M11 junction 7A

Essex County Council

ADDENDUM to Flood Risk Assessment Report

B3553F05-0500-RP-0003 | P0

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M11 junction 7A

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Document history and status

Revision	Date	Description	By	Review	Approved
P0	27/03/2017	FRA Addendum – Issue for Acceptance	SJE	AK	PM

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ADDENDUM to Flood Risk Assessment Report:
Clarifications relating to Environment Agency Planning Application Holding Objection

In response to Environment Agency Letter AE/2017/121375/01-L01 dated 15th March 2017, please find below our clarifications on the holding objection on fluvial flood risk grounds to the development of the 'M11 Junction 7A scheme' and the additional observations regarding the submitted Flood Risk Assessment (FRA).

1. Holding Objection – Re: Fluvial Modelling

(The submitted) modelling was not approved by our Modelling and Forecasting team, and we must therefore raise a holding objection to this application until we are satisfied that the fluvial modelling is appropriate.

Clarification

Prior to submission of this FRA, pre-application advice from the Environment Agency was sought in relation to the scheme, including the modelling of Pincey Brook referenced in named letter. A Memorandum has been produced, Model Review (Pincey Brook Modelling), to address advised modelling concerns and, as stated in the named letter, we understand this is currently under consideration. As advised, on approval, this further information will be re-submitted so as to form part of the application.

2. Additional observations in respect of the submitted Flood Risk Assessment Report: Detailed Assessment (reference: B3553F05-0500-RP-0003 I P1, dated January 2017)

Observation: *In some instances the correct allowances (35% and 70%) have been referred to, but other sections of the FRA still appear to be using a 20% allowance for climate change.*

Clarification/confirmation

It is confirmed that the modelling for Pincey Brook has used climate change allowances of 35% and 70%. This is further confirmed in the modelling memorandum. The reference to a 20% allowance for climate change is quoted in section 5.3.1.1 of the FRA, and only refers to the earlier Harlowbury Brook modelling carried out by WSP in 2011, for information.

As discussed in section 6.2 of the FRA, there are no proposed works to the Gilden Way Bridge structure, and all proposed highway works will take place within the existing highway corridor. The widening of the existing carriageway and the addition of highway surfacing materials will therefore not affect fluvial flooding mechanisms or floodplain storage. The model indicates that the predicted peak flood for a 100 year event plus 20% climate change level ranges between 1.1m and 1.4m between the upstream and downstream, respectively. Therefore, for purposes of this planning application, the existing modelling is deemed acceptable for assessment.

Observation: *The FRA currently submitted as part of the application does not make it clear that the new junction will be built above the 1% (1 in 100) annual probability plus 35% level*

Clarification/confirmation

The permanent works comprising the new M11 junction (and Link Road) will be built above the 1% (1 in 100) annual probability plus 35% level (as defined by the issued Jacobs modelling of Pincey Brook). In general, the carriageway works of the new junction are no less than 6m (and in some instances greater than 10m) above the 1% (1 in 100) annual probability plus 35% climate change allowance level.

In order to prevent new embankment slopes encroaching upon the area defined by the 1% (1 in 100) annual probability plus 35% climate change allowance level, solutions that include the provision of retaining walls and reinforced slopes have been adopted.

Observation: *The Environmental Statement states that no 'significant construction' will be within the floodplain, but it is not clear what this includes. Once the fluvial flood modelling is signed off, the applicant will be expected to provide specific details and calculations to show how much of an increase in built footprint there will be in the flood plain.*

Clarification

The proposed works as currently indicated have the toe of the proposed localised embankment widening forming the tie-in to the existing B183 crossing of Pincey Brook, at the Sheering Road Bridge (Ealing Bridge), encroaching into the floodplain defined by the modelling work (see Figure 1 below). A review of the watercourse modelling carried out for Pincey Brook has indicated that this slight encroachment is not significant to the flood extents defined. Notwithstanding this, design refinements at the detailed design stage will be targeted at eliminating this encroachment.

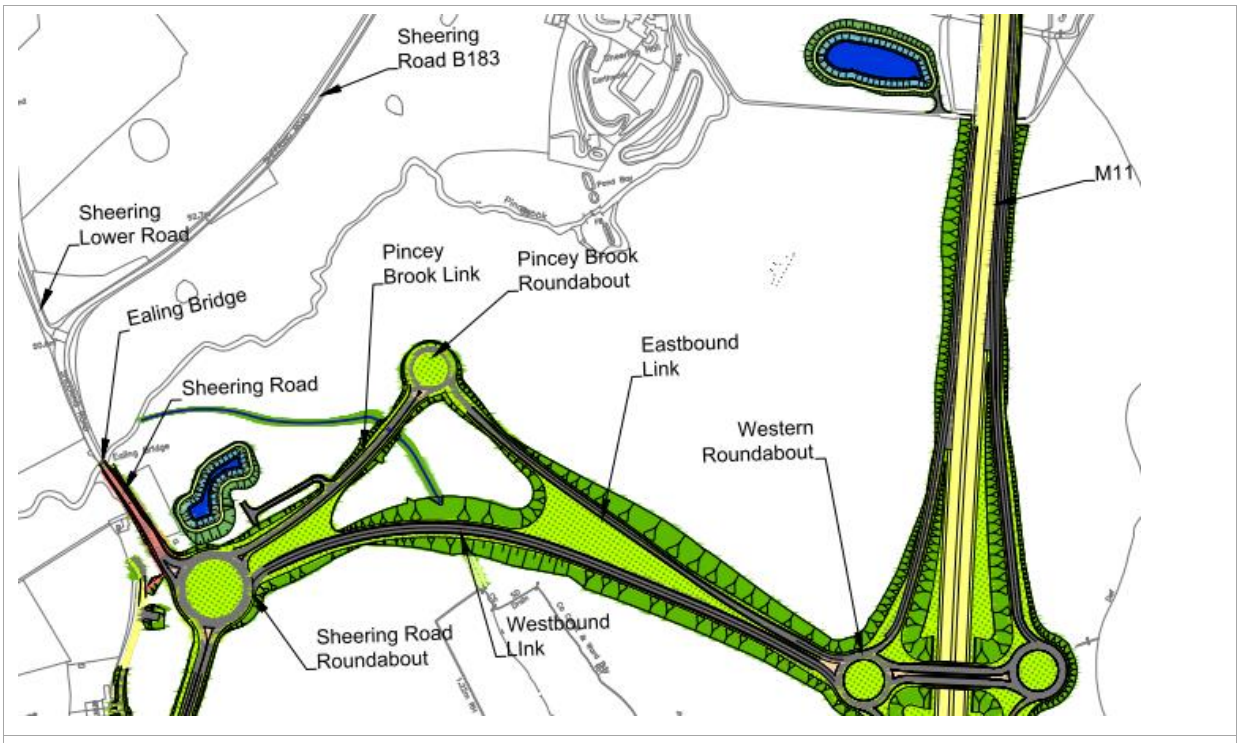

Figure 1. Location of Works Adjacent to Pincey Brook