

M55 Heyhouses Link Road Risk Assessment Guideline (RAG) 20th Feb 2019) Constrained - with KDL land only

Likelihood	Risk Score				
Very High	5	10	15	20	25
High	4	8	12	16	20
Medium	3	6	9	12	15
Low	2	4	6	8	10
Very Low	1	2	3	4	5
	1	2	3	4	5
	Very Low	Low	Medium	High	Very High
	Impact				

KEY:

Risk Totals	Cost of Risk/Threat	
Low Risk/Threat	£	1,165,000
Medium Risk/Threat	£	3,076,000
High Risk/Threat	£	1,117,500
Total risks	£	5,358,500

Risk ID	Description	Date	Initial Risk Probability/Impact	Cost Impact	Programme Impact	Owner Action	Action/Mitigation/Progress	Date (update)	Mitigated Risk Probability Currently	Queries
1	Delays in agreeing solution with HE and Blackpool on gantries/signing and its funding	Feb-17	10	£ 140,000	Delays start	LCC (Neil Stevens)	Update programme, additional requirement, in principle agreement made with Steve Smith that Blackpool with fund sign changes within their network. Draft agreement with HE being prepared, WIP. Budget allocation made. Blackpool BC willingnes to pay unclear.	19th Feb 2019	6	Update on legal position
2	Delays in receiving the consents for structures - EA & AIP	Feb-17	2	£ -	Delays start	LCC (Paul Freeman)	Update programme. Consents obtained from EA & LCC.	24th July 2018	1	
3										
4	Delays in varying planning conditions as a result of reaching agreement with EA current working restrictions	Feb-17	9		Delays start, changes project duration, influences construction approach	LCC (Neil Stevens)	Update programme and limit project delays. TEP have agreement with Nat Engl over reduced disruption from FCA land issues. Has this been translated into contract docs? 2m fence required. Check water vole conditions.	24th July 2018	9	
5	Delays in availability of specialist items (pre-cast structures)		6	£ 50,000	None if ordered in advance, potential delays during construction	Contractor	Update programme and limit project delays	19th Jan 2019	6	
6	Delays in awarding tender result in estimated unit costs being out of date	Feb-17	6	£ 250,000	Delays start	LCC Procurement	Update programme and limit project delays. 120 day acceptance period.	24th July 2018	6	
7	Further changes to the drainage solution	Feb-17	8	£ 264,000	Delays start	LCC/WA	Additional construction costs to deliver attenuation (drainage) storage. Drainage solution changed. Being checked for storage / discharge etc.	19th Jan 2019	6	Is this resolved within the scheme redesign
8	Electric costs (diversions/protection) exceed KDL estimate	Feb-17	20	£ 122,500	Possible start/during construction delays	LCC/KDL/UU	Further mitigation required, possible update of programme (25% contingency), localised works delivered by the contractor (10%). C4 outstanding. Awaiting ENWL comments.	14th Jan 2019	20	
9	BT costs exceed the paid C4 Detail Cost	Feb-17	25	£ 165,000	Possible start/during construction delays	LCC	Further mitigation required, possible update of programme (15% contingency). C4 £1.295M. Fuel Solutions reviewing. Chambers and ducts by scheme contractor.	14th Jan 2019	16	Has this been reduced further
10	Agreements with utilities delays programme	Feb-17	10		Delays could impact on start	Fuel solutions	Update programme and limit project delays. Fuel Solutions will consider.	10th Jan 2019	6	
11	Utilities fail to turn up on time or work to programme.	Feb-17	20	£ 100,000	Possible start/during construction delays	BT/UU/LCC/contractor	Consider whether to detail utility works, programme etc into contract or get advance works carried out. Get Fuel Solutions view on need for extent of works. Can NATS station be mothballed?	10th Jan 2019	10	
12	Delivery of new road section within the constrained existing highway boundary (width, utilities, poor ground conditions, excavating below water table), results in additional time/materials/plant/change in construction approach	Feb-17	25	£ 100,000	Delays could impact on programme	Contractor/LCC	Contractor risk not client risk providing SI provided to contractor by WA notwithstanding contractor CE's, would influence tender price	19th Feb 2019	9	
13	Working constraints on Whitehills roundabout	Feb-17	12		Influences management on the local network and possible delays to deliveries during peak periods	Contractor			12	
14	Moss sluice and branch drain, significant working constraints (width, utilities, poor ground conditions, excavation below water table)	Feb-17	16	£ 60,000	Some construction delays due to abortive works	Contractor	Contractor risk, 10% increase in cost to mitigate (exclude structure costs) against typical rate included in B of Q		16	has this now become at least amber
15	Influence of drainage on ground water protection zones	Feb-17	3	£ 40,000	Drainage strategy negates problem	Contractor	Additional materials required and the use of a lining	13th July	3	
16	Ground settlement takes longer than anticipated	Feb-17	3		Delays programme and road construction	Contractor	Programme to be adjusted		3	
17	Surcharge requires additional materials	Feb-17	9	£ 200,000	Delays as a result of the need for additional materials	Contractor	5% increase in materials and compaction		9	
18	Agreements required with adjacent land owners to satisfy access requirements, temporary/permanent easements, or specific requirements for NATS	Feb-17	16	£ 200,000	if known in advance, no programme delay	Contractor/LCC	Alternative construction method required. BT to commence discussions with NATS on service diversion, property services are engaged regarding all land matters. Design taken onboard requirements, with exception of Jacson Land, other risk reg item. Consideration of report on title. Risk reduced form 16	19th Feb 2019	6	
19	Poor weather conditions results in project delays	Feb-17	12		Influences construction assume 3 month overall project delay	Contractor/LCC	Assumed 3 month delay		12	
20	Poor weather conditions results in greater materials on haul road	Feb-17	20	£ 100,000	Limited programme delay until haul road is usable	Contractor/LCC	Observations highlight waterlogged land where haul road will be located 50% increase in materials	6th Feb 2018	20	Because of mitigation should this reduce risk
21	Poor weather conditions requires additional water pumping or increases duration of water pumping or modifications to watercourse diversions	Feb-17	15	£ 100,000	Poor weather could slow down construction and incur programme delays	Contractor/LCC	Use of additional pumping equipment or for extended period of time, Contractor risk not client risk providing SI provided to contractor by WA notwithstanding contractor CE's	25th July	15	
22	Poor ground conditions requires additional temporary haul roads to deliver structures, additional equipment, plant or materials, as well as hire additional plant	Feb-17	16	£ 50,000	Poor weather could slow down construction and incur programme delays	Contractor/LCC	Construct additional, haul road, use additional materials and plant. Haul road is included in site set up		16	
23	Imported materials cannot be provided by nearest quarry	Feb-17	9	£ 180,000	No programme impact if known in advance	Contractor/LCC	5% premium of imported materials		9	
24	Imported material cannot be provided at rate required resulting in delay	Feb-17	9	£ 60,000	Construction delays,	Contractor	Contractor risk, not client risk	19th Feb 2019	6	
25	Excavated earth (with additives) is not suitable for reuse, or excavation in area of drainage solution	Feb-17	9	£ 750,000	Some programme delay as additional handling is required and requires Kensington support. additional imported material required and removal from the site	Contractor/LCC	Addition 18% of materials need to be imported and compacted. Unsuitable earth to be removed and usable on the Kensington site	19th Feb 2019	6	
26	Safety audits require additional work	Feb-17	4	£ 100,000	Post construction	Contractor/LCC	Additional road markings, signing and other minor changes, cost reduced as a result of design been completed	19th Feb 2019	4	
27	Low performance of (sub contractors)	Feb-17	4	£ 100,000	Some programme delay	Contractor/LCC	Responsibility of main contractor, additional contractors or replace.	25th July	4	
28	Further accommodation works required	Feb-17	4	£ 250,000	Could delay start of construction, requires KDL support, at no cost	Contractor/LCC	Fencing, car parking, drainage, temporary ponds	25th July	4	
29	Further design support required during contract	Feb-17	9	£ 100,000	None, if known in advance	Contractor/LCC	Have design consultants available when required, complex on site drainage issues	25th July	4	

30	Part 1 claims exceeding budget	Feb-17	4	£ 375,000	Post construction	Contractor/LCC	Property services conservative estimate is sum of estimate and risk	22nd Nov	4
31	Delay in EA approval, contractor temporary proposal	Feb-17	5		Could delay in securing funds and subsequently project start	Contractor/LCC	contractor responsibility	25th July	5
32	Local highway changes exceeding that which was considered as a result of road reclassification	Feb-17	8	£ 90,000	None, for link road construction	Contractor/LCC	Deliver further changes to corridor, as part of wider scheme and road reclassification	18th July 2018	8
33	Additional works to satisfy consents and constraint issues	Feb-17	9	£ 350,000	Delays to start of scheme, underestimation in estimate	Contractor/LCC	Uplift structures costs, constraint issues, consents in place, transfer information to contractor from WA	19th Feb 2019	6
34	Business cases for funds are not successful. Risk of clawback of the LEP contribution as a result of delay in housing delivery.	Feb-17	10		Not apportioned at this stage	Contractor/LCC	The project does not proceed as planned until other funding sources are secured	25th July	10
Outcome of the Risk Assessment Workshop (6th September 2017)									
35	HE (HCA) funding decision will influence the HE gap funding. (HE capped at £5m); risk if one fails both fail	Jan-19	10			HE (Dave Wild)	Very high impact scheme does not progress until other funding is secured now all funding in place apart from LEP and LCC gap funding	25th July	5
36	Funding timetable not adhered to; lose funding	Sep-17	10			LCC (Neil Stevens)	Very high impact scheme does not progress until other funding is secured LEP funding is risk due to timetable of programme slipping	10th Jan 2019	8
37	Funding gap met by LCC - risks not accurately managed	Sep-17	6		Report to LCC Cabinet for final sign off budget shortfall	LCC (Neil Stevens)	Places addition funding risks on LCC	10th Jan 2019	6
38	Delay due to poor communication between project stakeholders	Sep-17	2			LCC (Neil Stevens)	Ensure communication is maintained with all stakeholders		2
39	Delay due to discharging of planning conditions. (eg restricted working times, ecological constraints)	Sep-17	6			Neil Stevens, KDL (WA, TEP)	Ensure that programme is up to date. Get a recap on outstanding issues, most dealt with. Ensure discharged conditions are met in latest state of drawings.	25th July	6
40	Changes to land requirements or easements impact on deliverability and scheme maintenance	Sep-17	20	£0	Could impact start on tender documents and construction approach	KDL	Due diligence is currently being undertaken, red line of approved application, KDL land (and Oyston estates) and easements. Contract will not be awarded until all legal land matters are resolved	10-Jan-19	8
41	Proximity of the scheme to fracking sites and the potential impact of protester action	Sep-17	1			LCC Comms			1
42		Sep-17							
43		Sep-17							
44	Accommodation works scope not defined	Sep-17	6			LCC (Paul Freeman)	WA to progress as part of documents, design service to check		6
45	Additional LCC supervision contract extension	Sep-17	9	450,000	Impacts on completion	LCC	Uplift in supervision cost, as a consequence of extension to works on a complex project	25th July	9
46	Additional Land take may be required to construct the scheme	Sep-17	6		Alan Jackson purchase to be completed, KDL lead.	KDL/LCC	See 18, property services are engaged, land completed awaiting written confirmation from KDL/land reg	20th Feb 2019	2
47	Confidence in the works information	Sep-17	4			WA LCC	LCC have reviewed works information and provided comments back to WA	Nov-17	4
48	New signs can't be accommodated on the existing M55 gantries	Sep-17	4			LCC (Neil Stevens)	In principle agreement made with HE, legal agreement being progressed with fixed contribution to HE to deliver all signing changes	25th July	4
	Minimum bridleway specifications are not met by the current design								
	Bridleway user groups object to changes in bridleways								
	Permanent diversion of bridleways not following correct legal order - timing, min 6 months to go through								
	Temp closures of PROW and highway - 6 week notice for PROW team plus legal advertising (duration uncertain)								
	Uncontrolled crossing - bridleways users might object								
	Protection of NATS services - can the current design be built								
	Haul road methodology not included in the existing mitigation / habitat assessments								
	NATS sensitivity - access/communications/power/private supplies								
	Chainage 200 to 353 - Footway runs off on to private land								
	Drainage design and future maintenance - options to be finalised, currently with LCC for review.								
	Specific agreements with Blacpool airport/Civil Aviation Authority								
	Maintaining access to adjacent land and properties during construction								
	Programme time for predicted settlement to occur and level of confidence								
	Imported fill volume and impact on the wider road network of deliveries (routeing)								
	contractor profit margins higher than expected at 5-10% per item								
	Delays in reaching land deal with Oyston estates.								
	Condition of the existing Wild Lane								

68	Archaeology risk	Sep-17	4			KDL (Peter Liversidge)	Suggestion - could this archaeology be dealt with in advance of construction to mitigate risk of delay?		4
69	Statutory undertaker diversions and methodology agreement	Sep-17	9			WA	C4 estimates being sought for BT - what about other services. What has been discussed about restrictions to working methods, if anything?	6th Feb 2018	9
70	Ecological mitigation conditions need discharging in advance: residual issued to be clearly included within WI	Sep-17	4			KDL/WA	Water vole treatment. TEP have produced a Consn Man Plan - get included in contract docs.	24th July 2018	4
71	Existing Ecological surveys have a finite life - 2 to 3 years - risk of missing a new survey within season	Sep-17	4			KDL/TEP/WA	KDL to ensure that surveys are kept up-to-date (PL to provide update)	24th July 2018	4
72	Risk of delay due to protected species (breeding birds/water voles/bats)	Sep-17	4			KDL/LCC/TEP/WA	Programme to be modified as not to impact on protected species (PL to provide update)	24th July 2018	4
73	Restriction on working times and areas - any changes may require an updated habitat regs assessment & may impact programme	Sep-17	4			WA	Ensure restriction clear within WI		4
74	May be timing restrictions on sluice / drainage works (fish, spawning etc.)	Sep-17	2			WA	Confirm with EA/ advice from S Manchester		2
75	Permitted development rights will not apply where SPA (Ribble Estuary) birds or feeding areas are affected.	Sep-17	4			WA/ PL	Is there likely to be any requirement to seek amendments to planning that would normally fall under PD? Highlight and review with planners now. Jonathan H's view is that development should be confined to within planning boundary and if so all OK.	24th July 2018	4
76	Accuracy of service locations	Sep-17	2			KDL/LCC/WA	Provide confidence and confirmation for design (trial holes, GPR surveys etc)		2
77	Accuracy of BoQ's for tendering	Sep-17	6			WA/LCC	Adhoc check to be done by LCC design service, ongoing	24th July 2018	6
78	2m+ dig out - methodology for excavation support/utilities interface/high water levels/adjacent land	Sep-17	4			WA	Outline proposal to confirm feasibility of design.	24th July 2018	4
79	Formal adoption of footway cycleway will determine who will maintain it and to what standard	Sep-17	1			LCC (Paul Freeman)	Wild Lane to remain adopted and maintainable at public expense, other provision on the route of the link road will be within the highway boundary		1
80	Time line of getting asset handed over	Sep-17	1			LCC (Paul Binks)	To be provided during construction, programme to be monitored		1
81	Have whole life cost been considered in current design	Sep-17	2			LCC (Neil Stevens)	Design to satisfy modern standards, on site management to ensure quality of construction is delivered		2
83	Exceptional weather event	Sep-17	6			LCC (Neil Stevens)	Delay in programme, additional costs, possible compensation event if original contract documents do not accurately, costs included in above items	25th July	6
84	Maintenance costs	Sep-17	1			LCC (Neil Stevens/ Paul Binks)	Modern design specification should ensure that maintenance is kept to a minimum		1
85	Bt solution requires KDL support to deliver infrastructure through their land	Sep-17	4	£0		KDL/LCC/BT/NA TS	Agreement required with KDL	16th Feb 2018	4
87	Delays in planning application approval	Sep-17	4		Delay to scheme start		scheme cannot progress until approval is granted	25th July	4
88	Tendering risks, delays to scheme delivery	Sep-17	9			LCC Estates & Legal in conjunctin with KDL legal	Dialogue between legal teams is ongoing		4
89	Planning conditions need to be added to Works Information to ensure contractor is aware of constraints	Feb-18	4		Delays to scheme start	LCC/TEP	This is to be included in contract documents		1
90	Scheme has progressed to investment decision HCA/ KDL loan	Feb-18	9			LCC/LEP	Once contract is signed		9
91	Business case provides review of of benefits to be realised by housing development, KDLbusiness and market conditions	Jan-19	9		Clawback issues	LCC	Business case has been further reviewed		9
92	Ensure input into Masterplanning process Blackpool Enterprise EZ	Feb-18	9			LCC	Blackpool EZ representative now attend regular meeting		9
93	Liason between respective highway authorities to ensure coordination	Feb-18	9			LCC/Contractor			9
94	Unexploded Bomb	Oct-18	20			LCC/KDL	Investigations to resolve this issue and make safe		4
95	s106 renegotiated with Kensington	Dec-18	20	£ 120,000		KDL/FBC/LCC	Agreement principle reached on renegotiation, linked to other s106 contributions and payments, is subject to land and funding being made available end March 2019	Feb-19	9
96	Kensington seeking further concessions	Jan-19	20			KDL/FBC/LCC	Legal documents to limit this and drawn up and final signature obtained from Kensington		16
97	Fylde Cabinet fail to approve £1m for scheme	Mar-19	20			LCC	Legal documents drawn up and final cabinet sign off obtained from Fylde		8

£ 5,358,500