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28 February 2018

Chief Planning Officer  
North Herts District Council  
PO Box 480  
M33 ODE

Dear Sir,

**Discharge of Condition Application**  
**17/02778/1DOC - Details reserved by Condition 6 (Construction Management Plan (CMP)) of**  
**Planning Permission Reference No. 15/01618/1 granted on 27 May 2016.**  
**Land Adjacent To Elm Tree Farm, Hambridge Way, Pirton**

**Representations submitted on behalf of the Holwell Residents' Group, HACT**



**Is this an appropriate route for construction traffic**

I am a Chartered Engineer, now retired, after over 40 years specialising in the study and resolution of highway and traffic problems associated with development. Furthermore, much of my time was spent acting for developers and public authorities as an expert witness in that capacity throughout the UK. The problems facing us here are typical of those I have successfully dealt with.

I am instructed by the Holwell Residents' Group HACT, to consider the implications and appraise the Group and the determining authorities of my opinion of the proposals by Cala Homes, to comply with Condition No.6 attached to the outline permission.

Outline approval was granted long ago and yet after several attempts, an acceptable solution evades Cala. From an initial belief that the route was satisfactory in its present condition to accept an additional HGV on average, every 6 minutes, Cala have continually admitted their failings by providing more and more impact mitigation measures, which now include vehicle detection and activation signing. These escalating measures in fact admit that the road is too narrow, too tortuous and lacks visibility. The fundamental

problem is that they cannot identify a solution within the existing boundaries of the highway and this is their red line. Widening onto third-party land is necessary and this would appear to be unacceptable to Cala, presumably on fears of ransom values. They could urge one of the authorities to use their CPO powers, but presumably, the time-scales then become unacceptable.

In lay summary terms, without widening, the route is currently not fit to become a construction route because of its narrowness and tortuous alignment. A single track road can take 2-way traffic, but only if there is a sufficiently wide and visible passing bay located frequently between the opposing vehicles and in view of both opposing drivers. ***It is essential that vehicles, especially HGV's do not have to reverse on the straight, let alone having to reverse around blind corners.***

On the straight, passing bays are straightforward to provide, but in this case, it is highly likely to involve widening beyond the highway boundary and Cala will not admit to this. At the bends, suitable inter-visibility is simply not available. Again, visibility is subject to crossing private land and this is not under the control of the LHA as it should be. Therefore, substantial widening and re-alignment is necessary around the bends, or priority alternate signals (normal traffic lights) need to be introduced at each end of the bends. At the position of the signals, the road has to be wide enough to accommodate a waiting large vehicle and another passing with adequate clearances. The passing bays provided by Cala are mostly required in addition to the existing road, just to allow an HGV to negotiate the bends in a single direction.

Cala will not admit to widening beyond the existing boundaries and therefore this is why they have proposed every devious measure to try and demonstrate that the existing highway boundaries are fine. These worthless 'theoretical' mitigation measures include:

- relying on the theory of the 'perfect' pre-determined timing and behaviour of lorry drivers. Unless it is physically controlled, traffic flow is random. How on earth can traffic flow be realistically controlled, when most journeys will be undertaken by independent sub-contractors.
- adopting ever reducing sizes of lorries. They are now only 2.5m x 10m, whereas the maximum is 2.55m x 12m. What sub-contractors will change their fleets and who will measure each lorry to ensure compliance. Will we end up with a proposal to use horse and carts. After all that is what the original roads were designed for.
- introducing passing places, but not where needed. They are only provided where they can be accommodated within the highway boundary. As shown below, HGV's bound for the site would have to traverse across the whole road from Waterloo Lane and use the proposed lay-by on the opposite side for normal travel. Otherwise, they cannot negotiate the bend at all. How can this be deemed safe and effective in accordance with Condition 6.
- undertaking pre-determined unnatural 'tracking' with traffic specifically placed in positions to show the bays performing 'perfectly well'. In their Consultation Response, the LHA assumes HGV's 2.55m wide, but the tracking has been undertaken at 2.50m.
- admitting forward visibility simply cannot be improved to an acceptable standard, because they now propose the introduction of vehicle activated signs warning of 'blind' oncoming HGV's. However, there is no priority of movement, therefore vehicles will still clash on the bends. Like all other hollow theoretical claims, the signs are useless and are only a sign of desperation.

It is unhelpful when professional consulting engineers compromise good design principles in order to satisfy Clients' requirements and it appears that the Local Highway Authority is devoid of any professional expertise to identify false claims and challenge them. To rely on this 'theoretically manufactured' evidence is very dangerous and ultimately, it could be potentially challengeable.

It is agreed on all sides that the existing route is unsuitable for heavy traffic. In the absence of a positive and practical solution to the problems, undue reliance is placed on 'hollow' theoretical assumptions that may or may not be realised. Several of the Developer's undertakings actually make matters worse. The adoption of smaller HGV's means there will be more of them, but being of the same maximum width, the HGV problem is made more severe. The shortening of the 'construction route' day also means potentially, more intensive HGV traffic flow. Both of these alleged benefits, actually combine to make matters worse and extend the misery and adverse risks to existing users of the route over the contract period.

It is proposed to return the route to its former condition at the end of the contract, but this ignores the repairs and maintenance that would be required during the course of the contract. The onus would fall upon the Highway Authority, using public funds.

As stated above, the principal problem is that the route is too narrow and tortuous. The only reasonable way in which to demonstrate the geometric acceptability of a route to carry a traffic flow including a high percentage of heavy vehicles is to test the route with traffic flow simulation known as 'tracking'. This has been provided by Cala Homes, but even after repeated applications, their 'tracking' fails to demonstrate what will happen in practice. Their 'tracking' is stage-managed to show what could be achieved if drivers were forced to drive and park, strictly in accordance with pre-determined specific instructions on positioning and timing. This is how impractical the results of Cala's assessment are. In other words, traffic has been specifically placed in positions that show the most advantageous circumstances. As we all know, traffic flow is random and cannot be so controlled unless full traffic signal control is introduced and this is not possible in this case due to the narrowness of the road and the obstructions that would be caused by waiting traffic. It simply would not work and the result would be gridlock.

So, why has a proper 'tracking' exercise not been carried out, or at least, not been divulged. The reason is that it would demonstrate beyond any doubt that unless major comprehensive widening of the route takes place, the existing route is incapable of accommodating large volumes of additional heavy traffic at an average rate of at least one every 6 minutes. Given the random flow of these vehicles, which cannot realistically be controlled by bus timetables, distant lay-bys, instructions and intercom, there is bound to be conflict between them. Add to this, existing traffic plus growing traffic generated by the development, it is inevitable that conflict will increase. All these consequences would become apparent from proper 'tracking' and it is not surprising that despite constant demands from the residents of Holwell, Cala refuse to release such findings. What is inexcusable is the fact that the County Highway Authority has refused our demands that proper 'tracking' should be required of Cala.

With very limited resources, the Residents' Group has managed to produce one sample of realistic tracking. This is included as an attachment. It shows the impact of an HGV and Bus passing along the route in opposite directions. This shows the consequences of not providing the minimum standard of carriageway required for two large vehicles to pass each other along the route. Anything less, would represent a compromise and with increasing compromise, comes increasing risks and increasing accident potential. Cala have failed to undertake a full and proper assessment and therefore, they are unable to quantify the risks and accident potential.

Furthermore, despite constant warnings, the Highway Authority have not undertaken their own tracking or risk assessment analysis and therefore, they have recommended the removal of Condition 6, without any knowledge of the risks to the future efficiency of the route or its safety.

A comparison between Cala's 'tracking' and the Residents' Group 'tracking' follows.

### **Cala Tracking**

1. Having identified that the maximum length of normal lorry to be used is 12 metres, the lorry chosen for the 'tracking' is only 10m long. Some vehicles to be used are acknowledged to be over 12m long. Will the required advance notification of larger vehicles and vehicle length measurement arrangements be effective.
2. Whilst a smaller vehicle is hailed as a beneficial concession, they are still of the maximum width of 2.55m and this excludes wing mirrors and running clearances. Cala have chosen to test vehicles just 2.50m wide.

3. Cala allow for a clearance of 0.3m around their test lorry, but this will only contribute to the additional width required for wing mirrors. There is no allowance for clearance between opposing lorries' wing mirrors and no clearance allowed for a gap between the edge of carriageway and nearside wheels. This latter gap is recommended by national standards to be no less than 0.5m, again to ensure pedestrians are protected from wing mirrors and any body overhang.
4. The lorry dimensions and safe margins used in the Cala 'tracking' are woefully short of those that will be required in practice. It is also evident to any competent professional highway engineer that the movement of opposing lorries, especially in the vicinity of the sharp bends is 'stage-managed' to hide what they must clearly know is an unacceptable safety situation. The 'stage-management' assumes that vehicles approaching and entering the passing bay, know in advance exactly where an opposing vehicle is, even though they will not be in vision. The proposed vehicle-activated signing will not locate or stop oncoming vehicles. Furthermore, no widening is proposed at the sign locations to accommodate a waiting vehicle and one passing. How is it that lay residents can see all these shortcomings and yet the experts at HCC can't. This is so misleading.
5. The proposed passing bays are provided only where sufficient width exists within the highway boundary. They are not located according to need. No doubt there are other serious deficiencies in the Cala 'tracking', but the above observations demonstrate the basic unacceptability of the fictitious exercise. The Highway Authority has recommended the release of Condition 6 in part, on the basis of Cala's 'tracking' evidence. They are either knowingly approving an extremely sub-standard proposal, which knowingly carries a high accident potential, or they will be shown to be professionally incompetent. The Planning Authority relies on the Highway Authority for professional guidance in their decision-making.
6. The wholesale clearance of trees and hedgerows would have a very adverse impact on the existing character of the village and its approaches, and it also has security implications for frontage owners. The required visibility splays at the bends cross private land and this area cannot be controlled. This requires a detailed environmental, security and safety assessment.

I reproduce just one screen-shot from the Waterman Tracking Plan, which illustrates them justifying the blue lorry having to use the opposite side of the road, including the offside passing bay, in order to travel normally towards the site. All this is on a blind corner where the proposed vehicle-activated sign would warn, but not prioritise movement. The only safe answer is to introduce signalling to control the 2-way operation of a single track. Then, the waiting area at the signals will need to be wide enough for two large vehicles to pass each other. Even Waterman's plan, using opposing vehicles just 2.5m wide with no clearances, show this cannot be achieved on Waterloo Lane.



### Independent Tracking

The resources of the Residents' Group is severely limited and they have tried, without success, to persuade the Highway Authority to require Cala to undertake proper 'tracking'. Proper tracking is the only reliable means of testing the geometric capacity of a road to carry predicted traffic. The matter is so important to future highway safety, that the residents instructed me to obtain an independent basic 'tracking' assessment. As mentioned above, this is attached.

What is clear is that the vast majority of the route is unfit to accommodate the 2-way flow of the predicted construction traffic. I would refer you to the comments set out on the drawings. Where the red tracking overlaps the blue tracking, this is where the road is not wide enough for two large vehicles to pass each other with adequate clearances. It is also to be noted where large vehicles consume the whole road width, including the widening on bends.



In approving the Construction Plan, the Highway Authority is condoning abandonment of the principles of the Highway Code

### Summary & Conclusion

Whilst more information is forthcoming in the latest application, it does nothing to demonstrate that a safe and convenient route, as required by Condition 6, can be provided. It is accepted by all, that the route is currently unsuitable and both Cala and the Highway Authority believe that hollow theoretical undertakings and a fictitious presentation of tracking and passing bays, are sufficient to overcome the gross deficiencies of the route as illustrated above.

For the foregoing reasons, I conclude that the application should be refused for the following reasons:

**The construction route as currently proposed solely via Holwell, does not meet the requirements of Condition No.6, which are to provide a route that does not prejudice acceptable standards of traffic flow and highway safety.**

Brian A Clamp CEng MICE MCIHT  
28<sup>th</sup> February 2018

See also attachments