

NHS Lanarkshire - Scheme for Bundling
CARLUKE RISK REGISTER

* Location = Corporate Directorate, Division, LHCC, Hospital, Directorate or Department
 ** Risk Category = Clinical, Corporate, Finance, HR, Operational
 *** (L) = 1-Rare, 2-Unlikely, 3-Possible, 4-Likely, 5-Almost Certain
 **** (S) = 1-InNegligible, 2-Minor, 3-Moderate, 4-Major, 5-Extreme



Risk Owner Key
 NHSL
 To be agreed
 Graham

Location

Risk Category

Date

Date Review

1	2	3		4	5	6	8	9			10
Risk Ref	Description of Risk	Risk Exposure		Risk Exposure Rating Col 3 x Col 4	Assessed Risk Low Moderate High	Control Measures	Adequacy of Controls Adequate (a) Inadequate (b) Uncontrolled (u)				Risk Owner
		Likelihood (L)***	Severity (S)****								
1	General Site Issues										
1.1	Discovery of unknown services across site.	2	2	4	Medium	Mitigation action has now been taken by SCP, however, low risk remains SCP to review. SI works carried out.	a				NHSL
1.2	Insufficient capacity in, gas and water supply network to serve project requiring costly infrastructure	2	2	4	Medium	Check if this matter has been closed out by SCP to remain a low risk meantime. SCP currently reviewing	a				NHSL
1.3	Construction of retaining wall will impact on neighbouring land.	4	3	12	High	SCP devising a solution that causes no impact and will communicate with neighbours.	a				NHSL
1.4	Scope of ground contamination										
2	Health & Safety										
2.1	Protecting against public going on site	3	4	12	High	Refer to the construction phase Health & Safety Plan	a				Graham
2.2	Neighbourhood statutory authority complaints.	4	1	4	Medium		a				Graham
2.3	Access, deliveries, traffic and parking.	4	2	8	Medium		a				Graham
2.4	Impact of ecological risks during construction and following building completion.	2	1	2	Low		a				Graham
3	Client Matters										
3.1	Client request major changes to brief after Scheme Design stops.	1	4	4	Medium	NHSL have commented on general arrangement drawings and minor changes will be included in the Target Price.	a				NHSL
3.2	Client request minor changes to brief after Scheme Design steps.	4	1	4	Medium		a				NHSL
3.3	Client requests major changes during construction period.	1	4	4	Medium	NHSL have commented on general arrangement drawings	a				NHSL
3.4	Client requests minor changes during construction period.	3	2	6	Medium		a				NHSL
4	Planning & Building Control										
4.1	Require application for amendment to Building warrant which delay the project.	1	2	2	Low	SCP incorporating some minor changes and will engage with building control.	a				Graham
4.2	Delay in obtaining Road Construction Consent.	2	3	6	Low	SCP have now started the process	a				Graham

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		Likelihood (L)***	Severity (S)****				Adequate (a)	Inadequate (b)	Uncontrolled (u)	
4.3	Planning risk archaeological survey. Programme disrupted by survey. Planning condition 21	3	3	9	Medium	SCP to agree scope of work with council and carry out survey at earliest possible date.	a			
4.4	A revision to planning in relation to increased height is rejected for current application and new application to be supplied resulting in a major impact on the programme.	2	4	8	Medium	SCP/NHSL to speak with planning ASAP and progress design in line with discussions.	a			
4.5	Planning condition 12 details of the service arrangements should be submitted and approved	2	4	8	Medium	NHSL to develop servicing plan on how the building will be used. Engage with Planning	a			
4.6	Planners won't accept generic traffic plan. Condition 14	3	2	6	Medium	NHSL to develop travel plan and engage with planning - request of relaxation in conditions.	a			
4.7	Discharge planning conditions: 1-3, 6-11, 13, 15 - 20, 22 & 23	2	2	4	Medium	Discharge as part of the construction process	a			
4.8	Materials not acceptable to planning						a			
4.9	Increased scope of landscaping works by planning creep - additional costs associated with design development / link to planning approval. Condition 4 & 5	2	2	4	Medium		a			
5	Design									
5.1	Additional fire officer issues, e.g.. fire hydrant requirements within site to be established.	1	2	2	Low	Joint discussions to take place with Fire Brigade in relation to additional Fire Hydrant	a			
5.2	Require dispensation on void protection.	2	2	4	Medium	Joint discussions to take place with Fire Brigade.				
5.3	Legislation changes affecting design	1	3	3	Low	Risk to be monitored	a			
5.4	Cost and programme implication is relation to building height increase.	5	4	20	High					
6	Financial & Procurement									
6.1	Delay in finalising contract	2	2	4	Medium	NHSL/Currie & Brown to issue award on time.	a			
6.2	NHS Board approval not achieved by projected programme date leading to delay with inherent implications for the CIP 5 Year spend profile.	2	4	8	Medium	Regular review of policy and overall NHSL estate strategy.	a			
6.3	Delaying in achieving Target Price	3	4	12	High	Regular cost review and regular updates to CIG. This should be addressed and FBC/Target Price discussions progress and should be resolved before FBC is submitted.	a			
6.4	Increase in construction costs may impact on the ability to achieve an affordable Target Price	3	2	6	Medium	Monitor costs and take any corrective action at the earliest time	a			
7	Demolition									
7.1	No identified risks at this time			0						
8	Construction									

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		Likelihood (L)***	Severity (S)****								
8.1	Unable to fully establish extent of temporary works / underpinning of church yard wall. Risk of insufficient allowance in Target Price and programme.	3	3	9	Medium	Ensure adequate provision within Target Price.	a				
8.2	Approval to access from adjacent owners for works on boundary walls.	3	3	9	Medium	Enter into early negotiations with adjacent owners or amend designs so that the conflict no longer exists. Cost implication may be substantial and difficult to ascertain for Target Cost purposes.	a				
8.3	Unchartered archaeological findings; risk of excavations of artefacts within the project site.	2	3	6	Medium	Mitigate through additional site survey works prior to construction. Ref. 60.1.7 - Compensation Event risk to Employer.	a				
8.4	Difficult Grounds encountered conditions (e.g. ground water, inadequate load characteristics, sandy soils, organic materials and the like). Excessive depth of topsoil layer.	2	2	4	Medium	Warranty to be obtained on Site Investigation Report although this may offer limited protection. Graham will have to carry out further investigations and adequate provision within the price and programme.	a				
8.5	Discovery of contaminated materials within project site.	3	4	12	High	Complete early trial pits in advance of construction. This will not be undertaken before Target Price is agreed, accordingly there is a cost risk which needs to be addressed.	a				
8.6	Discovery of mine workings / man-made obstructions within the project site.	2	3	6	Medium	Reports show evidence of previous mine workings which have not been considered in the design due to the unknown extent. Refer to CDM Coordinator queries.	a				
8.7	Introduction of gas membrane due to awaiting further results from SI.	3	2	6	Medium	Instructed engineer to liaise directly with previous SI supplier and results should be reflected in the Target Price and Programme.	a				
8.8	Excavated materials found to be inadequate for re-use due to characteristics. Increased need for imported fill	3	3	9	Medium	During trial pitting exercise engineer to review suitability of soils found for re-use. This will not be undertaken before Target Price and may have cost implications.	a				
8.9	SEPA ground water discharge costs. Additional costs to project if additional drainage requirements are imposed.	4	2	8	Medium	Assess the risk of silt contamination during construction. Build in adequate contingency for temporary protection measures in Target Price.	a				

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8.10	Complaints leading to provision of a wheel wash facility to avoid construction traffic discharging mud on road..	4	2	8	Medium	Not normally included within the price, but the risk of having to provide one needs to be considered.	a				
8.11	Diversion of any unchartered services found that can not be worked around	2	3	6	Medium	Review service plans and contact local utility providers. Graham have instructed Hawthorne Boyle as task manager to manage utilities early in process, may have cost implications prior to Stage 4 but will be beneficial.	a				
8.12	Inadequacy of site service infrastructure. Lack of capacity of existing site services to incorporate project facilities.					Refer to 1.2 above					
8.13	Difficulties obtaining temporary site supplies / connections	4	2	8	Medium	Early application and may need to be dealt with prior to Stage 4.	a				
8.14	Difficulties obtaining permanent site supplies / connections timeously to meet the construction programme.	3	3	9	Medium	Early application and may need to be dealt with prior to Stage 4.	a				
8.15	Increased costs of the permanent service connections	3	2	6	Medium	Fixed quotes can not be obtained from utility providers and additional costs may have to be included in the Target price.	a				
8.16	Construction works impact on adjacent public footpaths, temporary works may be required.	3	2	6	Medium	There are 2 issues here: closure of existing footpath through the site by application to local authority and maintaining existing footpaths on site boundaries during construction activities (e.g.. attenuation, excavation activities).	a				
8.17	Temporary / permanent lighting requirements to footpaths if required by planning	3	2	6	Medium	Until footpath closure is resolved with the local authority there may be a requirement to provide lighting. Graham to pursue footpath closure at the earliest opportunity and resolve detail.	a				
8.18	Works delay due to objections, re- noise.					Refer to 2.2 above.					
8.19	Restrictions to planned working hours imposed by statutory bodies.	2	2	4	Medium	Unusual that this has not been raised by planning, however they may do so retrospectively.	a				
8.20	Client sign off of construction design issue information delayed.	2	3	6	Medium	Early engagement to ensure that the design acceptance process under NEC does not become a design review and comment process.	a				

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8.21	Staff turnover, loss of key personnel	2	2	4	Medium	Graham to maintain good staff / company relations and develop a enjoyable project environment.	a				
8.22	Building control fail to meet approvals programme during construction	2	2	4	Medium	Early engagement with Building Control to develop relationships and to plan effectively inspections and approvals.	a				
8.23	Construction cost overruns which exceed Target Price	3	4	12	High	Graham to ensure that Target price adequately addresses the full construction risk contained in the risk register.					
8.24	Inadequate site security results in loss of specialist plant and materials	4	3	12	High		a				
8.25	Extreme Vandalism	1	5	5	Medium		a				
8.26	Labour rate / availability	1	1	1	Low		a				
8.27	Supply chain industrial action causes delays	2	3	6	Medium		a				
8.28	Specialist materials availability	1	2	2	Low		a				
8.29	Plant availability	1	2	2	Low		a				
8.30	Inflation exceeds forecasts	3	2	6	Medium	Refer to clause option X1 - contractor carries risk of inflation for 24 months after Target Price. Accordingly expected inflationary costs need to be provided for in the Target price.	a				
8.31	Changes to Aggregate Tax following agreement of Target Price	3	2	6	Medium		a				
8.32	Changes to Land Fill Tax following agreement of Target Price	3	2	6	Medium		a				
8.33	Insolvency of SCM / Supplier	3	3	9	Medium		a				
8.34	Price fluctuations of crude oil, i.e. bitumen for surfacing / power / transport and Steel	3	2	6	Medium		a				
8.35	Subcontractor quotations - validity / unable to obtain firm offer (in excessive qualifications to tender)	3	2	6	Medium		a				
8.36	Quantity take off affecting accuracy of target cost (affected by 2 stage process)	2	2	4	Medium		a				
8.37	Changes in specification, materials and design during construction	2	2	4	Medium	Risk of specification creep which affects Target costs which will be managed by design management, value engineering and effective control of design team, ensuring designers design to a budget.	a				
8.38	Adverse weather conditions	4	2	8	Medium		a				

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8.39	Failure to achieve construction programme – Liquidated damages have yet to be calculated and agreed.	3	4	12	High	Graham need to consider the risk exposure and ensure that the contract programme is achievable for the completed design.				
8.40	Attenuation requirements in excess of that stated on design freeze drawings.	2	2	4	Medium		a			
8.41	Building Warrant affected by 2007 building regulations (submission under 2005 regulations).	2	4	8	Medium					
8.42	Acoustic performance of design inadequate	2	2	4	Medium		a			
8.43	Increased Final Gross Floor Area impacts on affordability	4	3	12	High		a			
8.44	Design Liability (fitness / Reasonable Skill and Care)	4	4	4	Low					
8.45	Supply of FF&E in relation to dental practices from Client	2	2	4	Medium		a			
8.46	Additional requirements of the Highways Department affecting the construction of the works.	2	3	6	Medium		a			
8.47	Restrictions in accessing all areas of site for the purpose of construction.									
8.48	Timeous procurement of Materials with long lead in times, e.g. lifts	1	3	3	Low		a			
8.49	Landscaping moved to planning section 4.9									
8.50	Fitness for purpose design liability. Refer to Option Clause X15 – contractor carries greater design liability under NEC which can not be passed to consultants.	4	4	4	Medium	Whilst the likelihood of an issue arising is very rare. Graham Construction have to consider this issue in view of the fact that they may be exposing themselves to risks that can not be passed down to the consultants. The control measure would be internal design management and monitoring.				
8.51	Extension Commissioning / Demonstrations delays completion	2	2	4	Medium	Agree handover protocol and programme allowances.	a			
8.52	Design - Infection Control	2	2	4	Medium		a			
8.53	Design - NEAT review	2	2	4	Medium		a			
8.54	Impact of compensation events to SCP									
8.55	CDM coordinator - risk of change over	1	2	2	Low		a			
8.56	Risks of prevention - force majeure risks to the contractor, which stop the contractor completing the works or stop the works being completed by the date shown on the accepted programme. As NEC standard clause 60.1(19)									
8.57	Liability for employers indirect or consequential loss. Refer clause 18.1									

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9	Legal/Contractual Matters	4	4	16	High	Well resourced project team.			
9.1	Client professional team and internal staff fail to meet obligations under the NEC 3 Contract	3	3	9	Medium	Well resourced project team.	a		
9.2	SPC obligations under the NEC 3 Contract	1	3	3	Low		a		
9.3	Changes in Law								
9.4	Risks in relation to Titles / 3rd Party Rights / Public right-of-ways	1	2	2	Low	We understand that the Employer has obtained insurance cover for risk of 3rd Party claims over site ownership.	a		
10	Tenant	2	5	10	High	Close consultation at all times.			
10.1	Loss of tenants due to dental / medical withdrawal all putting scheme at risk or resulting in centre viability.	2	2	4	Medium		a		
10.2	Design delay due to dental / medical input,	2	2	4	Medium		a		
11	GMP Additions								
11.1	Building / Planning issues which delay the commencement date of construction works on site and impact on the completion dates.	2	2	4	Medium		a		
11.2	Any changes required to achieve clinical functionality after the 1:50 room layouts have been accepted by the Client.	2	2	4	Medium		a		