A83 Tarbet – Campbeltown Trunk Road

Cairndow to Lochgilphead
Road Safety Study

Scheme Ref: 15/NW/0801/002

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August 2016

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REVISION STATUS				
REV.	**Date**	**Revision Details**	**Checked**	**Authorised**
1.0	Feb 17	Comments from Transport Scotland	Redacted	
FINAL	Nov 17	Approval from Transport Scotland	Redacted	

CONTROLLED DOCUMENT HOLDERS	
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1 Introduction

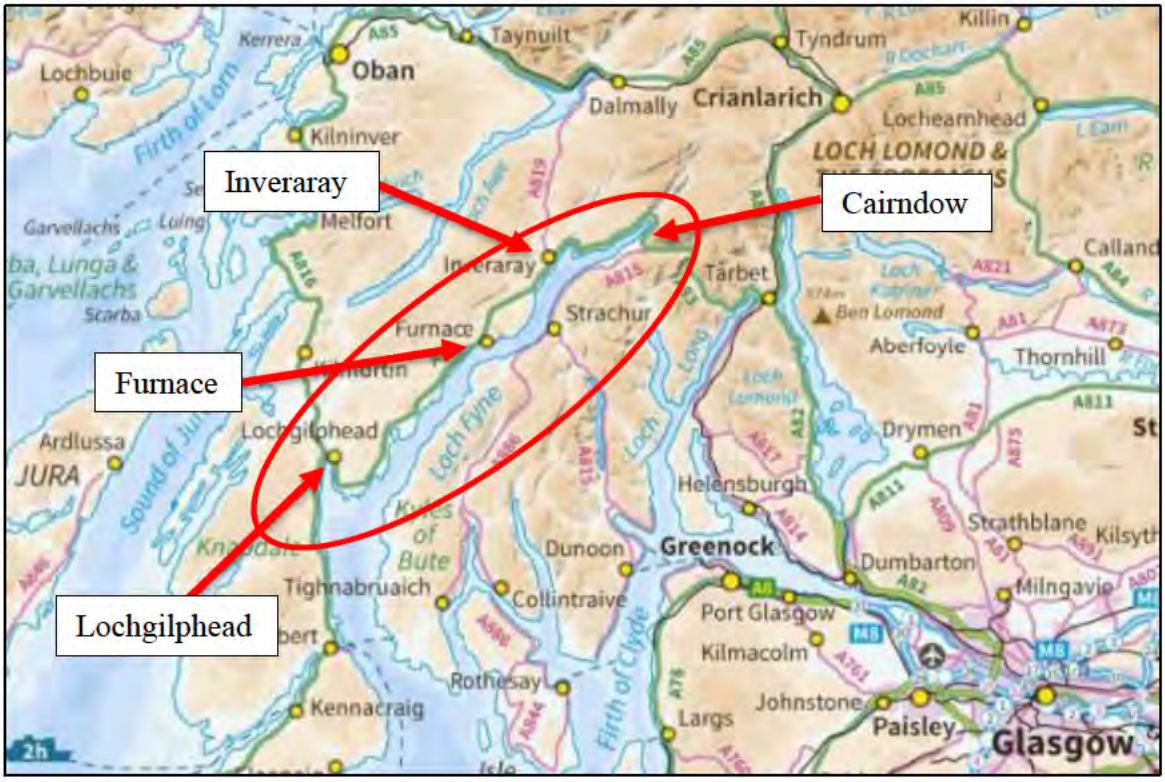
The Cairndow to Lochgilphead section of the A83 Tarbet – Campbeltown Trunk Road was identified as a site for further investigation in BEAR Scotland's North West Unit 2015/2016 *Annual Road Safety Review*[1].

This report has been commissioned by Transport Scotland to investigate the locations and contributory factors for injury accidents occurring within this section, and to make recommendations to reduce injury accidents and casualty severity in accordance with the *Strategic Road Safety Plan* [2] and *Scotland's Road Safety Framework to 2020* [3].

2 Site Description

2.1 Location

The A83 Cairndow to Lochgilphead section runs along the North West edge of Loch Fyne as shown in Plan 1.



Plan 1: Location Plan [4]

The study area commences at the junction of the A815 to the East of Cairndow and runs to the junction of the A816 at Lochgilphead. This length of road includes the villages of Furnace, Minard and Lochgair, and the towns of Inveraray and Lochgilphead.

2.2 Environment

The A83 at the study location follows the north west shore of Loch Fyne and Loch Gilp. The surrounding area is wooded with a few small towns and villages and occasional residential development. There are few junctions with other roads along the route but numerous tracks leading off the main road to service properties, estates and forestry operations.

2.3 Traffic

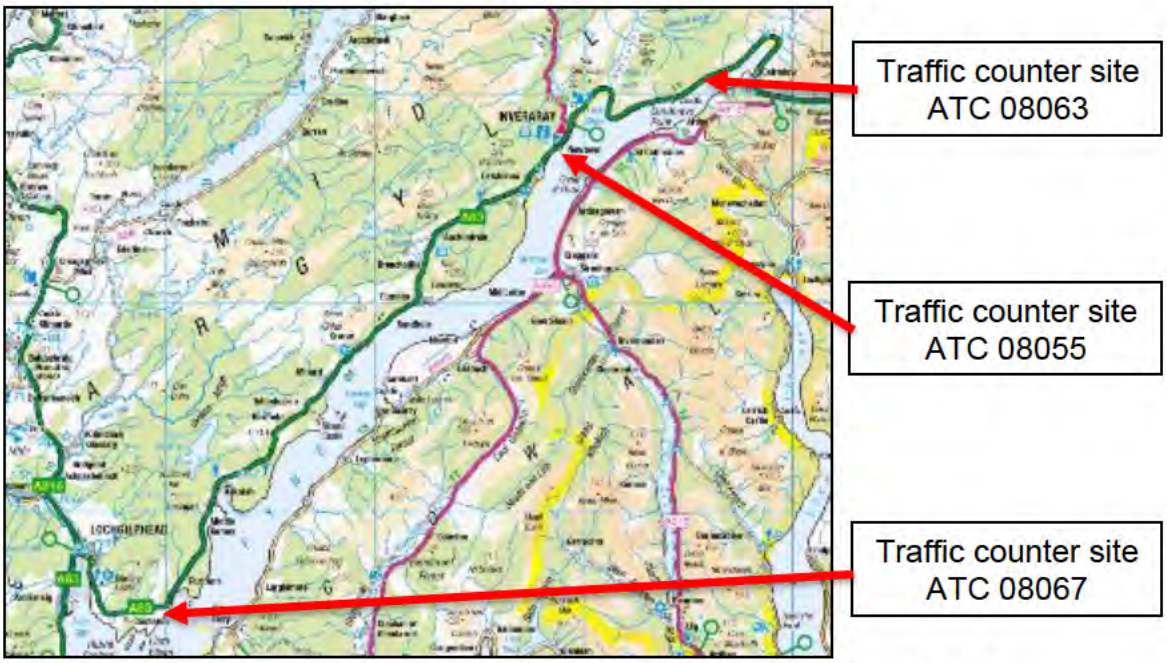
Transport Scotland Map Application [5] shows the location of three traffic counters within the study area which are shown in Plan 2. Traffic data for all three sites has been analysed with the results below between the dates of January 2010 and July 2015.

The counter at Drishaig, between Cairndow and Inveraray Ref. ATC08063 shows an average daily flow of 3512 vehicles per day and peaking at 4700 in August and dropping to 2046 vehicles in January.

The site to the South of Inveraray Ref. ATC08055 shows an average daily flow of 3062 vehicles per day and peaking at 3959 in August and dropping to 1894 vehicles in January.

The site at Castleton between Port Ann and the Kilmory roundabout Ref. ATC08067 shows an average daily flow of 2682 vehicles per day and peaking at 3525 in August and dropping to 2041 vehicles in January (January figure is 2013 data.).

No details of vehicle classes are available from these counter sites.



Plan 2 Location plan showing the positions of the three traffic counter sites [4]

The town of Inveraray lies at the junction with the A819. It attracts a high proportion of tourist traffic, particularly during the summer months visiting the Castle, Jail and the Harbour. There is significant pedestrian movement in the town crossing between the shops and the car park adjacent to the Harbour.

Lochgilphead is the largest town in the study section and is the location of Argyll and Bute Council offices and Depot and the light industrial estate at Kilmory roundabout, to the South of the town. Between the roundabout and the town centre there is a large joint School and Sports Complex facility. This has a junction for vehicular access only onto the trunk road with pedestrian access being from the neighbouring housing estate and remote to the trunk road.

Speed surveys were undertaken at Glaschonie between 29th August and 6th September 2016. The 85th%ile southbound speed was 59.3mph and the northbound 60.2mph. This information has been shared with Police Scotland.

2.4 Speed Limits

The study area has various speed limits as detailed below in Table 1.

	Section	Speed Limit	Length
1	Glen Kinglas A815 junction to River Aray Bridge	National Speed Limit	16.74km
2	River Aray Bridge (Traffic signals) to Inveraray	40mph	0.67km
3	Inveraray (Town)	30mph	1.46km
4	Inveraray to Furnace	National Speed Limit	11.22km
5	Furnace (Village)	40mph	1.33km
6	Furnace to Minard	National Speed Limit	4.01km
7	Minard (Village)	40mph	1.07km
8	Minard to Lochgair	National Speed Limit	8.03km
9	Lochgair (Village)	40mph	0.50km
10	Lochgair to East of the Kilmory roundabout	National Speed Limit	10.08km
11	South of the Kilmory roundabout to Lochgilphead (Town)	30mph	2.06km
12	Lochgilphead (Town) to A816 Roundabout	40mph	0.09km

Table 1: Speed Limits

A temporary 12-month 40mph speed limit was installed in August 2016 between Furnace and the south end of Cumlodden over a length of 1.558 kms with countdown markers installed in December 2016. Traffic speeds through this temporary speed limit are being assessed to determine the level of compliance and consequently whether the temporary speed limit is retained.

2.5 Alignment

The A83 in the study area runs predominantly from the North East to the South West. For the purposes of this report, the eastbound direction is used for vehicles travelling towards Cairndow and Arrochar, whilst the westbound is used for vehicles traveling towards Lochgilphead.

From *TD9/93 Highway Link Design*[6] Para.4.1 in 'The Design Manual for Roads and Bridges', the vertical alignment of the route has most gradients less than the 6% desirable maximum 'all purpose single carriageway two way'. The gradients above this figure are 7.49% maximum for 570m at a location 6.3km south of Inveraray and 9.42% maximum for 330m at Tullochgorm, 1.7km south of Minard. The two highest points on the route are at Auchindrain at 99m and to the South of Minard at 88m. For the majority of the route, the road level lies just above the loch which it follows.

The Horizontal alignment has been assessed in line with TD9/93 Highway Link Design and *APG E115 "Hazard Warning Signs and Markings on Bends on Single Carriageway Trunk Roads"*[7] These documents identify bends of less than 510m radius as one steps below desirable minimum radius for a design speed of 100kph and desirable minimum radius for 85kph. Using survey information contained within Transport Scotland's *IRIS*[8] system 185 bends have been identified along the route using the Section Typical Speed (STS) method as outlined in *APG E115.* The bends were assessed at 85kph obtained from TD9/93 Para. 1.7 for length of road subject to the National Speed Limit, 70kph for 40mph speed limits and 50kph for 30mph speed limits. The results are shown in Table 2 overleaf. The bends identified do not include the bends in the 30mph speed limit areas in Inveraray and Lochgilphead. These being the 90 degree bend at the car park entrance and gyratory in Inveraray and the bends associated with the mini roundabouts in Lochgilphead.

Appendix A shows the bends that have been identified from the alignment data and where appropriate highlights bends with a double apex.

	Section		STS	Length in km	Bend Category					Total	Bends Per Km
	From	To									
	Link, section, chainage	Link, section, chainage			A	B	C	D	E		
1	A815 junction East of Cairndow 16520/05 – 0m	River Aray Bridge 16520/85 – 2020m	85kph	16.74	2	16	12	7	1	48	2.87
2	River Aray Bridge 16520/85 – 2020m	Inveraray 16520/85 – 2690m	70kph	0.67	1	1	0	0	0	2	2.99
3	Inveraray 16520/85 – 2690m	Inveraray 16530/10 – 380m	50kph	1.46	1	3	3	0	3	10	6.85
	Note. The section is 30mph. It includes one 90° bend and a gyratory around the church in the centre of the high street. These are not included in bend assessment.										
4	Inveraray 16530/10 – 380m	Furnace 16530/75 – 3150m	85kph	11.22	7	11	13	4	6	41	1.25
5	Furnace 40mph 16530/75 – 3150m	Furnace 40mph 16540/05 – 1220m	70kph	1.33	2	1	1	1	0	5	3.76
6	Furnace 16540/05 – 1220m	Minard 16540/05 – 5200m	85kph	4.01	6	6	2	4	1	19	4.74
7	Minard 40mph 16540/05 – 5200m	Minard 40mph 16540/19 – 1050m	70kph	1.07	1	1	4	0	1	7	6.54
8	Minard 16540/19 – 1050m	Lochgair 16540/50 – 810m	85kph	8.03	6	8	6	2	6	28	3.45
9	Lochgair 40mph limit 16540/50 – 810m	Lochgair 40mph limit 16540/50 – 1310m	70kph	0.50	1	1	0	0	0	2	4.00
10	Lochgair 16540/50 – 1310m	South of Kilmory Roundabout 16540/80 – 2620m	85kph	10.08	1	2	3	7	6	19	1.88
11	South of Kilmory Roundabout 16540/80 – 2620m	West of Lochgilphead 16540/95 - 425	50kph	2.06	1	1	0	1	0	3	1.46
	Note. The section is 30mph. It includes 3 roundabouts which are not included in bend assessment.										
12	West of Lochgilphead 16540/95 – 425	A83 – A816 Roundabout 16540/95 - 506	70kph	0.09	0	0	0	0	1	1	11.11
	Total			57.26	29	51	44	26	25	185	3.23

Table 2: Bend categories (bends lass than 510m radius)

Adverse camber has been identified on 21 bends as highlighted in Table 3 and Appendix A. Bends 97 and 128 are included twice due to cambers both North and South bound.

Bend No. (from Appendix A)	Section	Design Speed	Bend Category	Bend Direction	Lane
7	1	85A	B	Right	Southbound
8	1	85A	A	Right	Southbound
30	1	85A	B	Right	Southbound
37	1	85A	B	Right	Southbound
40	1	85A	B	Right	Southbound
41	1	85A	B	Right	Southbound
49	2	70A	C	Left	Southbound
52	3	50A	E	Both	Both
53	3	50A	E	Both	Both
54	3	50A	C	Right	Southbound
62	4	85A	A	Right	Southbound
94	4	85A	B	Right	Southbound
97	4	85A	C	Left	Northbound
97	4	85A	A	Right	Southbound
108	6	85A	A	Right	Southbound
117	6	85A	B	Right	Both
120	6	85A	A	Right	Southbound
128	7	70A	E	Right	Southbound
128	7	70A	C	Left	Southbound
157	8	85A	A	Right	Southbound
163	10	85A	C	Right	Southbound
166	10	85A	A	Right	Southbound
173	10	85A	A	Right	Southbound

Table 3: Adverse Camber (on bends less than 510m radius)

2.6 Adverse Camber

Table 3 identifies adverse camber on bend with a radius of less than 510m. Many of the bends are a compound of multiple radii and the bend category shown is that of the minimum radius. Bend numbers 49, 52, 53 and 54 are all located in Inveraray and are associated with; the 90 degree bend into the High Street from the North (bend 49), the gyratory at the church and the south of the of the town near the car parks (a sequence of bends with left 52, right 53 and left 54). Bend number 128 is at the traffic signals at Minard at the single lane section. All other bends with adverse camber have the negative section located at one end usually for a ten metre length and at a bend radius of category A.

2.7 Cross Section

The road width varies from approximately 5.5 metres to over 7.0 metres at the localised alignment improvements. There is localised narrowing at two sets of traffic signals at Minard and the River Aray Bridge. At these locations the carriageway is reduced to a single lane with flow under signal control.

2.8 Road Surfacing

The carriageway surface is made up of either Hot Rolled Asphalt, Bitmac or Stone Mastic Asphalt. Annual maintenance schemes have replaced the surfacing at various locations along the route with consequent improvements to surface profile, local alignment and grip.

High Friction surfacing has been used primarily at bend locations within the study area. Other locations include; the approaches to the roundabouts at Kilmory Industrial Estate and the junction with the A816 to the West of Lochgilphead and the approaches to the traffic signals at Inveraray.

Photo 1

View looking north showing the extent of the dark grey high friction surfacing commencing approximately 60m inside the 30mph speed limit with the South bound approach being similar. This surfacing is showing signs of wear in the wheel tracks though the condition of the underlying surface remains satisfactory. There have been two accidents within the study period at this location with vehicles traveling too fast as causation factors. Although in a 30mph limit, the high speed approach from the south would warrant the retention of this surfacing.
(See later additional comments in section 2.10 Photo 21)

Photo 2

View looking towards the A816 roundabout showing buff high friction surfacing extending from the roundabout and crossing the river bridge on the immediate approach. One accident has occurred at this site with the narrowness of the road and masked signs being contributory factors. *HD36/06 "Surfacing Materials for New and Maintenance Construction"*[9] states that surfacing materials with the same PSV and AAV must be used across the carriageway.

Photo 3

View looking North across the signals at the Inveraray bridge. High friction surfacing has been applied to the full width of the carriageway. This is showing ware immediately before the stop line in the braking area.

Photo 4

High friction surfacing has been used to the approach to the signals only for south bound approach rather than the full width of the carriageway. HD36/06 "Surfacing Materials for New and Maintenance Construction'' states that surfacing materials with the same PSV and AAV must be used across the carriageway.

Photo 5

Photo 6

High friction surfacing is not present at the traffic signals installation at Minard. The road at this location is subject to a 40mph speed limit and the approach in photo 6 is close to the terminal point of a de-restricted section and on a downhill gradient. High friction surfacing is recommended as good design practice in *TD 50/04 The Layout of Signal Controlled Junctions and Signalised Roundabouts* [10] on the approach to traffic signals. There is however, no history of accidents at this location associated with the signals within the study period or back as far as 2005.

Photo 7

High friction surfacing 'stop – start' to avoid an existing road marking to the North of Furnace. This results in an inconsistency in grip at a location that has been identified as requiring a higher level than would normally be provided. The location of the SLOW marking in addition, is inappropriately placed on the bend and should be located at a suitable point in advance of the bend.

Photo 8

High friction surfacing at a set of multiple bends at Kilmichael Beg. A short section of approximately 45m has been left untreated between a left hand and right hand bends with the high friction material starting and stopping at the tangent points. Motorcycles may still be banked over between the bends and a change in grip and camber may destabilise the motorcycle.

2.9 Drainage

The majority of the drainage within the study section is over the verge into ditches and filter drains, with culverts either running into water courses or into the loch where the road runs alongside.

Photo 9

The edge of the carriageway between Armarlen and Douglas Water Bridge shows signs of being over-run. This has resulted in wash out of the edge of the carriageway. If left in this condition the integrity of the road construction will be compromised and the rutting will create a significant road safety hazard.

Photo 10

The edge of the carriageway to the south tie in of the development site at Port Ann is showing signs of being over-run. This is due to the poor alignment of the single side constructed right turn facility. The Port Ann site and junction has been the subject of a Stage 3 Road Safety Audit in which issues with alignment have been identified.

Photo 11

The edge of the carriageway to the north of Port Ann is showing signs of over running on the inside of the bend. The area also appears to be retaining water with the rush type grasses.

2.10 Road Markings

The study area is marked out in accordance with *Chapter 5 of The Traffic Signs Manual*[11](TSM). The markings generally consist of edge lines to Diag. No 1012.1 of *The Traffic Signs Regulations and General Directions 2016*[12] (TSRGD). The centre lines vary from Diag. No. 1004.1 rural warning line in sections with bends or Diag. No. 1004 urban warning lines through towns and areas with speed limits of 40mph or less. In rural areas that have long straight sections the centre line consists of Diag. No. 1008.1 non hazard line.

Assessment of the lining has identified the following issues:

Photo 12

The road markings at the junction with Lock Fyne Oyster Bar consist of double white lines and a central hatched area to Diag.No.1013.3. These markings require reflecting road studs at 4.5m centres which are absent. Additionally, two 'tuck in' arrows to Diag.No. 1014 are required in advance from both directions. These are also absent.

Photo 13

The road markings at the southern end of the junction with Lock Fyne Oyster Bar have few studs and are outside the double white lines.

Approximately 18m at the southern end of the hatched area was subject to re-surfacing works during 2017 where the issue of studs was addressed.

2.11 Traffic Signs

A review of the existing bends has been carried out using AGP E115 "Hazard Warning Signs and Markings on Bends on Single Carriageway Trunk Roads" utilising the 'Section – Typical Speed' Method. The results are outlined in Appendix A. There are 187 bends identified within the study section, with 84 being categorised as 'C' to 'E' which require signing. There are 18 bends categorised as 'E', the most severe. The warning and chevron signing along with the hazard marker posts should be assessed in accordance with the TSRGD, TSM Chapter 5 and AGP E115 to confirm if the present signing arrangements are correct or require alteration.

Photo 14

Photo 15

Inconsistency of signing the same set of multiple bends to the south of Port Ann. A double bend warning sign for North bound vehicles while there is single bend only sign for south bound traffic. The siting of the north bound sign is also too close to the actual bend. These signs should also be accompanied by distance plates and where necessary additionally accompanied by a "REDUCE SPEED NOW" signs to Diag.No.511.

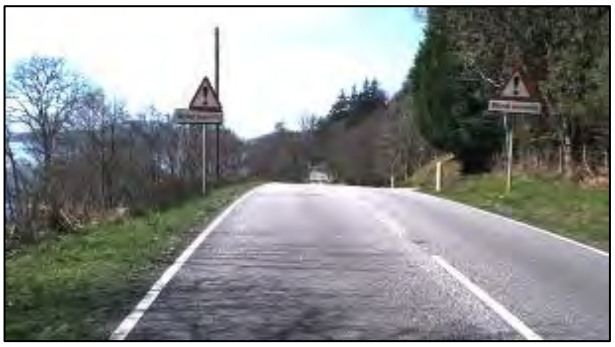


Photo 16

Blind summit signs and accompanying plate to Diag.No.563 and 563. These should be located between 180m to 245m in advance of the summit (the hazard) rather than at the actual location. Additionally, the supplementary plates should be arranged on two lines of text to reduce the overall width and lessen the chance of the overly wide signs from rotating. There are actually a sequence of three summits at the location at Achnatra 1.4km North of Strone Point, so the addition of a distance should therefore be included.

Photo 17

Chevron signs to Diag.No.515 exceeding the recommended mounting height of 1m in Chapter 5 of the TSM mounted on single posts, longer than required. These signs are located between the two junctions to Cairndow. Experience has shown that these signs spin around on the post over time due to various factors, and can then give misleading information. The signs should be re-mounted at the appropriate mounting height, with the opportunity taken to attach on twin posts and were possible, re-located to a position behind the barrier.

Photo 18

Destination inconsistency at Lochgilphead. The two roundabouts at the entrances to the town show the destination of Oban A816'. This is missing from the signs in the centre of the town. The present signing arrangements should be amended to provide consistency of destinations and avoid confusion, particularly for tourists who will be unfamiliar with the location.

Photo 19

At the junction of the A819 in Inveraray there is no advance direction sign for North bound vehicles. This is particularly important due to the restricted headroom at the archway immediately after the junction. The A819 is used as an emergency diversion route should the A83 to Tarbet and the Rest and be thankful be closed. Advance signs should be provided from the South to indication of the restricted headroom.

Photo 20

The photo shows the West bound approach to the 30mph speed limit at Kilberry, to the south of Lochgilphead. The Kilberry roundabout is not visible at this point due to the right hand bend on its immediate approach. In this instance, as the reduction in vehicle speeds is up to 30mph, combined with the masked roundabout, the 3, 2, 1 speed limit count down signs should be provided at this location.

Photo 21

The photo shows signing at the Kilmory roundabout. The signing for Kilmory Ind Est has been in place since at least 2009 having been added to the existing posts and has poor visibility behind the bollard. Signing should only indicate the destinations at each exit rather than signing them around the roundabout. Additionally, the mounting height of the sign should be 2.0m minimum at the roundabout in accordance with TD16/7 Para.8.2.

Photo 22

The recommendation for mounting height of chevrons at roundabouts in *Chapter 4 of the Traffic Signs Manual* [13] is 1m to the centre of the chevron from the road level. The signs at the Kilmory roundabout are mounted too high and therefore out of the headlight line for vehicles. It is recommended that the sign mounting heights are reduced for all legs of the junction.

Photo 23

There are three laybys to the South of Inveraray that do not have signing to Diag. No. 801 'P' or advance signing to Diag. No. 2501 indicating the distance to the layby. A lack of signing can lead to late braking by vehicles wishing to use the layby and may lead to rear end shunt type accidents. It is recommended that the appropriate signing is installed at the three locations.

Photo 24

In September 2016 three sets of junction bollards were installed at Glaschonie following concerns raised by residents on this section of the A83. A further 65 sites have been identified within the Study area which require junction bollards.

2.12 Road Side Hazards

Photo 25

The photo shows the Bridge parapets in Lochgair adjacent to the edge of the carriageway. These do not have any warning to drivers of the obstruction immediately adjacent to the carriageway. It is recommended that appropriate signage is installed incorporate black/amber warning boards to Diag. No. 528.1 to increase their conspicuity.

Photo 26

The photo shows the position of the Culvert parapet at Kilmory Pier adjacent to the edge of the carriageway for North bound traffic. It is recommended that a black/amber warning sign board to Diag. No. 528.1 is installed at this location to increase its conspicuity.

Photo 27

The photo shows the position of the post and rail fence over a culvert between Ballibeg and Barr Bhaltair adjacent to the edge of the carriageway for North bound traffic. The drop off above the actual culvert and the water course below would represent a hazard should a vehicle leave the road at this point. The fence should be re-assessed in line with *TD19/06 Requirement for Road Restraint Systems* [14] to determine its suitability. This junction also requires junction bollards.

Photo 28

The barrier protection on the left of the photo is on a left hand bend and is close to the edge of the carriageway. There is evidence of over-running of the inside of the bend and some crash debris (wing mirror) in the photograph. It is recommended that the barrier end is reassessed in line with TD19/06 and extended approximately 125m to the north east to the straight alignment proceeding the bend.

Photo 29

There are several short lengths of barrier protection that have been installed along the route to protect structures such as culverts. They all have P1 ramp end terminals and appear to be a substitute for pedestrian barrier. These should be re-assessed in line with TD19/06 Requirement for Road Restraint Systems to determine their suitability.

Photo 30

The recommendations in TD19/06 are that a RRRAP assessment should be carried out on trees that have a girth greater than 250mm at 300mm above ground level. There are similar instances to the situation shown in this photo along the whole route. In some instances, trees are in the narrow section of land between the road and the edge of the loch with the roots effectively retaining the bank.

2.13 Pedestrian Crossing Facilities

There are no formal pedestrian crossing points within the study area.

The main centres for pedestrian movements are at the towns of Inveraray and Lochgilphead. Both of these locations are subject to seasonal variations in visitor numbers and are subject to 30mph speed limits.

Pedestrian movements in Inveraray are primarily focused at the shopping area between the car park adjacent to the harbour and the Jail. The large town car park has pedestrian access points adjacent to the church located in the centre of Main Street and fronting the green adjacent to the harbour. There is on street parking either side of the high street with pedestrians crossing between parked vehicles. Traffic speeds are however low due to the alignment of the carriageway at the harbour and the gyratory at the church.

A report in May 2014 looked at the issue of pedestrians crossing the Main Street in line with *LTN 1/95 The Assessment of Pedestrian Crossings* [(15)]. The conclusion of the report was that an improvement to the existing build outs at either end of Main Street and within the parking bays was the most appropriate option to improve pedestrian safety. However, in order to provide compliant crossing points a number of parking spaces would be lost. These recommendations were shared with the local community and businesses on Main Street and they were not supported. Therefore, to date, the recommendations have not been progressed.

Photo 31

In Lochgilphead the A83 has a mini roundabout junction in the centre of the town. The trunk road runs parallel to the edge of the Loch and an area of parkland to the South with the main shopping area on the opposite side of the road to the North.

The shopping area is centred about the A83 Lochnell Street to the east of the junction and Colchester Square leading into Argyll Street to the North. There is a crossing point on Lochnell Street with a central pedestrian splitter island, tactile paving and guard rail around the junction radii to focus crossing of the A83 to this point.

Pedestrian crossing warning signs were installed in 2016 to cover the area at the Oyster Bar. Pedestrian crossing warning signs were also identified as required between Cairndow and Glaschoine to facilitate access to a proposed remote footpath. These were installed in 2016 through Minor Improvements.

2.14 Bus Stop Facilities

The bus stops within the study area vary in the level of facilities provided for pedestrians. This can be from a layby with a shelter to an in line stop with no hard standing or paved area and operated as a request stop. A summary of the facilities at each location both West and East bound is contained in *Table 4*. There is no Bus Stop listed for Furnace as this is in the village centre an off the A83 Trunk Road.

A83 BUS STOPS from Cairndow to Lochgilphead										
	West bound					East bound				
	Layby	Inline	Road markings	Paved area	Shelter	Layby	Inline	Road markings	Paved area	Shelter
Cairndow at the road end adjacent to the war memorial	Yes	*	Yes	Yes	Yes	Yes	*	Yes	Yes	Yes
Inveraray at Front Street West	Yes	*	Yes	Yes	Yes	Yes	*	Yes	Yes	Yes
Newtown, Inveraray. Opposite Barn Brae	Yes	*	Yes	Yes	Yes	*	Yes	No	Yes	No
Dalchenna. Argyll caravan park	Yes	*	No	No	Yes	Yes	*	No	No	No
Auchindrain. At the Folk Museum	*	Yes	No	No	No	*	Yes	No	No	No
Crarea. Opposite the Gardens access road	*	Yes	No	No	No	*	Yes	No	No	No
Minard. Between the Memorial and Phone box	Yes	*	No	Yes	Yes	*	Yes	No	Yes	No
Tullochgorm	*	Yes	No	No	No	*	Yes	No	No	No
Lochgair. At the Hotel	Yes	*	Yes	Yes	Yes	Yes	*	Yes	Yes	Yes
Port Ann.	*	Yes	No	Yes	No	*	Yes	No	Yes	No
Castletown	Yes	*	Yes	No	No	Yes	*	Yes	Yes	No
Kilmory Industrial Estate North of the roundabout	*	Yes	Yes	Yes	Yes	*	Yes	Yes	Yes	No
Lochgilphead. Lochnell Street	Yes	*	Yes	Yes	Yes	Yes	*	Yes	Yes	Yes

Table 4: Bus Stops

None of the bus Stops have all of the facilities as outlined in Transport Scotland's document *Roads for All, Good Practice Guide for Roads* [16]. Bringing the bus stops up to the current standard, may involve acquisition of land in rural areas. This will need to be assessed on an individual basis with priorities being drawn up reflecting scale of works involved and actual usage by pedestrians with or without mobility issues.

2.15 Alignment issues

Photo 32

Photo 33

The construction of the new junction in Port Ann for a proposed development presents an awkward alignment to motorists. The edge line and kerbing have produced a series of angular tie-ins that have the effect of causing vehicles to clip the apex points. The kerb line end point to the south of the junction (Photo 33) represents a particular issue as it may de-stabilise a vehicle, particularly a motorcycle if clipped. This junction has been the subject of a Stage 3 RSA which has made various recommendations to improve its safety.

Photo 34

The double bends between Strone Point and Dunderave Castle are signed with warning signs and hazard marker posts, the latter being less than recommended in current standards.

A review of the current alignment in line with APG E115 would justify an increase in the number of hazard marker posts at bend sites at this and other locations along the route. The upgrading of the current arrangements will give drivers a more consistent message as to the severity and alignment of the road.

Photo 35

The road markings at the junction for Cairndow (East junction) have bus stops East and West bound. The edge line for the bus stops ties into the tangent point at the end of the layby and the edge line is spaced off by approximately 200mm from the kerb line. For East bound traffic, this point ties into a left hand bend. The effect is that the corner appears to 'jut out' into the carriageway at the start of the bend. It is recommended that yellow bus stop edge line is altered so that it ties into the white edge line at the end of the layby to produce a smooth alignment. There is a planned local access path (remote to the trunk road) planned to the rear of Glaschoine with access across the A83 at this location. It is recommended that warning sign Diag. 562 and 'Pedestrians Crossing' signs are installed.

Photo 36

Photo 37

The alignment of the road at Strone Point shown in photo 36 has had 10 accidents in the five year study period. A recent scheme has cleared trees and bushes around the bend to provide improved visibility. As part of the scheme, Vehicle Activated signs have been installed for the bend as shown in photo 37, these being to Diag. 512 'Bend ahead' and a message SLOW DOWN in LED's. The trigger speed of the two signs is set at 45mph for West bound and 40mph for East bound, reflecting the approach speeds. A further scheme is planned to carry out a realignment of the carriageway at the bend in 2017. No further actions are therefore recommended for this site.

3 Accident Analysis

3.1 2005 -2014 Accidents Overview

The injury accident records for a ten year period are included in Table 5 below to give an over view of the trend for the route. The accident data including locations, vehicles involved, casualties and contributory factors for this study has been sourced from Transport Scotland's WebIRIS System.

A total of 266 reported injury accidents were identified over the 10 year period from 2005 to 2014 inclusive as shown in Table 5 below.

Year	Slight	Serious	Fatal	KSI	Total
2005	25	6	2	8	33
2006	22	5	1	6	28
2007	19	3	4	7	26
2008	19	9	0	9	28
2009	17	8	1	9	26
2010	24	6	2	8	32
2011	13	5	0	5	18
2012	15	5	1	6	21
2013	21	4	4	8	29
2014	16	7	2	9	25
Total	**191**	**58**	**17**	**75**	**266**
Average 2005-2014	**19.1**	**5.8**	**1.7**	**7.5**	**26.6**
Average 2010-2014	**17.8**	**5.4**	**1.8**	**7.2**	**25**

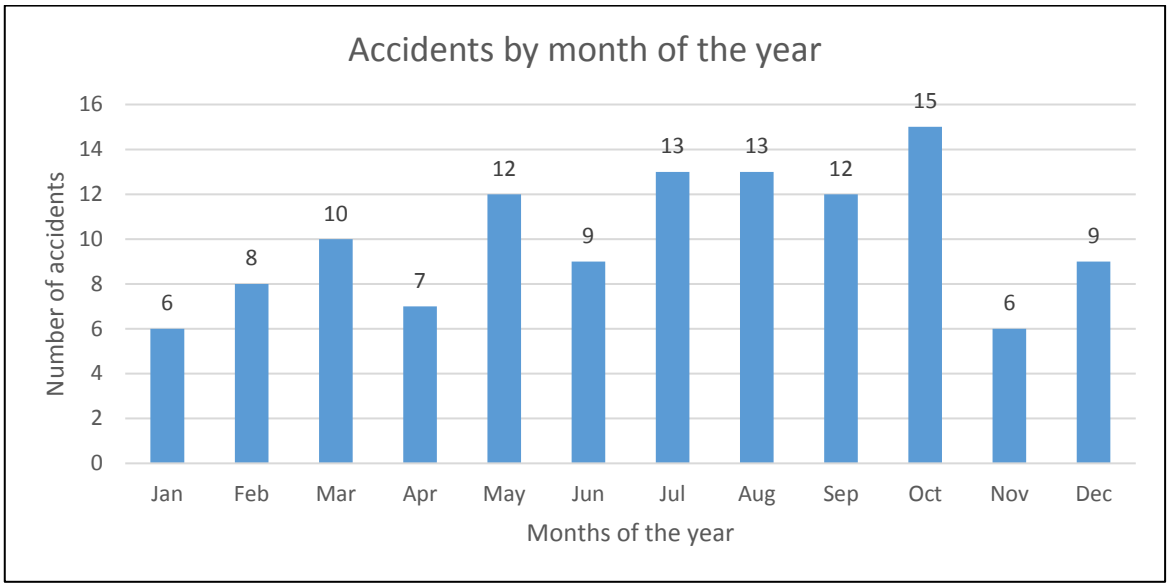
Table 5. Accident Numbers 2005 to 2014.

There has been a slight reduction in overall accidents over the last five year period compared to the ten year period. The five year average figures show a slight reduction in numbers of serious injury accidents but a slight rise in fatalities. The overall killed and seriously injured rate (KSI) has shown a slight reduction.

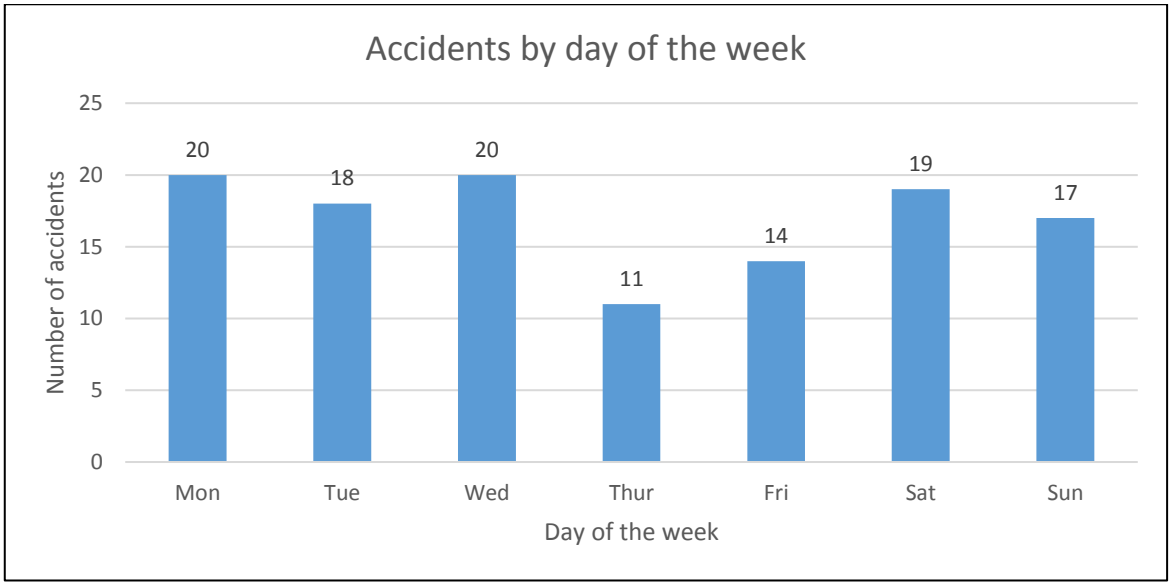
3.2 2010 -2014 Accident Analysis

For the purpose of this study, an analysis of the reported injury accidents over the five years for 2010 to 2014 has been carried out. The table in Appendix B lists the accidents used in the study with the table being organised in accidents from east to west along the route along with Police accident reference code number. A series of accident location plans is included in Appendix C containing the same reference code numbers so that individual accidents can be located and cross-referenced.

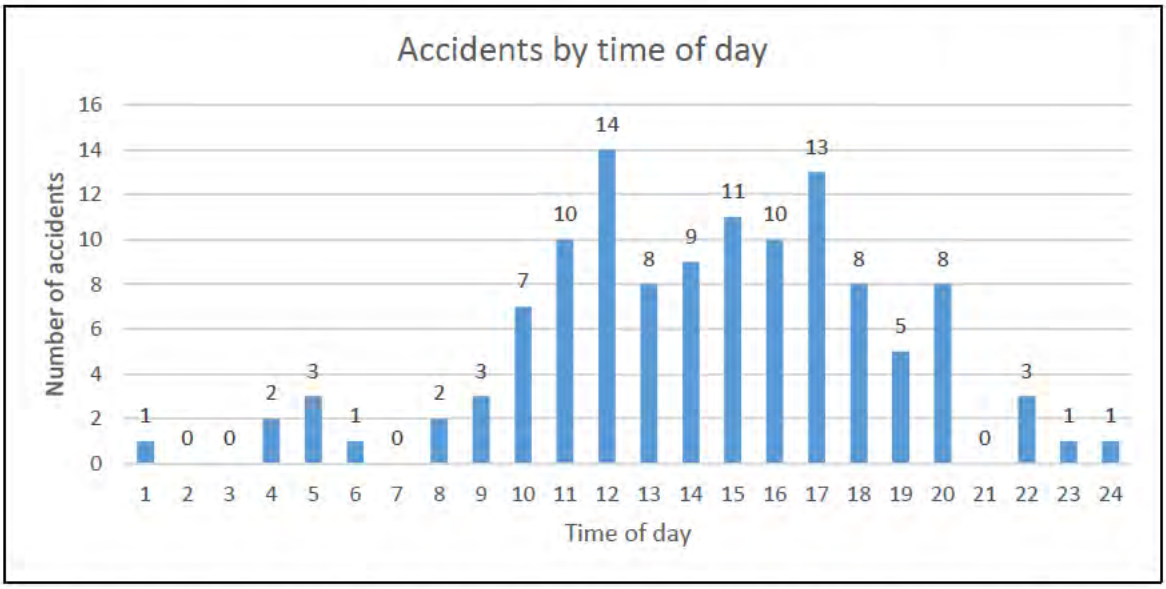
The data includes 120 accidents of which there were nine fatalities, 27 serious and 84 slight accidents. Those involving human contributory factors such as impaired by alcohol and illness have been removed from this analysis. The breakdown of accidents is shown in the following three graphs.



Graph 1 shows the accidents by the month of the year. There is general trend for accidents to rise in the summer months in line with the increase in traffic.



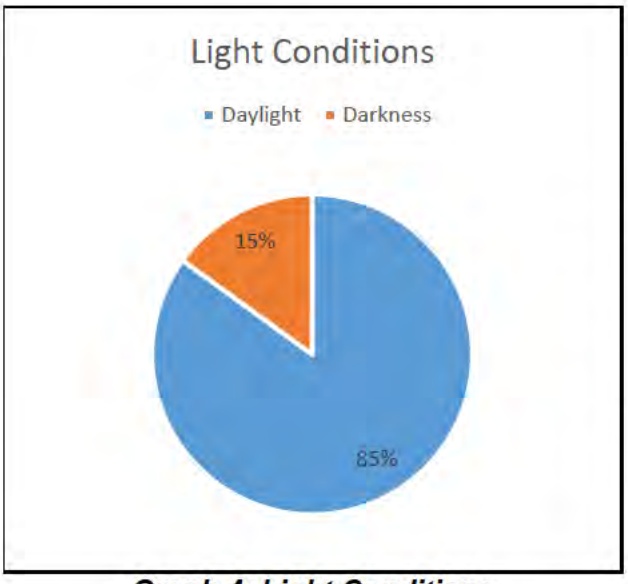
Graph 2 shows the accidents by days of the week. There is no particular pattern to the accidents, the range being between 11 and 20 per day



Graph 3 shows the accidents by time of day. The graph shows accidents to be mainly taking place during daytime with two peaks, one at mid day and one st 5.00pm.

3.4 Environmental Factors

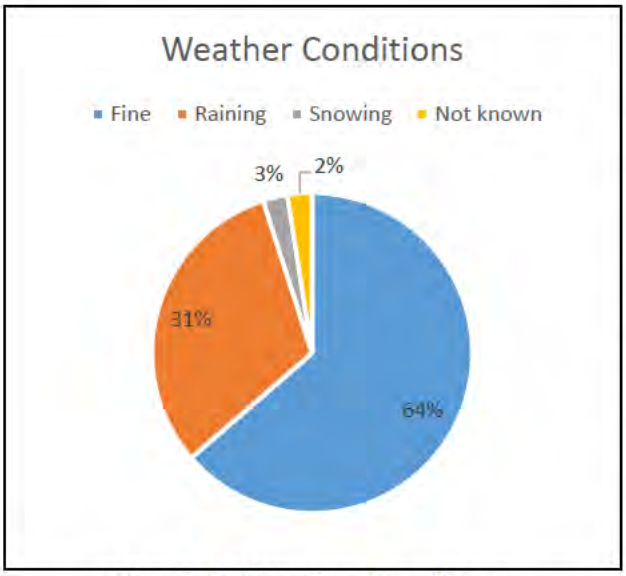
Environmental factors such as weather condition and road surface condition have been analysed with comparisons made with the entire length of the A83 and all roads in the North West unit over the same period.



Graph 4: Light Conditions

Graph 4 opposite shows the proportion of accidents that occurred during darkness within the study area.

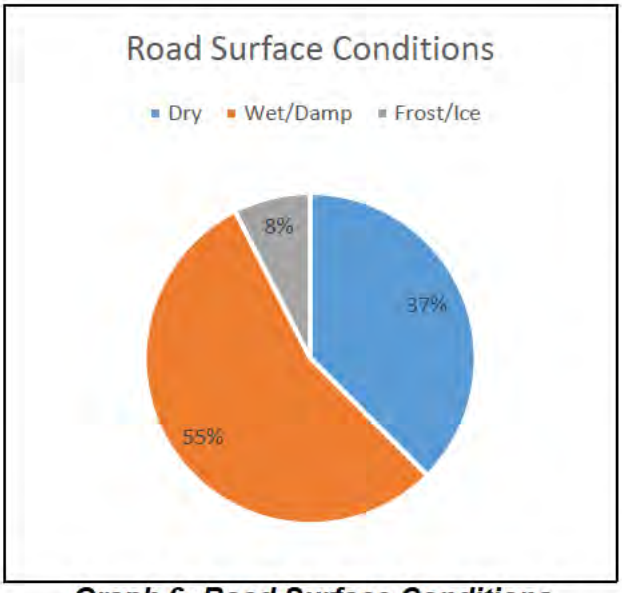
The 15% darkness collisions shown is less than the 18% figure for the whole length of the A83 and 21% for all roads in the North West unit.



Graph 5: Weather Conditions

Graph 5 opposite shows the proportion of accidents occurring in different weather conditions within the study section.

The proportion of accidents occurring in inclement weather (snowing and raining) is 34%, this is similar to the 35% figure for the whole of the A83 route and slightly higher than the 29% for all roads in the North West unit.

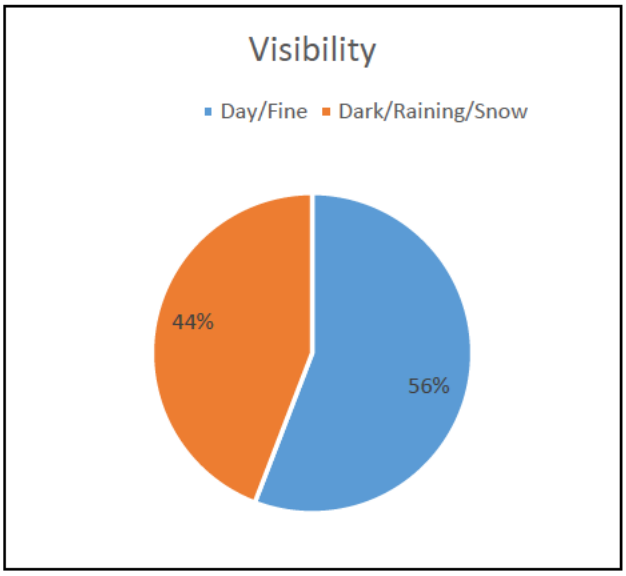


Graph 6: Road Surface Conditions

Graph 6 opposite shows the proportion of accidents occurring in different road surface conditions within the study section.

The proportion of accidents occurring on wet roads is 55%. This is the same as that for the whole of the A83 route and higher than the 42% figure for all of the roads in the North West unit.

The proportion of Frost and Ice accidents is 8%. This is the same as the figure for the whole of the A83 route and lower than the 10% for all of the roads in the North West unit.



Graph 7: Visibility

Graph 7 opposite shows the proportion of accidents occurring when visibility is restricted by light or weather conditions such as during rain or snow.

The study area proportion of accidents occurring in restricted visibility is 44%.This is similar to the 45% for the whole of the A83 route and is slightly higher than the 41% figure for all of the roads in the North West unit.

The environmental factors suggest that the accident patterns for the length of route being studied are similar to that for the whole length of the A83, which in turn is slightly worse than the figures for all roads in the whole of the North West Unit.

The exception to this is the accident pattern shown in Graph 4. The percentage of accidents occurring during dark conditions is less than the average for the unit. This indicates that alignment of the carriageway is well understood in dark conditions, however, Graph 7 shows the pattern of accidents during occasions of inclement weather such as rain or snow, when visibility is reduced by light conditions (when spray is present and road users are using wipers to maintain vision) road users are failing to clearly identify the alignment of the route.

3.5 Alignment Issues

Within the accidents studied, 50% occurred at bend locations, including five fatalities and 13 serious accidents. Of the 187 bends identified as requiring signing, adverse camber has been identified on 15 within the national speed limit lengths. Of these, 14 bends are identified as category 'A' with the misalignment at the beginning or finish.

A total of six accidents have been identified as occurring at or near to a bend with adverse camber. The IRIS accident database mentions road alignment in the causation factors but does not highlight adverse camber specifically. This must therefore be taken into account at each site to determine the degree of the alignment issue and its possible influence on driver behaviour.

It is recommended that areas of adverse camber are resolved during future surfacing schemes to reduce the risk of the camber destabilising vehicles negotiating bends.

The lengths of road with negative camber have been reported to the Structural Maintenance Team so that they can be considered for inclusion in future planned maintenance operations.

A list of bend radius information extracted from IRIS data is contained in Appendix B. There are 175 bends identified within the study section in speed limits of between 40mph and National Speed limit.

3.6 Roadside Hazards

Vehicles leaving the carriageway and striking an object such as a sign, tree, telegraph pole or wall etc accounted for 33% of accidents with four fatal, 11 serious and 24 slight injury accidents.

Although the accidents record striking these objects, there are no descriptions provided to ascertain if the collision with the object caused or exacerbated injuries.

Six accident cluster sites have been identified, with three having some barrier present and three without. The sites with barrier include Strone Point and between Auchindrain and Douglas Water, both sites also include bike guard below the main beam. The site at Whitebridge Cottages has barrier present to cover bridge abutments and approaches including P1 end terminals.

Sites without barrier are at Achnatra, North Craleckan and Ardcastle Wood. All of these sites have verges backed by drainage ditches, some of which are filled in with filter drain material.

Removal of off-road hard objects or the provision of barrier protection if removal is not possible will significantly reduce the risk of injury to vehicle occupants.

There are many locations along the route that have barrier with P1 leading edges or have short sections. It is therefore recommended that the study area is assessed in accordance with TD19/06 for safety barrier provision as described in Section 2.11.

3.7 Vulnerable Road Users

Pedestrians.

Analysis of the types of vehicles and casualties involved in reported injury accidents within the study period revealed two pedestrian accidents with the classifications being one serious and one slight. Both of these occurred in de-restricted lengths of road, with one at a junction and one at a private drive. This equates to less than 2% of all recorded accidents.

Cyclists.

There are no recorded cyclist accidents within the study period.

Motorcyclists.

There were 16 motorcycle accidents in the study period. The breakdown of the accident severity is five fatalities, eight serious and three slight. The five fatal accidents represents 55% of all fatalities and the eight serious accidents

representing 30% of all serious accidents. All motorcycle accidents occurred on dry roads in fine weather during daylight.

Motorcycle accidents represent 12.8% of all accidents within the study period. This is below the 17.3% figure for the whole of the North West unit.

Further investigation suggests that four of these accidents involved poor overtaking manoeuvers and a further four accidents involved loss of control at bends.

There is a single cluster site along the route at Strone Point with two accidents, one fatal and one serious in 2012. Motorcycle safety barrier protection was installed below the existing barrier at this location at the start of 2013. There is a carriageway realignment scheme for this location to reduce the bend radius involving the removal of a large portion of the rock outcrop. These works are planned to commence in December 2017.

There is a spread of motorcycle accidents occurring between the North of Cairndow and Clachan. There were 6 accidents over a 2.5 kilometre length consisting of 1 fatality, 1 serious and 4 slight injuries. This length consists of two long straight sections either side of the head of the Loch with a long category 'D' bend between. There are two road junctions on the outside of the bend complete with appropriate Diag. 512.1 'Junction on a bend' Warning signs and a further junction to Loch Fyne Oyster Bar.

As the route is a popular biking route, particularly during the summer months, further provision of additional motorcycle safety barrier should be considered at bend locations that already have safety barrier installed.

3.8 Junction Accidents

There were 22 accidents occurring at junctions. This total is made up of 14 slight, seven serious and one fatal. There were six accidents occurring at private access entrances or driveways. Of these, there were two accidents at the entrance to Loch Fyne Oysters / Tree Tops Garden Centre and two at the entrance to Para Handys Pantry near Crarae. The fatality involved a motorcycle overtaking a vehicle that was turning into a private entrance at Port Ann.

The junction with Loch Fyne Oysters / Tree Tops Garden Centre has a right turn lane facility. There are private signs for the site along with junction delineator bollards. The site is a significant traffic generator during the summer months, particularly when the venue holds the annual Food Fair in the adjacent field to which it shares the car parking area. There were two accidents at this junction, neither of which were associated with the festival.

Para Handy's Pantry is a café and gift shop with the access road also serving a small pier and jetty The junction to Para Handy's Pantry is a simple 'T' junction on the inside of a slight bend. There are junction delineator bollards present but no signing.

Both sites would justify signing to increase their conspicuity due to the traffic that they generate, particularly tourist traffic not familiar with their exact locations. Although it is not normal practice to sign private access, advance warning signing

of the junctions could be installed. Tourist signing could also be installed should either venue apply, though to date no such application has been received from either venue by Visit Scotland.

3.9 Overtaking Accidents

There were 16 accidents associated with overtaking manoeuvres. This total is made up of 10 Slight, two Serious and three Fatal accidents. Cars accounted for 10 accidents including nine Slight accidents and one Fatal accident. Motorcycles accounted for five accidents, including one Slight, two Serious and two Fatal accidents. A Light goods vehicle accounted for one Fatal accident.

12 of the accidents occurred during daylight and 13 accidents occurred during dry road conditions. Nine of the accidents occurred on sections that are predominantly straight with good forward visibility and seven accidents occurred in the vicinity of bend locations.

Seven of the accidents included ‘aggressive driving’, ‘careless / reckless driving’ or ‘in a hurry’ in the causation factors.

4.0 Conclusions

The A83 Trunk Road section from Cairndow to Lochgilphead has been investigated to identify the contributory factors relating to road injury accidents.

There is a downward trend in the total number of reported injury accidents in the study area over the period 2005 to 2014 inclusive, along with a slight reduction in KSI accidents.

Over the period 2010 to 2014 inclusive there has been a total of 120 accidents of which there were nine fatalities, 27 serious and 84 slight accidents. There were a total of five accidents that were caused by outside factors such as wild animals and alcohol or drug related which have not been included in the study.

Accidents involving vehicles losing control on a bend accounted for 50% of all reported accidents, including 5 fatalities and 13 serious accidents.

The entire length of the A83 shows a higher proportion of accidents than those reported for the whole of the North West unit. The reported injury accidents within the period 2010 to 2014 inclusive for the section being looked at are similar to those for the entire length of the A83 in respect of occurring in poor weather, poor visibility and wet road surface conditions, and better than the entire length of the A83 for dark related accidents.

The existing bend warning signs within those areas that have been subject to improvements are in line with the guidance contained within AGP E115, based on Design Speeds for the road calculated in accordance with TD9/93. Other areas have signing that falls short of these standards and should be upgraded.

The data shows that 33% of the accidents in the study involved hitting an object off the carriageway. Of this figure, 11% where strikes with trees, wooden telegraph poles or power distribution poles.

The percentage of motorcycle accidents within the study area is similar to that of the entire length of the A83 and lower than the figure for the whole of the North West unit. Motorcycle safety barrier post protection has been installed at Strone Point, being the only motorcycle accident cluster site identified in the study area.

The bus stop provisions along the route could be improved in line with Roads for All. It is recognised that there is only one accident in the study involving a Bus and this was associated with a turning manoeuvre at a junction rather than at a bus stop. Alterations to bus stop provisions would therefore be improvement measures rather than Road Safety measures.

5.0 Improvement Options

The following improvements have been identified:

Ref	Location	Improvement	Benefit
1.	Port Ann	Re-align the tie in points of the kerb line and edge of carriageway to provide a smoother alignment.	Reduce risk of loss of control accidents in line with the Strategic Road Safety Plan and legislation.
2	Inveraray	Provide signing for the low arch structure at the start of the A819	Reduce the risk of a collision by an over height vehicle.
3	Throughout Study Area	Upgrade the route in accordance with APG E115 Bend assessment	Provide better route delineation and reduce risks of loss of control accidents.
4	Throughout Study Area	Roadside drainage improvements to prevent washing out of edge of carriageway.	Reduce spray and subsequent visibility issues. Also reduce the risk of loss of control type accidents if overrun and maintain carriageway integrity and structure.
5	Approaches to traffic signals, roundabouts and various bend locations	High friction surfacing	Reduce the risk of loss of control or overshooting the stop lines.
6	North of Strone Point	Revise the blind summit signing	To give advance warning of the limited visibility to reduce the risk of head on collisions.
7	Throughout Study Area	Removal of redundant and non-prescribed signing and upgrading sign assemblies to current passive safety standards.	Reduce risk of injury to errant rider or vehicle occupant in the event of a vehicle strike.
8	Though out study area	Carry out assessment in accordance with TD19/06 for providing safety barrier.	Reduce casualty severity in the event of a vehicle leaving the carriageway.
9	Throughout study area	Provide motorcycle protection to barrier posts focussing particularly at bend sites.	Reduce casualty severity in the event of a motorcyclist leaving the carriageway.
10	Throughout study area	Provide Diag. 528.1 'Obstruction at the edge of the carriageway' warning signs.	Increase the conspicuity of such structures to avoid strikes by vehicles.
11	Throughout study area	Correct areas of adverse camber on bends.	Reduce risk of loss of control on bends.
12	South of Inveraray	Signing of existing laybys	Reduce the risk of late braking and rear end shunt type accidents
13	Throughout study area	Bus Stop improvements	Reduce mobility handicap for pedestrians using Public Transport.

Table 6: Improvement Options

The options presented in Items 1, 2, 4, 6, 7, 10, 11, 12 and 13 may not be attributed directly to particular accidents, however they do present a significant safety improvement to the route.

Items 3, 8, and 9 are directly associated with accidents and may lead to a positive accident reduction.

6.0 Economic Appraisal

The improvement options in Section 5 have been assessed in accordance with guidance provided the *RoSPA Road Safety Engineering Manual*[17] for suggested accident reduction of 30% by providing warning signing. The average cost of an injury accident of £147,130 has been obtained from Table 10 of *Reported Road Casualties Scotland 2014*[18].

Table 7 below summarises the improvement options identified in Section 5 with the appropriate accident reduction rates and first year rate of return calculations.

Ref	Improvement	Estimate Costs	Accident Saving per year	Accident Cost Saving per year	First Year Rate of Return
1	Re-align the tie in points of the of the kerb line and edge of carriageway at Port Ann	£10,000	Not Applicable		
2	Inveraray low arch signing.	£10,000	Not Applicable		
3	Assessment and signing to APG E115	£175,000	3.6 (30% of 60 accidents in 5 years)	£529,668	303%
4	Road side drainage	£10,000	Not Applicable		
5	High friction surfacing at identified sites.	£35,000	Not Applicable		
6	Revising the 'blind summit' signing arrangements.	£3000	Not Applicable		
7	Upgrading signing to passive safety standards and removing redundant signing.	£10,000	Not Applicable		
8	Carry out assessment in accordance with TD19/06 for providing safety barrier	£10,000	Assessment only for possible future schemes		
9	Provide motorcycle protection to barrier posts.	£20,000	Not Applicable		
10	Obstruction at the edge of the carriageway warning signs	£1000	Not Applicable		
11	Correct areas of adverse camber on bends.		Include in maintenance schemes		
12	Signing of existing laybys	£1000	Not Applicable		
13	Bus Stop improvements	£78,000	Not Applicable		
Totals		**£363,000**	**3.6**	**£529,668**	**146%**

Table 7: Economic Appraisal

7.0 Recommendations

It is recommended that the improvements identified in Section 5 and as detailed in Table 8 are implemented to improve road safety on the A83 Cairndow to Lochgilphead Section in accordance with the Transport Scotland Strategic Road Safety Plan and current legislation.

Ref	Location	Improvement	Benefit
1.	Port Ann	Re-align the tie in points of the kerb line and edge of carriageway to provide a smoother alignment.	Reduce risk of loss of control accidents in line with the Strategic Road Safety Plan and legislation.
2	Inveraray	Provide signing for the low arch structure at the start of the A819	Reduce the risk of a collision by an over height vehicle.
3	Throughout Study Area	Upgrade the route in accordance with APG E115 Bend assessment	Provide better route delineation and reduce risks of loss of control accidents.
4	Throughout Study Area	Roadside drainage improvement to prevent washing out of edge of carriageway.	Reduce spray and subsequent visibility issues. Also reduce the risk of loss of control type accidents if overrun and maintain carriageway integrity and structure.
5	Approaches to traffic signals, roundabouts and various bend locations	High friction surfacing	Reduce the risk of loss of control or overshooting the stop lines.
6	North of Strone Point	Revise the blind summit signing	To give advance warning of the limited visibility to reduce the risk of head on collisions.
7	Throughout Study Area	Removal of redundant and non-prescribed signing and upgrading sign assemblies to current passive safety standards.	Reduce risk of injury to errant rider or vehicle occupant in the event of a vehicle strike.
8	Though out study area	Carry out assessment in accordance with TD19/06 for providing safety barrier.	Reduce casualty severity in the event of a vehicle leaving the carriageway.
9	Throughout study area	Provide motorcycle protection to barrier posts focussing particularly at bend sites.	Reduce casualty severity in the event of a motorcyclist leaving the carriageway.
10	Throughout study area	Provide Obstruction at the edge of the carriageway warning signs to Diag. 528.1	Increase the conspicuity of such structures to avoid strikes by vehicles.
11	Throughout study area	Correct areas of adverse camber on bends.	Reduce risk of loss of control on bends.
12	South of Inveraray	Signing of existing laybys	Reduce the risk of late braking and rear end shunt type accidents
13	Throughout study area	Bus Stop improvements	Reduce mobility handicap for pedestrians using Public Transport.

Table 8: Recommendations

References

No.	Reference	Page
1	North West Unit Annual Road Safety Review – Transport Scotland and BEAR Scotland Ltd	1
2	Strategic Road Safety Plan – Transport Scotland	1
3	Scotland's Road Safety Framework to 2020 – Scottish Government	1
4	Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright and database right 2016. All rights reserved. Ordnance Survey License Number: 100046668	1 and 2
5	Transport Scotland Map Application - Traffic Data – Scottish Road Traffic Database – Plan 2	2
6	TD9/93 Highway Link Design – Highways Agency	4
7	APG E115 "Hazard Warning Signs and Markings on Bends on Single Carriageway Trunk Roads" – Transport Scotland	4
8	IRIS and WebIRIS – Transport Scotland and WDM Ltd	4
9	TD36/06 "Surfacing Materials for New and Maintenance Construction"	8
10	TD 50/04 The Geometric Layout of Signal Controlled Junctions and Signalised Roundabouts	9
11	Chapter 5 of The Traffic Signs Manual "Road Markings" – The Stationery Office	11
12	The Traffic Signs Regulations and General Directions 2016 – The Stationery Office	11
13	Chapter 4 of The Traffic Signs Manual "Warning Signs" – The Stationery Office.	15
14	TD19/06 "Requirement for Road Restraint Systems"	16
15	LTN 1/95 The Assessment of Pedestrian Crossings	18
16	Roads for All, Good Practice Guide for Roads – Transport Scotland	19
17	The RoSPA Road Safety Engineering Manual 4th Edition 2007	32
18	Reported Road Casualties Scotland 2014 – The Scottish Government	32

APPENDIX A

Bend assessment

Bend No	Section	Start (North to South)		End (North to South)		Length of bend	Gradient (Max.)	Crossfall (Max.)	Curvature (Minimum)	Direction	Camber	Speed Limit mph	Section Typical Speed (S.T.S.) Bend asessment category			Remarks
		Link / section	Chainage	Link / section	Chainage								85kph (53mph)	70kph (43mph)	50kph (31mph)	
1	1	16520/05	780	16520/05	840	60	-0.78	-1.6	-333.33	Right	Positive	60	B	*	*	North of Cairndow
2	1	16520/05	940	16520/05	1190	250	6.87	6.84	-163.93	Right	Positive	60	D	*	*	
3	1	16520/05	1240	16520/05	1330	90	-7.02	-6.88	-151.52	Right	Positive	60	D	*	*	
4	1	16520/05	1370	16520/05	1440	70	-7.01	9.26	243.9	Left	Positive	60	C	*	*	
5	1	16520/05	1600	16520/05	1650	50	-6.18	7.39	243.9	Left	Positive	60	C	*	*	
6	1	16520/05	1680	16520/05	1760	80	-5.69	-6.16	-178.57	Right	Positive	60	D	*	*	
7	1	16520/05	2180	16520/13	50	57	-2.73	-4.83	-208.33	Right	Negative	60	C	*	*	Negative for first 7m only
8	1	16520/13	710	16520/13	730	20	0.17	3.05	-454.55	Right	Negative	60	A	*	*	Negative - whole bend
9	1	16520/13	1470	16520/23	410	519	0.67	6.66	153.85	Left	Positive	60	D	*	*	
10	1	16520/23	750	16520/27	80	88	1.18	6.72	277.78	Left	Positive	60	B	*	*	
11	1	16520/27	1210	16520/27	1280	70	0.27	7.21	285.71	Left	Positive	60	B	*	*	
12	1	16520/27	1320	16520/27	1400	80	0.39	-7.31	-208.33	Right	Positive	60	C	*	*	
13	1	16520/27	1970	16520/27	2090	120	1.93	-7.22	-185.19	Right	Positive	60	C	*	*	
14	1	16520/27	2640	16520/27	2670	30	2.2	-5.21	-322.58	Right	Positive	60	B	*	*	
15	1	16520/27	2700	16520/27	2790	90	2.43	9.08	166.67	Left	Positive	60	D	*	*	
16	1	16520/27	2980	16520/27	3050	70	-1.13	-7.07	-222.22	Right	Positive	60	C	*	*	
17	1	16520/27	3190	16520/27	3310	120	-1.28	9.76	222.22	Left	Positive	60	C	*	*	
18	1	16520/27	3340	16520/27	3350	10	-0.55	-1.96	-454.55	Right	Positive	60	A	*	*	
19	1	16520/27	3550	16520/27	3560	10	-0.55	3.32	454.55	Left	Positive	60	A	*	*	
20	1	16520/27	3590	16520/27	3610	20	-1.07	7.65	384.62	Left	Positive	60	A	*	*	
21	1	16520/27	3990	16520/27	4060	70	-3.1	5.48	322.58	Left	Positive	60	B	*	*	
22	1	16520/27	4160	16520/27	4240	80	1.13	-7.47	-277.78	Right	Positive	60	B	*	*	
23	1	16520/27	4910	16520/27	4980	70	-0.36	-9.04	-212.77	Right	Positive	60	C	*	*	
24	1	16520/27	5020	16520/27	5070	50	-0.53	5.34	294.12	Left	Positive	60	B	*	*	
25	1	16520/27	5140	16520/27	5150	10	0.35	-2.82	-454.55	Right	Positive	60	A	*	*	
26	1	16520/27	5340	16520/58	60	100	6.63	-7.94	-256.41	Right	Positive	60	B	*	*	
27	1	16520/58	640	16520/58	680	40	4.35	6.04	294.12	Left	Positive	60	B	*	*	
28	1	16520/58	850	16520/58	910	60	-2.62	5.91	263.16	Left	Positive	60	B	*	*	
29	1	16520/58	960	16520/58	1000	40	1.7	-6.1	-277.78	Right	Positive	60	B	*	*	
30	1	16520/58	1420	16520/58	1440	20	0.29	0.98	-454.55	Right	Negative	60	A	*	*	Negative - whole bend
31	1	16520/58	1600	16520/58	1640	40	-3.26	-4.86	-333.33	Right	Positive	60	B	*	*	
32	1	16520/58	1670	16520/58	1750	80	4.59	7.57	128.21	Left	Positive	60	D	*	*	
33	1	16520/58	2620	16520/58	2630	10	-2.17	-6.25	-500	Right	Positive	60	A	*	*	
34	1	16520/58	2980	16520/58	3020	40	-0.77	-5.05	-322.58	Right	Positive	60	B	*	*	
35	1	16520/58	3270	16520/58	3440	170	2.75	-7.03	-70.42	Right	Positive	60	E	*	*	
36	1	16520/58	3590	16520/58	3640	50	0.45	-5.92	-344.83	Right	Positive	60	B	*	*	
37	1	16520/58	4160	16520/58	4180	20	0.72	2.58	-454.55	Right	Negative	60	A	*	*	Negative - whole bend
38	1	16520/58	4570	16520/85	620	794	-2.3	7.29	263.16	Left	Positive	60	B	*	*	
39	1	16520/85	690	16520/85	710	20	-0.81	2.33	370.37	Left	Positive	60	A	*	*	
40	1	16520/85	760	16520/85	770	10	1.16	2.25	-416.67	Right	Negative	60	A	*	*	Negative - whole bend
41	1	16520/85	940	16520/85	950	10	-0.03	4.11	-454.55	Right	Negative	60	A	*	*	Negative - whole bend
42	1	16520/85	990	16520/85	1060	70	0.8	9.19	101.01	Left	Positive	60	D	*	*	
43	1	16520/85	1080	16520/85	1160	80	1.67	-7	-303.03	Right	Positive	60	B	*	*	
44	1	16520/85	1390	16520/85	1410	20	-0.85	-3.01	-322.58	Right	Positive	60	B	*	*	
45	1	16520/85	1540	16520/85	1570	30	-0.52	4.09	370.37	Left	Positive	60	A	*	*	
46	1	16520/85	1640	16520/85	1700	60	0.72	-7.76	-294.12	Right	Positive	60	B	*	*	
47	1	16520/85	1820	16520/85	1900	80	0.52	5.71	192.31	Left	Positive	60	C	*	*	
48	1	16520/85	1940	16520/85	2020	80	0.36	-10.48	-125	Right	Positive	60	D	*	*	
49	2	16520/85	2280	16520/85	2300	20	-10.89	-1.24	285.71	Left	Negative	40	*	A	*	River Aray bridge and signals
50	2	16520/85	2440	16520/85	2580	140	0.57	9.37	196.08	Left	Positive	40	*	B	*	
51	3	16520/85	2730	16530/05	50	100	2.22	6.67	54.05	Left	Positive	30	*	*	B	Inveraray
52	3	16530/05	110	16530/06	20	50	-2.04	3.28	-16.53	Right	Negative	30	*	*	E	Church gyratory
53	3	16530/06	110	16530/06	130	20	5.84	6.3	-16.67	BOTH	Negative	30	*	*	E	
54	3	16530/09	40	16530/09	70	30	-2.91	3.04	-74.63	Right	Negative	30	*	*	C	
55	3	16530/09	300	16530/09	310	10	0.58	2.93	153.85	Left	Positive	30	*	*	A	
56	3	16530/09	580	16530/09	650	70	1.59	-7.72	-99.01	Right	Positive	30	*	*	B	
57	3	16530/09	680	16530/10	50	66	2.84	8.37	69.93	Left	Positive	30	*	*	C	
58	3	16530/10	80	16530/10	170	90	0.97	-5.87	-70.92	Right	Positive	30	*	*	C	
59	3	16530/10	350	16530/10	420	70	3.5	7.76	93.46	Left	Positive	30	*	*	B	Inveraray
60	4	16530/10	540	16530/10	710	170	-3.77	-7.49	-117.65	Right	Positive	60	E	*	*	
61	4	16530/10	740	16530/10	930	190	0.76	6.49	192.31	Left	Positive	60	C	*	*	
62	4	16530/10	1040	16530/10	1060	20	0.47	1.03	-500	Right	Negative	60	A	*	*	Negative - whole bend

Bend No	Section	Start (North to South)		End (North to South)		Length of bend	Gradient (Max.)	Crossfall (Max.)	Curvature (Minimum)	Direction	Camber	Speed Limit mph	Section Typical Speed (S.T.S.) Bend asessment category			Remarks
		Link / section	Chainage	Link / section	Chainage								85kph (53mph)	70kph (43mph)	50kph (31mph)	
63	4	16530/10	1100	16530/10	1190	90	1.61	7.39	161.29	Left	Positive	60	D	*	*	
64	4	16530/10	1560	16530/10	1920	360	5.31	-5.38	-357.14	Right	Positive	60	B	*	*	
65	4	16530/10	1970	16530/10	2040	70	4.77	3.04	357.14	Left	Positive	60	B	*	*	
66	4	16530/10	2250	16530/10	2290	40	-0.8	5.86	454.55	Left	Positive	60	A	*	*	
67	4	16530/10	2410	16530/10	2600	190	5.55	8.68	133.33	Left	Positive	60	D	*	*	
68	4	16530/10	2620	16530/10	2750	130	-1.88	-5.43	-232.56	Right	Positive	60	C	*	*	
69	4	16530/10	2990	16530/10	3030	40	-1.75	-6.22	-357.14	Right	Positive	60	B	*	*	
70	4	16530/10	3100	16530/10	3190	90	2.62	-3.18	-333.33	Right	Positive	60	B	*	*	
71	4	16530/10	3380	16530/10	3480	100	1.17	-7.11	-243.9	Right	Positive	60	C	*	*	
72	4	16530/10	3980	16530/10	4060	80	6.41	9.35	185.19	Left	Positive	60	C	*	*	
73	4	16530/10	4080	16530/10	4170	90	6.23	-5.88	-208.33	Right	Positive	60	C	*	*	
74	4	16530/10	4430	16530/10	4520	90	-5.67	9.37	250	Left	Positive	60	C	*	*	
75	4	16530/10	4910	16530/10	5050	140	3.67	-4.94	-270.27	Right	Positive	60	B	*	*	
76	4	16530/10	5190	16530/10	5350	160	5.34	4.88	208.33	Left	Positive	60	C	*	*	
77	4	16530/10	5490	16530/10	5580	90	7.49	6.45	277.78	Left	Positive	60	B	*	*	
78	4	16530/10	5690	16530/10	5690	0	6.47	-2.85	-277.78	Right	Positive	60	B	*	*	
79	4	16530/10	5940	16530/10	6150	210	7.16	-6.91	-196.08	Right	Positive	60	C	*	*	
80	4	16530/10	6240	16530/10	6290	50	-1.69	9.55	400	Left	Positive	60	A	*	*	
81	4	16530/10	6600	16530/10	6710	110	2.75	7.73	158.73	Left	Positive	60	C	*	*	
82	4	16530/10	6920	16530/10	6950	30	5.99	-5.48	-454.55	Right	Positive	60	A	*	*	
83	4	16530/10	7510	16530/10	7610	100	-3.77	-5.83	-277.78	Right	Positive	60	B	*	*	
84	4	16530/10	7770	16530/10	7780	10	3.99	4.28	476.19	Left	Positive	60	A	*	*	
85	4	16530/10	8060	16530/10	8080	20	-4.48	4.86	476.19	Left	Positive	60	A	*	*	
86	4	16530/10	8270	16530/75	20	150	-6.55	7.77	263.16	Left	Positive	60	B	*	*	
87	4	16530/75	370	16530/75	470	100	-5.03	-7.21	-270.27	Right	Positive	60	B	*	*	
88	4	16530/75	680	16530/75	790	110	-5.45	8.05	243.9	Left	Positive	60	C	*	*	
89	4	16530/75	930	16530/75	1030	100	-4.34	6.95	196.08	Left	Positive	60	C	*	*	
90	4	16530/75	1130	16530/75	1260	130	2.1	-9.84	-153.85	Right	Positive	60	D	*	*	
91	4	16530/75	1290	16530/75	1490	200	-2.58	7.39	232.56	Left	Positive	60	C	*	*	
92	4	16530/75	1760	16530/75	1890	130	-5.46	-10.54	-185.19	Right	Positive	60	C	*	*	
93	4	16530/75	2240	16530/75	2310	70	-1.44	6.92	101.01	Left	Positive	60	E	*	*	
94	4	16530/75	2330	16530/75	2350	20	-1.73	1.2	-434.78	Right	Negative	60	A	*	*	Negative - whole bend
95	4	16530/75	2430	16530/75	2520	90	-2.93	5.94	128.21	Left	Positive	60	D	*	*	
96	4	16530/75	2550	16530/75	2730	180	-3.42	-9.14	-103.09	Right	Positive	60	E	*	*	
97	4	16530/75	2740	16530/75	2860	120	-2.71	10.03	93.46	Left	Negative	60	E	*	*	Negative for first 10m only
98	4	16530/75	2890	16530/75	2990	100	-1.46	-7.75	-126.58	Right	Positive	60	E	*	*	
99	5	16530/75	3220	16540/05	100	130	-2.98	-4.84	-119.05	Right	Positive	40	*	D	*	Furnace
100	5	16540/05	330	16540/05	400	70	-4.38	-7.24	-227.27	Right	Positive	40	*	B	*	
101	5	16540/05	440	16540/05	670	230	-1.86	6.67	263.16	Left	Positive	40	*	A	*	
102	5	16540/05	900	16540/05	930	30	-3.24	-5.11	-270.27	Right	Positive	40	*	A	*	
103	5	16540/05	990	16540/05	1070	80	4.93	6.72	163.93	Left	Positive	40	*	C	*	Furnace
104	6	16540/05	1390	16540/05	1420	30	3.12	-4.49	-357.14	Right	Positive	60	B	*	*	
105	6	16540/05	1440	16540/05	1460	20	1.52	4.56	370.37	Left	Positive	60	A	*	*	
106	6	16540/05	1640	16540/05	1730	90	-1.12	6.95	156.25	Left	Positive	60	D	*	*	
107	6	16540/05	1900	16540/05	2000	100	2.64	-7.19	-149.25	Right	Positive	60	D	*	*	
108	6	16540/05	2220	16540/05	2230	10	1.73	2.07	-500	Right	Negative	60	A	*	*	Negative - whole bend
109	6	16540/05	2400	16540/05	2480	80	-0.98	8.01	158.73	Left	Positive	60	D	*	*	
110	6	16540/05	2710	16540/05	2760	50	2.93	-6.59	-370.37	Right	Positive	60	A	*	*	
111	6	16540/05	2820	16540/05	2880	60	-2.05	6.87	384.62	Left	Positive	60	A	*	*	
112	6	16540/05	2940	16540/05	2990	50	-0.71	6.58	357.14	Left	Positive	60	B	*	*	
113	6	16540/05	3050	16540/05	3210	160	2.31	-7.94	-312.5	Right	Positive	60	B	*	*	
114	6	16540/05	3420	16540/05	3430	10	-1.89	2.16	434.78	Left	Positive	60	A	*	*	
115	6	16540/05	3710	16540/05	3770	60	1.46	-7.04	-270.27	Right	Positive	60	B	*	*	
116	6	16540/05	4120	16540/05	4320	200	3.92	5.66	172.41	Left	Positive	60	D	*	*	
117	6	16540/05	4500	16540/05	4600	100	-3.71	-6.99	-222.22	Right	Negative	60	C	*	*	Negative for last 10m only
118	6	16540/05	4710	16540/05	4810	100	-4.35	-6.15	-217.39	Right	Positive	60	C	*	*	
119	6	16540/05	4820	16540/05	4910	90	0.99	6.12	123.46	Left	Positive	60	E	*	*	
120	6	16540/05	4920	16540/05	4930	10	0.33	4.41	-500	Right	Negative	60	A	*	*	Negative - whole bend
121	6	16540/05	5030	16540/05	5070	40	0.64	6.39	256.41	Left	Positive	60	B	*	*	
122	7	16540/05	5210	16540/19	50	60	1.96	3.56	172.41	Left	Positive	40	*	C	*	Minard
123	7	16540/19	110	16540/19	180	70	0.85	-4.59	-333.33	Right	Positive	40	*	A	*	
124	7	16540/19	320	16540/19	380	60	-3	-4.89	-163.93	Right	Positive	40	*	C	*	
125	7	16540/19	460	16540/19	490	30	0.56	5.22	227.27	Left	Positive	40	*	B	*	
126	7	16540/19	610	16540/19	670	60	-1.64	5.97	175.44	Left	Positive	40	*	C	*	
127	7	16540/19	700	16540/19	790	90	0.73	-5.55	-117.65	Right	Positive	40	*	D	*	
128	7	16540/19	840	16540/19	870	30	5.17	-1.85	104.17	Left	Negative	40	*	D	*	Minard and signals

Bend No	Section	Start (North to South)		End (North to South)		Length of bend	Gradient (Max.)	Crossfall (Max.)	Curvature (Minimum)	Direction	Camber	Speed Limit mph	Section Typical Speed (S.T.S.) Bend asessment category			Remarks
		Link / section	Chainage	Link / section	Chainage								85kph (53mph)	70kph (43mph)	50kph (31mph)	
129	8	16540/23	80	16540/23	120	40	4.43	-3.77	-285.71	Right	Positive	60	B	*	*	
130	8	16540/23	170	16540/23	270	100	6.21	7.17	243.9	Left	Positive	60	C	*	*	
131	8	16540/23	360	16540/23	440	80	5.38	-7.89	-270.27	Right	Positive	60	B	*	*	
132	8	16540/23	540	16540/23	550	10	3.4	-0.85	-500	Right	Positive	60	A	*	*	
133	8	16540/23	620	16540/23	660	40	4.47	4.54	285.71	Left	Positive	60	B	*	*	
134	8	16540/23	710	16540/23	770	60	3.5	-6.25	-277.78	Right	Positive	60	B	*	*	
135	8	16540/23	1170	16540/23	1330	160	7.38	10.73	114.94	Left	Positive	60	E	*	*	
136	8	16540/23	1410	16540/23	1480	70	4.32	-6.2	-136.99	Right	Positive	60	D	*	*	
137	8	16540/23	1540	16540/23	1650	110	9.42	-7.31	-95.24	Right	Positive	60	E	*	*	
138	8	16540/23	1820	16540/23	1880	60	3.08	5.42	125	Left	Positive	60	E	*	*	
139	8	16540/23	2110	16540/23	2140	30	3.49	4.35	416.67	Left	Positive	60	A	*	*	
140	8	16540/23	2190	16540/23	2230	40	1.58	-5.44	-322.58	Right	Positive	60	B	*	*	
141	8	16540/23	2450	16540/23	2460	10	-1.07	-2.25	-384.62	Right	Positive	60	A	*	*	
142	8	16540/23	2680	16540/23	2700	20	-1.08	-0.84	-454.55	Right	Positive	60	A	*	*	
143	8	16540/34	180	16540/34	210	30	-3.18	5.01	454.55	Left	Positive	60	A	*	*	
144	8	16540/34	280	16540/34	320	40	-2.53	5.12	416.67	Left	Positive	60	A	*	*	
145	8	16540/34	440	16540/34	610	170	-3.78	8.42	126.58	Left	Positive	60	E	*	*	
146	8	16540/34	640	16540/34	850	210	-3.05	-9.98	-166.67	Right	Positive	60	D	*	*	
147	8	16540/34	1120	16540/34	1250	130	1.17	9.54	200	Left	Positive	60	C	*	*	
148	8	16540/34	1280	16540/34	1420	140	0.87	-11.06	-158.73	Right	Positive	60	D	*	*	
149	8	16540/34	1490	16540/34	1560	70	-0.73	8.61	217.39	Left	Positive	60	C	*	*	
150	8	16540/34	1580	16540/34	1700	120	-1.03	-6.74	-250	Right	Positive	60	C	*	*	
151	8	16540/34	1790	16540/34	1930	140	-1.21	-9.79	-185.19	Right	Positive	60	C	*	*	
152	8	16540/34	2000	16540/34	2190	190	-0.5	6.87	322.58	Left	Positive	60	B	*	*	
153	8	16540/34	3100	16540/34	3110	10	-0.49	-6.65	-434.78	Right	Positive	60	A	*	*	
154	8	16540/34	4090	16540/50	70	220	-3.85	5.36	285.71	Left	Positive	60	B	*	*	
155	8	16540/50	120	16540/50	170	50	-3.49	7.32	256.41	Left	Positive	60	B	*	*	
156	8	16540/50	570	16540/50	670	100	-3.44	8.19	109.89	Left	Positive	60	E	*	*	
157	8	16540/50	690	16540/50	780	90	-1.64	-7.28	-105.26	Right	Negative	60	E	*	*	Negative for last 10m only
158	9	16540/50	1020	16540/50	1070	50	5.49	-4.89	-285.71	Right	Positive	40	*	A	*	Lochgair
159	9	16540/50	1230	16540/50	1300	70	-3.61	6.06	232.56	Left	Positive	40	*	B	*	Lochgair
160	9	16540/50	1660	16540/50	1770	110	4.99	-6.51	-104.17	Right	Positive	60	E	*	*	
161	9	16540/50	1890	16540/50	2030	140	4.14	8.33	270.27	Left	Positive	60	B	*	*	
162	9	16540/50	2420	16540/50	2610	190	-5.46	7.35	131.58	Left	Positive	60	D	*	*	
163	9	16540/50	2640	16540/50	2740	100	-1.48	-9.37	-119.05	Right	Negative	60	E	*	*	Negative for last 10m only
164	9	16540/50	2760	16540/50	2910	150	4.23	11.67	113.64	Left	Positive	60	E	*	*	
165	9	16540/50	2940	16540/50	3140	200	3.47	-9.41	-153.85	Right	Positive	60	D	*	*	
166	9	16540/50	3590	16540/50	3710	120	2.02	-3.8	-169.49	Right	Negative	60	D	*	*	Negative for first 10m only
167	9	16540/50	4070	16540/50	4160	90	0.7	6.89	285.71	Left	Positive	60	B	*	*	
168	9	16540/50	4790	16540/50	4850	60	-2.97	7.37	303.03	Left	Positive	60	B	*	*	
169	9	16540/50	4870	16540/50	4980	110	-1.05	-7.44	-232.56	Right	Positive	60	C	*	*	
170	9	16540/50	5180	16540/50	5350	170	-2.96	8.64	294.12	Left	Positive	60	B	*	*	
171	9	16540/50	5370	16540/50	5490	120	-2.2	-8.05	-185.19	Right	Positive	60	C	*	*	
172	9	16540/71	150	16540/71	270	120	-4.37	8.48	129.87	Left	Positive	60	D	*	*	
173	9	16540/71	360	16540/71	610	250	3.58	-7.79	-131.58	Right	Negative	60	D	*	*	Negative for first 20m only
174	9	16540/71	630	16540/71	780	150	5.42	8.67	96.15	Left	Positive	60	E	*	*	
175	9	16540/71	810	16540/71	870	60	3.88	-5.04	-322.58	Right	Positive	60	B	*	*	
176	9	16540/71	990	16540/71	1110	120	4.92	-5.98	-116.28	Right	Positive	60	E	*	*	
177	9	16540/71	1120	16540/71	1170	50	5.1	8.99	144.93	Left	Positive	60	D	*	*	
178	9	16540/71	1270	16540/71	1520	250	4.55	-7.69	-121.95	Right	Positive	60	E	*	*	
179	9	16540/71	3110	16540/71	3190	80	-1.17	2.32	322.58	Left	Positive	60	B	*	*	
180	9	16540/80	10	16540/80	50	40	0.82	-4.92	-434.78	Right	Positive	60	A	*	*	
181	9	16540/80	100	16540/80	140	40	-1.48	2.18	270.27	Left	Positive	60	B	*	*	
182	9	16540/80	180	16540/80	340	160	1.81	-8.24	-153.85	Right	Positive	60	D	*	*	
183	9	16540/80	430	16540/80	520	90	-3.51	4.13	243.9	Left	Positive	60	C	*	*	
184	9	16540/80	570	16540/80	600	30	2.66	-4.52	-344.83	Right	Positive	60	B	*	*	
185	9	16540/80	880	16540/80	1320	440	-4.82	-4.59	-333.33	Right	Positive	60	B	*	*	
186	9	16540/80	1880	16540/80	2000	120	-3.68	-3.93	-344.83	Right	Positive	60	B	*	*	
187	9	16540/80	2070	16540/80	2200	130	-3.69	3.27	333.33	Left	Positive	60	B	*	*	South of Kilmory Roundabout

APPENDIX B

Accidents by location East to West

Police accident reference	Day	Date	Time	Severity	Road	Section	Weather	Easting	Northing	Light conditions	Road surface	Casualty	Vehicles	V1 Type	V1 Manouver	V2 Type	V2 Manouver
Reda	We	Redact	1700	SLIGHT	A83	A83 (16512/73)	RAINING WITH HIGH WINDS	219109	709902	DAYLIGHT	WET / DAMP	1	3	CR	GA	CR	GA
Reda	Mo	Redact	1305	SERIOUS	A83	A83 (16512/73)	FINE (WITHOUT HIGH WINDS)	219108	709902	DAYLIGHT	DRY	1	2	CR	GR	MC	MO
Reda	We	Redact	1915	SLIGHT	A83	A83 (16512/73)	FINE (WITHOUT HIGH WINDS)	219105	709903	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	1	CR	GL		
Reda	Su	Reda	50	SLIGHT	A83	A83 (16520/05)	FINE (WITHOUT HIGH WINDS)	219099	709904	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Th	Redac	1155	SERIOUS	A83	A83 (16520/05)	RAINING WITH HIGH WINDS	219095	709905	DAYLIGHT	WET / DAMP	1	2	CR	GR	CR	GA
Reda	Tu	Reda	1420	SERIOUS	A83	A83 (16520/05)	RAINING WITH HIGH WINDS	218143	710222	DAYLIGHT	WET / DAMP	3	1	MB	GA		
Reda	Tu	Redact	720	SLIGHT	A83	A83 (16520/05)	FINE (WITHOUT HIGH WINDS)	218108	710310	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	HG	GA		
Reda	Mo	Reda	1310	SLIGHT	A83	A83 (16520/05)	FINE (WITHOUT HIGH WINDS)	218246	710909	DAYLIGHT	DRY	1	1	CR	GA		
Reda	Su	Redact	1230	SLIGHT	A83	A83 (16520/05)	RAINING (WITHOUT HIGH WINDS)	218382	711206	DAYLIGHT	WET / DAMP	1	1	CR	GA		

ACCIDENT LOCATION PLAN 1 - (Accidents in the table organized from east to west as per the location plan.)

Reda	Sa	Redact	1135	SLIGHT	A83	A83 (16520/13)	RAINING (WITHOUT HIGH WINDS)	218446	711339	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	2	HG	GA	CR	PK
Reda	Mo	Redact	1945	SLIGHT	A83	A83 (16520/13)	FINE (WITHOUT HIGH WINDS)	218668	711612	DARKNESS: NO STREET LIGHTING	DRY	1	3	CR	GR	CR	OT
Reda	Sa	Redact	1330	SERIOUS	A83	A83 (16520/13)	FINE (WITHOUT HIGH WINDS)	218753	711717	DAYLIGHT: NO STREET LIGHTING	DRY	2	2	MC	OT	CR	GR
Reda	We	Redact	1500	SLIGHT	A83	A83 (16520/13)	RAINING (WITHOUT HIGH WINDS)	218772	711740	DAYLIGHT	WET / DAMP	1	2	CR	GA	HG	GA
Reda	Tu	Reda	1630	FATAL	A83	A83 (16520/13)	FINE (WITHOUT HIGH WINDS)	219075	712078	UNKNOWN	DRY	3	2	HG	OT	HG	GA
Reda	Mo	Redact	400	SLIGHT	A83	A83 (16520/13)	RAINING (WITHOUT HIGH WINDS)	219086	712091	UNKNOWN	WET / DAMP	1	1	CR	GA		
Reda	Fr	Redact	1130	SLIGHT	A83	A83 (16520/13)	FINE (WITHOUT HIGH WINDS)	219176	712194	DAYLIGHT: NO STREET LIGHTING	DRY	1	2	MC	OT	CR	GA
Reda	Sa	Redac	1444	SLIGHT	A83	A83 (16520/23)	FINE (WITHOUT HIGH WINDS)	219431	712588	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	2	CR	GA	CR	GA
Reda	Su	Redact	1344	SERIOUS	A83	A83 (16520/23)	FINE (WITHOUT HIGH WINDS)	219383	712692	DAYLIGHT	DRY	1	1	MC	GA		
Reda	Tu	Redact	830	SLIGHT	A83	A83 (16520/23)	FINE (WITHOUT HIGH WINDS)	219275	712752	DAYLIGHT	DRY	1	2	CR	GR	CR	GA
Reda	We	Redact	1210	SERIOUS	A83	A83 (16520/23)	FINE (WITHOUT HIGH WINDS)	218988	712697	DAYLIGHT	DRY	1	2	HG	GR	MC	GA
Reda	Mo	Redact	1437	SLIGHT	A83	A83 (16520/23)	FINE WITH HIGH WINDS	218981	712695	DAYLIGHT: NO STREET LIGHTING	DRY	1	2	CR	GR	CR	GA
Reda	We	Redact	1850	SLIGHT	A83	A83 (16520/27)	FINE (WITHOUT HIGH WINDS)	218770	712620	DAYLIGHT: NO STREET LIGHTING	DRY	1	2	CR	GR	CR	GA
Reda	Tu	Redact	1915	SLIGHT	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	214312	709714	DAYLIGHT	DRY	1	2	HG	GA	CR	GA
Reda	Tu	Redact	1305	FATAL	A83	A83 (16520/27)	FINE (WITHOUT HIGH WINDS)	218483	712403	DAYLIGHT	DRY	1	3	CR	OT	MC	OT
Reda	Th	Redact	1230	SERIOUS	A83	A83 (16520/27)	FINE (WITHOUT HIGH WINDS)	218356	712275	DAYLIGHT	DRY	1	2	CR	GR	MC	GA

ACCIDENT LOCATION PLAN 2 - (Accidents in the table organized from east to west as per the location plan.)

Police accident reference	Day	Date	Time	Severity	Road	Section	Weather	Easting	Northing	Light conditions	Road surface	Casualty	Vehicles	V1 Type	V1 Manouver	V2 Type	V2 Manouver
Reda	Mo	Redac	450	SLIGHT	A83	A83 (16520/27)	RAINING (WITHOUT HIGH WINDS)	217435	711336	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Fr	Redact	1404	SERIOUS	A83	A83 (16520/27)	FINE (WITHOUT HIGH WINDS)	217096	711213	DAYLIGHT	DRY	2	1	MC	OT		
Reda	We	Redac	1745	SLIGHT	A83	A83 (16520/27)	RAINING (WITHOUT HIGH WINDS)	216928	711185	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Fr	Redact	1600	SERIOUS	A83	A83 (16520/27)	FINE (WITHOUT HIGH WINDS)	215527	710432	DAYLIGHT: NO STREET LIGHTING	DRY	2	1	CR	GA		
ACCIDENT LOCATION PLAN 3 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Fr	Redact	1325	SLIGHT	A83	A83 (16520/27)	FINE (WITHOUT HIGH WINDS)	214640	709818	DAYLIGHT	DRY	1	3	CR	GA	CR	GA
Reda	We	Redact	920	SLIGHT	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	189300	685517	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	2	CR	OT	CR	GR
Reda	Fr	Redact	1935	SLIGHT	A83	A83 (16520/27)	FINE (WITHOUT HIGH WINDS)	218568	712475	DAYLIGHT	DRY	1	3	CR	GA	CR	OT
Reda	Th	Redact	1015	SLIGHT	A83	A83 (16520/58)	RAINING (WITHOUT HIGH WINDS)	213855	709690	DAYLIGHT	WET / DAMP	1	1	CR	GA		
Reda	Mo	Redact	1230	SLIGHT	A83	A83 (16520/58)	RAINING WITH HIGH WINDS	213018	709432	DAYLIGHT	WET / DAMP	2	1	CR	GA		
Reda	We	Redact	1130	SLIGHT	A83	A83 (16520/58)	RAINING (WITHOUT HIGH WINDS)	212904	709408	DAYLIGHT	WET / DAMP	1	1	CR	GA		
ACCIDENT LOCATION PLAN 4 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Su	Redact	1030	SLIGHT	A83	A83 (16520/58)	RAINING (WITHOUT HIGH WINDS)	212845	709402	DAYLIGHT	WET / DAMP	1	2	CR	GA	CR	GA
Reda	Sa	Redact	1115	FATAL	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	212808	709407	DAYLIGHT	WET / DAMP	3	1	CR	GA		
Reda	Fr	Redac	1540	SERIOUS	A83	A83 (16520/58)	RAINING (WITHOUT HIGH WINDS)	212777	709384	DAYLIGHT	WET / DAMP	1	1	CR	GA		
Reda	Tu	Redact	1310	SLIGHT	A83	A83 (16520/58)	RAINING (WITHOUT HIGH WINDS)	212587	709280	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	MB	GA		
Reda	Mo	Redact	1830	SLIGHT	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	212481	709220	UNKNOWN	DRY	1	3	CR	OT	CR	GA
Reda	We	Reda	900	SERIOUS	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	212216	709066	DAYLIGHT: NO STREET LIGHTING	DRY	2	2	CR	GA	CR	GA
Reda	Sa	Redact	1554	FATAL	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	211291	708798	DAYLIGHT: NO STREET LIGHTING	DRY	2	3	MC	GA	CR	GA
Reda	Su	Redact	1130	FATAL	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	211291	708799	DAYLIGHT	DRY	2	2	MC	GA	MC	GA
Reda	Mo	Redact	850	SLIGHT	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	211289	708800	DAYLIGHT	WET / DAMP	1	2	CR	SOS	CR	GA
Reda	Sa	Redact	1130	SERIOUS	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	211273	708837	DAYLIGHT: NO STREET LIGHTING	DRY	1	3	PSV	GA	MC	GA
Reda	Th	Redact	1600	SLIGHT	A83	A83 (16520/58)	RAINING (WITHOUT HIGH WINDS)	211366	709736	DAYLIGHT	WET / DAMP	1	1	CR	GA		
Reda	Mo	Redact	1110	SLIGHT	A83	A83 (16520/85)	FINE (WITHOUT HIGH WINDS)	211420	710150	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	2	HG	GA	OT	SOS
ACCIDENT LOCATION PLAN 5 - (Accidents in the table organized from east to west as per the location plan.)																	

Police accident reference	Day	Date	Time	Severity	Road	Section	Weather	Easting	Northing	Light conditions	Road surface	Casualty	Vehicles	V1 Type	V1 Manouver	V2 Type	V2 Manouver
Reda	Mo	Redact	1700	SLIGHT	A83	A83 (16520/85)	RAINING (WITHOUT HIGH WINDS)	211274	710309	DAYLIGHT	WET / DAMP	2	1	CR	GA		
Reda	Tu	Redact	1133	SLIGHT	A83	A83 (16520/85)	FINE (WITHOUT HIGH WINDS)	210945	710277	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	CR	GA		
Reda	We	Redact	1600	FATAL	A83	A83 (16520/85)	FINE (WITHOUT HIGH WINDS)	210637	709958	DAYLIGHT	DRY	1	2	MC	GA	CR	GA
Reda	Tu	Redact	1505	SLIGHT	A83	A83 (16520/85)	FINE (WITHOUT HIGH WINDS)	210576	709836	DAYLIGHT: NO STREET LIGHTING	DRY	1	2	CR	GA	CR	GA
Reda	Su	Redact	1210	SERIOUS	A83	A83 (16520/85)	FINE (WITHOUT HIGH WINDS)	210415	709636	DAYLIGHT	DRY	1	1	MC	GA		
Reda	We	Redact	1200	SERIOUS	A83	A83 (16540/23)	RAINING (WITHOUT HIGH WINDS)	196695	694831	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
ACCIDENT LOCATION PLAN 6 - (Accidents in the table organized from east to west as per the location plan.)																	
ACCIDENT LOCATION PLAN 7 (NO ACCIDENTS)																	
Reda	We	Redact	1825	SLIGHT	A83	A83 (16530/10)	RAINING (WITHOUT HIGH WINDS)	208532	707178	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	1	CR	OT		
ACCIDENT LOCATION PLAN 8																	
Reda	Tu	Redact	1045	SLIGHT	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	205909	704912	UNKNOWN	DRY	1	1	CR	GA		
Reda	We	Redact	1930	SERIOUS	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	205666	704785	DAYLIGHT	DRY	2	2	CR	GA	CR	GA
ACCIDENT LOCATION PLAN 9 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Sa	Redac	1455	SLIGHT	A83	A83 (16530/10)	RAINING (WITHOUT HIGH WINDS)	204993	704277	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Su	Redac	1050	SLIGHT	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	204901	704207	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	5	2	CR	GA	OT	GA
Reda	Su	Redac	1105	SERIOUS	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	204299	704143	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	2	1	CR	GA		
Reda	Th	Redact	1030	SLIGHT	A83	A83 (16530/10)	SNOWING WITH HIGH WINDS	204287	704137	DAYLIGHT: STREET LIGHTS PRESENT	SNOW	1	1	CR	GA		
Reda	We	Redact	1530	SERIOUS	A83	A83 (16530/10)	RAINING (WITHOUT HIGH WINDS)	204278	704133	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	2	3	CR	GA	CR	GA
Reda	Mo	Redact	1538	SERIOUS	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	204145	704024	DAYLIGHT: STREET LIGHTS PRESENT	WET / DAMP	4	1	CR	GA		
Reda	Su	Redact	1930	SLIGHT	A83	A83 (16530/10)	RAINING (WITHOUT HIGH WINDS)	203847	703817	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	2	MC	GA	CR	GA
Reda	Tu	Redact	1120	SERIOUS	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	203377	703498	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Sa	Redact	1205	SLIGHT	A83	A83 (16530/10)	SNOWING (WITHOUT HIGH WINDS)	203288	703445	DAYLIGHT	SNOW	1	2	CR	GA	CR	GA
Reda	Th	Redact	950	SLIGHT	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	203119	703342	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	CR	OT		
ACCIDENT LOCATION PLAN 10 - (Accidents in the table organized from east to west as per the location plan.)																	

Police accident reference	Day	Date	Time	Severity	Road	Section	Weather	Easting	Northing	Light conditions	Road surface	Casualty	Vehicles	V1 Type	V1 Manouver	V2 Type	V2 Manouver
Reda	Tu	Redact	2115	SLIGHT	A83	A83 (16530/10)	FINE (WITHOUT HIGH WINDS)	202980	703220	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Su	Redac	1100	SERIOUS	A83	A83 (16530/10)	RAINING (WITHOUT HIGH WINDS)	202931	703160	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Sa	Redac	905	SLIGHT	A83	A83 (16530/10)	RAINING (WITHOUT HIGH WINDS)	202894	703069	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	OT	GA		
Reda	Su	Redact	345	SLIGHT	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202752	702699	DARKNESS: NO STREET LIGHTING	WET / DAMP	2	1	CR	GA		
Reda	Mo	Redact	1700	SLIGHT	A83	A83 (16530/75)	RAINING (WITHOUT HIGH WINDS)	202550	702460	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Fr	Redact	1615	SLIGHT	A83	A83 (16530/75)	RAINING (WITHOUT HIGH WINDS)	202475	702256	DAYLIGHT	WET / DAMP	1	1	HG	GA		
Reda	Sa	Redact	1830	SLIGHT	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202472	702242	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Sa	Redac	1520	FATAL	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202477	702130	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	3	2	CR	GA	CR	GA
Reda	Tu	Redact	1545	SLIGHT	A83	A83 (16530/75)	RAINING (WITHOUT HIGH WINDS)	202482	702084	DAYLIGHT	WET / DAMP	1	1	CR	GA		
Reda	Su	Redact	1600	SERIOUS	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202484	702066	DAYLIGHT	WET / DAMP	7	2	CR	GA	CR	GA
Reda	Mo	Redact	1445	SLIGHT	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202481	702027	DAYLIGHT	DRY	1	2	HG	GA	HG	GA
Reda	Fr	Redact	1730	SERIOUS	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202393	701810	DARKNESS: NO STREET LIGHTING	DRY	1	1	CR	GA		
ACCIDENT LOCATION PLAN 11 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	We	Redact	1400	SLIGHT	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202413	701522	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	CR	GA		
Reda	Su	Redact	1204	SLIGHT	A83	A83 (16530/75)	FINE (WITHOUT HIGH WINDS)	202266	700802	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	2	MC	GA	CR	GA
ACCIDENT LOCATION PLAN 12 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Sa	Redact	1950	SLIGHT	A83	A83 (16540/05)	OTHER	200915	699223	DAYLIGHT	WET / DAMP	1	1	CR	GA		
Reda	Mo	Redact	555	SLIGHT	A83	A83 (16540/05)	FINE (WITHOUT HIGH WINDS)	200888	699203	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	2	CR	GA	CR	GA
Reda	Th	Redact	1850	SERIOUS	A83	A83 (16540/05)	RAINING (WITHOUT HIGH WINDS)	200835	699147	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	4	2	CR	GA	CR	GA
ACCIDENT LOCATION PLAN 13 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Tu	Redact	1430	SLIGHT	A83	A83 (16540/05)	FINE (WITHOUT HIGH WINDS)	199555	698055	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	5	CR	GA	CR	GA
Reda	Tu	Redact	2120	SLIGHT	A83	A83 (16540/05)	OTHER	199534	698036	DARKNESS: NO STREET LIGHTING	WET / DAMP	3	2	CR	GR	CR	OT
Reda	Fr	Redact	1305	SLIGHT	A83	A83 (16540/05)	RAINING (WITHOUT HIGH WINDS)	198815	697373	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	We	Redact	1120	SLIGHT	A83	A83 (16540/05)	FINE (WITHOUT HIGH WINDS)	198704	697227	DAYLIGHT	FROST / ICE	1	1	CR	GA		
ACCIDENT LOCATION PLAN 14 - (Accidents in the table organized from east to west as per the location plan.)																	

Police accident reference	Day	Date	Time	Severity	Road	Section	Weather	Easting	Northing	Light conditions	Road surface	Casualty	Vehicles	V1 Type	V1 Manouver	V2 Type	V2 Manouver
Reda	We	Redact	1630	SLIGHT	A83	A83 (16540/23)	FINE (WITHOUT HIGH WINDS)	197593	695948	DAYLIGHT: NO STREET LIGHTING	DRY	1	2	HG	GA	HG	GA
ACCIDENT LOCATION PLAN 15																	
Reda	Fr	Redact	815	SLIGHT	A83	A83 (16540/23)	FINE (WITHOUT HIGH WINDS)	196951	695309	DAYLIGHT: STREET LIGHTS PRESENT	WET / DAMP	2	3	HG	GA	CR	SOS
Reda	Tu	Redact	1545	SLIGHT	A83	A83 (16540/80)	FINE (WITHOUT HIGH WINDS)	186945	685393	DAYLIGHT: NO STREET LIGHTING	FROST / ICE	2	2	CR	GA	HG	GA
Reda	Sa	Redact	1030	SLIGHT	A83	A83 (16540/23)	FINE (WITHOUT HIGH WINDS)	196759	695079	DAYLIGHT	WET / DAMP	1	1	CR	GA		
Reda	Mo	Redact	900	SLIGHT	A83	A83 (16520/85)	FINE (WITHOUT HIGH WINDS)	210049	709230	DAYLIGHT: NO STREET LIGHTING	FROST / ICE	1	1	CR	GA		
Reda	Mo	Redact	1000	SLIGHT	A83	A83 (16540/23)	FINE (WITHOUT HIGH WINDS)	195606	694086	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	CR	GA		
ACCIDENT LOCATION PLAN 16 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Mo	Redact	1630	SERIOUS	A83	A83 (16520/58)	FINE (WITHOUT HIGH WINDS)	214410	709723	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	HG	GA		
Reda	Su	Redact	1730	SLIGHT	A83	A83 (16540/34)	RAINING (WITHOUT HIGH WINDS)	195246	693523	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	We	Redact	1935	SLIGHT	A83	A83 (16540/34)	RAINING (WITHOUT HIGH WINDS)	195263	693471	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Tu	Redact	2240	SLIGHT	A83	A83 (16540/34)	FINE (WITHOUT HIGH WINDS)	195114	693143	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Tu	Redact	1725	SLIGHT	A83	A83 (16540/34)	FINE (WITHOUT HIGH WINDS)	195038	692859	DARKNESS: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Su	Redac	1445	SLIGHT	A83	A83 (16540/34)	RAINING WITH HIGH WINDS	194902	692649	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Th	Redact	1435	SLIGHT	A83	A83 (16540/34)	RAINING (WITHOUT HIGH WINDS)	194753	692517	UNKNOWN	WET / DAMP	2	1	CR	GA		
Reda	Sa	Redact	1300	SLIGHT	A83	A83 (16540/34)	FINE (WITHOUT HIGH WINDS)	194659	692496	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	OT	GA		
Reda	Fr	Redact	1600	SERIOUS	A83	A83 (16540/34)	RAINING WITH HIGH WINDS	194546	692478	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	3	2	CR	GA	CR	GA
Reda	Sa	Redact	1500	SLIGHT	A83	A83 (16540/34)	RAINING (WITHOUT HIGH WINDS)	194478	692453	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
ACCIDENT LOCATION PLAN 17 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	We	Redact	1600	SLIGHT	A83	A83 (16540/34)	FINE (WITHOUT HIGH WINDS)	193700	691960	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Th	Redact	2330	FATAL	A83	A83 (16540/50)	FINE (WITHOUT HIGH WINDS)	192603	691494	DARKNESS: NO STREET LIGHTING	DRY	2	2	CR	GA	CR	GA
ACCIDENT LOCATION PLAN 18 - (Accidents in the table organized from east to west as per the location plan.)																	
ACCIDENT LOCATION PLAN 19 (NO ACCIDENTS)																	
ACCIDENT LOCATION PLAN 20 (NO ACCIDENTS)																	

Police accident reference	Day	Date	Time	Severity	Road	Section	Weather	Easting	Northing	Light conditions	Road surface	Casualty	Vehicles	V1 Type	V1 Manouver	V2 Type	V2 Manouver
Reda	Sa	Redact	1623	FATAL	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	190619	686622	DAYLIGHT: NO STREET LIGHTING	DRY	2	2	MC	OT	CR	GR
Reda	Mo	Redac	1140	SLIGHT	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	190278	686158	DAYLIGHT	WET / DAMP	1	2	CR	GA	CR	SOS
ACCIDENT LOCATION PLAN 21 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Fr	Redact	1620	SLIGHT	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	190185	685807	DAYLIGHT: NO STREET LIGHTING	DRY	1	2	HG	GA	CR	GR
Reda	We	Redact	730	SERIOUS	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	190180	685800	DARKNESS: NO STREET LIGHTING	FROST / ICE	1	2	CR	GA	HG	GA
Reda	Sa	Redact	430	SLIGHT	A83	A83 (16540/71)	OTHER	190000	685549	DARKNESS: NO STREET LIGHTING	FROST / ICE	1	1	CR	GA		
Reda	Th	Redact	915	SLIGHT	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	189640	685519	DAYLIGHT: NO STREET LIGHTING	DRY	1	1	HG	SOS		
Reda	Th	Redact	1620	SLIGHT	A83	A83 (16540/34)	RAINING (WITHOUT HIGH WINDS)	195189	693669	DAYLIGHT: NO STREET LIGHTING	WET / DAMP	1	1	CR	GA		
Reda	Su	Redact	1740	SLIGHT	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	189210	685516	DAYLIGHT: STREET LIGHTING UNKNOWN	DRY	1	2	CR	OT	CR	GA
Reda	Fr	Redact	1025	SLIGHT	A83	A83 (16540/71)	FINE (WITHOUT HIGH WINDS)	188892	685510	DAYLIGHT: STREET LIGHTS PRESENT	DRY	1	2	HG	GA	CR	OT
Reda	Sa	Redac	1430	SLIGHT	A83	A83 (16540/71)	RAINING (WITHOUT HIGH WINDS)	188821	685479	DAYLIGHT	WET / DAMP	1	2	CR	GA	CR	GA
ACCIDENT LOCATION PLAN 22 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Fr	Redact	1000	SLIGHT	A83	A83 (16540/23)	SNOWING (WITHOUT HIGH WINDS)	196775	695173	DAYLIGHT: NO STREET LIGHTING	SNOW	1	1	CR	GA		
Reda	Su	Redact	2130	SLIGHT	A83	A83 (16540/80)	FINE (WITHOUT HIGH WINDS)	186934	685411	DARKNESS: NO STREET LIGHTING	FROST / ICE	1	1	CR	GA		
ACCIDENT LOCATION PLAN 23 - (Accidents in the table organized from east to west as per the location plan.)																	
Reda	Sa	Redact	455	SERIOUS	A83	A83 (16540/85)	FINE (WITHOUT HIGH WINDS)	186413	686645	DAYLIGHT: STREET LIGHTS PRESENT	WET / DAMP	3	1	CR	GA		
Reda	Mo	Redact	935	SLIGHT	A8(NT	A83 (16540/95)	FINE (WITHOUT HIGH WINDS)	185976	688015	DAYLIGHT: STREET LIGHTS PRESENT	WET / DAMP	1	3	PSV	GL	CR	GA
ACCIDENT LOCATION PLAN 24 - (Accidents in the table organized from east to west as per the location plan.)																	