Chichester Local Plan Review

District Wide Collision Review

On behalf of **Chichester District Council**

Project Ref: 330610057 | Rev: - 02 | Date: May 2022

Registered Office: Buckingham Court Kingsmead Business Park, London Road, High Wycombe, Buckinghamshire, HP11 1JU
Office Address: Caversham Bridge House, Waterman Place, Reading, Berkshire RG1 8DN
T: +44 (0)118 950 0761 E: PBA.Reading@stantec.com

Document Control Sheet

Project Name: **Chichester Transport Study Update**
Project Ref: **330610057**
Report Title: **Chichester District Collision Review**
Doc Ref: **001**
Date: **May 2022**

	Name	Position	Signature	Date
Prepared by:	Ryan Cox	Apprentice Engineer		01/05/2022
Reviewed by:	Joe House	Principle Engineer		20/05/2022
Approved by:	Phil Brady	Director		23/05/2022
For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved

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1 Introduction

1.1 Overview

1.1.1 This report has been prepared by Stantec on behalf of Chichester District Council (CDC) to provide a review of the Personal Injury Collision (PIC) record across the Chichester District and identify location on the highways network where significant increases in traffic as a result of the Local Plan development may impact these areas.

1.1.2 This report aims to identify the key collision clusters on the Chichester District traffic network using collision data over the latest five years (2016-2021) and utilising GIS software to plot the collisions across the network.

1.1.3 The period reviewed included the period of lockdown during COVID-19 thus the data illustrated covers a full 4 years and 3 months, with accidents occurring during this time also included.

1.1.4 Using the initial cluster review, the identified junctions have also been assessed against the potential impacts as a result of increases with traffic associated with Local Plan development to understand if the known proposed and committed transport strategy improvements and any other proposed transport network changes, such as local safety schemes will mitigate the area where collision rates are high.

1.2 Chichester Local Plan

1.2.1 The Chichester Local Plan: Key Policies 2014-2029 was adopted on 14th July 2015. The Plan set out an overarching framework for the future of the plan area to 2029 and comprises a long-term spatial vision, strategic objectives and spatial strategy.

1.2.2 Although the Local Plan was adopted, the examination Inspector required the Council to undertake a review within 5 years to ensure sufficient housing would be planned to meet the longer-term needs of the area. As such, there was a requirement to review the current adopted Local Plan for the period up to 2035. Since then, the Plan period has been extended and it is currently anticipated that the new Chichester Local Plan will run to 2039.

1.2.3 The next iteration of the Plan will be informed by a new set of transport modelling outputs, but for the purposes of this paper an end date of 2039 has been used.

2 PIC Assessment Methodology

2.1 Chichester District Overview

2.1.1 The Chichester District spans an area of approximately 800km^2 and is the largest of the seven districts and boroughs within West Sussex. Chichester District boundary extends from the south coast to the southern borders of Surrey and East Hampshire in the north, and from South Hampshire in the west to Arun and Horsham in the east. Much of the district falls within the South Downs National Park, administered by the SDNPA.

2.1.2 The city of Chichester is the only city in Chichester District and within West Sussex. The three areas of Midhurst, Selsey and Petworth comprise the towns in the district with the remaining settlements comprising of villages. Chichester District provides bustling shopping streets, a renowned higher education, arts and cultural scene and attractive coastlines popular with visitors attracting 6.2 million tourists every year. It is this high-quality environment which underpins and supports the local economy.

2.1.3 Chichester City is a cathedral city and the county town of West Sussex. The A27 south coast trunk road bypasses the city to the south, while other roads such as the A259, A285 and A286 run through the main built-up urban area of the city. Chichester Railway Station provides rail links along the south coast and to/from London.

2.1.4 Chichester District is presented with significant constraints for growth and development, particularly related to infrastructure and the environment which limits the district's ability to grow and develop, with traffic congestion highlighted as a key issue within the district.

2.2 Collision Study Areas

2.2.1 For the purpose of this collision review Chichester District has been divided into two areas to provide a more concise review of the collisions across the area.

2.2.2 In addition to the Chichester District area, also included within the collision study is a western section of the Arun District which lie adjacent to the eastern edge of Chichester District boundary. The inclusion of this area has been agreed with West Sussex County Council (WSCC) as it has been identified that it could be influenced by the local plan applications in the Chichester district.

2.2.3 The collision study has also omitted the areas of the Chichester District that cover the South Downs national park. The park runs through the centre of the Chichester District and has been excluded from the study as the area will not be significantly affected by the impact of the local plan as agreed with WSCC.

2.2.4 The two study areas are described below and illustrated on the following figures:

- **Figure 2.1**: Chichester District Collision Study Area Overview
- **Figure 2.2**: Northern Area (Study Area 1)
- **Figure 2.3**: Southern and Arun Area (Study Area 2)

2.3 Collision Study Area 1 - North

2.3.1 Area 1 encompasses the area of the Chichester District to the north of the South Downs National Park.

2.3.2 The southern boundary of study area extends just to the south of the A272 and includes the market towns Midhurst and Petworth, including some of the surrounding areas. The remaining boundaries of the study area are in line with the Chichester District and include the small settlements such as Plaistow and Loxwood to the north of the districts.

2.3.3 The major road connections within the study area are the A272 running east-west, A286, A283, and the A285 which all run north-south. The full extents of study area 1 can be seen in **Figure 2.2**.

2.4 Collision Study Area 2 - South and Arun

2.4.1 Area 2 is centre around the city of Chichester and is bounded by the district boundary on the Eastern, Southern and Western sides. The Northern boundary of the study area extends just to the north of Mid Lavant and Funtington.

2.4.2 The A27 is the major traffic corridor passing through the area linking to Worthing in the east and Havant and Portsmouth in the west. Extending out from the city, the A286 and B2145 provides the links to Selsey and West/East Wittering and the A259 Bogner Road the primary road link to Bogner Regis. To the north of Study Area 2 the predominant highways routes are the A285, A286 and B2146.

2.4.3 As agreed with WSCC this study area includes a western area of the Arun District. This additional area has been selected to include Bognor Regis and extends to the Felpham boundary. The full extents of study area 2 can be seen in **Figure 2.3**.

Figure 2.1 – Chichester District Collision Study Area Overview

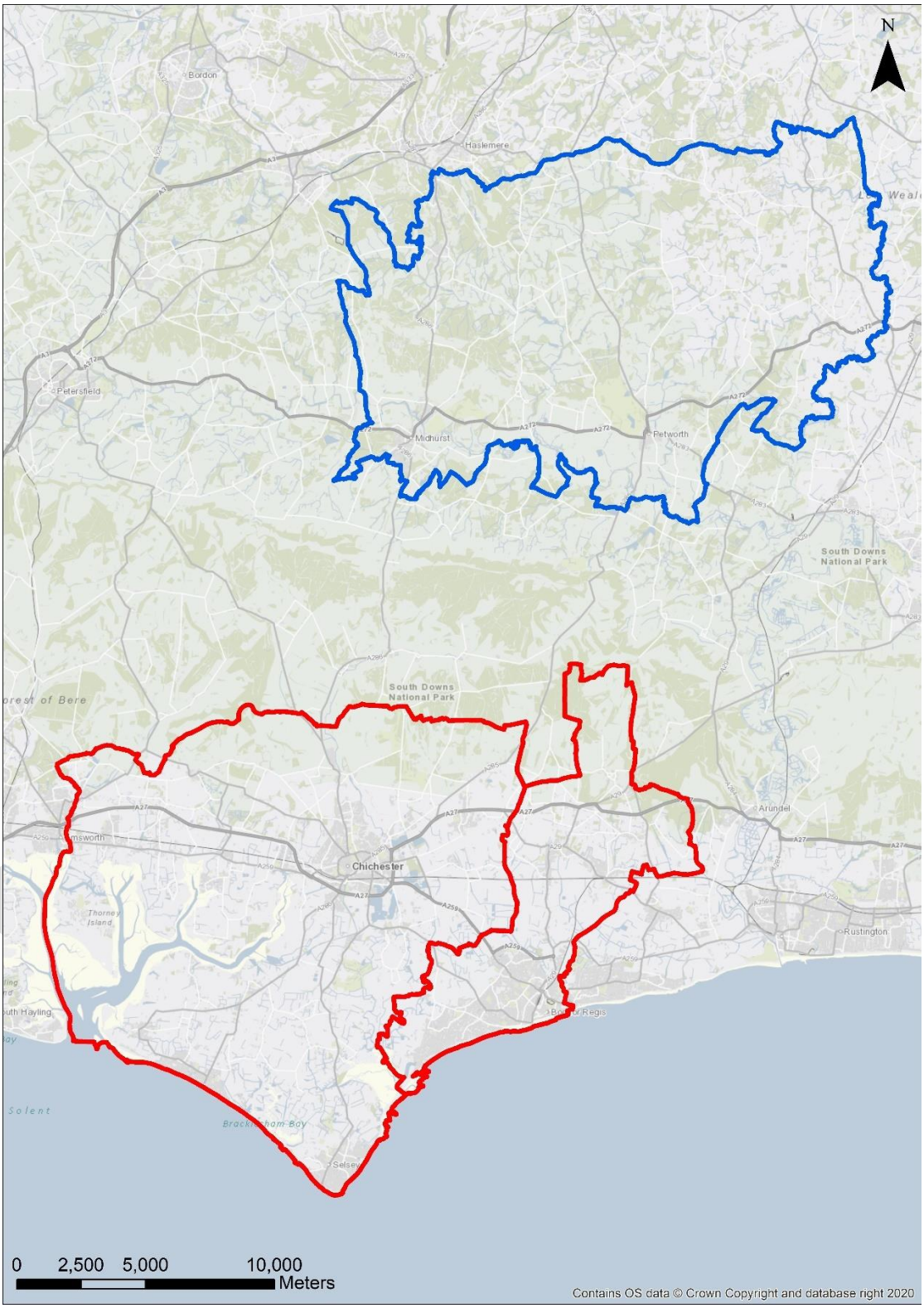


Figure 2.2 – Study Area 1 (Northern Area)

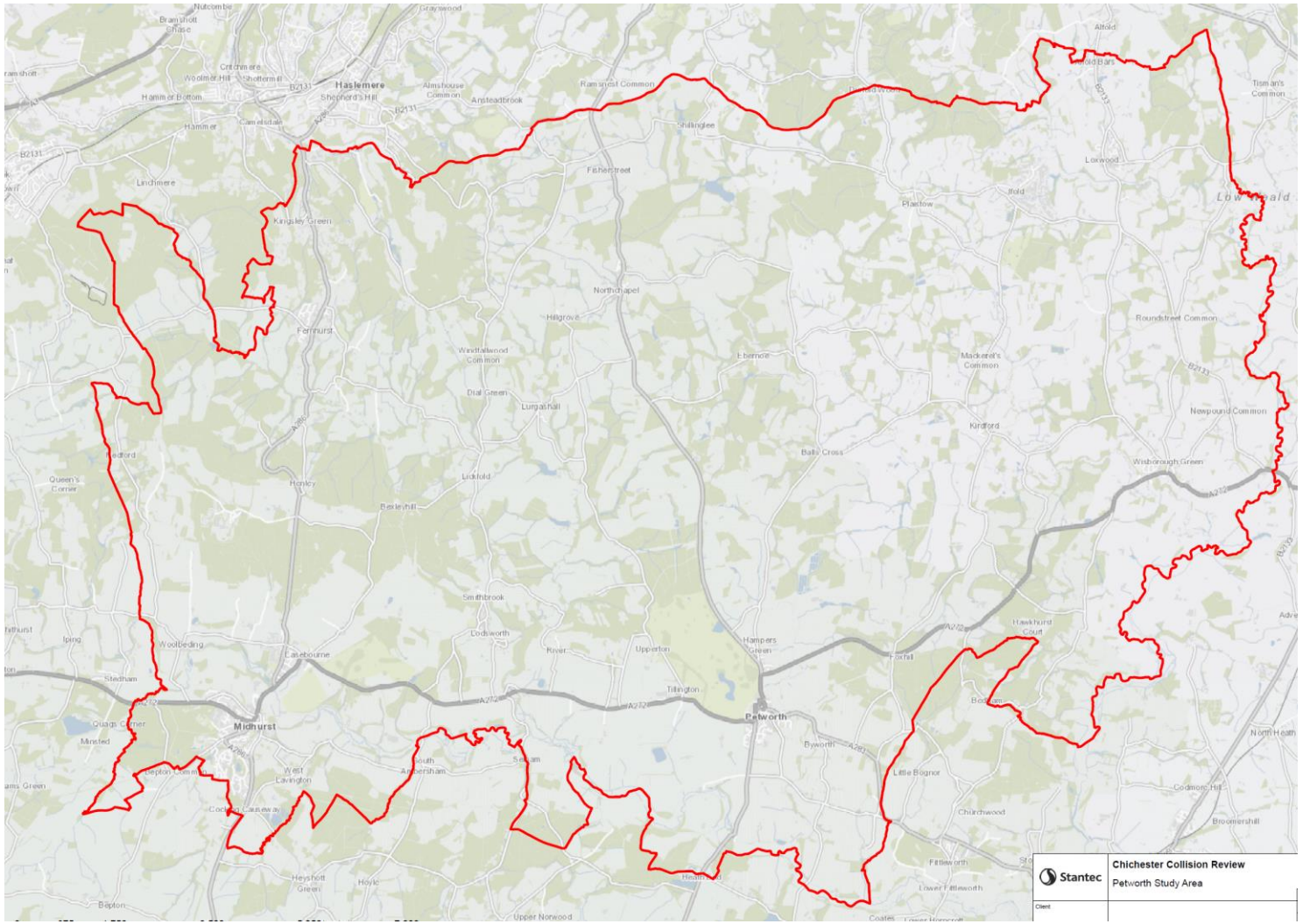
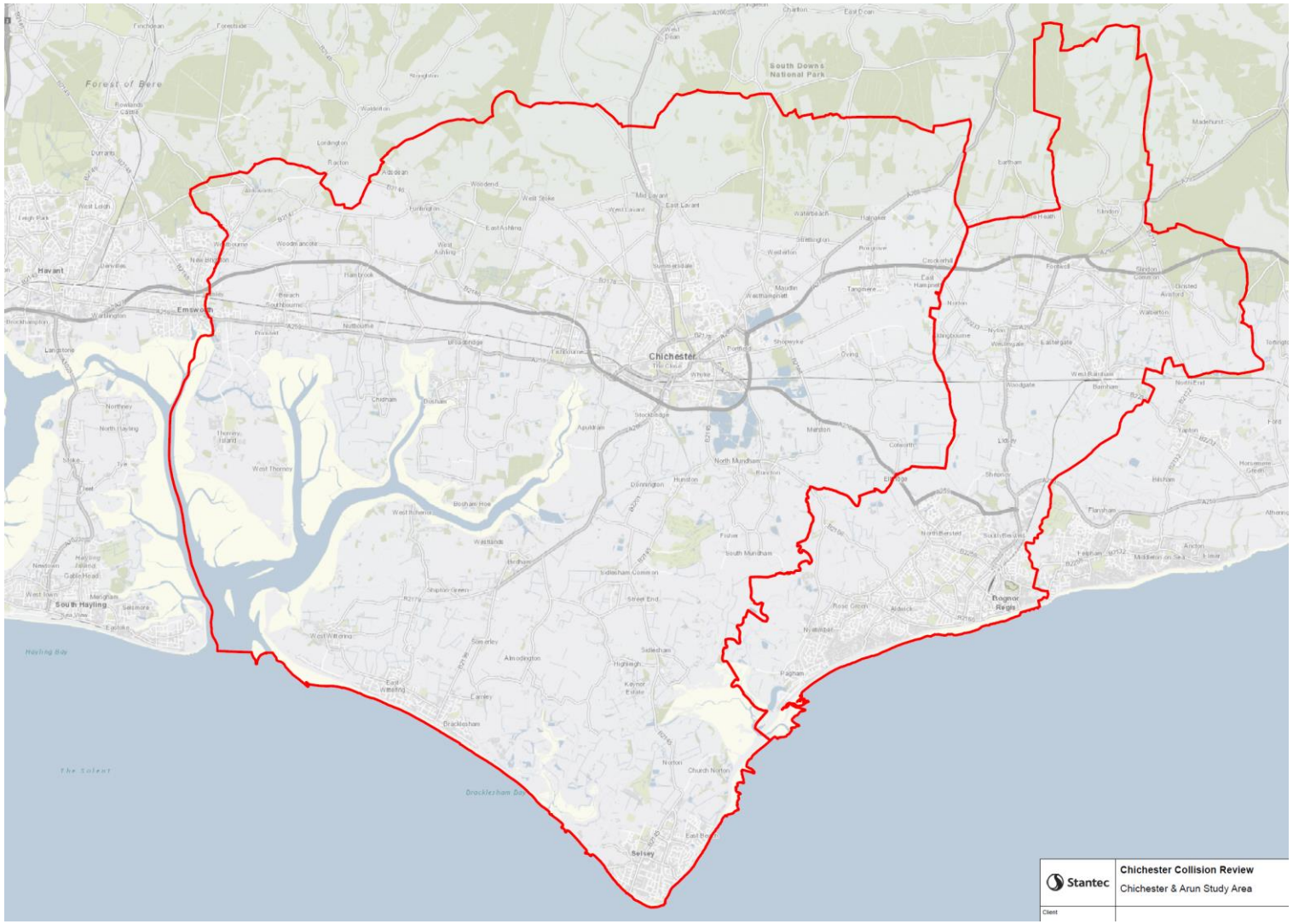


Figure 2.3 – Study Area 2 (Southern Area and Arun)



3 Collision Summary

3.1.1 Personal Injury Collision (PIC) data has been obtained from WSCC for the latest available 5-year period, covering 01/05/16 – 30/04/21. This timeframe has been used in order to understand if any pre-existing safety issues are present on the highway network within identified study areas and therefore potential impacted as a result of the Local Plan.

3.1.2 The recorded collisions are classed into three separate categories based on severity: Slight, Serious and Fatal. The definitions of which are as follows:

- **Slight** Injury: Injuries of a minor nature, such as sprains, bruises, or cuts not judged to be severe, or slight shock requiring only roadside attention (medical treatment is not a pre-requisite for an injury to be defined as Slight);
- **Serious** Injury: Injuries for which a person is detained in hospital, as an in-patient, or any of the following injuries, whether or not a person is detained in hospital; fractures, concussion, internal injuries, severe cuts and lacerations, severe general shock requiring medical treatment and injuries which result in death 30 days after the collision. The Serious category, therefore, covers a very broad range of injuries; and
- **Fatal** Injury: Injuries which cause death either immediately or any time up to 30 days after the collision.

3.1.3 The data has been reviewed in terms of the annual 12-month rolling year as outlined below.

- Year 1: 01st May 2016 to 30th April 2017;
- Year 2: 01st May 2017 to 30th April 2018;
- Year 3: 01st May 2018 to 30th April 2019;
- Year 4: 01st May 2019 to 30th April 2020;
- Year 5: 01st May 2020 to 30th April 2021;

Table 3.1 – Overall Collision Summary

Collision Type	Injury Severity	Annual Rolling 12 Months					Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
Total	**Fatal**	9	6	8	9	2	**34**
	Serious	77	89	89	95	96	**446**
	Slight	294	280	283	274	239	**1370**
	Total	**380**	**375**	**380**	**378**	**337**	**1850**
Pedestrian	**Fatal**	1	1	2	2	0	**6**
	Serious	12	15	15	14	11	**67**
	Slight	29	25	23	29	22	**128**
	Total	**42**	**41**	**40**	**45**	**33**	**201**
Cyclist	**Fatal**	0	0	2	1	0	**3**
	Serious	16	13	16	21	25	**91**
	Slight	47	49	43	31	52	**222**
	Total	**63**	**62**	**61**	**53**	**77**	**316**

3.1.4 Table 3.1 summarises that there was a total of 1,850 collisions recorded across the two study areas in consideration. Of these collisions 74% were of a slight severity and 24% at a serious severity. Over the 5 year study period there was a total of 34 collisions (2%) that resulted in a fatality. The distribution of collision recorded in each of the annual rolling 12-month periods remained consistent, with no single year having a notably higher number of collisions compared to others.

3.2 Study Area 1 Collision Summary

3.2.1 The recorded collisions in Study Area 1 over the last 5 years have been summarised in Table 3.2 below.

Table 3.2 - Study Area 1 Collision Summary

Casualty	Injury Severity	Annual Rolling 12 Months					Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
Total	Fatal	5	2	2	1	0	**10**
	Serious	24	21	18	14	13	**90**
	Slight	38	29	37	25	28	**157**
	Total	**67**	**52**	**57**	**40**	**41**	**257**
Pedestrian	Fatal	0	0	0	0	0	**0**
	Serious	1	2	0	3	1	**7**
	Slight	4	1	0	0	2	**7**
	Total	**5**	**3**	**0**	**3**	**3**	**14**
Cyclist	Fatal	0	0	0	0	0	**0**
	Serious	3	1	0	1	0	**5**
	Slight	2	1	3	1	1	**8**
	Total	**5**	**2**	**3**	**2**	**1**	**13**

3.2.2 Table 3.2 summarises that there was a total of 257 collisions recorded over the 5 year assessment period. Of these collisions 61% were of a slight severity and 35% at a serious severity. Over the 5 year study period there was a total of 10 collisions (4%) that resulted in a fatality.

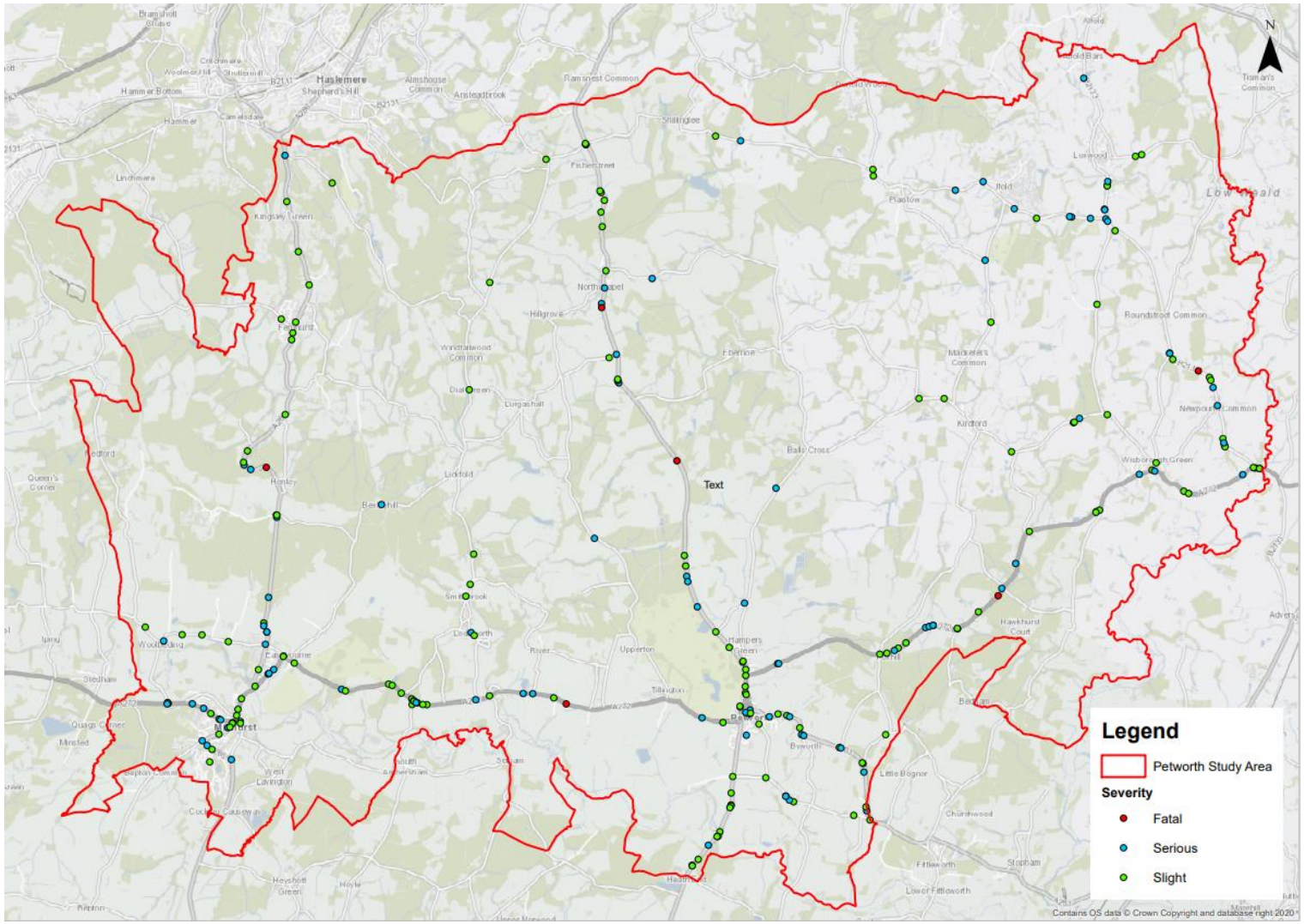
3.2.3 The distribution of collision recorded in each of the annual rolling 12-month periods showed that Year 1 had the highest number of collisions, accounting for just over a quarter (26%) of the overall study area collisions, with collisions in Year 4 (40) and Year 5 (41) equating to 16% in each rolling period.

3.2.4 From the total collision recorded in this study area, 14 collisions resulted in injury to a pedestrian. This equates to 5% of the total collisions recorded. Similarly, there was a total of 13 collisions that resulted in injury to a pedestrian.

3.2.5 Of the collisions involving vulnerable road users (considered as pedestrian and cyclists in the assessment) there were no fatalities recorded, with 12 (44%) serious and 15 (56%) slight collisions.

3.2.6 The location of the 257 collisions recorded across Study Area 1 are illustrate in **Figure 3.1** below and provided in **Appendix A**.

Figure 3.1: Study Area 1 PIC Location Plan



3.3 Study Area 2 Collision Summary

3.3.1 The recorded collisions in Study Area 2 over the last 5 years have been summarised in Table 3.3 below.

Table 3.3 - Study Area 2 Collision Summary

Casualty	Injury Severity	Annual Rolling 12 Months					Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
Total	Fatal	4	4	6	8	2	**24**
	Serious	53	68	71	81	83	**356**
	Slight	256	251	246	249	211	**1213**
	Total	**313**	**323**	**323**	**338**	**296**	**1593**
Pedestrian	Fatal	1	1	2	2	0	**6**
	Serious	11	13	15	11	10	**60**
	Slight	25	24	23	29	20	**121**
	Total	**37**	**38**	**40**	**42**	**30**	**187**
Cyclist	Fatal	0	0	2	1	0	**3**
	Serious	13	12	16	20	25	**86**
	Slight	45	48	40	30	51	**214**
	Total	**58**	**60**	**58**	**51**	**76**	**303**

3.3.2 Table 3.3 summarises that there was a total of 1,593 collisions recorded over the 5 year assessment period. Of these collisions 76% were of a slight severity and 22% at a serious severity. Over the 5 year study period there was a total of 24 collisions (2%) that resulted in a fatality.

3.3.3 The distribution of total collision recorded in each of the annual rolling 12-month periods remained consistent, with no single year having a notably higher number of collisions compared to others.

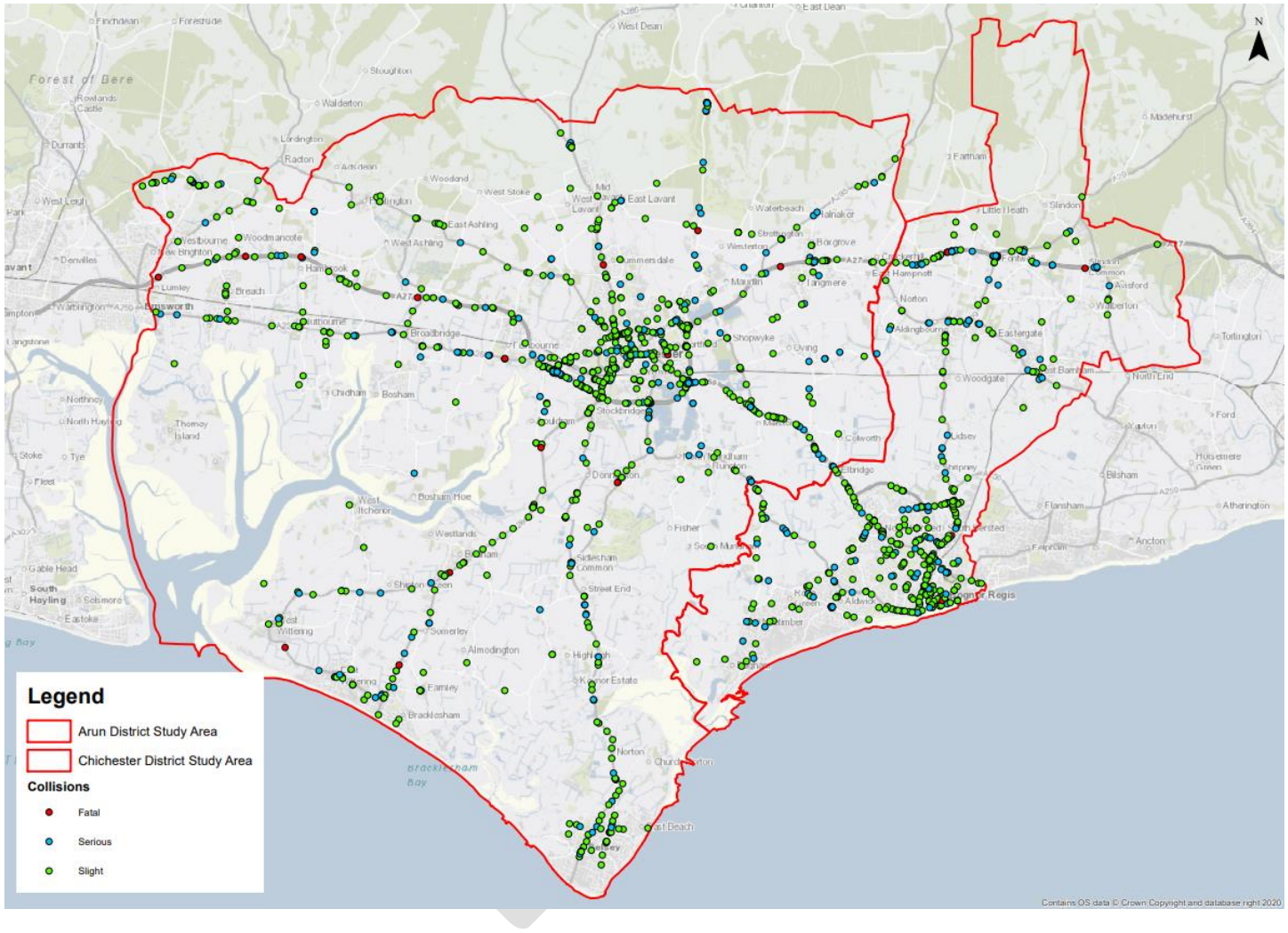
3.3.4 From the total collision recorded in this study area, 187 (12%) collisions resulted in injury to a pedestrian and 214 (19%) collisions resulting in an injury to a cyclist.

3.3.5 Of the collisions involving vulnerable road users there were 9 (2%) fatal collision, 6 involving a pedestrian and 3 involving a cyclist. Of the remaining vulnerable road users collisions, 146 (30%) were of a serious severity and 335 (68%) of a slight severity.

3.3.6 The proportion of cyclist collisions remained consistent from year 1 to 4, ranging between 51 and 60 collisions, however it is noted that year 5 recorded an increase in the number of collisions involving cyclists. In the Year 5 period, there was a total of 76 collisions resulting in injury to a cyclist which equated to 25% of the total collisions in that year. This increase could be a result of an increase in the number of people cycling due COVID-19 pandemic.

3.3.7 The location of the 1,593, collisions recorded across Study Area 2 are illustrate in **Figure 3.2** below and provided in **Appendix B**.

Figure 3.2: Study Area 2 PIC Location Plan



3.3.8 As the Study Area 2 comprises of two distinct districts areas, Table 3.3 and Table 3.4 provides a summary breakdown of the collisions of each of the Chichester and Arun District collisions respectively.

Chichester

Table 3.3 – Study Area 2 - Chichester Collision Summary

Casualty	Injury Severity	Annual Rolling 12 Months					Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
Total	Fatal	4	3	6	4	2	**19**
	Serious	32	37	56	47	52	**224**
	Slight	161	173	169	156	153	**812**
	Total	**197**	**213**	**231**	**207**	**207**	**1055**
Pedestrian	Fatal	1	1	2	0	0	**4**
	Serious	5	8	8	8	6	**35**
	Slight	17	15	13	14	9	**68**
	Total	**23**	**24**	**23**	**22**	**15**	**107**
Cyclist	Fatal	0	0	2	1	0	**3**
	Serious	8	7	13	11	18	**57**
	Slight	27	32	23	15	41	**138**
	Total	**35**	**39**	**38**	**27**	**59**	**198**

Arun

Table 3.4 – Study Area 2 - Arun Collision Summary

Casualty	Injury Severity	Annual Rolling 12 Months					Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
Total	Fatal	0	1	0	4	0	**5**
	Serious	21	31	15	34	31	**132**
	Slight	95	78	77	93	58	**401**
	Total	**116**	**110**	**92**	**131**	**89**	**538**
Pedestrian	Fatal	0	0	0	2	0	**2**
	Serious	6	5	7	3	4	**25**
	Slight	8	9	10	15	11	**53**
	Total	**14**	**14**	**17**	**20**	**15**	**80**
Cyclist	Fatal	0	0	0	0	0	**0**
	Serious	5	5	3	9	7	**29**
	Slight	18	16	17	15	10	**76**
	Total	**23**	**21**	**20**	**24**	**17**	**105**

4 Collision Clusters Analysis

4.1.1 This chapter of the report identifies where there have been clusters of collisions at junctions across the 5 year study period.

4.1.2 A junction cluster has been determined on the basis that a junction has recorded 10 or more collisions across the 5 year period, or where there have been a high proportion of serious or fatal casualties. The selection of 'junction' associated collision also considers collisions that have occurred on the approaches to the junction.

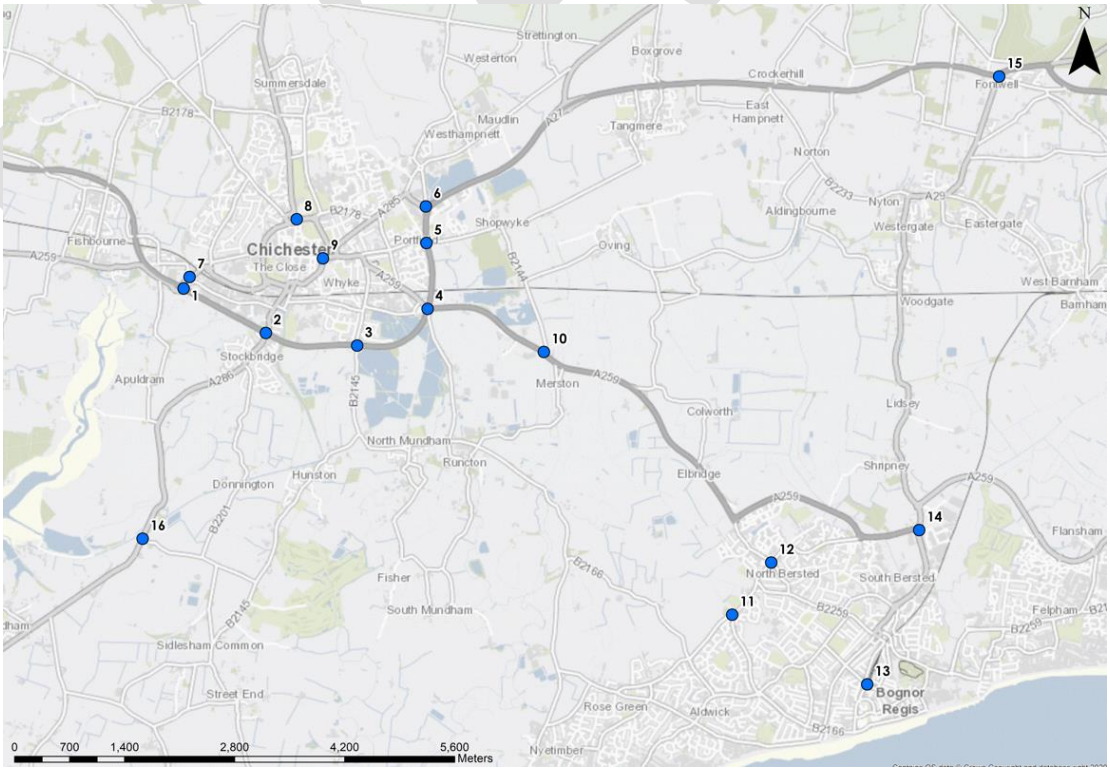
4.1.3 This chapters considered collision clusters at road junctions only. However, as presented previously in **Figure 3.1** and **Figure 3.2**, there are several obvious highway corridors that are lined with collision. These corridors are generally linked to the strategic/primary roads that serve the district. **Chapter 6** of this reports provides further analysis of the identified corridor cluster.

4.2 Junction Collison Cluster Review

4.2.1 On review on the 5 year collision data, as shown in Figure 4.1 a total of 16 junction clusters have been identified. The location of the clusters are predominantly in Chichester with two located within the inner city (8 & 9) and 7 located on the A27 junctions which forms the southern boundary of the city and corresponds with the main vehicle links to/from the A27 and the city centre.

4.2.2 Through extending the study area into the western part of the Arun District this has recorded a further 5 junction clusters (11 to 15) which are all in the Bognor Regis area except for location 15 which is the A27 / A29 at Fontwell to the east of the Collison study area.

Figure 4.1 - Identified Junction Cluster Locations



4.2.3 The identified junctions where there has been a clustering of collision over the 5-year study period are listed below. For each junction cluster identified, within **Appendix C** a summary table of the collisions is provided with respect to severity, type (vehicle only, pedestrian, cyclist) and year.

1) Fishbourne Roundabout (Roundabout)

2) Stockbridge Roundabout (Roundabout)

3) Whyke Roundabout (Roundabout)

4) Bognor Road Roundabout (Roundabout)

5) A27 / B2144 (Signalised Junction)

6) Portfield Roundabout (Roundabout)

7) A259 / Fishbourne Road East (Priority Junction)

8) A268 (Oaklands Way)/ Northgate (Gyratory)

9) A286 / East Street (Priority Junction)

10) A259 / Drayton Lane Roundabout (Roundabout)

16) A286 Birdham / Wophams Lane (Priority Junction)

Arun District

11) Aldwick Street/ Aldwick Road (Roundabout)

12) Chichester Road / Chalcraft Lane / North Bersted Street (2 x Mini-roundabouts)

13) Linden Road / Station Road / Longford Road (Signalised Crossroads)

14) Oldlands Way Roundabout (Roundabout)

15) A27 / Fontwell West Roundabout (Roundabout)

5 Impact of Local Plan

5.1.1 To identify locations where significant increases in traffic as a result of the Local Plan development may impact the identified collision clusters, the changes in traffic flows have been considered.

5.1.2 Increases in traffic at junctions does not inherently mean collisions will increase. In some circumstances additional traffic may lead to reduce junction capacity and in turn slower moving vehicles and therefore reduced risk of higher speed collision or collision in general. However, there is also a case for where existing safety issue occur that these could be further compounded with increased traffic flows.

5.1.3 To test the impact of the local plan, AM and PM peak hour traffic flows have been extracted from the Strategic SATURN Model for the following two scenarios.

- 2026 Reference Case
- 2035 Local Plan (without Mitigation)

5.1.4 The two scenarios provide a comparable dataset based on the same road infrastructure before any highway mitigation is includes, and therefore the difference is link to local plan development. The outputs from the SATURN modelling consider total junction flows.

Traffic Flow Changes

5.1.5 The percentage change in traffic flow between the reference and forecast scenario has been categorised and assigned a ranking for the purpose of this report.

- GREEN – Junctions with a change of <10%.
- AMBER – Percentage change between 10% to 20%.
- RED – Percentage change greater than +20%.

5.1.6 Junctions that show a high percentage change may require mitigation measures to reduce the potential for an increase in collision numbers if previous trends are continued.

Highways Mitigation Requirements

5.1.7 To reduce the risk of increasing the frequency of collisions due the impact of the local plan, mitigation measures could be developed to improve safety for all users. Some identified clusters already have existing mitigation proposals prepared as part of the Local Plan Review which may offer improved safety.

5.1.8 If the traffic impacts of the Local Plan are not considered sever, a safety review of the junction may still be needed to mitigate the existing issues, however in many locations across the breadth of the county, the cause of collision are more often attribute to driver error due and not associated with the road network. Therefore, mitigation schemes will only offer benefits to a certain level and then reliant on sensible and safe driving behaviours.

5.1.9 **Table 5.1** provides a summary of the 16 collision clusters and provides the predicted increases in AM and PM traffic flows between 2026 to 2032. In addition, the table also identifies whether the Local Plan has already considered a highway mitigation scheme which in turn could potentially offer improved safety.

Finally, **Table 5.1** recommends which junctions may require more detailed analysis to investigate the specific cause of the clustering of collisions and a potential a safety mitigation scheme.

Table 5.1 – Local Plan Impact Summary

Ref	Name	Type	Slight	Serious	Fatal	Total	Ref Total Flow		Forecast Flow		% Change		Current Mitigation Scheme	Further Safety Review Required
							AM	PM	AM	PM	AM	PM		
1	Fishbourne Roundabout	Roundabout	32	4	0	36	5966	5896	5768	5871	-3%	0%	✓	
2	Stockbridge Roundabout	Roundabout	12	1	1	14	5304	5539	5455	5690	3%	3%	✓	
3	Whyke Roundabout	Roundabout	8	2	0	10	4745	4924	4829	5138	2%	4%	✓	
4	Bognor Road Roundabout	Roundabout	39	5	0	44	4719	4713	4677	4797	-1%	2%	✓	
5	A27 / B2144	Signalised Junction	8	2	1	11	2752	2999	2967	3197	8%	7%	✓	
6	Portfield Roundabout	Roundabout	24	3	0	27	4917	5142	5106	5456	4%	6%	✓	
7	A259 / Fishbourne Road East	Priority Junction	8	1	0	9	1731	1417	1972	1769	14%	25%	✓	
8	A268 Oaklands Way / Northgate	Gyratory	10	1	0	11	2737	2546	2716	2523	-1%	-1%	✓	
9	A286 / East Street	Priority Junction	13	1	0	14	573	1134	706	1158	23%	2%	✗	✓
10	A259 / Drayton Lane Roundabout	Roundabout	8	2	0	10	3230	3057	3572	3355	11%	10%	✗	✓
11	Aldwick Street / Aldwick Road	Roundabout	4	4	0	8	941	910	1367	1052	45%	16%	✗	✓

Ref	Name	Type	Slight	Serious	Fatal	Total	Ref Total Flow		Forecast Flow		% Change		Current Mitigation Scheme	Further Safety Review Required
							AM	PM	AM	PM	AM	PM		
12	Chichester Road / Chalcraft Lane / North Bersted Street	2 Mini-roundabouts	9	1	0	10	2771	2405	3570	3344	29%	39%	✗	✓
13	Linden Road / Station Road / Longford Road	Signalised Crossroads	7	3	0	10	573	587	627	646	9%	10%	✗	
14	Oldlands Way Roundabout	Roundabout	18	2	0	20	3264	3020	4261	3808	31%	26%	✗	✓
15	Fontwell West Roundabout	Roundabout	15	4	0	19	6729	7167	7896	8600	17%	20%	✗	✓
16	A286 / Wophams Lane	Priority Junction	5	0	1	6	1013	1195	1260	589	24%	-51%	✗	✓

5.1.10 The outcome of the above review highlights 7 of the 16 junction clusters that CDC and WSCC may want to explore in greater detail with respect to improving road safety. The junction are as follows:

- 9 - A286 / East Street (Priority Junction)
- 10 - A259 / Drayton Lane Roundabout (Roundabout)
- 11 - Aldwick Street/ Aldwick Road (Roundabout)
- 12 - Chichester Road / Chalcraft Lane / North Bersted Street (2 x Mini-roundabouts)
- 14 - Oldlands Way Roundabout (Roundabout)
- 15 - A27 / Fontwell West Roundabout (Roundabout)
- 16 - A286 Birdham / Wophams Lane (Priority Junction)

5.2 Future Mitigation Solutions

5.2.1 Of the 16 collision clusters, ten were at priority existing roundabouts. This is not an uncommon trend as roundabout can often have some of the highest rates of collisions on road network.

5.2.2 As can been seen from the local level collisions plots a roundabout, collisions are typically rear shunt type collision on the approaches to the junction, or side on collisions at the point of entering the junction circulatory when a vehicle is pulling into the circulating traffic.

5.2.3 Therefore, in converting roundabouts into signalised control junctions, the signals will effectively control the priority of traffic through the junction and this in turn this would seek to remove the general issue when vehicle are required to give way at priority and roundabout junctions.

5.2.4 This level of mitigation requires significant remodification of junctions which in some location will not be viable. At the junction clusters with mitigation schemes already proposed, these schemes have been developed as part of a wider local plan requirement rather than specifically aimed at reducing collisions, although a secondary benefit in some circumstances is that it also offers improved safety for all users.

5.2.5 At the junction clusters which currently have no mitigation of proposed, but the existing collision recorded and/or impacts of the local plan is highlight a possible area of concern, then the next steps will be to investigate the junction in further detail to understand the specific causation of the collision so that a appropriate mitigation scheme can be developed.

5.2.6 The type of safety mitigation can vary depending on several factors including, cost, location, land ownerships, the local environment etc. The follow provides list of possible measures to improve safety and could be considered for implementation at the identified junction.

- Improved lining and signing on approaches to junctions;
- Improved street lighting at junction;
- Increased flare lane capacities to reduce potential for queue blocking back upstream;
- Switch junction priorities to suit the main flows and in turn reduce number of vehicles performing conflicting turning movements;
- Improve junction sightlines through verge and hedgerow maintenance;

- Restrict conflicting traffic movements (subject to impacts from re-distribution of trips)
- New or improved pedestrian and cycling crossing infrastructure; and
- Segregated cycle infrastructure to reduce interaction with vehicle on the approaches and through junctions.

6 PIC 'Link Cluster' Review

6.1.1 Whist the primary focus of this assessment was to identify where there are clusters of collisions at existing junctions across the study areas, the 5 year collision data highlights 'corridor cluster' whereby parts of the road network in between junction are lined with collisions.

6.1.2 As presented previously in **Figure 3.1** and **Figure 3.2** in Chapter 3 of this report, there are several obvious highway corridors that are lined with collision which are generally aligned with to the strategic/primary roads that serve Chichester District. **Table 6.1** below provides a high level summary of the identified links with clusters of collision recorded in the 5 year study period. In total 15 corridor clusters have been identified. This report does not assess the condition of these corridor in any future detail however are provided for CDC and WSCC to consider.

Table 5.1 – PIC Corridors Clusters Summary

Corridor Ref	Road Name	Road Type	Road Speed	Corridor Length	Slight	Serious	Fatal	Total
Study Area 1								
1	A285 Station Road	A Road	60Mph	1.86Km	11	1	0	12
2	4283 London Road A272 North Street	A Road	60mph	2.84Km	11	3	0	14
3	A272	A Road	60Mph	1.70Km	6	4	1	11
4	B2133 Newpound	B Road	60mph	175m	3	1	1	5
Study Area 2								
1	A27	A Road	70Mph	2.30Km	5	4	2	11
2	A27	A Road	70Mph	2.40Km	9	3	1	13
3	A27 Chichester Bypass	A Road	70Mph	820m	19	4	0	23
4	A286 Stockbridge Road	A Road	70Mph	840m	16	5	0	21
5	A27 Arundel Road	A Road	60Mph	3.20Km	16	8	1	25
6	A259	A Road	60Mph	3.20Km	23	12	0	35
7	A259 Rowan Way	A Road	40Mph	330m	9	0	0	9
8	A29 Shripney Road	A Road	40Mph	930m	12	1	2	15
9	Aldwick Road	B Road	30Mph	780m	15	2	0	17
10	A286 Main Road	A Road	40Mph	2.30Km	9	2	2	13
11	Bracklesham Lane	B Road	30Mph	1.70Km	7	3	1	11

7 Summary

7.1.1 This report has been prepared to review personal injury collision data for the Chichester District area and to identify junctions where clusters of collisions have been recorded. This review has been informed using collision data obtained from West Sussex County council and covering the latest five years commencing in May 2016 through to April 2021.

7.1.2 Across both the northern and southern study areas there was a total of 1,850 collisions recorded. Of these collisions 74% were of a slight severity and 24% at a serious severity. Over the 5 year study period there was a total of 34 collisions (2%) that resulted in a fatality.

7.1.3 Vulnerable road users (pedestrian and cyclists) accounted for 517 (28%) of the recorded collision of which, 91 where of a serious severity and 9 collisions resulted in a fatality.

7.1.4 A review of the collision locations identified 16 junction clusters across the Chichester District and western areas of Arun.

7.1.5 A number of the junction clusters have mitigation measures already development as part of the local plan review which will help to improve safety for all road users and in turn reduce the risk of a collision.

7.1.6 At the junctions where the local plan impacts will have a material impact, with respect to traffic flow change between 2026 and 2035, it is recommended that these locations are investigate further to understand to cause of the safety concern and mitigation schemes are development with the aim to improve the safety.

7.1.7 Of the 16 junction clusters found, 7 junctions currently have no known proposed or committed highways improvements and could be materially impacted by the Local Plan development.

Appendix A Study Area 1 Collision Locations

Appendix B Study Area 2 Collision Locations

Appendix C Collision Cluster Summary Tables

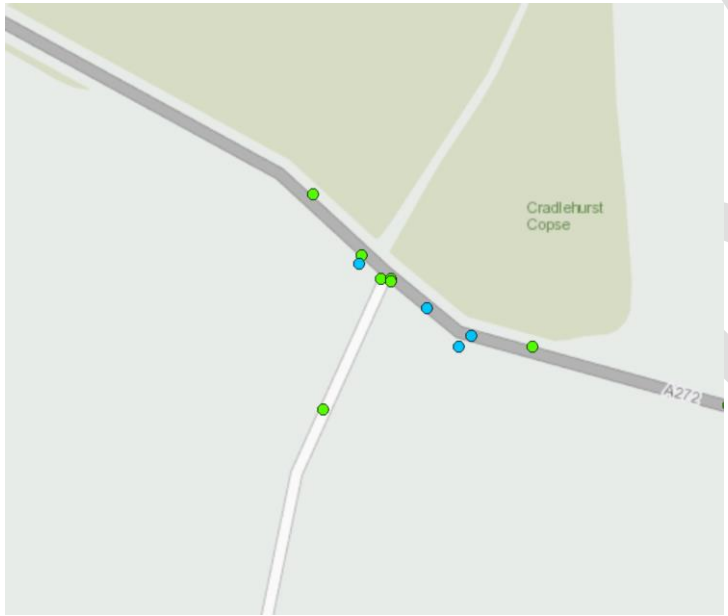
8 Cluster Reviews

8.1 Cluster 1 – A272, Country Lane

8.1.1 Junction 1 is located in a rural setting and is a priority junction between the A272 and unnamed rural lane. In this area the A272 is designated as the national speed limit. Traveling westbound on approach to the junction along the A272 there is a blind uphill left-hand bend with the junction immediately after.

8.1.2 The approximate locations of the collisions that occurred can be seen in Figure 8.1

Figure 8.1 – Cluster 1



8.1.3 The collisions that occurred over the latest five years can been seen summarised in Table 4.1.

Area 1 Collision Summary

Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	0	4	**4**
Slight	0	0	8	**8**
Total	**0**	**0**	**12**	**12**

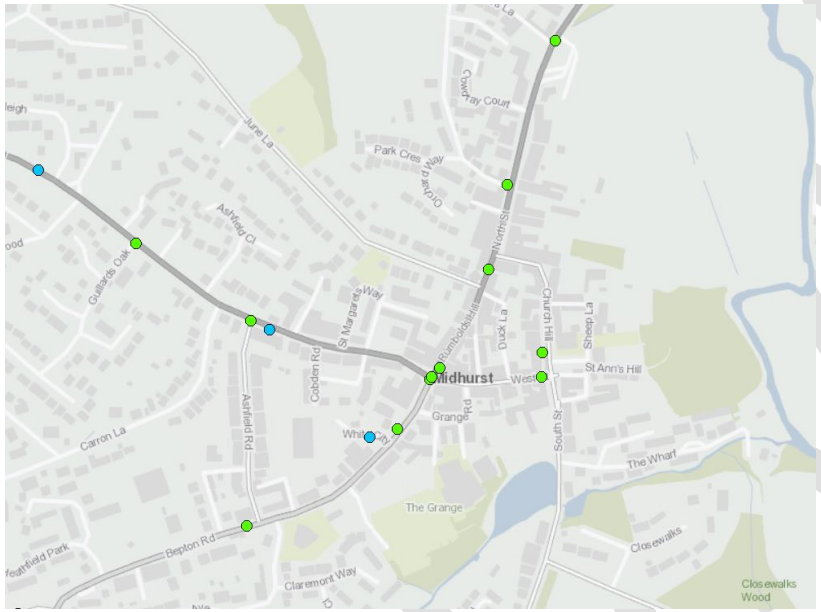
8.1.4 A total of 12 collisions occurred over the five-year period. All of the collisions involved vehicles and none of them involved pedestrians or cyclists.

Midhurst

8.1.5 One of the main settlements in study area 1 is Midhurst which is located on the A272 to the West of area 1.

8.1.6 The approximate locations of the collisions that occurred in Midhurst can be seen in Figure 8.2.

Figure 8.2 – Midhurst



8.1.7 The collisions shown in Figure 4.2 can be seen summarised within Table 8.2.

Table 8.2 – Midhurst Summary

Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	0	3	**3**
Slight	1	2	9	**12**
Total	**1**	**2**	**12**	**15**

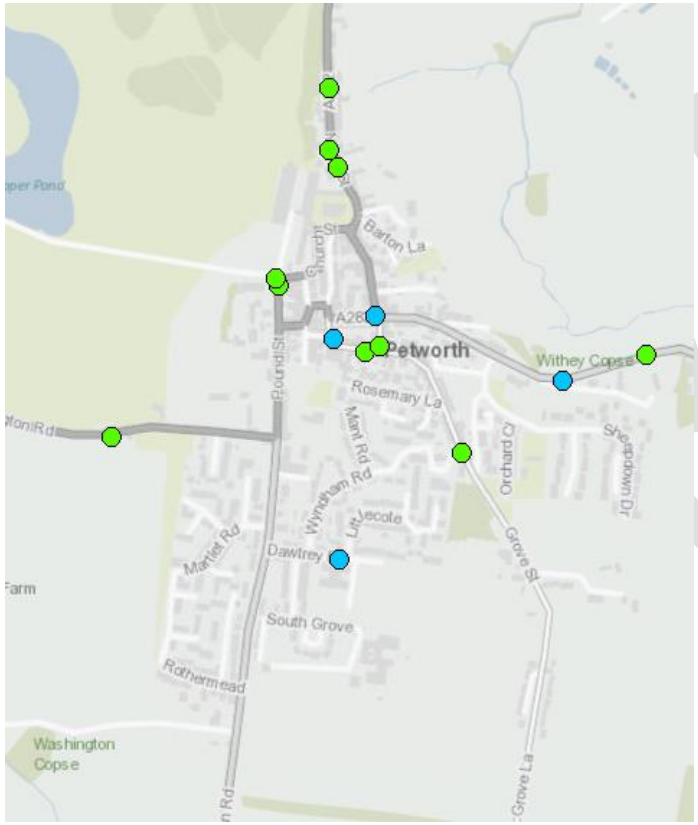
8.1.8 Within Midhurst, over the 5 years of collision data there were a total of 15 collisions. There was one slight collision that involved pedestrians and 2 slight collisions that involved cyclists. The majority of the collisions (12) were vehicle only with 3 of the collisions being serious in nature and the remaining 9 were all slight.

Petworth

8.1.9 Petworth is a prominent settlement within study area 1. Petworth is located on the A272 to the southern end of area 1.

8.1.10 The approximate locations of the collisions that occurred in Petworth over the five years data can be seen in Figure 8.3.

Figure 8.3 – Petworth



8.1.11 The collisions shown in Figure 8.3 can be seen summarised within Table 8.3.

Table 8.3 – Petworth Summary

Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	2	0	2	**4**
Slight	3	0	7	**10**
Total	**5**	**0**	**9**	**14**

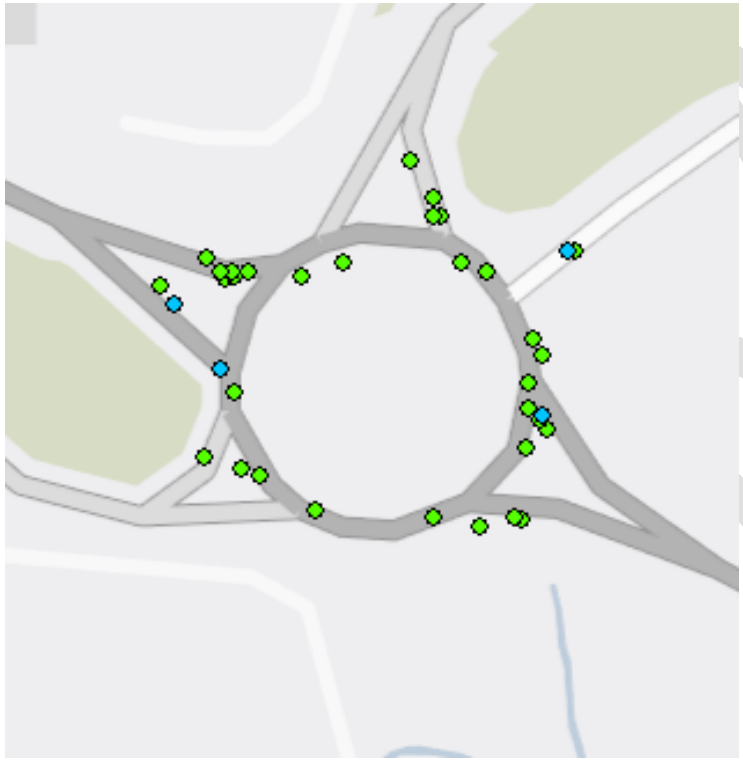
8.1.12 Within Petworth over the five years of data there was a total of 14 collisions. There was a total of 5 collision involving pedestrians with 2 being recorded as serious and 3 as slight in severity. The majority of collisions (9) were vehicle only, 2 of the collisions were recorded as serious in severity with the remaining 7 being slight in severity.

8.2 Study Area 2

Cluster 1 – Fishbourne Roundabout

8.2.1 The Fishbourne roundabout is a large 5 arm junction located on the Chichester Bypass (A27). It is one of the major junctions on this section of the A27 with multi lane entries on multiple arms. The location of the collision that occurred at this junction can be seen in Figure 8.4.

Figure 8.4 – Fishbourne Roundabout Collision Plot



8.2.2 The collision summary can be seen below in Table 8.4.

Figure 8.4 – Fishbourne Roundabout Collision Summary

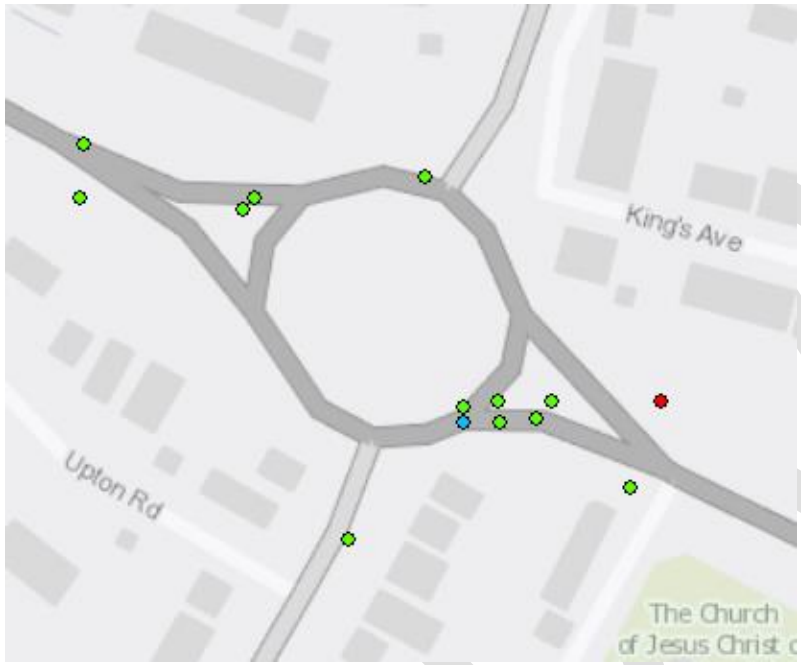
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	0	4	**4**
Slight	0	0	32	**32**
Total	**0**	**0**	**36**	**36**

8.2.3 Over the 5 years of data there was a total of 36 collisions at the Fishbourne Roundabout. None of the collisions involved vulnerable road users. There were 4 serious collisions and the remain 32 were all of slight severity.

Cluster 2 – Stockbridge Roundabout

8.2.4 Stockbridge Roundabout is a large 4 arm roundabout with multi lane entries located on the Chichester Bypass (A27). The locations of the collisions that occurred over the five years can be seen on Figure 8.5.

Figure 8.5 – Stockbridge Roundabout Collision Plot



8.2.5 The collisions shown in Figure 8.5 can be seen summarised in Table 8.5.

Table 8.5 – Stockbridge Roundabout Collision Summary

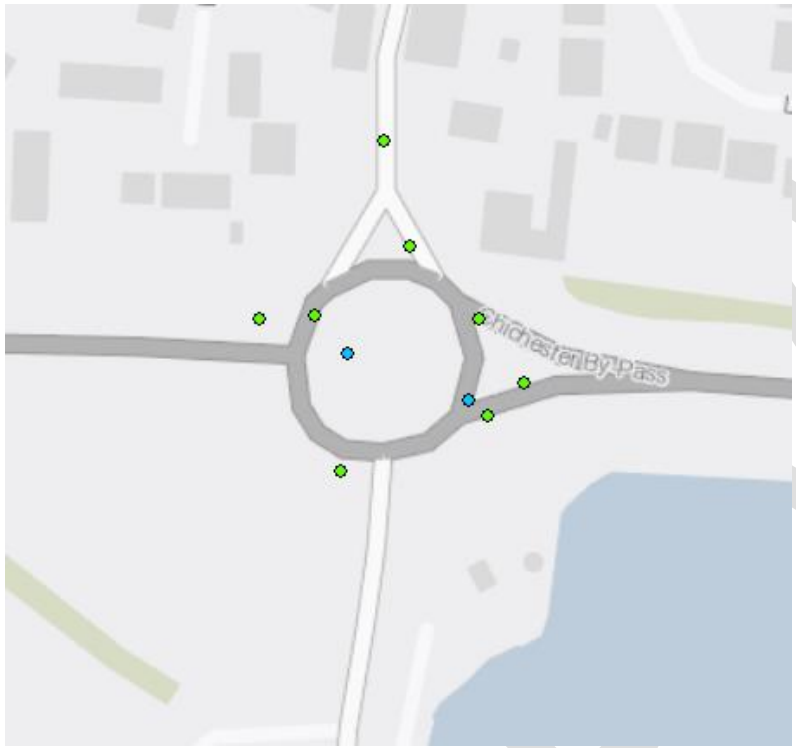
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	1	0	**1**
Serious	0	0	1	**1**
Slight	1	2	9	**12**
Total	**1**	**3**	**10**	**14**

8.2.6 As can be seen in Table 8.5 there was a total of 14 collisions over the 5 years of data. The was 1 collision that involved a pedestrian which was recoded as slight in severity. With regards to collisions involving cycling there was a total of 3 collisions, one being fatal and two of slight severity. The remaining 10 collisions were all vehicle with one being serious and the remaining 9 being of slight severity.

Cluster 3 – Whyke Roundabout

8.2.7 Whyke Roundabout is a large 4 arm roundabout with multi lane entries located on the Chichester Bypass (A27). The locations of the collisions that occurred over the five years can be seen on Figure 8.6.

Figure 8.6 –Whyke Roundabout Collision Plot



8.2.8 The collisions shown in Figure 4.6 can be seen summarised in Table 8.6.

Table 8.6 – Whyke Roundabout Collision Summary

Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	1	1	**2**
Slight	1	0	7	**8**
Total	**1**	**1**	**8**	**10**

8.2.9 Over the 5 years a total of 10 collisions occurred at the Whyke Roundabout. The was one slight collision that involved a pedestrian and one serious collision that involved a cyclist. The reaming 8 collisions were vehicle. There was 1 serious and 7 slight collisions.

Cluster 4 – Bognor Road Roundabout

8.2.10 Bognor road roundabout is a large 5 arm roundabout with multi lane entries located on the Chichester Bypass (A27). The locations of the collisions that occurred over the five years can be seen on Figure 8.7.

Figure 8.7 – Bognor Road Roundabout Collision Plot

8.2.11 The collisions shown in Figure 8.7 can be seen summarised in Table 8.7.

Table 8.7 – Bognor Road Roundabout Collision Summary

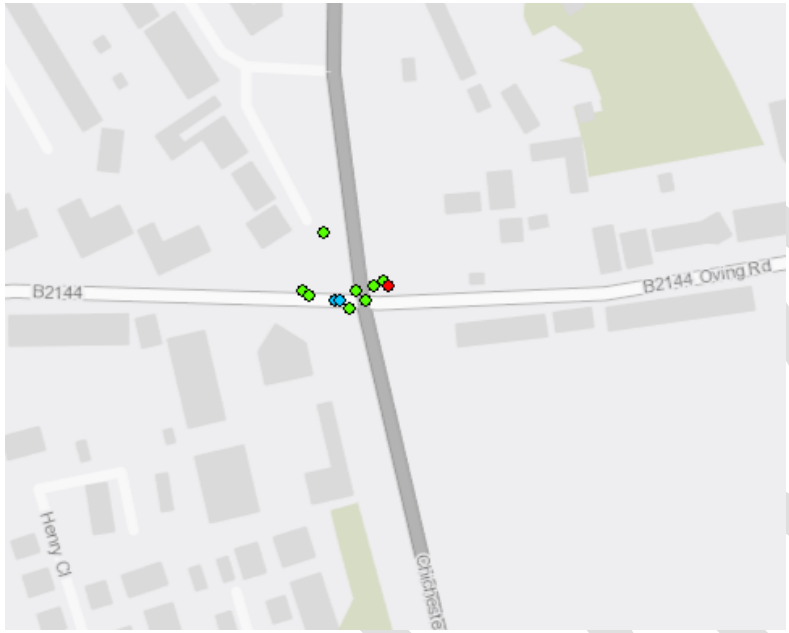
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	1	4	**5**
Slight	0	0	39	**39**
Total	**0**	**1**	**43**	**44**

8.2.12 Over the 5 years of accident there were a total of 44 collisions. There were no fatal collisions, a total of 5 serious collision with one involving a cyclist. The remaining 39 collisions were all of slight severity and only involved vehicles.

Cluster 5 – A27 / B2144

8.2.13 Cluster 5 is located on the Chichester Bypass (A27) signalised junction with Oving Road (B2144). The locations of the collisions that occurred over the five years can be seen on Figure 8.8.

Figure 8.8 – A27 / B2144 Collision Plot



8.2.14 The collisions shown in Figure 8.8 can be seen summarised in Table 8.8.

Table 8.8 – A27 / B2144 Collision Summary

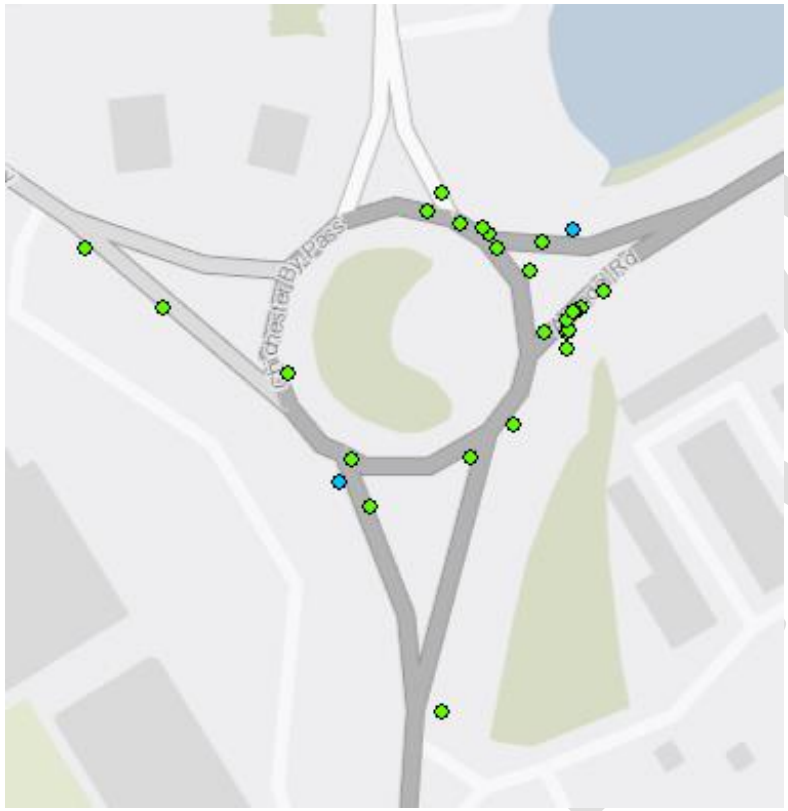
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	1	0	0	**1**
Serious	0	0	2	**2**
Slight	0	1	7	**8**
Total	**1**	**1**	**9**	**11**

8.2.15 At the junction there were a total of 11 collisions over the 5 years of data. Out of the 11 collisions one involved a cyclist which was of slight severity. The was one collision which involved a pedestrian which was fatal. The remaining 9 collisions were all vehicle related, with 7 being slight in severity and 2 being serious.

Cluster 6 – Portfield Roundabout

8.2.16 Portfield roundabout is a large 4 arm roundabout located on the Chichester Bypass (A27) and the Westhampnett bypass. The locations of the collisions that occurred over the five years can be seen on Figure 8.9.

Figure 8.9 – Portfield Roundabout Collision Plot



8.2.17 The collisions shown in Figure 8.9 can be seen summarised in Table 8.9.

Table 8.9 – Portfield Roundabout Collision Summary

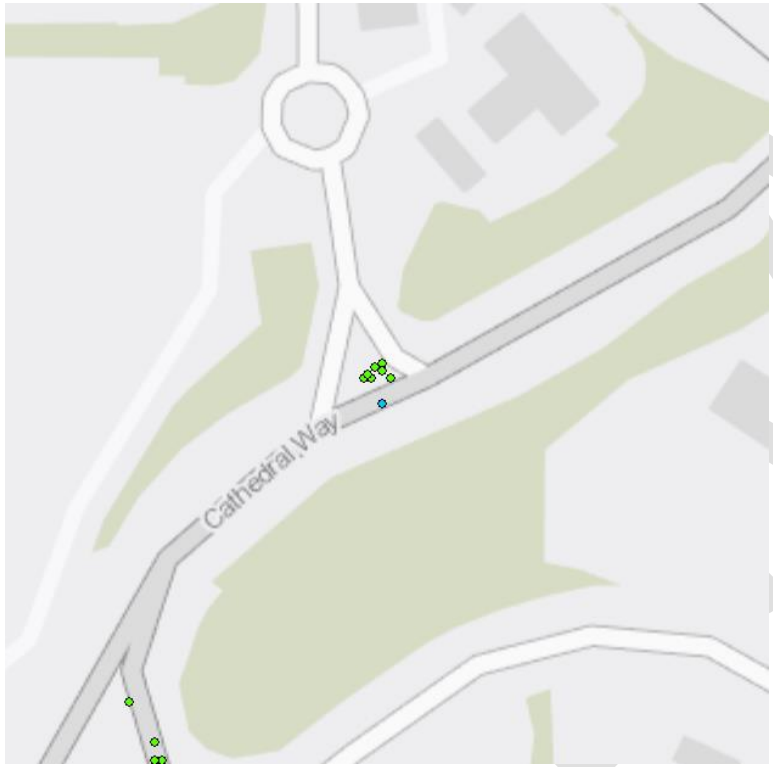
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	1	2	**3**
Slight	0	0	24	**24**
Total	**0**	**1**	**26**	**27**

8.2.18 The data shows that there was a total of 27 collisions at the junction, only one of the collisions involved a non-motorised user which was cyclist and was serious in nature. There were 2 serious vehicle collisions and 24 which were all slight in severity.

Cluster 7 – A259 / Fishbourne Road

8.2.19 The intersection of the A259 and Fishbourne Road is a complect priority junction. There is a kerbed central Reserve for the right turn movements into Fishbourne Road and Fishbourne road is left turn out only. The locations of the collisions that occurred over the five years can be seen on Figure 8.10.

Figure 8.10 – A259 / Fishbourne Road Collision Plot



8.2.20 The collisions shown in Figure 8.10 can be seen summarised in Table 8.10.

Table 8.10 – A259 / Fishbourne Road Collision Summary

Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	1	0	**1**
Slight	0	0	8	**8**
Total	**0**	**1**	**8**	**9**

8.2.21 Over the 5 years of data there was a total of 9 collisions. There was 1 collision which involved a cyclist which was of serious severity. The remaining 8 collisions only involved vehicles are were all of slight severity.

Cluster 8 – A286 (Oaklands Way) / Northgate

8.2.22 The A268 (Oaklands Way) / Northgate intersection acts as a priority junction but is the easternmost arm of a larger gyratory system. Oaklands way is a two lane entry with a designated cycle lane along the nearside kerb and runs around the edge of the gyratory across the entries. The locations of the collisions that occurred over the five years can be seen on Figure 8.11.

Figure 8.11 – A268 (Oaklands Way) / Northgate Collision Plot

8.2.23 The collisions shown in Figure 8.11 can be seen summarised in Table 8.11.

Table 8.11 – A286 (Oaklands Way) / Northgate Collision Summary

Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	1	0	**1**
Slight	1	8	1	**10**
Total	**1**	**9**	**1**	**11**

8.2.24 At the A268 (Oaklands Way) / Northgate junction there were a total of 11 collisions over the five years. There was one collision which involved a pedestrian which was slight in severity. The majority of the collision recorded over the five years involved cyclists with 9 being recorded. Out of the 9 collisions 1 was recorded as serious and the remaining 8 a slight in severity.

Cluster 9 – A286 / East Street

8.2.25 Within Chichester city century there is the junction of the A268 and East street. The junction is comprised of a mix of priority and signalised elements, with signalised crossings on two of the arms. The locations of the collisions that occurred over the five years can be seen on Figure 8.12.

Figure 8.12 – A286 / East Street Collision Plot

8.2.26 The collisions shown in Figure 8.12 can be seen summarised in Table 8.12.

Table 8.12 – A286 / East Street Collision Summary

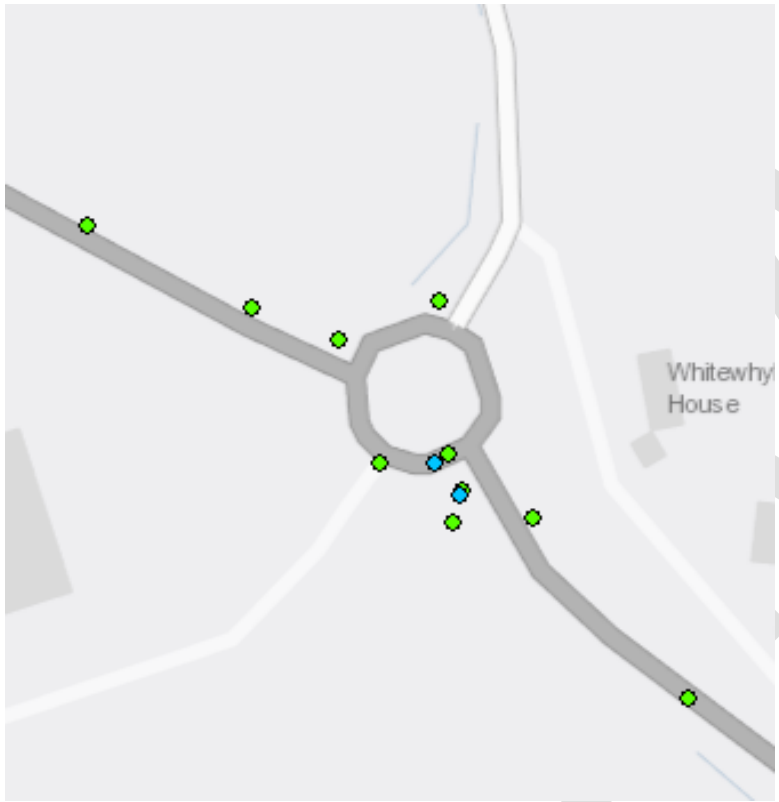
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	0	1	**1**
Slight	2	6	5	**13**
Total	**2**	**6**	**6**	**14**

8.2.27 At the A286 / East Street junction there were a total of 14 collisions over the five years. There were two pedestrian collisions which were both recorded a slight in severity. Out of the 14 collisions 6 involved cyclist and all were slight in severity. The remaining 6 were vehicle collisions, there was 1 recorded as serious and 5 as slight.

Cluster 12 – A259 / Drayton Lane Roundabout

8.2.28 The A259 / Drayton Lane Roundabout is a 4 arm roundabout with multi lane entries located on the A259. The locations of the collisions that occurred over the five years can be seen on Figure 8.15.

Figure 8.15 – A259 / Drayton Lane Roundabout Collision Plot



8.2.29 The collisions shown in Figure 8.15 can be seen summarised in Table 8.15.

Table 8.15 – A259 / Drayton Lane Roundabout Collision Summary

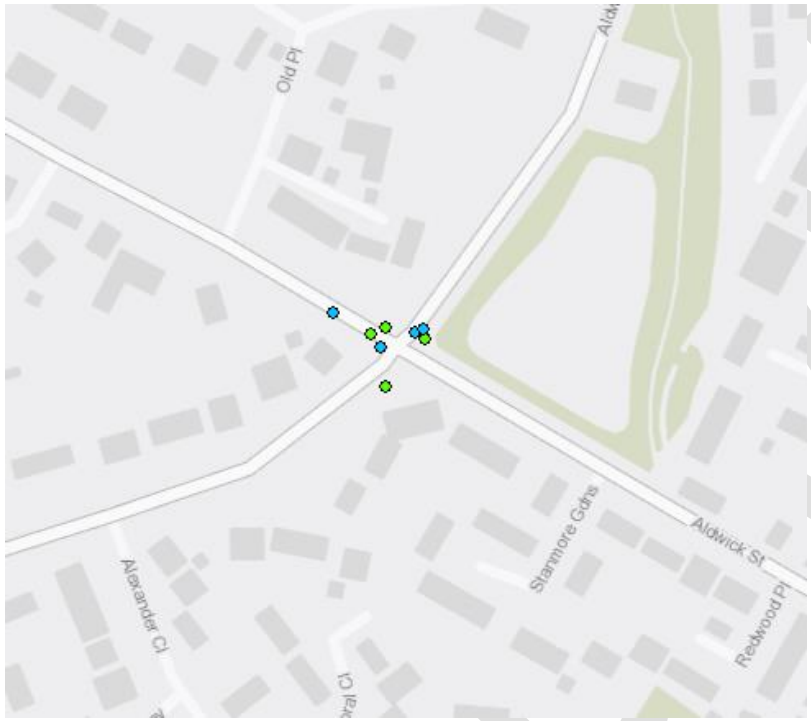
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	1	1	**2**
Slight	0	1	7	**8**
Total	**0**	**2**	**8**	**10**

8.2.30 Over the 5 years of recorded collision data at the A259 / Drayton Lane Roundabout there was a total of 10 collisions. The largest proportion of collisions was vehicle only with a total of 8 being recorded. Only one of the collisions was serious and the remaining 7 were all slight in severity. With regards to non-motorised users there was a total of 2 collisions recorded both involving cyclist. One of the collisions was serious and the other slight in severity.

Cluster 13 – Aldwick Street / Aldwick Road

8.2.31 Cluster 13 is located at the compact roundabout of Aldwick Street, Aldwick Road, Barrack Lane and Cossamer Lane. The locations of the collisions that occurred over the five years can be seen on Figure 8.16.

Figure 8.16 Aldwick Street / Aldwick Road Collision Plot



8.2.32 The collisions shown in Figure 8.16 can be seen summarised in Table 8.16.

Table 8.16 – Aldwick Street / Aldwick Road Collision Summary

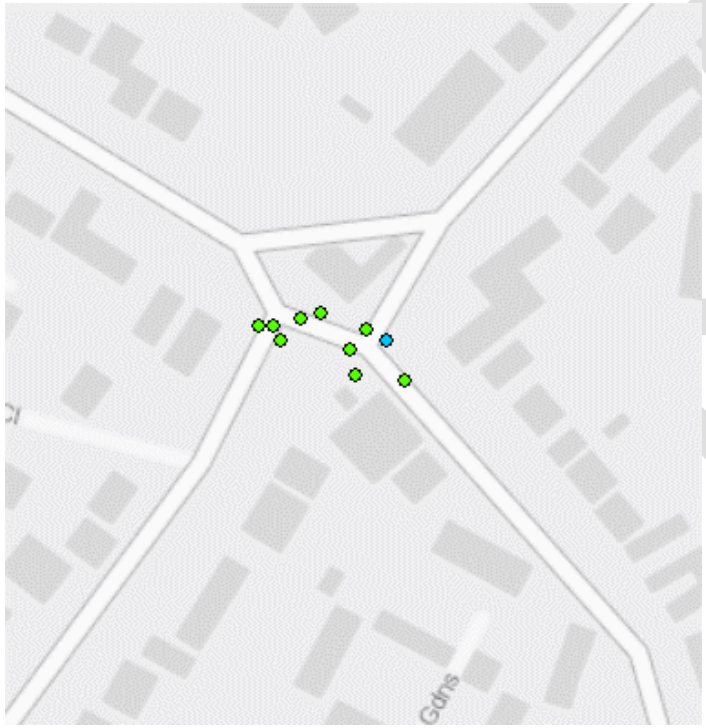
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	3	1	**4**
Slight	0	4	0	**4**
Total	**0**	**7**	**1**	**8**

8.2.33 At the Aldwick Street / Aldwick Road junction there was a total of 8 collisions recorded over the five years of collision data. The largest proportion of collisions involved cyclists with 3 serious and 4 slight incidents being recorded. The reaming collision was serious in severity and only involved vehicles.

Cluster 15 – Chichester Road / Chalcraft Lane / N Bersted Street

8.2.34 Cluster 15 is located in the Arun District at the B2259, North Bersted Street and Chalcraft Lane junction. The junction consists of two joined mini-roundabouts which are approximately 10m apart. There is a one-way bypass between the two northern arms, Chichester road to North Bersted Street. The locations of the collisions that occurred over the five years can be seen on Figure 8.18.

Figure 8.18 – Chichester Road / Chalcraft Lane / N Bersted Street Collision Plot



8.2.35 The collisions shown in Figure 8.18 can be seen summarised in Table 8.18.

Table 8.18 – Chichester Road / Chalcraft Lane / N Bersted Street Collision Summary

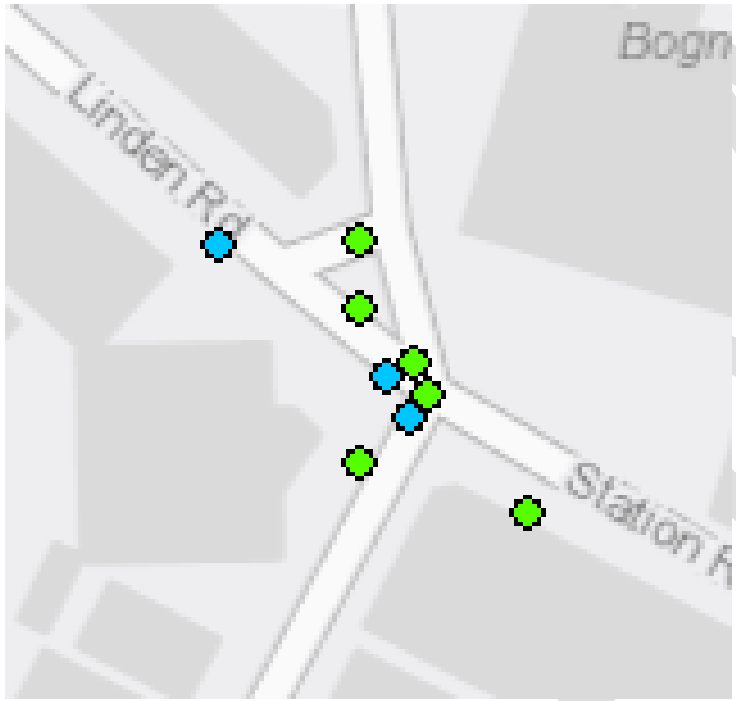
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	0	1	**1**
Slight	1	1	7	**9**
Total	**1**	**1**	**8**	**10**

8.2.36 At the Chichester Road / Chalcraft Lane / N Bersted Street junction there was a total of 10 collisions. The largest proportion of collisions was vehicle only with a total of 8 being recorded. Only one of the collisions was serious and the remaining 7 were all slight in severity. With regards to non-motorised users there was a total of 2 collisions recorded. One of the collisions involved a cyclist and was of slight severity and the other involved a pedestrian which was also slight in severity.

Cluster 16 – Linden Road / Station Road / Longford Road

8.2.37 Cluster 16 is located in the Arun District outside of Bognor Regis Station at the junction of Linden Road / Station Road / Longford Road. The junction is a signalised crossroads with single lane approaches. Signalised pedestrian crossing facilities have been provided on all arms of the junction. The locations of the collisions that occurred over the five years can be seen on Figure 8.19.

Figure 8.19 – Linden Road / Station Road / Longford Road Collision Plot



8.2.38 The collisions shown in Figure 8.19 can be seen summarised in Table 8.19.

Table 8.19 – Linden Road / Station Road / Longford Road Collision Summary

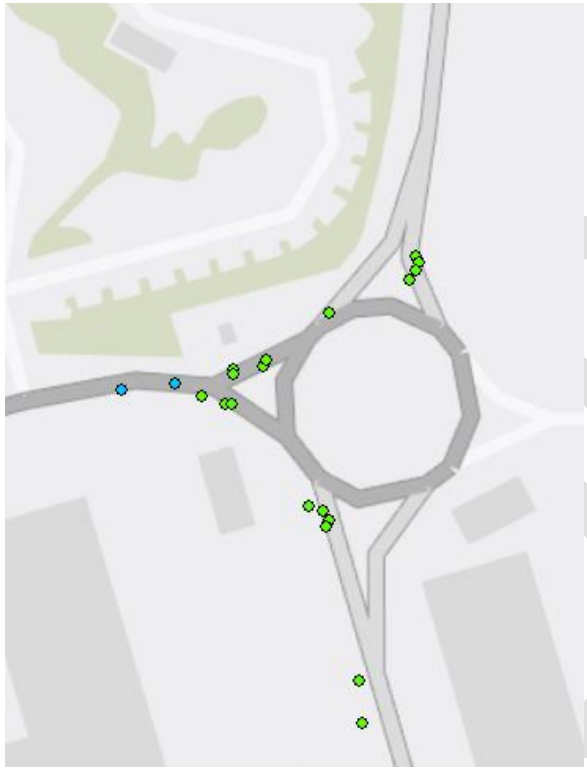
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	1	0	2	**3**
Slight	2	1	4	**7**
Total	**3**	**1**	**6**	**10**

8.2.39 At the Linden Road / Station Road / Longford Road junction there was a total of 10 collisions over the 5 years of data. The largest proportion of collisions was vehicle only with a total of 6 being recorded. Two of the collisions was serious and the remaining 4 were all slight in severity. With regards to non-motorised users there was a total of 4 collisions recorded. One of the collisions involved a cyclist and was of slight severity. The remaining 3 collisions all involved pedestrians. One of the collisions was recorded as serious in severity and the other two were slight in severity.

Cluster 18 – Oldlands Way Roundabout

8.2.40 Cluster 18 is within the Arun District and is located on the Oldlands way roundabout. The roundabout has four arms and is located on the A29 and connects with the A259 the North Bersted Bypass. There are uncontrolled crossing facilities located on the Southern A29 arm and Western A259 arm. The locations of the collisions that occurred over the five years can be seen on Figure 8.21.

Figure 8.21 – Oldlands Way Roundabout Collision Plot



8.2.41 The collisions shown in Figure 8.21 can be seen summarised in Table 8.21.

Table 8.21 – Oldlands Way Roundabout Collision Summary

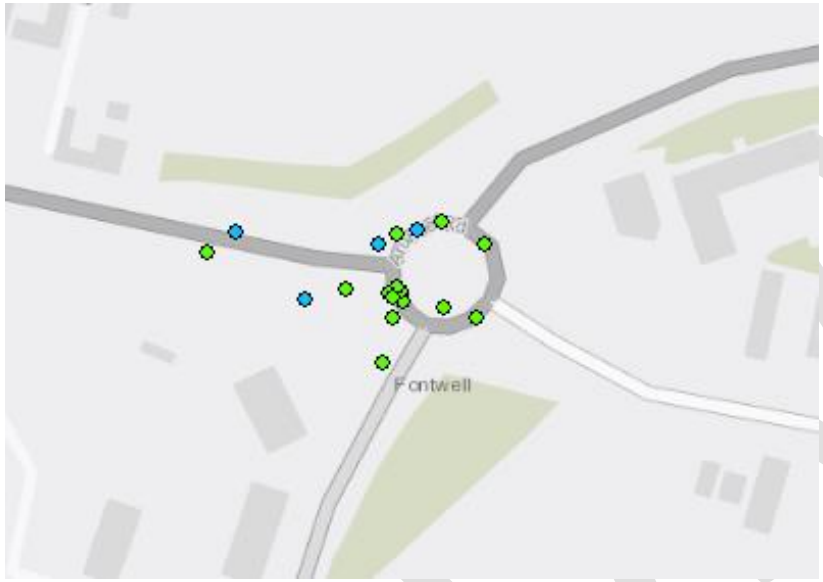
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	1	0	1	**2**
Slight	0	1	17	**18**
Total	**1**	**1**	**18**	**20**

8.2.42 At the Oldlands Way Roundabout there was a total of 20 collisions over the 5 years of data. The largest proportion of collisions was vehicle only with a total of 18 being recorded. One of the collisions was serious and the remaining 17 were all slight in severity. With regards to non-motorised users there was a total of 2 collisions recorded. One of the collisions involved a cyclist and was of slight severity. The remaining collision involved a pedestrian which was serious in severity.

Cluster 19 – Fontwell West Roundabout

8.2.43 Cluster 19 is located in the Arun District at the Fontwell West roundabout. The roundabout has 4 arms with multi lane entries and is at the junction of the A27 and A29. The only pedestrian facilities in an informal crossing point on the southern A29 arm of the junction. The locations of the collisions that occurred over the five years can be seen on Figure 8.22.

Figure 8.22 – Fontwell West Roundabout Collision Plot



8.2.44 The collisions shown in Figure 8.22 can be seen summarised in Table 8.22.

Table 8.22 – Fontwell West Roundabout Collision Summary

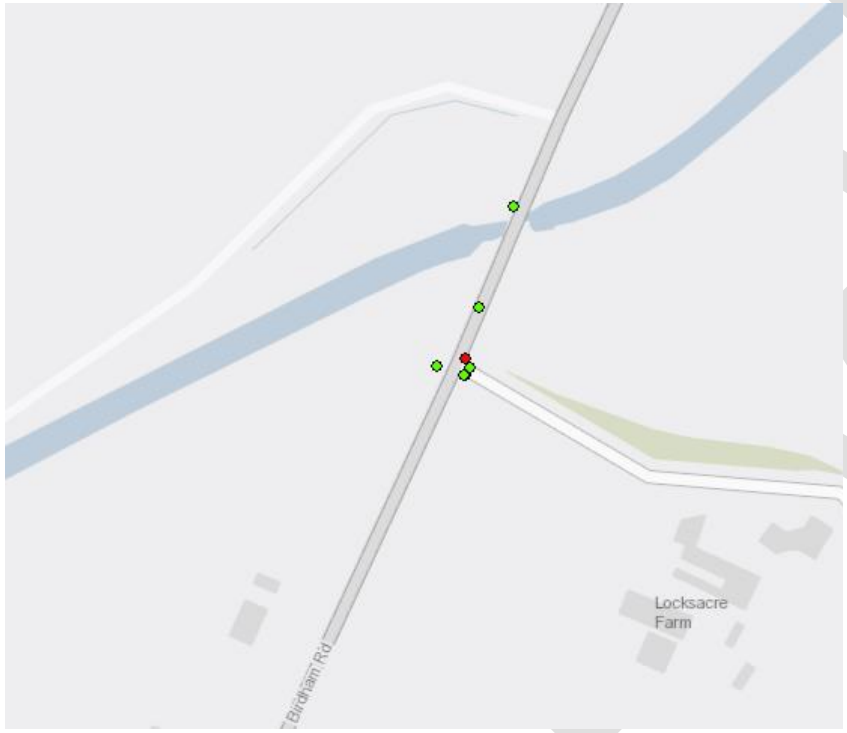
Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	0	**0**
Serious	0	0	4	**4**
Slight	0	0	15	**15**
Total	**0**	**0**	**19**	**19**

8.2.45 At the Fontwell West Roundabout there was a total of 19 collisions over the 5 years of data. All 19 collisions were vehicle only, 4 of the collisions were recorded as serious in severity and the remaining 15 were all slight in severity.

Cluster 21 – A286 / Wophams Lane

8.2.46 Cluster 21 is located at the junction of the A286 and Wophams Lane. The junction is a ghost island right turn priority junction located in a 50mph speed limit area. No pedestrian crossing facilities are provided at this junction as there are no pedestrian links to connect. The locations of the collisions that occurred over the five years can be seen on Figure 8.24.

Figure 8.24 – A286 / Wophams Lane Collision Plot



8.2.47 The collisions shown in Figure 8.24 can be seen summarised in Table 8.24.

Table 8.24 – A286 / Wophams Lane Collision Summary

Injury Severity	Pedestrians	Cycle	Vehicle only	Total
Fatal	0	0	1	**1**
Serious	0	0	0	**0**
Slight	0	0	5	**5**
Total	**0**	**0**	**6**	**6**

8.2.48 At the A286 / Wophams Lane Collision junction there was a total of 6 collisions over the 5 years of data. All 6 collisions were vehicle only, one of the collisions was recorded as fatal in severity and the remaining 5 were all slight in severity.