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App Ref: S62A/2023/0028
Our Ref: IT2259L.30.01.24
Date: 30 January 2024

Dear Sir/Madam,

## Re: Land off Chelmsford Road, Hartford End

We write further to Essex Highways' (EH's) consultation response dated 12 January 2024 in relation to planning application reference: S62A/2023/0028, which relates to the provision of 50 dwellings and the associated site access junction along with off-site bus stop improvements at land off Chelmsford Road, Hartford End.

We set out below our responses to the items raised within the consultation response. For ease of reference we have adopted the same headings as were used in the consultation response.

## Visibility Splays

As indicated on drawing IT2259/TS/02 Rev A of the submitted Transport Statement (TS) report, a visibility splay of $2.4 \mathrm{~m} \times 120 \mathrm{~m}$ would be achievable to the right at the proposed site access junction and would be achievable within highway land / land controlled by the applicant. A splay of that order should be regarded to be compliant with the Design Manual for Roads and Bridges (DMRB) requirements for a design speed of 40 mph and to provide a very comfortable solution.

In order to derive the visibility splay provision to the left at the proposed access junction, as noted within the submitted TS report, we utilised the visibility splay calculation formula set out within Manual for Streets (MfS), at paragraph 7.5.3, and MfS 2, at paragraph 10.1.5, and have adopted a cautious approach, i.e. we have utilised the driver reaction time and absolute minimum deceleration rate advocated by Table 10.1 of MfS2 for situations where the design speed is above 60 kph . In that regard, we have used a deceleration rate of 0.375 g and a driver reaction time of 2 seconds. Furthermore, as an added level of caution, we have allowed for a gradient of $-5.7 \%$ and, as some wet weather was recorded for a limited period during the speed survey, in accordance with paragraph 3.1.1 of CA 185: Vehicle Speed Measurement of the DMRB, we have also added a wet weather correction of +2.5 mph to the recorded average $85^{\text {th }}$ \%tile southbound speed of 41.5 mph . On this basis we have calculated that a visibility splay of 102 m would provide a safe solution.

Drawing IT2259/TS/02 Rev A of the submitted TS report shows that the visibility splay of 2.4 m x 102 m would be achievable to the left within highway land / land controlled by the applicant.

ITL would highlight that as indicated by the enclosed copy correspondence for an earlier smaller planning application at the site, EH did not at that time object to the calculation of the visibility splay to the north using the approach set out above.

Notwithstanding the above we would highlight that the DMRB guidance permits the provision of departures from standard and that the 'one step below' visibility splay for a 40 mph design speed location would be 90 m . As such, it could be argued that a splay of $2.4 \mathrm{~m} \times 90 \mathrm{~m}$ would represent an acceptable solution in this instance.

## Safety Audit

As part of pre-application scoping discussions with EH, the position of the site access junction was discussed and fundamental concerns were not raised. The pre-application email correspondence with EH in relation to the access junction is enclosed. Within the designer's response to the Stage 1 Road Safety Audit, the position of the access junction and agreement with Essex Highways was referenced.

The copy highway boundary record for this location was obtained from Essex Highways early in the investigations undertaken for this site. The highway boundary from the EH record plan was superimposed on to the scheme layout and is indicated by the red line on drawing IT2259/TS/02 Rev A and enclosed drawings IT2259/TS/03 and IT2259/TS/04. Based on site measurements and reconciling those measurements against the highway boundary record it was concluded that the majority of the hedge located along the frontage of the Hillside property falls within highway land and the approximate location of the hedge is indicated on drawing IT2259/TS/02 Rev A. On that basis it was concluded that the hedge could be trimmed / cleared within the limits of the highway in order to provide the $2.4 \mathrm{~m} \times 102 \mathrm{~m}$ visibility splay to the left.

Further to the above, the title plan for Hillside was also provided to ITL and the boundary of that property, as shown on the title plan, was also transposed onto the proposed site access arrangement drawing. Enclosed drawing IT2259/TS/05 shows the highway boundary, as transposed from the Essex Highways copy record, and the title boundary across the frontage of Hillside as traced from the land registry information. Also shown on the drawing are the hedges at the frontage of the property as plotted from ITL's site measurements. The drawing supports the above conclusion that the majority of the hedge at the frontage of Hillside is located within the highway.

Notwithstanding the above, it is Intermodal Transportation Ltd's (ITL's) experience that EH accept visibility splays to be plotted to a 1 m off-set from the road edge. Enclosed drawing IT2259/TS/03 shows the $2.4 \mathrm{~m} \times 102 \mathrm{~m}$ splay to the left provided to a 1 m offset rather than to the road edge as currently shown on drawing IT2259/TS/02 Rev A. If the effect of providing the splay on the aforementioned hedge represents a material concern then ITL consider that the effect could be reduced through the provision of the splay to a 1 m offset.

Further to the above, as noted earlier, we would highlight that the DMRB guidance permits the provision of departures from, standard and that the 'one step below' visibility distance for a 40 mph design speed location would be 90 m . As such, the effect of providing a splay of $2.4 \mathrm{~m} \times 90 \mathrm{~m}$ to the left, to a 1 m offset, is also shown on drawing IT2259/TS/03.

## Pedestrian and cycle access

ITL would confirm that the link between Hillside and Brewers House is intended for use by pedestrians only and predominantly in order to provide access to the proposed bus stops adjacent to the site.

Table 15-1 of Chapter 6 of the Traffic Signs Manual recommends that for an $85^{\text {th }}$ percentile speed of 40 mph a stopping sight distance of 80 m be provided to pedestrian crossings. Enclosed drawing IT2259/TS/04 shows pedestrian visibility splays at the crossing on both sides of the B1417. In all instances the splays have been drawn to a point 1 m off the road edge. The drawing shows that on the western side of the B1417, at the proposed uncontrolled crossing point between the proposed north and southbound bus stops adjacent to the site, in excess of the recommended 80 m splay would be achievable to the left and right within the limit of the adopted highway / land controlled by the applicant. In addition, in excess of the 80 m splay would be achievable to the left from the eastern side of the proposed crossing point. To the right on the eastern side of the proposed crossing point, the visibility splay has been shown to the roadside brow of the ditch, which based on EH's caveats when issuing highway boundary records, ITL understands that they regard to represent the limit of the adopted highway. On that basis a splay of 66 m to a 1 m offset into the carriageway would be achievable. A visibility splay along the centreline of the ditch has also been plotted as ITL considers that, notwithstanding EH's aforementioned caveat, visibility to at least the ditch centreline and possibly beyond that point would be achievable in practice. The splay plotted to the ditch centreline is 70 m to a 1 m offset from the kerb line. ITL would highlight that whilst the achievable dimensions discussed in the context of visibility to the right from the eastern crossing point fall below the recommended 80 m for a 40 mph location, both are comfortably in excess of the emergency braking distance of 36 m for a speed of 40 mph .

ITL considers that the provision of the uncontrolled pedestrian crossing in the location proposed should be regarded as acceptable. However, if required by EH the developer would agree to provide a warning sign to the north of the site on the eastern side of the B1417 for southbound vehicles. It is considered that the warning sign could be provided in accordance with Diagram 544.1, Pedestrians in road ahead, of the Traffic Signs Regulations and General Directions.

We trust that the above and enclosed sufficiently addresses EH's consultation comments in relation to application S62A/2023/0028 and we welcome the earliest confirmation to that effect. In the meantime, however, please do not hesitate to contact us should you have any queries or wish to discuss this matter further.

## Yours faithfully,



Justin Bass

Enc

