

Risk Register for Cumberland Rd Stabilisation Project

Rev: V2
 Scheme: Cumberland Rd Stabilisation Project
 Milestone: Construction Phase
 Works Cost: £5,175,880.61

Sep-20

1 = Almost Certain	95.0%
2 = Likely	50.0%
3 = Possible	25.0%
4 = Unlikely	12.5%
5 = Rare	5.0%

Note: mean cost = av cost x likelihood
 Note: mean delay = likely x delay cost x likelihood

QRA Ref	Description	Category	Mitigation owner	Support	Before Treatment					Risk Approach (Avoid, Accept, Reduce, Transfer)					After Treatment - Residual Risk					DATE OF CLOSURE	DATE OF UPDATE	STATUS	Mean Risk (£k)		OBC - QRA Workshop Notes					
					Cost	Time	Perf	Rating	RAG	Treatment Type	Mitigation Measures	Cost	Time	Perf	Rating	RAG	Impact	Prob.	Likelihood				Min (£k)	Max (£k)		Likely (£k)	Min (mths)	Max (mths)	Likely (mths)	Delay Cost (per month)
Risk 001	Covid -19. Unavailability of resources, primarily people but also Plant and Materials or Equipment.	CONSTRUCTION	BCC	Jacobs	H	H	M	H	8.00	Accept	Social distancing measures implemented on site. Early procurement of materials	H	H	M	H	8.00		04/05/20	Open	30.0%	5	500	100	0	6	3	110	61	99	Unknown territory. £160k is a realistic figure.
Risk 002	Cost and Delay of design changes from Tender to construction due to slip.	CONSTRUCTION	DAY 1 CE - BCC	Jacobs	H	H	H	H	9.00	Accept	Risk relised	H	H	H	H	9.00		03/09/20	Open	100.0%	2000	2400	2200	3	9	6	110	2200	660	Design changes due to slip.
Risk 003	Risk of Flooding of the site and/or site compound area.	CONSTRUCTION	CD1-BCC	Jacobs/AG C	H	M	H	H	8.00	Reduce	Effective planning, early planning	M	M	H	M	4.67		04/05/20	Open	10.0%	100	500	250	0.5	2	1	110	28	13	Contract Data Part 1 Risks. Risk is 105, ie. 2 years at 1 in 20.
Risk 004	Cost and delay of Flood Risks to Cumberland Rd	CONSTRUCTION	CD1-BCC	Jacobs/AG C	H	M	H	H	8.00	Reduce	Effective planning, early planning	M	M	H	M	4.67		04/05/20	Open	5.0%	50	100	75	0.25	1	0.5	110	4	3	Contract Data Part 1 Risks. Risk is reduced due to TW slab being higher than flood wall.
Risk 005	Unstable ground conditions/collapse of river retaining wall.	DESIGN / CONSTRUCTION	CD1-BCC	Jacobs/AG C	H	M	H	H	8.00	Reduce	Effective planning, early planning	M	M	H	M	4.67		04/05/20	Open	10.0%	200	1000	350	0.5	3	1	110	52	17	Contract Data Part 1 Risks. Risk of further collapse.
Risk 006	Additional cost and delay due to UXO	CONSTRUCTION	CD1-BCC	Jacobs	M	L	L	M	2.67	Avoid	Ground investigations, watching brief	M	L	L	L	1.33		04/05/20	Open	5.0%	50	100	75	0.25	1	0.5	110	4	3	Contract Data Part 1 Risks. Initial discovery would be treated as an emergency. Possible delay to survey wider site and give all clear to proceed.
Risk 007	Delay in obtaining an Environment Permit for the Temporary Works.	CONSTRUCTION	CD1-BCC	Jacobs	H	M	H	M	5.33	Accept	Early planning and frequent communication	M	M	H	M	4.67		04/05/20	Open	25.0%	25	100	50	0.5	2	1	110	15	32	Contract Data Part 1 Risks.
Risk 008	Cost and delay due to contractors redesign of Temporary Works for failed slip area.	DESIGN / CONSTRUCTION	DAY 1 CE - BCC	Jacobs	H	H	M	H	8.00	Accept	Risk relised	H	H	H	H	9.00		03/09/20	Open	50.0%	200	400	300	0.5	2	1	110	150	64	Design changes due to slip. Financial Impact figures reduced as some costs are included in Risk 002.
Risk 009	Cost and delay of procurement and construction of temporary works due to failed slip area	CONSTRUCTION	BCC	Jacobs	H	H	M	M	5.33	Reduce	Early negotiations, and design solutions to reduce the likelihood of this	H	H	M	L	2.67		04/05/20	Open	15.0%	10	100	50	1	3	3	110	8	39	Design changes due to slip.
Risk 010	Risks of structural failures of neighbouring properties from piling works	CONSTRUCTION	BCC	Jacobs	H	L	M	M	4.00	Avoid	Plan early	L	H	M	L	2.00		04/05/20	Open	0.0%	0	0	0	0	0	0	0	0	0	Contractors risk. Cost and delay removed.
Risk 011	Cost and delay due of statutory undertakers diversions work	COSTS	BCC	Jacobs	H	M	L	H	6.00	Reduce	Early planning and frequent communication, carry out surveys and investigations early	L	M	L	H	4.00		04/05/20	Open	10.0%	200	500	300	3	6	4	110	33	48	Delay Impact reduced.
Risk 012	Risk of omissions in contract(s) or design changes causing change to contract causes delay and additional costs	DESSIGN	BCC	Jacobs	H	H	L	H	7.00	Accept	Accept and manage	H	H	L	H	7.00		04/05/20	Open	25.0%	100	300	200	1	6	3	110	50	92	Delay Impact reduced.
Risk 013	Consents required above those applied for/obtained, inability to meet the conditions resulting in delay or cost increase.	DESIGN / CONSTRUCTION	BCC	Jacobs	M	M	L	H	5.00	Reduce	Ensure regular updates with relevant stakeholders as the construction progresses, early ID of consents	L	M	L	H	4		04/05/20	Open	10.0%	15	50	25	2	6	3	110	3	40	
Risk 014	Potential for contaminated land causes additional costs for mitigation	ENVIRONMENT	BCC	Jacobs	H	M	L	M	4.00	Reduce	Environmental surveys	H	L	L	M	3.33		04/05/20	Open	10.0%	10	1000	500	0	1	0.5	110	50	6	Railway and Chocolate Path are built on made ground. Risk of contamination.
Risk 015	Noise pollution/air quality impacts affect sensitive receptors leading to additional cost of mitigatory measures, e.g. additional noise barriers	ENVIRONMENT	BCC	Jacobs	H	M	L	M	4.00	Reduce	Environmental surveys	H	L	L	M	3.33		04/05/20	Open	0.0%	0	0	0	0	0	0	0	0	0	Contractors risk. Cost and delay removed.
Risk 016	Unforeseen ground conditions result in delay and cost increase.	CONSTRUCTION	BCC	Jacobs	H	H	M	L	2.67	Reduce	Environmental surveys	H	H	M	L	2.67		04/05/20	Open	20.0%	30	1000	500	1	6	3	110	102	73	Max Delay Impact reduced.
Risk 017	Protected species causes delay and additional costs	ENVIRONMENT	BCC	Jacobs	M	M	L	M	3.33	Reduce	Environmental surveys	M	H	L	M	4.00		04/05/20	Open	10.0%	50	200	100	1	3	2	110	12	22	Nesting birds are main risk, but once piling starts, birds are unlikely to nest here.
Risk 018	Delay due to other works in the area	CONSTRUCTION	BCC	Jacobs	L	L	M	M	2.67	Reduce	Appropriate governance arrangements and coordination with other projects, early	L	L	L	L	1.00		04/05/20	Open	5.0%	1	10	5	0	0	0	110	0	0	
Risk 019	Protestors on site preventing works from going ahead and causing delays and/or bad publicity	CONSTRUCTION	BCC	Jacobs	H	H	L	M	4.67	Reduce	Public informed of progress	H	H	L	L	2.333		04/05/20	Open	5.0%	0	500	250	0	3	1	110	13	7	Risk is possible. Objections to traffic management could result in protest. Max Delay Impact reduced.
Risk 020	Risks around interfaces with general public	CONSTRUCTION	BCC	Jacobs	L	M	L	M	2.67	Reduce	Ensure site is secure with good signage and information on construction publicly	L	M	L	M	2.67		04/05/20	Open	12.5%	0	50	25	1	3	2	110	3	28	
Risk 021	Risks due to restrictions on access, working methods and plant (e.g. working hours, network management requirements, other restrictions), cause additional costs and delay	CONSTRUCTION	BCC	Jacobs	M	M	L	M	3.33	Reduce	Early planning and frequent communication	M	M	L	L	1.67		04/05/20	Open	12.5%	5	100	50	1	6	3	110	6	46	
Risk 022	Extreme weather events cause cost and delay to project	CONSTRUCTION	BCC	Jacobs	L	L	L	L	1.00	Reduce	Accept and manage	L	L	L	L	1.00		04/05/20	Open	15.0%	5	200	100	0.25	1	0.5	110	15	10	Flood is main weather risk, but wind, rain, cold, snow could affect piling, concrete pours, waterproofing etc.
Risk 023	Risk of discovering unknown live or abandoned utilities, including clashes between utilities	CONSTRUCTION	BCC	Jacobs	H	L	L	M	3.33	Reduce	Undertake statutory inquiries, GPR, trial pits, CAT scan by contractor	H	L	L	M	3.33		04/05/20	Open	12.5%	50	1000	250	0.25	2	1	110	54	15	
Risk 024	Noise, dust, vibration and other disturbances to public and other contractors working in the vicinity cause additional cost and delay	CONSTRUCTION	BCC	Jacobs	L	L	L	M	2.00	Reduce	Coordination meetings with Contractors working in the vicinity and BCC	L	L	L	L	1.00		04/05/20	Open	0.0%	0	0	0	0	0	0	0	0	0	Contractors risk. Cost and delay removed.
Risk 025	Risk of missing Traffic Management Act booking for works and risk of late issue of TTROs by BCC, casue delay to prpogramme	CONSTRUCTION	BCC	Jacobs	L	L	L	M	2.00	Avoid	Plan early with contractor	L	L	L	L	1		04/05/20	Open	5.0%	1	10	5	0	1	0.5	110	0	3	
Risk 026	Stage 3 safety audits (as built) find issues causing deay and costs	CONSTRUCTION	BCC	Jacobs	M	L	L	L	1.33	Accept	Accept and manage	M	L	L	L	1.333		04/05/20	Open	12.5%	40	100	60	0	1	0.5	110	8	7	
Risk 027	Principle contractor goes out of business resulting in increase in costs & delay to programme	CONSTRUCTION	BCC	Jacobs	L	H	M	L	2.00	Accept	Accept and manage. Parent Guaranteee & Performance Bond in contract	L	H	M	L	2		04/05/20	Open	0.0%	0	0	0	0	0	0	0	0	0	Performance Bond should cover costs
Risk 028	Local Authority instruction to change Traffic Management arrangements	CONSTRUCTION	BCC	Jacobs	M	L	L	H	4.00	Accept	Relised	M	L	L	H	4		04/05/20	Open	100.0%	4	120	60	0	0	0	0	61	0	Already happened.

