Calderdale Council

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Report to Scrutiny Panel

Name of Scrutiny Panel	Economy and Environment	
Meeting Date	13 April 2011	
Subject	Brookfoot Hill	
Wards Affected	Brighouse	
Report of	Director, Economy and Environment	
Type of Item (please tick✓)	**Review existing policy**	
	Development of new policy	
	Performance management (inc. financial)	
	Briefing (inc. potential areas for scrutiny)	
	Statutory consultation	
	Council request	
	Cabinet request	
	Member request for scrutiny (CCFA)	✓

Why is it coming here?

By request of Economy and Environment Scrutiny Panel at the meeting on 2 March 2011.

What are the key points?

At the meeting on 2 March 2011 consideration was given by the Scrutiny Panel to an issue raised by Councillor Cawthra regarding problems being experienced by vehicles using Brookfoot Hill. Members of Brighouse Road Safety Committee attended the meeting and referred to their concerns regarding the road surface in respect of its structural condition, mud being deposited on the road from adjacent businesses and the lack of traction for vehicles travelling up the road from the junction with Elland Road. They referred to their concern that these conditions could result in a serious accident. They also referred to the recent skid testing carried out and the previous officer communication that works were planned.

Possible courses of action

The contents of the report and proposed actions be noted. Members of the Panel and the Brighouse Road Safety Committee be informed of outcomes where further investigation is required.

Contact Officer

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Tel: 01422 392947

Should this report be exempt?

No

Report to Scrutiny Panel

1 Background

1.1 At the meeting on 2 March 2011 consideration was given by the Scrutiny Panel to an issue raised by Councillor Cawthra regarding problems being experienced by vehicles using Brookfoot Hill. Members of Brighouse Road Safety Committee attended the meeting and referred to their concerns regarding the road surface in respect of its structural condition, mud being deposited on the road from adjacent businesses and the lack of traction for vehicles travelling up the road from the junction with Elland Road. They referred to their concern that these conditions could result in a serious accident. They also referred to the recent skid testing carried out and the previous officer communication that works were planned.

2 Main issues for Scrutiny

Skid Testing

2.1 Brookfoot Lane is tested for skid resistance on an annual basis as part of the Council's skid resistance testing programme. It is particularly important to test this route due to the geometry of the road i.e. the combination of bends, steep gradients and high HGV usage.

The aggregate in the surface of a carriageway surface contributes to the skid resistance between vehicle tyres and the surface and when a new surface is laid these aggregate properties are specified in accordance with industry standards with a view to providing an appropriate level of skid resistance throughout the life of the road. However, many factors can affect the rate and extent to which an aggregate will wear and/or polish (e.g. bends/steep gradient) and so in order to ensure risks are managed effectively, there is a need to carry out regular monitoring.

2.2 Measurement of skidding resistance requires the use of specialist testing equipment. The Council uses the Griptester which complies with British Standards (BS 7941) and can be operated at regular traffic speeds without the need for specialised traffic management arrangements. Seasonal variation and temperature all have an effect on surface skid resistance and testing is confined to the period 1st May to 30th September, as per national guidelines. Over a 3 year period, lengths of road are tested for skid resistance in early, mid and late summer, with the final result calculated as an aggregated average. Brookfoot Lane has had testing by Griptester carried out in 2009 and 2010 with Year 3's testing to be carried out in the summer of 2011 when 3 year aggregated averaged results will be available, and a balanced judgement on its skid resistance properties can be made.

2.3 Appendices 1 and 2 show the details of skid resistance results for Brookfoot Lane for 2009 & 2010. It is anticipated that 2011 surveys will be carried out in July with results available by December 2011. Results are shown in a RAG format (Red – Amber - Green) in accordance with national standards.

2009 results show the potentially problematical area of Brookfoot Lane as being at the bottom of the hill, for uphill bound traffic *(see photo100_0131)*, with another area of possible concern being the Hazel Lea to Marshalls section.

Photo 100_0131)

2010 results show better results at the bottom of the hill and towards Marshalls along with an apparent deterioration of condition in the Hazel Lea (uphill bound) area. All sections of road with indicatively poor results in 2009 & 2010 have been inspected by an experienced senior engineer, again in accordance with national standards and no immediate treatment has been deemed necessary. When 2011 results are available an aggregated 3 year average result for skid resistance for Brookfoot Lane will be available and a decision made if maintenance works are required.

Mud on the Road

2.4 The Highways Act 1980 prohibits the depositing of mud on the highway. The onus is on the drivers of vehicles to prevent any mud being deposited on the highway and on the Highway Authority (the Council) to ensure that this legislation is complied with.

Mud can also interfere with the road surface characteristics outlined in 2.1 as well as reducing traction and blocking road gullies restricting the efficiency of the surface water drainage system.

There have been a number of recent incidents of mud being deposited on Brookfoot Lane from adjacent sites, the most recent being attributed to the operations of Marshalls. Table 1 below shows the number of Customer service requests regarding mud on the road for Brookfoot Lane over the last 3 years:

Table 1

Year	No. of Reports of Mud on the road		
2009	1	=	1
2010	12	=	12
2011	12	=	12
	TOTAL	=	25

Marshalls have taken action to address the problems with mud on the road, installing wheel washing facilities and providing an additional sweeper to keep the roads clear. The condition of the road has much improved.

Structural Condition

2.5 Scanner surveys (Surface condition assessments for the national network of roads) are carried out on all UK, A, B & C class roads to derive National Indicators. Brookfoot Lane is a C class road (C531) and as such was surveyed as part of this process. Details of the most recent scanner survey are provided in Appendix 3 and show Brookfoot Lane to be predominantly in good and satisfactory condition with two areas showing as poor being the bottom of the hill and on the Hazel Lea to Marshalls section.

These areas of road (highlighted as red on Appendix 3) have been inspected and only minor routine maintenance is required in the form of carriageway patching. This will be carried out in 2011/12 as part of a planned routine maintenance programme.

2.6 Brookfoot Lane is also inspected on a monthly basis to ensure that the safety of all road users is not compromised. This frequency is in accordance with the Code of Practice for Highway Maintenance Management.

There is also some deterioration noted on the high friction surfacing towards the top of the hill near to the recently built wall (*see photo 100_1124*) although it must be noted that this section of road is not deemed as poor (red) on the Skid resistance or Scanner survey results so no maintenance is yet required or planned.

Photo 100_1124

There is evidence of previous carriageway patching but the condition of the road surface is generally satisfactory – (*photos 100_0133 & 100_0140).*

Photo 100_0133

Photo 100_0140

Traction

2.7 There has been a history of vehicles losing traction at the bottom end of Brookfoot Lane, particularly for HGV's turning right up the hill from a standing start on Elland Road and then having to negotiate the extremely testing gradient and bends of Brookfoot Lane. Good traction for vehicles is achieved when the friction characteristics of the road surface act with the vehicles' tyres to provide maximum grip. If this contact is reduced through mud or dust on the road and/or the geometry of the road or other factors affecting a wheel contact with the road surface, traction can be much reduced.

Table 2 below shows the number of Customer Service requests for Brookfoot Lane for the last 3 years which relate to vehicles skidding or getting stuck. Virtually all incidents are at the bottom bend of Brookfoot Lane.

Table 2

Year	No. of Reports of Vehicles stuck/skidding on the road		
2009	3	=	3
2010	3	=	3
2011	1	=	1
	TOTAL	=	7

2.8 Traction can be improved by the application of a high friction surfacing like that laid on the bend towards the top of the hill or using other methods such as re-texturing treatments (bush-hammering) to restore surface texture.

The latter is a relatively inexpensive treatment that has been in use for over 20 years and can restore traction and skid resistance properties of the road surface without the disruption caused in the application of anti-skid treatments. It has been used on Brookfoot Lane in the past and re-invigorated the texture properties of the road surface. There are no proposals to carry out surface treatment at the current time but this could be an option for later consideration.

Personal Injury Collisions (PICs)

2.9 The Council only has access to details of PICs reported to and recorded by the Police in compliance with recommended Department for Transport guidance (STATS19). There may, however, be PICs that are not reported to the Police and instances of 'damage only' collisions, which we and the Police are not aware of. The Police are not able to supply details of 'damage only' collisions in Brookfoot Lane as there is no reliable or consistent method for collecting and recording this data.

2.10 In the 10 year period to 31st January 2011, there have been 4 recorded 'slight' PICs (Appendix 4). All 4 occurred in a short period of just over 13 months between 16th Dec 2003 and 21st Jan 2005. 2 were single vehicle incidents involving loss of control coming down the hill towards Elland Road, 1 of these was an inexperienced 16yr old rider of a powered two wheeler, the other a car driver in the wet, and both would have been in the dark. The other 2 incidents involved a car travelling uphill, sweeping wide on the 1st left hand bend on a wet surface into the path of a 2nd vehicle travelling downhill. There have been no further PICs reported to the Police in the last 6 years.

2.11 Brookfoot Lane has a relatively good PIC record when compared to other similar roads locally, regionally and nationally. As a result, it does not feature in the Council's Sites for Concern listings and does not warrant any immediate action targeted specifically at casualty reduction.

3 Consultation

3.1 Engagement with the Brighouse Road Safety Committee and Marshalls, as detailed in the report.

3.2 The Acting Head of Highways and Engineering met with Marshalls staff on 18 March 2011. Marshalls were represented by Richard Marshall and two of his colleagues. The purpose of the meeting was to discuss the problems with mud on the road due to their operations, the condition of the road and if it was causing problems for vehicles accessing their premises, the general difficulties for HGVs negotiating the hill (loss of traction) and if there were ways that the Council could make further improvements on the hill.

Marshalls acknowledged that the amount of mud deposited on the highway was unacceptable and that they were slow to react to rectify the situation. The matter had been resolved. Wheels baths had been installed at two locations and an additional sweeper provided. The road and footpaths had been swept and the situation much improved.

Marshalls had spoken to 5 drivers who regularly use the hill, driving different types of HGVs, including cement wagons. In dry conditions there were no problems. The main problems arose when vehicles coming down the hill do not give way to the HGV coming up the bottom bend, causing the vehicle to stop. It was felt that a sign requesting 'Give Way' to vehicles coming up the hill may help. The trees and bushes growing over the retaining wall on the uphill side forced vehicles into the centre of the road, increasing conflict with vehicles coming down the hill. The trees and bushes need cutting back. There was also a slight bulging of the retaining wall which again caused a constriction in carriageway width.

A further suggestion was made to investigate the widening of the carriageway towards the bottom of the hill by removing the footpath. An alternative route could be provided using the public footpath which linked to a point halfway up the hill.

A suggestion was also made that a flashing sign positioned immediately at the junction with Elland Road advising HGVs to engage the lowest gear before negotiating the bend would be beneficial. This may help to avoid circumstances when loss of traction causes problems with gear changing on the hill. HGVs should be in the correct gear before ascending the hill. Whilst drivers of vehicles who regularly use the hill rarely get stuck, this should help drivers who are not so familiar with the route.

The issue of different types of HGV using the hill was discussed. It was confirmed that no particular type of HGV (be it tri-axle vehicles or others) has more difficulty negotiating the hill but there were more problems experienced by empty HGVs

4 Further action and timescales

i. Continue to monitor the skid resistance on the hill and take appropriate action if this becomes necessary.

ii. Carry out minor maintenance to the carriageway surface.

iii. Cut back the trees and bushes that are overhanging the retaining wall on the top side of Brookfoot Lane.

iv. Inspect the bulging wall and, if found to be structurally unsound, arrange for repairs to be carried out.

v. Continue to inspect and monitor road conditions in respect of mud on the highway.

vi. Investigate the option for widening the carriageway and redirecting pedestrians on the alternative route.

vii. Investigate options for improving signing on the hill as suggested by Marshalls.

viii. Provide feedback on 4.4, 4.6 and 4.7 to Members of this panel and Brighouse Road Safety Committee when investigations have been completed.

5 Financial implications/Risk

5.1 The cost of the proposed actions can be funded from the Highways Revenue budgets.

5.2 The Council, as Highway Authority has a statutory duty under the Highways Act 1980 to keep its roads and pavements “in repair”. Failure to deliver this duty will place the Council at risk of third party claims, litigation and associated costs.

6 Conclusions

6.1 The concerns regarding road safety on this challenging road are acknowledged in this report. Accident figures do not indicate trends which should give cause for concern. It is, however, important that standards of highway maintenance reflect the difficult nature of this route. Whilst the matter of mud on the highway has been resolved, actions have been instigated to ensure road condition is maintained to the required standards and to further investigate measures to improve road safety.

7 Appendices

7.1 Appendix 1 – skid resistance results 2009
7.2 Appendix 2 – skid resistance results 2010
7.3 Appendix 3 – Scanner survey results 2010
7.4 Appendix 4 – Personal Injury Accidents for the last 10 years

8 Background documents

HD28/04 (national/HA standards for skid resistance)

Well Maintained Highways-Code of Practice for Highway Maintenance Management

The Highways Act 1980

Ref: HM/3.1.0/DAT/PM
1 April 2011

Ian Gray
Director of Economy and Environment

FOR FURTHER INFORMATION ON THIS REPORT CONTACT:

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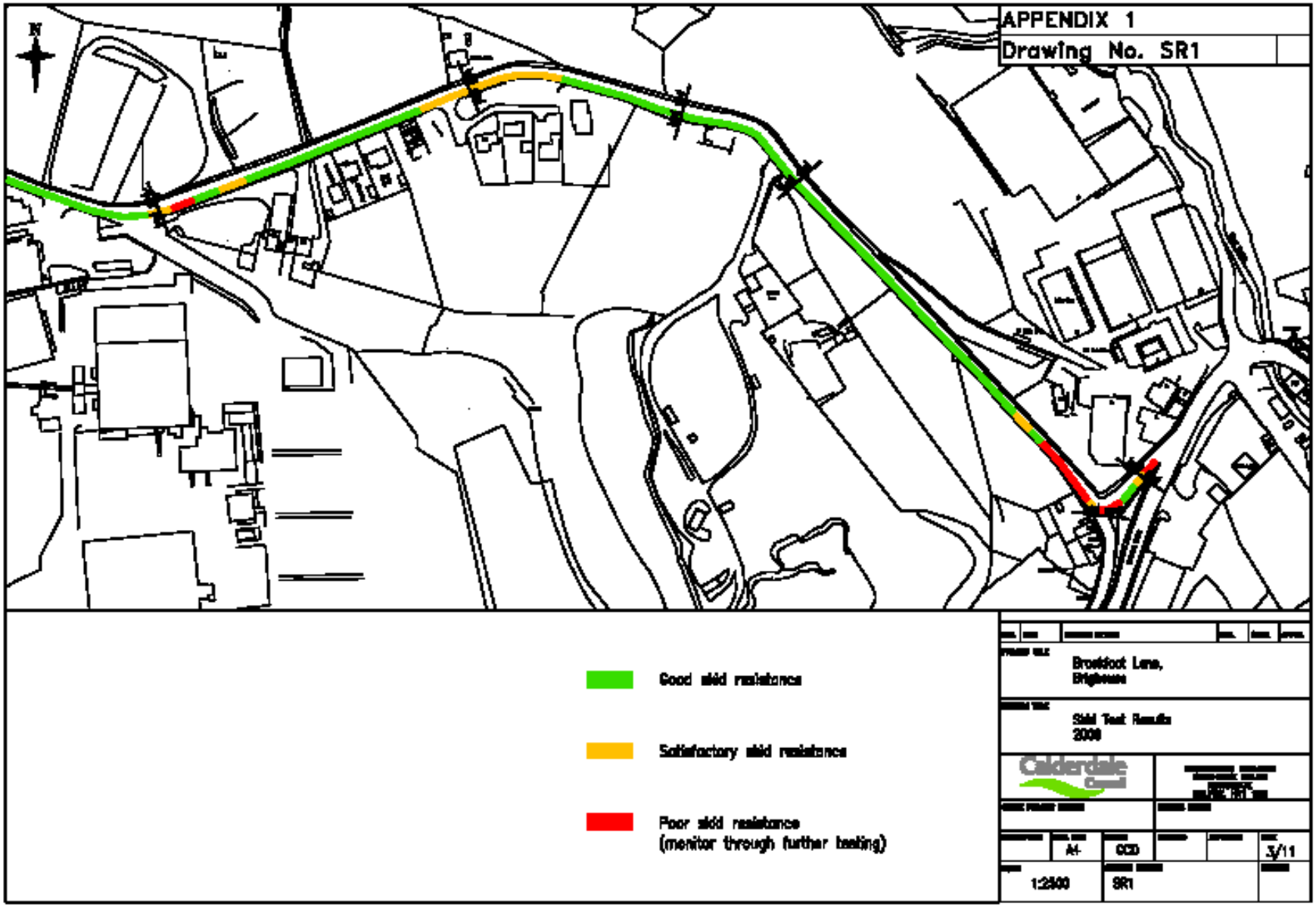
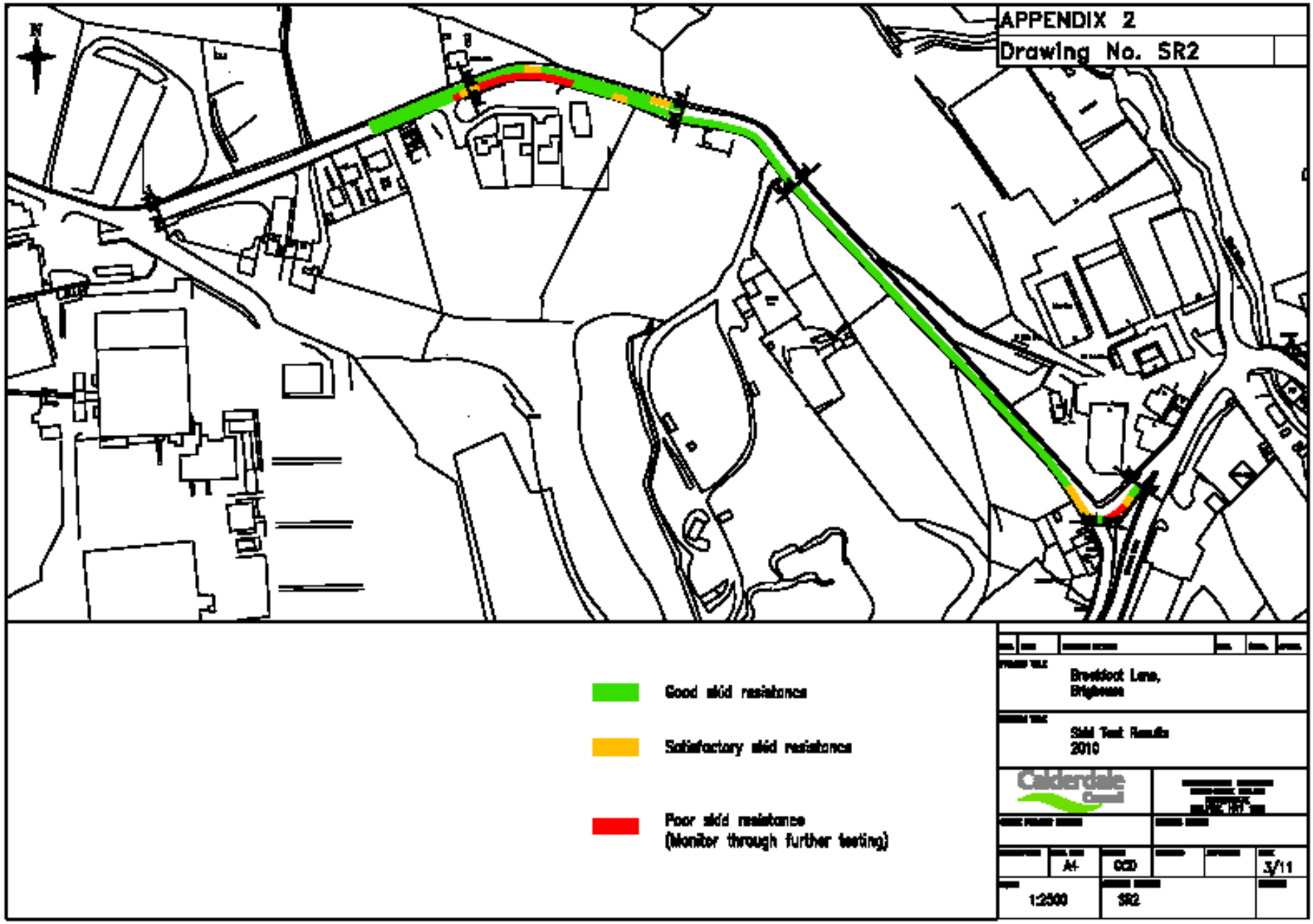
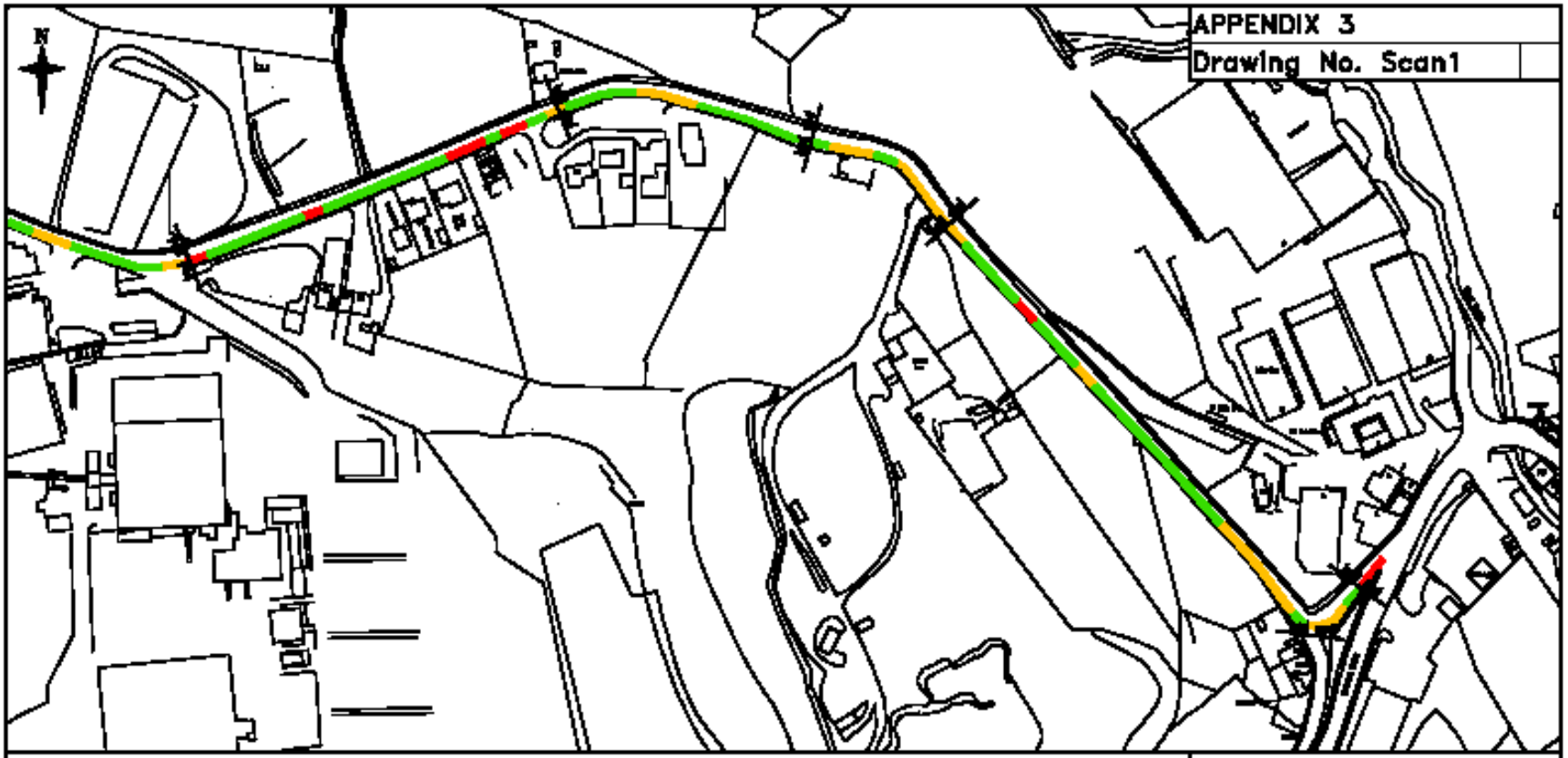
Dave Tee, Acting Head of Highways and Engineering — Telephone 01422 392100


APPENDIX 1
Drawing No. SR1
N
Good skid resistance
Satisfactory skid resistance
Poor skid resistance
(monitor through further testing)
Brookfoot Lane,
Brighouse
Skid Test Results
2008
Calderdale
Council
A4
CCD
3/11
1:2500
SR1


APPENDIX 2
Drawing No. SR2
N
Good skid resistance
Satisfactory skid resistance
Poor skid resistance
(Monitor through further testing)
Brookfoot Lane,
Brighouse
Skid Test Results
2010
Calderdale
Council
A4
CCD
3/11
1:2500
SR2

APPENDIX 3

Drawing No. Scan1



Good condition

Satisfactory condition

Poor condition
(monitor through assessment/inspection)

Brookfoot Lane,
Brighouse

Scanner Results
2018

Calderdale Council

A4

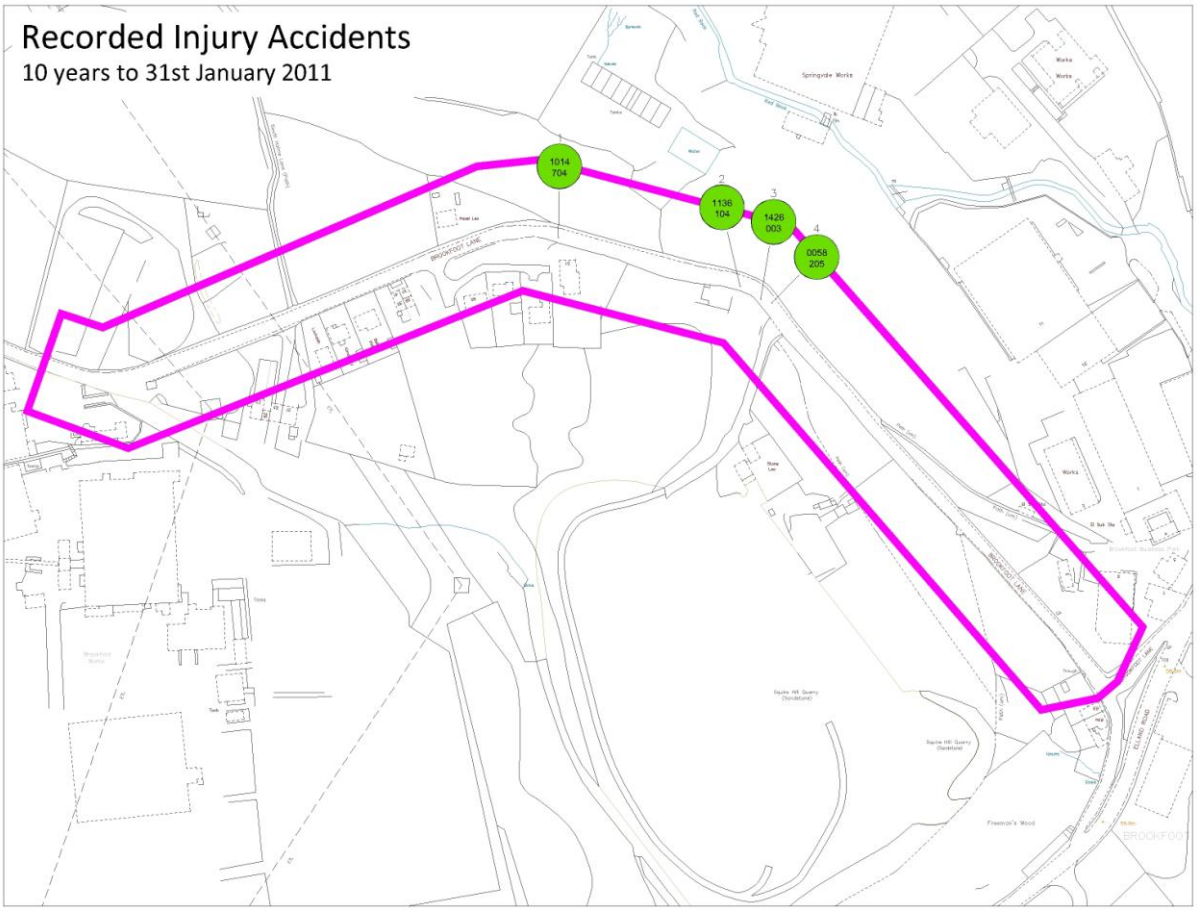
CCD

3/11

1:2500

Scan1

APPENDIX 4


Recorded Injury Accidents
10 years to 31st January 2011
1014
704
2
1136
104
3
1426
003
4
0058
205