

**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**

<b>Project Title:</b>	<b>M5 26 – 27 SB 277 – 229.5 RS</b>	<b>Kier Highways Job No.:</b>	<b>570122</b>
<b>Project Description:</b>	<b>150mm dia Cores, DCP, PAK testing &amp; GPR surveys</b>		
<b>Design Discipline:</b>	<b>Pavement</b>		
<b>Project Type as determined by GG104 (if applicable)</b>	<b>A</b>	<b>Prepared By:</b>	<b>[REDACTED]</b>

**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 -

<b>Population 1</b> – People directly employed by the Client and who work on the site e.g. Traffic Officers.	<b>‘Workers’</b>
<b>Population 2</b> – People in a contractual relationship with the client.	
<b>Population 3</b> – 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.	<b>‘Users’</b>
<b>Population 4</b> – 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.	<b>‘Other Parties’</b>



Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
<b>1.</b>	<b>Existing Environment</b>				
1.1	Existing buildings	X			
1.2	Previous/existing land/ structures	X			
1.3	Roadways			X	<b>Works in carriageway</b>
1.4	Railways	X			
1.5	Water course	X			
1.6	Ground conditions:	X			
	• Contamination				
	• Ground water				
	• Instability				
	• Mineral / mine workings				
1.7	Access restrictions	X			
1.8	Adjacent properties	X			
1.9	Concurrent site activities	X			
1.10	Interface with the public		X		
1.11	Occupied premises	X			
1.12	Structural instability	X			
1.13	Fragile materials	X			
1.14	Hazardous materials			X	<b>Potential for TBM Bituminous material</b>
1.15	Land use	X			
1.16	Traffic			X	<b>Live traffic in carriageway</b>
1.17	Others (insert as necessary)				
<b>2.</b>	<b>Existing Services</b>				
2.1	Underground				
	• Electrical			X	<b>LV cables in vicinity of works</b>
	• Gas	X			
	• Water (Asbestos pipes?)	X			
	• Telecommunications			X	<b>BT cable in vicinity of works</b>
	• Others (insert as necessary)				
2.2	Overhead Services				
	• Electrical			X	<b>11kv cables in vicinity of works</b>
	• Telecommunications	X			

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
	• Others (insert as necessary)				
3.	<b>Earthworks</b>	X			
5.	<b>Services Installation</b>	X			
6.	<b>Drainage Works</b>	X			
7.	<b>Highways</b>				
7.1	Traffic management			X	Live traffic
7.2	Adjacent traffic			X	Live traffic
7.3	Construction materials			X	Bituminous material
7.4	Structural works	X			
7.5	Adjacent structures			X	Overbridge within works area
7.6	Noise		X		
7.7	Vibration		X		
7.8	Coal TAR in pavement			X	Risk of TBM
7.9	Others (insert as necessary)				
8.	<b>Steelwork Construction</b>				
9.	<b>Concrete Construction</b>				
10.	<b>Masonry Construction</b>				
11.	<b>Timber Construction</b>				
12.	<b>Cladding</b>				
13.	<b>Glazing</b>				
14.	<b>Mechanical/Electrical Systems</b>				
15.	<b>Railway Activities</b>				
16.	<b>Demolition of Existing Structures</b>				

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
17.	Future Demolition / decommissioning of new structure/installation				
18.	Maintenance and Operation of Facility / Structure etc.				
19.	Use of the structure as a workplace				

FOR INFORMATION ONLY

**Part B: Hazard Elimination Checklist**

<b>Project Title:</b>	M5 26 – 27 SB 277 – 229.5 RS	<b>Kier Highways Job No.:</b>	570122
<b>Project Description:</b>	150mm dia Cores, DCP, PAK testing & GPR surveys		
<b>Design Discipline:</b>	Pavement	<b>Prepared By:</b>	Connor Crampton
		<b>Checked By:</b>	Anjali Nair

**Note: If GG104 applies to your contract, the checklist must be approved by an appropriate person: For a Type A project the Scheme PD must approve, for a Type B projects the Senior Manager must approve and for a Type C project the Kier Highways Service Director must approve.**

Reviewed and approved by



\* Persons a

\*\* 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

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: **
1.3, 1.16, 7.1 & 7.2	Working adjacent to live traffic	Vehicle strike	1 & 2	Undertake works at night (reduced traffic flows) Full closure of carriageway (TBC), otherwise use of traffic management to Chapter 8	Risk reduced but remains	No further comment.	PC



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Author: Highways CDM Team	Date: October 2018	Version: 1.0
As part of our systems review, this document is valid until April 2020		



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: **
1.14 & 7.3	Infilling cores with Bituminous material	Burns	1	Use of appropriate PPE and COSHH assessment	Risk reduced however remains	No further comment.	PC
1.14 & 7.8	Coring activities	Presence of TBM	1	Use of appropriate PPE until presence of TBM confirmed Contractor to have appropriate RAMS in place	Risk reduced but remains	No further comment.	PC
2.1	Coring activities	Striking underground service	1 & 2	Locate underground services prior to coring Contractor to have appropriate RAMS in place	Risk reduced but remains	No further comment.	PC
2.1	Coring activities	Coring through loops	1 & 2	Core sites to be located prior to coring and coring to take place outside of loop sites. Contractor to have appropriate RAMS in place	Risk eliminated	No further comment.	PC
2.2	Coring activities	Striking overhead services	1 & 2	Measure overhead cable heights prior to coring Contractor to have appropriate RAMS in place	Risk reduced but remains	No further comment.	PC
7.5	Coring activities	Striking structure causing damage to structure	All	Coring to be undertaken 50m from structure location Contractor to have appropriate RAMS in place	Risk eliminated	No further comment.	PC