

East Retaining Walls

This is to be read in conjunction with the Risk Management Strategy

Risk Register

Approx quantification (min)	£	Risk register	242,550.00
Approx quantification (expected)	£	492,250.00	P50 Value
Approx quantification (max)	£		743,000.00

SCORE	L	M	H
	1	2	3
Prob (%)	10	50	75
Approx. Cost Impact	< 5k	5k-25k	>25k
Approx. Time Impact	< 1wks	2-5wks	>6 wks

Impact	Min	Expected	Max
1	500	2500	5000
2	5000	15000	25000
3	25000	50000	75000

Risk Register	Description	Owner of Risk	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time (weeks)	Min. Cost (£k)	Expected Cost (£k)	Max. Cost (£k)	Approx quantification output			Amendments from previous revision
													P x Min	P x Exp.	P x Max	
01	Preparation & Supervision															
	Scheme programme															
01.01	Not following Generic Risk Management Process	All parties	Project Review identifies significant +/-	Review all risks, mitigate and reduce or remove risks. Focus on top risks	1	1	10	1		500	2,500	5,000	50	250	500	
01.02	Awareness of other schemes and County/City initiatives	LCC	Lancaster City Councils Proposals/Statutory Undertakers Works	Put in early TMA notices for the work. Liaise with Co-ordination team. Stakeholder Management and Communications are vital	1	1	10	1		500	2,500	5,000	50	250	500	
01.03	Insufficient time	All parties		Use in house contractor to remove procurement timescales.	2	1	10	2		5,000	15,000	25,000	500	1,500	2,500	
01.04	Technical Approval Procedures	LCC / Designer	AIPs / departures /geotech approvals	Low number of AIPs required for the works	1	1	10	1		500	2,500	5,000	50	250	500	
01.05	Loss of key resource	All parties	LCC carrying out design work in house. Framework consultant contract has not yet been awarded resulting in no design staff.	LCC carrying out Design work in house.	2	1	10	2		5,000	15,000	25,000	500	1,500	2,500	
01.06	Partnership performance	All parties	Approach to partnering	Good working relationships already in place with in house contractor.	1	1	10	1		500	2,500	5,000	50	250	500	
01.07	Design issues - General	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		500	2,500	5,000	50	250	500	
01.08	Design issues - Retaining Walls	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	3	2	50	6		25,000	50,000	75,000	12,500	25,000	37,500	
01.09	Design issues - Pavement	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		500	2,500	5,000	50	250	500	
01.10	Design issues - Drainage	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		500	2,500	5,000	50	250	500	
01.11	Design issues - Roads	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		500	2,500	5,000	50	250	500	
01.12	Statutory Undertakers	LCC	Statutory Undertakers delay in designing and programming works and not meeting programme timescales	Gain early involvement and buy in to the scheme.	3	3	75	9		25,000	50,000	75,000	18,750	37,500	56,250	
01.13	DFT timescale too tight to efficiently spend the allocation	LCC	DFT may demand monies spent in 2020/21.	Demonstrate benefits of producing accurate Works Information. Show lessons learnt from previous schemes	3	3	75	9		25,000	50,000	75,000	18,750	37,500	56,250	
01.14	Preparation of Works Information	LCC	High number of small schemes each requiring high volume of works information in addition to normal workload.	Prioritise scheme delivery. Ensure programme suitably developed with key dates.	3	3	75	9		25,000	50,000	75,000	18,750	37,500	56,250	
	Cost Risks															
01.15	Inadequate allowance for change in economic conditions	All parties	Tax / Inflation	2.7% inflation in estimate - monitor and adjust if required	2	1	10	2		5,000	15,000	25,000	500	1,500	2,500	
01.16	Third party Fees (supervision / possession)	All parties	EA Consent, Obtaining permits taking longer than 8 weeks	Stakeholder Management. Ensure quality submission first time with early engagement.	2	2	50	4		5,000	15,000	25,000	2,500	7,500	12,500	
01.17	Significant variation in target price vs estimate	All parties	Rework to agree price - delay	Robust estimate and option to revisit scope	1	1	10	1		500	2,500	5,000	50	250	500	
01.18	Significant disruption to Highway Network unavoidable	All parties	Road closures for removal of Higher North Road	Redesign road system for the duration of the works.Remove sections of central reservation to allow both lanes to be used in both directions.	3	2	50	6		25,000	50,000	75,000	12,500	25,000	37,500	
01.19	Funding from LEP/DFT not being available	LCC	Finances not in place to deliver scheme. Some abortive design and development costs for scheme development.	Keep close consultation with LCC Asset Group. Ensure issues well known to team producing East Lancashire Masterplan	3	2	50	6		25,000	50,000	75,000	12,500	25,000	37,500	
01.20	Escalation of Retaining Wall Repair Costs	LCC / Contractor	Repairs to Retaining Walls of greater scope than shown in desktop studies.	Contingency in place in requested finances to accommodate projected increase in repair sizes.	3	3	75	9		25,000	50,000	75,000	18,750	37,500	56,250	
01.21	Statutory Undertakers Costs	All parties	Difficulty in obtaining statutory undertakers buy into the programme. Delays to subsequent activities.	Early involvement in the project prior to tender stage. Allow sufficient contingency in the programme.	3	3	75	9		25,000	50,000	75,000	18,750	37,500	56,250	
02	Land and Legal															
	Land & landowners															
2.01	Land Access and purchase of areas on site	LCC	Access to land made difficult by land owner.	Majority of works will not require land access. Obtain scheme buy-in at earliest possible stage.	3	1	10	3		25,000	50,000	75,000	2,500	5,000	7,500	
03	Strategic															
03.01	Impact of national/international incidents	Not assigned	F&M / Influenza / Terrorism / Civil strike / Rioting	Potential mitigation unclear at present	3	1	10	3		25,000	50,000	75,000	2,500	5,000	7,500	
03.02	LCC financial ordering and approval procedures and systems (Oracle)	LCC	Approval Final Target Cost etc. Oracle ordering limitations		1	1	10	1		500	2,500	5,000	50	250	500	
03.03	Major disruption to the highway network during the works	LCC	Lane closures required to facilitate the works.	Cannot completely eliminate this but need to demonstrate the long term gain vs the short term pain.	3	2	50	6		25,000	50,000	75,000	12,500	25,000	37,500	
03.04	Brexit	LCC	Instability around construction industry affecting prices.	Difficult to quantify effects as unknown	3	3	75	9		25,000	50,000	75,000	18,750	37,500	56,250	
	Resource risks															
03.05	Insufficient communication / co-ordination across Project Team	All Parties	Silo working	Robust supervision of design to avoid rework due to invalid assumptions	1	1	10	1		500	2,500	5,000	50	250	500	

Risk Register	Description	Owner of Risk	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time (weeks)	Min. Cost (£k)	Expected Cost (£k)	Max. Cost (£k)	Approx quantification output			Amendments from previous revision
													P x Min	P x Exp.	P x Max	
03.06	Lack of clarity in role definition	All Parties		Robust project management	1	1	10	1		500	2,500	5,000	50	250	500	
04	Design Baseline															
04.02	DMRB revisions	LCC/Designer	DMRB updates between design fixity and start on site	Reasonably short design timescale, issue should not arise	1	1	10	1		500	2,500	5,000	50	250	500	
04.03	Changes in staff at outside bodies, with different perspective on current proposals.	LCC	Lack of agreement in writing. Redesign and planning issues. Delay & extra cost	In house design. Team in position to cope with small changes in personnel.	3	1	10	3		25,000	50,000	75,000	2,500	5,000	7,500	
04.04	Use of As-Built info	All Parties	As built drawings incorrect	Remeasure and resurvey if required	1	1	10	1		500	2,500	5,000	50	250	500	
04.05	Design errors	LCC / Designer	Delay and abortive cost	Robust supervision of design	3	1	10	3		25,000	50,000	75,000	2,500	5,000	7,500	
	Detailed design															
05	Engineering: Roads/Drainage and Structures															
	Structures Design standards															
05.01	Difficulties getting AIP's approved.	LCC / Designer	Delay & extra cost	Low number of AIPs required for the works	1	1	10	1		500	2,500	5,000	50	250	500	
	Structures Detailed design															
05.02	Failure to achieve detailed design completion in advance of site.	LCC	Additional cost of compensation events on site. Miss critical programme windows.	Robust supervision of design. Build float into the programme.	3	1	10	3		25,000	50,000	75,000	2,500	5,000	7,500	
05.03	Checking of 3rd party designs	LCC	AIPS	Programme to be agreed for timely approval.	1	1	10	1		500	2,500	5,000	50	250	500	
05.04	Existing retaining walls in worst state that expected.	LCC	Concrete repairs scope larger than shown on PBIs	Inspections already show extensive areas of repair.	3	2	50	6		25,000	50,000	75,000	12,500	25,000	37,500	
05.05	Error in design	LCC	Delay and abortive cost.	Early stage discuss of experience of designer and possible further engagement of experienced designer. Design already complete.	1	1	10	1		500	2,500	5,000	50	250	500	
06	Statutory Undertakers															
06.01	Statutory Undertaker delay	All Parties	Increased scheme cost due to inflation	Early involvement and agreement with stats. Same a programme risk above.	3	3	75	9	12	25,000	50,000	75,000	18,750	37,500	56,250	
06.02	Stats costs greater than estimates	All Parties	Street lighting connection	Early involvement and agreement with stats.	3	3	75	9		25,000	50,000	75,000	18,750	37,500	56,250	
07	Construction/Contractual															
	Quality Risks															
07.01	Timely submission and processing of Traffic Regulation Orders	LCC / Contractor	Road closures	TMA and TTROs submitted in timely manner	1	1	10	1		500	2,500	5,000	50	250	500	
07.02	Insolvency - Contractor	LCC	Re-tender	Works being carried out in house so issue should not arise.	1	1	10	1		500	2,500	5,000	50	250	500	
07.03	Procurement of Materials	LCC	Specialist materials not being ordered in good time due to just in time approach to design.	Identify schemes early on where specialist materials may be required and prioritise design.	3	2	50	6		25,000	50,000	75,000	12,500	25,000	37,500	
	Financial processes															
07.04	Extraordinary material/fuel price increase/fluctuation	All parties		Potential mitigation unclear at present.	1	1	10	1		500	2,500	5,000	50	250	500	
07.05	Volatility in Insurance market resulting in unexpectedly high premiums	All parties		Potential mitigation unclear at present	1	1	10	1		500	2,500	5,000	50	250	500	

P50
Totals 242,550 492,250 743,000