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Initial Transport Appraisal

Chipping Ongar – Transport and Highways

Iceni Projects Limited on behalf of L
& Q New Homes and Cirrus Land
Limited

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ON BEHALF OF L & Q NEW
HOMES AND CIRRUS LAND
LIMITED

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Initial Transport Appraisal
CHIPPING ONGAR – TRANSPORT AND HIGHWAYS

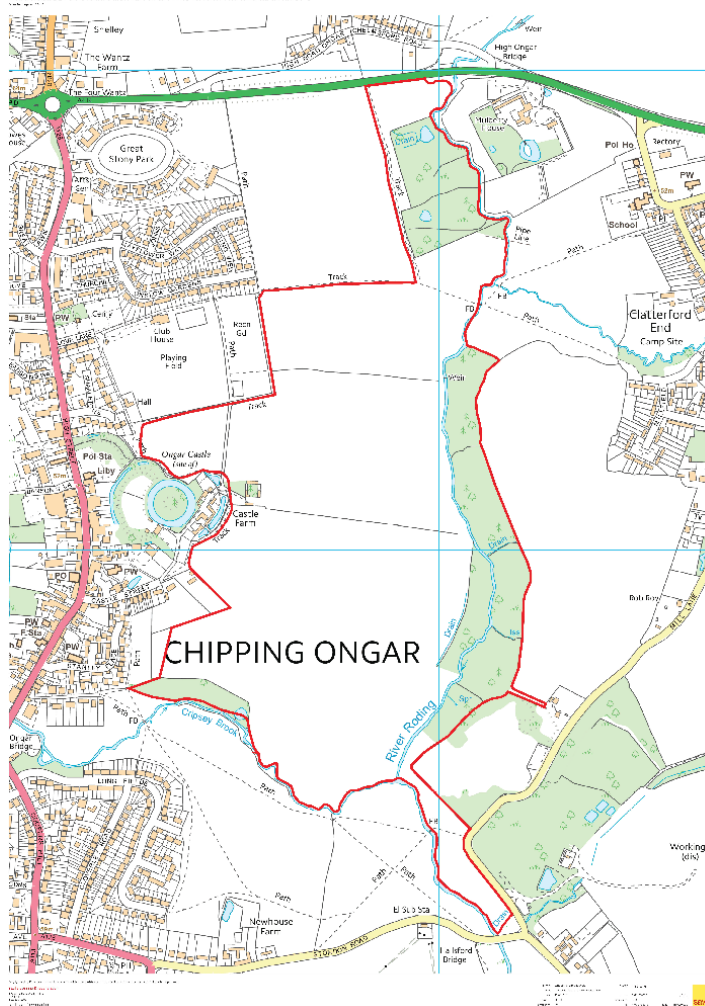
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1. INTRODUCTION

- 1.1 Icen Projects Ltd has been appointed by the L & Q New Homes and Cirrus Land (The Clients) to prepare an Initial Transport Appraisal for a site located in Chipping Ongar.
- 1.2 The site is specifically located to the east of the High Street and Ongar Castle, to the west of the River Roding, to the north of Stondon Road and to the south of the A414 Chelmsford Road. Epping Forest District Council (EFDC) are the planning authority and Essex County Council (ECC) is the highway authority.
- 1.3 Epping Forest District Council has determined that for the Plan Period (2011 – 2033) they must allocate sites for 11,300 new homes. Land to the east of Chipping Ongar, which is the subject of this proposal, was previously identified as a potential location for some of this housing although was not included within the strategic site allocations in the latest draft version of the plan.
- 1.4 The purpose of this report is to provide supporting technical evidence for the representations to demonstrate that the site is available, deliverable and suitable as required by the National Planning Policy Framework (NPPF)
- 1.5 A key element of the proposal is the delivery of a link road between the A414 Chelmsford Road and Stondon Road and green routes and links which will connect to the Town / High Street and Castle in the west.
- 1.6 **Figure 1.1** below shows the site in relation to the surrounding highway network.

Figure 1.1 – Site Location



1.7 This report is arranged as follows:

- **Section 2** provides an initial appraisal of the local highway network, including the identification of key junctions, and notes the key observations made during a site visit.
- **Section 3** considers an access strategy with and without access to the adjacent field / land. This includes a consideration of the initial link road alignment, as well as pedestrian / cycling connections.
- **Section 4** considers the issues and opportunities of the site and in particular the link road and potential capacity benefits, and the opportunity to enhance public transport.
- **Section 5** provides a summary and conclusions.

2. THE EXISTING LOCAL HIGHWAY NETWORK AND KEY JUNCTIONS

Introduction

- 2.1 Icení has reviewed the local highway network around the site, with particular focus on the connections to Chipping Ongar High Street, and wider connections to the surrounding highway network. This combines observations on site, together with consideration of the location of the site and Ongar in a more regional context, including access to / from strategic links including the A414, A12, M11 and the M25.

Wider Context

- 2.2 Chipping Ongar is a town within Essex, located approximately 17km west of Chelmsford and 13km east of Harlow. The A414 Epping Road / Chelmsford Road. The A414 Chelmsford Road is located immediately north of the site which provides routes to / from Chelmsford and Harlow. In the west, the A414 provides access to the M11 and the M25 and in the east to the A12 and the A130.
- 2.3 The site is comprised 70ha and is located between the A414 Chelmsford Road and Stondon Road. The proposed link road is to be located between these roads and offers significant local capacity relief, as well the opportunity to enhance and revive the surrounding area.
- 2.4 The existing connections to / from the High Street in the east currently exist in the north via the A414 Chelmsford Road and in the south via Stondon Road. The proposed link road and subsequent routes offer the potential to increase accessibility to / from the High Street, as well as offering capacity relief to local roads including the High Street.

Local Highway Network

A414 Chelmsford Road

- 2.5 The A414 Chelmsford Road runs along the northern boundary of the Site, is single carriageway with two-lanes in each direction and runs between Chelmsford in the east and Welwyn Garden City in the west. In the vicinity of the Site there are footways present on the southern side of the carriageway with intermittent footways on the northern side. While there are no pedestrian refuge islands to cross the A414 Chelmsford Road to the north of the site, crossing opportunities exist at the A414 / B184 four-arm roundabout in the west.

High Street

- 2.6 The High Street is located towards the east of the Site, running in a broadly north / south direction between the A414 Chelmsford Road / Epping Road in the south and The Borough and Coopers Hill in the south.
- 2.7 The High Street provides access to retail units and also residential properties which are located along the road, including those such as Castle Street, The Borough, Bowes Drive and Mayflower Way. The road is single carriageway, two-way and provides limited on-street parking opportunities. Available on-street parking is located opposite The King's Head public house and off-street public car parks are located adjacent to the Library and off Banson's Lane.
- 2.8 The High Street has a number of pinch points along its length, most notably immediately to the north of the junction with Castle Street, where the road narrows to make the passing of two vehicles which can give rise to localised traffic congestion.

Stondon Road

- 2.9 Stondon Road is located to the south of the Site running in a broadly east / west direction. In the west, the road meets the A128 Stondon Road (via a priority junction) and in the east meets Mill Lane where the road turns into Ongar Road, where it continues in a south-east direction.
- 2.10 The road is subject to national speed limit for single carriageway roads up until Marden Ash in the west, where the road is subject to a restriction of 30mph. There is a footway present along Stondon Road in the east (on entering Marden Ash) however, no footways are present once the road speeds increase to national speed limit.

The Street / Mill Lane

- 2.11 The Street is located towards the east of the Site and meets the A414 Chelmsford Road in the north via an all movements junction. On exiting The Street is a single lane all movements lane, and on entering is a dedicated right-turn ghost island and also a left-filter lane for vehicle travelling westbound along the A414 Chelmsford Road. The Street runs between the A414 in the west and the A414 in the east, providing access to Mill Lane in the south. The Street is subject to national speed limit in the east and to a 30mph restriction on entering High Ongar.
- 2.12 Mill Lane is located towards the east of Site and runs in a north / south direction between The Street in the north and Stondon Road / Ongar Road in the south. The road is single carriageway, with two-lanes in each direction and is subject to national speed limit in the south and on entering High Ongar is subject to a 30mph restriction.

Key Local Junctions

2.13 In terms of the local highway network, the following junctions are considered to be key in terms of the proposed development:

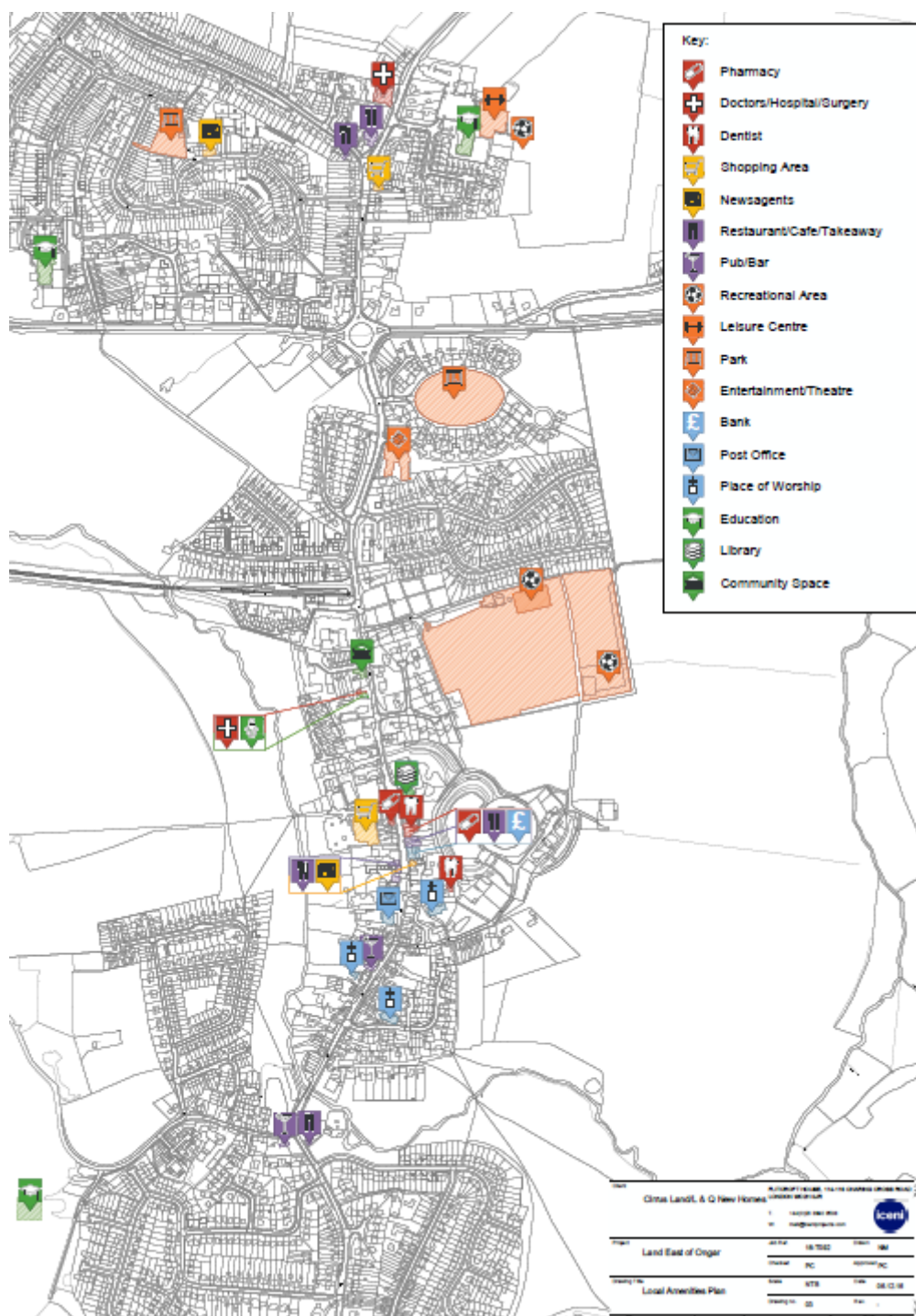
- A414 Chelmsford Road / High Street / B184 (priority roundabout);
- High Street / The Borough / Coopers Hill (priority junction);
- Coopers Hill / Brentwood Road / Stanford Rivers Road (mini-roundabout);
- A128 Brentwood Road / Stondon Road (priority junction);
- Mill Lane / Stondon Road / Ongar Road (priority junction);
- The Street / Mill Lane (priority junction); and,
- The Street / A414 Chelmsford Road (priority junction).

Key Local Facilities

2.14 The site benefits from being located in close proximity to a number of key facilities and amenities, principally owing to its location in respect of the existing High Street and town centre area to the west. These provide opportunities to access to retail, education, leisure, employment and health facilities all within a reasonable walking distance of the site.

2.15 These key facilities are highlighted below on drawing below at **Figure 2.1** of this report.

Figure 2.1 – Existing Local Facilities



- 2.16 The pedestrian and cycle connections between the site and the town centre are highlighted in greater detail in section 4 of this report.

Public Transport

- 2.17 There are bus stops located at various locations on the High Street located within a reasonable walking distance of the sites. The network of existing public rights of way and footpaths between

the site and the High Street mean that all parts of the site are located within 800m of an existing bus stop.

- 2.18 The bus stops on the High Street are served by the following route numbers which provide connections to key towns within the surrounding area:

Table 2.1 – Existing Bus Services

Route Number:	Route:	Frequency:
7	Chelmsford – Writtle – Ongar – North Weald - Epping	2 a day (Mon – Fri Only)
21	Ongar – Kelvedon Hatch – Pilgrims Hatch - Brentwood	2 an hour until 9am, then 1 an hour 9:00-16:00, then back to 2 an hour from 16:00 (Mon – Fri), 1 every hour Saturday
32	Ongar – Blackmore – Highwood – Writtle – Chelmsford	6 a day (Mon – Fri and Sat Only)
46	Ongar – Fyfield – Roxwell – Writtle – Chelmsford	5 a day (Mon – Fri and Sat Only)
46C	Ongar – Abbess Roding – Bobbingworth – North Weald	2 a day (Tues and Sat Only)
46E	Epping – North Weald – Ongar	1 a day (Wed and Fri Only)
47	Central Harlow – Mark Hall – High Laver – Moreton – Ongar	1 a day (Tues, Thurs, Fri, and Sat Only)
146	Ongar – Moreton – Fyfield – Abbess Roding – Hatfield Heath	1 a day (Tues and Thurs Only)
380	Harlow – Tylers Cross – Epping	1 a day (Mon – Fri and Saturdays Only)
381	Harlow – Epping – North Weald – Greensted Green – Toot Hill	2 a day (Saturday Only)
420	Ongar – Bobbingworth – North Weald – Epping – Harlow	Approx. 4 an hour (Mon – Fri and Saturdays Only)
436	Shenfield – Pilgrims Hatch – Ongar	1 a day (School Days Only)
437	Shenfield – Pilgrims Hatch – Ongar	1 a day (School Days Only)
471	Brentwood – Kelvedon Hatch – Fyfield	1 a day (School Days Only)
473	Brentwood – Kelvedon Hatch – Ongar	1 a day (School Days Only)
484	Hutton – Pilgrims Hatch – Kelvedon Hatch – Ongar	2 a day (School Days Only)
501	Ongar – Bobbingworth – North Weald – Toot Hill – Ongar – High Ongar	1 every 2 hours (Sundays Only)
503	Epping Infants School – North Weald – Toot Hill – Ongar – High Ongar	1 a day (School Days Only)
506	Writtle - Highwood - Blackmore – Ongar	1 a day (School Days Only)
X21	Upminster – Brentwood – Pilgrims Hatch - Ongar	Approx. 2 an hour (Saturdays Only)

3. LOCAL DESIGN GUIDANCE

Introduction

- 3.1 ECC has its own highways design guidance for new developments, 'The Essex Design Guide' (EDG). This document breaks down the requirements and limitations for each road type in relation to the location of the development. These guidelines will then be discussed within the context of future development aspirations in **Section 4** of this report.

The Essex Design Guide (Access)

- 3.2 Following confirmation of the potential developments aspirations, the road design criteria shown in **Table 3.1** below should be adopted for the initial access appraisals.

Table 3.1 Road Design Guidance

Item	Link Road	Feeder Road	Minor Access Road
Description	Link neighbourhoods within a large residential area (Figure A)	Feeder Road serving a maximum number of 700 dwellings (Figure B)	Minor roads giving direct access to dwellings (Figure C)
Number Dwellings Served	-	700 dwellings ¹ 400 dwellings ² 200 dwellings ³	200 dwellings ² 100 dwellings ³
Carriageway Width	7.3 or 6.75m	5.5m ⁴ -6m ⁵	4.8m
Junction Kerb Radius	10.5m	6m	6m
Footway Width	2 x 2m with 3m verges	2 x 2m with optional 3m verges	1 x 2m + 1 x 1.5m
Design Speed	50kph (30mph)	30kph (20mph)	30kph (20mph)

- Notes:
- ¹ Maximum number of dwellings served.
 - ² Link or Loop.
 - ³ Cul-de-Sac.
 - ⁴ Where the Feeder Road serves less than 400/200 dwellings, a 5.5m width is acceptable.
 - ⁵ 6m width is required on a Feeder Road above 400/200 dwellings.

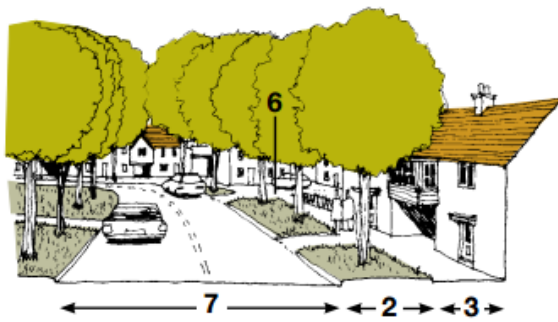


Figure A: Link Road

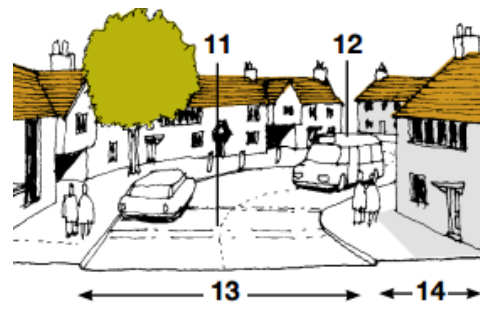


Figure B: Feeder Road

1. Carriageway 7.3m or 6.75m
2. Verge 3m min.
3. Footway 2m
4. Private drive or service road
5. Non residential uses
6. Turning space in front
7. Carriageway 6.75m
8. Turning space
9. Footway 2m
10. Carriageway
11. Traffic calmed to 20mph (30 kph)
12. Bus route
13. Carriageway 6m
14. Footway 2m



Figure C: Minor Access Road

1. Special surface to encourage slow speeds
2. Turning spaces within curtilages
3. Passing bays at intervals
4. 3.7m pedestrian/vehicle way
5. 1.1m verge with services under

4. ACCESS STRATEGY

Introduction

- 4.1 This section of the report considers the potential options for access to the site, and the potential alignment and design of the link road through the site. It also outlines the design considerations for the access and road based on its expected speed and function.

General Design Considerations (Link Road and Access)

- 4.2 Any proposed link road / access to the site will need to ensure that designs are in accordance with the criteria set out within the Manual for Streets (MfS), Design Manual for Roads and Bridges (DMRB) and Essex Design Guide (EDC).

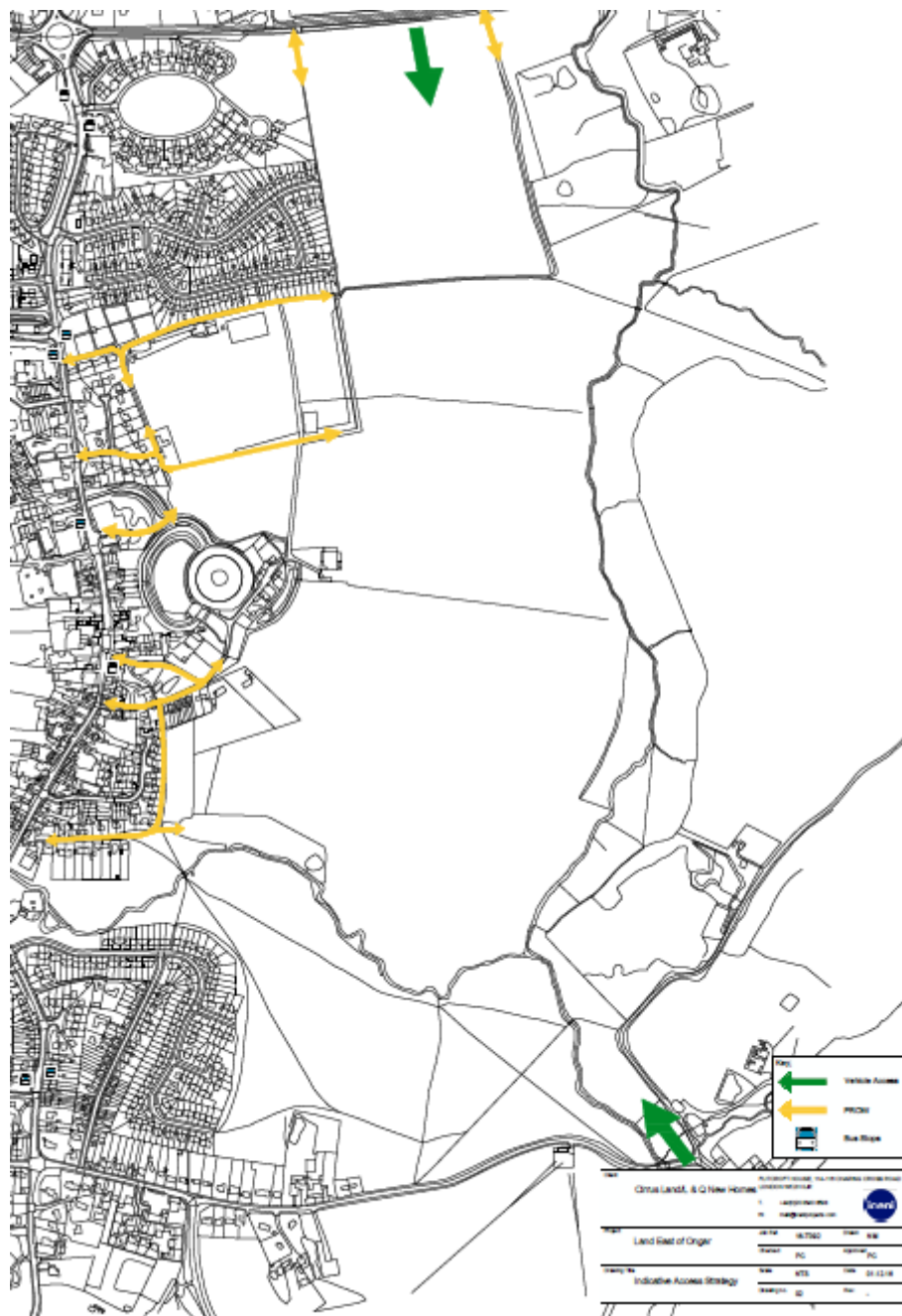
Vehicular Access / Proposed Link Road

- 4.3 It is suggested that the proposed development site would be accessed from the north and south from the existing highway network. The accesses would also form the northern and southern extents of a road through the site which would be designed to perform the dual function of acting as a residential distributor for the proposed development, and link road between the A414 Chelmsford Road and Stondon Road.
- 4.4 The proposed access from the north would be in the form of a proposed roundabout junction with the A414. The junction would need to be designed in accordance with the requirements detailed within DMRB for a 60mph road.
- 4.5 In order to provide a junction at the southern end of the site it is considered appropriate to rationalise and improve the existing road layout by realigning Stondon Road and Mill Road to connect to a new roundabout junction.
- 4.6 As detailed previously, the proposed development would also facilitate the provision of a link road through the site, providing an alternative north to south route to the existing High Street.

Pedestrian / Cyclist Access

- 4.7 The proposed development site benefits from a comprehensive network of footpaths and public rights of way between the site and the surrounding area. In particular, these provide excellent access to the High Street to the west from a series of potential connections to the development site. These are shown on the drawing below:

Figure 4.4 – Proposed Access Strategy



5. ISSUES AND OPPORTUNITIES

Introduction

- 5.1 This section considers the potential issues and opportunities associated with the development of the site in respect to highways and transport

Provision of Link Road

- 5.2 The provision of a link between the A414 and Stondon Road would not only provide access to the proposed residential development, but provide significant residual benefits to the wider highway network. The link would represent an alternative north to south route to the existing High Street and thus potentially reduce the volume of traffic currently travelling through Ongar town centre. This would improve the movement of traffic along the High Street, as well as significantly improving town centre environment for pedestrians and cyclist.
- 5.3 The link road would also potentially provide capacity release at the Four Wantz roundabout as a result of the changes of travel patterns caused by the provision of an alternative route to the High Street.
- 5.4 The proposed realignment of Mill Lane and Stondon Road would also represent a significant improvement over the existing situation, within increased forward visibility and the removal of the existing bridge over the River Roding.

Strategic Route Choice Options

- 5.5 The location of the development site is such that it benefits from excellent access to the existing highway network, and provides potential residents with a range of strategic route choices to key employment areas within the region. This means that potential traffic generated is likely to be distributed between these key routes, and thus reducing the potential reliance and impact on any specific link or junction within the surrounding network.
- 5.6 An investigation into the existing Census Database Travel to Work profile for Ongar shows existing traffic distribution to be distributed relatively evenly to destinations around the town, albeit with a string draw towards North East London, Epping, Brentwood, Chelmsford and Harlow. This is reflected in the diagrams below, which provide an indication of existing work destinations, and outlines the main wider route choice options to and from the site.

Figure 5.1 – Existing Traffic Distribution

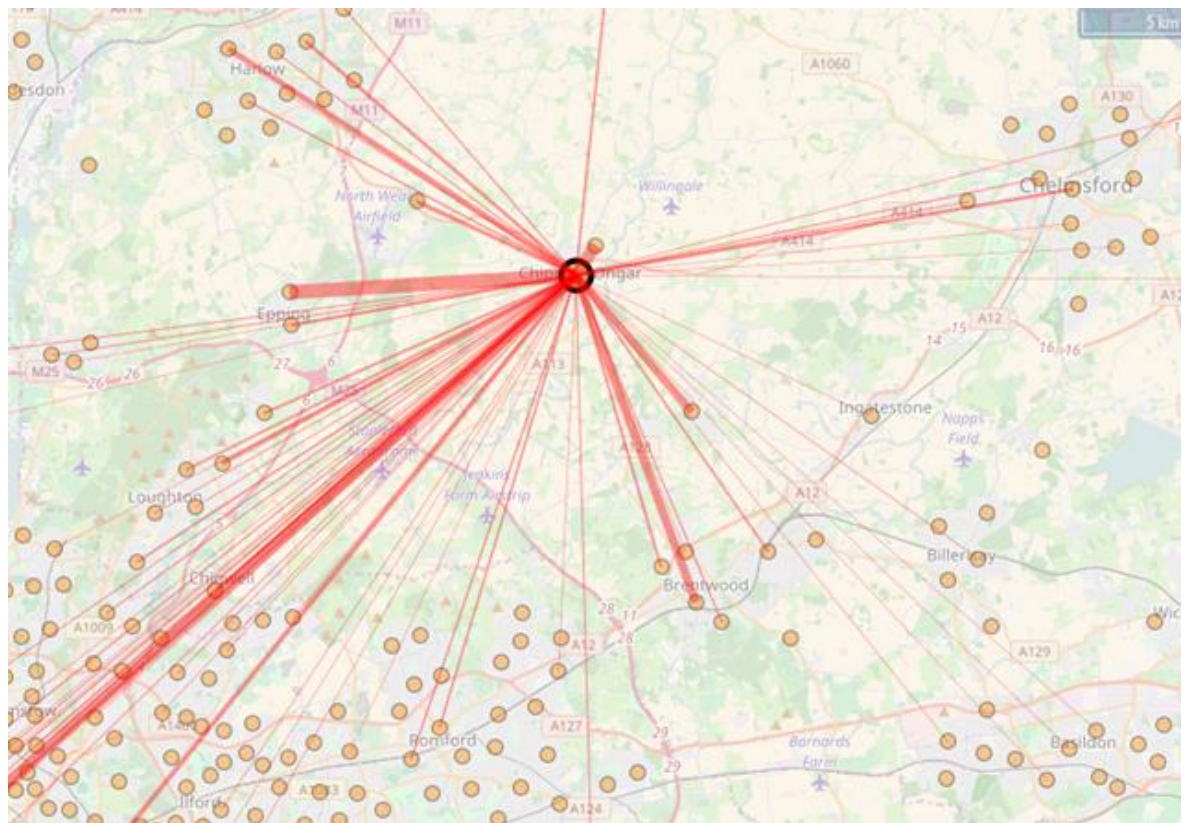
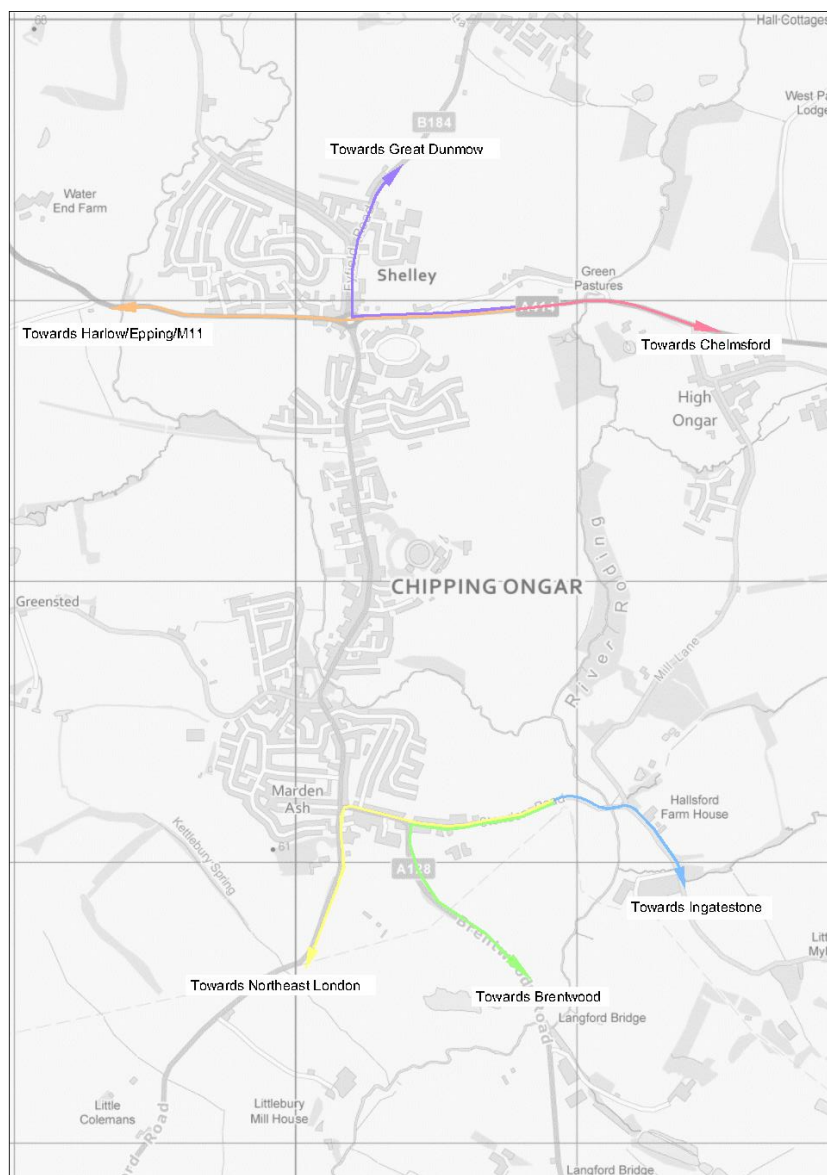


Figure 5.2 – Strategic Route Choices



Sustainable Travel Choices and Strategy

- 5.7 The proposed development will be supported by a comprehensive sustainable transport strategy which will use the most up to date technology and travel planning techniques to ensure that reliance on private car travel is minimised.

Bus

- 5.8 Bus travel will be promoted as a primary means of travel for future residents of the development site. As detailed in section 2 of this report, there are bus stops located on the High Street within a reasonable walking distance of the site which provide connections to a number of surrounding towns including Harlow, Chelmsford and Brentwood, making bus a realistic travel alternative to private car use for commuter trips.

- 5.9 The development therefore will be supported by enhancements to existing bus infrastructure in terms of potential increases in frequency and coverage of services as well as possible upgrading shelters and vehicles etc. This would also use the latest technologies which could include low emission bus vehicles, real-time information at bus stops, app-based timetable information and access for mobility-impaired users.
- 5.10 Consideration will also be given to the possibility of a shuttle bus service between Ongar and Epping to provide a fast and direct link to Epping Underground Station (which forms the terminus of the existing Central Line) and the associated connection to London.

Walking / Cycling

- 5.11 The location of the proposed development site is such that it benefits from excellent access to the High Street and associated facilities (as outlined in section 2 of this report) via the network of footpaths and rights of way to the west of the site. The internal layout of the site will also be designed to be fully permeable for pedestrians and cyclists so as to ensure priority of movement for these sustainable alternatives to private car use.
- 5.12 A network of wide, well-lit footways and cycle-ways will be provided within the site which will provide safe and convenient linkage between the key facilities within the site, as well as to the High Street and bus stops. Where required upgrades to existing footways and cycle-ways will be provided, together with extensive cycle parking provided across the development.
- 5.13 Any existing Public Rights of Way will be diverted and integrated within the proposed masterplan so that they form part of the network of pedestrian routes.

Car clubs / Travel Planning

- 5.14 The latest travel planning techniques will be used throughout the proposed development to promote the use sustainable travel modes and ensure that it becomes embedded within resident behaviour from the inception of the development. As part of this, a Framework Travel Plan will be produced to support the proposed development.
- 5.15 The Travel Plans will be used to promote and measure the use of sustainable travel alternatives to sole occupancy private car use. This will be done through a series of measures, incentives and targets.
- 5.16 A key element of this will be the provision of a network of car clubs and car sharing schemes within the development. The scale of the development is sufficient to create the critical mass to make such schemes successful and viable, and therefore provide a realistic alternative to car ownership.

- 5.17 High speed broadband and the latest home working opportunities could be provided, together with electric car charging points located throughout the development.

6. CONCLUSIONS

- 6.1 Icen Projects has been commissioned by the Cirrus Land and L & Q New Homes to produce an Initial Transport Appraisal for a proposed development site at Chipping Ongar, Essex.
- 6.2 A potential access strategy has been developed which comprises of two roundabout junctions from the north and south of the site, and a series of pedestrian and cycle access from the west.
- 6.3 The development also has the potential to facilitate the delivery to the north to south link between the A414 and Stondon Road. This link would provide an alternative route to the High Street for a significant proportion of existing through trips that current pass through the High Street. This is considered to represent a significant benefit in terms of capacity relief to the High Street, with significant improvements to the town centre environment.
- 6.4 The development site also benefits from excellent access to the wider highway network and a range of strategic route choices, meaning that potential traffic generated by the site would be distributed across the network and thus reduce the potential impact on any key links and junctions.
- 6.5 The proximity of the High Street and excellent connections for pedestrians and cyclists, means that residents of the site would benefit from direct access to the range of key facilities and amenities within Ongar town centre, as well as existing bus stops and the wider connections they provide.
- 6.6 The development of a comprehensive sustainable travel strategy to support the any residential development at the site would enable it to maximise the benefit of its location and delivery a sustainable and fully integrated scheme.