

CUTHBURY

1. INTRODUCTION

- 1.1 This proposal is a residential site for the development of 180 dwellings with a gross area of 5 hectares close to Wimborne Town Centre.
- 1.2 Section 2 describes the existing highway network in the vicinity of the site, Section 3 describes the existing public transport network serving the site, Section 4 assesses the transportation impacts of the development, Section 5 outlines the integrated transport strategies that could support the development and Section 6 concludes the transport analysis.

2. EXISTING HIGHWAY NETWORK

2.1 This section considers accessibility by car and describes the road infrastructure.

EXISTING SITUATION

- 2.2 The Cuthbury site is accessed via Cowgrove Road, a narrow road which has no footways and suffers from substandard alignment and forward visibility. Cowgrove Road joins the B3082 close to Wimborne Town Centre, providing connections to the B3073 and B3078, which join the trunk road network at Lambs Green, Oakley and Canford Bottom roundabouts. Alternative access could be achieved directly onto the B3078 in conjunction with shuttle workings at Julian's Bridge.
- 2.3 The A349 provides a direct link to Poole to the south, while there are several routes that can be taken to access Bournemouth. The B3082 and A350 provide a choice of routes to Blandford Forum.
- 2.4 The A31 connects to the A35 in the west, providing links to Dorchester, Bridport and the South West. To the East, the A31 connects with the M27, leading to the M3 and M25 for access to London and all South East destinations. The A31 is single carriageway between Bere Regis and Trickett's Cross, with dual carriageway from Trickett's Cross to the east.
- 2.5 While the access from Wimborne to the site may not be ideal, Wimborne is situated in a location that is easily accessible by car, with good connections to the east, west and Poole.

FUTURE HIGHWAY SCHEMES

- 2.6 The Structure Plan contains proposals to improve east-west links within the Bournemouth/Poole conurbation and proposals to construct a A350 Charlton Marshall, Spetisbury and Sturminster Marshall by-pass. The Structure Plan also proposes the construction of the following schemes as part of major development in the area:
- B3072 West Moors Bypass
 - B3072 Verwood Distributor Road and B3072 improvements.

3. PUBLIC TRANSPORT SERVICES

3.1 This section covers the existing levels of public transport provision, focussing on bus services, rail services, pedestrian and cycle networks.

EXISTING RAIL SERVICES

3.2 The closest station to the Cuthbury Site is Hamworthy station, which is located approximately 8km to the south of the site. Poole, Parkstone, Branksome and Bournemouth stations are also located within approximately 12 km of the site. The general daytime frequency of the train services from each of these stations is given in the table below. While Hamworthy is the closest station to the site, it has the most limited facilities, with no car park, waiting room, shop or toilets. Parts of the station can only be reached via steps and the ticket office opening hours are limited to a few hours in the mornings. Both Poole and Bournemouth have much better station facilities and benefit from being located close to bus stations.

Distance from site (km)	Station	East Bound Service Frequency	West Bound Service Frequency
12	Bournemouth	4 trains per hour to Brockenhurst, two of which continue to London. 1 Virgin Train per hour to Birmingham	3 Trains per hour to Poole, one which continues just to Wareham and one of which continues to Weymouth (calling at Wareham)
10	Branksome	2 trains per hour to Brockenhurst, one of which continues to London	2 trains per hour to Poole with one of these trains continuing to Wareham
9	Parkstone	2 trains per hour to Brockenhurst, one of which continues to London	2 trains per hour to Poole with one of these trains continuing to Wareham
9	Poole	3 trains per hour to Brockenhurst, two of which continue to London.	2 trains per hour to Wareham with one of these trains carrying on to Weymouth
8	Hamworthy	2 trains per hour to Brockenhurst, one of which continues to London	2 trains per hour to Wareham with one of these trains carrying on to Weymouth

Table 1 - Distance and frequency of train services from the site

EXISTING BUS SERVICES

3.3 A number of bus services run within approximately 200m of the site, which make up a two buses per hour service to Poole, a three buses per hour service to Bournemouth and an hourly service to Shaftesbury. The closest bus routes to the site are summarised in the table below:

Distance from site (m)	Bus No.	Service Frequency	Days Service Runs	Route
200	83	One per day	Schooldays	Gaunts Common - Wimborne - Poole
200	130	Hourly	Daily (Evenings)	Poole - Stanley Green - Creekmoor - Waterloo - Broadstone - Highfield Estate - Corfe Mullen

200	132	Hourly	Daily	Poole Bus Station - Fleetsbridge - Broadstone - Wimborne - Ferndown - Ensbury - Moordown - Winton - Bournemouth
200	133	Hourly	Daily	Poole Bus Station - Fleetsbridge - Broadstone - Wimborne - Colehill - Ferndown - Ensbury - Moordown - Winton - Bournemouth
200	182	Hourly	Daily	Shaftesbury - Blandford - Wimborne - Bournemouth
200	183	One per day	Daily	Shaftesbury - Blandford - Wimborne - Poole - Bournemouth
200	315	One per day	Wednesdays	Blandford - Ringwood

Table 2 - Distance and frequency of bus services from the site

PEDESTRIAN AND CYCLE NETWORKS

- 3.4 The site is located within walking distance of Wimborne town centre, with good quality pedestrian routes linking the site to the town centre, and recreational walking routes running around the southern boundary of the site. It is therefore likely that walking would be a favourable mode of transport for trips to local retail, leisure, education and employment opportunities.
- 3.5 The site is located approximately 9km away from Poole and 12km from Bournemouth. Walking and cycling are unlikely to be favourable modes of transport to the major attractors in these areas.
- 3.6 There is a contra-flow cycle lane in the one way system along Kings Street, part of National Cycle Route 25.

FUTURE PUBLIC TRANSPORT IMPROVEMENTS

- 3.7 The Local Transport Plan contains specific proposals to extend the Poole – Merley Cycle-way through Wimborne to Blandford Forum, joining the two sections of National Cycle Route 25.

4. IMPACT OF THE DEVELOPMENT

- 4.1 This section outlines the transport analysis undertaken to determine the likely impact of the development.

TRIP GENERATION

- 4.2 2001 Census Data for the ward containing the proposed strategic site was examined to establish the current commuting trip rate per dwelling unit. 2003 National Travel Survey Data was used to determine an approximate ratio of all journeys to commuting journeys, which was then used to derive the total trip rate for the development from the commuting trip rate. The total trip rate was multiplied by the number of proposed dwelling units to establish the total daily external trip generation of the site. Existing ward to ward travel data was used to estimate the travel patterns between wards and thereby establish the proportion of traffic likely to be generated by the site on key road corridors entering the ward. Internal trips within the ward were disregarded. The assumed travel pattern was also used to estimate the distribution of development traffic through key junctions on these corridors. TRICs data for residential sites was used to establish the number of arrivals and departures generated by the development in the AM and PM peak hours. In the process of estimating traffic flows, no allowance was made for modal shift to modes of transport other than the private car, which might be achieved with implementation of an Integrated Transport Strategy for the area.
- 4.3 For the Cuthbury site, the likely future development flows on the key corridors are outlined in Table 1 and illustrated in Figures 1 and 2:

Corridor	AM Inbound	AM Outbound	PM Inbound	PM Outbound	Daily
B3078NB	1	5	5	3	102
B3078SB	1	4	4	3	84
B3082	0	1	1	0	15
A31	3	12	11	7	218
A349	2	11	11	6	207
B3073	1	7	7	4	130
Total	9	40	39	23	755

Table 3 - Cuthbury Development Flows on Key Corridors

- 4.4 The following junctions were identified as the key junctions likely to be affected by the development:
- Lambs Green Roundabout (B3078/A31)
 - Merley Roundabout South (B3073/A349)
 - Canford Bottom Roundabout (B3073/A31),
- 4.5 The base and development approach and departure arm flows for the AM and PM peak hours, for these junctions, are shown in Figures 3 to 6. Base future flows for 2031 are taken from the South East Dorset SATURN model.
- 4.6 In order to assess the capacity of the links approaching these junctions, it was assumed that each lane had a capacity of 1800 vehicles per hour. The ratio of

flow to capacity was calculated for base 2031 future flows and base plus development 2031 flows for each approach and departure arm of the key junctions for the AM and PM peak hours. The results of this analysis are shown in Table 2.

- 4.7 In the AM peak hour, the south western approach and departure arms and the north eastern departure arm of the Canford Bottom roundabout have a ratio of flow to capacity of over 100%, both for the base future year, and future year plus proposed development. In the PM peak hour the south western approach to the Lambs Green roundabout, the north western approach and the south western departure arm of the southern Merley roundabout and the north eastern approach to the Canford Bottom roundabout also have ratios of flow to capacity of over 100% in the base future year. This would suggest that these links will be over capacity by 2031, suffering from long queues and delays. These predicted problems could be addressed by a mixture of restraint measures and improvements to capacity, such as dualling the A31 between Merley and Ameysford.

5. INTEGRATED TRANSPORT STRATEGY

PUBLIC TRANSPORT STRATEGY

- 5.1 The proximity of the site in relation to the Poole/Bournemouth conurbation and the Hampshire boundary gives the majority of predicted trips split evenly between the south (A349) and the east (A31). Travel demand to the south of the site is catered for by the no. 132, 133, and 182 bus services, with the 132 and 133 service also catering for travel in an easterly direction as far as Ferndown.
- 5.2 In order to make the bus service an attractive mode of transport for residents of the proposed development, it will be important to improve journey times, frequency and reliability of these services. This would require substantial off site investment in both the bus services and bus priority measures. Because the scale of the development is so small, it is unlikely that it would be reasonable to expect the development to fund any significant improvements necessary to bus services in the area. However, it may be reasonable for the development to contribute to improvements to service frequency and provision of Real Time Information systems at bus stops closest to the site.

HIGHWAY STRATEGY

- 5.3 The traffic generated by the proposed development is unlikely to have a significant effect on the strategic highway network adjacent to the site when compared to the forecast traffic flows. However, the local highway network is likely to be adversely affected by the development unless improvements to Cowgrove Road, and the junction of Cowgrove Road with the B3082 are carried out. Alternatively, site specific measures aimed at minimising the traffic generation of the development could reduce the scale of local highway improvements required. These measures could include:
- Encourage reductions in car ownership levels through provision of a residential car club,
 - Consider the level of affordable housing provision within the site, since car ownership levels are generally lower in affordable housing than in general housing.
- 5.4 It is evident from the analysis of the capacity of links approaching the Canford Bottom Roundabout Cross Junction that the north eastern (A31) and south western (A31) approach and departure arms are likely to be over capacity and suffering from extensive queues by 2031. The north western (B3073) approach arm and south western (A349) departure arm of the southern Merley Roundabout are also likely to be over capacity by 2031. As these arms form part of the main routes likely to be taken by traffic generated by the development, it would be inappropriate for the development to proceed until improvements to the junctions are in place. These could incorporate (depending on political priorities):
- Improvements to capacity by provision of additional lanes on the A31, A349, B3073 or redesign of the junctions
 - Introduction of high occupancy vehicle-only/bus lanes on the A31 and A349

6. CONCLUSIONS

- 6.1 This document has considered the potential impact of a development of 180 dwelling units at Cuthbury, from a transportation perspective.
- 6.2 The potential development is unlikely to have a significant impact on the highway network adjacent to the site, and is located close enough to Wimborne Town Centre to allow a significant proportion of trips to be made by foot.
- 6.3 The site is located within easy walking distance of existing bus services, which would provide modal choice for journeys into the conurbation. While the current low frequency of the bus services is unlikely to encourage drivers to change modes, improvements to service frequency and reliability as part of a wider transportation strategy for the region may encourage modal shift.
- 6.4 The location of the site in relation to existing services and facilities would ensure that from a transportation perspective, the site could be viewed as a sustainable development.