

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:	A303 Horton Incl Illminster RB EB & WB, MP 223.0 RS	Kier Highways Job No.:	570122D
Project Description:	Pavement samples by means of coring and DCP testing at stated locations		
Design Discipline:	Highways		
Project Type as determined by GG104 (if applicable)	A	Prepared By:	[REDACTED]

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, **Part A should be edited/sections deleted to more accurately reflect the work carried out.***
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'



Authorised By: Head of SHE	Page 1 of 13	SEMS-FOR-HIG-094
Author: Highways CDM Team	Date: October 2018	Version: 1.0
As part of our systems review, this document is valid until: April 2021		



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	Site access must be strictly through designated access and egress points from the main carriageway
1.4	Railways	X			
1.5	Water course	X			
1.6	Ground conditions:	X			
	• Contamination	X			
	• Ground water	X			
	• Instability	X			
	• Mineral / mine workings	X			
1.7	Access restrictions	X			
1.8	Adjacent properties		X		Contractor to notify local residents via letter drop in advance of planned works and erect signs informing travelling public both non motorised and motorised of potential disruption. Site also includes multiple bus routes, contractor to notify operators of likely disruptions in advance and work collaboratively to ensure disruption is kept to a minimum.
1.9	Concurrent site activities	X			
1.10	Interface with the public		X		Contractor to notify local residents via letter drop in advance of planned works and erect signs informing travelling public both non motorised and motorised of potential disruption. Site also includes multiple bus routes, contractor to notify operators of likely disruptions in

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
					advance and work colloabortivley to ensure disruption is kept to a minimum.
1.11	Occupied premises		X		
1.12	Structural instability	X			
1.13	Fragile materials	X			
1.14	Hazardous materials			X	Construction materials to be used in accordance with method statements, Risk assessments & COSHH assessments
1.15	Land use	X			
1.16	Traffic			X	Works undertaken will require lane possessions to be applied for. TM will be installed in accordance with TSM Chapter 8
1.17	Others (insert as necessary)	X			
2.	Existing Services				
2.1	Underground				
	<ul style="list-style-type: none"> Electrical 		X		Apparatus have been identified within the scheme boundaries. Contractor to check C2's (if older than 6 months reapply) and ensure area is CAT and GENIE scanned prior to commencing coring. Contractor to following guidance within HSG 47.
	<ul style="list-style-type: none"> Gas 	X			
	<ul style="list-style-type: none"> Water (Asbestos pipes?) 			X	Multiple clean, foul and abandoned apparatus have been identified witin the scheme boundaries. Contractor to check C2's (if older than 6 months reapply) and CAT and GENIE scanned prior to commencing coring. Contractor to follow guidance within HSG 47
	<ul style="list-style-type: none"> Telecommunications 		X		Apparatus have been identified within the

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
					scheme boundaries. Contractor to check C2's (if older than 6 months reapply) and ensure area is CAT and GENIE scanned prior to commencing coring. Contractor to following guidance within HSG 47
	<ul style="list-style-type: none"> Others – Virgin Media, Vodafone, Gigaclear 			X	Apparatus present within the scheme. Contractor to ensure apparatus have been clearly located and have liaised with apparatus owner regarding any/all exclusion zones to be complied with.
2.2	Overhead Services				
	<ul style="list-style-type: none"> Electrical Telecommunications Others (insert as necessary) 		X		
		X			
3.	Earthworks				
3.1	Deep excavations	X			
3.2	Slope / ground stability	X			
3.3	Ground water / water courses	X			
3.4	Plant movements	X			
3.5	Interface with services (refer 2)	X			
3.6	Contamination (ground / water) (refer 1.6)	X			
3.7	Adjacent structures (refer 1.8)	X			
3.8	Others (insert as necessary)	X			
4.	Foundations				
4.1	Adjacent buildings/structures	X			
4.2	Deep excavations	X			
4.3	Plant movements	X			
4.4	Interface with services	X			
4.5	Contamination (ground / water)	X			
4.6	Ground water	X			
4.7	Confined spaces	X			
4.8	Piling:				

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
	• Noise	X			
	• Vibration	X			
	• Contamination	X			
	• Plant	X			
4.9	Grouting:	X			
	• Drilling work	X			
	• Dust	X			
	• Pollution	X			
4.10	Stability of structure	X			
4.11	Others (insert as necessary)	X			
5.	Services Installation	X			
5.1	Excavations	X			
5.2	Ground water	X			
5.3	Ground conditions	X			
5.4	Existing services	X			
5.5	Testing operations	X			
5.6	Lifting operations	X			
5.7	Adjacent structures / activities	X			
5.8	Maintenance	X			
5.9	Contamination	X			
5.10	Others (insert as necessary)	X			
6.	Drainage Works	X			
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			
6.6	Existing services (asbestos pipes?)	X			
6.7	Manual handling	X			
6.8	Lifting operations	X			
6.9	Maintenance	X			
6.10	Sewage	X			
6.11	Traffic	X			
6.12	Contamination (ground / water)	X			

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
6.13	Hepatitis B / Tetanus	X			
6.14	Others (insert as necessary)	X			
7.	Highways				
7.1	Traffic management			X	All Works to be undertaken by applying lane closures. TM will be installed in accordance with TSM Chapter 8
7.2	Adjacent traffic			X	TM will be installed in accordance with TSM Chapter 8
7.3	Construction materials			X	Construction materials to be used in accordance with Method Statements, Risk Assessments, Tool box talks and COSHH guidelines
7.4	Structural works	X			
7.5	Adjacent structures	X			
7.6	Noise		X		Noise to be kept to a minimum, idling machinery and vehicles to be kept to a minimum or switched off when not in use. Operatives should receive training to effectively employ techniques to reduce noise. Unnecessary noise should be avoided when carrying out manual operations and when operating plant and equipment. Assessment required of impact on adjacent properties
7.7	Vibration		X		Vibrating equipment to be used only by trained and competent personnel. Equipment to only be used for the minimum amount of time necessary. Operator

FOR INFORMATION ONLY



Authorised By: Head of SHE	Page 6 of 13	SHEMS-FOR-HIG-094
Author: Highways CDM Team	Date: October 2018	Version: 1.0
As part of our systems review, this document is valid until: April 2021		



Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
					to ensure all LOLER and PPE HSE regulations are complied with whilst operating said equipment. Equipment to be visually checked prior to each use and maintenance records checked
7.8	Coal TAR in pavement		X		Operatives to test each location prior to core with PAK Marker spray. If spray turns brown/yellowish colour indicates to operatives PAH compounds down to a level of 150ppm are present. Operatives should then carry out a dynamic risk assessment regarding PPE required as well as location and potential for contamination via leaching arisings that may be a by product of the core taking operation.
7.9	Others (insert as necessary)	X			
8.	Steelwork Construction				
8.1	Working at height	X			
8.2	Lifting operations	X			
8.3	Temporary stability	X			
8.4	Connections	X			
8.5	Unusual sequence	X			
8.6	Materials, e.g. paints	X			
8.7	Consideration of future maintenance	X			
8.8	Others (insert as necessary)	X			
9.	Concrete Construction				
9.1	Working at height	X			
9.2	Plant restrictions	X			

FOR INFORMATION ONLY



Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
9.3	Lifting operations	X			
9.4	Noise	X			
9.5	Vibration	X			
9.6	Temporary instability	X			
9.7	Pre/post tensioning	X			
9.8	Materials	X			
9.9	Maintenance	X			
9.10	Joints (scabbling should not be undertaken)	X			
9.11	Others (insert as necessary)	X			
10.	Masonry Construction				
10.1	Manual handling	X			
10.2	Lifting operations	X			
10.3	Materials	X			
10.4	Temporary stability	X			
10.5	Working at height	X			
10.6	Dust	X			
10.7	Durability	X			
10.8	Catastrophic collapse	X			
10.9	Others (insert as necessary)	X			
11.	Timber Construction				
11.1	Materials	X			
11.2	Working at height	X			
11.3	Temporary stability	X			
11.4	Lifting operations	X			
11.5	Manual handling	X			
11.6	Fire	X			
11.7	Dust	X			
11.8	Others (insert as necessary)	X			
12.	Cladding				
12.1	Lifting operations	X			
12.2	Manual handling	X			
12.3	Maintenance / cleaning	X			
12.4	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	
13.	Glazing				
13.1	Manual handling	X			
13.2	Lifting operations	X			
13.3	Cleaning / maintenance	X			
13.4	Others (insert as necessary)	X			
14.	Mechanical/Electrical Systems				
14.1	Access	X			
14.2	Existing services (asbestos?)	X			
14.3	Manual handling	X			
14.4	Materials / substances	X			
14.5	Confined spaces	X			
14.6	Pressure systems	X			
14.7	Testing operations	X			
14.8	Fixings	X			
14.9	Working at height	X			
14.10	Maintenance	X			
14.11	Others (insert as necessary)	X			
15.	Railway Activities				
15.1	Train movements	X			
15.2	Overhead lines	X			
15.3	Electrified track	X			
15.4	Underground services	X			
15.5	Adjacent structures	X			
15.6	Ground stability	X			
15.7	Contamination	X			
15.8	Others (insert as necessary)	X			
16.	Demolition of Existing Structures				
16.1	Services	X			
16.2	Adjacent / adjoining structures	X			
16.3	Materials:	X			

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
	<ul style="list-style-type: none"> Hazardous i.e. asbestos in permanent shuttering, waterproofing to bridge decks, joints etc. 	X			
	<ul style="list-style-type: none"> fragile 	X			
16.4	Working at height	X			
16.5	Temporary stability	X			
16.6	Pre/post tensioning	X			
16.7	Noise	X			
16.8	Vibration	X			
16.9	Dust	X			
16.10	Effect on usage of demolition materials	X			
16.11	Others (insert as necessary)	X			
17.	Future Demolition / decommissioning of new structure/installation				
17.1	Unusual sequence	X			
17.2	Pre/post tensioned element	X			
17.3	Materials	X			
17.4	Adjacent/adjoining structure	X			
17.5	Temporary stability	X			
17.6	Contamination during usage of demolition material.	X			
17.7	Others (insert as necessary)	X			
18.	Maintenance and Operation of Facility / Structure etc.				
18.1	Access	X			
18.2	Safety equipment	X			
18.3	Testing / inspection	X			
18.4	Procedure	X			
18.5	Contamination during usage of demolition material.	X			
18.6	Others (insert as necessary)	X			
19.	Use of the structure as a workplace				
19.1	Does the proposed use of the structure / premises include the intention for it to be made available to any person as a place of work	X			
19.2	If yes; the design and materials used must take in to account the provisions of the Workplace (Health, Safety and Welfare) Regulations 1992	X			

FOR INFORMATION ONLY



Authorised By: Head of SHE	Page 11 of 13	SEMS-FOR-HIG-094
Author: Highways CDM Team	Date: October 2018	Version: 1.0
As part of our systems review, this document is valid until: April 2021		



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: **
2.1, 2.2	Services	Service strike causing injury, death, burns, explosions	1, 2, 3	Location of underground services within the extents of the works to be identified and protected in accordance with HSG47 and GS6 Contractor to use Statutory Undertakers information in addition to CAT scanning. Contractor to indicate Overhead apparatus with blue cones	Risk remains – details to be provided in PCIP. Principal contractor to employ safe system of work when encountering utility service apparatus	No further comment.	PC
7.3	Construction Material	Working with concrete and bituminous reinstatement materials	1, 2	Not possible to design out working with reinstatement materials. Appropriate control measures are to be implemented and materials are to be used in accordance with Method Statements, Risk Assessments, COSH and PPE guidelines	The Principal Contractor to employ safe system of work. Trained and competent operatives to wear appropriate PPE for tasks carried out.	No further comment.	PC.



Authorised By: Head of SHE	Page 13 of 13	SHEMS-FOR-HIG-094
Author: Highways CDM Team	Date: October 2018	Version: 1.0
As part of our systems review, this document is valid until April 2021		

