

Cotswold District Local Plan

Cotswold District Local Plan Accident
Assessment
Cotswold District Council

May 2017

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1. Introduction

1.1. Background

Cotswold District Council (CDC) is preparing a Local Plan to cover the period 2011 to 2031 and it will be the key planning policy document which guides decisions on the use and development of land in the district.

Atkins have been commissioned to prepare an Accident Assessment to determine if there are any existing safety issues which could be exacerbated as a result of the preferred Local Plan development.

A Highway Capacity Assessment was carried out in April 2016 by Atkins to consider the development impact on the principal highway network within the Cotswold District and to identify any mitigation measures which are required.

This Safety Assessment builds upon this work, and considers the junctions which were assessed within the Highway Capacity Assessment.

1.2. Report Format

This report includes the following sections:

- **Section 2** provides an overview of the scope of the Safety Assessment;
- **Section 3** provides an analysis of PIA data for the most recent five-year period;
- **Section 4** summarises the findings and conclusions.

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2. Scope of Safety Assessment

2.1. Introduction

This section provides an overview of the scope of the Safety Assessment, based on the findings of the Highway Capacity Assessment conducted by Atkins in April 2016.

2.2. Scope of Safety Assessment

The Highway Capacity Assessment carried out junction capacity analysis on 14 junctions in a range of existing and future year scenarios. It has been agreed with GCC that this assessment will analyse safety at all junctions that were shown to have had more than a 10% impact from the preferred development, as summarised in **Table 2-1**.

Table 2-1 Scope of Safety Assessment

ID	Junction Name	Impact of Preferred Development (%)		Included in Safety Assessment?
		AM Peak (08:00 – 09:00)	PM Peak (17:00 – 18:00)	
1	A429 (Roman Road) / A44 (Oxford Street)	38.1%	32.5%	✓
2	A429 (Roman Road) / A44 (Bourton Road)	39.2%	32.6%	✓
3	A429 (Fosse Way)/ A424 (Evesham Road)	15.6%	12.9%	✓
4	A429 (Fosse Way) / A436 (Oddington Road) / B4068	12.6%	11.2%	✓
5	A429 (Fosse Way) / A424	14.9%	13.0%	✓
6	A429 (Roman Road) / A436 (Old Gloucester Road)	14.6%	13.9%	✓
7	A429 / A40	13.1%	11.7%	✓
8	A433 (London Road) / A433 (Long Street)/ Hampton Street	28.2%	21.0%	✓
9	A433 (Long Street) / A433 (Bath Road) / B4014 (Fox Hill)	12.6%	8.7%	✓
10	A44 (Fish Hill) / B4081 (Conduit Hill)	24.8%	23.0%	✓
11	A44 (Five Mile Drive) / A424	26.8%	23.1%	✓
12	A40/ A436	6.5%	6.1%	✗
14	A417 (High Street) / A361 (Thames Street)	5.7%	4.3%	✗
15	A361 (Burford Street) / A417 (St.John's St)	4.4%	2.1%	✗

* Junction 13 was not identified for inclusion in the Highway Capacity Assessment, following discussion with GCC

Table 2-1 shows that at 11 of the junctions, preferred development will have more than a 10% impact on capacity. Therefore, these 11 junctions have been taken forward for inclusion in this assessment.

Personal Injury Accident (PIA) data has been obtained from Gloucestershire County Council (GCC) for the latest five year period up to, and including 31st December 2016. This data provides a range of information about PIAs including types of vehicle involved, time of day, day of the week and a short description of the PIA. No information regarding causation factors has been provided.

The severity categories (slight, serious and fatal) are defined by the Department for Transport (DfT) as follows:

- **Slight** – one in which at least one person is slightly injured. This includes minor injuries such as sprains, bruises, slight cuts, or shock, requiring only roadside attention.
- **Serious** – one in which a person is detained in hospital as an ‘in-patient’, or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushing, burns (excluding friction burns), severe cuts, severe general shock requiring medical treatment and injuries causing death 30 or more days after the accidents. An injured casualty is recorded as seriously or slightly injured by the police on the basis of information available within a short time of the accident. This generally will not reflect the results of a medical examination, but may be influenced according to whether the casualty is hospitalised or not. Hospitalisation procedures will vary regionally.
- **Fatal** – one in which at least one person is killed, either immediately or at any time within 30 days after the accident.

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3. Safety Assessment

3.1. Introduction

This section provides additional details of each junction which has been assessed as part of this study, as well as an assessment of the PIA data for within 20m of the junction for the latest five year period available. This analysis identifies any specific issues at these locations as well as any common causation factors. The full PIA data, in the form of conflict diagrams for each junction, are provided in **Appendix A**.

3.2. Junction 1: A429 (High Street) / A44 (Oxford Street)

Location: Moreton-in-Marsh

Junction Layout

The junction is a mini-roundabout with three arms. The A429 High Street (N) and the A429 High Street (S) have two entry lanes (one right turn and one straight ahead), the lanes are narrow with insufficient space for two larger vehicles (i.e. larger than a car) side by side.

Pedestrian and Cycling Facilities

The A44 Oxford Street has a pedestrian refuge and there are footways adjacent to all arms. There are no other pedestrian facilities or any cycling facilities.

Proposed Layout

The Highway Capacity Analysis identified that the following indicative scheme for this junction:

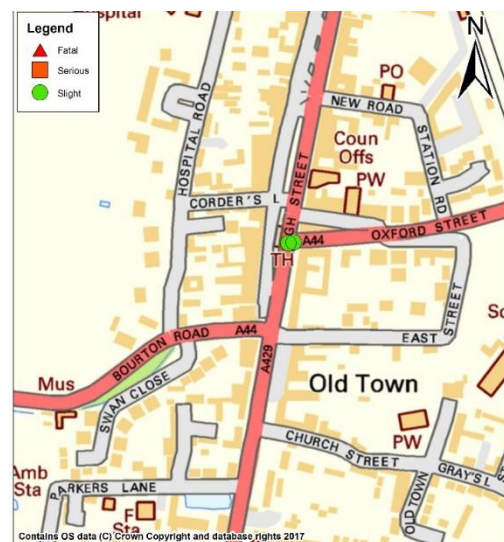
- Widening of A429 High Street North to create two approach lanes and realignment of road markings.
- Widening of A44 Oxford Street to create two approach lanes and realignment of road markings.
- Widening of A429 High Street South to create two approach lanes and realignment of road markings.
- Modification of the junction from a mini-roundabout to a signal controlled junction.
- Creation of a right-turn bay from A429 High Street South to A44 Oxford Street.

This indicative scheme should improve any accident issues at this location and enhance existing pedestrian and cycle facilities. This design will be subject to full road safety audit prior to being implemented.

PIA Assessment

Error! Reference source not found. and the conflict diagrams shown in **Appendix A** show that there were a total of two PIAs reported within 20m of this junction in the last five years, both of which were classified as slight in severity. There were no common movements between these PIAs. None of the PIAs at this location involved non-motorised users. Based on the information provided, this would suggest that there are no existing safety concerns at this location.

Figure 3-1 Junction 1 - PIA Data



3.3. Junction 2: A429 (High Street) / A44 (Bourton Road)

Location: Moreton-in-Marsh

Junction Layout

The junction is a mini-roundabout with four arms. The A429 High Street (N) has two entry lanes (one right turn and one straight ahead), the lanes are narrow with insufficient space for two larger vehicles (i.e. larger than a car) side by side.

Pedestrian and Cycling Facilities

The A44 Bourton Road has a pedestrian refuge and there are footways adjacent to all arms. There are no other pedestrian facilities or any cycling facilities.

Proposed Layout

The Highway Capacity Analysis identified that the following indicative scheme for this junction:

- Widening of A429 High Street North to create two approach lanes and realignment of road markings.
- Widening of East Street and realignment of road markings.
- Widening of A44 Bourton Road to create two approach lanes and realignment of road markings.
- Modification of the junction from a mini-roundabout to a signal controlled junction.

This indicative scheme will enhance existing pedestrian and cycle facilities and will be subject to a full road safety audit prior to being implemented.

PIA Assessment

There were no PIAs reported within 20m of this junction in the last five years. Based on the information provided, this would suggest that there are no existing safety concerns at this location.

3.4. Junction 3: A429 (Fosse Way) / A424 (Evesham Road)

Location: Stow-on-the-Wold

Junction Layout

The junction is signalised on all three arms, however, the left turn from the A429 Fosse Way (S) onto the A424 Evesham Road is a give-way to vehicles turning into the Evesham Road from the A429 Fosse Way (N). The stop line on the A429 Fosse Way (N) is set back from the junction.

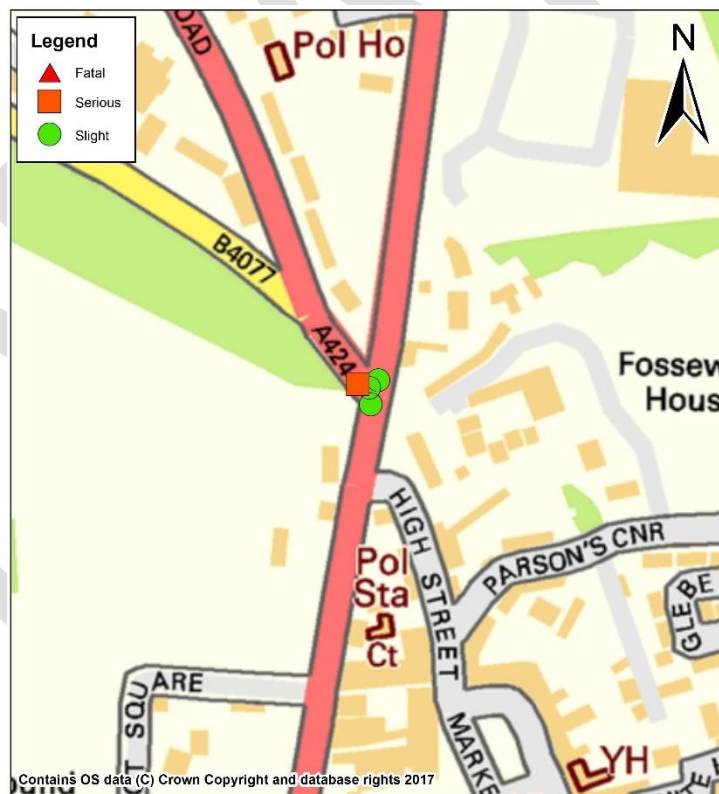
Pedestrian and Cycling Facilities

There is a pelican crossing on the A429 Fosse Way (N) and there are footways adjacent to all arms at the junction. There are no other pedestrian facilities or any cycling facilities.

PIA Assessment

Figure 3-2 and the conflict diagrams shown in Appendix A, show that there were a total of four PIAs reported within 20m of this junction in the last five years, three of which were classified as slight in severity, and one as serious. One of the PIAs involved a non-motorised user who is reported to have been hit by a vehicle whilst crossing the road at the traffic lights. This PIA was classified as slight. The PIA which was classified as serious is reported to have involved a motorcyclists and another vehicle, both of which were intending to turn onto A424 (Evesham Road). There were no common movements between these PIAs. Based on the information provided, this would suggest that there are no existing road safety concerns at this location.

Figure 3-2 Junction 3 - PIA Data



3.5. Junction 4: A429 (Fosse Way) / A436 (Sheep Street) / B4068

Location: Stow-on-the-Wold

Junction Layout

The junction is signalised on all four arms. The A429 Fosse Way (N) and the A429 Fosse Way (S) have right turn waiting areas but only the A429 Fosse Way (S) has a dedicated right turn lane prior to the stop line. The A436 Oddington Road (Sheep Street) also has a dedicated left turn prior to the stop line.

Pedestrian and Cycling Facilities

There is a pelican crossing on the A429 Fosse Way (N), there are pedestrian refuges on the A436 Oddington Road (Sheep Street) and the B4068, and there are footways adjacent to all arms at the junction. There are no other pedestrian facilities or any cycling facilities.

Proposed Layout

The Highway Capacity Analysis identified that the following indicative scheme for this junction:

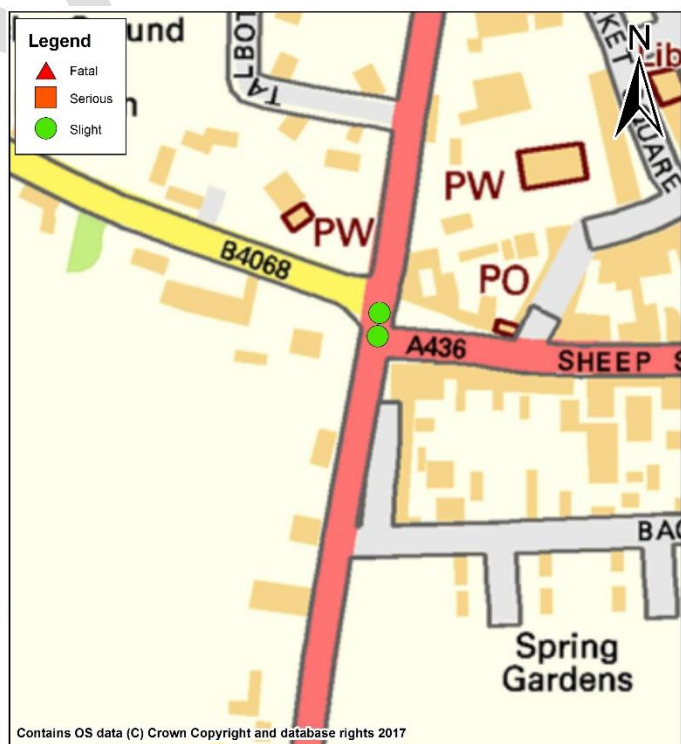
- Widening of A436 Oddington Road to create two approach lanes and realignment of the carriageway.
- Widening of A429 Fosse Way South and realignment of road markings.
- Modification to the existing signal specifications to allow A436 Oddington Road and B4068 to run in sync with the addition of a right turn lane.
- Modification to the existing signal specifications to allow A429 Fosse Way North and A429 Fosse Way South to run in sync with the addition of a right turn lane.
- Realignment of road markings.

This indicative scheme will enhance existing pedestrian and cycle facilities and will be subject to a full road safety audit prior to being implemented.

PIA Assessment

Figure 3-3 and the conflict diagrams shown in Appendix A show that there were a total of two PIAs reported within 20m of this junction in the last five years, both of which were classified as slight in severity. One of the PIAs is reported to have involved a collision between a car and motorcyclist. None of the PIAs at this location involved non-motorised users or had common causation factors. Based on the information provided, this would suggest that there are no existing safety concerns at this location.

Figure 3-3 Junction 4 - PIA Data



3.6. Junction 5: A429 (Fosse Way) / A424

Location: South of Stow-on-the-Wold

Junction Layout

The junction is a priority junction with a dedicated off slip for vehicles travelling between the A429 Fosse Way (N) and the A424. There is a right hand turn lane for vehicles turning from the A429 Fosse Way and the A424.

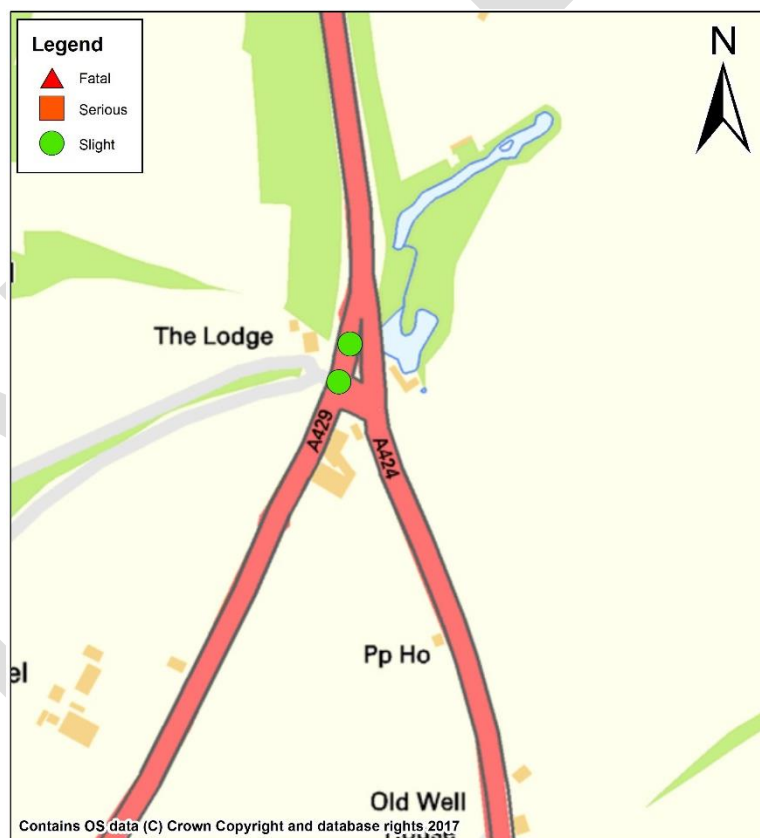
Pedestrian and Cycling Facilities

There is a small section of footway adjacent to the A428 Fosse Way (N). There are no other pedestrian facilities or cycling facilities.

PIA Assessment

Figure 3-4 and the conflict diagrams shown in Appendix A show that there were a total of three PIAs reported within 20m of this junction in the last five years, all of which were classified as slight in severity. None of the PIAs at this location involved non-motorised users. One of the PIAs involved vehicles queuing back from the junction, however, there were no common movements between these PIAs. Based on the information provided, this would suggest that there are no existing safety concerns at this location.

Figure 3-4 Junction 5 - PIA Data



3.7. Junction 6: A429 (Roman Road) / A436 (Old Gloucester Road)

Location: Bourton-on-the-Water

Junction Layout

The junction is a forked priority junction with a connecting link for vehicles travelling between the A429 (S) and the A436 Old Gloucester Road (S). There is a right hand turn lane for vehicles turning from the A429 (N) to the A436 Old Gloucester Road (N).

Pedestrian and Cycling Facilities

There is a footway adjacent to the A429. There are no other pedestrian facilities or any cycling facilities.

PIA Assessment

Figure 3-5 and the conflict diagrams shown in Appendix A show that there were a total of two PIAs reported within 20m of this junction in the last five years, both of which were classified as slight in severity. None of the PIAs at this location involved non-motorised users. Both of these PIAs involved vehicles turning out of the A436 onto the A429, but at different parts of the junctions and for onward travel in different directions. Based on the information provided, this would suggest that there are no existing safety concerns at this location.

Figure 3-5 Junction 6 - PIA Data



3.8. Junction 7: A429 / A40

Location: Northleach

Junction Layout

The junction is roundabout with four arms. All arms are single carriageway.

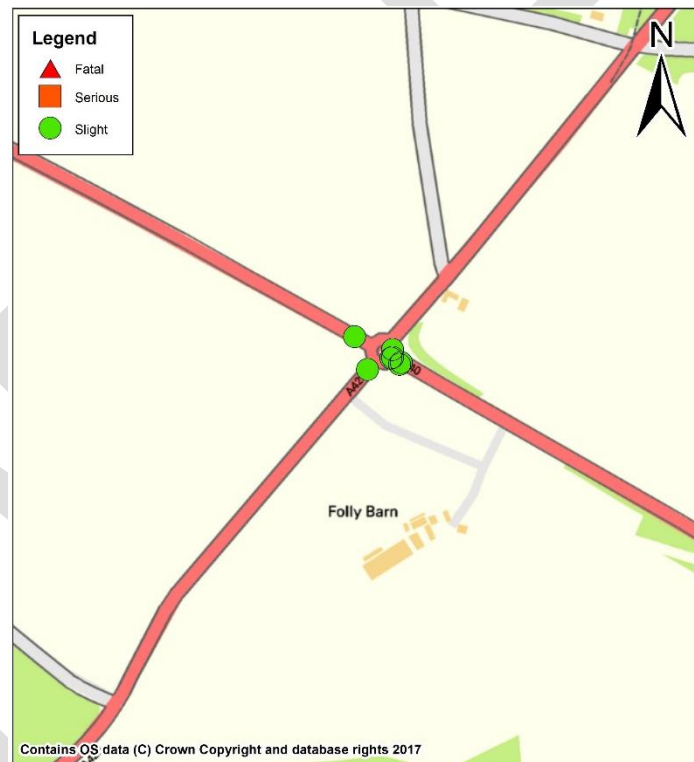
Pedestrian and Cycling Facilities

There are no pedestrian or cycling facilities.

PIA Assessment

Figure 3-6 and the conflict diagrams shown in **Appendix A** show that there were a total of seven PIAs reported within 20m of this junction, all of which were classified as slight in severity. Three of the PIAs reported at this junction occurred between vehicles on the circulatory of the roundabout and three of the PIAs reported at this junction occurred on the approach to the roundabout. These did not occur on the same approach. Given that there are no common movements between these PIAs and that they occurred over a five year period, it is not considered that there is an existing road safety issue at this location.

Figure 3-6 Junction 7 - PIA Data



3.9. Junction 8: A433 (London Road) / A433 (Long Street) / Hampton Street/ New Church Street

Location: Tetbury

Junction Layout

The junction has two minor arms in close proximity (both junctions are on the western side of the A433). There are two right hand turn lanes (one for each junction) for vehicles turning from the A433 London Road to New Church Street and from the A433 London Road to the B4014.

Pedestrian and Cycling Facilities

There are pedestrian refuges on the A433 (London Road), the A433 (Long Street) and New Church Street and pedestrian footways adjacent to all arms. There are no other pedestrian facilities. There are no cycling facilities.

Proposed Layout

The Highway Capacity Analysis identified that the following indicative scheme for this junction:

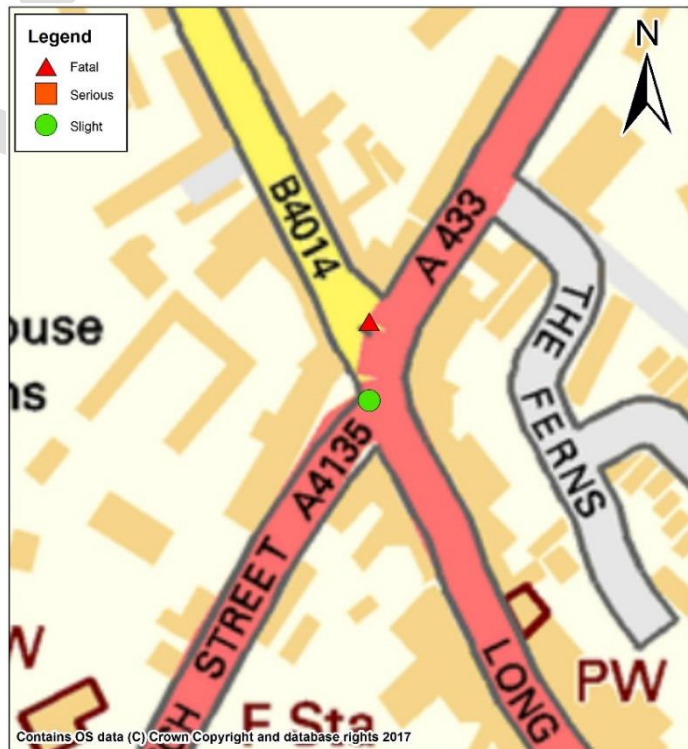
- Creation of a roundabout.
- Widening of A4136 New Church Street and realignment of the carriageway.
- Realignment of road markings.

This indicative scheme will be subject to a full road safety audit prior to being implemented. Due to a reduction in preferred development in this location, there is further scope to provide improved pedestrian and cycle facilities at this junction.

PIA Assessment

Figure 3-7 and the conflict diagrams shown in Appendix A shows that there were a total of two PIAs reported within 20m of this junction in the last five years, one of which was classified as slight in severity and the other as fatal in severity. Both of the PIAs at this junction involved a collision between a vehicle and an elderly pedestrian crossing the road. This junction is located in an area of high pedestrian footfall, with limited formal pedestrian crossing facilities in the vicinity of the junction. The improvements at this junction would improve pedestrian amenities.

Figure 3-7 Junction 8 - PIA Data



3.10. Junction 9: A433 (Long Street) / A433 (Church Street) / B4014 (Silver Street) / Chipping Street

Location: Tetbury

Junction Layout

The junction is mini-roundabout with four arms. All arms are single carriageway.

Pedestrian and Cycling Facilities

There are three zebra crossings within the vicinity of the junction. These are on the B4014 Silver Street and the A433 Long Street (approximately 30m from the junction) and the A433 Bath Road (Church Street) (approximately 60m from the junction). There are footways on all arms of the junction. There are no cycling facilities.

Proposed Layout

The Highway Capacity Analysis identified that the following indicative scheme for this junction:

- Modification of the junction from a mini-roundabout to a signal controlled junction.
- Realignment of road markings.

This indicative scheme will be subject to a full road safety audit prior to being implemented. Due to a reduction in preferred development in this location, there is further scope to provide pedestrian and cycle facilities at this junction.

PIA Assessment

Error! Reference source not found. and the conflict diagrams shown in **Appendix A** show that there were a total of two PIAs reported within 20m of this junction in the last five years, one of which was classified as slight and the other as serious in severity. There were no common movements between vehicles involved in these PIAs. Both of the PIAs involved either a pedestrian or cyclist. This junction is located in an area of high pedestrian footfall, with the nearest formal pedestrian crossing facilities set back from the junction. There is also no provision for cyclists. However, given that these PIAs occurred over a five year period, it is considered that there is no existing road safety concern at this junction.

Figure 3-8 Junction 9 - PIA Data



3.11. Junction 10: A44 (Fish Hill) / B4081 (Conduit Hill)

Location: Southwest of Chipping Campden

Junction Layout

The junction is a crossroads priority junction. All arms are single carriageway.

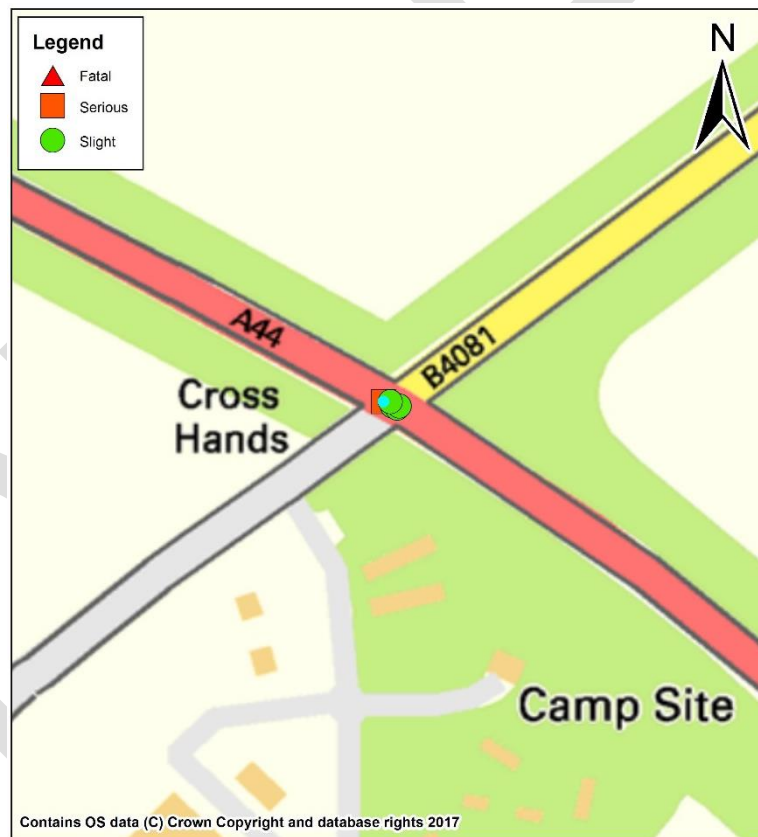
Pedestrian and Cycling Facilities

There are no pedestrian or cycling facilities.

PIA Assessment

Figure 3-9 and the conflict diagrams shown in Appendix A show that there were a total of five PIAs reported within 20m of this junction in the last five years, of which was classified as slight and the other as serious in severity. There were no common movements between vehicles involved in these PIAs. The serious PIA is reported to have involved a collision between a motorcyclist and another vehicle. Given that these PIAs occurred over a five year period, typically involving vehicles making the major movements through this junction, it is not considered that there is an existing road safety concern at this junction.

Figure 3-9 Junction 10 - PIA Data



3.12. Junction 11: A44 (Five Mile Drive) / A424

Location: West of Moreton-in-Marsh

Junction Layout

The junction is a forked priority junction with a connecting link for vehicles travelling from the A44 Five Mile Drive (N) to the A44 (S). There is a right hand turn lane for vehicles turning from the A44 Five Mile Drive (N) to the A424 Five Mile Drive (S).

Pedestrian and Cycling Facilities

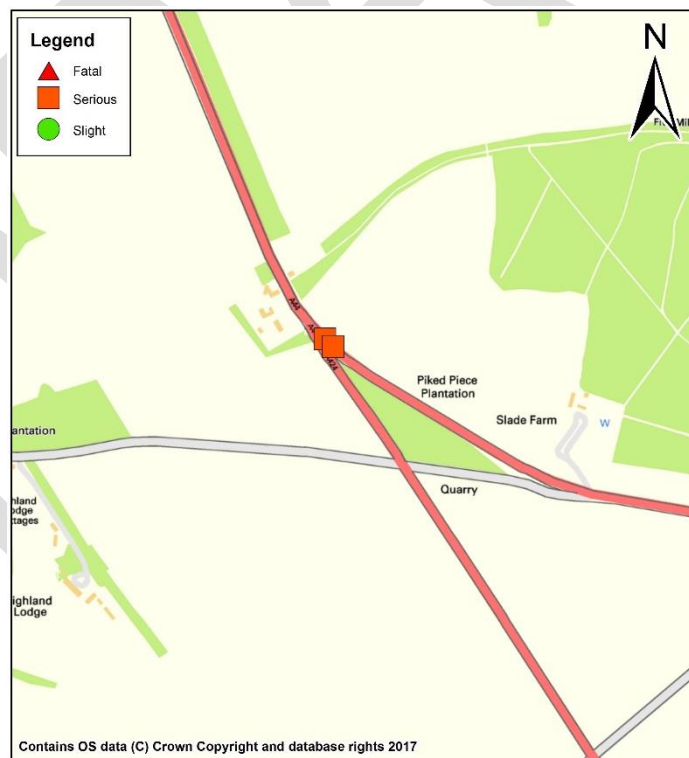
There are no pedestrian or cycling facilities.

PIA Assessment

Figure 3-10 and the conflict diagrams shown in Appendix A show that there were a total of two PIAs reported within 20m of this junction in the last five years, both of which were classified as serious in severity. Both of these PIAs involved a collision between a vehicle travelling from Moreton on the A44 and another vehicle turning right onto the A424. One of these involved a heavy goods vehicles. Neither of these PIAs involved non-motorised users (pedestrian or cyclist).

The previous study into Highway Capacity at this junction found that the junction operated within capacity in all scenarios. As a result, no mitigation measures were required. There is a dedicated right hand turn lane for vehicles turning from A44 (Five Mile Drive (N) to the A414 (S) which is considered to have adequate visibility for vehicles making this movement. Although two serious PIAs have occurred at this junction with common movements, these have occurred over a five year period at a junction with relatively high flows. Based on the information available, it is not considered that there is an existing road safety issue at this junction.

Figure 3-10 Junction 11 - PIA Data



4. Summary and Conclusion

4.1. Summary

Cotswold District Council (CDC) is preparing a Local Plan to cover the period 2011 to 2031 and it will be the key planning policy document which guides decisions on the use and development of land in the district. This document summarises the results of a Safety Assessments which has been carried out to determine if there are any existing safety issues which could be exacerbated as a result of the preferred Local Plan development.

The work builds upon the results of a Highways Capacity Assessment which was carried out by Atkins in 2016, to consider the development impact on the principal highway network within the Cotswold District and to identify any mitigation measures which are required.

This report has identified 11 junctions that where preferred development is forecast to have more than a 10% impact on capacity. PIA data, obtained from Gloucestershire County Council (GCC) for the latest five year period available, has been used to analyse the road safety record in these locations. At each junction, consideration has been given to the location and frequency of these PIAs.

The assessment determined that there were very few issues with accidents in the study area and the proposed mitigation measures would provide benefits, particularly to pedestrians and cyclists.

4.2. Conclusion

To conclude, this Safety Assessment has found that at the 11 junctions within the study area there are no existing road safety concerns which could be exacerbated as a result of the preferred Local Plan development. Therefore, it is not considered that any further mitigation measures are required.

Appendices

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Appendix A. PIA Conflict Diagrams

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