Note / Memo

To: Bidwells LLP
From: Royal HaskoningDHV
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Classification: Project related

Subject: Land at Innocence Farm: Transport Modelling Inspector’s Consultation

1 Introduction

1.1.1 Preliminary modelling for Land at Innocence Farm has been undertaken utilising the Suffolk County Transport Model (SCTM), in consultation with Suffolk County Council (SCC) and Highways England (HE). The SCTM has also been used to inform the Local Plan (LP) modelling for the Suffolk Coastal LP and more recently for the Ipswich Strategic Planning Area (ISPA).

1.1.2 As the SCTM used crude assumptions for the purposes of the LP modelling, due to the vast area included in the model, these assumptions were further refined for the purposes of the modelling undertaken for Land at Innocence Farm. This therefore produced outputs which provided a better indication of the expected traffic impacts associated with the development. Some of the key refinements are discussed in the following sections.

2 Proposed Development

2.1.1 The proposed development quantum varied significantly between the LP and Land at Innocence Farm modelling with a much greater development quanta and mix of uses assumed in the LP modelling (see Table 1).

2.1.2 The development quantum informing the Land at Innocence Farm modelling has been based on the latest site Masterplan which has been subject to an iterative process resulting in a more viable and marketable port support facility.

Table 1: Development Quantum

<table>
<thead>
<tr>
<th>Local Plan Modelling</th>
<th>Land at Innocence Farm Modelling</th>
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<tbody>
<tr>
<td>• 160,000 sqm B8 Warehousing (Car trips)</td>
<td>• Phase 1a: 194,000 sqm haulage and open storage</td>
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<tr>
<td>• 220,000 sqm B8 Warehousing (OGVs)</td>
<td>• Phase 1b: 51,300 sqm warehousing</td>
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<tr>
<td>• 4,000 sqm B1 Office</td>
<td>• Phase 2: 110,700 sqm warehousing</td>
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<tr>
<td>• 2,000 sqm A3 Restaurant</td>
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<tr>
<td>• 20,000 sqm B2 General Industry</td>
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2.1.3 The proposed access strategy and local junction improvements also varied between the LP and Land at Innocence Farm modelling. Whilst the LP modelling considered the A14 overbridge, there
are further aspects of the proposed access strategy which were included in the Land at Innocence Farm modelling in line with the following:

- **Phase 1 access strategy:**
  - To retain the existing left in/ left out junction with the A14 and Croft Lane;
  - A new roundabout delivered at the Brightwell Road/ Innocence Lane/ Croft Lane junction, including realignment of Brightwell Road with Innocence Lane; and
  - A new priority junction with ghost island right-turn providing primary access within the site.

- **Phase 2 access strategy:**
  - A new bridge over the A14, with widening and realignment of the local access road to the south of the A14 to accommodate the bridge; and
  - Upgrading the priority T-junction between the local access road to the south of the A14 and the westbound A14 on/ off-slip.

3 **HGV Trip Distribution and Assignment**

3.1.1 A bespoke trip distribution based on empirical evidence and Royal HaskoningDHV’s long understanding of port-centric logistics was used to inform the Land at Innocence Farm modelling. The distribution of HGV movements was separated into ‘shunt’ movements (i.e. between the site and the Port of Felixstowe) and ‘external’ movements (i.e. between the site and locations other than the Port of Felixstowe), with the assignment of development vehicle trips informed by the SCTM. This approach was agreed with SCC and HE.

3.1.2 Although the number of HGV trips used in the Land at Innocence Farm modelling is greater than that assumed in the LP modelling (see Table 2), the bespoke trip distribution to inform HGV trips in the Land at Innocence Farm modelling has produced a more realistic routeing for HGVs, compared to the approach used in the LP modelling which relied on trip distribution based on adjacent base year zones. This allowed the U-turn manoeuvres at the Seven Hills and Trimley roundabouts to be modelled more effectively.

<table>
<thead>
<tr>
<th>Table 2: Peak Hour HGV Trips</th>
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<tbody>
<tr>
<td><strong>Local Plan Modelling</strong></td>
</tr>
<tr>
<td>AM Peak</td>
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<tr>
<td>86</td>
</tr>
</tbody>
</table>

4 **Committed Developments**

4.1.1 The LP modelling includes a substantially higher level of cumulative traffic growth as it included all allocated developments, and sites with planning permission or planning applications. The Land at Innocence Farm modelling includes sites where there is a higher degree of certainty that they will come forward during the LP period, representing a more realistic future year scenario. This increases the accuracy of the model as it allows for the cumulative impact of development in the local area to be considered in the core model area, rather than applying a generic growth
rate for the region from TEMPro. This approach and the committed development sites were agreed between SCC and East Suffolk District Council.

5 Summary

5.1.1 The outputs of the LP modelling, using the Volume to Capacity (V/C) ratio, showed that there are expected to be capacity issues on junctions near Land at Innocence Farm, including:
- The minor road parallel to the A14;
- The Croft Lane approach to the A14 and southbound approach on the bridge approaching capacity;
- Some junctions within the vicinity of Land at Innocence Farm;
- A14 Junction 58 eastern arm, westbound on-slip and eastbound off-slip over; subsequently impacting the Felixstowe Road approach to the A14, Felixstowe Road approach to A1156 and The Street south approach to the A1156; and
- The A14 overbridge and left in/ left out junction.

5.1.2 The preliminary V/C ratio outputs from the Land at Innocence Farm modelling show that the proposed development can be delivered without adverse impact on the surrounding highway network and the extent of the capacity issues highlighted in the LP modelling are not expected to occur. Phase 1 of the development is expected to be accommodated adequately by the Phase 1 access strategy; and the all movement junction is not expected to be required until build-out of Phase 2 of the development.

5.1.3 Notwithstanding this, further modelling will be undertaken of the junctions within the vicinity of Land at Innocence Farm to further understand the potential highway impacts of the proposed development and identification of off-site highway mitigation schemes, as appropriate.

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