

APPENDIX 4

Land East of Burleigh Road

09-094

Site Access Junction Design

October 2010



ODYSSEY CONSULTING ENGINEERS
TECHNICAL NOTE

PROJECT : **Land East of Burleigh Road**
JOB NO. : **09-094**
NOTE TITLE : **Site Access Junction Design**
AUTHOR : **John Wilde**
APPROVED : **SRB**
DATE : **October 2010**

1.0 Introduction

- 1.1 This note has been prepared by Odyssey Consulting Engineers on behalf of Hillreed Developments Ltd to consider the options for taking site access to a proposed development site.
- 1.2 The proposed development site is located in Charing, Kent and the intended principle point of access would be from Maidstone Road.
- 1.3 The technical note sets some initial work that has been undertaken to explore these access options, in particular the visibility requirement and appropriate junction design.

1.0 KCC Position

- 1.4 It is understood that pre-application discussion have been conducted between the developer and KCC as highway authority. This established the potential for an access on Maidstone Road, subject to consideration of the following criteria:

- Visibility provision to current standards;
- Interaction with the Old Ashford Road;
- Provision of right turn facility;
- Provision of lit central refuge;

2.0 Base Data Gathering

- 2.1 In order to appraise the access options, a data gathering exercise was conducted. This primarily constituted a site visit, during which the following data was collected:
- Configuration of existing highway, including physical features and road markings;
 - Approximate observations of traffic movements;
 - Measurements of vehicle speeds on Maidstone Road;
- 2.2 This information was complemented with the Ordnance Survey mapping data and details of the proposed development site boundary.
- 2.3 Assumptions on the extent of public highway have been made but no official land searches to confirm this or other third party land constraints.

Observed Traffic Movements

- 2.4 Traffic was observed during an off-peak period and flows were noted to be light, with a typical HGV proportion for this carriageway type. No significant congestion was noted to occur on any side roads or at the signalised crossing at the junction with The High Street.
- 2.5 The observations did indicate a higher than anticipated right-turn movement into Old Ashford Road from Maidstone Road, leading to notable periods when vehicles were required to dwell in the centre of the main carriageway. On occasions, multiple vehicles were noted to be queuing for this movement. However, the width of the carriageway did permit most vehicles travelling north to continue unobstructed, although typically at reduced speeds. When larger vehicles were involved in either manoeuvre, some delay could occur to the straight ahead movement.

Observed Vehicle Speeds

- 2.6 Vehicle speeds were recorded for traffic in both directions using a manual 'speed gun' calibrated to +/- 1mph, with a minimum of 40 samples in each direction. Speeds were recorded for vehicles passing along the section of carriageways between the junction between Old Ashford Road and the signalised crossing.
- 2.7 The 85th percentile speeds were recorded as 40 and 46mph in the north and southbound direction respectively, with average speeds of 37.4 and 41.6mph.

3.0 Junction Design

- 3.1 **OCE Drawing 09-094-001** presents a junction arrangement considered to fulfil the design requirements suggested by KCC. It has the following characteristics:
- i) A ghost island right turn lane with a minimum width of 3m;
 - ii) Adequate right turn storage to accommodate development demand;

Land East of Burleigh Road

09-094

Site Access Junction Design

October 2010

- iii) Integration with the kerbed central reservation for the pedestrian crossing;
 - iv) The continuation of the hatched central reservation to the south to establish a second right turn lane for traffic into Old Ashford Road;
 - v) Reintegration of the hatch central reservation from the ghost island with Old Ashford Road into the existing hatching to the south;
 - vi) Carriageway widening across the site access and to the south to facilitate the ghost island;
 - vii) Re-establishment of footways to the west along the site frontage.
- 3.2 It is believe that this layout demonstrates deliverability within the key design constraints indicated by KCC highways.
- 3.3 In addition to the above features, the visibility requirements of the access have been presented on the drawing. These are based on DMRB standards and through application of the observed speeds, which equates to 4.5m by 160m and 120m to the north and south respectively.
- 3.4 It demonstrates that, based on the assumed public highway and site boundaries, visibility can be achieved across land under the control of the developer or the public highway.

