

Appendix 3 Personal Injury Accident Assessment Technical Note



M1J15 NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

PERSONAL INJURY ACCIDENT ASSESSMENT
TECHNICAL NOTE

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1.0 INTRODUCTION

- 1.1 ADC Infrastructure Ltd is commissioned by Roxhill (Junction 15) Ltd to provide transport advice with regards to their Nationally Significant Infrastructure Project (NSIP) for the development of a Strategic Rail Freight Interchange (SRFI) facility adjacent to M1 Junction 15 in Northamptonshire (known as Northampton Gateway SRFI).
- 1.2 As part of the Transport Assessment process, a Personal Injury Accident (PIA) assessment has been undertaken to analyse the accident history of the highway network adjacent to the main site and identify any potential accident trends that could be exacerbated by the proposed development.
- 1.3 The PIA records for the study areas shown on **Figure 1** were obtained from Northamptonshire County Council (NCC) for the five-year period between 1 November 2011 and 31 October 2016. A total of 210 accidents were analysed, 163 of which were classified as slight severity, 42 were classified as serious severity and the remaining five accidents were classified as fatal.
- 1.4 **Table 1** provides a breakdown of the casualties for the 210 analysed PIAs at the study areas whilst the PIA data is provided at **Appendix A**.

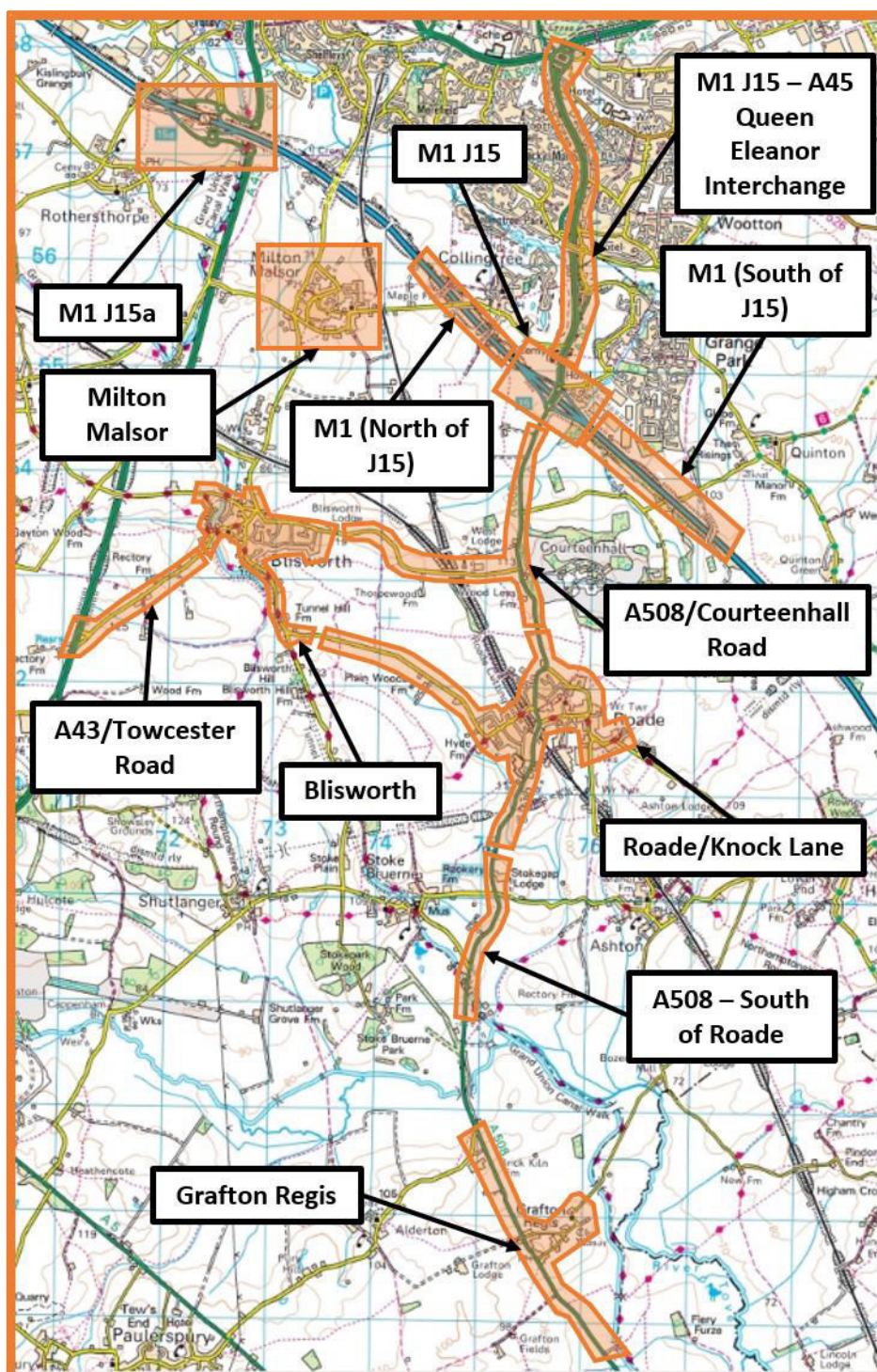


Figure 1: location of study areas

Table 1: casualty breakdown
 of analysed PIAs

Severity	Casualties
Slight	245
Serious	53
Fatal	5
Total	303

2.0 M1 J15 STUDY AREA

2.1 As shown in **Figure 2**, a total of 23 accidents occurred at the M1 J15 study area. 14 PIAs were classified as being of slight severity, eight of serious severity and one leading to a fatality. **Table 2** provides a casualty breakdown of the 23 recorded PIAs at the study area.

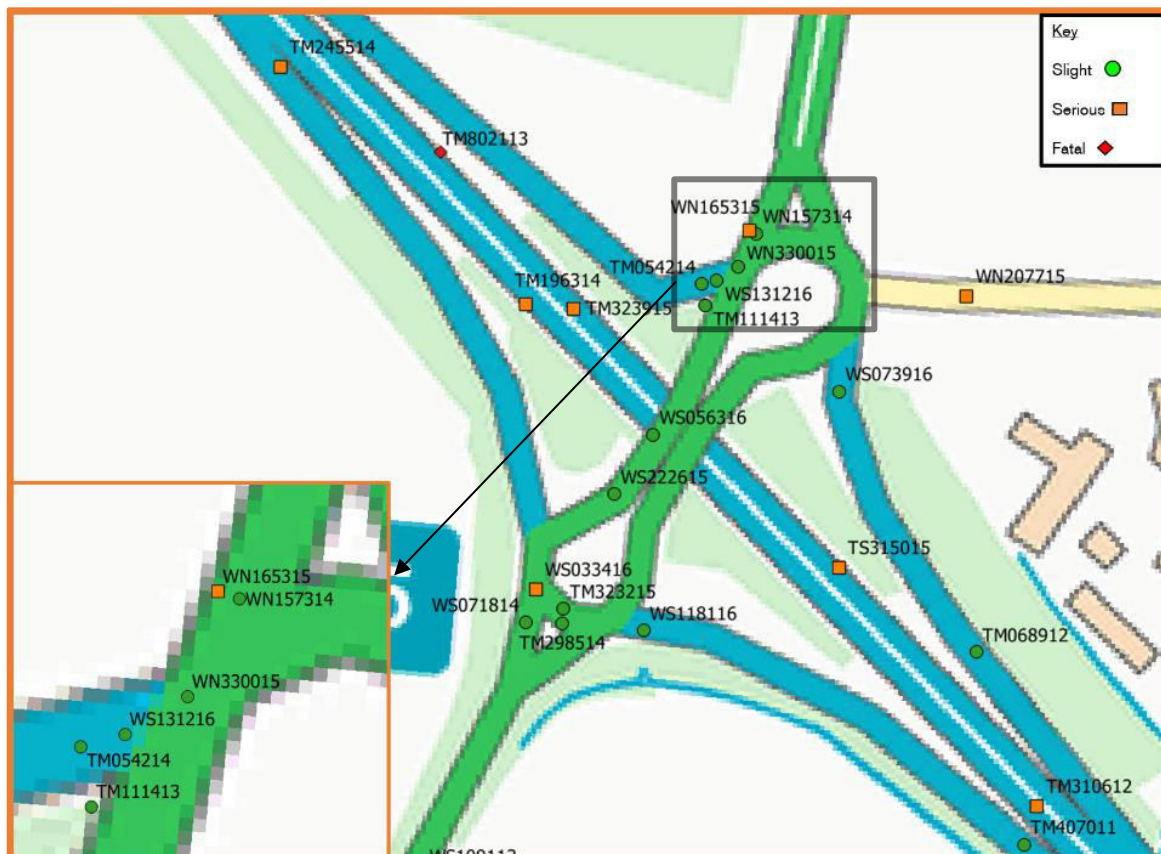


Figure 2: location of respective accidents in study area

Table 2: casualty breakdown of study area

Severity	Casualties
Slight	17
Serious	11
Fatal	1
Total	29

2.2 The fatal accident (TM802113) involved a car travelling southbound on the M1 at 02:35 am, approaching J15 and crossing all lanes, resulting in the car colliding with the central barrier. It was deemed the causation of the accident was due to a combination of tiredness of the driver and defective tyres.

2.3 Eight accidents of the study area were classified as serious severity, five of which involved vehicles travelling along the M1. However, as shown in **Figure 2**, these accidents all occurred at different locations:

- TM245514- motorcycle joining the M1 northbound from the Junction 15 slip road and causing a nearside collision with a goods vehicle (7.5 tonnes and over). It was deemed the motorcyclist failed to look properly and was inexperienced.
- TM196314- car colliding into the rear of a goods vehicle (under 7.5 tonnes) whilst travelling northbound along the M1.
- TM310612- car travelling northbound along M1 when traffic slows but the driver fails to stop, causing a sequence of rear end collisions with four other vehicles. It was deemed the driver which caused the initial collision was following too closely.
- TM323915- car travelling southbound along M1 causes a rear shunt with a car in lane 3 which also causes a further rear end collision. Wet/damp road conditions were present and it was deemed sudden braking/failing to look properly were attributing factors of the accident.
- TS315015- car travelling southbound along the M1 and loses control for unknown reasons, resulting in the car leaving the carriageway.
- WN165315- car travelling in a north east direction, collides into the front and offside of another car at the entry of the A45.
- WS033416- car travelling in a north west direction around M1/A508 roundabout and causes a nearside collision with a goods vehicle (7.5 tonnes and over). It was deemed the driver of the car was fatigued which was an attributing factor of the junction overshoot and failing to look properly.
- WN207715- car travelling in a north east direction along Saxon Avenue, loses control and collides with a goods vehicle (under 7.5 tonnes) travelling in opposite direction. Wet/damp road conditions were present; therefore, it was deemed the slippery road was a causal factor of the accident.

2.4 There is a cluster of six accidents (TM054214, WS131216, TM111413, WN165315, WN157314, WN330015) situated at the M1 southbound off slip entry to the roundabout and the A45 exit, as shown in the inset of **Figure 2**. One of the PIA's in the cluster was classified as serious severity (WN165315), as described above. The remaining five accidents of the cluster were slight in nature:

- TM054214- car travelling north east on M1 southbound exit slip, loses control, causing a collision with traffic lights.
- WS131216- two cars facing north east on exit of M1 southbound slip road but a rear shunt occurs when one of the cars was held up.
- TM111413- car exits M1 southbound at Junction 15 and collides with an electricity box, causing a further collision with a car.
- WN157314- car stationary due to road closure at A45/M1/Saxon Avenue roundabout and a dispute between the driver and a cyclist, results in the cyclist being hit by the wing mirror of the car when driving off.
- WN330015- car travelling in a north east direction on A45/M1/Saxon Avenue roundabout and cuts across lane, causing a rear end shunt with another car.

2.5 The study area also has a cluster of four PIAs (WS033416, WS071814, TM323215, TM298514) at the A508/M1 roundabout. One accident of the cluster was of serious severity (WS033416), as described above. The remaining three accidents were of slight nature, two of which occurred in wet/damp road conditions:

- WS071814- car stationary at southern arm of A508/M1 roundabout, facing north east and is hit in the rear by another car which failed to stop in time.
- TM323215- car changing lanes to the left on the A508/M1 roundabout is hit in the rear by another car in wet/damp road conditions.
- TM298514- car and goods vehicle (unknown weight) involved in an offside collision at A508/M1 roundabout in wet/damp road conditions.

2.6 The remaining six PIAs of the study area were of slight severity (TM068912, WS222615, WS056316, WS073916, WS118116) and did not indicate an apparent trend:

- TM068912- a goods vehicle and a car enter M1 southbound slip road at the same time. A collision occurred when the slip road begun to narrow, resulting in the goods vehicle pulling in front of the car.
- WS222615- two cars travelling north east, involved in collision on the approach to the bridge going over M1 J15.
- WS056316- motorcycle travelling north east over junction 15, loses control for unknown reasons and falls. The motorcyclist then re-mounted and travelled up kerb, to the side of the carriageway along the bridge over M1 J15 but resulted in another fall.
- WS073916- a rear end collision occurred between two cars at the M1 southbound slip road.
- WS118116- a car is waiting at M1 northbound exit slip due to traffic lights, another car fails to stop and results in a rear end shunt.
- TM407011- car travelling northbound along M1 and takes slip road for J15. However, the driver loses control, resulting in the car travelling across grass verge and back onto M1. It was deemed the car may have had defective tyres.

2.7 Overall, the cluster of six accidents at the M1 southbound exit slip and entrance to the A45, and the cluster of four accidents on the A508 northbound approach to the junction, indicates a potential existing accident problem.

3.0 M1 - NORTH AND SOUTH OF J15 STUDY AREA

- 3.1 As shown in **Figures 3 and 4**, a total of five and 17 accidents occurred north and south of M1 J15 respectively. 17 PIAs were classified as slight severity, four were categorised as serious and the remaining accident resulted in a fatality. **Table 3** provides a casualty breakdown of the 22 recorded PIAs at the study area.

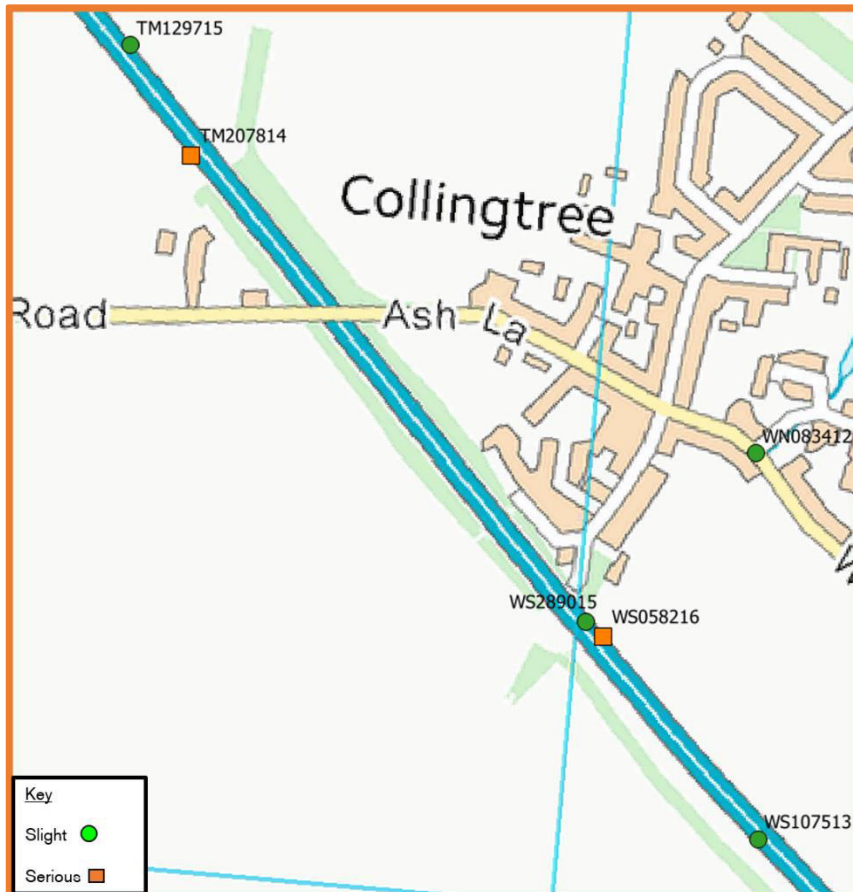


Figure 3: location of respective accidents in along the M1 – north of M1 J15

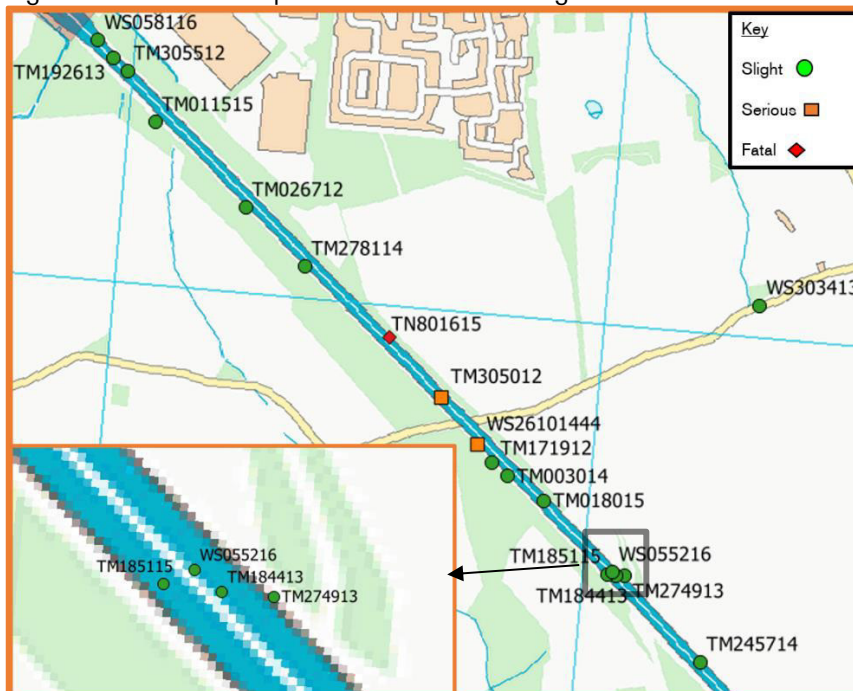


Figure 4: location of respective accidents along the M1 – south of M1 J15

Table 3: casualty breakdown of study area

Severity	Casualties
Slight	45
Serious	6
Fatal	1
Total	52

- 3.2 Regarding the accidents to the north of M1 J15, the two accidents of serious severity (TM207814, WS058216) both occurred in daylight with the former involving an articulated vehicle travelling northbound of the M1 colliding with a car which was being held up, resulting in the car catapulting into the path of three cars. The latter involved a car travelling southbound along the M1 and losing control due to a punctured tyre, resulting in the car leaving the carriageway and overturning.
- 3.3 The remaining three PIAs (WS107513, TM129715, WS289015) all involved driver error, notably failing to look properly and a poor manoeuvre. All three of the accidents were of slight nature as described below:
- WS107513- car travelling northbound along M1 collides into rear of goods vehicle (3.5 tonnes and under). It was deemed the driver of the car was fatigued and subsequently made a poor manoeuvre.
 - TM129715- goods vehicle (7.5 tonnes and over) travelling northbound along M1 changes lanes and whilst doing so, collides into a car, causing the car to lose control and leave the carriageway. It was deemed the driver of the goods vehicle failed to look properly whilst changing lanes.
 - WS289015- goods vehicle (7.5 tonnes and over) travelling southbound along M1 attempts to overtake car and in doing so, causes a collision. It was deemed the driver of the goods vehicle failed to look properly whilst overtaking.
- 3.4 Regarding the accidents to the south of M1 J15, the fatal PIA (TN801615) involved a van/goods vehicle (under 3.5 tonnes) travelling southbound along M1 and colliding with the rear of a goods vehicle (over 7.5 tonnes) which had stopped due to roadworks present.
- 3.5 There were two accidents of serious severity (TM305012, WS26101444). The former involved a car travelling southbound along the M1 and losing control due to the driver having a medical fit resulting in the car hitting a central reservation. The latter occurred in wet/damp road conditions and involved a collision between two cars which were travelling northbound along the M1 which instigated a sequence of rear shunts with eight other cars. The remaining PIAs were all classified as being of slight severity.
- 3.6 13 of the PIAs which occurred along the M1 – south of J15 involved rear shunts including the fatal accident. However, there were no locational trend of the respective rear end collisions.
- 3.7 There were four PIAs which involved articulated vehicles including the fatal PIA (TM026712, TM17912, TM011515, TN801615):
- TM026712- goods vehicle (over 7.5 tonnes) travelling northbound of the M1 collides into car whilst changing lanes, causing the car to collide with nearside barrier.

- TM17912- goods vehicle (over 7.5 tonnes) travelling northbound of the M1 fails to stop in time of oncoming traffic, resulting in a collision with another goods vehicle (over 7.5 tonnes) and subsequent collisions with a car, goods vehicle (3.5 tonnes and under) and a goods vehicle (over 7.5 tonnes).
- TM011515- goods vehicle travelling northbound along M1 (over 7.5 tonnes) collides into rear of another goods vehicle (over 7.5 tonnes), resulting in further collisions with a car and goods vehicle (over 7.5 tonnes).

3.8 In summary, as **Figures 3 and 4** illustrate, the respective accidents of the study area are located sporadically apart from the cluster of three accidents as shown in **Figure 4**, travelling southbound along the M1. The accidents were a combination of rear end collisions and driver error which is a reflection of the busy nature of this stretch of motorway, where the likelihood of driver error and rear end shunts increases due to high speeds and stop/start caused by congestion and roadworks.

4.0 M1 J15A STUDY AREA

4.1 As shown in **Figure 5**, a total of 26 accidents occurred at the M1 J15A study area. 21 PIAs were classified as slight severity, and the remaining five were classified as serious in severity. **Table 4** provides a casualty breakdown of the 26 recorded PIAs at the study area.



Figure 5: location of respective accidents in study area

Table 4: casualty breakdown of study area

Severity	Casualties
Slight	33
Serious	5
Fatal	0
Total	38

4.2 Ten of the 26 accidents including one of serious severity, occurred in wet/damp road conditions, where a combination of slippery road conditions and driver error was an attributing factor behind the respective accidents. The accident of serious severity (TM073414) involved a goods vehicle (over 3.5 tonnes) travelling northbound along the M1 and colliding with the hard shoulder, resulting in the vehicle losing control and colliding with a car. It was deemed the driver of the goods vehicle had an illness. The remaining nine accidents to occur in the wet/damp road conditions were slight in nature, and do not share any common locational trends.

- WN381011- car travelling westwards on roundabout leading to the A5123, loses control and collides with crash barrier. It was deemed the slippery road was a causal factor of the collision.
- TM419611- van/goods vehicle (under 3.5 tonnes), travelling northbound along the M1, fails to stop in time and causes rear end shunts with two cars which were stationary.
- TM087412- goods vehicle (over 7.5 tonnes) travelling northbound along the M1, begins to move over to lane 2 from lane 1 but collides with a car travelling in lane 2. The car

subsequently loses control, collides with central reservation and stops in lane 3. It was deemed the driver of the goods vehicle was inexperienced of driving on the left.

- WS173212- car travelling westwards along A43 link road overtakes another vehicle and in doing so, collides with a car which was travelling along the opposite carriageway.
- TM299412- car waiting to turn right onto M1 northbound from service station is hit in the rear by another car.
- TM040313- goods vehicle (over 7.5 tonnes) travelling in lane 1, northbound of the M1. A car is travelling in lane 2 and overtakes but the goods vehicle also moves into lane 2 and results in the goods vehicle going into the rear of the car, causing the car to spin and come to a halt on the carriageway. It was deemed the driver of the goods vehicle failed to look properly before moving over to lane 2.
- WS077413- car travelling south on approach to A43/A5123 roundabout with intentions to continue south but once on the roundabout, collides with another car travelling north.
- WS266013- car travelling north along A43 link road collides with another car travelling on opposite carriageway.
- WS067816- car travelling northbound of M1 and in lane 3, collides with rear of another car which causes a further rear end collision.

4.3 The remaining four accidents of serious severity also did not share a common location, although three did involve motorcycles:

- TM427411- car travelling northbound along M1 is driven by disqualified driver, impaired by alcohol and the vehicle is deemed to have been exceeding the speed limit. Consequently, the car causes a rear end collision with a goods vehicle (over 3.5 tonnes).
- WS233812- motorcycle travelling northwards along A43 turns left at roundabout, en-route to the M1 but misjudges manoeuvre and hits goods vehicle (over 7.5 tonnes) waiting at roundabout.
- WN116213- car and motorcycle both travelling southwards, exit junction 15A and approach roundabout leading towards the A43 and Towcester. But the car does not make the manoeuvre continues around the roundabout, causing a collision between the two vehicles.
- WN161713- car and motorcycle both travelling northbound and approaching the roundabout connecting the A43 with the A5123. The car is travelling in lane of the roundabout whilst the motorcycle is in lane 2. The car keeps travelling right but the motorcycle makes a left turn intending to exit the roundabout and join the A5123, resulting in a collision between the two vehicles.

4.4 There is however, a cluster of five accidents including two accidents already described above (WS233812, WS266013) which occurred at the western arm of the A43/M1 roundabout of J15A as shown in the bottom inset of **Figure 5**:

- TM199613- car travelling northbound along A43, turns left at roundabout heading to M1 northbound, collides with another car travelling in opposite direction on approach to roundabout.
- WS099112- car travelling south east on approach to roundabout fails to stop in time and collides with another car which is stationary at the give way arrangement.
- WS251512- car travelling towards M1 northbound, loses control on roundabout exit and collides with goods vehicle (over 7.5 tonnes) travelling eastwards on approach to roundabout.

4.5 Further, there is also a small cluster of three accidents located at the northern arm of the A43/M1 roundabout as shown in the bottom inset of **Figure 5**:

- WN196115- car travelling northwards along A43 collides into front and offside of another car also travelling northbound but intending to turn right.
- WS068516- van/goods vehicle (under 3.5 tonnes) travelling northbound along A43 with intentions of changing lanes whilst negotiating roundabout but in doing so, cuts across path of a car, causing a rear and offside collision.
- WS042116- goods vehicle (7.5 tonnes and over) travelling northbound along A43 collides with front and nearside of car travelling in the same direction when negotiating roundabout.

4.6 The remaining six accidents of the study area were slight in nature and did not indicate an apparent trend:

- WN117713- van/goods vehicle (3.5 tonnes and under) travelling south east on roundabout with intentions of turning left onto M1 southbound and cuts across the path of a goods vehicle (7.5 tonnes and over) also intending to turn onto the M1 southbound, causing a collision. It was deemed the driver of the van/goods vehicle (3.5 tonnes and under) was in a hurry and caused the vehicle to lose control.
- TM216213- car travelling in southbound along the M1, collides into rear of a goods vehicle (7.5 tonnes and over). It was deemed the fatigue of the car driver may have been a causal factor behind the accident.
- TM306914- car travelling northbound along the M1, changes lanes and collides with another car travelling behind. It was deemed the driver of the inexperience of the driver resulted in a poor manoeuvre and subsequent collision.
- TM009616- car travelling southbound along the M1, manoeuvres into lane 1 but in doing so, collides into a goods vehicle (7.5 tonnes and over) which caused the car to run into the path of a goods vehicle (3.5 tonnes and under).
- WS058416- car travelling northbound along M1, moves over to lane 3 and collides with rear of another car which in turn caused another rear end collision with a vehicle.
- WS066716- two cars travelling southbound along the A43, on approach to the roundabout and a rear end collision occurs. It was deemed the failure of judging the other drivers speed was an attributing factor behind the accident.

4.7 Overall, a cluster of five accidents occurred at the western approach to the A43/M1 roundabout and a cluster of three PIAs just past this arm at the A43 northbound exit of the roundabout. These clusters are indicative of the busy junction and the queuing that occurs on the approach of the roundabout.

5.0 M1 J15 – A45 QUEEN ELEANOR INTERCHANGE STUDY AREA

5.1 As shown in **Figure 6**, a total of 64 accidents occurred at the M1 J15 – A45 Queen Eleanor Interchange study area. 57 PIAs were classified as being slight in nature, six of serious severity and one PIA resulted in a fatality. **Table 5** provides a casualty breakdown of the 64 recorded PIAs at the study area.

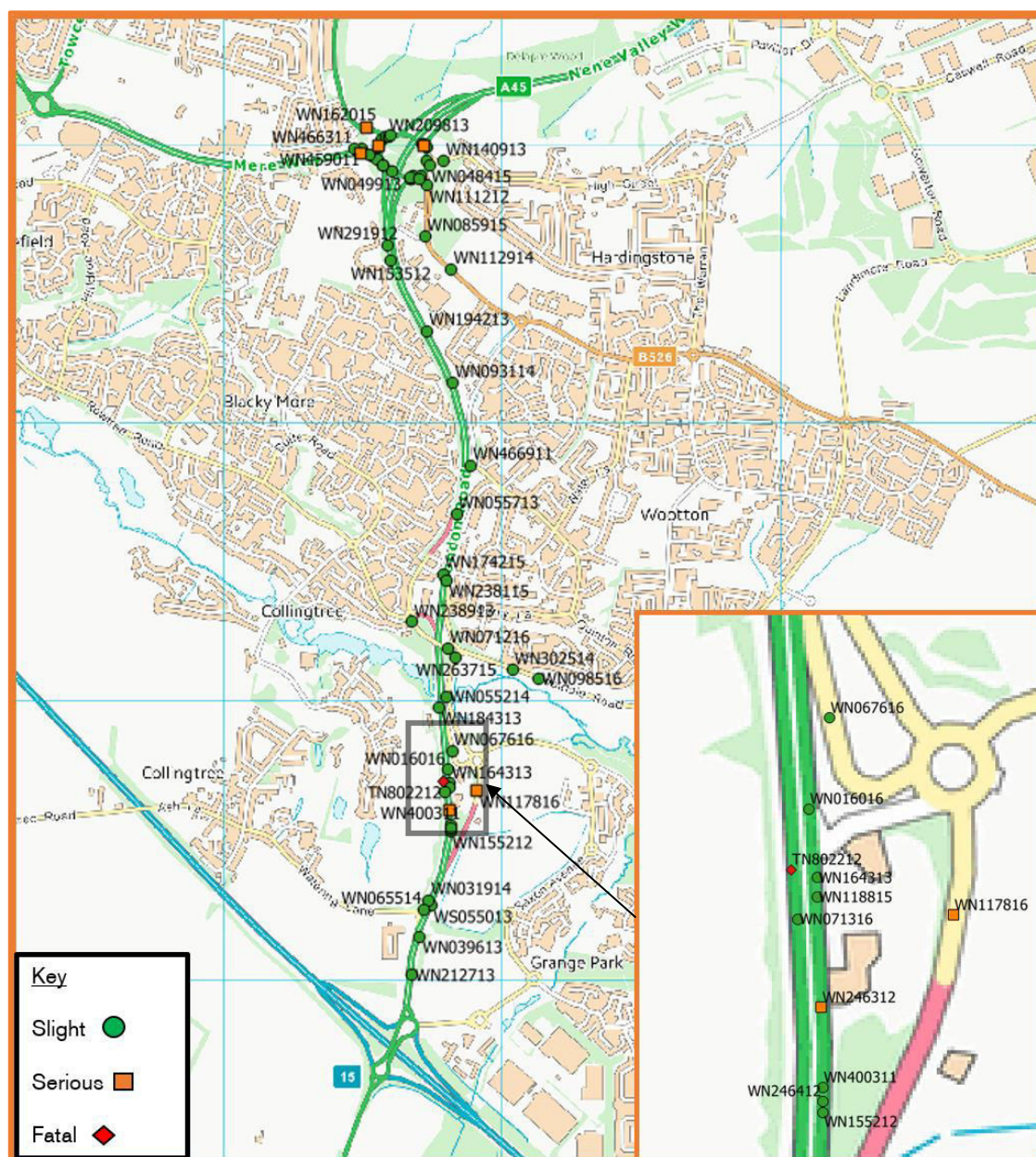


Figure 6: location of respective accidents in study area

Table 5: casualty breakdown of study area

Severity	Casualties
Slight	76
Serious	6
Fatal	1
Total	83

- 5.2 As shown in **Figure 7**, 31 of the 64 accidents within the study area occurred at the Queen Eleanor Interchange. 27 of the PIAs at the Queen Eleanor Interchange were slight in severity and the remaining four accidents were classified as serious severity. Whilst this appears a high number of PIAs, it is in line with the average expected over a 5-year period for a 6 arm junction such as this.

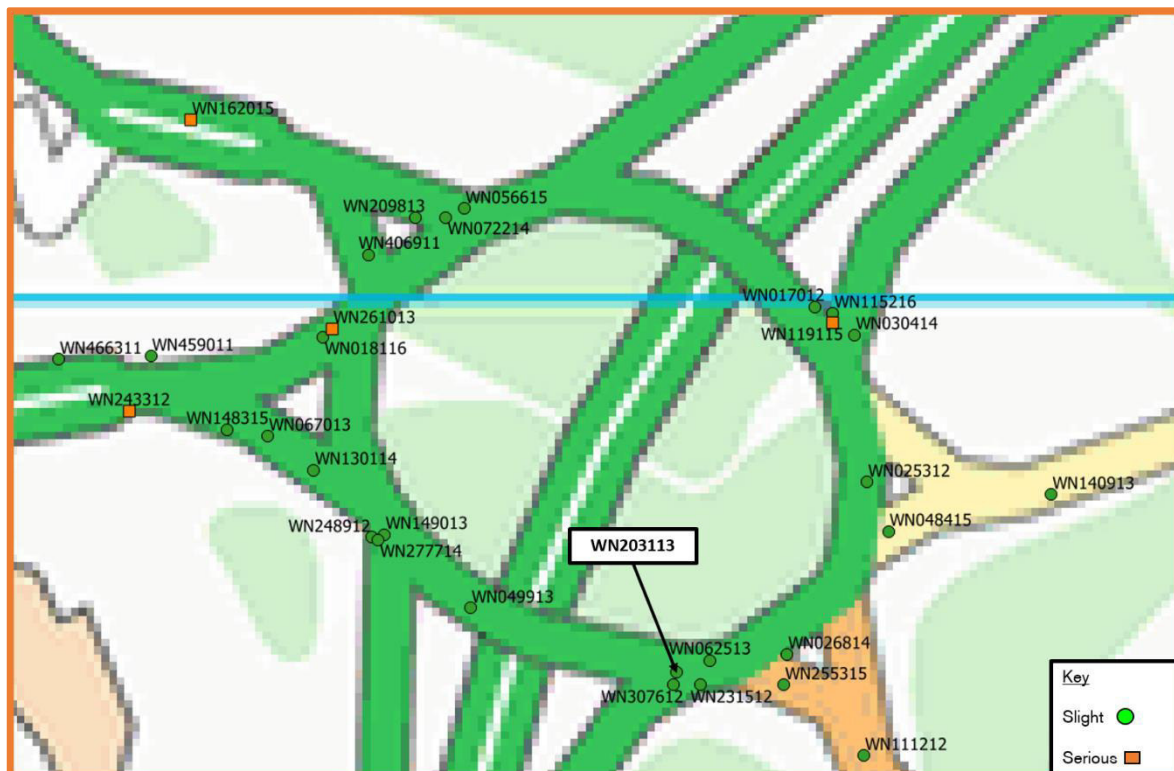


Figure 7: location of recorded accidents at the Queen Eleanor Interchange

- 5.3 As shown in **Figure 7**, there is not a locational trend in the four accidents of serious severity at the Queen Eleanor Interchange. A summary of the four PIAs is provided below:

- WN162015- taxi travelling in a north east direction along A508 London Road, drives off and a person falls to the ground. The accident occurred at 03:15 in the morning and subsequently, in darkness (street lights were present and lit). It was deemed the casualty was impaired by alcohol and performed a dangerous action in the carriageway.
- WN261013- motorcycle enters roundabout from A5076 Mere Way but accelerates too hard and consequently loses control in wet/damp road conditions. It was therefore deemed the motorcyclist was travelling too fast for the conditions.
- WN243312- motorcycle travelling northwest along the A5076 Mere Way, loses control for unknown reasons and falls off bike. It was deemed the motorcyclist may have been inexperienced and was travelling too fast for the conditions.
- WN119115- motorcycle circling roundabout, loses control, resulting in the motorcycle hitting nearside kerb and colliding with roadside sign just before A45 Nene Valley Way exit slip (southbound). It was deemed the motorcyclist was impaired with alcohol.

- 5.4 The remaining accidents at the Queen Eleanor Interchange were slight in nature. Notably, there is a cluster of three accidents at the approach to the roundabout from the A45 Nene Valley Way northbound exit slip. Two of the accidents (WN248912, WN149013) within the cluster involved vehicles which had disobeyed the traffic lights present. The former involved a motorcycle on the roundabout with intention of exiting to the A5076 Mere Way. However, a car travelling along the A45 Nene Valley Way exit slip (northbound) jumps red traffic light and collides with the motorcycle. The latter involved a car (V1) travelling westwards and through a red light, resulting in a collision with another car (V2) travelling from the A45 exit slip (northbound). The initial

collision then results in the car colliding with a car which was also travelling in the same direction. The remaining accident of the cluster (WN277714) involved a car travelling in a north west direction along A45 exit slip (northbound), which collided into the front and offside of a car at roundabout.

5.5 There was also a cluster of three accidents at the A508 London Road approach to the junction, with driver error attributing to the respective accidents:

- WN209813- car (V1) travelling south east along the A508 London Road in wet/damp road conditions, follows another car travelling in the same direction (V2). V2 slows due to the give way arrangement at the A508 junction with the Queen Eleanor Interchange. However, V1 begins to slow but misjudged distance between the two vehicles and causes a rear end collision. It was deemed the slippery road conditions present and the driver of V1 travelling too fast for the conditions were attributing factors of the accident.
- WN077214- car travelling south east along the A508 London Road collides into rear of another car which was stationary at the A508 junction with the Queen Eleanor Interchange.
- WN056615- articulated vehicle (under 7.5 tonnes) travelling in a north east direction collides with car also travelling in a north easterly direction but was held up. It was deemed the driver of the articulated vehicle may have failed to look properly and/or was nervous and uncertain.

5.6 Further, four accidents occurred at the A5076 Mere Way exit from the junction, including one of the four accidents of serious severity (WN243312):

- WN148315- motorcycle travelling westwards along the A5076 Mere Way in wet/damp road conditions, but in negotiating left hand bend, loses control and falls to nearside.
- WN067013- motorcycle travelling north west along the A5076 Mere Way in wet/damp road conditions. However, the motorcyclist spots spilled oil on the road surface but loses grip.
- WN130114- car travelling north west along the A5076 Mere Way, attempts to change lanes but in doing so, loses control and collides into kerb, signage and central reservation. It was deemed the driver of the car may have been careless and/or was inexperienced.

5.7 Four accidents were also recorded on the A5076 Mere Way approach to the junction, including one of the four accidents of serious severity (WN261013):

- WN466311- car exiting Queen Eleanor Interchange roundabout and travelling north west along the A5076 Mere Way in wet/damp road conditions. The car loses control, resulting in the car crossing the central reservation and onto the wrong side of the carriageway. The car then collides with a van/goods vehicle (3.5 tonnes and under) which was travelling eastwards along the A5076 Mere Way. It was deemed the loss of control of the car was due to the slippery road conditions present whilst inexperience of the driver and travelling too fast for the conditions were also causal factors.
- WN459011- two cars travelling eastwards along the A5076 Mere Way and approaching Queen Eleanor Interchange in wet/damp road conditions. One of the cars (V2) brakes as there is stationary traffic on approach to roundabout but the other car (V1) does not brake in time and collides with rear of V2. It was deemed the slippery road conditions and the driver of V1 failing to judge the path/speed of V2.
WN018116- two cars involved in rear end collision at exit slip of A5076 Mere Way. It was deemed failing to judge the other vehicles path/speed and sudden braking were attributing factors of the collision.

5.8 Two accidents were recorded at the B526 Newport Pagnell Road entry slip onto the Queen Eleanor Interchange, both of which involved rear end shunts and were, attributed to driver error:

- WN111212- car travelling north west along the B526 Newport Pagnell Road collides into rear of another car for unknown reasons, also travelling in the same direction which was stationary at traffic lights.
- WN255315- car (V1) travelling north west along the B526 Newport Pagnell Road collides into the rear of another car (V2). It was deemed the driver of V1 failed to judge the path/speed of V2 whilst the dazzling sun present was also attributed as a causal factor.

5.9 Two accidents occurred on the Hardingstone Lane approach to the junction (WN048415, WN140913). The former involved a bus/coach colliding into the rear of a car at the entry to the roundabout at the Queen Eleanor Interchange. The latter involved a car travelling westwards along Hardingstone Lane but comes around the left hand bend the wrong side of the carriageway and collides with another car travelling in the opposite direction.

5.10 A further locational pattern of three incidents occurred just before the A45 Nene Valley Way (southbound) off slip. The respective accidents involved vehicles with intentions of continuing westwards along the roundabout with vehicles with intentions of travelling south and joining the A45 Nene Valley Way:

- WN203113- car (V2) travelling westwards in lane two along the Queen Eleanor Interchange roundabout. Another car (V1) travelling in lane three of the roundabout with intentions of turning left onto the A45 entry slip road (southbound). In doing so, V1 collides with the rear of V2. It was deemed the driver of V1 failed to look properly, resulting in a poor manoeuvre.
- WN307612- car (V2) in lane two of roundabout, travelling westwards. Another car (V1) is in lane three with intentions of merging with the A45 southbound, but in doing so, runs into the path of V2.
- WN231512- car (V2) travelling westwards in lane one along the Queen Eleanor Interchange roundabout. A van/goods vehicle (V1) (7.5 tonnes and over) is in lane two but cuts across the path of V2 when trying to join A45 southbound entry slip, causing a collision.

5.11 A cluster of four accidents was also recorded in vicinity to the A45 Nene Valley Way (southbound) off slip entry to the junction, including one of the four accidents of serious severity (WN119115):

- WN017012- van/goods vehicle (3.5 tonnes and under) travelling south east along Queen Eleanor Interchange roundabout in wet/damp road conditions. The vehicle fails to stop in time and collides into the rear of a car which was stationary at the roundabout. It was deemed the attributing factors of the accident were the slippery road conditions present and the driver of the van/goods vehicle travelling too fast for the conditions.
- WN115216- van/goods vehicle (3.5 tonnes and under) collides with rear of a car which was in the process of stopping for red lights at the exit slip of the A45 Nene Valley Way (southbound) in wet/damp road conditions.
- WN030414- car and motorcycle waiting at traffic lights at the exit slip of the A45 Nene Valley Way (southbound) in wet/damp road conditions. The motorcycle reacts slowly resulting in the car driving into the back of the motorcycle.

5.12 The remaining five accidents recorded at the Queen Eleanor Interchange occurred at different locations, with driver error an attributing factor:

- WN406911- two cars (V1 and V2) are stationary at set of traffic lights, giving way to traffic from A5076 Mere Way. V2 is in the middle lane for traffic going onto the A508 London Road whilst V1 is in the offside lane. V1 changes lanes to the left and collides with V2. It was deemed the driver of V1 performed a poor manoeuvre.
 - WN025312- car (V1) travelling south west around the Queen Eleanor Interchange roundabout in vicinity to Hardingstone Lane. However, V1 collides into the rear of another car (V2) travelling in the same direction, causing a further collision with a car (V3). It was deemed the driver of V1 failed to look properly and was careless/in a hurry.
 - WN049913- car travelling north west around the Queen Eleanor Interchange roundabout in vicinity to the exit slip of the A45 Nene Valley Way (northbound). Car causes collision with another car by changing lanes to the left.
 - WN062513- car (V2) is in the offside lane Queen Eleanor Interchange roundabout in vicinity to the entry slip of the A45 Nene Valley Way (southbound). Another car (V1) is in the third lane (nearside of V2). When light changes to green, V1 fails to negotiate right hand bend and collides with nearside of V2.
 - WN026814- car stops at traffic lights at the Queen Eleanor Interchange roundabout, in vicinity to the B526 Newport Pagnell Road. However, a goods vehicle (over 7.5 tonnes) fails to stop and collides into the rear of the car.
- 5.13 Regarding the remaining accidents of the study area, the recorded PIA resulting in the fatality (TN802212), occurred northbound on the A45, near the petrol station. The accident involved a pedestrian crossing the carriageway of the A45 and causing a collision with a car. The accident happened at 04:08 in the morning and occurred in dry road conditions. Although dark, street lights were present and lit.
- 5.14 The recorded PIAs of serious nature (WN246312, WN117816) occurred along the A45 southbound; near the petrol station and on the A45 southbound merge slip, respectively. The former involved a car suddenly breaking and causing an oncoming car travelling in the same direction to swerve and overturn. The latter involved a pedal cycle colliding with the rear of a HGV which was parked, subsequently causing a serious injury to the cyclist.
- 5.15 The remaining accidents were of slight severity including a cluster of three PIAs which occurred at the exit of the petrol station along the A45 southbound (WN155212, WN246412, WN400311). Therefore, in combination with the PIA of serious severity described above (WN246312), there is a trend in the location of these PIAs as they all relate to the slip road of the petrol station, including two rear end shuts. Two of the four accidents of the cluster were also potentially driver error related (WN155212, WN400311). The former was deemed to involve a driver failing to look properly whilst the latter involved a vehicle performing a poor manoeuvre.
- 5.16 Two accidents (WN085915, WN112914) occurred along the B526 Newport Pagnell Road. The former involved a car (V1) travelling south west along the B526 Newport Pagnell Road and turns right at to enter Newport Pagnell Road West. In doing so, V1 collides with another car which was travelling in the opposite direction. It was deemed the driver of V1 was impaired by alcohol and failed to look properly for oncoming traffic. The latter involved a car travelling south east along the B526 Newport Pagnell Road and lost control on left hand bend, resulting in the car coming to rest in hedgerow. It was deemed the driver of the car was impaired by alcohol.
- 5.17 There were also 14 other accidents of slight severity, listed below, which driver error was attributed as a causal factor:
- WN212713- car travelling southbound along the A45 held up in queue and was subsequently hit by oncoming car in the rear which was deemed to be travelling too fast for the conditions.

- WN065514- incident occurred at the junction connecting Watering Lane to the A45 and involved a car colliding with the rear of another car which led to another rear shunt. The accident was deemed to be caused by a distraction in the vehicle which was attributed as a causal factor of the initial impact.
- WS055013- car travelling southbound along the A45 collides into rear of another car which was slowing for traffic ahead, hence it was deemed sudden breaking and failing to look properly were the causes of the incident.
- WN164313- car travelling southbound along the A45 collides into the rear of another car which is towing a caravan. It was deemed the driver of the first car failed to look properly and was subsequently following too closely.
- WN067616- car exiting A45 mistakes slip road for entrance into petrol garage and resulted in the car colliding with a road sign/lamppost. Therefore, it was deemed junction overshoot and a poor manoeuvre were the causal factors of the incident.
- WN184313- car which is towing a trailer, travelling northbound along the A45, commences to swerve, causing a collision with a car travelling in the same direction. The car towing the trailer then collides with the central reservation before coming to a standstill on the carriageway. It was deemed the driver of the first car was careless and inexperienced.
- WN466911- motorcycle is exiting A45 London Road southbound in wet/damp road conditions with the intention of merging onto High Street. In doing so, the motorcycle collides with central island and became unseated. It was deemed the motorcyclist was travelling too fast for the conditions.
- WN291912- three cars travelling in wet/damp road conditions, in a north westerly direction along the A45 London Road. One of the cars fails to stop, resulting in collisions with the other two cars. It was deemed following too closely and the slippery road conditions present were causal factors of the respective collisions.
- WN055713- motorcycle (V1) travelling northwards along A45 London Road (lane 1) in wet/damp road conditions. Car (V2) enters from Wootton Interchange slip road with intentions of merging with lane 2. A collision occurred when V1 collided into the rear of V2. It was deemed the motorcyclist failed to judge the path/speed of V2 whilst the poor manoeuvre of V2 was also an attributing factor of the accident.
- WN093114- car (V1) for unknown reasons is driving on the wrong side of the carriageway (travelling northwards) along the A508 London Road. This causes a collision with another car (V2) travelling southwards which is driving on the correct side. It was deemed the driver of V1 was impaired by alcohol.
- WN174215- goods vehicle (7.5 tonnes and over) travelling in lane 2, along A508 London Road (northwards). The goods vehicle then changes to lane 1 but this manoeuvred resulted in a collision with a car, already in lane 1. It was deemed the driver of the goods vehicle has failed to look properly before changing lanes.
- WN263715- car circling roundabout (Berry Lane/Wooldale Road) at Wootton Interchange and travelling in a south westerly direction but collides with a pedal cycle travelling north west in wet/damp road conditions. It was deemed the slippery road and the car travelling too fast for the conditions were causal factors of the collision.
- WN071216- car circling roundabout (Berry Lane/Wooldale Road) at Wootton Interchange in wet/damp road conditions but collides with road sign and bollard. It was deemed the slippery road conditions, sudden braking and aggressive driving were all causal factors of the incident.
- WN098516- car travelling southwards along Wooldale Road collides into the rear of a taxi which was parked. It was deemed sudden braking and the driver of the car failing to judge path/speed of taxi were attributing factors of the collision.

5.18 Six accidents of slight severity occurred in wet/damp road conditions (WN039613, WN031914, WN071316, WN238913, WN302514, WN238115) which may have been a

factor regarding the causation of the respective accidents. However, the accidents did not share a common location.

5.19 There were five more accidents of slight severity in the study area, listed below which did not indicate an apparent trend:

- WN118815- HGV travelling southbound along the A45, collides with kerb and results in a car breaking hard to avoid contact with the HGV before swerving to the right.
- WN016016- car travelling southbound along the A45 collides into rear of another car.
- WN055214- car travelling northbound on approach to Wootton Interchange, collides into rear of another car.
- WN153512- motorcycle travelling northwards along the A45 London Road and is filtering through traffic. Traffic begins to move again and a goods vehicle (7.5 tonnes and over) changes lanes and collides with motorcycle.
- WN194213- car (V1) enters slip road onto the A45 London Road (southbound) from the Queen Eleanor Interchange. Another car (V2) is in lane 2 of the A45 London Road and a collision occurs when V1 turns right into the path of V2.

5.20 In summary, there are clusters of PIAs at the Queen Eleanor Interchange on all approaches to the junction. Whilst there would appear to be a high number of PIAs, the accident rate is within the average expected for a busy 6 arm junction such as this.

5.21 Elsewhere within the study area and along the A45, driver error is a prominent causal factor, notably sudden breaking, rear end shunts and travelling too fast for the road conditions.

6.0 A508/COURTEENHALL ROAD – NORTH OF ROADE STUDY AREA

6.1 As shown in **Figure 8**, a total of 23 accidents occurred at the A508/Courteenhall Road - North of Roade study area. 17 of the recorded accidents were classified as being of slight severity, five accidents classified as serious and the remaining accident resulted in a fatality. **Table 6** provides a casualty breakdown of the 23 recorded PIAs at the study area.

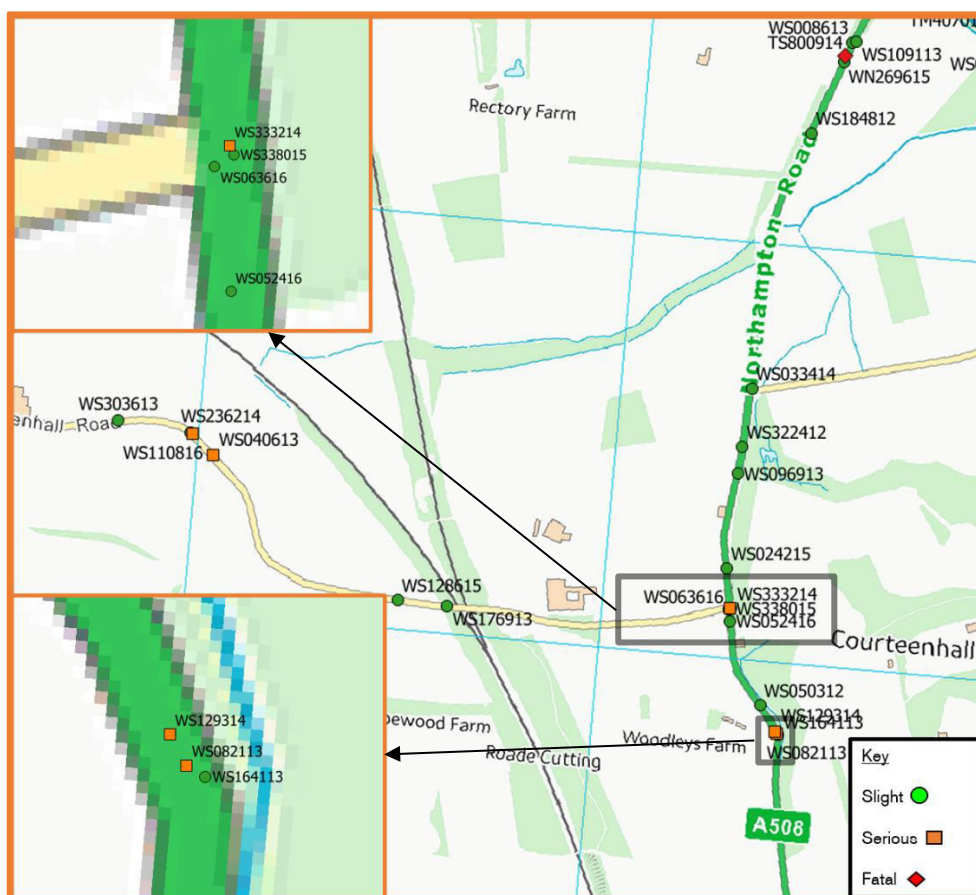


Figure 8: location of respective accidents in study area

Table 6: casualty breakdown of study area

Severity	Casualties
Slight	27
Serious	5
Fatal	1
Total	33

6.2 The recorded PIA categorised as fatal (TS800914) occurred along the A508, approximately 200m south west of M1 junction 15. The accident involved a car initially travelling north along the A508 but attempts a U-turn and in doing so, collided with a motorcycle travelling in the opposite direction, resulting in the death of the motorcyclist.

6.3 A cluster of three accidents also occurred in vicinity to the fatal accident, all slight in nature and involving rear end collisions:

- WN269615- van/goods vehicle (3.5 tonnes and under) travelling south along A508 in wet/damp road conditions, collides into rear of a car also travelling south along A508.
 - WS008613- three cars, all travelling northwards along A508. One of the cars (V3) stops to allow another vehicle to turn right into access. V2 also stops, however, V1 does not stop and collides into rear of V2, causing a subsequent rear end collision with V3. It was deemed the driver of V1 failed to judge the speed of the other vehicles. The accident occurred in wet/damp road conditions and in darkness (no street lighting).
 - WS109113- three cars, all travelling southwards along the A508, V1 fails to stop and collides with rear of V2, causing a subsequent collision with V3. It was deemed the driver of V1 was following too closely.
- 6.4 A cluster of three PIAs were recorded, adjacent to Woodleys Farm (bottom inset of **Figure 8**), two of which were of serious severity (WS129314, WS082113). The former involved a car travelling northbound along the A508 and losing control in wet/damp road conditions, subsequently colliding with a tree. The latter involved a car travelling northbound along the A508 which was deemed to be disobeying the double white line whilst also travelling too fast for the wet/damp road conditions, causing the vehicle to cross the path of a van/goods 3.5 tonnes (and under) travelling in the opposite direction. The remaining accident (WS164113) of the cluster was slight in nature and involved a car travelling southbound along the A508, losing control for unknown reasons and colliding with a nearside verge.
- 6.5 A cluster of four accidents also occurred along the bend of the Courteenhall Road, to the west of the study area (WS303613, WS236214, WS110816, WS040613), two of which were serious in severity and three of which occurred in darkness without street lights present:
- WS303613- car travelling east along Courteenhall Road loses control when negotiating right hand bend, resulting in the car clipping a tree and resting on the carriageway and grass verge. Wet/damp conditions were present as was darkness (without street lighting).
 - WS236214- car (V1) travelling south east along Courteenhall Road, is forced to swerve to avoid a car (V3) travelling in opposite direction and results in V1 colliding into rear of a car (V2) which was stationary. It was deemed careless driving and excessive speed of V1 were causal factors of the accident.
 - WS110816- motorcycle travelling southwards along Courteenhall Road is blinded by oncoming vehicle, causing motorcycle to lose control on right hand bend and leaving carriageway. The accident was serious in severity and occurred in darkness (no street lighting). It was deemed a contributing factor of the accident may have been the dazzling headlights of the oncoming vehicle.
 - WS040613- car travelling southwards along Courteenhall Road and in negotiating right hand bend, loses control when overcorrecting. The accident was serious in severity and occurred in darkness (no street lighting).
- 6.6 Two accidents, both slight in nature and driver error related, also occurred along Courteenhall Road (WS176913, WS128615). The former involved a car (V2) travelling eastwards towards Courteenhall Road, leading to the T-junction with the A508. The car stopped to allow car (V3) travelling in the opposite direction to cross narrow bridge. However, another car (V1) travelling in eastward direction, failed to stop in time and collided with V2 before swerving into the path of V3. The latter involved a car travelling westwards along Courteenhall Road but clipped nearby verge, forcing the car to lose control and leave the carriageway.
- 6.7 There was also a cluster of four accidents located at the A508/Courteenhall Road T-junction (top inset of **Figure 8**), including one of serious severity. The PIA of serious severity (WS333214) involved a car turning right onto the A508 and failing to judge the speed of

another car travelling northbound along the A508. Consequently, the poor manoeuvre resulted in a collision. The remaining three accidents in the cluster were of slight nature (WS338015, WS063616, WS052416):

- WS338015- car travelling southbound along the A508 in slippery road conditions collides into rear of a car which is held up at the A508/Courteenhall Road T-junction, subsequently causing two further rear shunts with two other cars.
- WS063616- car travelling north west proceeds to make a U-turn manoeuvre. The driver of the car is deemed not to have been looking properly at oncoming traffic and causes a collision with a van/goods vehicle (3.5 tonnes and under) also travelling north west along the A508.
- WS052416- motorcycle travelling northbound along the A508 collides into rear and side of a car which is held up at the A508/Courteenhall Road T-junction.

6.8 Four further accidents, including two of serious severity (WS082113, WS129314) occurred in wet/damp road conditions which may have been an attributing factor of the respective accidents:

- WS082113- car travelling northbound along the A508 loses control, resulting in the car crossing the centre line and colliding with a van/goods vehicle (3.5 tonnes and under) travelling in the opposite direction. It was deemed the driver of the car was driving too fast for the wet/damp road conditions.
- WS129314- car travelling northbound along the A508 loses control whilst negotiating left hand bend, causing the car to collide into a tree.
- WS050312- car (V1) travelling southbound along the A508 proceeds to slow down to turn off carriageway into Woodleys Farm. Three cars following V1 fail to slow down in time, causing a sequence of rear shunts.
- WS322412- two cars (V1 and V2) travelling northbound along the A508. V1 collides with rear of V2 due to V1 following too closely after V2 had stopped for oncoming traffic.

6.9 The final two PIA's of the study area were (WS096913, WS184812). These were classified as being of slight severity and did not indicate an apparent trend. The former involved a car travelling southbound along the A508, the driver had a medical episode which resulted in the vehicle colliding with two cars travelling northbound. The latter involved a car travelling northwards along the A508 but is driving on the wrong side of road, causing a collision with a car travelling southwards.

6.10 Overall, there is a possible trend for PIAs to occur on the bend to the south of the Courteenhall Road junction. There is also a cluster of four PIAs at the A508 Blisworth Road (Courteenhall Road) junction.

7.0 ROADE/KNOCK LANE STUDY AREA

7.1 As shown in **Figure 9**, a total of 18 PIAs occurred at the Roade study area. 12 of the recorded accidents were classified as being of slight severity and the remaining six were classified as being of serious severity. **Table 7** provides a casualty breakdown of the 18 recorded PIAs at the study area.

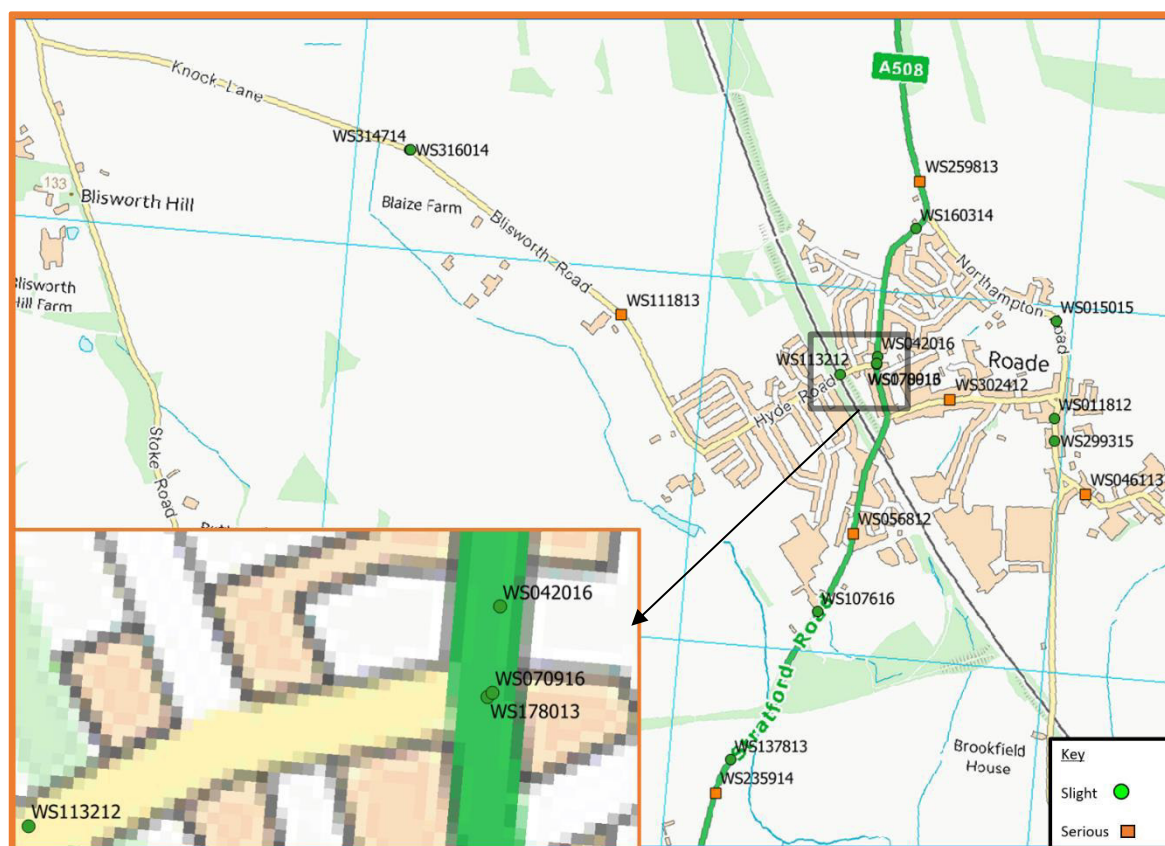


Figure 9: location of respective accidents in study area

Table 7: casualty breakdown of study area

Severity	Casualties
Slight	14
Serious	7
Fatal	0
Total	21

7.2 Six accidents of serious severity occurred in the study area. However, three of the six accidents occurred when road conditions were either wet/damp or frost/ice and did not show any common locational trends:

- WS302412- goods vehicle (V2) stopped on High Street due to pedestrian lying on carriageway. A car (V1) fails to stop in time and drives over the pedestrian. Driver of V2 gets out of vehicle without applying handbrake and subsequently rolls down hill and collides with parked car (V3). Frost/ice road conditions were present.

- WS046113- car travelling northwards along Hartwell Road on approach to junction with Ashton Road, fails to negotiate right hand bend and subsequently rolls over to an upright position. Frost/ice road conditions were present.
 - WS259813- car travelling southbound of A508, to the north of Roade negotiates right hand bend but in doing so, collides into another car travelling in the opposite direction. Wet/damp road conditions were present.
- 7.3 The remaining serious accidents of the study area (WS056812, WS111813, WS235914). Two of these PIAs were attributed to driver error (WS056812, WS111813), notably failing to look properly and following the vehicle in front too closely. The former involved a car travelling north along the A508 when a cyclist goes into the path of the car, resulting in a collision and the cyclist being knocked to the ground. It was deemed the cyclist was reckless and failed to look properly, causing the subsequent collision. The latter involved a car and motorcycle, both travelling south east along Blisworth Road, the motorcycle failed to stop and caused a rear end collision with the car. The final accident of serious severity in the study area (WS235914) involved a car travelling south along the A508 and colliding into the rear of a pedal cycle also travelling in the same direction. The accident occurred in darkness and no street lighting was present.
- 7.4 Regarding accidents of slight severity, the cluster of three accidents (WS178013, WS070916, WS042016) shown in the inset of **Figure 9** all involved rear shunts, indicating a common impact point of collisions at the A508/Hyde Road priority controlled T-junction:
- WS178013- car waiting to turn right onto Hyde Road but is hit in the rear by a car which is also hit in the rear by a car.
 - WS070916- car waiting to turn right onto Hyde Road and is hit in the rear by another car.
 - WS042016- car travelling southbound along the A508 collides into the rear of a car which is parked.
- 7.5 Three accidents (including WS046113), all slight in nature, were deemed to be caused by slippery road conditions:
- WS137813- car travelling northwards along A508, loses control on slippery surface, causing the vehicle to leave the carriageway. The accident occurred on wet/damp road conditions and in darkness (no street lighting).
 - WS015015- motorcycle travelling west along Northampton Road, loses control whilst negotiating left hand bend, causing collision with car travelling in opposite direction.
- 7.6 Three further accidents (WS011812, WS302412, WS111813) of slight severity were attributed to driver error and involved vehicles failing to stop and causing a collision.
- 7.7 Two accidents (WS314714, WS316014), both slight in nature, occurred in frost/ice road conditions, almost in the exact location of each other along Blisworth Road. Both accidents occurred within three days of each other and same time period (08:00-08:59), thus indicating a similar correlation behind the causation of the respective accidents. The former occurred at 08:30 on 6 December 2014 and involved a car travelling in a southwards direction along Blisworth Road but the car lost control when negotiating right hand bend. The latter occurred at 08:45 on 9 December 2014 and also involved a car travelling south along Blisworth Road and losing control whilst negotiating right hand bend. These PIAs are therefore attributed to the same icy road conditions.
- 7.8 The remaining two accidents of the study area were both slight in nature and did not indicate an apparent trend:

- WS160314- car travelling in a north east direction along the A508, loses control for unknown reasons and collides with a lamp-post.
- WS299315- car (V1) travelling south along Hartwell Road, collides with another car (V2) which was pulling over with intentions of turning into Roade Primary School. It was deemed the driver of V1 was following too closely to the car turning into Roade Primary School, resulting in the collision.

7.9 In summary, the PIAs in the Roade study area do not show any locational trends, other than the two accidents on Blisworth Road, which occurred three days apart in December and are attributed to the icy road conditions, and the small cluster of PIAs occurring at the A508/Hyde Road priority controlled T-junction.

8.0 A508- SOUTH OF ROADE STUDY AREA

- 8.1 As shown in **Figure 10**, 11 accidents were recorded over the five-year period for the south of Roade study area. **Table 8** provides a breakdown of the 11 recorded PIAs at the study area. Seven PIAs were slight in nature and three of serious severity with the remaining accident resulting in a fatality.



Figure 10: location of respective accidents in study area

Table 8: casualty breakdown of study area

Severity	Casualties
Slight	10
Serious	7
Fatal	1
Total	18

- 8.2 The recorded PIA resulting in a fatality (TS801014), occurred in May 2014 and resulted in four casualties. The accident took place along the A508 and 200m south of the Rookery Lane/Ashton Road staggered crossroad junction. The accident involved a car travelling south and losing control on a right-hand bend, subsequently skidding. This results in the car entering the path of another car and causing a collision. The accident happened at 19:40 in the evening, but in daylight, and occurred in wet/damp road conditions as it was raining.
- 8.3 Five other accidents (WS023914, WS055814, WS067414, WS131214, WS070415) also involved vehicles losing control, including all of the accidents in the cluster shown in the inset of **Figure 10** on the bend in the road. These are described below:
- WS023914- car travelling southbound along the A508 loses control in wet/damp road conditions when negotiating series of bends, subsequently leaving the carriageway and comes to rest against a nearby tree. This accident was slight in nature and occurred at 01:00 in the morning in darkness (no street lighting).
 - WS055814- car travelling northbound along the A508 loses control in wet/damp road conditions when negotiating left hand bend and skids across carriageway and into the path of oncoming traffic. This accident was slight in nature and occurred at 21:15 in the evening in darkness (no street lighting).
 - WS067414- car travelling southbound along the A508 and begins to slide, due to the frost/icy road conditions when negotiating bends and attempts to over correct, causing the car to roll and coming to rest in field. This accident was slight in nature and occurred at 07:30 in the morning in daylight.
 - WS070415- car travelling northbound along the A508 in dark conditions (without street lighting) loses control when negotiating left hand bend and subsequently collides with a hedge causing the car to spin and overturn. This accident was slight in nature and occurred at 00:53 in the morning. The accident causal factors note that the driver was traveling too fast for the road conditions.
 - WS131214- car travelling southbound along the A508 loses control in rainy weather conditions when negotiating right hand bend and subsequently collides with a car travelling in the opposite direction. This accident was of serious severity and occurred at 11:00 in the morning.
- 8.4 Three further accidents occurred in wet/damp road conditions (WS038713, WS296013, WS289614) two of which resulted in injuries of serious severity with the remaining accident resulting in injuries categorised as slight in nature. All three of the accidents happened in darkness.
- 8.5 The remaining two accidents of the study area (WS101713, WS110115) are listed below. Both resulted in injuries categorised as slight in nature and did not indicate an apparent trend:
- WS101713- HGV travelling south along the A508 and the trailer of the HGV crossed double white line road markings and subsequently collides with car travelling in opposite direction.
 - WS110115- car travelling southbound along the A508 collides into the rear of another car which is waiting to turn right towards Stoke Bruerne.
- 8.6 The above analysis indicates that there is a trend of drivers losing control in the adverse road conditions, exacerbated by the horizontal and vertical alignment of the A508 in this location. Seven of the accidents occurred in wet/damp road conditions and one accident occurred in icy conditions.

9.0 GRAFTON REGIS STUDY AREA

- 9.1 As shown in **Figure 11**, a total of four accidents occurred at the Grafton Regis study area. Two accidents were classified as slight severity and two accidents were classified as being of serious severity. **Table 9** provides a casualty breakdown of the four recorded PIAs at the study area.

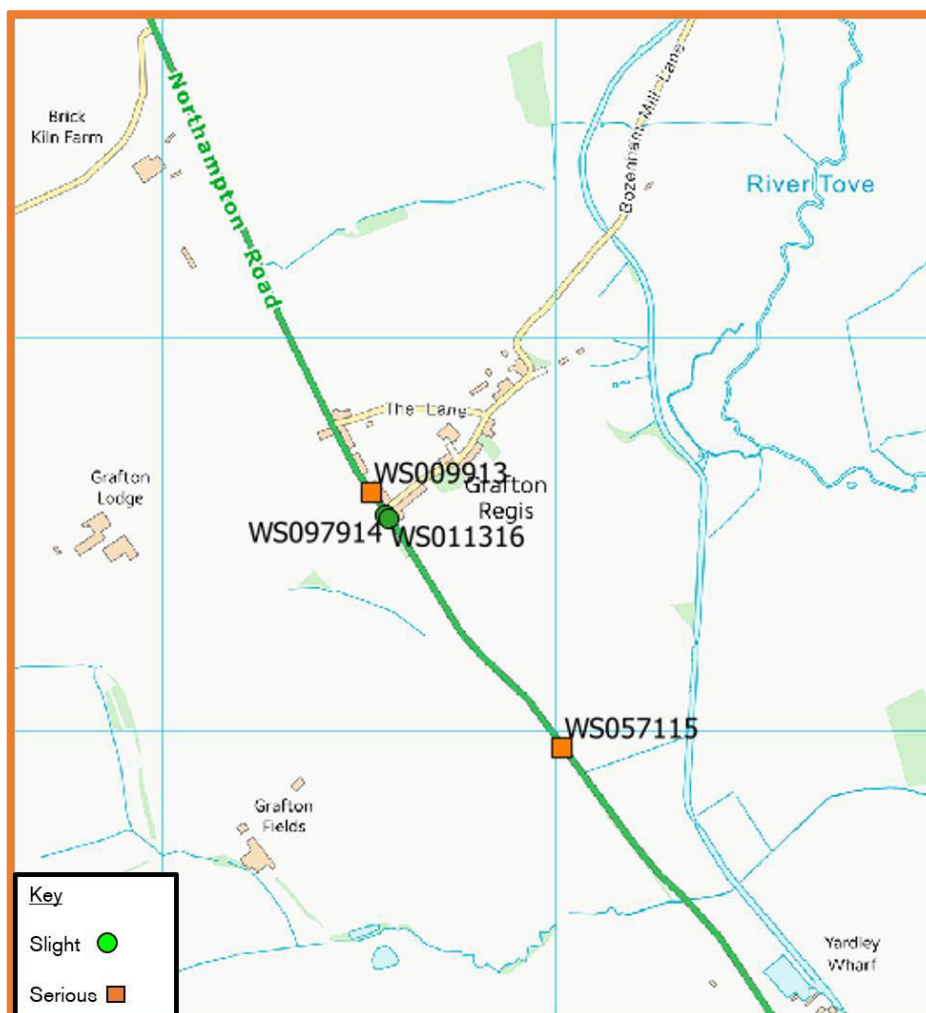


Figure 11: location of respective accidents in study area

Table 9: casualty breakdown of study area

Severity	Casualties
Slight	2
Serious	3
Fatal	0
Total	5

- 9.2 The two accidents of serious severity (WS009913, WS057115) occurred at different locations within the study area, but both involved rear end collisions. The former involved two cars (V2 and V3), which had already collided and are in the process of exchanging details regarding the incident. However, another car (V1) travelling northwards along the A508, collides into rear of

V2 resulting in V2 veering into driver of V3. It was deemed the snowy weather conditions and subsequent slippery conditions present were attributing factors behind the incident. Driver error was a contributing factor in the latter PIA, as a car (V1) travelling southwards along A508 overtakes a van/goods vehicle (V2) (under 7.5 tonnes). This forces a car (V3) travelling in opposite direction takes evasive action to avoid contact, but V1 does hit another car also travelling northwards whilst colliding with V2. It was deemed the driver of V1 performed a poor manoeuvre and failed to look properly whilst also being under the possible impairment of alcohol.

9.3 The remaining two accidents were classified as slight severity and occurred in vicinity to the A508 Northampton Road/Church Lane priority controlled T-junction:

- WS097914- car (V1) travelling southwards along the A508 and stopped for a vehicle which was turning right onto Church Lane. However, another car also travelling southwards along the A508, failed to stop and collided into the rear of V1. The accident occurred in wet/damp road conditions and therefore, it was deemed a combination of slippery road conditions and sudden braking were causal factors of the impact.
- WS011316- a van/goods vehicle (3.5 tonnes and under) travelling southwards along the A508 collides into the rear of a car which caused two further rear end shunts. The accident occurred in wet/damp road conditions and in darkness (no street lighting).

9.4 In summary, there were two accidents, both slight in nature which occurred at the A508/Church Lane priority controlled T-junction, involving vehicles travelling southwards along the A508.

10.0 MILTON MALSOR STUDY AREA

10.1 As shown in **Figure 12**, a total of five accidents were recorded at the Milton Malsor study area. Four of the recorded accidents were classified as being of slight severity and the remaining PIA was classified as being of serious severity. **Table 10** provides a casualty breakdown of the five recorded PIAs at the study area.

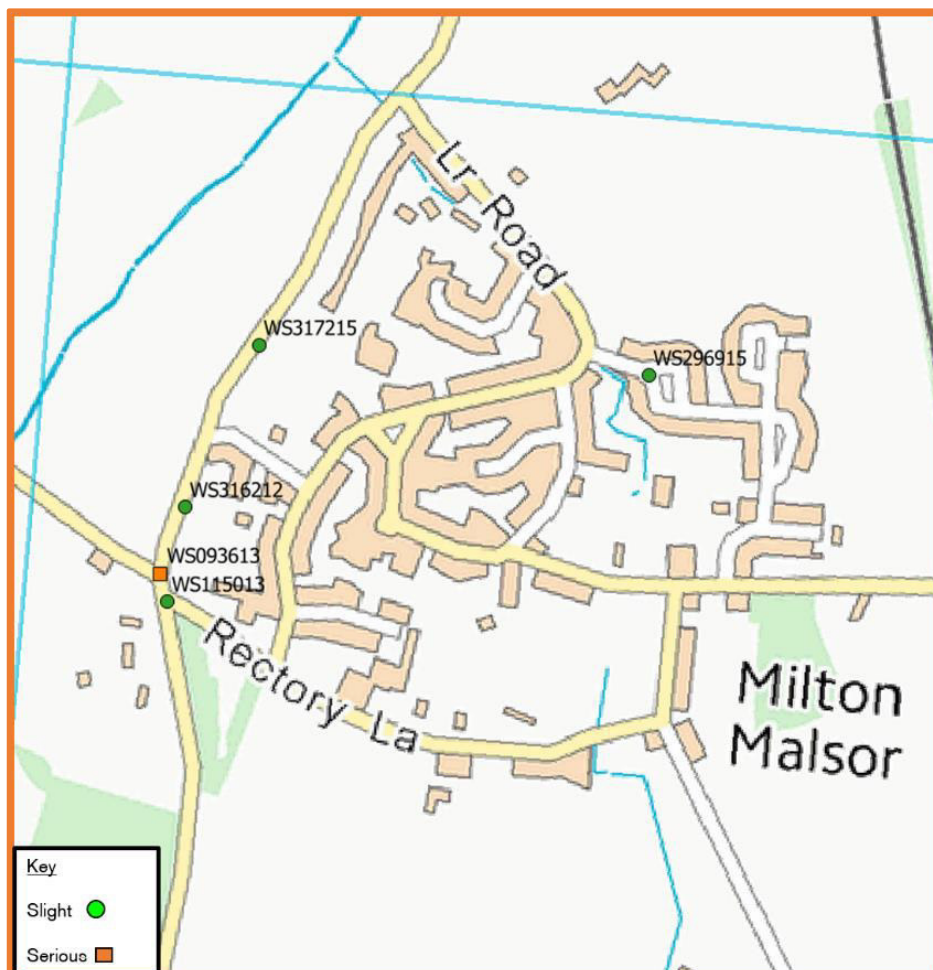


Figure 12: location of respective accidents in study area

Table 10: casualty breakdown of study area

Severity	Casualties
Slight	4
Serious	1
Fatal	0
Total	5

10.2 The PIA of serious severity (WS093613) involved a car travelling northwards along Towcester Road with intentions of turning left onto Gayton Road but fails to see a pedal cycle, resulting in the cyclist falling onto the bonnet of the car.

10.3 Three PIA's, all of slight nature occurred in either wet/damp or frost/ice road conditions:

- WS316212- car travelling northwards along Towcester Road in frost/ice road conditions skids on the ice, causing a collision with another car on the opposite side of the carriageway.
- WS296915- car travelling northwards along Stockwell Road attempted an overtake of a stationary vehicle which causes a rear shunt with another car.
- WS317215- car turning right from private drive onto Towcester Road and a collision occurred with a pedal cycle travelling southwards along Towcester Road.
- The final accident (WS115013) of the study area involved a van/goods vehicle 3.5 tonnes (and under) turning right and failing to see an oncoming motor cycle, causing a collision between the two vehicles which led to a further impact between the motor cycle and a stationary car.

10.4 In summary, the respective accidents at the study area did not indicate a common location or predominant causal factors.

11.0 BLISWORTH STUDY AREA

11.1 As shown in **Figure 13**, a total of eight PIAs occurred at the Blisworth study area. All eight accidents were classified as being of slight severity. **Table 11** provides a casualty breakdown of the eight recorded PIAs at the study area.



Figure 13: location of respective accidents in study area

Table 11: casualty breakdown of study area

Severity	Casualties
Slight	11
Serious	0
Fatal	0
Total	11

- 11.2 Two of the PIAs occurred along Blisworth High Street (WS071612, WS009413), in wet/damp and snow road conditions. Both accidents also involved stationary vehicles, the former occurred when a car stopped on High Street to allow unknown vehicle to pass parked vehicles. Another car then emerged onto High Street from Stoke Road and collided with the car that originally stopped to allow oncoming traffic through. The latter involved a car parking on High Street and the driver of the car standing next to the car in the road. An oncoming vehicle's wing mirror then collides hits the driver.
- 11.3 Two accidents occurred at the Blisworth High Street/Northampton Road/Courteenhall Road junction (WS249915, WS041613). The former involved a van/goods 3.5 tonnes (and under) following too close to a pedal cycle and causing a collision at the junction. The latter involved a car having defective breaks which caused the vehicle to lose control and collide with a post. The car then collides with another car which is stationary, waiting to merge onto Courteenhall Road.
- 11.4 One accident (WS333415) was the result of aggressive driving, potentially alcohol related. Consequently, the car reversed off a driveway and collided with a pedestrian.
- 11.5 The final three PIAs (WS445011, WS234212, WS020913) were influenced by poor manoeuvres and driver error:
- WS445011- car travelling northbound along Courteenhall Road collides with another car which is parked.
 - WS234212- van/goods vehicle (3.5 tonnes and under) travelling southwards along Stoke Road. Two vehicles ahead of the van/goods vehicle pass a pedestrian, however, the driver of the van/goods vehicle fails to spot the pedestrian and consequently, a collision occurred. It was deemed the dazzling sun present at the time of the accident may have been an attributing factor behind the collision.
 - WS020913- car travelling southbound along Towcester Road loses control in wet/damp road conditions, resulting in a collision with street sign and tree.
- 11.6 Overall, driver error was a prominent theme for accidents in the study area although five of the eight accidents occurred in adverse road conditions which may have been a causal factor behind the respective errors.

12.0 A43/TOWCESTER ROAD STUDY AREA

12.1 As shown in **Figure 14**, a total of six accidents occurred at the A43/Towcester Road study area. Four accidents were classified as being of slight severity and two accidents were of serious severity. **Table 12** provides a casualty breakdown of the six recorded PIAs at the study area.

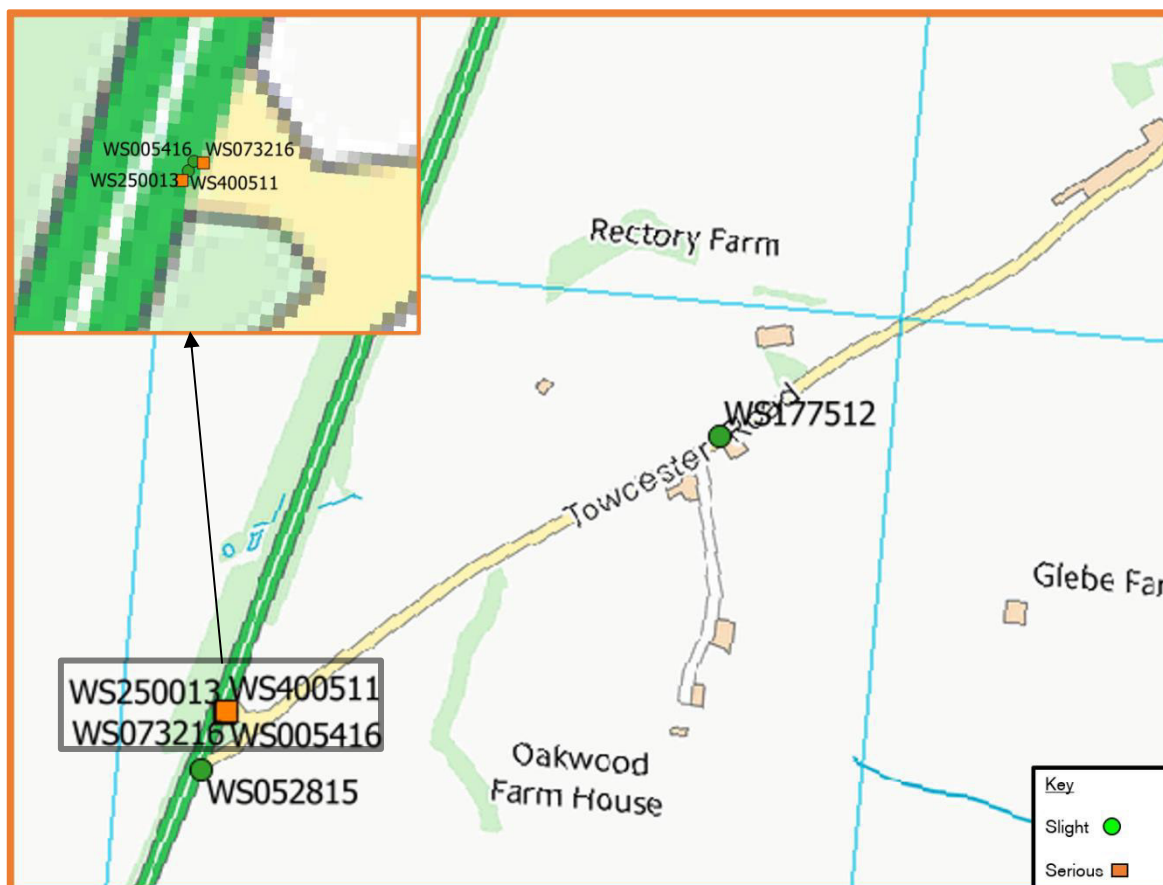


Figure 14: location of respective accidents in study area

Table 12: casualty breakdown of study area

Severity	Casualties
Slight	6
Serious	2
Fatal	0
Total	8

12.2 A cluster of four accidents (WS005416, WS073216, WS400511, WS250013) including two of serious severity (WS250013, WS073216) occurred at the exit of the A43 northbound, leading onto Towcester Road. All four PIAs involved right turn manoeuvres from the A43 northbound and resulted in frontal impacts with vehicles travelling southbound of the A43. Three of the PIAs in the cluster (WS400511, WS250013, WS005416) occurred on weekdays and between 15:45-18:54

12.3 The remaining two accidents recorded in the study area (WS052815, WS177512) were both slight in severity and did not indicate an apparent trend. Driver error and alcohol were contributing factors of the former PIA as a driver failed to look properly, resulting in a rear end

collision. The latter involved a car (V4) travelling northwards along Towcester Road and turning left into a layby. Another car (V3) stops behind V4, however, a van/goods vehicle (3.5 tonnes and under) also travelling northwards does not brake in time and is forced to swerve to avoid contact with V3. In doing so, the van/goods vehicle collides with a car (V2) which was travelling southwards along Towcester Road. The accident occurred in wet/damp road conditions.

- 12.4 In summary, there is a possible cluster of accidents at the exit of the A43 onto Towcester Road. All four PIAs involved vehicles turning right from the A43.

13.0 CONCLUSION

13.1 An assessment of the accident data on the road network impacted by the proposed development has been undertaken. PIA data for the for the last five years of operation of was obtained from NCC. The study area comprised:

- M1 Junction 15;
- M1 Junction 15A;
- A45 between M1 Junction 15 and the Queen Eleanor Interchange;
- A508 between M1 Junction 15 and the south of the Stoke Bruerne;
- Roade village and Knock Lane/Blisworth Road;
- A508 through Grafton Regis;
- Milton Malsor;
- Blisworth; and
- A43/Towcester Road.

13.2 The assessment identifies the following clusters and trends in PIAs that suggest existing problems:

- M1 Junction 15 - a cluster of six PIAs at the M1 southbound off-slip/A45 northbound exit at the junction, indicative of congested traffic conditions.
- M1 Junction 15 - a cluster of four PIAs on the A508 northbound approach to the junction, comprising a combination of rear end shut and collisions on the circulatory carriageway and at the give way.
- M1 Junction 15A - a cluster of five PIAs on the A43 eastbound approach to the southern roundabout , and a cluster of three PIAs on the circulatory carriageway passing this approach towards the A43 north.
- Queen Eleanor Interchange – small clusters of PIAs on each approach to the junction, indicative of the busy conditions at the interchange.
- A45 – driver error was a prominent factor, including sudden breaking, rear end shuts, and travelling too fast for the road conditions.
- A508/Blisworth Road (Courteenhall Road) junction – a cluster of four PIAs at the junction.
- A508 bend to south of Blisworth Road (Courteenhall Road) – a cluster of four PIAs, three of which relate to loss of control and drivers travelling too fast of the road conditions.
- A508 bends south of Rookery Lane/Ashton Road crossroads - a cluster of accidents on the bends to the south of the crossroads, suggesting a trend of drivers travelling too fast in adverse road conditions, as the majority of the PIAs occurred in wet/damp or frost/icy roads conditions.
- A43/Towcester Road – a cluster of four PIAs, all involving vehicles turning right from the A43 into Towcester Road.

13.3 At the remaining PIA study areas, the assessment did not identify any specific locations or trends where the proposed development could exacerbate existing traffic safety issues.

APPENDIX A – PIA DATA

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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