



## WEST YORKSHIRE PLUS YORK COMMON SKID RESISTANCE POLICY



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## APPENDIX 1 -AUGUST 2018 VERSION 5

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## Document Information

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## Document History

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## 1. Introduction

The constituent local authorities of the West Yorkshire Combined Authority (WYCA) – including Leeds City Council, Kirklees Council, Bradford Metropolitan District Council, Calderdale Council and Wakefield Council with the inclusion of City of York Council, have developed a common skid resistance policy. A common policy ensures consistency on cross boundary networks, such as the West Yorkshire Key Route Network, whilst the format allows each local authority the autonomy to manage their network appropriate to the local conditions in accordance with their skid resistance procedure.

The local authorities are Highway Authorities responsible for the maintenance of the road lengths shown in the following table.

<i>Local Authority</i>	<b>Classified A Roads</b>	<b>Classified B and C Roads</b>	<b>Unclassified Roads</b>	<b>Total</b>
<b><i>Bradford</i></b>	184	196	1,462	1,842
<b><i>Calderdale</i></b>	149	119	874	1,142
<b><i>Kirklees</i></b>	210	239	1,462	1,911
<b><i>Leeds</i></b>	389	239	2,234	2,862
<b><i>Wakefield</i></b>	189	220	1,044	1,453
<b><i>York</i></b>	79	103	1,673	1,855
<b><i>TOTAL</i></b>	<b>1,200</b>	<b>1,116</b>	<b>8,578</b>	<b>10,894</b>

Road lengths maintained (km)

The West Yorkshire plus York Common Skid Resistance Policy takes an asset management approach to managing skid resistance and puts a greater emphasis on engineering assessment. It will provide documented evidence of the local authority proactive approach to skid resistance management.

## 2. Skid Resistance

The term “skid resistance” used in this document refers to the frictional properties of a road surface in wet conditions, measured using a specified device, under standardised conditions.

Skid resistance survey machines are Sideway Force Coefficient Routine Investigation Machines known as SCRIM.

Skid resistance testing is carried out on wet or damp surfaces as the skid resistance of a surface will be substantially lower than when the same surface is dry.

Skid resistance is an important property relating to the safe passage of highway users, particularly in damp or wet conditions. Over the course of a road’s life the surface can lose some of its characteristics associated with grip. Effective maintenance of the highway network includes the requirement to systematically monitor the skid resistance of the road surface and to take a proactive approach so that the skid resistance across the network is maintained to an appropriate standard.

Skid resistance measurements are used as an empirical assessment of a road surface’s level of grip and as an indication of the potential need for further investigation based on known acceptable limits. However, it should be noted it does not represent the definitive grip available to a road user making a particular manoeuvre at a particular time and at a particular speed.

### 3. The West Yorkshire plus York Common Skid Resistance Policy

The objective of the West Yorkshire plus York Common Skid Resistance Policy is to:

- Maintain a consistent approach to the provision of skid resistance across the strategic road network, so that road users find consistent friction characteristics when accelerating, braking and cornering.
- Provide a level of skid resistance appropriate to the nature of the road environment at each location. The appropriate level is determined from a combination of: network-wide analysis of crash history, consideration of friction demands by road users and local judgement of site specific factors by suitably experienced engineers.

To achieve this each constituent authority will:

- Formalise processes for monitoring skid resistance across its Classified A Road network on an ongoing basis.
- Identify deficient sites using skid resistance survey methods for further investigation.
- Use accident data on sites identified for further investigation to determine whether inadequate skidding resistance could be a factor.
- Recommend appropriate actions to negate risks.
- Prioritise skid deficient sites for improvement works based on where the greatest risks lie.
- Ensure improvements to skid deficient sites are incorporated into the annual highway maintenance works programme.

## 4. Skid Resistance Procedure

Each constituent authority will have a Skid Resistance Procedure that details how the common skid resistance policy will be implemented

In 2015 Highways England published an updated comprehensive methodology for managing carriageway skid resistance on motorways and trunk roads and this is set out in their design standard, HD 28/15.

The methodology detailed in HD 28/15 forms a basis for the individual authority's skid resistance procedure. However, this is adapted to reflect local needs and resource constraints.

In summary the methodology is as follows:

- Skid resistance surveys will be undertaken annually on defined parts of the highway network which are referred to as the SCRIM Network.
- The current SCRIM Network is the Classified A Road network

NB: This network definition is subject to review once maintenance hierarchies have been defined during the implementation of the new Code of Practice for Well Managed Highway Infrastructure.

- The defined network will be assigned Investigatory Levels depending on a range of factors such as the speed limit and geometry of the road.
- Skid resistance data for a particular section of road (a site) will be scrutinised and compared against its Investigatory Level within ExpertAssets© Corporate Risk Management Tool (CRMT).
- Sites where skid resistance falls at or below the investigatory level will be identified for further investigation.
- The further investigation will take into account other factors such as whether there is road traffic crash history at the site to establish whether remedial treatment is necessary.
- Where remedial treatment is deemed to be of benefit, sites will be prioritised using a risk assessment approach and inserted into a work programme for action within the resources available.

The above methodology will be applied on an ongoing basis so that skid resistance across the highway network is monitored and managed appropriately.

## 5. Responsibilities

### 5.1. Legal responsibilities

The Highways Act 1980 sets out the main duties of Highways Authorities in England and Wales. In particular, Section 41 imposes a duty to maintain highways maintainable at public expense, and almost all claims against authorities relating to highway functions arise from the alleged breach of this section.

Section 58 provides for a defence against action relating to alleged failure to maintain on grounds that the authority has taken such care as in all the circumstances was reasonably required to secure that the part of the highway in question was not dangerous for traffic.

### 5.2. Roles and Responsibilities

This section sets out the various roles and responsibilities for the implementation of the Skid Resistance Policy.

The individual authority's Highway Asset Management Team is responsible for the:

- Management, development, implementation and regular review of the Skid Resistance Policy.
- The procurement and subsequent management of skid resistance surveys with contractors.
- Assignment of site categories and investigatory levels on the road network subject to skid resistance surveys.
- Processing, analysis and review of skid resistance data received from the survey contractor.
- Review of the site categories and investigatory levels for the road network subject to skid resistance surveys. This review will be undertaken every three years.
- Maintaining the appropriate records of site visits and associated documents.
- Informing other local authority departments of any issues affecting the site which may be contributory to skid resistance issues.
- Providing a prioritised list of sites that would benefit from improvement works and making informed decisions about how these are integrated into the annual highways forward works programme.



The individual authority's Highway Asset Management Team will ensure that the most appropriate remedial action is taken at sites identified as requiring action. Some examples of the options available are:

- Erection of warning signs
- Refresh of road markings
- Retexturing of the road surface
- Resurfacing of the carriageway with appropriate material