Land East of Downend Road - Addendum Agreed Statement on Transport Matters

An Appeal into the application for development at Downend Road is to be heard by Public Inquiry (APP/A1720/W/21/3272188) during August 2021.

An ASoTM was completed on 1 July 2021 between HCC (the Highway Authority) and Miller Homes (The Appellant) to present the matters of agreement relating to the scheme. On this basis, HCC raises no objection to the scheme subject to the securing of a package of agreed mitigation.

Both the Council (FBC) and the Appellant have submitted their evidence in relation to the Appeal, a copy of which has been provided to HCC. The key issues relate to:

- 1. The safety of the pedestrian crossings of Downend Road; and
- 2. The safety and operation of the proposed improvement to the Downend Road bridge.

Having reviewed the Council's evidence which raises further matters of detail not considered in the ASoTM, the following matters of clarification are provided to assist the Inspector in considering the scheme, and present matters that are agreed between HCC and Miller Homes.

Baseline Conditions

The assessment of Downend Road is based on the use of an ATC Survey carried out in November 2016. The Transport Assessment presented additional traffic survey data collected in 2019 that confirmed that the 2016 Survey remained acceptable and robust.

HCC agree that the assessment based on the 2016 ATC Survey is acceptable and representative of network conditions. The survey demonstrates that the busiest hour is the Morning Peak hour between 07:30-08:30.

Vehicle speed measurement was carried out at various times and locations on Downend Road as presented in Figure S1.

It is agreed that the speed measurement of Downend Road reflects observed conditions and is a reasonable basis for assessment of the proposals. HCC use the observed 85% ile speeds for junction design purposes, as identified in HCC TG3 policy.

Traffic growth between the Baseline traffic counts (2016), and Assessment Year (2026) were calculated by including Committed Development (TA Section 7.4) and background traffic growth from the TEMPro Database for the area of Portchester comprising the Site (Fareham 010 MSOA). TEMPro traffic growth estimates were adjusted using the 'Alternative Assumptions' function of TEMPro in line with the DfT Webtag approach outlined in Appendix R of the TA, to remove the double counting of development traffic included in the TA directly.

It is agreed that the approach to calculating traffic growth is appropriate.

Pedestrian counts on Downend Road were collected on four occasions in 2018-2019, reported in Table 4.9 of the TA. Daily observed pedestrian demand was an average of 42 pedestrians, with 3-4 pedestrian movements occurring during the morning peak hour.

Cycle counts on Downend Road were collected as part of the 2016 ATC and demonstrate daily cycle demand on Downend Road is low. In the morning peak hour, there were an average of 9 cyclists observed, three southbound and six northbound. A further traffic survey at the Downend Road bridge in September 2019 produced very similar results.

It is agreed that this forms an acceptable basis for assessment.

Impacts of the Appeal Scheme

Traffic Generation and Distribution

Vehicular traffic generation of the Appeal Scheme is based on an assessment using the TRICS database. This considers 'Private Housing' only sites in Edge of Town, Suburban and Neighbourhood Centre locations. The traffic generation rates were confirmed by local traffic count data collected for Condor Avenue (TA Appendix F).

It is agreed that the traffic generation estimates are sound and appropriate for assessment and reflect the relative accessibility of the Appeal site.

It is further agreed that the traffic generation assessments do not take account of the (40%) affordable housing on the scheme or flatted development, each of which will likely reduce vehicular traffic demands from the level of traffic assessed. Therefore, the assessment is robust.

Vehicular traffic has been distributed from the development onto the local highway network in line with the methodology presented at Appendix S of the TA. This combined Census data for trips to employment and a bespoke gravity model for non-employment-based journeys. The assessment forecasts that 70% of development traffic demand will travel across Downend Road bridge.

It is agreed that the approach to distributing and assigning development traffic is appropriate.

Assessment Periods

The TA considers the impact of the Appeal Scheme in 2026, a date 5 years beyond the consideration of the application, and a point where the development would be occupied. FBC contend that a further future year assessment of 2031 is required. The Appellant presents a 2031 Sensitivity Test (TW POE Table 3.4) which demonstrates the scheme would operate acceptably.

It is agreed that assessment of the scheme in 2026 is appropriate and acceptable.

It is also agreed that the 2031 Assessment demonstrates the scheme will operate acceptably.

The operation of the Downend Road Bridge was assessed in the TA across the full 24-hour period at HCC's request. This considered the operation of the junction during each and every hour. Further modelling was carried out to consider the network peak hours (07:30-08:30 and 17:00-18:00) and is presented as part of the HCC ASoTM.

It is agreed that the scheme has been assessed in the correct periods and that considering all assessment periods, the scheme operates acceptably.

The Council consider that there is an intensification of traffic in particular time periods within the Peak Hour, and that there may be daily variation in traffic flows, such that they contend that average conditions should not be considered, and instead peak conditions need to be assessed.

It is agreed that the assessment has considered the average peak hour conditions forecast at the junction, and that this is the appropriate basis for assessment, representing 'normal' conditions.

It is agreed that there are no local specific traffic conditions relevant to the Appeal Site which would necessitate the consideration of individual time periods within the peak hour.

Pedestrian and Cycle Demands

Pedestrian and cycle generation and assignment from the Appeal Scheme is presented at Appendix O of the TA, using NTS data, verified by TRICS analysis. Pedestrian and cycle demands are assigned to the local highway network based on an assessment of likely destinations and route distances.

The approach to estimating pedestrian and cycle demands, and the assignment of trips to the network, is considered to be appropriate and reflect the likely impacts of the scheme.

Pedestrian Crossing Assessment

A pedestrian crossing refuge is proposed to be provided as part of the scheme, between Downend Road rail bridge and the Appeal Site access. The existing informal crossing south of the bridge will be improved as part of the scheme.

The principle of the refuge island crossing is accepted by HCC who consider this to be an appropriate form of crossing considering the expected traffic conditions, pedestrian crossing demand and difficulty, and local conditions. The informal crossing south of the bridge is considered acceptable based on the limited demand for crossing movements in this location.

Pedestrian Visibility

Pedestrian Visibility to the proposed pedestrian crossings is presented on the following drawings:

- Drawing ITB12212-GA-061A demonstrates pedestrian visibility in accordance with HCC TG3 Policy, as well as assessing pedestrian visibility against DMRB requirements in view of the proximity of the crossing to the traffic signal junction.
- Drawing ITB12212-GA-078 demonstrates pedestrian visibility in accordance with the Traffic Signs Manual (Chapter 6) visibility requirements, including assessing the impact of traffic in visibility splays resulting from the Appeal Site access junction and Downend Road bridge.
- Drawing ITB12212-GA-079 demonstrates intervisibility to the south from various positions on the proposed refuge island between pedestrians and vehicles, to take account of temporary traffic obstructions on the adjacent junctions. This demonstrates that:
 - At a 1.5m set back, a pedestrian can see 40m to the centre of the bridge.
 - \circ At a 0.8m set back, a pedestrian can see >80m to the opposing stop line; and
 - At a 0.4m set back, a pedestrian has clear sight across the bridge deck.
 - A northbound vehicle benefits from good forward visibility (>80m) to the refuge island to understand the presence of a pedestrian seeking to cross the road.

Based on these drawings, HCC agrees that the pedestrian crossings proposed as part of the Appeal Scheme are safe and acceptable, and that pedestrians and vehicles can see each other for a reasonable and safe distance.

It is also agreed that a controlled pedestrian crossing phase as part of the signalised improvement of the bridge is not necessary.

Gap Acceptance

Miller Homes has presented traffic information to establish the gaps in traffic that will be available for pedestrians to cross Downend Road. The relationship between the pedestrian crossings (both north and south of the bridge) and the bridge traffic signal junction, will create further gaps in traffic for pedestrians to cross the junction.

It is agreed that there will be sufficient gaps in traffic for pedestrians to cross Downend Road safely. These gaps will be enhanced by the operation of the adjacent bridge junction under traffic signal control with regular crossing opportunities provided by the junction intergreen periods.

The Appellant has presented a PmV² assessment of Downend Road. This concludes that a controlled crossing is not justified, instead conditions recommend the use of an alternative form of crossing, including a pedestrian refuge island crossing.

It is agreed that HCC's current policy is to use PmV^2 to consider requests for new controlled crossings, and when considered against this criterion, a controlled crossing is not justified. It is agreed that this supports the design decision to provide a refuge island crossing.

Cycle Provision at Junction

Surveys of cycle use of Downend Road in 2016 and 2019 demonstrate that cycling on Downend Road is limited, with an average of 8-9 observed cyclists in the AM peak hour across each of the surveys. The development is expected to generate some 5 cycling trips in the AM Peak Hour, of which, around 1 is expected to use Downend Road. Cams Bridge and Upper Cornaway Lane are to be improved by the Appeal Scheme for cycle connections to the local area and are considered more attractive cycling routes.

It is agreed that existing cycle demand at Downend Road is low (~9 cyclists in the morning peak hour) and that the development will not generate significant cycle demand across the bridge.

Cyclists will travel on road through the bridge. The scheme provides for cyclists by:

- Providing an appropriate carriageway width across the bridge (3.0m between white lines) to prevent vehicles overtaking cyclists; and
- Delivering vehicle detection equipment at the bridge (using either MVD / Radar or Inductive Loops) which will identify any slow-moving vehicles, including cyclists, calling an 'All-Red' extension to the intergreen period where needed.

It is agreed that the use of vehicle detection, and the configuration of the scheme proposals, will protect cycle safety and amenity adequately.

It is also agreed that the wider development proposals promote and prioritise cycling through:

- Providing a dedicated pedestrian and cycle access at Cams Bridge (which will be improved), as well as a cycle connection and crossing of the A27 at The Thicket, each connecting into the dedicated cycle network on the A27 Corridor and NCN236
- Providing a pedestrian / cycle connection to Upper Cornaway Lane, alongside funding improvement of Upper Cornaway Lane to provide cycle connectivity to Lancaster Close (and beyond to the local network)

The LinSig model of Downed Road bridge assumes an average intergreen period across the peak hour of 10 seconds. Based on the junction configuration and TSM Chapter 6, a 9 second intergreen would be sufficient for traffic phases (where no cyclists are detected), whilst an extension of ~16 seconds would be required when an intergreen extension is called. FBC has assessed a 16 second intergreen period in each and every junction cycle.

It is agreed that:

• the minimum intergreen period will be 9 seconds, in accordance with the TSM Chapter 6, would be sufficient for signal cycles with no detected slow-moving vehicles

- An All-Red extension to the intergreen can be triggered by the detection equipment (to around 16 seconds), to ensure these users can safely clear the junction prior to the next signal phase
- Due to the limited cycle demands, instances of intergreen extensions are likely to be limited
- The average intergreen period for assessment purposes of 10 seconds remains appropriate and takes account of occasional intergreen extensions.

Junction Operation:

The proposed improvement scheme at Downend Road bridge has been modelled using LinSig 3 Software. HCC has considered the assessments of the scheme in detail.

It is agreed that LinSig is the correct assessment tool to consider the scheme.

It is also agreed that the traffic models are appropriate and fairly represent expected network conditions if the development were to come forward.

Taking account of these factors, it is agreed that the junction will operate acceptably, without significant queueing and delay during all time periods.

It is proposed that the junction is operated using variable signal timings to optimise the operation of the junction based on vehicular demands and to minimise delays.

It is agreed that an operating system that enables variable cycle timings based on demands will be provided at the junction and that it will deliver improved average conditions to those forecast through LinSig, which considers a fixed cycle time. The precise form of junction operation will be determined at the Detailed Design Stage and validated on site.

Highway Design Considerations

The Appellant considers a design speed of 60kph to be appropriate to the design of the scheme, including both the Appeal Site Access and Downend Road bridge, supported by the speed measurement presented in Figure S1. It is proposed to relocate the 30/40mph existing speed limit north of the scheme. FBC considers the design speed of the bridge to be 60kph but applies a 70kph design speed to the Appeal Site access junction.

The design speed of the full scheme is agreed to be 60kph, based on observations of existing vehicle movements.

It is agreed that the scheme is likely to result in a reduction in traffic speeds as a result of the works that are proposed, the change in character of the area, the relocation of the speed limit and the introduction of traffic signal control.

It is agreed that the scheme does not rely upon the success of the TRO to relocate the speed limit but that HCC supports the relocation of the speed limit. It is agreed that a TRO to move the speed limit will be progressed as a part of the Section 278 process, and that both parties expect this to succeed.

The scheme has been prepared to consider relevant design standards and guidance including HCC's Technical Design Guidance, MfS / MfS2 and DMRB. An Independent Road Safety Audit was carried out to consider the safety of the proposed scheme.

It is agreed that the scheme has been considered against the relevant design guidance. In that regard, it is further agreed that:

- The design speed of the works means that MfS / MfS2 guidance should be considered, alongside HCC's Technical Guidance Documents. Engineering judgement is to be applied.
- DMRB provides guidance on geometry and design approaches that are relevant to the scheme but does not represent standards against which the scheme should be assessed, other than for the traffic signal control parts of the scheme.
- Non-compliance with DMRB standards and guidance does not trigger the need to progress a Departure from Standard, with the relevant standards and guidance being presented in MfS / HCC Technical Guidance Notes, in view of the design speed of the works.
- HCC carefully and diligently assessed the scheme prior to providing its application response, and this considered matters including:
 - Geometric requirements, including in relation to the proposed ghost island right turn lane junction, site access and traffic signal control of the bridge
 - Forward visibility (to and through the scheme)
 - Traffic signal junction design (to scheme concept level)
 - Horizontal alignment of the scheme including swept path analysis
 - Footway and crossing design (including visibility)

FBC considers that there are various Departures from Standard in the scheme when considered against DMRB Standards which should be applied to the scheme, including in relation to:

- o Ghost Island Taper Lengths
- o Verge Width / Gradients
- Turning / Deceleration Length
- Pedestrian Refuge Island Depth
- Pedestrian Visibility at Crossings
- Lane Width at approach to signals
- o Intervisibility Zone
- Horizontal Alignment
- It is agreed that it is unlikely that there are any Departures from Standard in the scheme that will need to be recorded against HCC TG17, when considered against MfS design principles. MfS requires designers to use engineering judgement to determine the most appropriate design solution relative to the local context.
- If any Departures from Standard are required to be processed, these will be recorded at the Detailed Design Stage. Both parties expect any Departures to be agreed on the basis of the assessments and level of scrutiny of the scheme that has already been carried out.
- On the basis of the assessment of the scheme, HCC is fully satisfied that the works:
 - Represent a safe and suitable design and can be achieved
 - Will provide a safety benefit to the area
 - Provide public benefit

Signed By:

Gall

Tim Wall i-Transport LLP on behalf of the Appellant

Dated 30 July 2021

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