

APPENDIX 10.3
ES SENSITIVE RECEPTOR METHODOLOGIES

Technical Note

Project No: ITB13091
Project Title: Ford Airfield
Title: ES Sensitive Receptor Methodologies
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SECTION 1 Introduction

1.1 This Technical Note (TN) sets out the methodologies used to assess the environmental effects of the Development. The remainder of the TN is structured as follows:

- 2 Section 2 – Community Severance;
- 2 Section 3 – Driver and Pedestrian Delay;
- 2 Section 4 – Accidents and Safety; and
- 2 Section 5 – Fear and Intimidation.

SECTION 2 Community Severance

2.1 Severance is the perceived division that can occur within a community when it becomes separated by a major traffic route. In this instance, the sensitive receptor has been included as part of the scope of assessment given the proximity of the Site to the established community of Yapton to the west of the Site, Ford to the east of the Site and Climping to the south of the Site.

2.2 In order for future residents to access the A27 to the north and the A259 to the south of the Site, the Development has the potential to increase traffic movements on the primary roads through these villages (e.g. Yapton Road, Burndell Road, North End Road, Ford Road and Horsemere Green Lane) and could therefore result in severance occurring.

2.3 The assessment of severance pays full regard to specific local conditions, in particular the location of pedestrian routes to key local facilities and whether crossing facilities are provided.

- 2.4 The IEMA Guidelines suggest that a 30%, 60% and 90% increase in traffic flow will respectively have a 'slight', 'moderate' and 'substantial' change in severance. However, allowance needs to be made for the presence of existing crossing facilities.

SECTION 3 Driver and Pedestrian Delay

- 3.1 The scale of the Development means that additional pressure will be exerted on the local network, which could in turn result in driver delay. Traffic delays to non-Development traffic can occur:
- ┆ At the Site entrances where there will be additional turning movements;
 - ┆ On the highways passing the Site where there may be additional flow; and
 - ┆ At key junctions on the nearby highway network.
- 3.2 In this instance, driver delay will be most prominent on the identified links which intercepts with another road (i.e. a junction). Therefore, driver delay will be assessed at junctions locations and the magnitude of impact will be based upon the outputs computer junction assessment programs: ARCADY for roundabouts and mini-roundabouts; PICADY for priority junctions; LINSIG and TRANSYT for traffic signal-controlled junctions. These programs assess the operational capacity of junctions based upon its geometry, level of visibility and traffic entry flows.
- 3.3 In respect of pedestrian delay, in general increases in traffic levels are likely to lead to greater increases in delay to pedestrians seeking to cross roads on the nearby highway network. As the Development will bring about increases in the number of vehicle and pedestrian movements, particularly on primary roads leading towards the A27 to the north and A259 to the south of the Site, there is the potential for pedestrian delay to increase and therefore assessment is required.
- 3.4 The IEMA Guidelines recommend that rather than rely on thresholds of pedestrian delay, the assessor should instead use judgement to determine whether there will be a significant impact on pedestrian delay. However, industry specific guidance such as Local Transport Notes (LTN) 01/95 and 02/95 can provide guidance as to the suitability of differing infrastructure to accommodate crossing demand.

SECTION 4 Accidents and Safety

- 4.1 Increases in traffic flow can exacerbate existing highway safety issues; for example, this could occur at a location where there is a disproportionately high accident record arising from a recurring causation factor. Personal Injury Accident (PIA) data for the most recently available five-year period (01/11/13 to 31/10/2018) is included at Appendix 10.1.

- 4.2 Safety could also be impacted where new transport infrastructure is introduced, for example, where the infrastructure does not accord with contemporary highway design guidance. The use of the Road Safety Audit process identifies potential safety issues and means of mitigating risk.
- 4.3 The impact of additional traffic from the Development is discussed in terms of magnitude of increase, the existing accident record and the effect of off-site highway and transportation works.

SECTION 5 Fear and Intimidation of Road Users and Pedestrians

- 5.1 A further impact that traffic may have on pedestrians is fear and intimidation. This impact is dependent on the volume of traffic, its HGV composition and its proximity to people and/or the lack of protection caused by factors such as narrow pavement widths.
- 5.2 In this instance, Fear and Intimidation has been included within the scope of the assessment on the basis that the scale of the Development will require an extensive construction period during which time a significant number of HGV movements will be generated, and that the Development includes the provision of employment floorspace which has the potential to generate HGV movements.
- 5.3 The IEMA Guidelines provide specific thresholds for the Fear and Intimidation receptor based on 18-hour HGV flow and vehicle speeds, as shown in Table 5.1.

Table 5.1: Fear and Intimidation Thresholds

Degree of Hazard	Average traffic flow over 18-hour day (vehicle / hour)	Total 18-hour HGV flow	Average speed over 18-hour day (mph)
Extreme	1800+	3000+	20+
Great	1200-1800	2000-3000	15-20
Moderate	600-1200	1000-2000	10-15

FIGURES

DRAWINGS

APPENDIX A. TITLE