

Local Authority Skid Strategies

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Outline of presentation

- Short personal history of involvement in SCRIM
- UK risk and liability
- Reflection on UK skid strategies
- Observations on what succeeds

While there is not a direct correlation between the road condition indicator and safety, a reduction may indicate an increase in safety risk which Highways England must manage.

Highways England should take action to understand and manage any safety implications of lower road condition

Office of Road and Rail: February 2017



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This is my observations as practicing maintenance engineer who has used SCRIM data for 20 + years in a variety of roles. Doesn't necessarily represent the views of WDM. ORR reported on Highways England – not meeting their SCRIM target. Data management issues meant they reported an 'optimistic' figure and subsequently revised. Emphasis on **managing safety risks**.

22 years with SCRIM



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22 year involved with SCRIM

Initially receipt of data – good and bad – limited guidance on what to do. 1995 was a ‘disaster’ – very low SCRIM. No real strategy to deal with – no investigation protocol. Delivered as report – limited access to data. 69 PSV strategy!

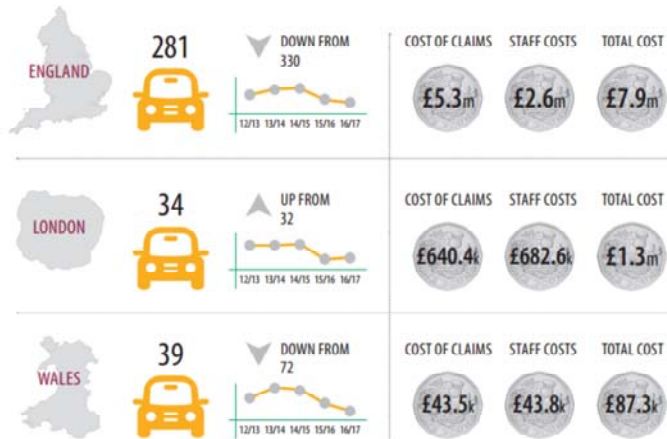
Policy roles- development of Highway maintenance plan/ investment strategies. Increasing awareness/ concern about highways liability. Greater access to data – acceptance of need for justifying maintenance. Move from local decisions to county strategy. Attempts for regional approach

Consultancy – working with numerous authorities – policy/ strategy/ prioritisation/ training

UK – highway liability

ROAD USER COMPENSATION CLAIMS

Number of claims in past year (average per authority)
plus cost of dealing with claims



FREE Accident Toolkit App

The Accident Toolkit app is an easy to use programme that captures details, audio and images from the accident that can be used to make a claim in an easy and efficient.



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Extract from 2017 Alarm report (Asphalt Alliance – Annual Local Authority Road Maintenance Survey) Not sure of veracity of figures – but managing claims is significant part of highway service in UK

Significant difference from NZ – claims can be against authorities for damage/ injury. Authority to establish defence

No win – no fee – perception is ‘claims’ lawyers take on anything – reality is they look at chance of success. Can underwrite fees by insurance

UK Highway Law

Varies by country – different provision in Scotland and Northern Ireland. Following relates to England and Wales

Criminal Law

- Process largely set out largely in the Road Death Investigation Manual
- Start with the premise of unexplained death – equivalence of murder
- Collate and assess evidence to determine causation including
- Human/ Vehicle and Environmental Factors
- Highways England provide advice on dealing with investigation as:
 - Witness
 - Expert
 - Defendant



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Different legislative backgrounds

Criminal law – would be unusual for investigation – but Corporate Manslaughter is within law (limited cases in 10 years since enacted)

RDIM used to have a 'how to' guide to investigate a Highway Authority – winter/ road profile/ new surface

UK has significant fear of winter maintenance claim following test case resolved by Law Lords (Goodes v East Sussex) – resources, records and actions well documents – SCRIM and condition data typically is not as well documented.

UK Highway Law

Varies by country – different provision in Scotland and Northern Ireland. Following relates to England and Wales

Civil Law

- Balance of probabilities
- 'Where there's blame there's a claim'
- Highways Act 1980
 - duty to maintain
 - Defence – test of 'reasonableness'
 - Concerns the 'fabric of the highway'
- Case law – Rogers v National Assembly for Wales
 - Unreported cases
 - Local settlements



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Civil law is about £'s. Claims for loss/ damage/ injury.

Injury claims can be prohibitively expensive

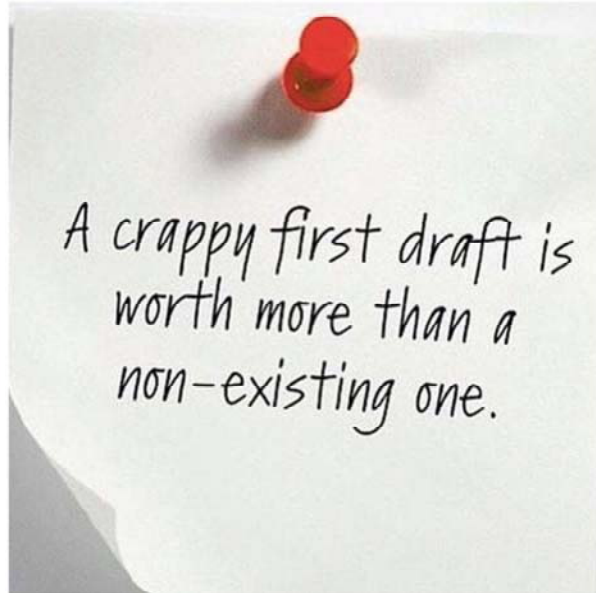
Reasonableness – is the building block for a policy/ strategy

Rogers case – failure to act on knowledge – delays. Final judgment 6 years after the accident

Skidding – often local settlement – court can be jeopardy for claimant and defendant

Putting together a strategy

- Survey network / frequency
- Setting Investigatory levels
- Investigations
- People
- Records
- Funding and timescales



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Policy/ strategy – semantics –policy has implied member political buy in.
Going to consider key strands – more detail site behind this, but I believe these are the fundamental building blocks

Network

- Class/ Hierarchy
- Should be data led – also where benefits are likely to be realised.
- Reviewed
- Informed by other strategies
- Logical
- Frequency – annually is preferred/ change by hierarchy



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Key decision – survey costs are ‘reasonable’ – consequential costs can be greater!

Data led – collision frequency/ proxy for potential rate of return.

Include some provision for other roads

Link to resilient network/ key bus routes/ functional hierarchy

Survey frequency

One client surveys network annually in one direction only – feels perverse!

Setting Investigatory levels

Local authority type	Average 2010/11 - 2012/13				Average 2013/14 - 2015/16			
	Lane 1 network length (km)	Length surveyed (km)	Percent of network surveyed	Percent of survey length requiring further investigation	Lane 1 network length (km)	Length surveyed (km)	Percent of network surveyed	Percent of survey length requiring further investigation
Counties	31,722	22,129	70	22	31,754	24,856	78	24
Unitary Authorities ²	13,701	9,648	70	22	13,710	12,284	90	23
Metropolitan Districts	7,492	3,611	48	25	7,519	5,118	68	28
London Boroughs ³	3,427	3,217	94	36	3,433	3,237	94	45
All local authorities ^{2,3,4}	56,342	38,605	69	23	56,415	45,495	81	26



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Extract from email received from client

HD28 levels may be considered high – implications on material policy, but experience of many authorities suggests they are about right.

Accident analysis on larger network adds value/ context and understanding. HD28 has 2/3 IL's for each site cat – if adopt should use of all – otherwise there may be a weakness in strategy

How important is it that the IL for a bend is 0.45 or 0.50. Better to ensure bends are properly identified

Table from Road conditions England – 26% require 'further investigation.'

I would argue that the value in the strategy is in this investigation process.

Prioritisation and Investigations

- If 26% of network is below can you investigate all?
- Prioritise using data
- Two stage investigation?
- Initial (desktop) review data
- Detailed – site based
- Need clear recommendation
- No further action is valid
- Attitudes to risk of those doing investigations
- Locating sites!



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This is where value can be added – significant investment in time so need appropriate systems

Combination of statistical analysis

Prioritisation seems essential – aim is to focus on sites with best potential return on investment (time + works)

Initial and detailed - different processed. Initial can be done as bulk exercise – detailed feedback suggests 20 – 30 minutes per site. Consolidate contemporary records (photos/ notes)

Make sure sites are properly located - GPS

Investigations: collisions

'Collision not skid related'

- Source of information
 - **reflect the reporting officer's opinion at the time of reporting the accident**
 - are based on the information which was available at that time, so **may not be the result of subsequent extensive investigation**
- Implied quality/ accuracy of Collision data



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A common theme in investigations is to look at accident records as a tool to 'eliminate' a site – so 'skidding' is often used as flag – ignoring loss of control/ fail to stop (whatever the reason)

Assumptions about drivers – one Engineer had an issue with young drivers

General feeling is that the presumption should be that the collision is valid unless the evidence points otherwise – practice is often opposite. London examples: 2 men fighting on road/ falls on buses

Observation that maintenance engineers are often not 'signed up' to the safe system methodology.

Skid strategy: people

- Several roles
 - Data management
 - Survey contractor
 - Investigator
 - Asset manager
 - Suppliers
- HD28 'personnel with
- suitable experience and/or qualifications'
- How to manage
- Staffing can be very dynamic
- Suppliers – make sure they understand context



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Skid policy involves numerous players- politician/ senior management. Data management/ investigator etc.

In litigation a good barrister may question competency

Teams are more dynamic – so ensuring those involved are competent (skills/ knowledge/ ability)

Epitome of skills and experience – free climbing 2000 feet faces (no ropes!)

Designers and Contractors – ensure they understand – material selection and design

Skid strategy: records

- Process generates large number of records
- Need to retrieve at a later date
- Should provide 'reasoned judgement'
- Strong recommendation that evidence of 'first party' review
- Budget considerations
- On line forms

Secure | https://test.wdm.utsa.gov/infocollaboration/mapp/default.html

HD28 2017 Site Inspection Form

Please complete fields as required, clicking for 'Yes' and Leaving Unchecked for 'No'

HD28 Site System Identifier: 1

SECTION: WITH A24 JCT ABERUTHVEN TO BURNSIDE LODGE

CROSS SECTIONAL POSITION: CLT

START METRES: 2580

END METRES: 2680

HD28 Priority: 1

Is there clear visibility from all approaches to the site?
[X] Site Location - CLEAR VISIBILITY

Site Location - CLEAR VISIBILITY COMMENTS

Is the speed limit appropriate for the site?
[X] Site Location - SPEED LIMIT APPROPRIATE

Site Location - SPEED LIMIT APPROPRIATE COMMENTS



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Survey data/ IL reviews/ collisions/ investigations...

All admissible to court/ police

Budget prioritisation – 'red line?'

Tablets – GPS enabled on line forms – synching direct to database.

Skid strategy: funding

- UK has mix of capital and revenue funding
- DfT block/ incentive/ challenge funding/ potholes...
- Local capital/ borrowing
- Revenue
- Allocated skid funding v prioritisation from larger pot
- HD28/15
 - Budgeting and programming issues will influence when the treatments are carried out and this process should be managed through the Overseeing Organisation's process for prioritising maintenance. Any ranking of skid resistance maintenance schemes should take into account the findings of the site investigations in addition to the supporting survey and crash data.



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Often is gap between investigation and works – tendency to deal with process as a series of batches. Follow through to ensure that recommendation has been implemented often poor. Schemes can and do drop off the end of the programme DfT have numerous funding schemes – option for local capital. Revenue tends not to be used unless for associated works. Need to understand how funding works and can be used. Safety funds – typically smaller than maintenance – but not always! Careful not to spend the same money twice!! HD28 – helpful in terms of budgeting and programme

Skid strategy: Timescales

- Survey window seasonal
- HD28/15 'as soon as practicable'
- Link to treatment programmes/ supplier capacity (may be contractual)
- Danger of over committing
- Risk of under-committing!
- Budget uncertainty
- Managing change!



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Often conflict between annual programme v survey delivery

Some policies set undeliverable timescales – over committing

Some don't allocate/ programme resource, so fitted in?

TS have contractual milestones for investigations

Budget can influence – risk of abortive design work/ uncertainty about future funds

Skid strategy: What works

- Clarity
- Resourced
- Standards informed by data, implemented by competent people!
- Documented, evidenced and reviewed
- Reasoned decisions
- Communicated to key partners
- (suppliers/police/ politicians/ insurers)



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Clarity – purpose/ roles/ timing

Resourced - £ and people/ - supply chain

Reasoned decisions – in establishing standards/ processes and records

Communication – often appear to be treating visually sound roads- make sure members know. Police – keep them close!

Comes back to the ORR - understanding and managing safety risk.

