

From: [Rob Green](#)
To: [A38 Derby Junctions](#)
Cc: [Stewart Emily](#)
Subject: A38 Derby Junctions submission
Date: 26 March 2020 23:30:32

Dear Sir / Madam,

We write following our letter of 3 March 2020 and have utilised the same headings as previously.

a) Assessment of junction capacities

As noted in our letter, our LINSIG modelling has produced “broadly similar” results to Highways England’s own TRANSYT analysis. We do not propose further investigation of the junction capacity provided by either model, however, our concerns remain:

- Both computer models assume that the approach to the junction is standardised, i.e. uniform layout, straight and without any complications. Whilst manual adjustments can be made to reduce the overall capacity of a link within the model, this still needs to reflect situation at the proposals; the proposed stop line queue is clearly on a tight bend, with a 90° turn required from the McDonald’s car park, into the queue. This is something which neither computer model can fully represent accurately. Neither can the models account for drivers making ‘selfish’ lane choices.
- LINSIG utilises a flat traffic profile, which assumes an even distribution of cars over the modelled period. Traffic behaviour at the site is unlikely to follow a flat profile, given that customer behaviour will not be uniform over an hour.
- It would be impossible to prepare a reliable microsimulation model of the proposed junction as it would not be possible to verify the results gained. We remain concerned that the modelling work cannot reasonably replicate the complexity of the proposed arrangements.

We note that HE would be happy to engage in further discussions with our Client, and neighbouring EuroGarages to refine the design of the junction. Given the limited space available to accommodate the design, as well as the efforts made by both the McDonald’s and EuroGarages teams to derive a design that works for both parties without unduly impacting the operational layouts of either operator, it would be helpful if HE could come forward with refinements for our client(s) to review.

b) Junction Geometry

HE note that the A52 entry layout is similar to the existing arrangements, however, overlook that all site traffic will need to use the new access, whereas presently, traffic can access the site from the A38. Swept paths have been prepared by HE and they note both rigids and artics can safely negotiate. They are shown to have almost zero allowance for driver variation or error. Tracking software assumes that a vehicle is in an optimum situation with a competent driver, a vehicle in good working order (i.e. correct tyre pressures) on a relatively level camber and gradient, and in dry conditions. In addition to this, Tracking software assumes that the vehicle is not fully laden. Therefore there is a definite possibility that a fully laden delivery to McDonald’s, the PFS, or and HGV customer to the PFS could struggle to replicate the swept paths produced by HE. The manufacturers of tracking software note that a fully laden HGV with twin axles could have its turning circle affected by up to 0.5m while fully laden an manoeuvring close to, or at “full lock”.

It is our view that despite the modelling exercises and swept paths prepared to date, that the proposed junction is compromised in terms of both the storage space for vehicles seeking to exit McDonald’s or EuroGarages, and the tight and precise manoeuvres required for each and every HGV arriving at the site, in order to access the site safely.

Despite recent comments from HE we do not consider that the issue in their own safety audit has been satisfactorily addressed:

“The proposed access into the new Esso/McDonalds access appears tight. If vehicles cannot safely turn into the access from Markeaton roundabout kerb strikes may occur or grazing collisions with vehicles waiting to turn right out of the junction onto the A52.”

Even if the scheme is “very similar” to the current arrangements, the necessary increase in use of the A52 access following the closure of the A38 represents an unreasonable intensification of use of a junction, which “appears tight”.

c) The need to strengthen McDonald’s car park

McDonald’s are in receipt of their site engineer’s report and are reviewing the results. HE will be notified of the outcome of the review once completed.

d) Closure of the ingress from the A38

We note HE’s comments and our client remains disappointed that such an inflexible view has been taken to maintaining the existing situation, particularly when criticism of the A52 access levelled by both McDonald’s and EuroGarages is discounted by HE, because the proposed scheme is observed to be “very similar”. This approach appears to be wholly inconsistent in terms of how two entry points to the same site are considered.

e) Advanced warning signage

We await further details from HE.

f) Rights of access across the McDonald’s and EuroGarages sites

We have previously supplied the Land Registry filed plan for title number DY103730, which shows shaded in brown the land over which EG have rights. Investigations in relation to the implications of the scheme are still being considered by our client.

Regards,
Rob Green

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