparability. Since IA stage a further 150 questionnaires were sent to patients with 128 responses being received.

In total 674/900 patients fed back their views on the service provided giving a 74.88% response rate. 95.8% of patients agreed or strongly agreed that they would recommend the service to their friends and family and 93.6% agreed or strongly agreed it was worth travelling to the Golden Jubilee for their treatment.

Responses were received from patients from six different health boards as follows:

Fife	**0.74%**
Forth Valley	**9.64%**
Greater Glasgow & Clyde	**34.27%**
Highland	**0.74%**
Lanarkshire	**19.14%**
Lothian	**35.46%**

Figure 44: Summary of Patient Feedback

Question Posed	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Agree and Strongly Agree Combined
Q1. I was given sufficient time to discuss treatment options during my outpatient appointment	1.2%	0.2%	0.6%	30.1%	68.0%	**98.1%**
	8	1	4	203	458	**661**
Q2. I was given sufficient time to ask questions during my preoperative assessment appointment	1.3%	0.2%	0.2%	30.7%	67.7%	**98.4%**
	9	1	1	207	456	**663**
Q3. The staff were pleasant and helpful	1.5%			16.5%	82.1%	**98.5%**
	10			111	553	**664**
Q4. It was worth travelling to the Golden Jubilee National Hospital in order to be treated	2.4%	1.0%	3.0%	21.2%	72.4%	**93.6%**
	16	7	20	143	488	**631**
Q5. I would recommend the service to my friends and family	1.9%	0.3%	1.9%	19.0%	76.9%	**95.8%**
	13	2	13	128	518	**646**

Patients were randomly selected by our eHealth department following a computer generated list and questionnaires were sent with stamped addressed envelopes and returned anonymously.

Patients were asked the 5 questions as detailed above and also invited to provide details of their response should they have either disagreed or strongly disagreed to any of the questions. They were also asked to provide additional comments in order to help us improve our services.

25 Benefits Realisation

	Question	Response
Benefits Realisation	How will the project's benefits be realised?	Outline: • Updated benefits register • Full benefits realisation plan • Community benefits objective

25.1 Updated Benefits Register

Following a review of the benefits Register which was developed at IA stage, given the short time since its approval, it is noted that there is no change to the benefits register at this time. The Register has been expanded to provide a more detailed benefits realisation plan below.

25.2 Full Benefits Realisation Plan

The full Benefits Realisation Plan is set out in Figure

Figure 45: Full Benefits Realisation Plan

Ref No	Benefit	Assessment	As Measured By:	Baseline Value	Preferred Outcome	Objective Owner	Timescale
1	Person centred - nests	Ensure that people who use the service have positive experiences and their dignity is respected	Patient feedback through patient survey – percentage of patients who rate the service and excellent or good	See Section 25.4.1 for a full summary of the patient feedback received to date	Maintain current very positive patient feedback scores	Surgical Divisional Management Team & Clinical Service team	Ongoing review with specific Review on opening of new unit during 2020
			Patient feedback	In 2016/17 there were 4 written compliments, 3 informal concerns raised, and 7 formal complaints. Combining concerns raised and formal complaints they accounted for less than 0.1% of patients seen by the service	Maintain current very low levels of complaints/ concerns	Surgical Divisional Management Team & Clinical Service team	Ongoing review with specific Review on opening of new unit during 2020
2	LDP	Improving access to Cataract surgery - Ensure that people who require to access the service can do	Proportion of patients who are seen and treated within 12 weeks of being placed on a waiting list for surgery	As at end Jan 2018 there were 803 patients WoS patients waiting over 12 weeks for an ophthalmology procedure (it is assumed approx 75% of these were	Zero patients waiting more than 12 weeks for cataract surgery within the WoS Region	Surgical Divisional Management Team WoS Regional Boards	Review each month on opening continual reduction in breaches of waiting times

Ref No	Benefit	Assessment	As Measured By:	Baseline Value	Preferred Outcome	Objective Owner	Timescale
		so in a timely manner		patient waiting for cataract surgery = 527 patients)			within region - for full impact review after first 12 month of opening
			Reduction in elective cancellations	Currently surgical cancellations are less than 4% at GJF	Reduce cancellations to under 2%, through full roll out of same day replacement policy for both on the day cancellations and DNA's	Clinical Lead and Surgical Divisional Management Team	Review monthly in the run up to and on opening
4	Project Specific	Reduces reliance on high cost private sector elective surgical capacity	A reduction in the number of procedures performed in the private sector	1166 procedures (WoS Boards only) were performed in private sector in 2016/17	100% reduction saving circa £1.51m per annum	WoS Regional Health Boards	Monitor every 6 months following opening with support of data provided through ISD
5	Project Specific	Improvement in clinical productivity	Minimum of 10% productivity gain in both clinic and theatres – across all WoS hospitals	Deliver more outpatient appointments and procedures within existing resources, baseline figure in 2015 is 21,045 procedures	Deliver a minimum of 10% increase in productivity in cataract services within WoS Hospitals within existing resources	WoS Regional Health Boards with support from the Scottish Government Ophthalmology Improvement Team	It is assumed this will be achieved over a few years as part of change will be incremental

Ref No	Benefit	Assessment	As Measured By:	Baseline Value	Preferred Outcome	Objective Owner	Timescale
6	Project specific	Improvement in recruitment retention of staff and availability of staff with the right skills and competencies	Improved ability to recruit and retain the hard to fill positions e.g. consultant posts and theatre nursing posts	As the service expands monitor the ability to recruit roles and monitor the success of the GJF Theatre training academy approach, thereby training own theatre staff as the service expands Monitor the retention rates of staff – currently there is a 9% turnover within our ophthalmology service lower than other specialties	Measure the success of the theatre training academy – aiming for 100% success rate i.e. trainee secures post at the end of training within the GJF theatres. Fill 90 % plus of consultant posts Maintain or lower existing turnover rates	Surgical Divisional Management Team with support from HR, recruitment and the Clinical education team	Assume improvement will be continuous, with annual improvement in fill rate of posts and significant improvement within 5 years of the facility opening
		Improvement in staff wellbeing and engagement	Measure through annual imatter survey response	2016 employee engagement score for the ophthalmology theatre team was 87% the EES for the outpatient team was 72%	Either maintain or improve employee engagement scores	All Team Leads within Ophthalmology Service With support form the surgical divisional management team	Annual Review and continual improvement / maintenance of high EES
7	Project	Significantly improve the	Improving the current accommodation -	Current position:	Move to one integrated facility with shared reception waiting		On unit being commissioned,

Ref No	Benefit	Assessment	As Measured By:	Baseline Value	Preferred Outcome	Objective Owner	Timescale
	Specific	functional suitability of the Ophthalmology Accommodation to support improved patient flow and service efficiency	creating a state of the art integrated cataract centre - removing the duplication and poor clinical adjacencies (as set out in figure 9 and 11)	The service currently has two separate reception, admission, operating and discharge areas on levels 3 and in a mobile theatre suite at ground floor level Clinic is currently located within 4 East ward area and accommodation is not functionally suitable	admission and discharge areas, supporting smooth and efficient patient flow In clinic and theatre areas. NB flow through existing clinic and theatre set up is being baselined.	Operations Manage, Clinical Nurse Manager and Clinical Team	measure improvement in time patients spend in clinic and in the unit on their day of their procedure – aim to reduce by 20%
8	Project Specific	Delivery of wider Economic Benefits - Community Benefits e.g. New Entrants, Apprenticeships, SME and 3rd Sector benefits (see appendix A4)	Measure using the community benefits plan (see appendix A11)	Community benefits will be generated and delivery monitored when the PSCP is selected and commences work	Targets are set out in the agreed community benefits plan (see appendix A11)	Programme Director and SRO And Programme Board	Delivered throughout the project – see detailed community benefits plan and targets within it in appendix A11

25.3 Community Benefits

The Golden Jubilee expansion projects aspire to make a positive social and economic impact, particularly within the West Dunbartonshire area, by maximising employment, training and business opportunities and supporting education activities throughout the development of the project.

A detailed Community Benefits Plan has been developed for the project with Support from Hub West and in line with Scottish Government targets. The targets and objectives generated are done so based on the project value. These targets were established prior to the appointment of the PSCP and compliance with and monitoring of form part of their duties under the agreed appointment.

Through the appointment process Kier demonstrated their ability to exceed the targets set by NHS GJF and it is against these enhances targets that success will be measured. Kier have a dedicated Social Impact Manager, Amanda Wright who will work closely with NHS GJF to ensure the investment made by this project maximises opportunities that are both real and tangible to the local community.

A record of progress will be kept through the monthly updating of the community benefits tracker. Progress and impact will be further monitored by Kier construction's own dedicated monitoring system which provide a tangible output on the social value that has been delivered on the project.

A copy of the agreed targets and tracker document are included in appendix A11 of the OBC.

It is understood that in order to deliver the community benefits plan early engagement is paramount. Already underway during the pre construction period is the process of identifying local stakeholders such as schools, colleges, universities, patient groups, community groups, local organisation, third sector / social enterprises and supported business.

26 Risk Management Plan

	Question	Response
Risk Management	How are the project risks being managed?	Outline: • Updated risk register • Risk control measures • Governance arrangements

This section of the OBC sets out the Golden Jubilee Foundations approach to risk management, in delivering the preferred option, discussing:

- Risk management philosophy
- Categories of risk
- The framework for risk management
- The current risk management plan

26.1 Overview

This section of the OBC sets out the Golden Jubilee Foundations approach to risk management, in delivering the preferred option, discussing:

- Risk management philosophy
- Categories of risk
- The framework for risk management
- The current risk management plan

26.2 Risk Management Philosophy

The Board's philosophy for managing risks is a holistic approach, seeing effective risk management as a positive way of supporting the project's wider aims. The Board recognises the value of putting in place an effective risk management framework to systematically identify, actively manage and minimise the impact of risk. The Board is considering the risk appetite for the project; with work undertaken to develop this via the Steering Group and Programme Board. This is at final stages and will be used to support the management of risk in agreeing tolerances and escalation.

Application of a robust framework will support the Board in understanding its risk exposure and taking appropriate steps to mitigate negative impacts and maximise benefits:

This is done by:

- Identifying potential risks and putting mitigations in place to minimise the likelihood of them materialising and adversely impacting on the project;
- Putting in place robust processes to monitor risks and report on the impact of planned mitigating actions;
- Implement the appropriate level of control to address the adverse consequences of the risks if they materialise;
- Having strong decision making supported by a clear and effective framework of risk analysis and evaluation

Once risks are identified, the response for each risk will be one or more of the following types of action:

- Prevention, where countermeasures are put in place that either stop the threat or problem from occurring, or prevent it from having an impact on the business or project.
- Reduction, where the actions either reduce the likelihood of the risk developing or limit the impact on the business or project to acceptable levels.
- Transfer, the impact of the risk is transferred to the organisation best able to manage the risk, typically a third party (e.g. via a penalty clause or insurance policy or contractor).
- Contingency, where actions are planned and organised to come into force as and when the risk occurs.
- Tolerate, where following mitigation a risk still remains outwith the project appetite, the Hospital Expansion Programme Board may decide to go accept this risk – this is most likely when the likelihood of a risk is outwith the control of the Board or if likelihood is reduced as far as possible and robust contingencies are in place should the risk occur

26.3 Categories of Risk

As outlined in the Initial Assessment the Board considers risk across clusters (financial, operational delivery, workforce, reputation, regulation and strategic). Each individual risk is assigned an overall cluster and the potential impact of all risks is considered across all clusters.

In developing the preferred solution, the Board examined the capital and revenue risks in detail and also applied optimism bias, further details on each of these is outlined below:

Figure 46: Financial Risk Assessment

Area	Description	How assessed
Capital risks	Capital risks relate to unknown or unidentifiable factors that increase the cost and time of the project construction	Qualitative and quantitative risks assessed by a Quantity Surveyor
Optimism bias	Optimism bias is the demonstrated systematic tendency for appraisers to be over optimistic about key project parameters. This creates a risk that predicated outcomes do not fully reflect likely costs	Standard methodology to identify extent of optimism bias with mitigating factors confirmed through Board assessment
Revenue risks	These are risks relating to everyday management encompassing cost and activity as well as external environmental factors	Risks identified with quantitative and qualitative assessment through workshop

26.4 The Risk Management Framework

The Board has designed a simple risk management framework that focuses on effective identification, reporting and management of risks. Three key roles in the risk management process that are highlighted below:

Figure 47: Risk Management Roles

Role	Responsibility	Reporting & accountability
Risk management lead	Manages the process for identifying and addressing risk and maintaining the risk register on a daily basis	SRO and Hospital Expansion Programme Board
Risk management sub group	Brings together key risk owners to co-ordinate the identification and assessment of risks plus the management of key risks	Steering Group and Hospital Expansion Programme Board
Risk owner	Individual or group responsible for developing and implementing risk mitigation measures for individual risks they are responsible for	Risk management lead and risk management sub group

Work to date has been very much focused on the project level risks and setting the framework to support the identification, management and escalation of risks as the programme progresses. The Board has recognised and acted upon its responsibility for leading effective risk management throughout each stage of the project. This is particularly important at OBC stage, to ensure that the risks associated with the preferred solution have been identified and addressed.

The paragraphs below set out the work completed to date, demonstrating the proactive approach to risk management within this project.

26.5 The Current Risk Management Plan

The Board has developed a risk register to support effective management of the risks identified. The risk register covers all areas of risk and has been developed through a series of workshops, meetings and discussions with key project members to provide a mechanism for managing the projects risks even at this early pre approval stage.

There has been agreement made with the PSCP on risk ownership with a PSCP risk register in place that is also reported to the Project Steering Group and Programme Board.

26.6 Responsibility for managing the risk register

The responsibility for managing the risk register lies with the PSC Project Manager who will review the risk register and where necessary hold risk reduction meetings as and when required. Otherwise, the risk register will be issued on a monthly basis with updated changes and reviewed via the Steering Group and Expansion Board.

The current risk register

The risk register is attached at Appendix A7 and includes:

- A description of the risk and potential impact associated
- The risk action plan showing current and planned mitigation
- a HEAT map overview of the risk level

- The risk owner and individual responsible for ensuring action

Figure 24– Risk Register HEAT Map

Likelihood	Consequence/ Impact				
	1	2	3	4	5
5					
4					
3	**(R3) (R5)**	**(F15) (F16)**	**(O1) (O7) (F18)**	**(S6) (S12)**	
2		**(S2)**	**(S4) (S9) F17) (S20) (**	**(S11) (S19)**	
1			**(S14)(F8) (F22)**	**(S10)**	

The risk register is already being regularly monitored to identify the change in the potential impact of the risk and monitor progress of actions. This is a normal risk pattern at this stage of the project and the active monitoring of risks will continue throughout the project. Where new risks are identified, these are communicated to the Hospital Expansion Programme Board and the risk register is updated.

26.7 Conclusion

This section of the OBC shows that the Board has:

- A sound risk management philosophy that is based on effective risk management
- A clear risk management framework, whose simple structure will facilitate effective risk management
- Already made considerable progress in identifying, evaluating and addressing the risks for the preferred solution chosen in this OBC
- Further development of the risk register is required after the approval of the OBC in terms of the potential cost associated with each risk

27 Commissioning

	Question	Response
Commissioning	What commissioning arrangements are being planned?	Outline: • Reporting structure aligned to main project structure. • Person dedicated to leading this process • Key stages • Resource requirements

27.1 Technical Commissioning

As part of the soft landing process Kier's will lead on the technical commissioning elements of the works. Included within the role in the project is building services lead from pre- construction through to commissioning and handover. The responsibilities during the pre- handover and commissioning stages are as follows:

Prepare and manage programme for services works and monitor progress in advance of commissioning.

Develop testing and commissioning programme and agree with user group.

Testing and commissioning programme to confirm all elements of commissioning noting times and dates and agree extent of witnessing with user groups and project supervisor.

Identify testing and commissioning outputs required and demonstrating compliance or methods of rectification. This includes demonstration of service integration with existing where required.

Identify and provide testing and commissioning certification for statutory compliance and for recording and inclusion in projects H&S and O&M manuals.

Develop and carry out training programme and agree with users.

The process starts with the designers providing an overview of the intended operational parameters of the major systems that will be required for the day to day running of the facility and agreeing this with direct input from the end-users/ operators of each facility. This is then followed up by a series of technical workshops where the specialist contractors with design input are present. This will allow them to provide specific input to commissioning requirements and the preventative maintenance required after handover.

An independent commissioning engineer who is employed directly by Kier to ensure the technical and commissioning expertise is maximised from day one, and to provide independent validation of the commissioning results and record presentation

The overall process is also intended to control life cycle costing in the maintenance of the facility during its intended lifespan and this will include detailed discussion with the Estates team on the COBie data drops which will be evolved from the BIM model. This is very important to ensure that the end user gets the maximum benefit to his requirements

tailored to suit the specific requirements of the facility in question.

Filming of systems will be carried out by the PSCP contractor to ensure the Estates are aware of the operation of the specialist equipment.

Working as part of the independent advisor team during the technical commissioning process will be an NHSGJF appointed project supervisor. Their role will be to review the works for compliance with the proposals as well as ensuring the commissioning leads roles are fulfilled in line with the contract.

An appointment has yet to be made for the supervisor role but the position will be provided through HFS consultant framework to ensure suitable skills and experience for the role.

27.2 Non-Technical Commissioning

As identified in section 24 an Equipment Group has already been established and a separate Commissioning Group will be established, both of these groups report into the Programme Steering Group.

Equipment Group

A terms of reference have been developed for the equipment group (see appendix A8) – however it is important to note that the Equipment Group will be responsible for agreeing procurement routes for items including understanding if existing routes and supply chains exist or if new are required. Should new be required, routes to tendering and setting up will be carried out in accordance with NHSGJFs standing financial instructions. The Equipment Group will be led by NHS GJF's Equipment and Compliance Manager.

Where feasible and practical, the procurement of high value items (such as theatre lights, theatre pendants etc and also high volume items equipment) across the National Elective centres Programme, could potentially be joined and may deliver performance and commercial benefit.

Commissioning Group

This Commissioning group will be established through the FBC process and will be initiated on completion of room data and component sheets and the full schedule of FF&E components. Completion of this process will mean all components have been identified; their procurement route will have been established and identified as either PSCP or direct by NHSGJF. Leading this process and this group will be the Clinical Lead who will be further supported by the Programme Director and Clinical Nurse Manager for Ophthalmology.

The group to be formed will include patient representation from the user group, clinical and non- clinical staff members, FM representatives, IT, telecoms and infection control. Through the process further members may be identified and included as required.

The Commissioning Group will be responsible for the following:

Establishing a commissioning plan detailing timescales for item commissioning, in line with project programme. Timescales to include lead in, install and testing, commissioning and training required and identifying (if required) time

and costs for any double running or reduction in clinical activity within the first month of opening.

Establish if item commissioning requires PSCP input regarding any preparatory or install works. If required this will be coordinated with the works programme and beneficial access agreed through the construction contract.

Establish timeline to identify key targets in relation to staff training needs, tasks and responsibilities arising from policy or operational issues.

The group will draw on experience provided by the wider surgical divisional management team and the heads of department form clinical and non clinical support services, who have regularly managed the expansion of surgical services in the last 5 years expansion of the GJF. In addition, the expertise of the wider GJF team who were involved in the creation of the West of Scotland Heart and Lung centre can also be called on when developing the detailed commissioning plan.

A more detailed equipping and commissioning plan will be developed as part of the FBC process.

28 Project Evaluation

	Question	Response
Project Evaluation	How will the success of the project be assessed?	Outline: • Person dedicated to leading this process • Key stages • Resource requirements

This section of the OBC sets out the plans which the Board has put in place to undertake a thorough and robust post-project evaluation (PPE). The areas covered are:

- Person dedicated to leading this process
- Key stages
- Resource requirements

28.1 Leadership of the Project Evaluation Process

Post Project Evaluation will be undertaken in line with the SCIM guidelines to determine the project's success and identify lessons to be learned.

The first three stages of Project Evaluation will be undertaken by the Programme Director who will undertake the following key tasks:

- Assist with developing benefits plan detailing service benefits expected on completion of project and programme of when these will be realised.
- Advise/ aid Project Board in drawing up a measurable Benefits Realisation and Evaluation Plan.
- Review the benefits of a project then assess the outcomes following completion.
- Initial Post Project Evaluation - reviewing the performance of the project in terms of the original project objectives.
- Post Occupancy Evaluation now all service benefits have been realised.
- Undertake staff and patient/ visitor satisfaction surveys, questionnaires or workshops.
- Organise Lessons Learned Workshop for project team/ key stakeholders.
- Key stakeholders to assist in assessing benefit outcomes.

28.2 Key stages

The key stages of project evaluation applicable for this project are set out in the table below.

Figure 25: The Four Stages of Project Evaluation

Stage	Evaluation undertaken	When undertaken
1	Plan and cost the scope of the Project Evaluation work at the project appraisal stage. This should be summarised in an Evaluation Plan	Plan at OBC, fully costed at FBC stage
2	Monitor progress and evaluate the project outputs	On completion of the facility
3	Initial post project evaluation of the service outcomes	Six months after the facility has been commissioned
4	Follow up project evaluation (or post occupancy evaluation – POE) to assess longer term service outcomes two years after the facility has been commissioned. Beyond this period outcomes should continue to be monitored. It may be appropriate to draw on this monitoring information to undertake further evaluation after each market testing or benchmarking exercise	Typically at intervals of 5 – 7 years

The detailed plans for evaluation at each of these four stages will be drawn up by the Board in consultation with its key stakeholders. The paragraphs below set out the types of issues considered at each stage of the review and the timescales for each stage.

These roles are further described in stages below.

During Construction, the project will be monitored with regards to time, cost, the procurement process contractor's performance, and any initial lessons learned.

Six to twelve months after commissioning of the facility a wider ranging evaluation (Stage 3) will take place. This will assess, amongst other factors, how well the project objectives were achieved; was the project completed on time, within budget and in line with specification; whether the project delivered value for money; how satisfied patients, staff and other stakeholders are with the project results and the lessons learned about the way the project was developed, organised and implemented. A key focus will be sharing the information gathered so that the lessons to be learned are made available to others.

Longer term outcomes (Stage 4) will be evaluated 2 to 5 years post migration to the new facility as by this stage the full effects of the project will have materialised. The evaluation will be undertaken by the in-house Post Project Evaluation

team and both quantitative and qualitative data will be collected during stages 3 and 4 evaluation using questionnaires and workshops.

Part of the post project evaluation will comprise the conclusion of the AEDET/ NDAP process. The Post Occupancy Evaluation will take place six to twelve months after commissioning and occupancy and will aim to be reviewed with the established stakeholder group. Further insight at this stage can be gained by input from new staff brought in through the required recruitment process. Lessons learned can therefore be gained from those with a detailed knowledge of the project and process and those with only an insight into the completed project.

28.3 Expected Timings

The timings of the different stages of the Project Evaluation process are set out in the table below.

Figure 26: Timing of key stages of the Project Evaluation process

Stage	Requirement	Timing
1	Produce a costed Evaluation Plan which is incorporated into the FBC. This includes: Confirming objectives, benefits and risks of the project Identifying whether the evaluation will be carried out in house or y an external party Agreeing participants in the Evaluation Steering Group and Evaluation Team, including patients and public representatives Costing the process, including requirements to backfill staff time	Completed before submission of FBC and included within FBC costs and FBC submissions
2	Monitor progress and evaluate the project outputs. This includes: Monthly monitoring of construction and other elements of project delivery Formal reporting at key milestones of the project plan Production of completion report once construction work has been completed	Within six to eight weeks of the completion of the facility
3	Initial post-project evaluation of the service outcomes. This includes: Review of the Project Objectives and BRP to measure the extent to which they have been achieved Evaluation of the project management and control processes to	Six months after the new facility has been commissioned

	assess whether they have worked satisfactorily Submission of the PPE to the SGHD	
4	Follow up post project evaluation (or post occupancy evaluation – POE) to assess longer term service outcomes. This will include: Clinical evaluation – whether the model of care has been successfully implemented and maintained Quality evaluation - whether the anticipated patient outcomes and benefits have been realised Overall benefits assessment – whether the full range of projected benefits in the benefits realisation plan have been realised Financial evaluation – whether the overall costs of the scheme have remained within the expected cost envelope	Two years after the facility has been operative

28.4 Resource requirements

The Programme Director will lead co-ordinate and oversee the evaluation. The team to support the Project Evaluation is not yet confirmed, however the evaluation team will be multi-disciplinary and include the following professional groups, although the list is not exhaustive:

Clinicians, including consultants, nursing staff, clinical support staff and Optometrists

Estates professionals and other specialists that have an expertise on facilities

Accountants and finance specialists, IM&T professionals, plus representatives from any other relevant technical or professional grouping

Patients and/or representatives from patient and public groups

Any costs of the final post-project evaluation will be identified once the Evaluation Team are fully-established. These costs are therefore not currently included in the costs set out in this OBC.

Figure 27: Outline Monitoring and Evaluation Form

What will be assessed:	When it will be carried out		How it will be done (approach)
	Milestone Date	Report submission	
Project Monitoring stage:			
Project Costs	May 2018	OBC	Cost plan agreed as part of NEC Stage 2 approval and included within OBC. Project Team & Cost Control Group review monthly.
Project Programme	November 2018	FBC	NEC Stage 2 & 3 programme agreed as part of NEC Stage 2 approval. NEC Stage 4 (construction) to be agreed at FBC. Project Team review monthly.
Project Scope Changes	November 2018	FBC	The Independent Project Manager has responsibility for issuing Compensation Events should a change in scope be required. These will be reported via the Project Team, Cost Control Group, Steering Group and Programme Board. Changes from OBC will be tracked and confirmed within FBC
Health & Safety Performance	2019/20	Construction	CDM Advisor to be appointed to review and report at monthly progress meetings during construction (NEC Stage 4).
Design & Technical Aspects	2019/20	Construction	Supervisor to be appointed to review and report at monthly progress meetings during construction (NEC Stage 4).
Risk Management Issues	May 2018	OBC	The Independent Project Manager has responsibility for managing the risk register and will review the risk register and where necessary hold risk reduction meetings as and when required. Otherwise, the risk register will be issued on a monthly basis with updated changes and reviewed via the Project Team, Steering Group and Programme Board.
Service Benefits Evaluation stage:			
Expected benefits	6 months after commissioning	Within 12 months of opening	Review team identified to test and measure delivery of benefits against benefits realisation plan
Stakeholder expectations	6 months after commissioning	Within 12 months of opening	Stakeholder questionnaire and survey to be completed
Impact of service change	6 months after commissioning	Within 12 – 18 months post opening	Independent PPE process to evaluate impact of service and new facility
Service activity & performance	Monthly and post commissioning	Within 12 – 18 months post opening	

The Board has identified a robust plan for undertaking Project Evaluation in line with current SCIM guidance, which is fully embedded in the project management arrangements of the project. A more detailed plan along with any identified costs will be included within the FBC.

29 Conclusion

This OBC has set reconfirmed the requirement for provision of additional cataract capacity to support the current and future needs of the west of Scotland Population.

Investing in a new integrated ophthalmology facility would progress a solution which:

- Provides sufficient additional capacity to meet the significantly increased demand for cataract surgery between now and 2035.
- Eliminates the need for routine use of the private sector
- Support the delivery of an innovative, person centred model of care improving overall service performance within cataract surgery
- Provides a state of the art purpose built facility essential to support improved levels of clinical productivity
- Enables timely delivery of treatment for patients and support the delivery of Scottish Government waiting time guarantees.

The preferred option, option 4: Creation of a fully integrated new build unit with 6 theatres, offers the best investment to provide the required service going forward and fulfils all of the investment objectives identified in this OBC. These new facilities would provide a state of the art environment that would meet the needs and aspirations of both staff and patients within NHS GJF and the West Region.

Approval of this OBC will ensure that the project can move at pace towards the development of the Full Business Case for this critical project.

Glossary of Terms

IA	Initial Agreement
GJH	Golden Jubilee Hospital
GJF	Golden Jubilee Foundation
WoS	West of Scotland
DSD	Degree of Surgical Difficulty
RCO	Royal College Ophthalmologists
OBC	Outline Business Case
OECD	Organisation for Economic Co-operation and Development
SHC	Scottish Health Council
HSF	Health Facilities Scotland
ADS	Architecture and Design Scotland
NDAP	NHS Scotland Design Assessment Process
AEDET	Achieving Excellence in Design Evaluation Toolkit
PSCP	Principal and Supply Chain Partnership
SRO	Senior Responsible Officer
SNAHFS	Scottish National advance Heart Failure Service
CRL	Capital Resource Limits
RRL	Revenue Resource Limits
ISD	Information Services Division
SA	Strategic Assessment
CIG	Capital Investment Group
NES	National Education Scotland
EPR	Electronic Patient Record
GEM	Generic Economic Model
NPV	Net Present Value
CDMA	Construction Design Manager Advisor
HMRC	Her Majesty's Revenue and Customs
SGHSCD	Scottish Government Health and Social Care Directorate
WLI	Waiting List Initiative

NPC	Net Present Cost
SCIM	Scottish Capital Investment Manual
VfM	Value for Money
PSCP	Principal Supply Chain Partnership
BREEAM	Building Research Establishment Environmental Assessment Method
BIM	Building Information Modelling
CDE	Common Data Environment
BEP	BIM Execution Plan
EIR	Employers Information Requirements
TUPE	Transfer of Undertaking and Protection of Employee
RAG	Red, Amber, Green
RPA	Risk Potential Assessment
OGC	Official Government Commerce
Wte	Whole time equivalent
BMS	Building Management System
H&S	Health & Safety
O&M	Operation & Management
FM	Facilities Management
FBC	Full Business Case
PPE	Post Project Evaluation
IM&T	Information, Management & Technology

Appendices

Appendices are contained within a separate volume