

General Note:

During the design stages of a project, designers are required to maintain a “**Hazard Elimination Checklist**” (part B of this document). The ‘checklist’ records the various significant (high risk) hazards identified by the designer(s) and, where they have been able, details of how they have been eliminated.

It is recognised that not every hazard can be ‘designed out’ and therefore the checklist will also be used to record the residual risks of which the designer(s) are aware.

The checklist provides an audit trail of the design process and may also be used as evidence in the event that a designer is required to defend his or her actions in any HSE investigation.

Copies of parts A and B should be passed to all members of the project team, especially the Principal Designer. Reference must also be made to GG104 Requirements for safety risk assessment.

Part A: Designer’s Hazard Checklist

Project Title:	M5 J11-10 NB MP81-7	Kier Highways Job No.:	1050264
Project Description:	Surveys		
Design Discipline:	Geotechnics		
Project Type as determined by GD04 (if applicable)	N/A	Prepared By:	██████████

Notes:

1. This section of the document includes a list of potential hazards pertaining to a wide range of situations which may occur across Kier Highways’ activities. *Where particular categories do not ordinarily affect the scheme.*
2. An individual item or a whole section (by ticking the heading) can be noted as not applicable showing you have considered the hazard area and judged it to be not applicable.
3. The list of potential hazards is not exhaustive, and all sections can be added to, or additional sections added, as required. Reference to the Approved Code of Practice may be helpful.
4. All items considered by the designer as having a potential high risk must be addressed on the ‘Hazard Elimination Management Schedule’. Low risk activities can also be included if considered appropriate.
5. Consideration must be given to all populations that may be affected as follows -

Population 1 – People directly employed by the Client and who work on the site e.g. Traffic Officers.	‘Workers’
Population 2 – People in a contractual relationship with the client.	
Population 3 – Other parties, including road users, the police and emergency services and non-motorised ‘Users’ such as equestrians, cyclists and pedestrians, as well as those others not in a contractual relationship with the client, such as privately contracted vehicle recovery and vehicle repair providers.	‘Users’
Population 4 – Third parties includes any person or persons who could be affected by the works, but who are neither using it, nor working on it, i.e. living or working adjacent to the site.	‘Other Parties’



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As part of our systems review, this document is valid until: April 2020		



Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
1.	Existing Environment				
1.1	Existing buildings	X			
1.2	Previous/existing land/ structures	X			
1.3	Roadways			X	M5
1.4	Railways	X			
1.5	Water course	X			
1.6	Ground conditions:				
	• Contamination		X		
	• Ground water		X		
	• Instability			X	Earthwork instability
	• Mineral / mine workings	X			
1.7	Access restrictions			X	Access via the M5
1.8	Adjacent properties	X			
1.9	Concurrent site activities	X			
1.10	Interface with the public	X			Public access to site is unlikely
1.11	Occupied premises	X			
1.12	Structural instability	X			
1.13	Fragile materials	X			
1.14	Hazardous materials	X			
1.15	Land use			X	Motorway
1.16	Traffic			X	M5
1.17	Others (insert as necessary)	X			
2.	Existing Services				
2.1	Underground	X			
	• Electrical	X			
	• Gas	X			
	• Water (Asbestos pipes?)	X			
	• Telecommunications	X			
	• Others (see below)				
	• Drainage pipes			X	(may contain chrysotile)
2.2	Overhead Services				
	• Electrical	X			
	• Telecommunications	X			
	• Others (insert as necessary)	X			

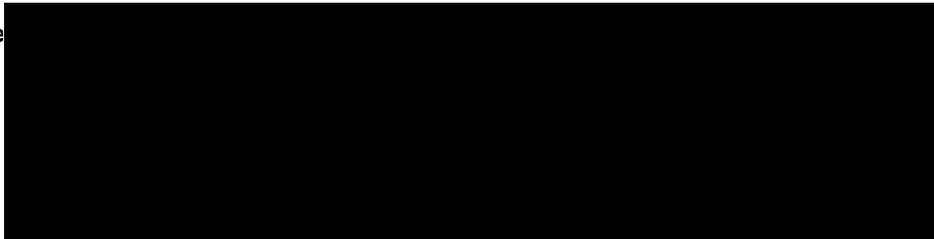
Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
3.	Earthworks	X			
3.1	Deep excavations				
3.2	Slope / ground stability				
3.3	Ground water / water courses				
3.4	Plant movements				
3.5	Interface with services (refer 2)				
3.6	Contamination (ground / water) (refer 1.6)				
3.7	Adjacent structures (refer 1.8)				
3.8	Others (insert as necessary)				
6.	Drainage Works				
6.1	Excavations	X			
6.2	Ground water	X			
6.3	Ground conditions	X			
6.4	Confined spaces	X			
6.5	Leptospirosis / Weils disease			X	CCTV drainage survey
6.6	Existing services (asbestos pipes?)			X	CCTV drainage survey
6.7	Manual handling			X	CCTV drainage survey
6.8	Lifting operations	X			
6.9	Maintenance	X			
6.10	Sewage	X			
6.11	Traffic			X	
6.12	Contamination (ground / water)	X			
6.13	Hepatitis B / Tetanus	X			
6.14	Others (insert as necessary)	X			
7.	Highways				
7.1	Traffic management			X	Live traffic
7.2	Adjacent traffic			X	
7.3	Construction materials	X			
7.4	Structural works	X			
7.5	Adjacent structures	X			
7.6	Noise	X			
7.7	Vibration	X			

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
7.8	Coal TAR in pavement	X			
7.9	Others (insert as necessary)	X			

Part B: Hazard Elimination Checklist

Project Title:	M5 J11-10 NB MP81-7	Kier Highways Job No.:	1050264
Project Description:	Surveys		
Design Discipline:	Geotechnics	Prepared By:	██████████
		Checked By:	██████████

Reviewed and approved



* Persons at Risk: (1) Workers (2) Users (3) Other parties

** Action by: Principal Designer – Include within the H&S file
 Designer – include in the pre-construction information
 Principal Contractor – manage risk during the construction phase
 Other designer – take into consideration when preparing their designs
 Client – pass information to designers / Principal designer



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Ref.	Activity	Hazard	Persons at Risk *	Design Measures taken, or being taken to eliminate or reduce the hazard	Information on the Residual Risk	Principal Designer Review	Action Req'd by: **
1.6 & 3.2	Topographic and CCTV drainage surveys	Triggering / worsening of existing geotechnical defects resulting in earthwork failure.	1/2/3	Interrogation of HAGDMS has identified existing geotechnical defects within the earthworks.	Loading of the slope arising from survey work is unlikely to change the stability, but areas of soil slip can lead to more difficult underfoot conditions		Designer & Principal Contractor
1.16, 7.1 & 7.2	Topographic and CCTV drainage surveys	Working adjacent to live traffic & RTC resulting in injury	1	The works to be undertaken during TM. Road space planning will be needed to limit traffic flow impacts. Liaise with TM coordinator	Risk of RTC remains. Principal Contractor to highlight suitable method of site access/egress within RAMS, to be reviewed and agreed with designer.		Designer & Principal Contractor
2	Topographic and CCTV drainage surveys above underground services	Service strike resulting in injury / death	1	C2 stats returns drawing are given in the Pre-Construction Information.	Risk of services remains. Principal Contractor to highlight suitable method of service clearance within RAMS, to be reviewed and agreed with designer.		Designer & Principal Contractor
6.14 and 7.9	Topographic and CCTV drainage surveys– asbestos	If asbestos is damaged there is the potential to breathe in fibres	1	The 2007 drainage survey identified pitch fibre pipes, which is known to contain asbestos (chrysotile)	Vigilance is required and the CCTV drainage surveyor needs to implement appropriate working methodologies		Designer & Principal Contractor