

Technical Note

Project No: ITB17539
Project Title: Crabbet Park
Title: DPSC3 – Highways and Transport Update
Ref: ITB7539-004 TN
Date: 11 November 2022

SECTION 1 INTRODUCTION

1.1 This note provides a 'transport update' for Site DPSC3 'Land at Crabbet Park, Copthorne' of the Crabbet Park in response to the Regulation 18 consultation on the Mid Sussex District Plan 2021-2039. Progress on the development proposals has been considered in the context of the key transport tests set out in Paragraph 110 of the July 2021 National Planning Policy Framework (NPPF), namely:

- 1 Will the opportunities for sustainable transport be taken up appropriately?
- 2 Will safe and suitable access be provided?
- 3 Will the design of streets, parking areas and other transport elements be acceptable?
- 4 Will the traffic impacts be acceptable?

1.2 The remainder of this note is structured as follows:

- Section 2 – Sustainable Accessibility
- Section 3 – Site Access
- Section 4 – Traffic Impact
- Section 5 – Summary

1.3 Matters relating to the layout of the site are not included within this transport update, and instead form part of the site masterplanning and discussed in more detail within the Vision Document for Crabbet Park.

SECTION 2 SUSTAINABLE ACCESSIBILITY

2.1 Mobility Strategy

2.1.1 A comprehensive Mobility Strategy (document ref: *ITB17539-003 R Crabbet Park*) was submitted to Mid Sussex District Council (MSDC) on 20 May 2022.

2.1.2 The Mobility Strategy sets out a ‘Reduce, Contain and Facilitate Alternatives’ approach to travel demands arising from the development. The overarching objectives of this strategy are:

- **Reduce** – to minimise the need for travel, to be achieved through the provision of on-site facilities such as business hubs to reduce the need to travel off site, and the provision of electric vehicle charging across the site to reduce the reliance upon traditional combustion engine vehicles.
- **Contain** – to retain travel demands within the site boundaries by ‘internalising’ trips, to be achieved by the provision of services and facilities that complement residential development (e.g. education facilities, retail etc) and placing these facilities at the heart of walkable neighbourhoods and a layout that prioritises pedestrian and cycle journeys.
- **Facilitate Alternatives** – to analyse travel patterns and targeting investment at sustainable transport infrastructure to encourage the uptake of these modes of travel. This will be achieved by connectivity and improvement of existing sustainable travel corridors and the delivery of new infrastructure to enhance connectivity to key locations.

2.1.3 The potential to provide a Mobility Hub on-site is also being explored, as they present an opportunity for a range of sustainable travel measures to be brought together so that they can be easily accessed by residents, and act as a ‘one stop shop’ for sustainable travel needs. An on-site mobility hub at Crabbet Park could include a range of measures, such as:

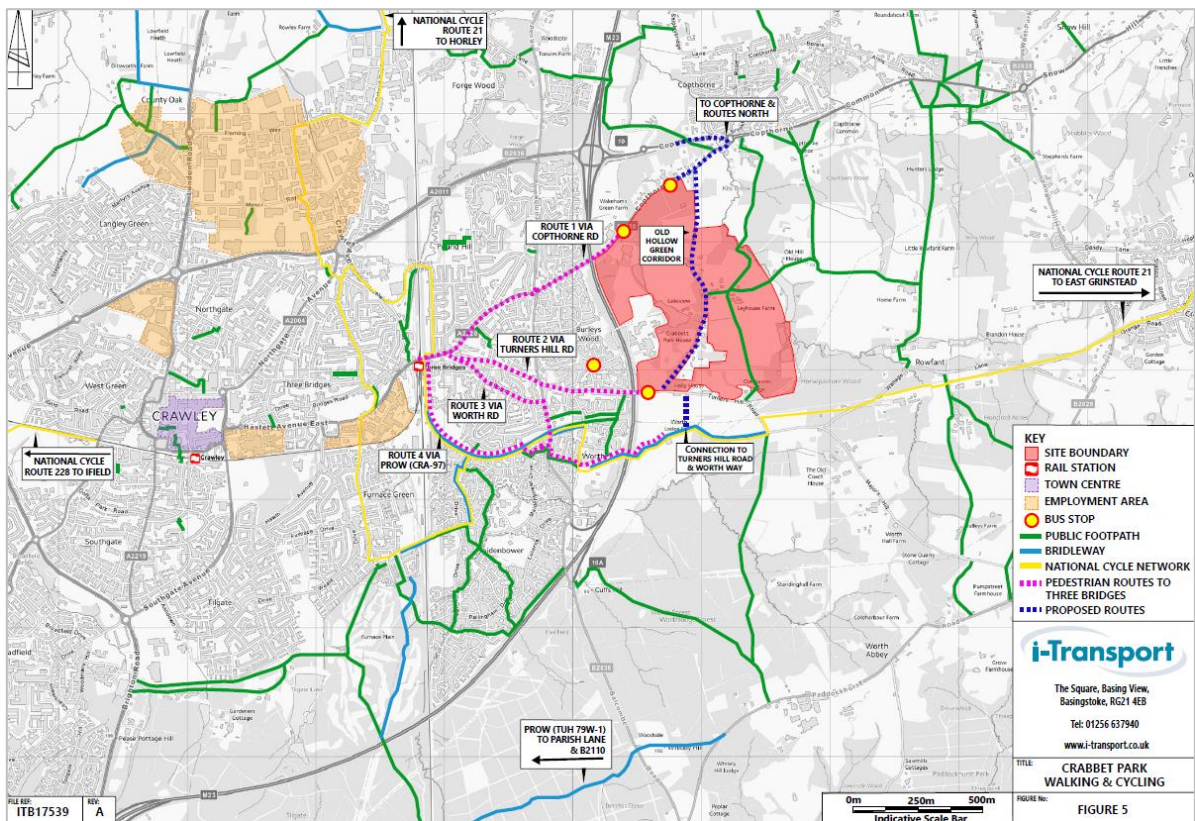
- Access to Car Club vehicles.
- Electric Vehicle charging.
- Bicycle hire and repair.
- Access to public transport services.
- Parcel drop and storage.
- Sustainable travel display screen equipment.

2.2 Walking and Cycling

2.2.1 A detailed assessment of the existing walking, cycling and public transport infrastructure between the site and local centres, including Crawley and Copthorne, has been undertaken. The assessment has enabled the identification of potential improvements that could be delivered as part of the development proposal. These improvements would increase the accessibility from the site and provide any 'missing links' to allow free movement to and from the site for pedestrians and cyclists.

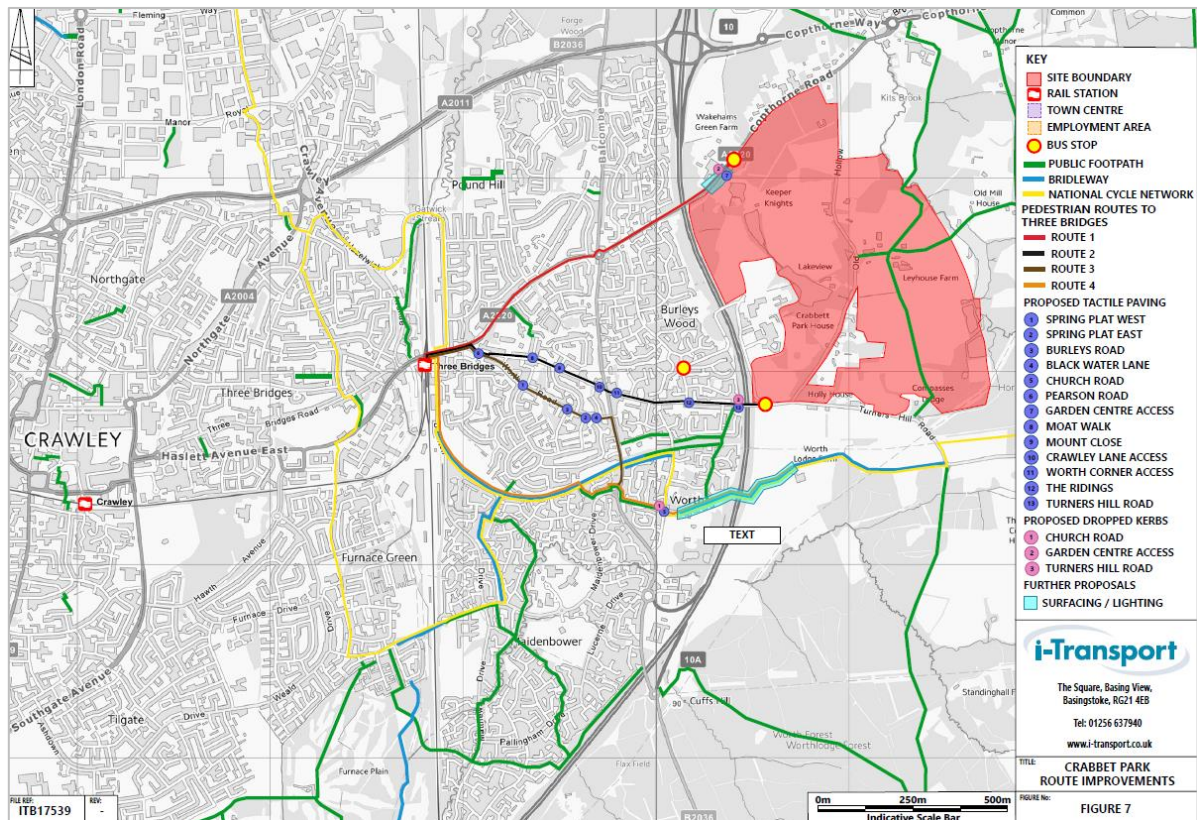
2.2.2 Three key pedestrian desire lines that were considered during the assessment, identified in pink on the image below, as well as an assessment of existing public rights of way (PRoW) and National Cycle Network (NCN), as shown on **Image 2.1**.

Image 2.1: Walking and Cycling Route Scope



2.2.3 The assessment identified a schedule of potential route improvements that are to be explored alongside key stakeholders as the development proposals progress. These potential improvements are summarised shown on **Image 2.2**.

Image 2.2: Local Improvements



2.2.4 New infrastructure to provide sustainable connectivity between the site and Cophthorne, as well as to infrastructure coming forward as part of the St Modwen development to enhance accessibility to the north, is also being explored alongside the progression of the site access arrangements.

2.3 Public Transport

Bus Travel

2.3.1 An assessment of existing bus service provision has also been undertaken. The closest bus stops to the site are located along the northern frontage onto Cophthorne Road. These stops are served by the number 272, 281, 291 and 400 buses. Regular services are provided from these stops to destinations including Royal Sussex County Hospital, Lingfield, East Grinstead, Caterham, Westway Common and Stone Quarry Estate on a largely hourly to one service every 2 hours frequency Monday-Saturday. Services are also provided on a Sunday every 2 hours by the number 291 and 400 buses. **Table 2.1** highlights the accessibility of surrounding destinations by bus.

Table 2.1: Bus Accessibility

Destination	Accessible within a 15-minute bus journey from the northern site frontage	Accessible within a 30-minute bus journey from the northern site frontage
Three Bridges Rail Station	✓	-
Crawley Rail Station	✓	-
Crawley Town Centre	✓	-
Copthorne	✓	-
Manor Royal Industrial Estate	-	✓
Crawley Leisure Park	-	✓
Gatwick Airport	-	✓
East Grinstead	-	✓
Ifield	-	✓

2.3.2 Whilst there is a good level of existing bus service from the north side of the site into Crawley and the surrounding area, the intention of the bus strategy will be to form a link between the site, Crawley Station and Three Bridges Stations that provides for an interchange to rail services and onward connecting bus services, at a daytime frequency of up to 20 minutes. It is envisaged that the strategy will take one of two forms:

- The creation of a new service that operates through Crabbet Park, similar to Service 4 that services Pound Hill; and/or
- The diversion of an existing route into Crabbet Park, with an increased number of buses serving the route to maintain the existing frequency of service.

2.3.3 The Fastway 100 service has been identified as a route that could potentially be extended to serve Crabbet Park, and the opportunity to achieve this is to be explored alongside key stakeholders, including the service operator Metrobus.

Rail Travel

2.3.4 The closest railway station is Three Bridges, located approximately 2.1km west of the Old Hollow/Turners Hill junction which equates to a circa 25-minute walk or a less than 10-minute cycle ride. Alternatively, the railway station is accessible via a 7-minute bus journey from Copthorne Road.

2.3.5 Crawley Railway Station is also located within a short bus journey from the site, circa 15 minutes, and lies on the same line as Three Bridges.

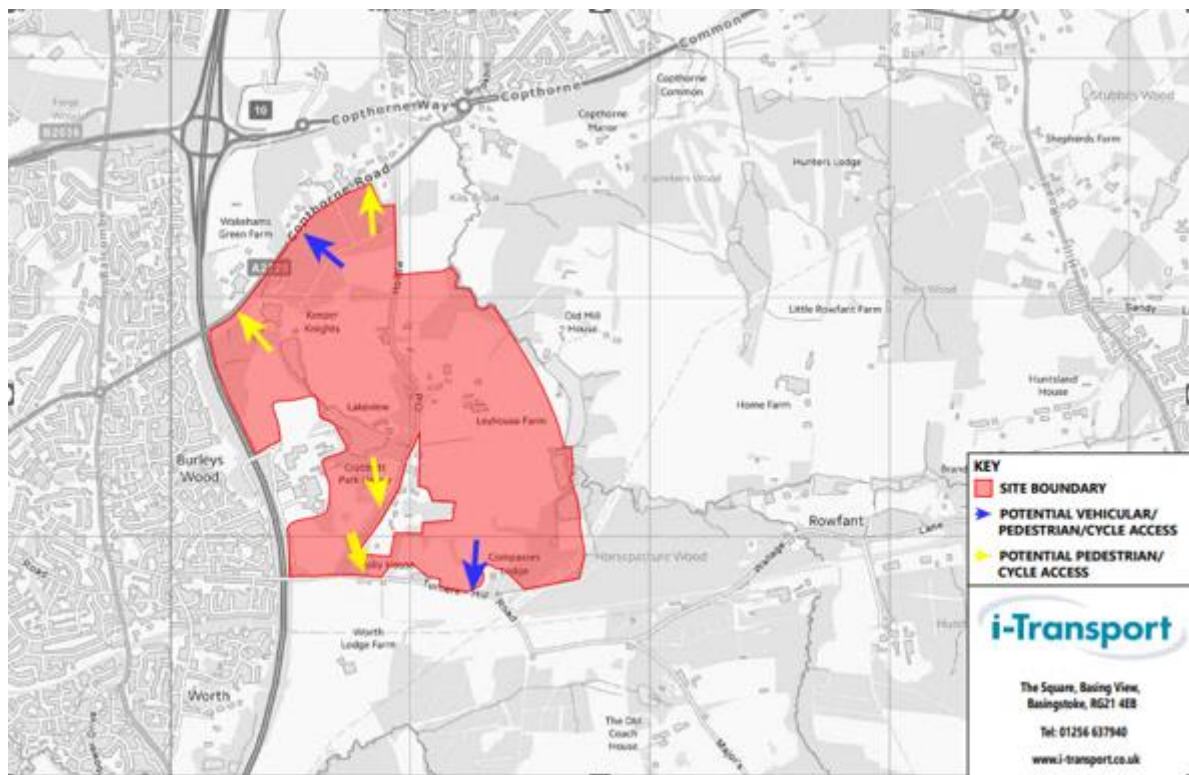
- 2.3.6 The pedestrian, cycling and bus service strategies are being developed with the intention to enhance connectivity between Crabbet Park and the identified rail stations, to enable residents and users of the development to benefit from connectivity to frequent and high-quality rail services.
- 2.3.7 The rail services provide onward connectivity to high order destinations including Brighton, Horsham, London, Cambridge and Peterborough. There are realistic opportunities for future residents to make trips to high order destinations using the rail network via a combination of journeys to make end-to-end trips using sustainable modes as an alternative to the private car.

SECTION 3 SITE ACCESS

3.1 Locations

3.1.1 In order to facilitate safe and suitable access for all users of the development the opportunities to access the site continue to be explored; a number of potential access locations have been identified to date, as shown on **Image 3.1**.

Image 3.1: Potential Access Locations



3.1.2 The opportunity exists for access to be provided in a number of forms including a priority junction with right turn provision, a signalised junction or roundabout arrangements. The access strategy will be informed by the strategic modelling assessment that is currently being progressed by MSDC (see Section 4) and the arrangements refined to ensure that safe and suitable access is provided.

3.1.3 The access strategy enables the main points of access to be delivered entirely within land being promoted by Wates or within the existing public highway.

3.2 Potential Pedestrian and Cycle Access

South

- 3.2.1 To the south of the site, NCN21 (known as Worth Way) runs east-west between East Grinstead and Crawley, then turns north towards Horley. The opportunity exists to provide a connection from the site directly into Worth Way, utilising land within the control of the promoter. This will provide for a continuous pedestrian and cycle connection between the site and key services and facilities.

North

- 3.2.2 As part of the access works, the opportunity exists to introduce a dedicated, off-carriageway pedestrian and cycle route to form a connection to Copthorne in the northeast and infrastructure improvements associated with the St Modwen development, and the network of Public Rights of Way that cross the M23 north of junction 10. It is envisaged that the connection will comprise a shared use pedestrian cycle facility, designed with reference to LTN 1/20.
- 3.2.3 While this link will be important for residents of the development, it will also provide connectivity for residents of Copthorne to access services and facilities provided within Crabbet Park.

Old Hollow

- 3.2.4 Through consultation with MSDC, an aspiration to address historic rat-running along Old Hollow has been identified. The site access strategy is exploring the means of realising this aspiration.
- 3.2.5 Old Hollow provides a north-south connection between Turners Hill Road and Copthorne Road, for use by all modes of transport. As part of the development, there is potential for the link to be converted to a sustainable travel corridor, bringing together the connections to the north, east south and west of the development and providing a direct route through the site for non-vehicular modes of travel.

SECTION 4 TRAFFIC IMPACT

4.1 Development Trip Generation

4.1.1 As part of the Mobility Strategy, a comprehensive analysis of forecast trip generation was undertaken – the assessment takes into account the measures for encouraging sustainable travel, and the impact this will have on the modal choice of residents and users of the development at Crabbet Park.

4.1.2 With the Mobility Strategy taken into account, Section 4 of the report set out the forecast trip generation - it is forecast that the total number of two-way external car trips in the morning (0800-0900) and evening (1700-1800) peak periods, associated with 1,500 dwellings during the plan period until 2039, is expected to be 339 and 556 respectively. The site has capacity to accommodate a total of 2,300 dwellings – the remaining 800 units would generate some 180 and 296 movements during the morning and peak periods, respectively.

4.2 Network Impact

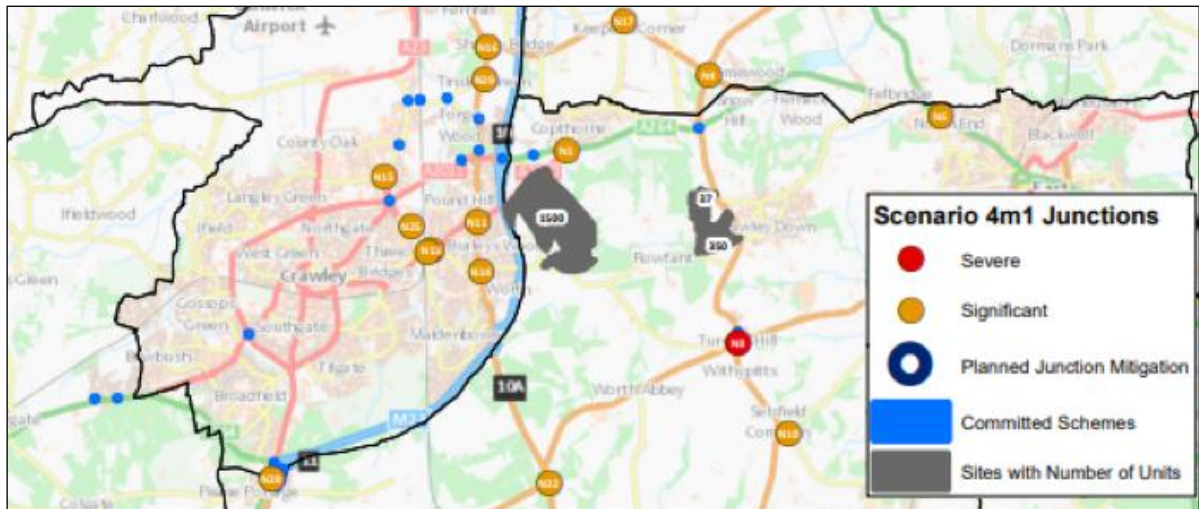
4.3 Mid Sussex District Council has commissioned SYSTRA to build a strategic highway model to underpin the Mid Sussex Transport Study. The model seeks to identify the traffic impacts of the development identified through the District Plan in order to develop a mitigation strategy to address the impacts of planned development.

4.4 The outputs of the most recent stage of this process were published in October 2022. The report identified the impact of planned development on the highway network without any mitigation.

4.5 Following the submission of the Mobility Strategy (see Section 2), an additional testing scenario (ref: Scenario 4m1) has been incorporated into the model to make an allowance for the effects of the 'Contain' element of the strategy – e.g. the impact of trip internalisation to local services and facilities as well as the provision of primary education within the development site.

4.6 An extract of the forecast junction impacts arising from the Scenario Bm1 testing in the northern area of the district is shown in **Image 4.1**.

Image 4.1: Extract of Junction Impacts



- 4.6.1 The 'Transport Study Scenario 4¹' report published by MSDC states that its aim is to develop mitigation to remove all 'severe' impacts, which is consistent with the NPPF objectives, of planned development. In the vicinity of Crabbet Park, only one junction is identified as being severely impacted, without mitigation, by planned development.
- 4.6.2 The next step of the strategic modelling process is for SYSTRA to devise and test sustainable mitigation schemes to establish whether these remove the residual severe impacts. Following this, high mitigation schemes will be developed should further mitigation be warranted.
- 4.6.3 Wates will continue to support and, where necessary, provide input to support this modelling process to ensure that development of Crabbet Park does not have an unacceptable impact upon the operation of the highway network.

¹ [msdc-transport-study-scenario-4-report-non-technical-summary-draft.pdf \(midsussex.gov.uk\)](https://www.midsussex.gov.uk/midsc-transport-study-scenario-4-report-non-technical-summary-draft.pdf)

SECTION 5 Summary

5.1 Introduction

5.1.1 This note provides a 'transport update' for Site DPSC3 'Land at Crabbet Park, Copthorne' of the Crabbet Park in response to the Regulation 18 consultation on the Mid Sussex District Plan 2021-2039. Progress on the development proposals has been considered in the context of the key transport tests set out in Paragraph 110 of the July 2021 National Planning Policy Framework (NPPF), namely:

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- Will the traffic impacts be acceptable?

5.1.2 Matters relating to the layout of the site are not included within this transport update, and instead form part of the site masterplanning and discussed in more detail within the Vision Document for Crabbet Park.

5.2 Sustainable Accessibility

5.2.1 A comprehensive Mobility Strategy (document ref: *ITB17539-003 R Crabbet Park*) was submitted to Mid Sussex District Council (MSDC) on 20 May 2022. The Mobility Strategy will seek to take a 'Reduce, Contain and Facilitate Alternatives' approach to travel demands arising from the development.

5.2.2 Detailed analysis of the existing sustainable transport corridors and connections has been undertaken, and opportunities for the enhancement of existing routes and the delivery of new infrastructure has been identified. The improvement strategy will seek to provide walking and cycling connections to Crawley, Copthorne and routes to the north and provide public transport connectivity to both the local area and through combination journeys to surrounding urban areas.

5.2.3 The strategy will continue to be developed alongside key stakeholders as the development progresses.

5.3 Site Access

5.3.1 In order to facilitate safe and suitable access for all users of the development the opportunities to access the site continue to be explored; a number of potential access locations have been identified for both vehicular and non-vehicular access to the north via Copthorne Road and to the south via

Turners Hill Road. All accesses are deliverable within land being promoted by Wates or within the existing public highway.

- 5.3.2 There are a number of options for the provision of vehicular access to the site – this could be in the form of priority junctions with right turn provision, signalised junctions or roundabout arrangements. The access strategy will be refined alongside, and informed by, the outputs of the ongoing strategic model assessment being undertaken by MSDC.

5.4 **Traffic Impact**

- 5.5 Mid Sussex District Council has commissioned a strategic highway model to underpin the Mid Sussex Transport Study. The model seeks to identify the traffic impacts of the development identified through the District Plan in order to develop a mitigation strategy to address the impacts of planned development.

- 5.5.1 The outputs of the most recent stage of this process were published in October 2022. . The 'Transport Study Scenario 4' report published by MSDC states that its aim is to develop mitigation to remove all 'severe' impacts, which is consistent with the NPPF objectives, of planned development. In the vicinity of Crabbet Park, only one junction is identified as being severely impacted, without mitigation, by planned development.

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