

**Specialist Professional and Technical Services  
Framework  
Task Ref: 1-286**

**Task Title: HD 19/15 Road Safety Audit - Maintain &  
Develop Road Safety Audit Database**

**QUARTERLY REPORT  
July 2017 to September 2017**

*To be read in conjunction with Task 286  
'QUARTERLY REPORTING AND FACTSHEETS,  
GUIDANCE NOTES'*



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## Table of Contents

	<b>1</b>
<b>1. Introduction</b>	<b>4</b>
1.1. Quarterly Reporting	4
1.2. Scope	4
1.3. Limitations in Historic Comparisons	4
1.4. RSAs Submitted by Highways England Areas	5
<b>2. Qualitative Review of RSA Reports</b>	<b>6</b>
2.1 Common Road Safety Problems	6
2.2 Good Practice and Areas for Improvement	8
2.2.1 Detailing the RSA Brief Contents and Additional Material	8
2.2.2 Invitation of Police and Maintaining Authority Representatives	9
2.2.3 Others Involved	9
2.2.4 Multiple Site Visits	9
2.2.5 Site Visit Timings	9
2.2.6 Existing Situations	9
2.2.7 Collision Data and Traffic Flow Analyses	10
2.2.8 Previous RSA Reports	10
2.2.9 Images to Illustrate Problems Identified	10
2.2.10 Maintenance Issues in RSA Reports	10
2.2.11 Typographical Errors	10
2.2.12 Problem Location Plans	11
2.2.13 Inclusion of the RSA Brief Document	11
2.2.14 Stage 4 RSA Site Visit Deliberations	11
2.2.15 Pre-opening Collision Data	11
2.2.16 Review of Previous Issues in Stage 4 RSAs	11
<b>Appendix A</b>	<b>12</b>
Quarterly Factsheet 1 <sup>st</sup> July 2017 to 30 <sup>th</sup> September 2017	12

# 1. Introduction

## 1.1. Quarterly Reporting

This report comprises the quarterly qualitative review of Road Safety Audit (RSA) reports submitted to the Highways England Safer Roads - Design Team (SRDT) inbox at [roadsafetyaudit@highwaysengland.co.uk](mailto:roadsafetyaudit@highwaysengland.co.uk) between 1<sup>st</sup> July 2017 and 30<sup>th</sup> September 2017 (inclusive).

This review should be read in conjunction with the **Quarterly Factsheet - July-September 2017 (Rev. 1)** contained in Appendix A of this report; and with the Task 286 '**Quarterly Reporting and Factsheets, Guidance Notes**'.

## 1.2. Scope

During this quarter, a total of 52 RSAs were submitted, of which 45 purport to have been carried out to HD 19/15. From these HD 19/15 RSAs, 22 sample reports were selected as suitable for review. The list below details the numbers of each stage of RSA forming the study sample together with totals submitted for the quarter.

- Stage 1 RSAs 2 reports of 3 submitted in quarter
- Stage 2 RSAs 2 reports of 2 submitted in quarter
- Combined Stage 1 & 2 RSAs 5 reports of 8 submitted in quarter
- Stage 3 RSAs 6 reports of 10 submitted in quarter
- Stage 4 RSAs (12 months) 4 reports of 14 submitted in quarter
- Stage 4 RSAs (36 months) 3 reports of 8 submitted in quarter
- *Interim RSAs* *No Interim RSAs submitted this quarter*

It should be noted that due to a low number of reports meeting the selection criteria, the sample set was expanded to include seven 'zero-problem' reports.

The principal purpose of the quarterly review, together with explanations of the sampling process; measures of HD 19/15 compliance and of the rationale behind the charting used in the corresponding quarterly factsheets are all described in the Guidance Notes.

## 1.3. Limitations in Historic Comparisons

In order to minimise the effect of discrepancies on data comparisons, the database has been retrospectively updated as far as is practicable. For this purpose, previously entered records were updated, by a previous project, as far back as 1<sup>st</sup> January 2014. It is only those backdated records that have been used where comparisons are made.

## 1.4. RSAs Submitted by Highways England Areas

Figure 1-1 below illustrates all RSAs submitted to the SRDT inbox since 1<sup>st</sup> January 2014 by each Highways England area.

Figure 1-1 RSA submitted since 1<sup>st</sup> January 2014 by Highways England Operational Area

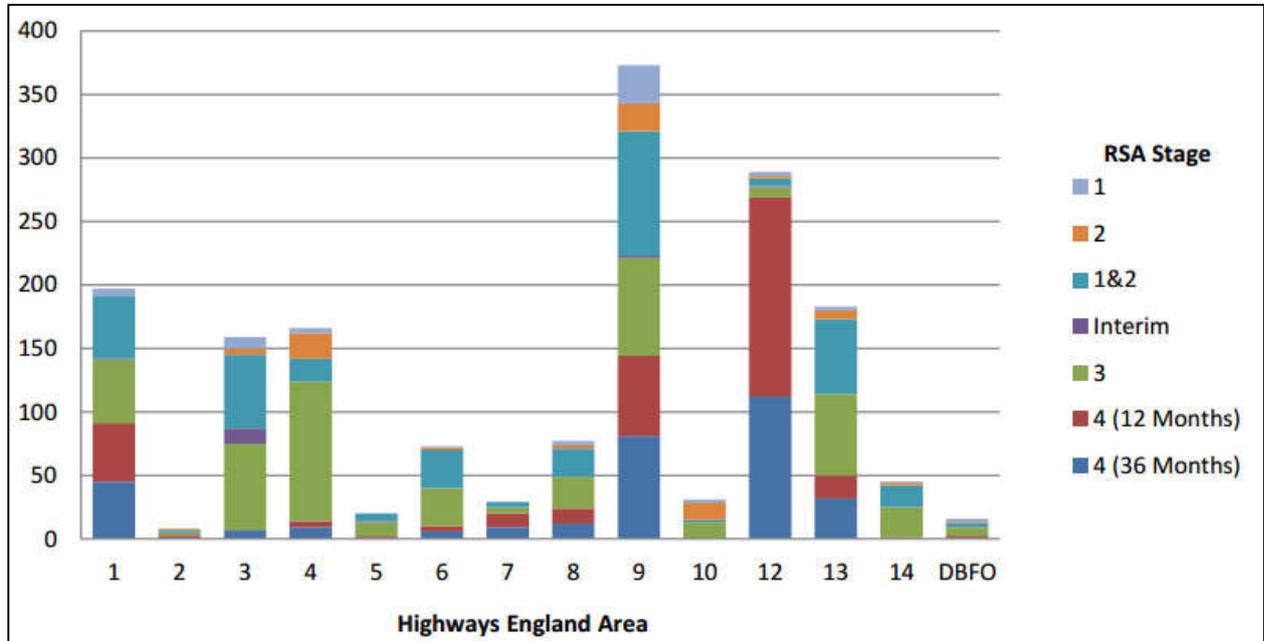
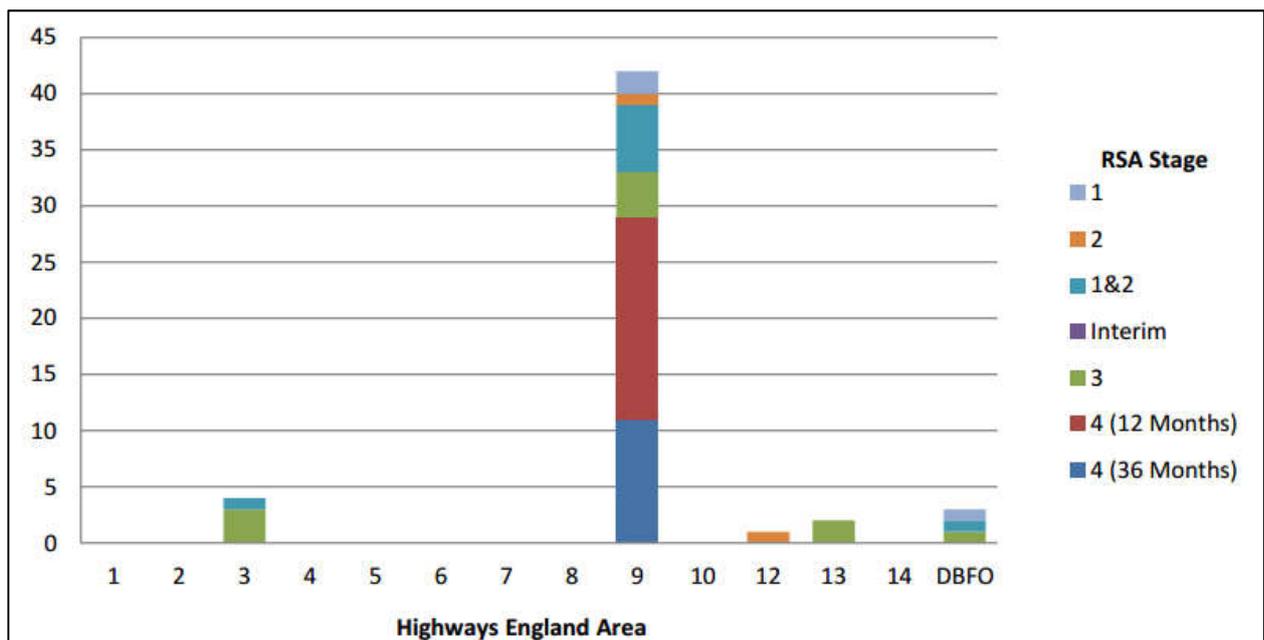


Figure 1-2 below illustrates all RSAs submitted to the SRDT inbox during this quarter, 1<sup>st</sup> July to 30<sup>th</sup> September 2017

Figure 1-2 RSA submitted this quarter (July to September 2017) by Highways England Operational Area



## 2. Qualitative Review of RSA Reports

This section comprises a qualitative review of RSAs sampled from those recorded in the main database. The sample selection is described under heading 1.2 above. The sampled reports have been used as the principal source for this review but occasionally, reference is made to the database as a whole for context.

As far as is practicable, this quarterly report seeks to feed discussion on:

- Common road safety Problems raised by audit teams with a view to providing information which might be used by the SRDT and others in the industry to identify and inform potential changes to Requirements and Advice Documents (RADs). This comprises a high-level categorisation of the Problems raised;
- Inconsistencies between Problems and Recommendations raised for similar designs elements; and
- Good practice and areas for potential improvement as evident from the sampled RSA reports.

### 2.1 Common Road Safety Problems

This section comments on the frequency with which road safety Problem types appeared in RSAs within the sample set.

For clarity, this section uses the following terms of reference:

- Problems – indexed text (i.e. ‘Problem A’) detailing road safety concerns in the standard RSA Problem/Recommendation format;
- Issues – individual elements of distinct road safety concern contained within a Problem related to but different in nature to other Issues within that same Problem; and
- Recommendations – remedial Recommendations made by the RSA Team in relation to the Problem (and related Issues) raised.

Where appearing in quoted text, the words “*problem*”, “*issue*” and “*recommendation*” may have been used differently.

The sampled reports detailed a total of 61 road safety Problems covering 63 Issues. These include previously raised Problems not resolved at the time of each of the sample RSAs.

This gives an average of 1.03 Issues per Problem reported which is comparable to 1.09 in the preceding quarterly report (April 2017 to June 2017). The Issues per Problem ratio has remained consistent around these levels in recent quarters.

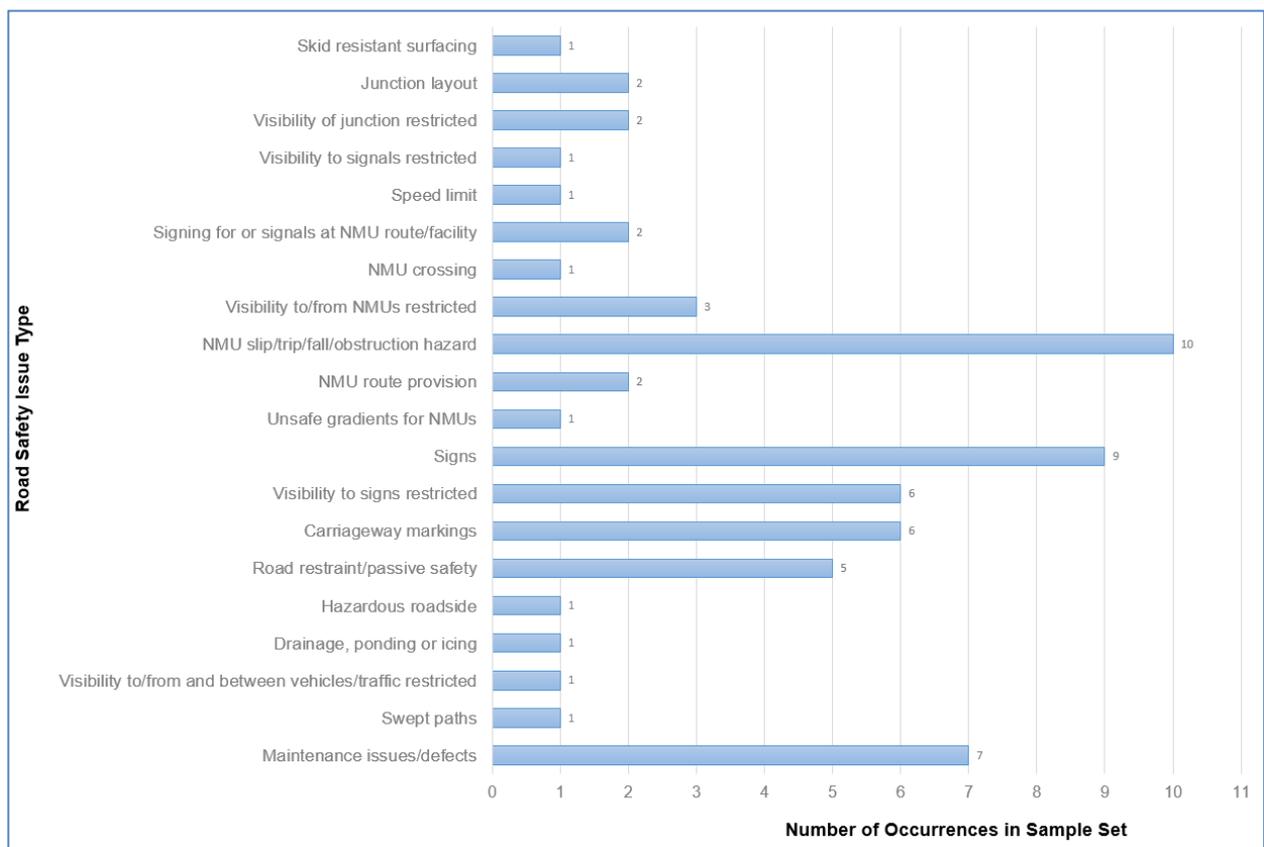
For the purpose of this quarterly report, the high-level categorisation of the Problems and Issues identified within the sample group have been expressed as follows:

- **Skid resistant or high friction surfacing** [inadequate]
- **Junction layout** [approach speeds / restricted movements]
- **Visibility of junction restricted** [by vegetation / street furniture]
- **Visibility to traffic signals restricted** [by street furniture]
- **Speed limit** [inappropriate for environment]
- **NMU route/facility signs or signals** [obscured / obstruction hazard]
- **NMU crossing** [tactile paving]
- **Visibility to / from and between NMUs restricted** [by vegetation / street furniture]

- **NMU slip / trip / fall / obstruction hazard** [poor surface / paving / street furniture]
- **NMU route provision** [inadequate access / egress]
- **Unsafe gradients for NMUs** [routes]
- **Signs** [poorly located or incorrectly mounted / inconsistent / incorrect sign face / confusing]
- **Visibility to signs restricted** [by vegetation / street furniture / other signs]
- **Carriageway markings** [incorrect / inadequate]
- **Road restraint / bridge parapet / kerbs** [inadequate / risk of 'launch']
- **Hazardous roadside** [objects not passively safe]
- **Drainage and related ponding and icing** [NMU crossings]
- **Visibility to / from and between vehicles / traffic restricted** [by vegetation]
- **Swept paths** [overrunning footways or cycleways]
- **Maintenance issues or, defects** [surfaces / redundant posts / drainage / vegetation / construction issues]

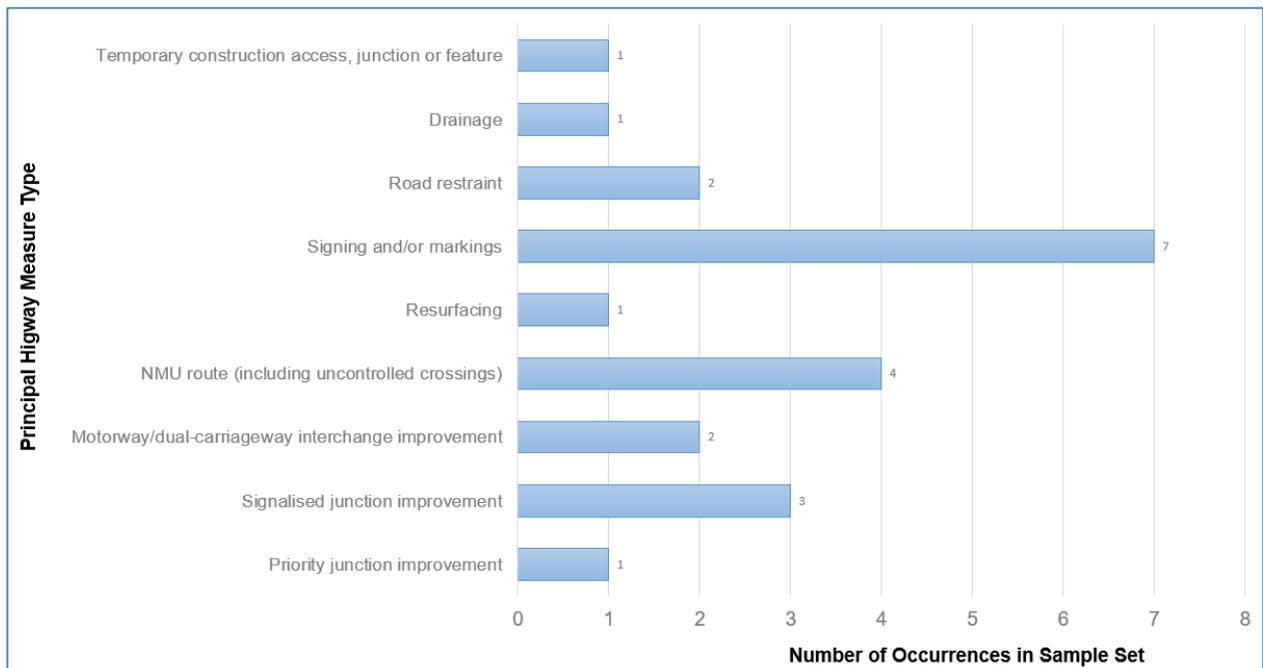
The 63 Issues covered in the sampled reports are categorised in Figure 2-1 below which indicates the frequency of occurrence. The categories of these are shortened to fit the figure dimensions and the chart should be read in conjunction with the bullet list above for a fuller description.

**Figure 2-1 Road safety issues by number of occurrences**



As context for the occurrences of road safety Issues given above, Figure 2-2, overleaf, charts the principal highway measures that best describe the scheme type for each RSA report in the sample set.

**Figure 2-2 Principal highway measures by number of occurrences in sample set**



## 2.2 Good Practice and Areas for Improvement

This section identifies areas of good practice and areas with potential for improvement as evident from the RSAs sampled for the purpose of this quarterly report.

Text and other materials quoted or copied from real RSA reports have been anonymised. Accordingly, all road, scheme and location names and descriptions, together with the names of persons and organisations involved, should be taken as fictional and not associated with any actual scheme, location, organisation or person.

### 2.2.1 Detailing the RSA Brief Contents and Additional Material

One of the RSA reports reviewed this quarter detailed consideration of departures but the documentary source of those departures was not detailed in the RSA report. On large schemes, departures can be numerous and extensive. In such cases, a schedule of departures detailing location, extents, mitigations and current status (e.g. 'draft' or 'approved') might be the most useful way of presenting that information for use by the RSA Team.

It is recognised that, on occasions, materials are issued to RSA Teams without having been listed or detailed in the RSA Brief form. The issue of such material might have been at the request of the RSA Team or might have been added by the design team as an afterthought. RSA Teams should ensure that requests for additional information are made through the Project Sponsor or at least copied to them. Similarly, design teams should obtain the approval of the Project Sponsor before issuing additional information. This can delay the RSA, so every effort should be made to get the contents of the RSA Brief 'package' right first time.

In the RSA report mentioned above, it is not known whether or not information on departures was issued within the RSA Brief package but RSA Teams should ensure that all materials formally issued for the purpose of the RSA are detailed either in an appendix or, if only a very few items, in the report introduction. If detailing in the appendix, only a summary of the brief contents would be needed in the report introduction.

All materials issued should have a revision index and date and this should be quoted when listing the RSA Brief contents.

## 2.2.2 Invitation of Police and Maintaining Authority Representatives

Five of the six Stage 3 RSAs reviewed are from the same supplier and contain a seemingly stock phrase, “*No adverse comments relating to the scheme as constructed have been received from the police or maintenance representatives*”). This phrase, whilst implying that these representatives were approached for their views, does not make it clear that the representatives were invited to the site visit as required by HD 19/15. It is acknowledged that HD 19/15 does not prescribe how this should be documented in Stage 3 RSA reports but best practice would be to detail that the police and maintaining authority representatives were invited to the site visit and, whether or not they attended.

Should police or other representatives express any ‘adverse’ views, care should be taken as to how that is reflected in the RSA report. RSA Teams should remember that it is not their role to represent the views of other agencies. Whilst they might consider citing those views, they should only do so where particularly pertinent to the scope and terms of reference of the RSA and where they feel it is essential to support their own findings.

## 2.2.3 Others Involved

One of the Stage 3 RSA reports, under the RSA Team signatures, lists six ‘Others Involved’. It does not state which of these persons attended the site visit but, if they all did, this would be a contravention of HD 19/15 paragraph 2.95 which states “*During any Road Safety Audit site visit the total number of Road Safety Audit Team Members and its advisors should not exceed 6 individuals.*” Furthermore, whilst HD 19/15 is not prescriptive in this regard, it would be considered best practice if the RSA report detailed the role in which the additional personnel attended the site visit or otherwise made input to the RSA process.

## 2.2.4 Multiple Site Visits

The illustrative RSA reports given in HD 19/15 are based on fictitious RSAs where one site visit was carried out per stage. In reality, site visits might on occasion take place over multiple days or times. In such cases, the RSA report should give full details for each detail including dates, times, weather conditions, road surface conditions, traffic conditions and attendees. A tabular format for detailing multiple site visits might be considered in order to reduce text clutter.

## 2.2.5 Site Visit Timings

One of the RSA reports describes the scheme as being intended to reduce queuing on the approaches to a signalised junction. The site visit was carried out between the hours of 11:00 and 11:45 on a Thursday but should have been carried out during peak times to observe the congestion that the scheme is designed to alleviate. An instruction to this effect should have been included in the RSA Brief.

## 2.2.6 Existing Situations

Some detail regarding the existing layout or situations can be useful to give context to the proposed or implemented changes. However, one of the RSA reports reviewed this quarter includes nine paragraphs that describe the existing layout in the vicinity of the proposed scheme, together with audit team views on some of these existing features. Indeed, one of the paragraphs in this section of the RSA report makes specific reference to the consideration of the existing situation.

*“This report is structured to consider the existing situation for all users of the area and to consider each element (or geographical area/feature) of the proposed works for use by vehicles, pedestrians, cyclists and other users from a safety aspect.”*

RSA Teams should restrict their reporting to the terms of reference for RSAs as described in HD 19/15 or they risk focus being taken away from road safety Problems associated with the scheme changes.

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It is possible that this extension to the scope was included at the request of the Project Sponsor but if that were the case, the RSA report should detail that.

Furthermore, the same RSA report also includes, as a Problem, that appears to be an existing situation not changed by the proposed scheme.

*“Although the situation is an existing situation that might not have caused any PICs in the 2006 to 2016 time period, the absence of appropriate visibility to the junction layout could lead to late/sudden braking and risks of shunt type collisions.”*

If an RSA Team feels that the risks associated with an existing situation might be exacerbated or that their nature might be changed (not for the better) as a result of the scheme changes, they should be clear in this regard. Where this is not the case, it is not the role of the RSA Team to assess and describe existing risks at the scheme location. Any concerns the RSA Team might have about the safety of the existing situation should be communicated to the Project Sponsor outside of the RSA process.

## **2.2.7 Collision Data and Traffic Flow Analyses**

One RSA report introduction includes some considerable detail reflecting an analysis of the traffic flows and collision data provided. Whilst it is recognised that this information is useful to the RSA Team and should be included in the brief issued to them, it is not the purpose of the RSA to report on the findings of such analyses except where they have direct bearing to problems identified or recommendations made.

## **2.2.8 Previous RSA Reports**

Five out of the six Stage 3 RSAs sampled for review (all five by the same supplier) make no reference to a review of previous RSAs. Some of these mention that previous RSAs were carried out, but make no statements regarding whether the previous issues had been dealt with or remained open. RSA reports should be clear with regard to the RSA history and whether previously raised problems are unresolved and have been brought forward to the current RSA stage or whether they are considered to have been resolved or negated.

## **2.2.9 Images to Illustrate Problems Identified**

Three of the RSAs reviewed, carried out by the same supplier, pertain to closely associated schemes possibly on the same over-arching project. All three reports use the same photograph to illustrate a problem which the report says is common throughout the scheme and which is repeated in each report. If common throughout, it would be considered sensible to use three different photographs. Using the same photograph in three different reports might cause the issue to be dismissed where it does not depict a location with the scheme being audited.

## **2.2.10 Maintenance Issues in RSA Reports**

The three Stage 3 RSAs mentioned under heading 2.2.1 above identify a problem relating to loose material and grit covering a new shared use facility, with the potential for cyclists to fall from their bicycles. It is not clear whether or not the RSA Team felt this was a temporary result of the construction process or if it was likely to be an ongoing maintenance issue. Whether such a Problem warrants inclusion in an RSA or not is a subjective matter but, in either case, it should also be communicated directly to the maintaining authority outside of the RSA reporting process to expedite resolution.

## **2.2.11 Typographical Errors**

The review of previous RSAs in one of the Stage 3 RSA reports includes the statement *“A Designers Response Report to the Stage 2 Road Safety Audit was prepared in November 2016. All items identified in the Stage 1 Road Safety Audit have been addressed.”* The reference to the

Stage 1 RSA in the second sentence is clearly a typographical error (the Stage 1 RSA is described in a similar paragraph preceding this one) but care should be taken to avoid such errors as, in this case, the resulting text is misleading about the status of the Stage 2 RSA problems.

### **2.2.12 Problem Location Plans**

Problem location plans in RSAs are useful to help the reader consider the issues raised in the context of their location. It is important to choose an appropriate scale for this purpose. For compact schemes located within a small area, a larger scale plan (e.g. 1:250) might be more useful than a smaller scale. For route schemes or schemes covering a large area, the opposite might be true. If RSA Problems are common to numerous locations or general to the scheme as a whole, it might be more practicable to describe them as such and omit them from the plan rather than to try to illustrate each location. Text listing the RSA Problems not illustrated on the location plan should be added above or below the plan for clarity.

### **2.2.13 Inclusion of the RSA Brief Document**

The appendices of one of the RSAs sampled for review contains entire RSA Brief form resulting in a report of 60 pages in length. Inclusion of the RSA Brief might not necessarily be counted as a non-compliance under HD 19/15 paragraph 2.100 (*“Items such as correspondence with the Overseeing Organisation or copies of marked up checklists must not be included in the Road Safety Audit Report”*) but the model RSA reports in the standard do not suggest that any more than a list of drawings and supporting documents should be included.

### **2.2.14 Stage 4 RSA Site Visit Deliberations**

Three of the of the seven Stage 4 RSAs reviewed, detail that a site visit was carried out despite there being no increase in collision numbers or severity and no evidence of unexpected trends or characteristics. Two of these Stage 4 RSAs detailed no post-opening collisions at all and so perhaps a Stage 4 RSA was not warranted at all. It is recognised that this might have been the result of a contractual requirement or an instruction in the RSA Briefs.

### **2.2.15 Pre-opening Collision Data**

All seven of the Stage 4 RSA reports reviewed this quarter (all from the same provider) include consideration of collisions during construction periods. This may skew the collision analysis due to potential changes in traffic speeds, flows and queues, temporary traffic management and various methods of control for examples.

For this purpose, it would be helpful if Stage 4 RSA Briefs contained details of the construction periods so that the RSA Team knows to exclude this period from the collision analysis.

### **2.2.16 Review of Previous Issues in Stage 4 RSAs**

In Stage 4 RSA reports, the review of previously raised RSA Problems is primarily to ascertain whether or not any have manifested in to a collision problem. RSA Teams should not repeat old problems unless their review of those shows that a related (or possibly related) post-opening collision problem has arisen.

One of the Stage 4 RSAs reviewed this quarter stated that a Stage 2 had been carried out on the scheme, but did not refer to whether or not a Stage 1 RSA had been undertaken. It is not for RSA Teams to police the RSA process retrospectively. However, they should request copies of all preceding RSAs (if not provided) and review them to establish whether any old problems (including those previously considered as resolved, closed or excepted) have resulted in a collision problem.

# Appendix A

**Quarterly Factsheet**  
**1<sup>st</sup> July 2017 to 30<sup>th</sup> September 2017**

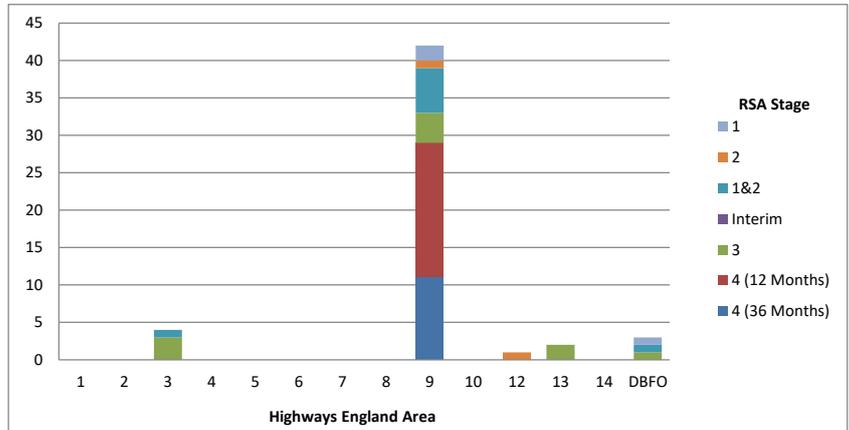
## Quarterly Factsheet - 1st July 2017 - 30th September 2017 (Rev. 1)

### Basic Information

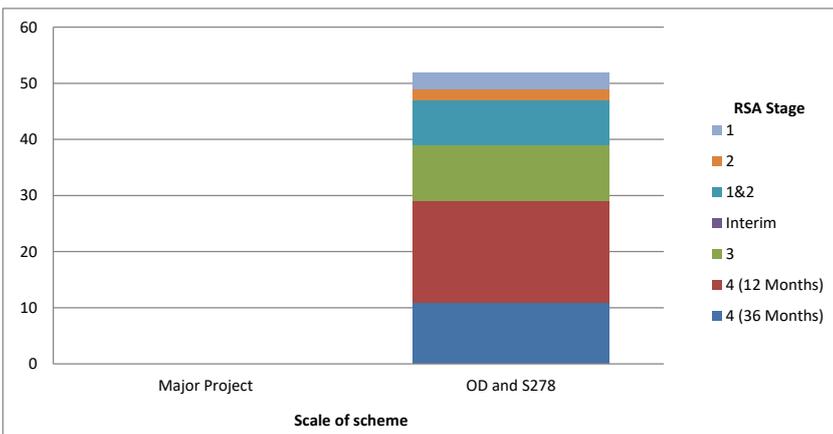
	This Quarter	Database Since Jan 2014
Number of RSAs submitted	52	1659
RSA Team Leader specifically identified	87%	94%
Project Sponsor specifically identified	85%	91%

	This Quarter	Database Since Jan 2014
Average number of problems recorded	1.2	1.5
Response Report issued	0%	2%
Exception Report issued	0%	0%

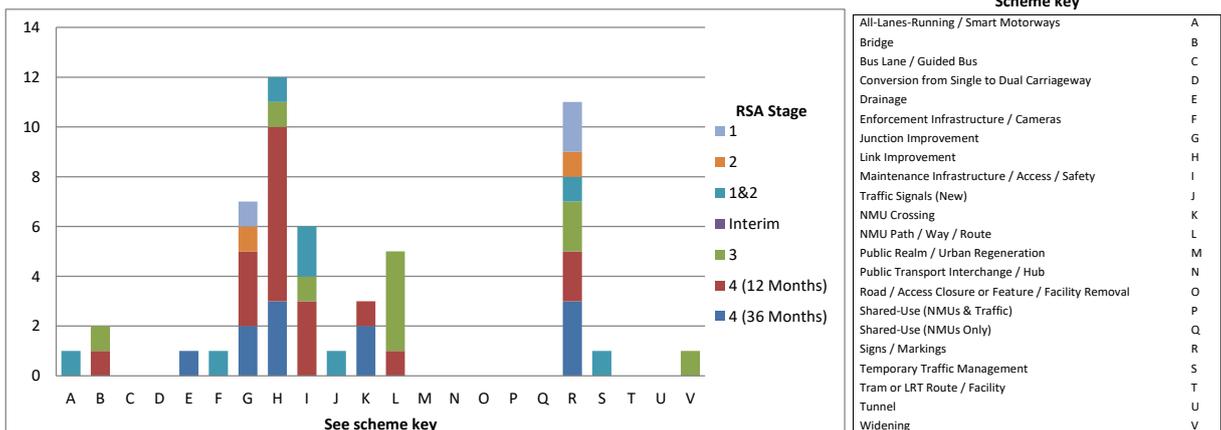
### RSAs By Highways England Area - This Quarter



### RSAs By Scale of Scheme - This Quarter



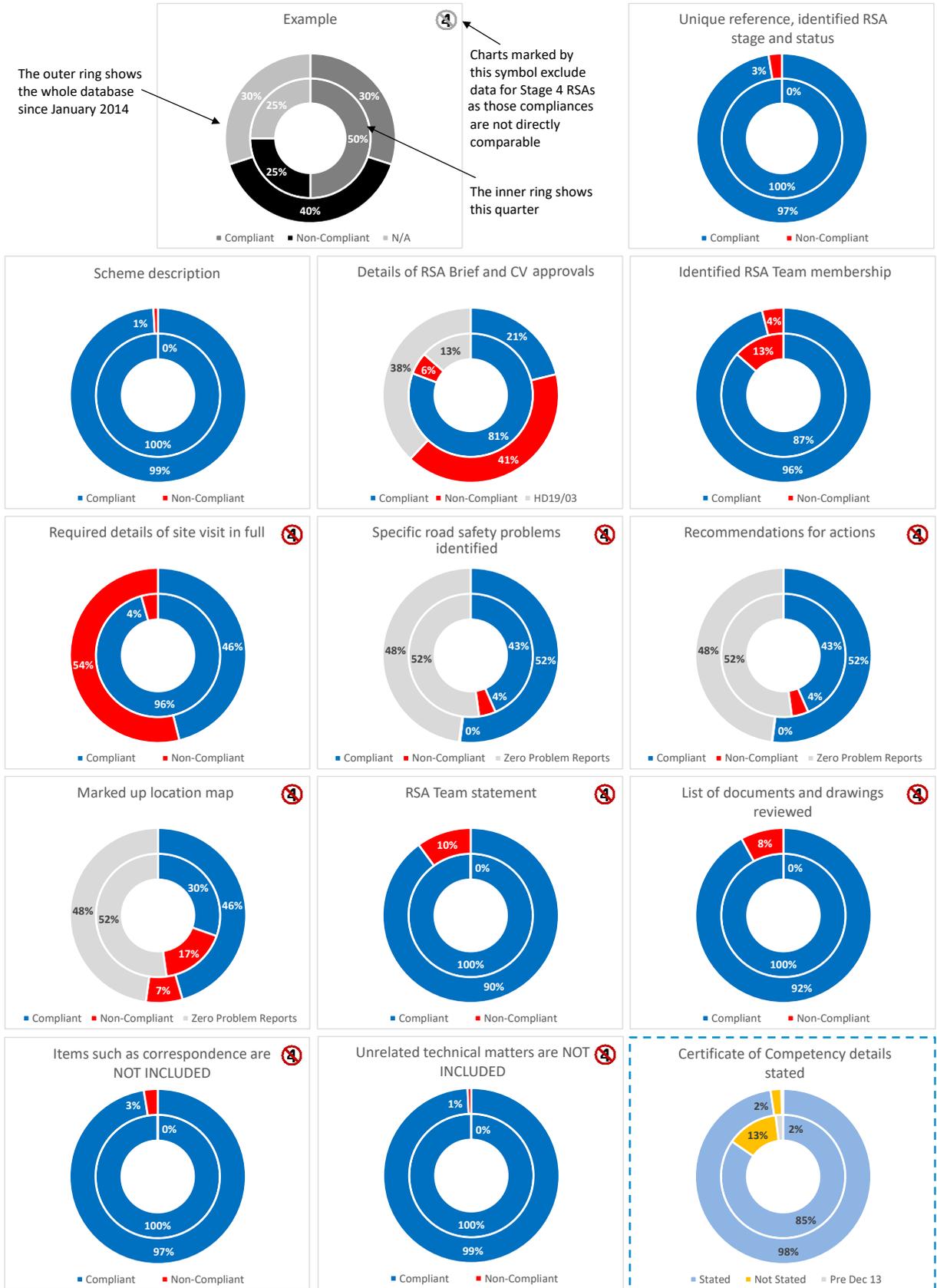
### RSAs by Scheme Type - This Quarter



#### Scheme key

All-Lanes-Running / Smart Motorways	A
Bridge	B
Bus Lane / Guided Bus	C
Conversion from Single to Dual Carriageway	D
Drainage	E
Enforcement Infrastructure / Cameras	F
Junction Improvement	G
Link Improvement	H
Maintenance Infrastructure / Access / Safety	I
Traffic Signals (New)	J
NMU Crossing	K
NMU Path / Way / Route	L
Public Realm / Urban Regeneration	M
Public Transport Interchange / Hub	N
Road / Access Closure or Feature / Facility Removal	O
Shared-Use (NMUs & Traffic)	P
Shared-Use (NMUs Only)	Q
Signs / Markings	R
Temporary Traffic Management	S
Tram or LRT Route / Facility	T
Tunnel	U
Widening	V

### RSAs by Compliances - This Quarter - Refers to all RSA Stages unless indicated (see key)



Inclusion of Certificate of Competency details is not mandatory