

Job number	23424	Note number	01
Site Address	Land at Box End, West of Bedford		
Date	July 2022	Prepared by	██████████
Subject	Land at Box End, West of Bedford. Transport Briefing Note.		

1.0 Introduction

- 1.1 This Briefing Note has been prepared for BDW Trading Ltd (Northampton division) in relation to a proposed mixed-use residential development site, located at Box End, West of Bedford.
- 1.2 The proposals seek to deliver an exemplar sustainable urban extension of approximately 1,150 homes (including affordable provisions), a mixed-use local centre (serving as an ‘everyday-needs’ function, a primary school and extensive sports, leisure and general recreation facilities. The proposals will meet or even exceed policy requirements in relation to issues such as biodiversity net gain and renewable energy etc.
- 1.3 The purpose of this Note centres of three areas, firstly, to undertake a high-level, desktop appraisal on the location of the site in relation to existing transport infrastructure; secondly, to confirm what proposed and future infrastructure would offer benefit to the site and finally, an overarching appreciation associated with the vision, which, from a transport perspective would guide and inform the master planning process.

2.0 Site location and relationship to the highway network

- 2.1 The site, commonly referred to Land at Box End, West of Bedford is located 4km to the west of Bedford Town Centre and in the area between the settlements of Wootton and Kempston.
- 2.2 Vehicular access from Box End is currently provided by Box End Road, which links into the wider and strategic highway network via Bedford’s Western Bypass. Box End Road is currently subject to a 40mph speed limit, although this is reduced to 30mph when approaching, and through, Box End.
- 2.3 From a strategic perspective, the location of the site is well connected via the A428 (Bedford to Northampton), the A6 (Bedford Western bypass) which links onto the wider and strategic highway network, the A421, which in turn provides access towards the M1 (junction 13), Milton Keynes and the A1 at the Black Cat roundabout.
- 2.4 Towards the western boundary of the site, the A422 provides an alternative route towards Milton Keynes, via Newport Pagnell. The illustration in Figure 2.1 below

confirms the location of the site (indicative red line boundary) and its relationship with the existing local and strategic highway network.



Figure 2.1 - Site Location

3.0 Sustainable Transport

3.1 The relationship of the site to existing sustainable transport provision has been investigated and confirmed in the following sections.

3.2 Public transport (Bus, rail)

3.2.1 Bedford's bus network is currently and primarily operated by Stagecoach, although smaller, local independent operators, namely Grant Palmer, also operate a number of routes. Box End is currently serviced by a single bus route (service 68A, Grant Palmer) which provides a twice-daily service.

3.2.2 This service operates on a circular alignment and, in addition to Box End, also links into the smaller settlements of Kempston West End, and Kempston Church End before returning towards Bedford Town Centre, via Kempston Road, which also provides a number of high-frequency bus services serving the town centre. All of these services link Box End, its immediate hinterland and Bedford Town Centre, plus its railway station which provides onward direct connectivity to London and the multiple destinations in the East Midlands.

3.2.3 The existing public transport network is shown in Figure 3.1 below.



Figure 3.1 - Existing Public Transport Network

3.3 Walking / Cycling

3.3.1 Existing walking infrastructure within Box End is limited to a single footpath which forms part of Box End Road. However, from its junction with Cemetery Road, the level of pedestrian and cycle significantly improves via a combined footway / cycleway along Cemetery Road and towards Kempston, with the cycleway terminating at its junction with Ridge Road. In addition, the national cycle route, via Route 51 runs to the south of the site (Gibraltar Corner) and links into Bedford Town Centre, via Kempston.

3.3.2 Figure 3.2 and Figure 3.3 below show the existing walking and cycling infrastructure on Cemetery Road, whilst Figure 3.4 below shows the local cycling network.



Figure 3.2 - Existing footway / cycleway, Cemetery Road



Figure 3.3 - Existing footway provision, Box End

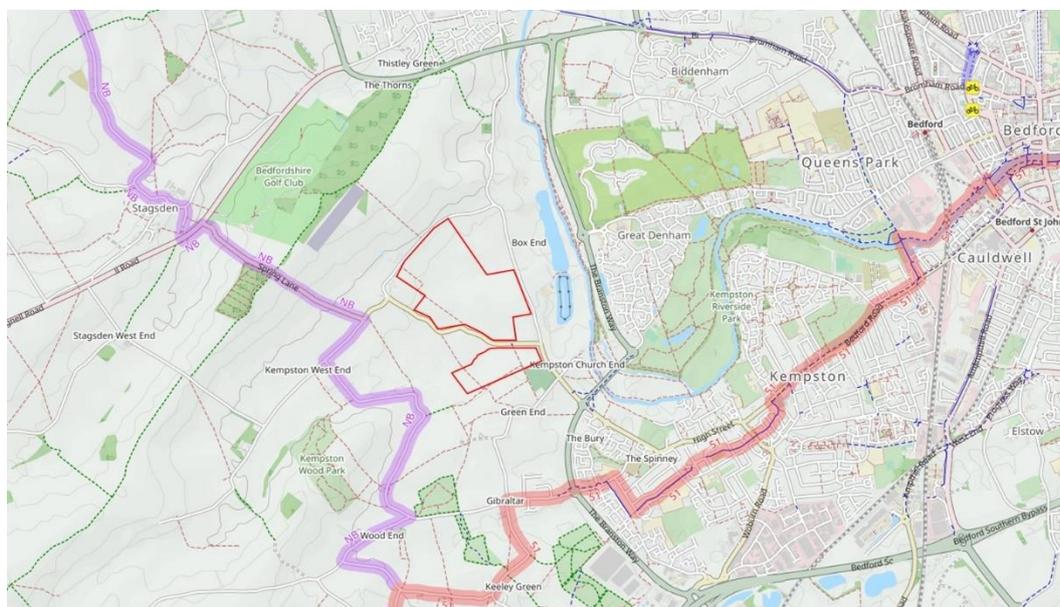


Figure 3.4 - Existing cycle network (SUSTRANS)

3.4 Journey to Work (2011) Census Data

3.4.1 2011 Journey to work census data has been obtained from UCL's on-line portal. Analysis for the Wootton Ward (closest residential ward to Box End) confirms three main centroids for employment, namely Bedford Town Centre (including the hospital and the industrial / commercial area centred around Manton Lane), Milton Keynes (including Cranfield) and southwards towards Ampthill and London sub-region. See Figure 3.5 below.

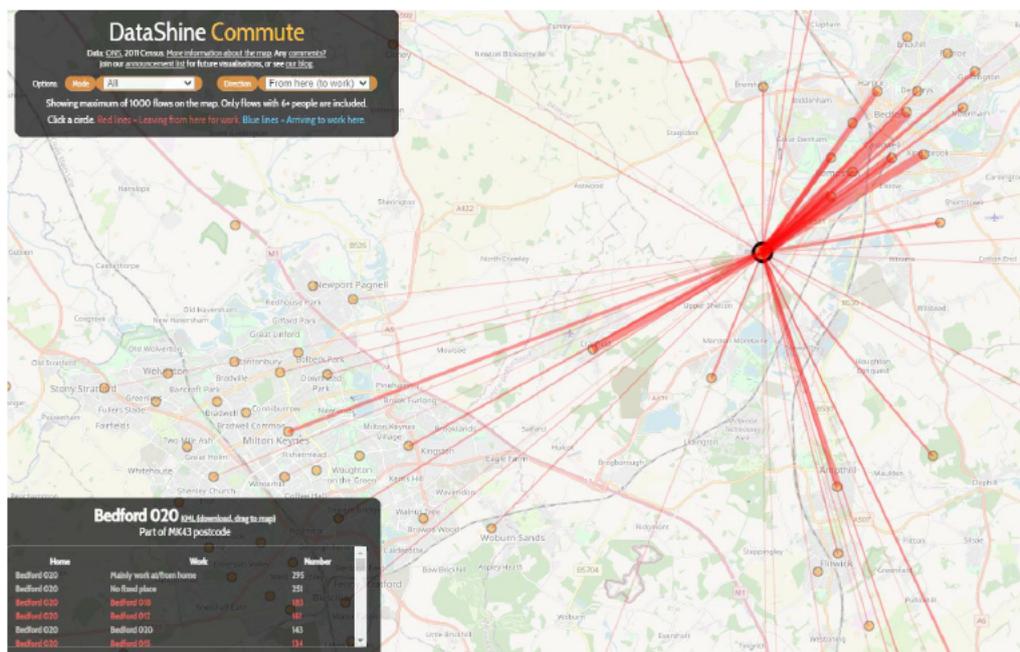


Figure 3.5 - 2011 Journey to Work Data (Wootton Ward)

3.4.2 In terms of mode-split, 2011 census data for the Wootton ward is presented in Figure 3.6 below.

2011 Journey to Work Data, Wootton Ward	
Mode of Travel	Percentage Split
Driving a car or van	76%
Work mainly at or from home	6%
Passenger in a car or van	5%
On foot	4%
Train	3%
Bus, minibus or coach	3%
Bicycle	2%
Motorcycle, scooter or moped	1%
Other method of travel to work	1%

Figure 3.6 – 2011 Journey to Work Data, Wootton Ward, Percentage Mode Split

3.5 Accessibility

3.5.1 Existing levels of transport accessibility (walking and cycling) have been analysed and are presented in the following two diagrams (Figure 3.7 and Figure 3.8 below). In terms of cycling, the accessibility analysis confirms that, based on the existing level of

cycle infrastructure, key destinations such as Bedford railway station, the Bedford Hospital (South-Wing) and large portion of the town centre are within a 20minute cycle threshold.

3.5.2 Clearly, given the distance between the site and Bedford Town Centre (4km), the propensity to undertake this journey on foot is limited. However, give the level of existing pedestrian infrastructure, the accessibility does indicate that an existing retail food store (Lidl) is within a 20minute walking threshold.

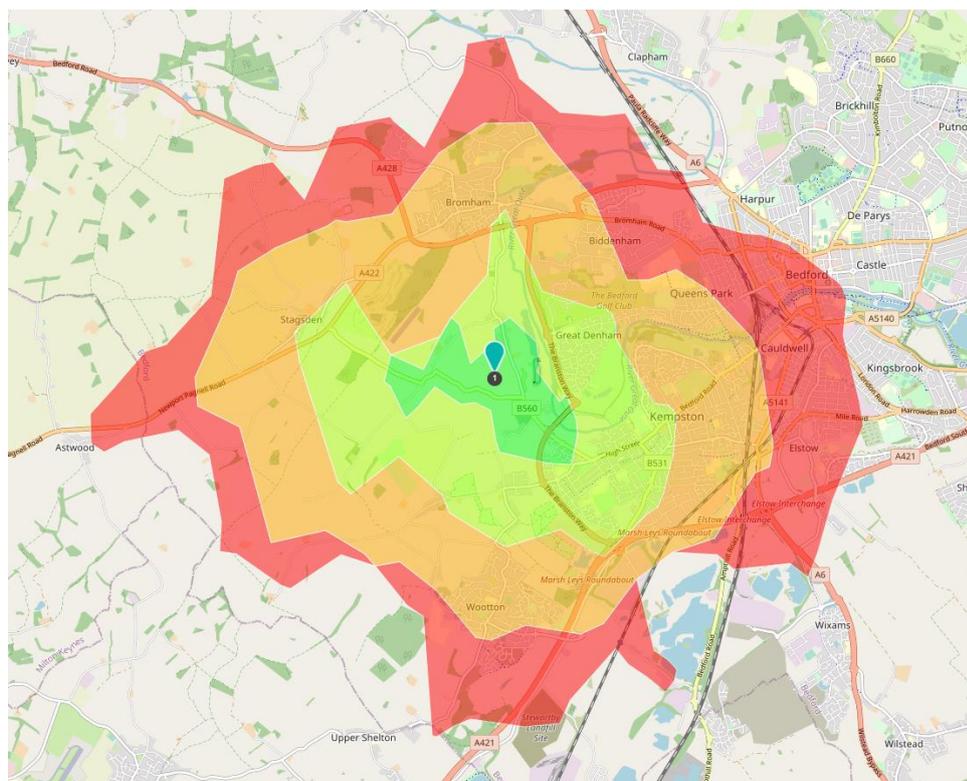


Figure 3.7 - Cycle accessibility (20minutes)

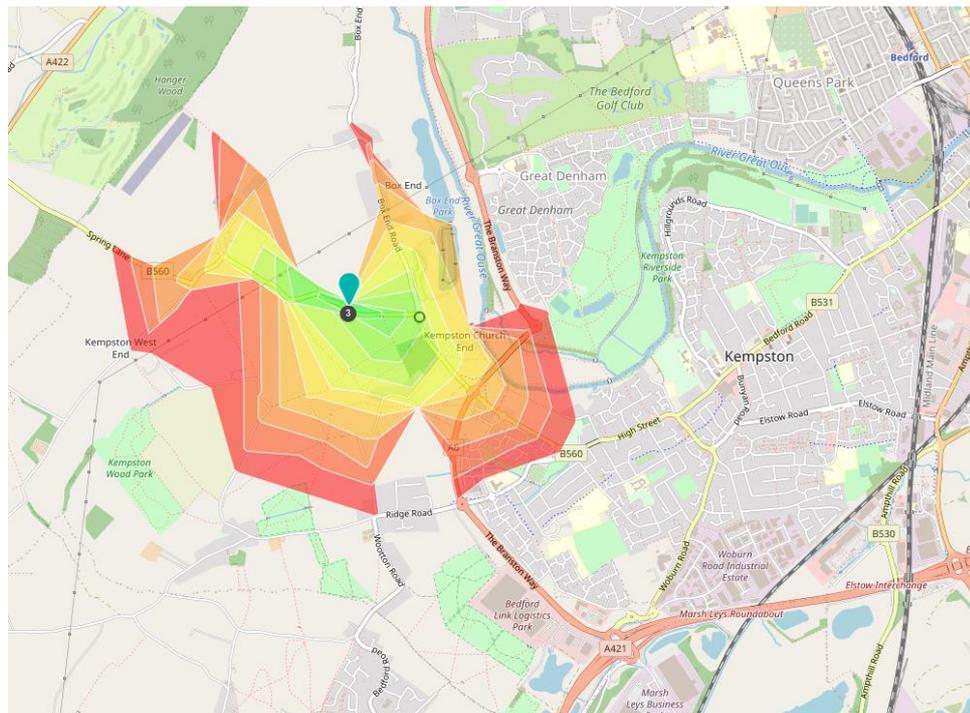


Figure 3.8 - Walking accessibility (20minutes)

3.6 Existing Conditions - Summary

3.6.1 Based on the existing level of transport provision and infrastructure, the following summary presents a relevant headline summary.

- Given the site’s relationship to the immediate and local highway network, primary access can be taken directly from Box End Road, plus secondary access points via the surrounding network;
- The site is well connected to the existing local and strategic highway network and is not isolated;
- The site is already connected to the Bedford bus network, albeit via a limited service. However, development at Box End presents an opportunity to provide an improved level of service to the existing bus network and is not reliant on introducing, for example, a bespoke service to serve the development site. An extended and improved bus network serving Box End would provide direct connectivity into Bedford Town Centre and its immediate hinterland including the railway station;
- Based on existing infrastructure, the site is already within a 20minute cycle catchment of Bedford Town Centre and its immediate hinterland; and,
- The site has the opportunity to further enhance and directly connect into the current combined footway / cycleway along Cemetery Road.

4.0 Future transport opportunities

- 4.1 Bedford Borough Council’s adopted Local Plan sets out the plan for growth in the borough up to 2030, and at the time of writing, the borough is currently in the process of developing a new Local Plan which will set out its growth plan up to 2040.
- 4.2 In order to support the development of the new (2040) Local Plan, the borough has prepared the Bedford Borough Transport Model (BBTM), which is a multi-modal transport model designed to assist and inform the Local Plan process. The output from the modelling process has been published by the borough, and housed as ‘supporting documents’ on their 2040 Local Plan internet portal.
- 4.3 By way of context, the suite of modelling documents is extensive (a total of 11 individual reports, and each technical report approximately 100 pages in length. Notwithstanding the suite of technical information which has been submitted as part of the BBTM exercise, attention has been focussed onto the “Draft Local Plan Assessment Summary Report”, which summaries the modelling outputs, and of particular relevance to the preparation of this Note, highlights any transport interventions which would offer benefit to the proposed Box End site.
- 4.4 Within the modelling report, four different development scenarios were analysed, namely:
- Grey (dispersed growth);
 - Pink, Yellow and Brown (infrastructure-focussed growth);
 - Red and Orange (new settlement-focussed growth); and,
 - **Brown (urban focussed growth) – see Figure 4.1 below.**

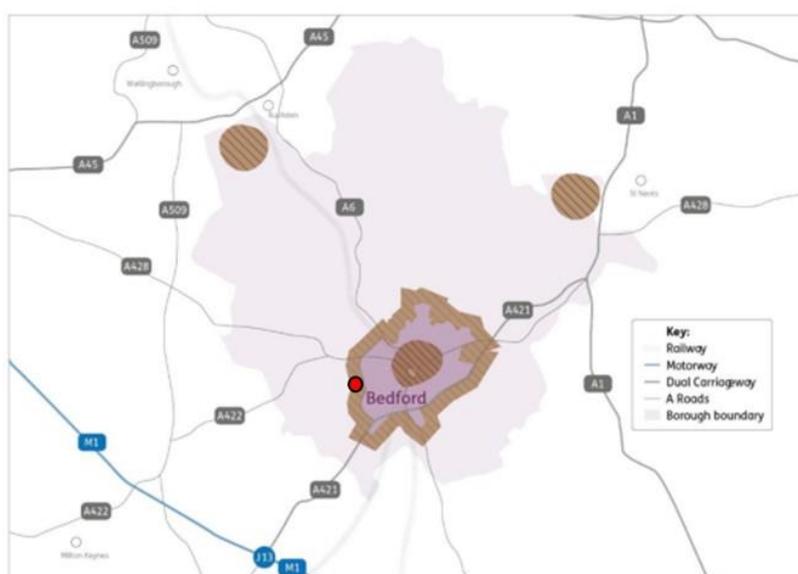


Figure B.4: Brown, Urban-focused Growth

Figure 4.1 - Overview of Proposed Development Scenarios

Source: Draft Local Plan Assessment Summary Report, AECOM, 2022. (N.B. Box End Location, shown in red, included by author of this Note and does not form part of the AECOM report).

4.5 As such, particular attention is focussed on the Brown scenario as this “*supports growth in locations within Bedford, or in parishes which adjoin the current urban boundary near urban areas, including urban extensions*”. Therefore, and by its very definition, the Brown modelling scenario can be cross-referenced against the proposed development site at Box End.

4.6 Based on the above, the AECOM report contains a long-list of transport infrastructure inventions and those that would offer benefit in also accommodating the Box End site are referenced below.

Reference Case (2030 Local Plan) Highway Infrastructure Schemes

- Cemetery Road / Box End Road / A428 Junction improvements (linked to dualling of the western bypass) – Opening 2030.

Proposed Packages of Mitigation for Development Scenarios (Brown specific)

- Western Bypass – Dualling between A421 and A6 – Opening 2040;
- A421 / Frank Branston Way – New segregated left-turn from A421 eastbound – Opening 2040; and,
- Bedford Town Active Measures – Measures to increase active travel (walking, cycling) within Bedford town – Opening 2030.

4.2 Other considerations

4.2.1 In addition to the strategic interventions as proposed and contained within the various traffic modelling reports prepared by Bedford Borough Council, a range of site-specific interventions geared towards minimising car-based travel through careful design and investment would form a central component of any detailed master planning exercise. Such measures would extend to include the following:

- The development will be designed to be a 20minute community, meaning that day-to-day facilities will be accessible within 20 minutes by active travel for able bodied people, and readily accessible by active travel or other means for people with disabilities;
- The creation of sustainable mixed-use community will endeavour to maximise the quantum of internalised based person-trips and therefore actively seek to manage external trip making purposes;
- Active travel (walking and cycling) would be promoted through the introduction of ‘active travel corridors’ which run alongside the key routes within the site and connect the site with the existing walking and cycling network which has been observed on Cemetery Road;
- Construction of new footpaths and improvement of existing along desire lines between land uses to ensure that walking is considered as a realistic choice and pedestrians would be given priority wherever possible over all other forms of traffic;
- Cycle lanes will be created alongside all major roads, and cycle crossing facilities will be provided either as part of signalised junctions or signalised Toucan crossings;

- Strong and permeable connections will be provided to neighbouring communities and surrounding employment/retail facilities for pedestrians and cyclists to reduce the dependency for car trips;
- Contribution towards the implementation, and promotion of any future town-wide bike sharing scheme. Such a scheme could be developed in tandem with the provision of new active travel corridors to promote and encourage cycling, or as the main mode of transport for travelling to and from work. The bike sharing scheme would connect to public transport nodes (via Mobility Hubs) and could be expanded to serve other potential development sites nearby to Box End;
- Enhancing existing bus services (as previously discussed) and provide an improved level of passenger service (frequency, comfort, security and convenience); and,
- Provision of Real Time Passenger Information (RPTI) systems at the existing and proposed bus stops, plus directly linked to smartphones via bespoke 'Bedford Travel App'. RTPI provides the public with up to date and accurate information regarding bus and train services, reduces waiting times, increases the profile and encourages more people to choose public transport as their preferred mode of transport.

4.2.2 Overall, these measures are expected to deliver a highly sustainable development and encourage a greater use of alternative modes of travel to the private car, as required by both national and local planning policy. Clearly, through the design process, there should be a transition from the traditional 'predict and provide' and towards a 'vision and validate' or 'decide and provide'.

4.2.3 As a final statement under "other considerations", it is understood that a number of draft allocations within the 2040 Draft Local Plan are as a result to their potential future links with the proposed East-West railway scheme. Whilst we welcome investment in this key piece of sustainable transport infrastructure, we do believe there's an inherent risk in underpinning a key part of the development strategy on an item of infrastructure when it has not been finalised and its overall delivery is only at Stage 2 of a 5-staged implementation process.

5.0 Summary

5.1 This Transport Briefing Note has been prepared to undertake a high-level transport appraisal associated with a proposed residential led development at Box End, Bedford.

5.2 An appraisal of the existing baseline transport conditions, demonstrates the site has good connections to the local and strategic highway network. From a sustainable transport perspective, Box End has the opportunity to directly connect into, and enhance existing levels of walking, cycling and public transport infrastructure and provision.

5.3 Examination associated with the output from the Bedford Borough Traffic Model indicates that by its very definitions i.e. a site that supports growth in locations within Bedford, or in parishes which adjoin the current urban boundary near urban areas it

would it benefit from several key transport interventions associated with the development and promotion of the 2040 Local Plan.

- 5.4 In terms of next and immediate steps, BDW Trading Ltd would warmly welcome the opportunity to discuss the contents of this Note, and through a collaborative exercise seek to agree the technical contents and requirements a comprehensive Transport Assessment and Framework Travel Plan reports to support any forthcoming planning application for the development site.

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