

Risk Rank	Risk No.	Category	Risk Name	Risk Description	Consequence	Pre-Mitigation				Proposed Mitigation	Post Mitigation						Open / Closed	Date reviewed			
						Probability	Impact				Risk Outcome Pre-mitigation	Comments	Owner	Responsible Manager	Probability	Impact			Risk Outcome Post-mitigation		
							Min	ML	Max							Min				ML	Max
1	R007	Legal	FoE16: An objection to any Stopping-up Order, Side Road Order, or other Order results in a Public Inquiry.	An objection to any Stopping-up Order, Side Road Order, or other Order results in a Public Inquiry.	Public enquiry delays project. Increased cost and programme delays.	90%	£ 1,550,000	£ 2,200,000	£ 3,500,000	0	Early engagement with land owners, engage with public and CCAF over Public Rights of way and highway changes. Meeting with Mark (mitchelmores) Public Rights of Way Team and CCAF team prior to publication of Side road orders. Check with other parishes that the Prows dont cross boundaries	ML outcome: 1 year delay Allowance for prices to be behind on inflation 1 year inflation - allowed for best case 2%, most likely at 3% and WC at 5% (of £84m construction costs) Note: only one risk that pushes project into delay in pre-construction will result in the shift of construction programme by 1 year. Therefore this risk probability captures the combined probability of the associated risks. funding to be sought from other CC workstreams in the event that we have to carryover a year	Client	Capital Project	95%	£ 1,680,000	£ 2,520,000	£ 4,200,000	0	Open	25/05/2020
2	R022	Client	OBC - R005: There is a risk that the engineering quality of the cut material may not be adequate for fill purposes.	There is a risk that the engineering quality of the cut material may not be adequate for fill purpose.	Increased cost and programme delays.	90%	£ 2,000,000	£ 2,500,000	£ 3,000,000	0	GI surveys and analysis to allow quantification of suitable material for reuse. Transfer risk to contractor for material storage to ensure not degraded before reused within the works.	Quality of excavated material not as expected say 20% lost on a 60/40 split - i.e. goes to a 50/50 split	Client	Mace	50%	£ 50,000	£ 150,000	£ 1,500,000	0	Open	25/05/2020
3	R027	Client	OBC - R020: China Clays Tips may need structural toe support.	China Clays Tips may need structural toe support.	Increased cost and programme delays.	30%	£ 1,000,000	£ 2,000,000	£ 3,000,000	0	Design out where possible. Allow for gabions if required.	No Allowance in est. - assume gabions required along toe 75m @£6000/m.	Client	Design Team	90%	£ 225,000	£ 450,000	£ 500,000	0	Open	25/05/2020
4	R028	Client	OBC - R021: Old mine pits/shafts may be encountered.	Old mine pits/shafts may be encountered.	Increased cost and programme delays.	20%	£ 400,000	£ 600,000	£ 800,000	0	GPR survey (currently being undertaken). Design out where possible.	No allowance in estimate - assume max 20 (recorded and unrecorded) events at £ 40k each.	Client	Mace	50%	£ 40,000	£ 200,000	£ 800,000	0	Open	25/05/2020
5	R032	Financial	OBC - R036: Estimates for stats diversion/protection costs change as scheme develops (Gas Main and Water Main known).	Estimates for stats diversion/protection costs may increase as scheme develops (Gas Main and Water Main known).	Increased cost and programme delays.	100%	£ 180,000	£ 260,000	£ 300,000	0	Transfer of responsibility Stats to contractor (All stats, except possibly high pressure gas and overhead cables).	gas and water protection/diversion. - opportunity and risk	Client	Capital Project	95%	£ 150,000	£ 250,000	£ 500,000	0	Open	25/05/2020
6	R029	Client	Additional drainage required at Stenalees R/A.	Attenuation tank may be required at Stenalees R/A.	Increased cost and programme delays.	40%	£ 30,000	£ 40,000	£ 50,000	0	Mitigate impact through detailed design. - Use of attenuation tanks	Cost of attenuation tank on roundabout is approximately £50k - required to manage discharge	Client	Design Team	90%	£ 30,000	£ 50,000	£ 750,000	0	Open	25/05/2020
7	R044	Construct	OBC - R079: Fin drains may be required.	Drainage design assumptions incorrect.	Fin drains required. Increased cost and programme delays.	95%	£ 200,000	£ 480,000	£ 750,000	0	Review of design	Missing off Estimate is Fin drains, where filter drains aren't present. Worst case £450,000 (adj)	Client	Design Team	90%	£ 50,000	£ 200,000	£ 450,000	0	Open	25/05/2020
8	R047	Third Party	Stakeholders (Local Businesses & Landowners) - increased requests for compensation and accommodation works.	Stakeholders (Local Businesses & Landowners) - increased requests for compensation and accommodation works.	Increased cost and programme delays.	90%	£ 50,000	£ 250,000	£ 500,000	0	Early, robust agreements with clear scope of works and condition surveys undertaken and documented where appropriate. Potential transfer of risk for additional works to contractor.	Low impact	Client	Mace	75%	£ 100,000	£ 200,000	£ 300,000	0	Open	25/05/2020
9	R021	Financial	OBC - R004: The affected property owners demand more than the expected market price for their properties.	The affected property owners demand more than the expected market price for their properties	Increased cost and programme delays.	100%	£ 150,000	£ 250,000	£ 375,000	0	Early negotiations to reduce impact. Engagement with agents, provision of independent valuation, and incentives to land agents being sought through CC legal.	Current CPO land costs at £3.75m - risk is how much more than this. 10% increase = £375k. In worst case CPO required.	Client	Capital Project	50%	£ 100,000	£ 150,000	£ 200,000	0	Open	25/05/2020
10	R045	Construct	OBC - R080: May encounter land drainage cut by the road construction.	Encountering land drainage cut by the road construction.	Increased cost and programme delays.	50%	£ 25,000	£ 50,000	£ 250,000	0	Surveys / review of design	Allowance for off-route land drainage, extra swales and ditches, etc.	Client	Design Team	50%	£ 50,000	£ 100,000	£ 250,000	0	Open	25/05/2020
11	R040	Site	OBC - R058: Discovery of unknown buried archaeology or heritage assets.	Discovery of unknown buried archaeology or heritage assets.	Increased cost and programme delays.	90%	£ 20,000	£ 120,000	£ 250,000	0	GPR & Geophysical survey Engagement with Cornwall's heritage team. Archaeological watching brief to be undertaken.	Allow costs for either moving, or protecting £120,000 - to be confirmed by survey.	Client	Mace	80%	£ 20,000	£ 100,000	£ 250,000	0	Open	25/05/2020
12	R043	Construct	OBC - R076: The Project may encounter contaminated fauna (e.g. Japanese knotweed) and will be required to remove as a hazardous waste.	Contaminated fauna encountered (e.g. Japanese knotweed).	Hazardous waste removal required. Increased cost and programme delays.	95%	£ 120,000	£ 132,000	£ 150,000	0	Surveys and review of quantum in estimate. Maximise tanking onsite.	Of the 135 HA assume 1% covered by Japanese Knotweed at £60 per tonne to dispose of = £81k	Client	Design Team	90%	£ 10,000	£ 50,000	£ 132,000	0	Open	25/05/2020
13	R030	Client	OBC - R026: NORMs	NORMs	Increased cost and programme delays.	30%	£ 60,000	£ 90,000	£ 150,000	0	GPR survey (currently being undertaken). Samples can be taken if required. Review of contract conditions to highlight to contractor. Ensure contractor H&S RAMS suitable.	Allow £3k per event and assumptions is that we could have up to 30 events.	Client	Design Team	90%	£ 3,000	£ 15,000	£ 90,000	0	Open	25/05/2020
14	R011	Legal	FoE03: Additional Protected species found requiring advance works to mitigate impacts.	Protected species found.	Additional works required to accommodate / protect / relocate. Increased cost and programme delays.	25%	£ 18,750	£ 37,500	£ 56,250	0	Monitor results of surveys. Establish mitigation and develop advance work proposals with Statutory Consultees and others.	To be reviewed against Base estimate for OBC - Risk Note - To be split out for species found post tender	Client	Mace	5%	£ 230,000	£ 460,000	£ 1,380,000	0	Open	25/05/2020
15	R012	Client	FoE04: Geotechnical conditions worse than anticipated.	Geotechnical conditions worse than anticipated.	Increased cost for removal of unsuitable material, worst case, ground improvement works and redesign of structures. Increased cost and programme delays.	25%	£ 50,000	£ 100,000	£ 150,000	0	Additional surveys / GI investigation.	Gain expert insight into impacts and mitigation options. Discussions with Imerys underway.	Client	Mace	10%	£ 330,000	£ 710,000	£ 1,880,000	0	Open	25/05/2020
16	R013	Client	FoE08: Utilities WPD delay in re-routing strategic electricity supply.	Utilities WPD delay in re-routing strategic electricity supply.	Impact to construction programme. Increased cost and programme delays.	40%	£ 250,000	£ 645,000	£ 5,805,000	0	Early engagement to effect change. Mitigation not possible until planning. To be programmed so that project team procures WPD ASAP once planning received needs to be added to HS file To be added to construction WI as constraint	18months lead in time for WPD. Note: Not expected to be critical activity at start of construction	Client	Mace	15%	£ -	£ 200,000	£ 1,000,000	0	Open	25/05/2020
17	R014	Client	FoE10: Land - Access for surveys refused or delayed.	Land - Access for surveys refused or delayed.	Increased cost and programme delays.	20%	£ 100,000	£ 200,000	£ 250,000	0	Highways Act notices served on landowners. Cormac engagement with Landowners.		Client	Contractor	25%	£ 50,000	£ 100,000	£ 300,000	0	Open	25/05/2020
18	R016	Client	FoE12: Construction Programme - programme uncertainty.	Programme - programme uncertainty.	Increased cost and programme delays.	35%	£ 1,935,000	£ 1,935,000	£ 3,870,000	0	Review project programme as part of Options Appraisal stage.		Client	Mace	50%	£ 1,380,000	£ 1,483,500	£ 5,934,000	0	Open	25/05/2020
19	R017	Client	FoE13: Contractor's design refinements differ significantly from the CSL outline design, requiring significant technical review over a variety of aspects.	Contractor's design refinements differ significantly from the CSL outline design, requiring significant technical review over a variety of aspects.	Increased cost and programme delays.	15%	£ 50,000	£ 100,000	£ 150,000	0	Have appropriately skilled engineers and others available for design reviews and tender assessment stage. Ensure adequate response times allowed in contract. If and when required, ensure process in place for Employer decisions to be efficiently provided.	Low impact	Client	Mace	10%	£ -	£ 20,000	£ 40,000	0	Open	25/05/2020
20	R018	Client	FoE14: Contractor's design refinements require changes to land required.	Contractor's design refinements require changes to land required.	Delay in securing additional land. Increased cost and programme delays.	20%	£ 250,000	£ 500,000	£ 750,000	0	Mitigated through design envelope allowing additional working margin. Manage earthworks and structures designs to mitigate additional land requirements. Specify land available in tender.		Client	Mace	30%	£ 5,000	£ 50,000	£ 250,000	0	Open	25/05/2020